

## INTRODUCTION AND PROMISE

Adam Tech is pleased to present our full line of interconnect products and welcomes the chance to be your valued supplier. It is our continuing goal to offer a wide range of world class connectors and cable assemblies with one simple promise: We will provide you with the Highest Quality Product with the Best Service Available at the Lowest Possible Price.

## CAPABILITIES

Adam Tech prides itself on the scope of our product offering which features innovative connector designs and manufacturing capabilities that reduce cost and improves performance in a broad range of applications. Our exclusive automated manufacturing processes provide consistent high quality product with low cost and short lead times. Adam Tech welcomes the opportunity to offer our experience to provide custom solutions to your application specific product requirements. We can develop concepts into designs, tooling and production.

## SALES, SERVICE \& AVAILABILITY

Adam Tech has professionally staffed sales and engineering teams at our facilities in the USA, Taiwan, China \& India. From these locations and forty representative offices throughout the Americas, Europe \& Asia we provide worldwide service to our customers and their contract manufacturers. Adam Tech products are also available internationally through our network of experienced distributors who offer local stock and value added services. Please check our website for a complete listing of our representative offices and distributors.

## ENVIRONMENTAL

Adam Tech acknowledges the need to eliminate hazardous materials which impact our environment and affect human health. We have taken strict measures to produce products that are lead-free and free from other hazardous materials. Adam Tech's products are all fully compliant to RoHS2 Directive 2011/65/EU with no exemptions, China RoHS, REACH, Deca BDE and
 Halogen Free.

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## INTRODUCTION:

Adam Tech MTJ series Modular Jacks are a complete line of PCB and wire leaded jacks which are UL approved and meet all required FCC rules and regulations. Adam Tech offers a multitude of sizes (4P2C thru10P10C) with styles including single, ganged and stacked versions with options of ferrite or magnetic filtering and or metal shielding. Jacks with integral LED's and combination hybrids such as MTJ/USB jacks are also available. These jacks are available in thru-hole or SMT mounting.

## FEATURES:

UL 1863 recognized versions
FCC compliant to No. 47 CFR part 68
Magnetic and Ferrite filtered types
4,6,8 and 10 positions available
Single, stacked or ganged
Hi-Temp and LED options
Unshielded or Metal Shielded
Thru-Hole or SMT mounting
Cat. 5 \& 5 e ANSI/TIA/EIA 568.2

## MATING PLUGS:

Adam Tech modular plugs and all industry standard telephone plugs.

## SPECIFICATIONS:

## Material:

Standard Insulator: PBT, or ABS, rated UL94V-0
Optional Hi-Temp Insulator: Nylon 6T rated UL94V-0
Insulator Colors: Black or medium gray
Contacts: Phosphor Bronze
Shield: Phosphor Bronze, Nickel plated

## Contact Plating:

Flat contacts: Gold over Nickel underplate on contact area, Tin over Copper underplate on solder tails.
Round contacts: Gold over Nickel underplate overall

## Electrical:

Operating voltage: 150V AC max.
Current rating: 1.5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 4 contacts: 17.6 N
6 contacts: 20.6 N
8 contacts: 22.5 N
10 contacts: 24.5 N
Durability: 500 Cycles

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224049

HI-TEMP INSUCLATO) R況 FC




TYPE Y 6P6C

Recommended PCB Layout


MTJ-88YX1


Recommended PCB Layout


TYPE Q
СОMPACT JACK


MTJ-44QX1


Recommended PCB Layout


Recommended PCB Layout



Recommended PCB Layout


TYPE 5 8P8C

TYPE 5 6P4C 6P6C



Recommended PCB Layout
4p4c

|  | g. 9 <br> Recommended PCB Layout |
| :---: | :---: |
|  | Recommended PCB Layout |
|  | SMT Option <br> Recommended PCB Layout |



| Ordering Informatio | g. 9 <br> Recommended PCB Layout |
| :---: | :---: |
|  | TYPE G <br> Recommended PCB Layout |
|  | Recommended PCB Layout (FSD) <br> PCB Layout (FSA, FSB, \& FSE) |





Recommended PCB Layout



Recommended PCB Layout
4p4c


TYPE V 4P4C


MTJ-44VX1-SMT


TYPE V 6P6C
 6P4C

## MTJ-66VX1-SMT



TYPE V 8P8C

Recommended PCB Layout



Ordering Information pg. 9


MTJ-88AX1-FSE

TYPE A
CAT. 5, TOP ENTRY



MTJ-88TX1

TYPE T
CAT. 5, SIDE ENTRY 8P8C

Recommended PCB Layout


TYPE T
CAT. 5, SHIELDED 8P8C


MTJ-88TX1-FSE-PG Available with or without panel ground tabs


TYPE T
CAT. 5e, SHIELDED


MTJ-88TX1-FSG-C5e
MTJ-88TX1-FSG-PG-C5e


Recommended PCB Layout



TYPE D



| Add suffix to end of P/N: |  |  |  |
| :---: | :--- | :--- | :---: |
| LED |  | CONFIGURATION |  |
| SUFFIX | LED 1 | LED 2 |  |
| LA | YELLOW | YELLOW |  |
| LD | GREEN | GREEN |  |

See pg. 43 for additional LED options

Recommended PCB Layout

## JACKS WITH LEDs ORDERING INFORMATION

| MTJ | 8 | 8 | AR | 2 | 1 | LD |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| 1 |  | 1 | I | 1 | 1 | 1 |
| SERIES INDICATOR | HOUSING | NO. OF CONTACT | HOUSING TYPE | PLATING | BODY | LED |
| MTJ = Modular | PLUG SIZE | POSITIONS FILLED | AR, AA, D, G | X = Gold Flash | COLOR | CONFIGURATION |
| telephone jack | 8 or 10 | 6,8 or 10 |  | $0=15 \mu \mathrm{in} \mathrm{gold}$ | 1 = Black | See Chart |
| OPTIONS: |  |  |  | 1 $=30 \mu$ in gold | 2 = Gray | above |
|  |  |  |  | $\begin{array}{ll}\text { SMT }=\text { Surface mount tails with Hi-Temp insulator } & \mathbf{2}=50 \mu \mathrm{in} \text { gold }\end{array}$ |  |  |  |  |  | Leave blank |
|  |  |  |  |  |  |  |  |  |  | for no LEDs |
| LX = LEDs, use LA, | LG, LH, LI, | LED Configuration |  |  |  |  |

Ordering Information pg. 29



MTJ-88ARX1-FS-SMT-PG-LG Also available without panel ground tabs

TYPE AR WITH SMT OPTION 8P8C


Recommended PCB Layout

Ordering Information pg. 34
TYPE AR 8P8C


GANGED WITH METAL SHIELD, PANEL GROUND

TABS AND LED OPTION


MTJG-4-88ARX1-FSM-PG-LG
Shown with metal shield, panel ground tabs and LED options


## FILTERED MODULAR JACKS

Inductive filtered modular jacks improve signal integrity and are available in a variety of styles including tin plated copper shielding with a choice of magnetic transformer or ferrite filter. Adam Tech offers drop in equivalents to all industry standard filtered jacks


Ordering Information pg. 9
TYPE M
EMI FERRITE FILTERED JACK


MTJ-88MX1
Non-Shielded


MTJ-88MX1-FSE Metal Shielded


MTJ-88MX1-FSE-PG
Metal Shielded with panel ground tabs

EMI FERRITE FILTERED JACK



TYPE M
6P6C 6P4C


FSE Shield
8p8c Recommended PCB Layout


FSD Shield
8p8c Recommended PCB Layout

CAT. 3 KEYSTONE JACK 8 POSITION 8 CONTACT



MTJK-88-10

CAT. 3 KEYSTONE JACK 6 POSITION 4 CONTACT


MTJK-64-29

## CAT. 5E KEYSTONE JACK

 8 POSITION 8 CONTACT

MTJK-88-02-C5E

CAT. 5E KEYSTONE JACK 8 POSITION 8 CONTACT



MTJK-88-05-C5E

CAT. 5E KEYSTONE JACK
8 POSITION 4 CONTACT


MTJK-84-01-C5E


## ORDERING INFORMATION

 GANGED JACKS WITH LEDs

$\mathrm{A}=.433$ [11.00] x No. of Ports + . 100 [2.54] $B=.433[11.00] \times$ No of Ports $+.020[0.50]$ $C=.433[11.00] \times$ No of Ports - 1


A $=.459$ [11.65] x No. of Ports +.100 [2.54]
$B=.459[11.65]$ X No of Ports + . 020 [0.50]
C = . 459 [11.65] x No of Ports - 1



TYPE 2
6P4C
6P6C

MTJG-2-642X1


Recommended PCB Layout

MTJG-2-642BX1


Recommended PCB Layout

$\mathrm{A}=.571$ [14.50] X No. of ports +.122 [3.10] $B=.571[14.50] \times$ No. of Ports +.019 [0.50] C = . 571 [14.50] X No. of Port -1

TYPE 2C
8P8C


Recommended PCB Layout

|  | Recommended PCB Layout |
| :---: | :---: |
|  | TYPE 5 <br> THRU HOLE <br> 6P4C <br> 6P6C <br> MTJG-3-665X1 |
| $\begin{aligned} & A=.500[12.70] \times(\text { NO. OF PORTS }-1)+.519[13.20] \\ & B=.500[12.70] \times(\text { NO. OF PORTS }-1)+.400[10.16] \\ & C=.500[12.70] \times \text { NO. OF PORTS }-1 \end{aligned}$ | Recommended PCB Layout <br> TJG-3-885X1-SMT <br> ailable in 6P6C or 8P8C Versions |
|  |  |
|  | TYPE N <br> METAL PEG 6P4C 6P6C <br> G-2-66nx1 |



Ordering Information pg. 34

TYPE J
8P8C


| PART NUMBER | PORTS | DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A | B | C |  |
| MTJG-2-88JX1-FSG-PG | $2 \times 1$ | .679 <br> $[17.25]$ | .450 <br> $[11.43]$ | - |  |
| MTJG-4-88JX1-FSG-PG | $2 \times 2$ | 1.230 <br> $[31.25]$ | 1.00 <br> $[25.40]$ | .550 <br> $[13.97]$ |  |
| MTJG-6-88JX1-FSG-PG | $2 \times 3$ | 1.780 <br> $[45.21]$ | 1.549 <br> $[39.34]$ | 1.100 <br> $[27.94]$ |  |


| PART NUMBER | PORTS | DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  |  | A | B | C |  |
| MTJG-8-88JX1-FSG-PG | $2 \times 4$ | 2.33 <br> $[59.18]$ | 2.100 <br> $[53.34]$ | 1.650 <br> $[41.91]$ |  |
|  | $2 \times 6$ | 3.43 <br> $[87.10]$ | 3.200 <br> $[81.28]$ | 2.750 <br> $[69.85]$ |  |
| MTJG-16-88JX1-FSG-PG | $2 \times 8$ | 4.537 <br> $[115.25]$ | 4.30 <br> $[109.22]$ | 3.850 <br> $[97.79]$ |  |

## INTRODUCTION:

Adam Tech MTJ series RJ-45 connectors with integrated magnetics are designed to support Base 10, 100 and 1000-T applications such as hubs, routers, ADSL modems, and ATM transmission equipment. The integrated magnetics allows the design engineer to save PC board real-estate and lower the total part count per system. This series meets all applicable specifications for CAT $5,5 e, 6$ and IEEE 802.3. The USB model meets all applicable USB 2.0 specifications. All configurations are available with optional LED's.

## FEATURES:

Single, stacked and ganged configurations available All products have a full metal shield to guard against electromagnetic interference. Hi-Temp option availableAll products are fully lead free and RoHS compliant

## MATING PLUGS:

Adam Tech modular telephone plugs and all industry standard telephone plugs.

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass filled, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze or Brass
Shield: Copper Alloy, Nickel or Tin plated

## Contact Plating:

Gold over Nickel underplate on contact area, Tin over Copper underplate on solder tails.

## ELECTRICAL:

Operating Voltage: 150V AC
Current Rating: 1.5 Amps Max.
Contact Resistance: $20 \mathrm{~m} \Omega$ Max.
Insulation Resistance: $500 \mathrm{M} \Omega \mathrm{Min}$.
Dielectric Withstanding Voltage: 1500V AC for 1 Minute
DC resistance: 1.2 Ohms Max.
Interwinding capacitance: 35 pF @ 1 MHz
Insertion loss: 100 KHz to $80 \mathrm{MHz}=-1.1 \mathrm{~dB}$ Min.
Return loss: 1 MHz to $30 \mathrm{MHz}=-18 \mathrm{~dB}$ Min.
30 MHZ to $80 \mathrm{MHz}=-12 \mathrm{~dB}$ Min.
Rise time: 30 nS Max.
Cross talk: 1 MHz to $100 \mathrm{MHz}=40 \mathrm{~dB}$ TYP.
Common to Common mode Attenuation: 35dB TYP.

## MECHANICAL:

Insertion force: 8 Contacts: 22.5 N
10 Contacts: 24.5 N

## TEMPERATURE RATING:

Operation Temperature: $-40^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays or tubes
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224049

## MAGNETICS TELEPHONE JACK ORDERING INFORMATION

## HOUSING TYPE

C = Tab Up, Extended Body
S = Tab Up, Standard Body
T = Tab Down, Short Body

```
BODY
```

BODY
COLOR
COLOR
1 = Black

```
1 = Black
```

[^0]RLX = Led with Resistor

## OPTIONS:

Add designator(s) to end of part number PG = Panel ground tabs


SHIELD PIN LOCATION DIM. A FSD DIMENSION: A = . 120 [3.05] FSP DIMENSION: A =. 125 [3.17]

TYPE C
TAB UP \& TOP LEDs, EXTENDED BODY

Recommended PCB Layout
FSP Option Shown
Recommended PCB Layo
FSP Option Shown





AVAILABLE WITH MAGNETIC TRANSFORMERS: M1, M3, M4, M5, M6, M7, M9, M10, M11, M12 \& M13. See pgs. 44-45




ORDERING INFORMATION FOR JACKS WITH INTEGRATED MAGNETICS \& LEDs




## INTRODUCTION:

Adam Tech MTJP Series Wire Leaded Handset and Panel Jacks are conveniently prepared with wire leads ready for final assembly. This series has a multitude of housing shapes to fit many specific applications. They are offered in $4,6 \& 8$ positions with choice of Stripped and Tinned leads or leads with Spade Terminals, Adam Tech Jacks are UL approved and meet all required FCC rules and regulations.

## FEATURES:

UL approved
FCC compliant to No. 47 CFR part 68
Prepared for Final Assembly
4P, 6P and 8P versions
Custom Jacks available

## MATING PLUGS:

All industry standard line cords manufactured with telephone plugs

## SPECIFICATIONS:

## Material:

Insulator: ABS, (Nylon 66 optional), rated UL94V-0
Insulator Colors: Medium gray or black
Contacts: Phosphor Bronze
Wires: 26 Awg, UL-1061, $80^{\circ} \mathrm{C}, \mathrm{VW}-1,300 \mathrm{~V}$.

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 150V AC max.
Current rating: 1.5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 4 Contacts: 500g, 6 contacts 750 g
8 contacts: $900 \mathrm{~g}, 10$ contacts: 1000 g
Durability: 500 Cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic bags
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224049


ORDERING INFORMATION WIRE LEADED JACKS


MTJP = Wire Leaded Jack

HOUSING COLOR
1 = Black
2 = Medium Gray

WIRE LEAD TYPE
A1 = 7" Wire leads, stripped 1/4" and tinned
HOUSING TYPE
616B, 616E, 616L, 616M, 616P, 616W, 623K4, 623K6, 623P4, 623P6, 623T4, 623T6, 648K4, 648K6, 641

CONTACT PLATING
X = Gold Flash
$0=15 \mu \mathrm{in}$. gold
$1=30 \mu \mathrm{in}$. gold
$2=50 \mu \mathrm{in}$. gold

Wire Lead Options


MTJP-616L



## ORDERING INFORMATION



Coupler
OPTIONS:
Add designator to end of part number S = Shielded


MTJC-88XIV


MTJC-88XB-S

MTJC-88-XBS METAL SHIELDED


RECOMMENDED PANEL CUT-OUT PANEL THICKNESS . 062 [1.57]

## INTRODUCTION:

Adam Tech MTP series Modular Plugs are manufactured to terminate flat oval or round cord to REA and Cat. 5 EIA/TIA specifications. Our double strain relief design, molded in polycarbonate, is manufactured with contacts pre-loaded in a variety of sizes and options including shielding and specific contacts for flat or round cable. Adam Tech is a major supplier of telephone line cords to the telecommunications industry.

## FEATURES:

Preassembled Contacts
REA Compliant Terminations
Cat. 5 and 5E available
Contacts for Flat of Round wire
Short or Long body choices
Shielded versions

## MATING TELEPHONE JACKS:

Adam Tech modular jack series and all industry standard telephone Jacks.

## SPECIFICATIONS:

## Material:

Insulator: Polycarbonate, rated UL94V-0
Insulator Color: Clear, (Blue optional)
Contacts: Phosphor Bronze

## Contact Plating:

Gold over nickel underplate.

## Electrical:

Operating voltage: 150V AC max.
Current rating: 1.5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Cable to plug tensile strength: 7.71 Kgs (17 lbs) min.
Durability: 250 Cycles min.
Wire range: 26 to 28 Awg

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224049


## ORDERING INFORMATION



PLUG SIZE
$4,6,8$ or 10

NO. OF CONTACTS
$4,6,8$ or 10

## OPTIONS:

Add designator(s) to end of part number
$\mathbf{K}=$ Molded in key (Plug size 8 \& 10 only)
S = Solid wire contacts
EMI = Metal shielded type (Plug size 8 or 10 only)
OL = Offset Latch (Plug size 6 only)
BU = Clear Blue insulater color

Contact Options


Plug Options


Plug with Metal EMI Shield Option


MTP-1010-G


## INTRODUCTION:

Adam Tech Small Form Factor connectors and cages are a popular interface for telecommunications and data communications applications. Our 20 position surface mount connector interfaces to both fiber optic and copper networking modules. Our cages are manufactured in single port and multiport configurations. All of our cages are available in both press fit and through hole mounting.

## FEATURES:

Industry standard compatibility
Alignment posts on SMT connector allow for PC board stability Standoffs allow for easy board cleaning
Single, stacked or ganged cages
Cages have multiple ground points for EMI shielding

## SPECIFICATIONS:

## Material:

SMT Connector:
Insulator: High temperature thermoplastic
Contacts: Phosphor Bronze
Plating: Gold over nickel underplate
Cage: Nickel plated copper alloy

## Electrical:

SMT Connector:
Operating voltage: 100VAC max
Current rating: 1 Amp max
Contact resistance: 40 ohms max
Insulation resistance: 1000 Mohms min
Dielectric withstanding voltage: 500 VAC for 1 minute

## Temperature rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering temperature: $260^{\circ} \mathrm{C}$ for 5 seconds
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## INTRODUCTION:

Adam Tech's RFC series RF connectors are a comprehensive assortment of Radio Frequency signal connectors in standard, miniature, sub-miniature, micro miniature and surface mount styles. Included are BNC, TNC, FME, FMA, SMA, SMB, N, F, PAL, UHF, Mini-UHF, MCX, MMCX, MHF, W.FL \& 1.6/5.6 coupling versions. Each has a standard industry interface. Most are ideal for applications where size and weight are important in densely populated applications. All afford excellent RF characteristics

## FEATURES:

Bodies available with gold or nickel plating Insulators available in Teflon, Delrin, and Polypropylene Standard availability of 50 or 75 ohms impedance
Through hole and SMT types for printed circuit board versions Male and female types available in bulkhead and cable mount versions

MATING CONNECTORS:
Adam Tech RF series connectors and all industry Standard RF connectors

## SPECIFICATIONS:

## Material:

Housing: Brass, Nickel plated Zinc diecast, Nickel plated
Standard Insulators: Delrin, Polypropylene or Teflon
Optional Hi-Temp Insulator: Teflon
Contacts: Beryllium copper, Gold plated

## Electrical

Operating voltage: 150V AC max.
Contact resistance: $5 \mathrm{~m} \Omega$ max. initial
Impedance: 50 or 75 ohms
Insulation resistance: 5000 M min.
Dielectric withstanding voltage: 1000V AC for 1 minute
VSWR: 1.2 max
Frequency range: 0-6 GHZ

## Mechanical:

Engagement force: 4.5 lbs max
Disengagement force: 2 lbs min
Cable retention: equal to breaking strength of cable employed
Durability: 500 cycles

## Temperature Rating:

Operating temperature: $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays or bags
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053



## OPTIONS:

Add as suffix to basic part no.
HT = Hi-Temp insulator for hi-temp soldering processes up to $260^{\circ} \mathrm{C}$
$\mathbf{G}=$ Gold plated body and contact


| RF1 TYPE 06 <br> BNC MALE "Y" ADAPTER | RF1 TYPE 07 <br> BNC FEMALE PC BOARD MOUNT |
| :---: | :---: |
| RF2 TYPE 01 <br> SMA RIGHT ANGLE MALE CRIMP TYPE <br> RF2-01-T-02-50 | RF2 TYPE 02 <br> SMA MALE CRIMP TYPE |
| RF2 TYPE 03 <br> SMA RIGHT ANGLE FEMALE PC BOARD MOUNT | RF2 TYPE 04 <br> SMA FEMALE PC BOARD MOUNT |
| RF2 TYPE 05 <br> SMA FEMALE CHASSIS CRIMP | RF2 TYPE 06 <br> SMA FEMALE BULKHEAD CRIMP |


| RF2 TYPE 07 <br> SMA DOUBLE FEMALE ADAPTOR | RF3 TYPE 01 <br> SMB MALE CRIMP |
| :---: | :---: |
| RF3 TYPE 02 <br> SMB FEMALE CRIMP RF3-02-T-01-50-G | RF3 TYPE 03 |
| RF3 TYPE 04 <br> SMB RIGHT ANGLE MALE PCB MOUNT <br> RF3-04-T-00-50-G | RF3 TYPE 05 |
| RF3 TYPE 06 <br> SMB RIGHT ANGLE FEMALE PCB MOUNT <br> RF3-06-T-00-50-G | RF4 TYPE 01 <br> F FEMALE RIGHT ANGLE PCB MOUNT |

## F, N, FME, TNC, UHF \& MINI-UHF STYLES <br> RFC SERIES

RF4 TYPE 02
F MALE TO MALE
RF5 TYPE 02
N FEMALE PANEL RECEPTACLE
RF8 TYPE 02
FME MALE TO BNC MALE
RF7 TYPE 01
TNC MALE CRIMP
RF5-02-D-01-50

| RF7 TYPE 08 <br> TNC FEMALE CRIMP <br> RF7-08-T-02-50-G | RF11 TYPE 01 <br> MCX FEMALE VERTICAL SMT MOUNT |
| :---: | :---: |
| RF12 TYPE 04 <br> MMCX MALE VERTICAL PCB MOUNT <br> Enlarged to show detail | RF12 TYPE 05 <br> MMCX PCB MOUNT <br> RF12-05-T-00-50-G |
| RF20 TYPE 01 <br> MHF SURFACE MOUNT <br> RF20-01-p-00-50-G <br> Enlarged to show detail | RF28 TYPE 01 <br> W.FL SURFACE MOUNT <br> RF28-01-T-00-50-G <br> Enlarged to show detail |
| RF20 TYPE 01 CABLE ASSEMBLY <br> MATES WITH MHF SMT CONNECTOR | RF28 TYPE 01 CABLE ASSEMBLY <br> MATES W.FL SMT CONNECTOR |

## INTRODUCTION:

Adam Tech right angle PCB mount .318" footprint D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15, 25 and 37 positions they are a good choice for a low cost industry standard connection. These connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T
Insulator color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## Packaging:

Anti-ESD plastic trays
Approvals and Certifications:
UL Recognized File no. E224053

HI-TEMP AVAILABLE


ORDERING INFORMATION

SHELL SIZE/ POSITIONS
DE09 = 9 Position
DA15 $=15$ Position
DB25 $=25$ Position
DC37 = 37 Position

CONTACT TYPE


L = Plug, .318" Footprint
SL = Socket, .318" Footprint

MATING FACE

## MOUNTING OPTIONS

3 = \#4-40 fixed jackscrews
4 = \#4-40 flush threaded inserts
5 = \#4-40 flush threaded inserts with removable jackscrews installed
$6=.120^{\prime \prime}$ non-threaded mounting holes

* See Mounting Option
diagrams pg. 66


## PCB MOUNTING OPTIONS

1 = Wrap around ground straps with thru holes
2 = Forked board locks
3 = Top side only ground straps with thru holes
4 = Top side only ground straps with \#4-40 threaded screw holes

* See Mounting Option diagrams pg. 66


## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
EMI = Ferrite filtered version for EMI/RFI suppression
LPJ = Loose packed jackscrews
F = Superior retention 4 prong boardlocks
HT = Hi-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
$\mathbf{R}=$ Round jackscrews


MATING FACE \& PCB MOUNTING OPTIONS


## INTRODUCTION:

Adam Tech right angle PCB mount .590" footprint D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15, 25 and 37 positions they are an excellent choice for a low cost industry standard connection. They are available with full or half size PCB side mounting flanges. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Half or Full flange options
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard
D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T
Insulator Color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega \max$. Initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

## OPTIONS:

Add designator(s) to end of part number $15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
EMI = Ferrite filtered version for EMI/RFI suppression
LPJ = Loose packed jackscrews
F = Superior retention 4 prong boardlocks
HT = Hi-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
$\mathbf{R}=$ Round jackscrews

MATING FACE
MOUNTING OPTIONS
3 = \#4-40 fixed jack screws
4 = \#4-40 flush threaded inserts
5 = \#4-40 flush threaded inserts with removable jack screws installed
6 = .120" non-threaded mounting holes

* See Mounting Option
diagrams page 64
PCB MOUNTING OPTIONS
SA = Wrap around ground straps with thru holes on half flange
$\mathbf{S B}=$ Wrap around ground straps with thru holes on full flange
SC = Top side only ground straps with thru holes on half flange
SD = Top side only ground straps with thru holes on full flange
F = Forked boardlocks on half flange
$\mathbf{R}=$ Forked boardlocks on full flange
* See Mounting Option diagrams page64

PLUG


See pg. 64 for Mounting Options


## SOCKET



Half Flange PCB Layout for PCB mounting options
(SA, SC, F)


Full Flange PCB Layout for PCB mounting options (SB, SD, R)


## Mating Face \& PCB Mounting Options

| OPTION SC3 | OPTION SC4 | OPTION SC5 |
| :---: | :---: | :---: |
| OPTION SC6 | OPTION SD3 | OPTION SD4 |
| OPTION SD5 | OPTION SD6 | OPTION F3 |
| OPTION F4 | OPTION F5 | OPTION F6 |
| OPTION R3 | OPTION R4 | OPTION R5 |
|  | OPTION R6 |  |

## INTRODUCTION:

Adam Tech Combination Signal/Coax D-Sub connectors are a popular interface for many mixed signal I/O applications. Offered in five shell sizes they are a good choice for a low cost industry standard connection that requires utilization of standard signal and high performance, low impedance signals either in signal-coax or signal -power choices. Adam Tech connectors are manufactured with precision stamped standard signal contacts and precision turned coax contacts. These connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## Electrical:

Operating voltage: 250V AC / DC max.
Signal Current rating: 5 Amps max.
High Power contact current rating: 20 or 40 Amps.
Coaxial Impedance: $50 \Omega$ ( $75 \Omega$ optional)
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


잔

## SHELL CONFIGURATIONS




ORDERING INFORMATION


SHELL
CONFIGURATIONS
D1W1, D2W2, D3W3,
D5W1, D5W5, D7W2,
D8W8, D9W4N,
D11W1, D13W3,
D13W6, D17W2,
D17W5, D21W1,
D21W4, D24W7, D25W3, D27W2,
D36W4, D43W2

## TYPE

SIGNAL-COAX
PT = Plug, Straight PCB
ST = Socket, Straight PCB
PL = Plug, Right Angle PCB
SL = Socket, Right Angle PCB
PD = Plug, Solder Cup
SD = Socket, Solder Cup
SIGNAL-POWER
PTP = Plug, Straight PCB, Power Contacts
STP = Socket, Straight PCB, Power Contacts
PLP = Plug, Right Angle PCB, Power Contacts
SLP = Socket, Right Angle PCB, Power Contacts
PDP = Plug, Solder Cup Power Contacts
SDP = Socket, Solder Cup Power Contacts

STYLE
SIGNAL-COAX
$1=50$ Ohm
$2=75$ Ohm
SIGNAL-POWER
$3=10 \mathrm{Amps}$
$4=20 \mathrm{Amps}$
$5=30 \mathrm{Amps}$
$6=40 \mathrm{Amps}$
$7=50 \mathrm{Amps}$

## MOUNTING RIGHT ANGLE

$1=120 "$ non-threaded mounting holes, no bracket
2 = Short Bracket with \#4-40 flush threaded inserts in mounting holes
2A = Short Bracket with \#4-40 flush threaded inserts in mounting holes Jack Screws installed
3= Long Bracket with \#4-40 flush threaded inserts in mounting holes
3A = Long Bracket with \#4-40 flush threaded inserts in mounting holes Jack Screws installed

## MOUNTING STRAIGHT

JS = Riveted \#4-40 Jack Screws on top of flange
SL= Riveted \#4-40 clinch nuts on bottom of flange
BL = Riveted Board Locks

PLUG - RIGHT ANGLE PCB MOUNT SIGNAL-COAX


SOCKET - RIGHT ANGLE PCB MOUNT SIGNAL-COAX


Shown as
D13W3-SL-1-3-BL with .350 " footprint and $.338^{\prime \prime}$ bracket.
Also available with 425" bracket.

PLUG - STRAIGHT PCB MOUNT SIGNAL-COAX


Shown as D13W3-PT-1-1
Available in muiltiple shell configurations and mounting options

PLUG - Straight solder cup signal-coax


SOCKET - STRAIGHT PCB MOUNT SIGNAL-COAX


Shown as D13W3-ST-1-1 Available in muiltiple shell configurations and mounting options

SOCKET - STRAIGHT SOLDER CUP SIGNAL-COAX


Shown as D13W3-SD-1-1
Available in muiltiple shell configurations and mounting options


## INTRODUCTION:

Adam Tech Right Angle Slimline PCB tail D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15 and 25 positions they are an excellent choice for a low cost industry standard connection and are ideal for low profile design requirements. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Short profile space saving design
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T
Insulator Color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

ORDERING INFORMATION POSITIONS
DE09 = 9 Positions
DB25 = 25 Positions
HD15 = High Density 15 Positions


24 = Forked Boardlocks for PCB Retention and \#4-40 threaded inserts in mounting holes
$25=$ Forked Boardlocks for PCB retention and \#4-40 threaded inserts in mounting holes with installed jackscrews

CONTACT / TYPE
PN = Plug, .197" Slimline
SN = Socket, .197" Slimline

## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
LPJ = Loose packed jackscrews
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
$\mathbf{R}=$ Round jackscrews installed


Unit: Inch [mm]

| Positions | PLUG | SOCKET | DIMENSIONS |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C |
| 9 | . 666 [16.92] | . 643 [16.33] | . 984 [24.99] | 1.213 [30.81] |
| 15 | . 994 [25.25] | . 971 [24.66] | 1.312 [33.32] | 1.541 [39.14] |
| 25 | 1.534 [38.96] | 1.511 [38.38] | 1.852 [47.04] | 2.088 [53.04] |

## INTRODUCTION:

Adam Tech Right Angle SMT Slimline D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15 and 25 positions they are an excellent choice for a low cost industry standard connection and are ideal for low profile design requirements. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Short profile space saving design
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: Hi-Temperature thermoplastic, rated UL94V-0 Insulator Color: Black
Contacts: Phosphor Bronze or Brass
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated
Contact Plating:
Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


SHELL SIZE/
POSITIONS
DE09 = 9 Positions
DB25 $=25$ Positions
HDL15 = High Density 15P

MOUNTING OPTIONS
24 = Forked Boardlocks for PCB Retention and \#4-40 threaded inserts in mounting holes
$25=$ Forked Boardlocks for PCB retention and \#4-40 threaded inserts in mounting holes with installed jackscrews

## CONTACT / TYPE

PS = Plug Surface Mount
SS = Socket Surface Mount

## OPTIONS:

Add designator(s) to end of part number $15=15 \mu$ in gold plating in contact area $30=30 \mu$ in gold plating in contact area $\mathbf{R}=$ Round jackscrews


## INTRODUCTION

Adam Tech Right Angle .283" footprint D-Sub connectors with Screw Machine Contacts are a popular interface for many I/O applications. Offered in $9,15,25$ and 37 positions they are a good choice for a high reliability industry standard connection. These connectors are manufactured with precision machine turned contacts and offer an exceptional high reliability connection. They are available in a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Exceptional Machine Contact connection Industry standard compatibility
Durable metal shell design
Precision turned screw machined contacts
Variety of Mating and mounting options
MATING CONNECTORS:
Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T rated UL94V-0
Insulator Colors: White (Black optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin plated
Hardware: Brass, Nickel plated
Contact Plating:
Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

지지N


HI-TEMP



## ORDERING INFORMATION



WITH BRACKET MOUNTING
A = Full plastic bracket with \#4-40 Threaded Inserts
B = Full plastic bracket with \#4-40 Threaded Inserts with removable Jackscrews
$\mathbf{A M}=$ Metal brackets with \#4-40 Threaded Inserts
BM = Metal brackets with \#4-40 Threaded Inserts with removable Jackscrews

WITHOUT BRACKET MOUNTING
C = .120" Non-Threaded holes
D = \#4-40 Rear
Clinch Nut
E = \#4-40 Clinch Nut with removable Jackscrews


## INTRODUCTION:

Adam Tech Flat Cable IDC D-Sub connectors are a popular interface for many I/O and cable assembly applications. Offered in 9, 15, 25,37 and 50 positions they are an excellent choice for a low cost industry standard connection that terminates .050" flat cable quickly, easily and compactly. These connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Quickly terminates to flat cable
Industry standard compatibility
Durable metal shell design
Integral strain relief available
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0
Insulator Colors: Black (Blue optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Recommended cable size: 28 to 30 Awg.

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## ORDERING INFORMATION



POSITIONS
DE09 = 9 Position
DA15 $=15$ Position
DB25 $=25$ Position
DC37 = 37 Position
MOUNTING OPTIONS
$1=.130$ " mounting holes
2 = \#4-40 threaded flush inserts (Metal Shell only)

DD50 $=50$ Position

## CONTACT TYPE

PF = Plug, IDC
SF = Socket, IDC

## STRAIN RELIEF

PART NO.:
DSR-09 = 9 Position
DSR-15 = 15 Position
DSR-25 $=25$ Position
DSR-37 = 37 Position
DSR-50 = 50 Position

## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu \mathrm{in}$. gold in contact area
$30=30 \mu$ in. gold in contact area
$\mathbf{B U}=$ Blue color insulator

## PLUG



SOCKET


Unit: Inch [mm]

| Positions | PLUG | SOCKET | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |
| 9 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.883[22.44]$ |
| 15 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.213[30.81]$ |
| 25 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.755[44.57]$ |
| 37 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.414[61.32]$ |

## INTRODUCTION:

Adam Tech Solder Cup D-Sub connectors are a popular interface for many I/O applications. Offered in $9,15,25,37$ and 50 positions, they are an excellent choice for a low cost industry standard connection. These connectors are manufactured with precision stamped contacts, and offer a wide selection of mating and mounting options. Adam Tech Solder Cup connectors can be soldered to cable ends or mounted directly to a PCB card edge.

## FEATURES:

Cable or edge card mounting
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0 Insulator Colors: Black (White optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


## ORDERING INFORMATION



SHELL SIZE/ POSITIONS
DE09 = 9 Position
DA15 $=15$ Position
DB25 $=25$ Position
DC37 = 37 Position
DD50 $=50$ Position


MOUNTING OPTIONS
BLANK = .120" Mounting Holes
SL = Bottom Side Riveted, \#4-40 clinch nuts
JS = Top Side Riveted, \#4-40 Jack Screws

## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
WT = White Color Insulator
mounting options


Unit: Inch [mm]

| Positions | PLUG | SOCKET |  | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |  |
| 9 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.756[19.20]$ |  |
| 15 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.091[27.70]$ |  |
| 25 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.618[41.10]$ |  |
| 37 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.256[57.30]$ |  |
| 50 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.637[67.00]$ | $2.169[55.10]$ |  |

## INTRODUCTION:

Adam Tech Crimp and Poke D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15, 25, 37 and 50 positions they are a low cost alternative to soldering a connector to cable. Contacts are crimped onto discrete wires and pushed into the connector body. The connector is comprised of a metal shell and plastic insulator and is available with a variety of mating options. The contacts are precision stamped and are available in a variety of platings.

## FEATURES:

Low cost no solder alternative Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


## ORDERING INFORMATION <br> HOUSING



## CONTACT TYPE

PR = Plug, Crimp and Poke
SR = Socket, Crimp and Poke
CONTACTS


CONTACT WIRE RANGE
DCP = Plug Contact
DCS = Socket Contact


CONTACT TYPE
$01=24-26$ AWG
$02=20-22$ AWG
$03=28-30$ AWG


PACKAGING $R=10,000$ piece
reel

OPTIONS:
Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area on crimp contacts $30=30 \mu$ in gold plating in contact area on crimp contacts


## INTRODUCTION:

Adam Tech Flush Mount Straight PCB tail D-Sub connectors are a popular interface for many limited space I/O applications. Offered in 9,15 and 25 positions they are an excellent choice for a low cost industry standard connection and are ideal for low profile design requirements. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Low profile space saving design
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard
D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T
Insulator Color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. Initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


SHELL SIZE/ POSITIONS
DE09 = 9 Position
DA15 $=15$ Position
DB25 $=25$ Position
DC37 = 37 Position
MOUNTING OPTIONS
M1 = Thru Hole Mounting
M2 = \#4-40 Threaded mounting holes
M1-R3 = Round Jackscrews on top side
M2-R-BL = Round Jackscrews on top side with

CONTACT TYPE
PA = Plug, Flush mount, Straight PCB Tail
SA = Socket, Flush Mount, Straight PCB Tail Boardlocks underneath
M2-JS = \#4-40 Threaded Holes with removable Jackscrews
M2-BL = Riveted \#4-40 Internal Threaded Standoffs with Boardlocks

M2-BL-JS= Removable Jackscrews with Boardlocks

## OPTIONS:

Add designator[s] to end of part number $15=15 \mu$ in gold plating in contact area $30=30 \mu$ in gold plating in contact area PF = Press Fit Pins
HT $=\mathrm{Hi}$-Temp insulator for hi-temp soldering processes up to $260^{\circ} \mathrm{C}$

MOUNTING OPTIONS


Unit: Inch [mm]

| Positions | PLUG | SOCKET | DIMENSIONS |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C |
| 9 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ |
| 15 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ |
| 25 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ |



Recommended PCB Layout

## INTRODUCTION:

Adam Tech Straight PCB tail D-Sub connectors are a popular interface for many I/O applications. Offered in 9, 15, 25, 37 and 50 positions they are an excellent choice for a low cost, sturdy, full metal body industry standard connection. These connectors are manufactured with precision stamped or machined turned contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T
Insulator Colors: Black (White optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


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## ORDERING INFORMATION



SHELL SIZE/ POSITIONS
DE09 = 9 Position
DA15 $=15$ Position
DB25 = 25 Position
DC37 = 37 Position
DD50 $=50$ Position

CONTACT TYPE
PT = Plug, Straight PCB Tail, Standard Profile
ST = Socket, Straight PCB Tail, Standard Profile
PE = Plug, Straight PCB Tail, High Profile
$\mathbf{S E}=$ Socket, Straight PCB Tail, High Profile


MOUNTING OPTIONS
BLANK = .120"Mounting Holes
SL = Bottom side
riveted \#4-40
Clinch Nuts
JS = Top side riveted \#4-40 Jackscrews
BL $=$ Riveted \#4-40 Internal Threaded Standoffs with Boardlocks
R = Riveted Round Jack Screws
JSL = Bottom side riveted \#4-40 Clinch Nuts with Jack Screws installed

## TAIL LENGTH

1 = Standard tail length for .062"-.125" PCB's
(E = .189")
$2=$ Wire wrap tail
(E = .512")

OPTIONS:
Add designator(s) to end of part number
EMI = Ferrite filtered version for EMI / RFI suppression (Page 114)
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for hi-temp soldering processes up to $260^{\circ} \mathrm{C}$


ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS
ADVANCED INTERCONNET PRODUCTS AND SYSTEMS

MOUNTING OPTIONS


| Positions | PLUG | SOCKET | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |
| 9 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.756[19.20]$ |
| 15 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.091[27.70]$ |
| 25 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.618[41.10]$ |
| 37 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.256[57.30]$ |
| 50 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.637[67.00]$ | $2.169[55.10]$ |

## INTRODUCTION:

Adam Tech Dual Port D-Sub connectors are a popular space saving interface for many I/O applications. Offered in 9, 15, 25, 37 and 50 positions they are a good choice for a low cost industry standard connection and are ideal for PCB space saving applications. These connectors are manufactured with precision stamped contacts and are available in a number of connector combinations including same and mixed gender, mixed density and mixed interface. Options include a choice of contact plating and a variety of mating, mounting and grounding options.

## FEATURES:

Stacked space saving design
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS

Adam Tech D-Subminiatures and all industry standard D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

PACKAGING:
Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


## ORDERING INFORMATION

| DPD 25 | 10 | B | 3 |
| :---: | :---: | :---: | :---: |
| SERIES <br> INDICATOR $\begin{aligned} \text { DPD }= & \text { Dual Port } \\ & \text { D-Sub } \end{aligned}$ |  |  | BOARD |
|  |  |  | MOUNTING |
|  |  |  | OPTIONS |
|  |  |  | 1 = Through |
|  |  |  | 2 = \#4-40 |
|  |  |  | threaded |
| POSITIONS |  |  | holes |
| $09=9$ Position |  |  | 3 = Forked board |
| $15=15$ Position |  |  | locks |
| $25=25$ Position |  |  |  |
| $37=37$ Position |  |  |  |
| $50=50$ Position |  |  |  |
| X/X = Mixed positions |  |  | RT SPACING |
| customerspecified |  |  | = .900" (Dim. "E") |
|  |  |  | . 750 " (Dim. "E") |
|  |  |  | .625" (Dim. "E") |

TOP / BOTTOM GENDER
10 = Plug top, receptacle bottom
11 = Plug top and bottom
01 = Receptacle top, plug bottom
$00=$ Receptacle top and bottom

## OPTIONS:

Add designator(s) to end of part number $15=15 \mu$ in gold plating in contact area $30=30 \mu$ in gold plating in contact area
JS = \#4-40 Jackscrews installed
R = Rear boardlocks only

DUAL PORT, RIGHT ANGLE


Unit: Inch [mm]

| Positions | PLUG | SOCKET | DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D | E |
| 9 | . 666 [16.92] | . 643 [16.33] | . 984 [24.99] | 1.213 [30.81] | PORT HEIGHTS | PORT TO PORT CENTERLINE |
| 15 | . 994 [25.25] | . 971 [24.66] | 1.312 [33.32] | 1.541 [39.14] |  |  |
| 25 | 1.534 [38.96] | 1.511 [38.38] | 1.852 [47.04] | 2.088 [53.04] | 1.119 [28.42] | . 900 [22.86] |
| 37 | 2.182 [55.43] | 2.159 [54.84] | 2.500 [63.50] | 2.729 [69.32] | 1.244 [31.60] | . 750 [19.05] |
| 50 | 2.079 [52.81] | 2.064 [52.43] | 2.406 [61.11] | 2.637 [67.00] | 1.394 [35.41] | . 625 [15.88] |



15P HD D-Sub over 15P HD D-Sub


15P D-Sub over 9P D-Sub


15P HD D-Sub Elevated


25P D-Sub over 9P D-Sub


15P HD D-Sub over Dual Mini DINs


25P D-Sub over HD 15P D-Sub


25P D-Sub Elevated


44P HD D-Sub over 44P HD D-Sub


25P D-Sub over 9P D-Sub \& HD 15P D-Sub


25P D-Sub over 9P D-Sub \& HD 15P D-Sub


25P D-Sub over 50P SCSI II

## INTRODUCTION:

Adam Tech Solder Cup High Density D-Sub connectors are a popular interface for many I/O applications. Offered in 15, 26, 44, 62 and 78 positions, they are a good choice for a low cost industry standard high density connection. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

High Density pin count in standard size shell Industry standard compatibility
Durable metal shell design
Precision formed contacts
Mating and mounting options

## MATING CONNECTORS:

Adam Tech high density D-Subminiatures and all industry standard high density D -Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0
Insulator Colors: Black (White optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


SERIES INDICATOR
HDT = High Density D-Sub


CONTACT TYPE
PD = Plug, Solder Cup
SD = Socket, Solder Cup

POSITIONS
15, 26, 44, 62, 78

## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
WT = White color insulator
SL = Bottom side Riveted \#4-40 Clinch Nuts
JS = Top side riveted \#4-40 Jack Screws

## PLUG



SOCKET


MOUNTING OPTIONS


Unit: Inch [mm]

| Positions | PLUG | SOCKET |  | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |  |
| 15 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.759[19.28]$ |  |
| 26 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.083[27.51]$ |  |
| 44 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.626[41.30]$ |  |
| 62 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.271[57.70]$ |  |
| 78 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.635[66.93]$ | $2.099[55.32]$ |  |

## INTRODUCTION:

Adam Tech Straight PCB tail High Density D-Sub connectors are a popular interface for many I/O applications. Offered in 15, 26, 44, 62 and 78 positions they are a good choice for a low cost industry standard high density connection. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

High Density pin count in standard size shell
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech high density D-Subminiatures and all industry standard high density D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T rated UL94V-0
Insulator Colors: Black (White optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


MOUNTING OPTIONS


SL Option
Bottom side riveted \#4-40 Clinch Nuts


JS Option
Top side riveted \#4-40 Jack Screws


BL Option Bottom side riveted \#4-40 Clinch Nuts with PCB Boardlocks


Recommended PCB Layout

Unit: Inch [mm]

| Positions | PLUG | SOCKET |  | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |  |
| 15 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.759[19.28]$ |  |
| 26 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.083[27.51]$ |  |
| 44 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.626[41.30]$ |  |
| 62 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.271[57.70]$ |  |
| 78 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.635[66.93]$ | $2.099[55.32]$ |  |

## INTRODUCTION:

Adam Tech right angle PCB mount High Density D-Sub connectors are a popular interface for many I/O applications. Offered in 15, $26,44,62$ and 78 positions they are a good choice for a low cost industry standard high density connection. Adam Tech connectors are manufactured with precision stamped contacts offering a choice of contact plating and a wide selection of mating and mounting options.

## FEATURES:

High Density in standard size shell
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech high density D-Subminiatures and all industry standard high density D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T rated UL94V-0
Insulator Colors: HDL Series: Black
HDVG Series: Blue
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION

SERIES INDICATOR
HDL = High Density
D-Sub
HDVG $=$ High Density
VESA
connector with recessed \#9 pin and blue insulator

## POSITIONS

15, 26, 44, 62, 78

## CONTACT TYPE



## 

 OPTIONSA = \#4-40 Jackscrews and forked boardlocks
B = \#4-40 Flush threaded inserts and forked boardlocks
C = \#4-40 Flush
threaded inserts
with removable jackscrews and forked boardlocks
D = Topside ground straps with screw holes
PL = Plug, Right Angle Mount SL = Socket, Right

Angle Mount

## OPTIONS:

Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
$30=30 \mu$ in gold plating in contact area
EMI = Ferrite filtered version for EMI / RFI
suppression (Page 98)
F = Retention 4 prong boardlocks
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering
processes up to $260^{\circ} \mathrm{C}$
$\mathbf{R}=$ Round Riveted Jackscrews


Unit: Inch [mm]

| Positions | PLUG | SOCKET |  | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D | E |
| 15 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.277[7.04]$ | $.090[2.29]$ |
| 26 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $.277[7.04]$ | $.090[2.29]$ |
| 44 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $.277[7.04]$ | $.090[2.29]$ |
| 62 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $.276[7.00]$ | $.095[2.41]$ |
| 78 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.635[66.93]$ | $.300[7.63]$ | $.095[2.41]$ |

## INTRODUCTION:

Adam Tech Crimp and Poke High Density D-Sub connectors are a popular interface for many I/O applications. Offered in 15, 26, 44, 62 and 78 positions they are a low cost alternative to soldering a high density connector to cable. Contacts are crimped onto discrete wires and pushed into the connector body. The connector is comprised of a metal shell and plastic insulator and is available with a variety of mating options. The contacts are precision stamped and are available in a variety of platings.

## FEATURES:

High Density in standard size shell
Low cost no solder alternative
Industry standard compatibility
Durable metal shell design
Precision formed contacts
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech high density D-Subminiatures and all industry standard high density D-Subminiature connectors.

## SPECIFICATIONS:

## Material:

Insulator: PBT, 30\% glass reinforced, rated UL94V-0
Insulator Colors: Black (White optional)
Contacts: Phosphor Bronze
Shell: Steel, Tin or Zinc plated
Hardware: Brass, Nickel plated

## Contact Plating:

Gold over Nickel underplate on contact area.

## Electrical:

Operating voltage: 250V AC / DC max.
Current rating: 5 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.75 lbs max
Extraction force: 0.44 lbs min
Recommended wire size: 22 to 28 Awg
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

## PLUG


. 421 [10.70]



SEC B-B

SOCKET


Unit: Inch [mm]

| Positions | PLUG | SOCKET |  | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | A | B | C | D |  |
| 15 | $.666[16.92]$ | $.643[16.33]$ | $.984[24.99]$ | $1.213[30.81]$ | $.759[19.28]$ |  |
| 26 | $.994[25.25]$ | $.971[24.66]$ | $1.312[33.32]$ | $1.541[39.14]$ | $1.083[27.51]$ |  |
| 44 | $1.534[38.96]$ | $1.511[38.38]$ | $1.852[47.04]$ | $2.088[53.04]$ | $1.626[41.30]$ |  |
| 62 | $2.182[55.43]$ | $2.159[54.84]$ | $2.500[63.50]$ | $2.729[69.32]$ | $2.271[57.70]$ |  |
| 78 | $2.079[52.81]$ | $2.064[52.43]$ | $2.406[61.11]$ | $2.635[66.93]$ | $2.099[55.32]$ |  |



ORDERING INFORMATION
choose one from each category as shown in sample below

| DE09-HD | PY | TS |
| :--- | :--- | :--- |
| Hood Size | Hood Color | Hardware |
| DE09-HD -9P Hood | PY - Gray Plastic | SS - Short Screw |
| DA15-HD - 15P Hood | PB - Black Plastic | TS - Thumb |
| DB25-HD -25P Hood | PN - Bright Chrome | Screw |
| DC37-HD - 37P Hood | Plated Plastic |  |
| DD50-HD - 50P Hood | AL - Aluminum Cast |  |





See pgs. 59, 62, 82, 90, 92, for ordering information
AdamTech offers a complete range of ferrite filtered D-Subs to satisfy EMI/RFI emissions in most applications. This series offers filtered connectors in a multitude of terminations, mating and mounting options.

- Drop in replacement for standard D-Subs
- Low applied cost
- Significant reduction of noise at high frequencies

Typical Performance


* Consult factory for specific part number impedance performance.

| FREQ (MHZ) |  |  |  |  |  |  |  |  |  | 25 Position FREQ (MHZ) |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | 1 | 5 | 10 | 25 | 30 | 40 | 50 | 100 | 200 |  | 1 | 5 | 10 | 25 | 30 | 40 | 50 | 100 | 200 |
| XC- XL- R- | 5.4 0.656 | 15 11 | 18 18 | 23 29 | 25 32 | 26 37 | 28 40 | 34 50 | $\begin{aligned} & 51 \\ & 64 \end{aligned}$ | XC- XL- R- | 4 0.309 | 14 <br> 8.4 | 18 15 | 22 26 | $\begin{aligned} & 24 \\ & 29 \end{aligned}$ | 26 33 | 27 36 | $\begin{aligned} & 35 \\ & 46 \end{aligned}$ | $\begin{aligned} & 55 \\ & 59 \end{aligned}$ |
|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |  |  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |  |
| $\begin{gathered} \text { XC- } \\ \text { XL- } \\ \text { R- } \end{gathered}$ | $\begin{aligned} & 73 \\ & 84 \end{aligned}$ | $\begin{aligned} & 101 \\ & 121 \end{aligned}$ | $\begin{aligned} & 122 \\ & 199 \end{aligned}$ | $\begin{array}{r} 57 \\ 342 \end{array}$ | $\begin{aligned} & 1.27 \\ & 344 \\ & \hline \end{aligned}$ | $\begin{array}{\|r\|} \hline 0.807 \\ 170 \\ \hline \end{array}$ | 0.856 <br> 77 | $\begin{array}{\|c\|} \hline 0.977 \\ 40 \\ \hline \end{array}$ |  | XC- <br> XL- <br> R- | $\begin{array}{r} 81 \\ 79 \\ \hline \end{array}$ | $\begin{aligned} & 115 \\ & 119 \\ & \hline \end{aligned}$ | $\begin{array}{r} 147 \\ 210 \\ \hline \end{array}$ | $\begin{array}{r} 65 \\ 394 \\ \hline \end{array}$ | $\begin{aligned} & \hline 0.983 \\ & 356 \\ & \hline \end{aligned}$ | $\begin{array}{\|c\|} \hline 0.762 \\ 150 \\ \hline \end{array}$ | $\begin{gathered} 0.851 \\ 65 \\ \hline \end{gathered}$ | $\begin{gathered} 0.986 \\ 34 \\ \hline \end{gathered}$ |  |
|  |  |  |  |  | Q (MHZ |  |  |  |  | 37 Positi |  |  |  |  | Q (MHZ) |  |  |  |  |
|  | 1 | 5 | 10 | 25 | 30 | 40 | 50 | 100 | 200 |  | 1 | 5 | 10 | 25 | 30 | 40 | 50 | 100 | 200 |
| XC- XL- R- |  | 15.9 8.4 | 19 16 | 24 28 | 25 31 | 27 35 | 28 39 | 36 49 | 54 62 | XC- XL- R- | 4.9 0.45 | $\begin{aligned} & 16 \\ & 8.4 \end{aligned}$ | 20 15 | 25 26 | 27 29 | 28 33 | 30 36 | 36 46 | $\begin{aligned} & 53 \\ & 59 \end{aligned}$ |
|  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |  |  | 300 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 |  |
| $\begin{array}{r} \hline \text { XC- } \\ \text { XL- } \\ \text { R- } \\ \hline \end{array}$ | 80 83 | 112 <br> 124 | 138 <br> 215 | 48 389 | 0.998 339 | 0.78 147 | 0.864 64 | $\begin{array}{\|c} 0.996 \\ 33 \end{array}$ |  | XC- XL- R- | $\begin{array}{r} 76 \\ 80 \\ \hline \end{array}$ | $\begin{aligned} & 105 \\ & 122 \\ & \hline \end{aligned}$ | $\begin{gathered} 122 \\ 224 \\ \hline \end{gathered}$ | $\begin{array}{r}29 \\ 424 \\ \hline\end{array}$ | 1.082 332 | $\begin{array}{r} 0.814 \\ 131 \\ \hline \end{array}$ | $\begin{array}{\|c\|} \hline 0.879 \\ 56 \\ \hline \end{array}$ | 1 <br> 29 |  |

## INTRODUCTION:

Adam Tech DVI series Digital Visual Interface connectors are the standard digital interface for flat panels, video graphics cards, monitors, and HDTV units. This series includes DVI-D (Digital), DVI-A (Analog) and DVI-I (Integrated Digital/Analog) Their unique crossing ground blades provide high speed performance at low cost. They are available in Straight or Right Angle PCB mount receptacles and mating male cable connectors. They support a data transfer rate of 4.95 Gbps with a dielectric withstanding voltage of 500VAC. Each version features our specially designed contacts which improve signal performance and a zinc alloy shield that reduces electromagnetic interference (EMI).

## FEATURES:

Supports Analog and Digital signals
Offers excellent EMI/RFI performance
Plug and Play interface
Supports high bandwidth up to 2.5 GHz analog signal Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech DVI connectors and all industry standard DVI connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PA66, Glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T rated UL94V-0
Insulator Color: White, (Black optional)
Contacts: Phosphor Bronze
Shell: Steel, Nickel Plated

## Contact Plating:

Gold over Nickel underplate on mating area,
Tin over Copper underplate on tails

## Electrical:

Operating Voltage: 250V AC
Current Rating: 1.5 Amps max.
Contact Resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation Resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric Withstanding Voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 10 lb max.
Withdrawal force: $2.2 \mathrm{lb} . \min$.
Durability: 100 cycles

## Temperature Rating

Operating Temperature: $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

## HI-TEMP

 ANSULATOR


ORDERING INFORMATION


## OPTIONS:

Add designator(s) to end of part number
BK = Insulator color black
JS = Jackscrews Installed
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$


## MR SERIES

Adam Tech MR Series Miniature Ribbon connectors come in a variety of terminations including Solder Terminals, Straight PCB Tails, Right Angle PCB mount, Flat Cable IDC and Straddle Mount Card Edge. These connectors with their high pressure, flat wiping contacts are a very popular widely used interface especially in telecommunication applications. Offered in 14, 24, 36 and 50 positions they are a good choice for high reliability positive latching connector applications. They combine an extremely reliable contact design with the popular, polarized D face. Adam Tech connectors are manufactured with precision stamped contacts and offer a wide selection of mating and mounting options.

## FEATURES:

Available in many termination styles
High pressure blade contacts
Industry standard compatibility
Durable metal shell design
Variety of Mating and mounting options

## MATING CONNECTORS:

Adam Tech Miniature Ribbon connectors and all industry standard miniature ribbon connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, Glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Blue (Black optional)
Contacts: Phosphor Bronze
Shell: Steel, nickel plated

## Contact Plating:

Gold over Nickel underplate on mating area, Tin over
Copper underplate on tails

## Electrical:

Operating Voltage: 250V AC
Current Rating: 1 Amp max.
Contact Resistance: $35 \mathrm{~m} \Omega$ max.
Insulation Resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric Withstanding Voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 12 oz max.
Withdrawal force: 4.8 oz min.

## Temperature Rating:

Operating Temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


H-TEMP
INSULATOR


ORDERING INFORMATION

SHELL SIZE \&
POSITIONS
MR14 = 14 Contacts
MR24 = 24 Contacts
MR36 $=36$ Contacts
MR50 = 50 Contacts

CONTACT
TYPE
P = Plug
S = Socket

## TERMINATION TYPE

A = Solder Terminals
C = Straight PCB Tail
D = Right Angle PCB Mount
$\mathbf{E}=\mathrm{IDC}$, All plastic shell
F = IDC, Metal Shell
G = Straddle Mount Tails

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
BK = Black color insulator
F = Forked boardlocks
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering
processes up to $260^{\circ} \mathrm{C}$
LI = Spring Latches Installed


Unit: Inch [mm]

| PART NO. | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| MR14-SD <br> MR14-PD | $1.750[44.45]$ | $1.417[35.99]$ |
| MR24-SD <br> MR24-PD | $2.175[55.25]$ | $1.842[46.79]$ |
| MR36-SD <br> MR36-PD | $2.685[68.20]$ | $2.352[59.74]$ |
| MR50-SD <br> MR50-PD | $3.280[83.31]$ | $2.947[74.85]$ |

Ordering Information pg. 101



MR36-PF-2


| PART NO. | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| MR14-SF <br> MR14-PF | $1.750[44.45]$ | $1.417[35.99]$ |
|  | $2.175[55.25]$ | $1.842[46.79]$ |
| MR36-SF <br> MR36-PF | $2.685[68.20]$ | $2.352[59.74]$ |
|  | $3.280[83.31]$ | $2.947[74.85]$ |



IDC FLAT CABLE - SOCKET


MR36-SF-3



MR50-PC-3


MR36-PC-2

STRAIGHT PCB TAIL SOCKET


Recommended PCB Layout


Unit: Inch [mm]

| PART NO. | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| MR14-SC <br> MR14-PC | $1.750[44.45]$ | $1.417[35.99]$ |
| MR24-SC <br> MR24-PC | $2.175[55.25]$ | $1.842[46.79]$ |
| MR36-SC <br> MR36-PC | $2.685[68.20]$ | $2.352[59.74]$ |
| MR50-SC <br> MR50-PC | $3.280[83.31]$ | $2.947[74.85]$ |





Unit: Inch [mm]

| PART NO. | Dimensions |  |
| :---: | :---: | :---: |
|  | A | B |
| MR14-SA <br> MR14-PA | $1.750[44.45]$ | 1.417 [35.99] |
| MR24-SA <br> MR24-PA | $2.175[55.25]$ | $1.842[46.79]$ |
| MR36-SA <br> MR36-PA | $2.685[68.20]$ | $2.352[59.74]$ |
| MR50-SA <br> MR50-PA | $3.280[83.31]$ | $2.947[74.85]$ |



## INTRODUCTION:

Adam Tech USB, Mini USB \& Micro USB (Universal Serial Bus) and IEEE 1394 (Firewire) Series connectors are a complete line of shielded, hot pluggable, high speed I/O interface connectors available in a variety of body styles, sizes, positions and mounting orientations. Each is shielded for superior EMI/RFI protection and features spring contacts for exceptional connectivity properties. Specially designed shells with flares eliminate misconnection and kinked boardlocks add a strong, stable PCB attachment. An ideal solution for a low cost, high speed connection to peripheral devices.

## FEATURES:

USB-IF Compatible
High Speed I/O applications
Variety of Circuit sizes
Variety of Body Styles
Standard and Mini versions
Shielded for EMI/RFI protection

## MATING CONNECTORS:

Adam Tech USB, Mini USB \& Micro USB and IEEE 1394 series connectors and all industry standard USB and IEEE 1394 connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, Glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon PA9T, rated UL94V-0
Insulator Color: Black (White optional)
Contacts: Phosphor Bronze or Brass
Shell: Steel, nickel plated

## Contact Plating:

Gold over Nickel on mating area,
Tin over Copper underplate on tails

## Electrical:

Operating Voltage: 30V AC
Current Rating: 1 Amp max.
Contact Resistance: $30 \mathrm{~m} \Omega$ max.
Insulation Resistance: $1000 \mathrm{M} \Omega$ min.
Dielectric Withstanding Voltage: 100V AC for 1 minute

## Mechanical:

Insertion force: 3 oz max.
Withdrawal force: 0.5 oz min.

## Temperature Ratings:

Operating Temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays or tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## ORDERING INFORMATION

USB

## OPTIONS:

Add as Suffix to basic part no.
SMT = Surface Mount Leads with Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
TSMT = True Surface Mount Leads with Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
$30=30 \mu$ in gold plating in contact area
WT = White color insulator
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)
$T / R=$ Tape \& Reel packaging

| USB 3.0, TYPE A RIGHT ANGLE THRU-HOLE <br> USB-A3-S-RA <br> Recommended PCB Layout | USB 3.0, TYPE A PLUG |
| :---: | :---: |
|  | USB 3.0, TYPE B PLUG |

USB 2.0, TYPE A
RIGHT ANGLE THRU-HOLE


Recommended PCB Layout


USB-A-S-RA

USB 2.0, TYPE A
VERTICAL THRU-HOLE


Recommended PCB Layout


USB-A-S-RA-TSMT


Recommended PCB Layout

USB 2.0, TYPE A
ANGLE UPRIGHT, THRU-HOLE


USB-A-S-RU

Recommended PCB Layout

USB 2.0, TYPE A PLUG RIGHT ANGLE, THRU-HOLE


USB-AP-S-RA


USB 2.0, TYPE A PLUG RIGHT ANGLE, SMT


USB-AP-S-RA-SMT

USB 2.0, TYPE A, 2 PORT STACKED, RIGHT ANGLE, THRU-HOLE


USB-A-D-RA


Recommended PCB Layout (Bottom View)

USB 2.0, TYPE A, 2 PORT STACKED, VERTICAL, THRU-HOLE


Recommended PCB Layout


MINI USB 2.0, TYPE A RIGHT ANGLE, TRUE SMT


## MUSB-A-S-RA-TSMT



Recommended PCB Layout


Recommended PCB Layout


Recommended PCB Layout


# IEEE 1394 FIREWIRE SINGLE PORT, THRU-HOLE \& SMT <br> FWC SERIES 

IEEE 1394,
RIGHT ANGLE, SMT



MINI IEEE 1394, RIGHT ANGLE, SMT




MFW-D-S-RA-SMT-2A (Bilingual)

MINI IEEE 1394, RIGHT ANGLE, SMT



Recommended PCB Layout


MFW-D-S-RA-SMT-2

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

## INTRODUCTION:

Adam Tech DisplayPort series is a new high band width digital interface connection designed to provide true digital imaging while providing a multitude of colors and crystal clear sound through one small plug which can also supply power. There are 4 main links, one auxiliary channel and one hot-plug signal line. Adam Tech DisplayPort connectors are designed to work on a broad array of devices, including computers, televisions, camcorders, cameras and DVD players. Our DisplayPort connectors are fully compatible with industry standards and are backwards compatible to VGA, DVI \& HDMI.

## FEATURES:

Ultra small size package
Hot Pluggable
Supports color depth of $6,8,10,12$ and 16 bits per color components Supports a maximum of $8.64 \mathrm{Gbit} / \mathrm{s}$ data rate over a 2 meter cable
Can be used in applications up to 15 meters ( 49.21 feet)

## MATING CONNECTORS:

Adam Tech Display Port custom cables and all industry standard Display Port Cables

## SPECIFICATIONS:

## Material:

Insulator: LCP, Glass filled, rated UL94V-0, color Black
Contacts: Copper Alloy
Shell: Copper Alloy, nickel plated

## Contact Plating:

Gold over nickel underplate on mating area, Tin over Copper underplate on tails

## Electrical:

Operating Voltage: 40V AC
Current Rating: 0.5 Amps max.
Contact Resistance: $30 \mathrm{mø} \mathrm{max}$.
Insulation Resistance: $100 \mathrm{Mø} \mathrm{min}$.
Dielectric Withstanding Voltage: 500V AC for 1 minute
Mechanical:
Mating Cycles: 10,000 Cycles Min
Terperature Ratings:
Operating Temperature: $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays or tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

DISPLAY PORT \&
MINI DISPLAY PORT
DPC SERIES


## ORDERING INFORMATION

DISPLAY PORT CONNECTOR


MINI DISPLAY PORT CONNECTOR


SERIES INDICATOR
MDPC = Mini Display Port Connector


ENTRY ANGLE
RA = Right Angle PORTS
$\mathbf{S}=$ Single Port

OPTIONS:
Add designator(s) to end of part number
MF = Mounting Flange (DPC series only)


DISPLAY PORT MALE PLUG MOLDING TYPE


DPC-PLUG


MINI DISPLAY PORT, RIGHT ANGLE


Recommended PCB Layout



DPC-F-S-RA


Recommended PCB Layout


DPC-F-S-RA-SMT


Recommended PCB Layout

## INTRODUCTION

Adam Tech's High Definition Multimedia Interface (HDMI) connectors and cable assemblies are a series of products that provide an uncompressed digital link between video and audio in a single digital interface connection. Typically they are used with digital versatile disc (DVD) players, digital television (DVI) players, set-top boxes and other audiovisual devices to consolidate interfaces and eliminate multiple cable assemblies. Adam Tech's HDMI Series are small, easy to use interconnects that can carry up to 5 Gbps of combined video and audio in a single connector/cable.

## FEATURES:

Sturdy, industry compatible design
Eliminates multiple connectors and cables
Up to 5 Gbps in single interface
Variety of mounting styles
Fully shielded for ESD protection
Compact $0.50 \mathrm{~mm}(.019$ ") pitch SMT design

## MATING CONNECTORS:

All industry standard HDMI connectors.

## SPECIFICATIONS:

## Material:

Insulator: Hi-Temperature thermoplastic, glass filled, rated UL94V-0 Insulator Color: Black
Shell: Phosphor Bronze, Nickel plated
Contacts: Phosphor Bronze

## Plating:

Gold over nickel underplate on mating area, tin over copper underplate on tails

## Electrical:

Operating Voltage: 30V AC
Current Rating: 0.5 Amps Max.
Contact Resistance: $10 \mathrm{~m} \Omega$ Max.
Insulation Resistance: $100 \mathrm{M} \Omega \mathrm{Min}$.
Dielectric Withstanding Voltage: 300V AC for 1 Minute
Mechanical:
Insertion force: 10.0 lbs max.
Withdrawal force: 2.2 lbs min.
Temperature Rating:
Operation Temperature: $-55^{\circ} \mathrm{C} \sim+85^{\circ} \mathrm{C}$
PACKAGING:
Anti ESD plastic trays or Tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION HDMI CONNECTOR


PORTS
$\mathbf{S}=$ Single

OPTIONS:
Add designator(s) to end of part number
$15=15 \mu$ in gold plating in contact area
MF = Mounting Flange
$\mathbf{R}=$ Reverse Layout

## MICRO HDMI, RIGHT ANGLE, SMT



MCHDMI-S-RA-1-SMT


MICRO HDMI, RIGHT ANGLE, SMT


MINI HDMI, RIGHT ANGLE, SMT



MHDMI-S-RA-1-SMT


Recommended PCB Layout


Recommended PCB Layout


HDMI-S-RA-SMT

IGHT ANGLE SMT


Recommended PCB Layout



HDMI-S-RA-SMT-MF

RIGHT ANGLE TRUE SMT


HDMI-S-RA-TSMT

RIGHT ANGLE TRUE SMT WITH MOUNTING FLANGE


HDMI-S-RA-TSMT-MF

## INTRODUCTION:

Adam Tech SATA \& eSATA series Serial ATA connectors combine hot-plug capability with a combination of power and signal contacts in a blind-mate design. They are ideal for connecting disk drives to backplanes in servers or network equipment. Adam Tech SATA connectors are designed with differential-pair signaling technology and are precision manufactured to consistently perform at speeds up to 3.0 Gbits/s.

## FEATURES:

Meets SCA Interconnection Standards
40P Fiber Channel and 80P SCSI compatible Intermatable Industry Standard Design

## MATING CONNECTORS:

Adam Tech SATA \& eSATA series plugs and all industry standard SATA plugs.

## SPECIFICATIONS:

## Material:

Insulator: Hi-Temp thermoplastic, glass filled, rated UL94V-0 Insulator Color: Black
Contacts: Phosphor Bronze

## Plating:

Gold over nickel underplate on mating area, tin over copper underplate on tails

## Electrical:

Operating Voltage: 30V AC
Current Rating: 1.5 Amps Max.
Contact Resistance: $30 \mathrm{~m} \Omega$ Max. initial
Insulation Resistance: $1000 \mathrm{M} \Omega \mathrm{Min}$.
Dielectric Withstanding Voltage: 500V AC for 1 Minute

## Mechanical:

Insertion force: 10.20 lbs max.
Withdrawal force: 2.25 lbs min .

## Temperature Rating:

Operating Temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays or tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## ORDERING INFORMATION



POLARIZATION
PL = Left Polarization
PR = Right Polarization
$\mathbf{P M}=$ Type $G$

## OPTIONS:

Add designator(s) to end of part number
K = Key
$\mathbf{S}=$ Side slots (type D)
$30=30 \mu$ in gold plating in contact area
P = Locating Pegs


SATA-W-NP-VT


## SATA-A

SINGLE R/A
SMT


SATA-A-PL-SMT-K


SATA-C
SINGLE R/A
SMT


Recommended PCB Layout

SATA-B
SHIELDED, R/A, TRUE SMT


Recommended PCB Layout



SATA-B-PL-SMT-K

SATA-J
SHIELDED, R/A, SMT


Recommended PCB Layout



SATA-J-NP-SMT-P-S-PG

SATA-D
DUAL STACKED, SMT


Recommended PCB Layout

SATA-G
DUAL
VERTICAL
SMT


Recommended PCB Layout



Recommended PCB Layout


SATA-G
DUAL VERTICAL
THRU-HOLE


IEC SERIES

## INTRODUCTION:

Adam Tech IEC \& Mini IEC Series AC Inlets and Outlets are primary power receptacles designed, manufactured, tested and approved to UL, CSA, VDE and other applicable international specifications including IEC-60320 and CEE-22. Adam Tech offers a wide variety of body styles, shapes and orientations to accommodate most class I \& II applications with two or three blade contacts in both IEC and Mini-IEC configurations. Mounting choices include screw holes and snap-in versions and four termination styles. Options of ganged ports or receptacle with integral fuse holder are also available.

## FEATURES:

IEC \& Mini-IEC types
IEC-60320, CEE-22 Compliant
UL, CSA and VDE approved
Multitude of Body Styles
Choice of terminations
Option of Integral Fuse Holder

## MATING CONNECTORS:

Adam Tech PC series power cords and all standard international IEC 60320 power supply cords.

## SPECIFICATIONS:

## Material:

Insulator: Polycarbonate or Nylon 66, glass filled, rated UL94V-0 Insulator Color: Black
Contacts: Phosphor Bronze or Brass

## Plating:

Nickel over copper underplate. (Solder terminals: Tin over copper underplate)

## Electrical:

Operating Voltage: 250V AC
Current Rating: IEC - UL \& CSA: 15 Amps Max,
VDE: 10 Amps Max.
Mini IEC - UL, CSA \& VDE 2.5 Amps Max.
Insulation Resistance: $100 \mathrm{M} \Omega \mathrm{Min}$. @ 500V DC
Dielectric Withstanding Voltage: 2000V AC for 1 Minute

## Temperature Rating:

Operation Temperature: $-25^{\circ} \mathrm{C} \sim+70^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays

## SAFETY AGENCY APPROVALS:

UL Recognized File Nos. E224051, E224052
ENEC Approved European Norm Electrical Certification


## ORDERING INFORMATION



BODY STYLE
A = Male Inlet, Screw-on panel mount
$\mathbf{B}=$ Female Outlet, Screw-on panel mount
C = Male Inlet, Snap-in panel mount
D = Female Outlet, Snap-in panel mount
$\mathbf{E}=$ Male Inlet, Right Angle PC board mount with mounting flange (Specify EW, EX, EY or EZ)
F = Male Inlet, Screw on panel mount with $5 \times 20 \mathrm{~mm}$ fuse holder
$\mathbf{G}=$ Male Inlet, Snap-in panel mount with $5 \times 20 \mathrm{~mm}$ fuse holder
HS = Inlet/Outlet, snap-in panel mount
HR = Inlet/outlet, snap-in panel mount, right angle PCB mount
J = Male inlet, right angle PCB \& tail with snap-in panel mounting
NA $=$ Mini-IEC right angle, snap-in
NB $=$ Mini-IEC right angle, slide-in
NB-A $=$ Mini-IEC right angle, slide-in with pegs
NC = Mini-IEC right angle, with flush flange
NC-A = Mini-IEC right angle, with extended face
ND = Mini-IEC right angle, with enclosed body
NF = Mini-IEC right angle, polarized with flange
NH $=$ Mini-IEC right angle, with ground pin
NH-A = Mini-IEC right angle, flange mount with ground pin
GS = Fused inlet with switch snap in panel mount
FS = Fused inlet with switch screw on panel mount
M = Female outlet, 20 AMP, Flanged
$\mathbf{N}=$ Male inlet, 20 AMP, Snap-In

OPTIONS:
K = Keyed for $120^{\circ}$ C (Body Styles A, C, E \& J)

IEC-A
SCREW ON PANEL MOUNT


IEC-A-1
1.075 [27.30] Front Mounting 1.212 [30.80] Rear Mounting


IEC-A
SCREW ON PANEL
RIGHT ANGLE PCB MOUNT



Recommended PCB Layout


IEC-A-4



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

IEC-J
UNIVERSAL PANEL SNAP RIGHT ANGLE PCB MOUNT


Recommended Panel Thickness: $0.80-3.0 \mathrm{~mm}$

IEC-J
DEDICATED PANEL SNAP RIGHT ANGLE PCB MOUNT


Recommended Panel Cut-Out

IEC-E
FLANGED RIGHT ANGLE PCB MOUNT


Recommended Panel Cut-Out

| DIMENSIONAL |  |  |
| :---: | :---: | :---: |
| PART NO. | F | W |
| IEC-EW | $.287[7.30]$ | $.276[7.00]$ |
| IEC-EX | $.287[7.30]$ | $.358[9.10]$ |
| IEC-EY | $.382[9.70]$ | $.276[7.00]$ |
| IEC-EZ | $.382[9.70]$ | $.358[9.10]$ |

IEC-B
FLANGED SCREW ON

## PANEL MOUNT



Recommended Panel Cut-Out

| TERMINAL OPTIONS |  |  |
| :---: | :---: | :---: |
| 1 | 2 | 3 |
| . 187 Q.C. | . 250 Q.C. | . 157 Solder |
|  | 00 | ए) 0 |

IEC-D UNIVERSAL PANEL SNAP


Recommended Panel Thickness: 0.8 mm - 3.0 mm


IEC-G
FUSED WITH UNIVERSAL PANEL SNAP

$\left.\begin{array}{|c|c|}\hline \text { PANEL } \\ \text { THICKNESS }\end{array}\right]$ DIMENSIONS A

Recommended Panel Cut-Out




Recommended Panel Cut-Out

IEC-HS
FUSED INLET \& OUTLET WITH UNIVERSAL PANEL SNAP


IEC-HS-1

IEC-GS-1


SECTION.AA


IEC-GS-1-100

| PART NUMBER | DIM "A" |
| :---: | :---: |
| IEC-GS-1-100 | $.039[1.00]$ |
| IEC-GS-1-150 | $.059[1.50]$ |
| IEC-GS-1-200 | $.079[2.00]$ |

IEC-FS-1
FUSED INLET WITH SWITCH, SCREW ON PANEL MOUNT


IEC-D-S

STACKED OUTLETS WITH DEDICATED PANEL SNAPS


2 THRU 7 PORTS AVAILABLE


Cross Section


Recommended Panel Cut-Out


IEC-D-S4-150

| DIMENSIONS |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| PART NUMBER | PORTS | A | B | C |
| IEC-D-S2-150 | 2 | $2.007[51.00]$ | $1.890[48.00]$ | $1.901[48.30]$ |
| IEC-D-S3-150 | 3 | $2.953[75.00]$ | $2.835[72.00]$ | $2.846[72.30]$ |
| IEC-D-S4-150 | 4 | $3.897[99.00]$ | $3.780[96.00]$ | $3.791[96.30]$ |
| IEC-D-S5-150 | 5 | $4.842[123.00]$ | $4.724[120.00]$ | $4.736[120.30]$ |
| IEC-D-S6-150 | 6 | $5.787[147.00]$ | $5.670[144.00]$ | $5.681[144.30]$ |
| IEC-D-S7-150 | 7 | $6.732[171.00]$ | $6.614[168.00]$ | $6.626[168.30]$ |

[^1]


Recommended Panel Cut-Out


Recommended PCB Layout

IEC-NA-4
UNIVERSAL PANEL SNAP


IEC-NB-4
DEDICATED PANEL SNAP


Recommended Panel Cut-Out


Recommended PCB Layout


Recommended Panel Cut-Out

IEC SERIES

IEC-NC-4 RIGHT ANGLE PANEL MOUNT

IEC-NC-A-4 RIGHT ANGLE PANEL MOUNT


Recommended
Panel Cut-Out



## INTRODUCTION:

Adam Tech PLF Series is a complete range of Power Line Filters designed for use in electric equipment that needs to meet FCC and other worldwide agency requirements for EMI/RFI emissions. This series offers numerous termination styles and levels of filtering and circuit protection for specific applications. Included are chassis mount, chassis mount with IEC Power Connector, panel mount and power entry modules with integral fuse and or switch.

## FEATURES:

Modules offer compact space and cost effectiveness Meets low leakage requirements
Superior common mode and differential mode attenuation.

## MATING CONNECTORS:

Adam Tech PC series power cords and all international IEC 60320 power supply cords.

## SPECIFICATIONS:

## Material:

Insulator: Polycarbonate or Nylon 66, glass filled, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze
Casing: Thermoplastic rated UL94V-0 or Copper Alloy, nickel plated

## Terminal Plating:

Quick connect: Nickel over copper underplate
Solder terminals: Tin over copper underplate
PC Pins: Tin over copper underplate

## Electrical:

Operation Voltage: 120 / 250V AC
Current Rating: UL \& CSA: 15 Amps Max,
VDE: 10 Amps Max.
Insulation Resistance: $3000 \mathrm{M} \Omega \mathrm{Min}$.
Dielectric Withstanding Voltage: 1500V AC for 1 Minute Leakage Current: 0.5mA Max 250V, 50 Hz
Temperature Rating:
Operation Temperature: $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E244331


## ORDERING INFORMATION



PLF = EMI/RFI
Power Line Filter

## BODY STYLE

3PC4 = Plastic Case PCB Mount
1PC = Metal Case PCB Mount
2PC = Metal Case PCB Mount
3PC = Metal Case PCB Mount
6PC = Metal Case PCB Mount
1D3 = Small Outline Chassis Mount
3D3 = Small Outline Chassis Mount
6D3 = Small Outline Chassis Mount
10D32 = Small Outline Chassis Mount
6D1 = Medium Outline Chassis Mount
10D1 = Medium Outline Chassis Mount
15D1 = Medium Outline Chassis Mount
3DZB21 = Screw In Chassis Mount
6DZB21 = Screw In Chassis Mount
10DZB21 = Screw In Chassis Mount
15DZB2 = Screw In Chassis Mount 1DZ2 = Inlet Socket with Flange Mounting
3DZ2 = Inlet Socket with Flange Mounting
6DZ2 = Inlet Socket with Flange Mounting
10DZ2 = Inlet Socket with Flange Mounting
1DZ2R = Fused Inlet Socket with Flange Mounting
3DZ2R = Fused Inlet Socket with Flange Mounting
6DZ2R = Fused Inlet Socket with Flange Mounting
10DZ2R = Fused Inlet Socket with Flange Mounting
1DZ2KR = Flanged Module with Fuse \& Switch
3DZ2KR = Flanged Module with Fuse \& Switch
6DZ2KR = Flanged Module with Fuse \& Switch
10DZ2KR = Flanged Module with Fuse \& Switch



PLF-3PC4

| PART <br> NUMBER | RATED <br> VOLTAGE | RATED <br> CURRENT | GROUND <br> CAPACITANCE | LEAKAGE <br> CURRENT |
| :---: | :---: | :---: | :---: | :---: |
| PLF-3PC4 | 250 V AC | 3 AMP | 2.2 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |



CIRCUIT DIAGRAM

Insertion Loss in dB (Measured in $50 \Omega$ systems, as IEC / cispr No. 17)

PLF-3PC4



PLF-1D3

| PART <br> NUMBER | RATED <br> VOLTAGE | RATED <br> CURRENT | GROUND <br> CAPACITANCE | LEAKAGE <br> CURRENT |
| :--- | :---: | :---: | :---: | :---: |
| PLF-1D3 | 250 V AC | 1 AMP | 4.7 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |
| PLF-3D3 | 250 V AC | 3 AMP | 3.3 nF | 0.5 mA MAX. |
| PLF-6D3 | 250 V AC | 6 AMP | 3.3 nF | 0.5 mA MAX. |
| PLF-10D32 | 250 V AC | 10 AMP | 2.2 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |



Insertion Loss in dB (Measured in $50 \Omega$ systems, as IEC / cispr No. 17)

PLF-1D3


PLF-6D3


PLF-3D3


PLF-10D32



## PLF-3PC

| DIM "A" |  |
| :---: | :---: |
| PLF-1PC | $.590[15.00]$ |
| PLF-2PC | $.787[20.00]$ |
| PLF-3PC | $.787[20.00]$ |
| PLF-6PC | $.787[20.00]$ |


| PART <br> NUMBER | RATED <br> VOLTAGE | RATED <br> CURRENT | GROUND <br> CAPACITANCE | LEAKAGE <br> CURRENT |
| :---: | :---: | :---: | :---: | :---: |
| PLF-1PC | 250 V AC | 1 AMP | 2.2 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |
| PLF-2PC | 250 V AC | 2 AMP | 2.2 nF | 0.5 mA MAX. |
| PLF-3PC | 250 V AC | 3 AMP | 2.2 nF | 0.5 mA MAX. |
| PLF-6PC | 250 V AC | 6 AMP | 3.3 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |



PLF-1PC


PLF-3PC


PLF-2PC


PLF-6PC



Insertion Loss in dB (Measured in $50 \Omega$ systems, as IEC / cispr No.


ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

EMI/RFI POWER LINE FILTERS MEDIUM OUTLINE CHASSIS MOUNT


PLF-10D1

| PART <br> NUMBER | RATED <br> VOLTAGE | RATED <br> CURRENT | GROUND <br> CAPACITANCE | LEAKAGE <br> CURRENT |
| :--- | :---: | :---: | :---: | :---: |
| PLF-6D1 | 250 V AC | 6 AMP | 3.3 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |
| PLF-10D1 | 250 V AC | 10 AMP | 3.3 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |
| PLF-15D1 | 250 V AC | 15 AMP | 3.3 nF | $0.5 \mathrm{~mA} \mathrm{MAX}$. |



CIRCUIT DIAGRAM


PLF-15D1



Insertion Loss in dB (Measured in $50 \Omega$ systems, as IEC / cispr No. 17)


EMI/RFI POWER LINE FILTERS INLET SOCKET WITH FLANGE MOUNTING

PLF SERIES


| PART <br> NUMBER | RATED <br> VOLTAGE | RATED <br> CURRENT | GROUND <br> CAPACITANCE | LEAKAGE <br> CURRENT |
| :---: | :---: | :---: | :---: | :---: |
| PLF-1DZ2 | 250 V AC | 1 AMP | 2.2 nF | $0.5 m A$ MAX. |
| PLF-3DZ2 | 250 V AC | 3 AMP | 3.3 nF | $0.5 m A$ MAX. |
| PLF-6DZ2 | 250 V AC | 6 AMP | 3.3 nF | $0.5 m A$ MAX. |
| PLF-10DZ2 | 250 V AC | 10 AMP | 4.7 nF | $0.5 m A$ MAX. |

Medical Grade available, PLF-XDZW2


CIRCUIT DIAGRAM



## INTRODUCTION:

Adam Tech's wide range of PCI Express, Mini PCI Express \& Mini PCI connectors provide a low cost, highly scalable, general-purpose serial I/O interconnect that provides a unifying standard for a number of I/O solutions within one platform. They are typically used in high-speed serial link technology applications similar to that found in Gigabit1 Ethernet, Serial ATA (SATA), and Serial-Attached SCSI (SAS). The 36P version supports a single PCI express lane and can be used to replace standard PCl connectors. Our higher bandwidth 4 \& 8 lane versions are ideal to use in many server applications.

## FEATURES:

Durable Long Life cycle contacts
High Pressure Contacts for Low Level Circuits
Hot plug and hot swap enabled
Rated to run at up to 2.5 Gbps
Supports 2.5 Gbps data transfer and scalable for future band width increases.
Available in $x 1, x 4, x 8$, and $x 16$ lane configurations
Coexists with standard PCl

## MATING PC BOARDS:

All printed circuit boards with a thickness of .062" to .072"

## SPECIFICATIONS:

## Material:

Standard insulator: PPS, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Dark Brown (Black optional)
Contacts: Phosphor Bronze

## Contact Plating:

Gold over Nickel underplate on contact area, tin over copper underplate on tails.

## Electrical:

Operating voltage: 125V AC max.
Current rating: 3 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 7 oz max.
Withdrawal force: 0.9 oz min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

HITEMP
 AVALLABLE


## ORDERING INFORMATION

 PCI EXPRESSSERIES INDICATOR
PCIE $=$ PCI Express Card Edge connector


POSITIONS
36, 64, 98, 164
ORDERING INFORMATION MINI PCI EXPRESS
See pg. 152 for Available Types

## MINI PCI

See pg. 153 for Available Types

## OPTIONS:

Add designator(s) to end of part number $30=30 \mu$ in gold plating in contact area
WT = White color insulation
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
$1.00 \mathrm{~mm} \& 0.8 \mathrm{~mm}$ CARD EDGE CONNECTOR
PCIE SERIES

PIN 1

PCIE-98-1


| PART NO. \& POSITIONS | DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D |
| PCIE-36-1 | . 984 [25.00] | . 301 [7.65] | . 236 [6.00] | . 321 [8.15] |
| PCIE-64-1 | 1.535 [39.00] | . 852 [21.65] | . 787 [20.00] | . 872 [22.15] |
| PCIE-98-1 | 2.205 [56.00] | 1.522 [38.65] | 1.457 [37.00] | 1.541 [39.15] |
| PCIE-164-1 | 3.504 [89.00] | 2.821 [71.65] | 2.756 [70.00] | 2.840 [72.15] |





StANDOFF HEIGHT
(SEE CHART)


| PART NO | DIMENSIONS |  |
| :---: | :---: | :---: |
|  | X | Y |
| MPCI-124-2-SMT | $.362[9.20]$ | $.287[7.30]$ |

## INTRODUCTION:

Adam Tech CE Series Card Edge Connectors are precision engineered PCB mount connectors developed to mate with the plated fingers of a printed circuit daughter board. Their bifurcated, cantilever contacts are set in a dual readout configuration and they offer a reliable connection for a wide range of PCB thicknesses. Adam Tech's sturdy solder tails with tapers allow easy insertion and rugged durability.

## FEATURES:

.100" x .200" centerlines
Selectively gold plated contacts
Wide selection of positions
Compatible with a wide range of PCB thicknesses

## MATING PC BOARDS:

All printed circuit boards with a thickness of $.055^{\prime \prime}$ to $.075^{\prime \prime}$

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Gold over Nickel underplate on contact area, tin over copper underplate on tails.

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $3000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 10 oz max.
Withdrawal force: 3 oz min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION
 Connector, Right Angle Mount

## POSITIONS

4, 6, 8, 12, 16, 20, 24, 26, 28,
30, 32, 34, 36, 38, 40, 44, 48,
50, 60, 62, 64, 70, 72, 80, 86,
$98,100,108,120$

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
BR = Board retention tails


A =. 100 [2.54] X No. of spaces $B=A+.207[5.28]$ $\mathrm{C}=\mathrm{A}+.360[9.14]$

Recommended PCB Layout


Recommended PCB Layout

## INTRODUCTION:

Adam Tech HMCA \& HDCE Series Card Edge Connectors include Standard and Express versions designed for PCB's in Peripheral Component Interconnect ( PCI ) applications. Each is manufactured in multiple row, high density package which is completely compatible to industry standards and has specially engineered contacts which provide a very short electrical path between boards. Adam Tech card edge connectors are designed for high performance with solid board pegs and precision located, selectively gold plated contacts which are ideal in high speed, increased bandwidth applications

## FEATURES:

HMCA: PCI and PCI Express Versions
HDCE: Compatible with PC, XT and AT
High density compact designs
Industry standard PCI compatible
Special contact design reduces electrical path
Selectively plated contacts
Open bottom for after solder cleaning

## MATING PC BOARDS:

All .050" centerline printed circuit board pads with a thickness of .062" to .072"

## SPECIFICATIONS:

## Material:

Standard insulator: PPS, 30\% glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Dark Brown (White for 120 pos.)
Contacts: Phosphor Bronze

## Contact Plating:

Gold over Nickel underplate on contact area, tin over copper underplate on tails.

## Electrical:

Operating voltage: 125V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 7 oz max.
Withdrawal force: 0.9 oz min

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


ORDERING INFORMATION

| HDCE |  |
| :--- | :--- |
| SERIES INDICATOR <br> HDCE <br> EISA <br> Card Edge <br> Connector <br> POSITIONS <br> 188 | PLATING <br> G = Selectively gold <br> plated contacts |

## OPTIONS

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$


Unit: Inch [mm]

|  <br> Positions | Dimensions |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | A | B | C | D | E |  |
| HMCA-X-112-G | $3.140[79.76]$ | $0.625[15.88]$ | $2.325[59.06]$ | $0.500[12.70]$ | $2.200[55.88]$ | $2.232[56.69]$ |
| HMCA-X-120-G | $3.340[84.84]$ | $0.625[15.88]$ | $2.525[64.14]$ | $0.500[12.70]$ | $2.400[60.96]$ | $2.550[64.77]$ |
| HMCA-X-132-G | $3.740[95.00]$ | $0.625[15.88]$ | $2.925[74.30]$ | $1.834[46.60]$ | $2.200[55.88]$ | $2.350[59.69]$ |
| HMCA-X-182-G | $4.890[124.21]$ | $2.175[55.25]$ | $2.525[64.14]$ | $2.050[52.07]$ | $2.050[52.07]$ | $2.550[64.77]$ |
| HMCA-X-194-G | $5.290[134.37]$ | $2.175[55.25]$ | $2.925[74.30]$ | $2.050[52.07]$ | $2.200[55.88]$ | $2.350[55.88]$ |

Replace X with A or B

## INTRODUCTION:

Adam Tech SMT PLCC Series Sockets are low profile, thin wall sockets designed to convert plastic leaded chips to a thru-hole PCB format on a 100 " centerline grid. They conform to JEDEC MS 016 and MS 018 pin count standards. Adam Tech's superior precision stamped contact design provides consistent, high retention contacts for all size chips. Chip exchanges or replacements are easily made with Adam Tech's chip remover part no. PLCC-EXT.

## FEATURES:

Full range of sizes from 20P ~ 100P
Consistent, uniform high retention contacts
Compatible with wide range of chip sizes
No solder wicking design
Hi Temp PPS insulator
Open frame design for viewable solder joints

## MATING PLASTIC LEADED CHIPS:

All EIA / JEDEC compliant PLCC

## SPECIFICATIONS:

## Material:

Standard Hi-Temp insulator: PPS, Glass reinforced, rated UL94V-0 Insulator Color: Brown
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 6.35 oz max.
Withdrawal force: 1.0 oz min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


OPTIONS:
Add designator(s) to end of part number $\mathbf{P}=$ With polarizing pegs
TR = Tape and reel packaging


## INTRODUCTION:

Adam Tech PLCC Series Sockets are designed to convert plastic leaded chips to a thru-hole PCB format on a .100" centerline grid. They conform to JEDEC MS 016 and MS 018 pin count standards. Adam Tech's superior precision stamped contact design provides consistent, high retention contacts for all size chips. Chip exchanges or replacements are easily made with Adam Tech's chip remover part no. PLCC-EXT.

## FEATURES:

Full range of sizes from 20P ~ 100P Consistent, uniform high retention contacts
Compatible with wide range of chip sizes
No solder wicking design
Hi Temp PPS insulator version available

## MATING PLASTIC LEADED CHIPS:

All EIA / JEDEC plastic leaded chips

## SPECIFICATIONS:

## Material:

Standard Insulator: PBT, Glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: PPS
Insulator Color: Black (Brown for PPS)
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 6.35 oz max.
Withdrawal force: 1.0 oz min

## Temperature Rating:

Operating temperature: $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


PLCC = Plastic Leaded Chip Carrier Socket

AT = Tin-plated
AG = Gold-plated

## CONTACTS

20, 28, 32, 44, 52, 68, 84,100

OPTIONS:
Add designator(s) to end of part number
HT = Hi-Temp Polyphenylene Sulfide (PPS) Insulator Material for hi-temp soldering process up to $260^{\circ} \mathrm{C}$

| PLCC-20-AT | 20 Position Socket | 20 Position Socket <br> Recommended PCB Layout |
| :---: | :---: | :---: |
| PLCC-28-AT | 28 Position Socket | 28 Position Socket <br> Recommended PCB Layout |
| PLCC-32-AT | 32 Position Socket | 32 Position Socket <br> Recommended PCB Layout |
| PLCC-44-AT | 44 Position Socket | 44 Position Socket <br> Recommended PCB Layout |


| PLCC-52-AT | 52 Position Socket | 52 Position Socket <br> Recommended PCB Layout |
| :---: | :---: | :---: |
| PLCC-68-AT | 68 Position Socket | 68 Position Socket <br> Recommended PCB Layout |
| PLCC-84-AT | 84 Position Socket | 84 Position Socket <br> Recommended PCB Layout |

## INTRODUCTION:

Adam Tech ICS Series IC Sockets are a low profile design available in single or dual row on .100 " centerline pin spacing with .300 " or .600" row spacing. Our ISD Series are fine pitched sockets on .070" centerlines with .300 " or .600 " row spacing. All Adam Tech sockets are manufactured with our exclusive single beam dual wipe contact design which produces a high pressure wiping action for superior connectivity. In addition to an internal contact stop which prevents over stressing of the contact, each has a wide lead in to eliminate mis-mating and a closed bottom anti-solder wicking design.

## FEATURES:

High Pressure Contacts
Single Beam, Dual Wipe Contacts
Anti-Solder Wicking design
Machine Insertable
Single or Dual Row
Low Profile

## MATING COMPONENTS:

All industry standard components with SIP or DIP leads

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, Glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 11.5 oz max with $.024^{\prime \prime} \mathrm{X}$.006: leads
Withdrawal force: 0.85 oz min with .024 " X .006" leads

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic tubes

## SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053


## ORDERING INFORMATION

 IC SOCKETS

## ORDERING INFORMATION SINGLE ROW SOCKETS



OPTIONS:
Add designator(s) to end of part number OF = Open Frame without center bar

## ICS SERIES

.300" ROW CENTERLINE
POSITIONS: 6, 8, 14, 16, 18, 20, 24, 26 \& 28


24P-32P produced with center support bar.
$A=.100[2.54] \times$ No. of Positions Per Row $B=.100$ [2.54] X No. of Spaces Per Row

## ICS SERIES

.600" ROW CENTERLINE
POSITIONS: 20, 24, 28, 32, 40 \& 48


ICS-628-T


Recommended PCB Layout

ISD SERIES

.300" ROW CENTERLINE SHRINK DIP SOCKETS POSITIONS: 24, 28, 30


$A=.070[1.78] \times$ No. of Positions Per Row $B=.070[1.78] \times$ No. of Spaces


Recommended PCB Layout

ISD SERIES
.600" ROW CENTERLINE SHRINK DIP SOCKETS

POSITIONS: 40, 42


Recommended PCB Layout
$A=.070[1.78] \times$ No. of Positions Per Row $B=.070[1.78] \times$ No. of Spaces

$A=.100[2.54] \times$ No. of Positions $B=.100[2.54] \times$ No. of Spaces


Recommended PCB Layout

# SCREW MACHINE SOCKETS \& TERMINAL STRIPS 

## INTRODUCTION:

Adam Tech ICM Series Machine Pin Sockets and Terminal Strips offer a full range of exceptional quality, high reliability DIP and SIP package Sockets and Terminal Strips. Our sockets feature solid, precision turned sleeves with a closed bottom design to eliminate flux intrusion and solder wicking during soldering. Adam Tech's stamped spring copper insert provides an excellent connection and allows repeated insertion and withdrawals. Plating options include choice of gold, tin or selective gold plating. Our insulators are molded of UL94V-0 thermoplastic and both Sockets and Terminal Strips are XY stackable.

## FEATURES:

High Pressure Contacts
Precision Stamped Internal Spring Contact
Anti-Solder Wicking design
Machine Insertable
Single or Dual Row
Low Profile

## MATING COMPONENTS:

Any industry standard components with SIP or DIP leads

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, Glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Gold over Nickel underplate and Tin over copper underplate

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute
Mechanical:
Insertion force: 400 grams initial max with .025 dia. leads
Withdrawal force: 90 grams initial min with .025 dia. leads

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
HI-TEMP TNSULATOR
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

ANTI-ESD PLASTIC TUBES
Approvals and Certifications: UL Recognized File no. E224053

OPTIONS: (MCT series on pg. 191)
Add designator(s) to end of part number
SMT = Surface mount leads Dual Row
SMT-A = Surface mount leads Type A
SMT-B = Surface mount leads Type B
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$


SEE PG. 169

## ORDERING INFORMATION

 SCREW MACHINE SOCKETS

| ICM SERIES DUAL ROW SOCKET |  | $-\mathrm{c}$ $\begin{aligned} & 0.020 \\ & {[0.50]} \end{aligned}$ |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| TMC SERIES DUAL ROW TERMINALS <br> TMC-624-1-GT |  |  |  |  |  |
| Drawings Pg. 168 <br> ORDERING INFORMATION SCREW MACHINE TERMINAL STRIPS | POSITION |  |  |  |  |
|  |  | A | B | c | ROW SPACING |
|  | 6 | . 300 [7.62] | . 200 [5.08] | . 400 [10.16] | . 300 [7.62] |
|  | 8 | . 400 [10.16] | . 300 [7.62] |  |  |
|  | 10 | . 500 [12.70] | . 400 [10.16] |  |  |
|  | 14 | . 700 [17.78] | . 600 [15.24] |  |  |
|  | 16 | . 800 [20.32] | . 700 [17.78] |  |  |
|  | 18 | . 900 [22.86] | . 800 [20.32] |  |  |
|  | 20 | 1.00 [25.40] | . 900 [22.86] |  |  |
|  | 24 | 1.20 [30.48] | 1.10 [27.94] |  |  |
|  | 28 | 1.40 [35.56] | 1.30 [33.02] |  |  |
|  | 20 | 1.00 [25.40] | . 900 [22.86] | . 500 [12.70] | . 400 [10.16] |
|  | 22 | 1.10 [27.94] | 1.00 [25.40] |  |  |
|  | 24 | 1.20 [30.48] | 1.10 [27.94] |  |  |
|  | 28 | 1.40 [35.56] | 1.30 [33.02] |  |  |
|  | 32 | 1.60 [40.64] | 1.50 [38.10] |  |  |
|  | 24 | 1.20 [30.48] | 1.10 [27.94] | . 700 [17.78] | . 600 [15.24] |
|  | 28 | 1.40 [35.56] | 1.30 [33.02] |  |  |
|  | 32 | 1.60 [40.64] | 1.50 [38.10] |  |  |
|  | 36 | 1.80 [45.72] | 1.70 [43.18] |  |  |
|  | 40 | $2.00[50.80]$ | 1.90 [48.26] |  |  |
|  | 42 | $2.10[53.34]$ 2.40 [60.96] | 1.90 [48.26] 2.30 [58.42] |  |  |
|  | 50 | 2.50 [63.50] | 2.40 [60.96] |  |  |
|  | 52 | 2.60 [66.04] | 2.50 [63.50] |  |  |
|  | 50 | 2.50 [63.50] | 2.40 [60.96] | 1.00 [25.40] | . 900 [22.86] |
|  | 52 | 2.60 [66.04] | 2.50 [63.50] |  |  |

Order Information pg. 167
ICM SERIES


Order Information pg. 166
ICM SERIES

| CONFIGURATIONS 1SMC Series | HSMC Series . 050 [1.27] Pitch | 2SMC Series . 078 [2.00] Pitch | SMC Series .100 [2.54] Pitch |
| :---: | :---: | :---: | :---: |
| single row straight .039 [1.00] Pitch |  |  |  |
| $\begin{aligned} & \mathrm{A}=.039[1.00] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.098[2.50] \\ & \mathrm{E}=.197[5.00] \\ & \varnothing \mathrm{X}=.015[0.40] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.252[6.40] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.291[7.40] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{C}=.100[2.54] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.292[7.43] \\ & \varnothing \mathrm{X}=.020[0.51] \end{aligned}$ <br> POSITIONS: 1 THRU 40 |
| DUAL ROW STRAIGHT | .050 [1.27] Pitch HSMC-2-XX-1-GT | . 078 [2.00] Pitch 2SMC-2-XX-1-GT | . 100 [2.54] Pitch SMC-2-XX-1-GT |
|  | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{B}=.050[1.27] \\ & \mathrm{C}=.128[3.25] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.252[6.40] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{B}=.078[2.00] \\ & \mathrm{C}=.165[4.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.291[7.40] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{B}=.100[2.54] \\ & \mathrm{C}=.200[5.08] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.292[7.43] \\ & \varnothing \mathrm{X}=.020[0.51] \end{aligned}$ <br> POSITIONS: 2 THRU 80 |
| SINGLE ROW RIGHT ANGLE | . 050 [1.27] Pitch HSMC-1R-XX-1-GT | . 078 [2.00] Pitch 2SMC-1R-XX-1-GT | .100 [2.54] Pitch SMC-1R-XX-1-GT |
|  | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.118[3.00] \\ & \mathrm{F}=.208[5.30] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.126[3.20] \\ & \mathrm{F}=.220[5.60] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{C}=.100[2.54] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.126[3.20] \\ & \mathrm{F}=.220[5.60] \\ & \varnothing \mathrm{X}=.024[0.62] \end{aligned}$ <br> POSITIONS: 1 THRU 40 |
| DUAL ROW RIGHT ANGLE | $\begin{aligned} & .050[1.27] \text { Pitch } \\ & \text { HSMC-2R-XX-1-GT } \end{aligned}$ | . 078 [2.00] Pitch 2SMC-2R-XX-1-GT | . 100 [2.54] Pitch SMC-2R-XX-1-GT |
|  | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{B}=.050[1.27] \\ & \mathrm{C}=.128[3.25] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.118[3.00] \\ & \mathrm{F}=.208[5.30] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{B}=.078[2.00] \\ & \mathrm{C}=.165[4.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.126[3.20] \\ & \mathrm{F}=.220[5.60] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{B}=.100[2.54] \\ & \mathrm{C}=.200[5.08] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.126[3.20] \\ & \mathrm{F}=.220[5.60] \\ & \varnothing \mathrm{X}=.024[0.62] \end{aligned}$ <br> POSITIONS: 2 THRU 80 |
| SINGLE ROW SURFACE MOUNT | . 050 [1.27] Pitch <br> HSMC-1-XX-1-GT-SMT | . 078 [2.00] Pitch <br> 2SMC-1-XX-1-GT-SMT | . 100 [2.54] Pitch <br> SMC-1-XX-1-GT-SMT |
|  | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.204[5.20] \\ & \mathrm{F}=.134[3.40] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{C}=.086[2.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.228[5.80] \\ & \mathrm{F}=.173[4.40] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 1 THRU 40 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{C}=.100[2.54] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.220[5.60] \\ & \mathrm{F}=.182[4.64] \\ & \varnothing \mathrm{X}=.024[0.62] \end{aligned}$ <br> POSITIONS: 1 THRU 40 |
| DUAL ROW SURFACE MOUNT | . 050 [1.27] Pitch HSMC-2-XX-1-GT-SMT | . 078 [2.00] Pitch 2SMC-2-XX-1-GT-SMT | . 100 [2.54] Pitch <br> SMC-2-XX-1-GT-SMT |
|  | $\begin{aligned} & \mathrm{A}=.050[1.27] \\ & \mathrm{B}=.050[1.27] \\ & \mathrm{C}=.128[3.25] \\ & \mathrm{D}=.161[4.10] \\ & \mathrm{E}=.204[5.20] \\ & \mathrm{F}=.193[4.90] \\ & \varnothing \mathrm{X}=.018[0.46] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.078[2.00] \\ & \mathrm{B}=.078[2.00] \\ & \mathrm{C}=.165[4.20] \\ & \mathrm{D}=.110[2.80] \\ & \mathrm{E}=.228[5.80] \\ & \mathrm{F}=.252[6.40] \\ & \varnothing \mathrm{X}=.021[0.53] \end{aligned}$ <br> POSITIONS: 2 THRU 80 | $\begin{aligned} & \mathrm{A}=.100[2.54] \\ & \mathrm{B}=.100[2.54] \\ & \mathrm{C}=.200[5.08] \\ & \mathrm{D}=.118[3.00] \\ & \mathrm{E}=.220[5.60] \\ & \mathrm{F}=.282[7.18] \\ & \varnothing \mathrm{X}=.024[0.62] \end{aligned}$ <br> POSITIONS: 2 THRU 80 |


#### Abstract

INTRODUCTION: Adam Tech DIMM (Dual in Line Memory Module) , S.O. DIMM (Small outline DIMM) \& DDR (Double Data Rate) sockets are precision designed sockets for add-on memory modules. Offered in SMT \& straight plug in mounting, their precision formed bellow style contacts are manufactured with extremely close tolerances for superior, precise alignment during mating. The DIMM and DDR latching sockets have a smooth actuation and a positive, audible sound to determine proper insertion.


## FEATURES:

184 contacts on high density .050" Centerlines
Complies with JEDEC specifications
Available in five key versions
Latches function both as Lock \& Ejector

## MATING OPTIONS:

All industry standard memory modules

## SPECIFICATIONS:

## Material:

Standard insulator: Glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Latch: Nylon 66 rated UL94V-0
Insulator color: DIMM \& DDR: Black
SO DIMM: White
Contacts: Phosphor Bronze
Contact Plating:
Gold over nickel underplate in contacts area, tin over copper underplate on solder tails

## Electrical:

Operating voltage: 250V AC max.
Current rating: 0.5 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute
Mechanical:
Insertion Force: 4 oz max
Withdrawal Force: 1 oz min
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

## ORDERING INFORMATION



POSITIONS
168 = DIMM
184 = DDR
$200=$ DDR
$240=$ DDR3

VOLTAGE KEY
$1=3.3 \mathrm{~V}$
2 = 5.0V (DIMM \& DDR only)
$3=2.5 \mathrm{~V}$
$4=1.5 \mathrm{~V}$
$5=1.8 \mathrm{~V}$

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
$\mathbf{H T}=\mathrm{Hi}-$ Temp insulator for $\mathrm{Hi}-$ Temp soldering
processes up to $260^{\circ} \mathrm{C}$
YW = Yellow insulator (DDR only)
PU = Purple insulator (DDR only)



SECTION: A-A

$\rightarrow 1-$
. 125 [3.18]


## INTRODUCTION:

Adam Tech PCB Series Flexible Printed Circuit (FPC) and Flexible Flat Cable (FFC) connectors are a LIF (low insertion force) design that provides a low cost, fast, easy and reliable connection of flexible printed circuits to a PCB. Adam Tech's special contact design preserves conductor integrity while producing a stable, high pressure connection. This series includes single and dual row versions in $2.54 \mathrm{~mm}, 1.25 \mathrm{~mm}, 1.00 \mathrm{~mm} \& 0.50 \mathrm{~mm}$ centerlines with vertical or horizontal orientations.

## FEATURES:

Superior contact design protects conductors
High pressure contacts
Single or dual row versions
Choice of $2.54 \mathrm{~mm}, 1.25 \mathrm{~mm}, 1.00 \mathrm{~mm} \& 0.50 \mathrm{~mm}$ centerlines

## MATING FPC \& FFC CABLE:

Mates with flat flexible cable and flexible printed circuits with thickness of 0.3 mm

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, Glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate

## Electrical:

Operating voltage: 100V AC max.
Current rating: .039" Spacing: 0.5 Amp max.
.049" Spacing: 1 Amp max
.100" Spacing: 3 Amps max
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion Force: 5 oz max
Withdrawal Force: 3 oz min
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic tubes or trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

Add designator(s) to end of part number $\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$



ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS

## INTRODUCTION:

Adam Tech PCA Series Flexible Printed Circuit (FPC) and Flexible Flat Cable (FFC) connectors are ZIF (zero insertion force) connectors designed to provide a fast, easy, reliable method to make a connection of flexible printed circuits to a PCB. Adam Tech's special contact design completely preserves conductor integrity by eliminating all wiping action while making connection. Flex circuitry enters the connector and the connector cap is pressed down to capture the flex circuit producing a stable, high pressure connection. Raising the cap releases the pressure for exchange or replacement of circuitry. This series includes single and dual row versions in thru-hole or SMT mounting in vertical or horizontal orientations.

## FEATURES:

Superior contact design protects conductors
High pressure contacts
Single or dual row versions
Choice of $.3 \mathrm{~mm}, .5 \mathrm{~mm}, .8 \mathrm{~mm}, 1 \mathrm{~mm} \& 1.25 \mathrm{~mm}$ centerlines

## MATING FPC \& FFC:

Mates with $.3 \mathrm{~mm}, .5 \mathrm{~mm}, .8 \mathrm{~mm}, 1 \mathrm{~mm}$ \& 1.25 mm centerline flat flexible circuits with thickness range of 0.1 mm to 0.3 mm

## SPECIFICATIONS:

## Material:

Hi-Temp Insulator: LCP, Glass reinforced, rated UL94V-0 Insulator color: Natural
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 100V AC max.
Current rating: .020" Spacing: 0.4 Amps max.
031" \& .039" Spacing: 0.5 Amps max
.049" Spacing: 1 Amp max
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion Force: 0 oz max
Withdrawal Force: 13 oz min
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic tubes or Tape and Reel
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


## OPTIONS:

Add designator(s) to end of part number
G = Gold plated contacts
TR = Tape and reel packaging

## CONTACT SECTION VIEWS



UPPER CONTACT


LOWER CONTACT


PCA-7
.3mm (.012") SIDE ENTRY SMT


PCA-7-18-HL-3
$A=.012[0.30] \times$ No. of Spaces
$\mathrm{B}=\mathrm{A}-.024[0.60]$
$\mathrm{C}=\mathrm{A}+.025[0.63]$
$\mathrm{D}=\mathrm{A}+.051[1.30]$
$\mathrm{E}=\mathrm{A}+.071$ [1.80]


PCA-6
.5mm (.020") TOP ENTRY SMT

$A=.020[0.50] \times$ No. of Spaces
$B=A+.045[1.14]$
$\mathrm{C}=\mathrm{A}+.189$ [6.60]


Recommended PCB Layout

PCA-6
. 5 mm (.020") SIDE ENTRY SMT


PCA-6-16-HU-3
$A=.020[0.50] \times$ No. of Spaces
$B=A+.045[1.14]$
$C=A+.189[6.60]$


Recommended PCB Layout

PCA-5
.8mm (.031") SIDE ENTRY SMT


Recommended PCB Layout


## INTRODUCTION:

Adam Tech ADC Series DC Power Jacks are a complete line of miniature and sub-miniature power jacks primarily used for the transmission of wall current transformed to DC power, for detached and hand held instruments. Adam Tech power jacks are manufactured with a variety of center pin sizes for all standard applications including $1.00 \mathrm{~mm}, 1.30 \mathrm{~mm}, 2.00 \mathrm{~mm}$ and 2.50 mm . Our contact is designed using a wide spring grade plated copper alloy for exceptional plug retention and low contact resistance.

## FEATURES:

Low Profile designs
Superior contact system
Exceptional plug retention
Choice of Center pin sizes
Hi Temp Versions
Hi Current Versions

## MATING PLUGS:

All industry standard $1.00 \mathrm{~mm}, 1.30 \mathrm{~mm}, 2.00 \mathrm{~mm}, 2.35 \mathrm{~mm}$
and 2.50 mm Plugs.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT Glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator Color: Black
Center Pin: Brass, Nickel plated
Contacts: Copper alloy

## Contact Plating:

Silver over nickel underplate

## Electrical:

Operating voltage: 12V DC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $50 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 250V AC for 1 minute

## Mechanical:

Insertion force: 3 kg max.
Withdrawal force: 0.3 kg min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags or Tape and Reel

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


ORDERING INFORMATION


OPTIONS:
Add designator(s) to end of part number
RT = PC Board Retention Feature (Type 007 \& 009 only)
HT $=$ Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
$\mathbf{N}=$ Notch option, (ADC-002 only)
ADC-H = DC Power Jack Hi-Current 5 Amp Version

ADC-007


ADC-009


ADC-009-3


Recommended PCB Layout

## ADC-011



Recommended PCB Layout

ADC-021


ADC-029


ADC-029-1


Recommended PCB Layout

ADC-002


ADC-002-2


Recommended PCB Layout

ADC-024


ADC-024-8-SMT


Recommended PCB Layout

ADC-028


ADC-028-2



Recommended PCB Layout

## ADC-027

ADC-027-1-M8


ADC-085


ADC-010


ADC-010-1

ø. 079 [2.00]
or
$\varnothing .098[2.50]$


Recommended PCB Layout
ADC-015


ADC-015-2



Recommended PCB Layout

ADC-045A


ADC-045A-1


ADP-PLUG
WITH STRAIN RELEIF


| PLUG WITH STRAIN RELIEF | X | Y | Z |
| :---: | :---: | :---: | :---: |
| ADP-X/Y/Z-SR | $\varnothing .039[1.00]$ | $\varnothing .137[3.50]$ | $.374[9.50]$ |
| ADP-X/Y/Z-SR | $\varnothing .082[2.10]$ | $\varnothing .216[5.50]$ | $.374[9.50]$ |
| ADP-X/Y/Z-SR | $\varnothing .098[2.50]$ | $\varnothing .216[5.50]$ | $.374[9.50]$ |

ADP-PLUG
WITHOUT STRAIN RELEIF


| PLUG WITHOUT STRAIN RELIEF | X | Y | Z |
| :---: | :---: | :---: | :---: |
| ADP-X/Y/Z | $\varnothing .039[1.00]$ | $\varnothing .137[3.50]$ | $.374[9.50]$ |
| ADP-X/Y/Z | $\varnothing .082[2.10]$ | $\varnothing .216[5.50]$ | $.374[9.50]$ |
| ADP-X/Y/Z | $\varnothing .098[2.50]$ | $\varnothing .216[5.50]$ | $.374[9.50]$ |

## INTRODUCTION:

Adam Tech ASJ Series Stereo Jacks are a broad range of 2.6 mm and 3.5 mm jacks used primarily in computer and multi-media audio applications. This series provides a multitude of sizes and configurations that are available in single or multiple switching forms. Options include choice of full plastic or metal reinforced bodies, single, stacked or ganged versions and color-coded jacks for port identification.

## FEATURES:

Broad range of sizes and configurations
Single or Multiple switching functions
Plastic or Metal reinforced bodies
Ganged and Stacked versions
Color Coded option for Port Identification

## MATING PLUGS:

All industry standard 2.50 mm and 3.50 mm mono or stereo plugs.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT or LCP, Glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator Color: Black
Bushing: Brass, Nickel plated
Contacts: Copper alloy

## Contact Plating:

Tin over Copper underplate

## Electrical:

Operating voltage: 12V DC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $100 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 4.4 lbs max.
Withdrawal force: 0.3 kg min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic bags or Tape and Reel

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


ORDERING INFORMATION


SERIES
INDICATOR
ASJ = Stereo Jack

CONTACT FORMS
(see page 188-190 for
individual schematics)

OPTIONS:
Add designator(s) to end of part number
E = No back cover (Type 1 only)
$\mathbf{M}=$ M6 x 0.5 threaded bushing
HT = Hi-Temp Nylon 6T insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
TR = Tape \& Reel packaging

ASJ-12


ASJ-12-5



Recommended PCB Layout

ASJ-18



Recommended PCB Layout

ASJ-38


ASJ-38-5



Recommended PCB Layout

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS
$2.5 \mathrm{~mm} \& 3.5 \mathrm{~mm}$ AUDIO JACKS
STEREO \& MONO EARPHONE JACKS
ASJ SERIES

ASJ-103



Recommended PCB Layout


ASJ-103-J


ASJ-104


Recommended PCB Layout


ASJ-104-J


ASJ-105



Recommended PCB Layout


ASJ-106


Recommended PCB Layout


## ASJ-1



Recommended PCB Layout

ASJ-5


ASJ-37


ASJ-37-5-M



## ASJ-7



ASJ-40


ASJ-40-4A


Recommended PCB Layout

ASJ-15


ASJ-15-4B


Recommended PCB Layout

ASJ-41


ASJ-41-5


Recommended PCB Layout
ASJ-107



Recommended PCB Layout

ASJ-108

ASJ-108-A

ASJ-109



Recommended PCB Layout


ASJ-109-A

| ASJ-109-A | ASJ-109-B | ASJ-109-D |
| :---: | :---: | :---: |
|  |  |  |

ASJ-110

Recommended PCB Layout


ASJ-111-1



Recommended PCB Layout

MONO AUDIO PLUG


| DIMENSION | X | Y |
| :--- | :---: | :---: |
| ASP-2.5-M | $.468[11.90]$ | $\varnothing .098[2.50]$ |
| ASP-3.5-M | $.590[15.00]$ | $\varnothing .137[3.50]$ |

STEREO AUDIO PLUG 2 CHANNEL


| DIMENSION | X | Y |
| :--- | :---: | :---: |
| ASP-2.5-S | $.468[11.90]$ | $\varnothing .098[2.50]$ |
| ASP-3.5-S | $.590[15.00]$ | $\varnothing .137[3.50]$ |

STEREO AUDIO PLUG 3 CHANNEL


| DIMENSION | X | Y |
| :--- | :---: | :---: |
| ASP-2.5-S3 | $.468[11.90]$ | $\varnothing .098[2.50]$ |
| ASP-3.5-S3 | $.590[15.00]$ | $\varnothing .137[3.50]$ |



## INTRODUCTION:

Adam Tech Board-to-Board connectors are a custom manufactured product generally tooled to a customer's application specific requirements. Advantages include significant cost reductions, enhanced product features or special performance requirements. Design options include variable heights, extremely low profile types, SMT and polarized mated sets in five different pitches. Adam Tech provides experienced capabilities in a wide assortment of insulator and contact designs with cost, reliability and compatibility for automatic insertion machine pick up. These connectors are ideal for cell phones, pagers, video equipment, small portable equipment and anywhere an LCD display is used.

## FEATURES:

Designed for Multiple board stacking heights
Common pin counts can be tooled
Hi-Temp material designs
High reliability precision formed contact designs

## SPECIFICATIONS:

## Material:

Insulator: LCP or Nylon 6T
Contacts: Phosphor Bronze

## Contact Plating:

Tin or Gold flash over copper underplate

## Electrical:

Operating voltage: 50V AC max.
Current rating:
0.5 mm : 0.3 Amps max
0.8 mm : 0.5 Amps max.

Contact resistance: $40 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Mating durability: 250 Cycles min.

## Temperature Rating:

Operating temperature: $-65^{\circ} \mathrm{C}$ to $+155^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays or tubes
Tape and Reel with pick \& place pad


## APPLICATION \& CONFIGURATION OVERVIEW

## 0.4 mm Centerline Pitch

Series BB4-PO/SO is a custom product which was developed to offer a fixed height of 0.039 mm for the male connector matched with a fixed height 0.049 mm female connector to provide a total stacking height of 1.5 mm .
Series BB4-PE/SE offers a fixed height 1.25 mm male connector which is matched with a fixed height 1.25 mm female providing a total stacking height of 1.5 mm .

## 0.5 mm Centerline Pitch

Series BB5-PO/SO is a custom product which was developed to offer four different female connector heights (3.00, 3.50, 4.00, 6.00) to provide four choices of total stacking heights (4.00, 4.50, 5.00, 6.00) These sets are available in positions 10-100 (see details on drawing pages 192-193)
Series BB5-PN/SN is a custom product which was developed to offer five different heights (2.20, 2.70, 3.00, $3.20,3.50$ ) and a matched female connector in four different heights (3.00, 3.50, 4.00, 6.00) to provide four choices of total stacking heights (4.00, 4.50, 5.00, 6.00)

### 0.635 mm Centerline Pitch

Series BB635-PE/SE is a custom product developed to offer a male connector in two different heights (4.00, 5.00) which is matched to a fixed height female connector (4.00) to provide a choice of two total stacking heights (5.00, 6.00).

## 0.8 mm Centerline Pitch

Series BB8-PO/SO is a custom product which was developed to offer a fixed height ( 3.55 mm ) male connector which can be matched to four different female connector heights $(3.55,5.05,5.45,6.05)$ to provide four choices of total stacking heights (4.60, 6.00, 6.50, 7.00).
Series BB8-PN/SN is a custom product which was developed to offer a male connector in two different heights $(3.55,4.05)$ which can be matched to five different female connector heights $(3.65,4.15,4.70,5.15,5.65)$ to provide eight choices of total stacking heights (4.50, 5.00, $5.15,5.65,6.00,6.15,6.50,7.00$ )

### 1.00 mm Centerline Pitch

Series BB10-PO/SO is a custom product which was developed to offer a male connector in three different heights ( $6.35,7.35,8.35$ ) which can be matched to four different female connector heights (5.37, 7.37, 8.37, 10.37) to provide eight choices of total stacking heights ( $8.00,9.00,10.00,11.00,12.00,13.00,14.00,15.00$ ) used.

# $0.3 \mathrm{~mm}, 0.4 \mathrm{~mm}, 0.5 \mathrm{~mm}, 0.635 \mathrm{~mm}, 0.8 \mathrm{~mm} \& 1.00 \mathrm{~mm}$ CUSTOM MALE \& FEMALE SETS 

## INTRODUCTION:

Adam Tech manufactures a range of application specific board stacking connectors which were designed and built to specific customer requirements.

Our experienced engineering staff has developed custom products in a variety of contact styles, pitches and stacking heights. Our designs range from new concepts to duplicating existing market products identically or with improvements. Many designs are produced using automated manufacturing processes to increase reliability and provide significant ongoing cost savings.

## FEATURES:

- Multiple board stacking heights
- Broad range of pin counts
- Locating peg versions
- Hi-Temp material
- High reliability precision formed contacts


| 0.635 mm MALE | 0.635 mm FEMALE <br> X=STACKED HEIGHT |
| :---: | :---: |
|  |  |
| 0.8 mm MALE |  |
| 1.00 mm MALE <br> X=STACKED HEIGHT | X=STACKED HEIGHT |

## INTRODUCTION:

Adam Tech RCA Series RCA jacks are a popular choice for audio and visual output in electronic equipment applications. Adam Tech offers a multitude of RCA jacks intended to satisfy most audio and visual applications. This series offers choices of panel, PCB, and chassis mounting in single, dual, stacked and color coded versions with a number of shell plating options. Adam Tech RCA jacks are precision engineered to provide intermatability and balance to a broad range of industry standard plugs. Manufactured with high quality UL94V-O ABS these jacks are an excellent choice for most audio and visual applications.

## FEATURES:

Wide range of colors
Multiple port versions
Various body styles
Industry Standard compatibility

## MATING PLUGS:

All industry standard RCA plugs.

## SPECIFICATIONS:

## Material:

Standard insulator: ABS or PBT glass filled, rated UL94-HB
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Colors: Red, Black, Yellow, White
Bushing: Brass, Nickel plated, (Gold optional)
Contacts: Brass

## Contact Plating:

Tin or Silver over Copper underplate

## Electrical:

Operating voltage: 12V DC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $100 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 6.6 lbs max.
Withdrawal force: 1.7 lbs min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


## ORDERING INFORMATION



## CIRCUIT TYPE

1 thru 4
See detail on
drawing pages

## OPTIONS:

Add designator(s) to end of part number
G = Gold plated barrels
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$

RCA-1



Recommended PCB Layout


RCA-2


Recommended PCB Layout

RCA-3



Recommended PCB Layout





DJ SERIES

## INTRODUCTION:

Adam Tech DJ Series Circular DIN Jacks continue to be a popular interface for many applications. They are especially suitable for applications that require reliable transfer of low level signals. Available in a wide selection of positions they feature a choice of an all plastic body or a plastic body with metal face shield. Mounting selections include Right Angle or Vertical PCB mount and Panel Mount with or without mounting flange. Adam Tech DJ series jacks features an exclusive high reliability contact design which utilizes a dual wipe, extended fork contact. The jacks overall contact area is increased primarily in the mating area which helps maintain a constant contact pressure for superior electrical performance.

## FEATURES:

Wide range of styles
Offered in 3 thru 13 positions
Standard and shielded versions available
Excellent for Low Level signal applications

## MATING PLUGS:

All industry standard circular DIN plugs.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Brass
Shield: Copper Alloy, Bright Nickel plated

## Contact Plating:

Tin over Copper underplate overall

## Electrical:

Operating voltage: 20V DC max.
Current rating: 2 Amps max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Insertion force: 15 lb max.
Withdrawal force: 0.8 lb min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION RIGHT ANGLE PC BOARD MOUNT


## STRAIGHT PC BOARD MOUNT AND PANEL MOUNT VERSIONS



SERIES INDICATOR
DJP = Panel mount w/ Mounting Flange
DJN = Barrel type straight PCB mount


POSITIONS
3P thru 13P
shown as 003 thru 013


DJ SERIES


## INTRODUCTION:

Adam Tech MDJ Series Mini DIN Jacks continue to be a popular, high density, low cost, low profile interconnect solution. Available in a multitude of styles and configurations, they are able to satisfy a broad range of applications. This series offers jacks in 3 thru 9 positions with straight, right angle or panel mounting and offers choice of four different shielding and panel grounding options. Color-coded jacks for port identification are also available. Adam Tech's special contact design offers a high reliability connection with extremely low contact resistance.

## FEATURES:

Wide Range of Styles
Right Angle, Straight and Panel Mount types
Shielding Options for EMI/RFI suppression
Color-Coded versions

## MATING PLUGS:

All industry standard circular Mini DIN plugs.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT glass filled, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator Color: Black standard, custom colors available Contacts: Phosphor Bronze
Shield: Copper Alloy, Tin Plated

## Contact Plating:

Gold over Nickel underplate on contact area, tin over Copper underplate on tails

## Electrical:

Operating voltage: 100V AC / 12V DC max.
Current rating: 1 Amp max. / 2 Amps max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 9.9 lbs max.
Withdrawal force: 0.8 lbs min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## ORDERING INFORMATION RIGHT ANGLE MOUNT



## PANEL MOUNT



SERIES INDICATOR
MDE= Panel Mount Jack with Flange


POSITIONS
3P thru 6P
shown as
003 thru 006


TERMINATION
W = 6" wire leads stripped .250"
WS = 6" wire leads with .250 " spade terminals

## OPTIONS:

Add designator(s) to end of part number
RT = PC board retention feature. On shielded units, crimped shield legs. On non-shielded units, forked grounding pin.
PG = Spring panel ground
PG4 = Four finger panel ground
HT $=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$
TGBP = Top port color Green / Bottom port color Purple


MDJD SERIES
STACKED
MINI DIN JACK
FULLY SHIELDED


MDJD-006-FS-RT



4 Position


6 Position

## MDV SERIES

VERTICAL MINI DIN JACK


MDV SERIES
VERTICAL MINI DIN JACK WITH THREADED SHELL


MDV-005-B

|  | 3 POSITION | 4 POSITION | 5 POSITION | 6 POSITION | 7 POSITION | 8 POSITION |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| MATING <br> FACE <br> CONFIGURATIONS |  |  |  |  |  |  |

Recommended PCB Layouts

| 3 Position | 4 Position |  |
| :---: | :---: | :---: |
|  | 7 Position |  |

## INTRODUCTION:

Adam Tech Mini DIN Power Jack and Plug system is specifically designed to incorporate power and signal transmissions in the same small low-profile package. This combination eliminates the need of separate power and signal components on the PC Board. In addition to component savings, labor is reduced and aesthetic value is increased by the reduction of additional cables. This system features three or four contact versions and a quick-lock mating system.

## FEATURES:

Combination signal and power
Small, compact light weight design
3P \& 4P available
Shielded versions available

## MATING OPTIONS:

Mates with all industry standard combination power jacks.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator Color: Black standard, custom colors available Contacts: Phosphor Bronze
Plastic Shell: PVC
Shield: Copper Alloy, Tin Plated

## Contact Plating:

Silver over Nickel underplate overall

## Electrical:

Operating voltage: 30V DC max.
Current rating: Power contact: 7 Amps max.
Signal contacts: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $250 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 1.8 lbs max.
Withdrawal force: 0.22 lbs min
Temperature Rating:
Operating temperature: $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


MPJ-3P


MPJ-4P


MPJ-4P-S
ORDERING INFORMATION POWER JACK


POWER PLUG


NO. OF POSITIONS
3P = 3 Positions
4P = 4 Positions

## OPTIONS:

Add designator(s) to end of part number

## $\mathbf{S}=$ Shielded

HT = Hi-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$


## INTRODUCTION:

Adam Tech DP and MDP series male and female DIN and Mini DIN plugs are offered in an assembly version which contains a fitted two-piece snap-together metal shell with a slide over boot which surrounds the center contact pad or a molded version which has a one piece metal shell permanently attached to the contact pad which is used in over-molded cable production. Their simple yet extremely sturdy design make them perfect for most applications.

## FEATURES:

DIN and Mini DIN styles
Easy two-piece metal shell assembly
Over-mold or assembly versions

## MATING CONNECTORS:

All industry standard circular Mini DIN and DIN jacks.

## SPECIFICATIONS:

## Material:

Insulator: PBT glass filled, rated UL94V-0
Insulator Color: Black standard, custom colors available Contacts: Brass
Shield: Copper Alloy, Tin Plated

## Contact Plating:

Nickel on mating area, Tin over Copper underplate on solder area.

## Electrical:

Operating voltage: 100V AC / 12V DC max.
Current rating: Mini Din: 1 Amp max.

$$
\text { Din: } 2 \text { Amps max }
$$

Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $500 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 9.9 lbs max.
Withdrawal force: 0.8 lbs min
Mating durability: 5000 cycles min.

## Temperature Rating:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+70^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


SERIES INDICATOR
DP = Male DIN Plug
DS = Female DIN Plug
MDP = Male Mini DIN Plug
MDS = Female Mini DIN Plug


NO. OF POSITIONS
003 thru 008 (DP/DS)
003 thru 009 (MDP/MDS)

## OPTIONS:

Add designator(s) to end of part number
G = Gold plated contacts
$M=$ Single piece barrel and contact pad without plastic shell for molding applications


## INTRODUCTION:

Adam Tech DNR Series DIN 41612 connectors are a versatile two piece PCB connector set with features useful for many applications including connections between plug-in card and back-panel wiring, PCB to PCB attachment and peripheral connections for external interfaces. Features include a multitude of body sizes and styles with options that include selective contact loading, make and break contacts, contact lead length choices, and contact plating variations each in .100" [2.54] or .200" [5.08] centerline spacing.

## FEATURES:

Industry Standard Compatible Multiple Body Sizes Contact Plating Options Make and Break contacts .100" or .200" Centerlines

## Mating Options:

Adam Tech DNR series and All industry standard DIN 41612 Connectors.

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, glass filled, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Beige
Contacts: Brass or Phosphor Bronze

## Plating:

Gold over nickel underplate on contact area
Tin over copper underplate on tails

## Electrical:

Operating voltage: 500V AC max. Current rating: 2 Amps max Contact resistance: $30 \mathrm{~m} \Omega$ max. initial Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$. Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: $20 \mathrm{lbs} /$ contact max.
Withdrawal force: $0.033 \mathrm{lbs} /$ contact min Mating durability: Class I: 500 cycles Class II: 250 cycles
Class III: 100 cycles
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+125^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays or tubes

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

H-TEMP
[NSULAJOR


## ORDERING INFORMATION



OPTIONS:
Add designator(s) to end of part number
PF = Press Fit Tails (pg 241)
HT $=\mathrm{Hi}$-Temp insulator $260^{\circ} \mathrm{C}$ max.
BL = Metal board locks in mounting holes
C1 = 30u" Gold over nickel underplate
$\mathbf{C 2}=15 u^{\prime \prime}$ gold over nickel underplate


MOUNTING ANGLE
$\mathbf{S}=$ Straight, PCB mount
$\mathbf{R}=$ Right Angle, PCB mount
BODY TYPE


S22 = Short body, 2 rows A \& B Loaded
S32 $=$ Short body, 3 rows A \& C Loaded
S33 = Short body, 3 rows A, B \& C Loaded
L22 = Long body, 2 rows A \& B Loaded
L32 $=$ Long body, 3 rows A \& C Loaded
L33 = Long body, 3 rows A, B \& C Loaded
L44 = Long body, 4 rows A, B, C \& D Loaded

SOLDER TAIL LENGTH
1 = Standard solder tail length . 157"
2 = Wire wrap
.511" Solder
tail (straight
female only)

## PITCH

A $=.100{ }^{\prime \prime}[2.54 \mathrm{~mm}]$
B = .200" [5.08 mm]







DIN-240MS-L44-A1 4 ROW MALE STRAIGHT


| POSITIONS | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | C |
| 100 | $3.250[82.55]$ | $2.400[60.96]$ | $2.950[74.93]$ |
| 128 | $3.950[100.33]$ | $3.100[78.74]$ | $3.650[92.71]$ |
| 160 | $4.750[120.65]$ | $3.900[99.06]$ | $4.450[113.03]$ |
| 200 | $5.750[146.05]$ | $4.900[124.46]$ | $5.450[138.43]$ |
| 240 | $6.750[171.45]$ | $5.900[149.86]$ | $6.450[163.83]$ |

DIN-240FR-L44-A1
4 ROW FEMALE RIGHT ANGLE


Recommended PCB Layout - Female


| POSITIONS | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: |
|  | A | B | C |
| 100 | $3.250[82.55]$ | $2.400[60.96]$ | $2.950[74.93]$ |
| 128 | $3.950[100.33]$ | $3.100[78.74]$ | $3.650[92.71]$ |
| 160 | $4.750[120.65]$ | $3.900[99.06]$ | $4.450[113.03]$ |
| 200 | $5.750[146.05]$ | $4.900[124.46]$ | $5.450[138.43]$ |
| 240 | $6.750[171.45]$ | $5.900[149.86]$ | $6.450[163.83]$ |

## INTRODUCTION:

Adam Tech HHS Series of multiple pitch Headers and Housings are a matched set of Crimp Wire Housings and PCB mounted Shrouded Headers available in Straight, Right Angle or SMT orientation. Offered in various popular industry standard styles they provide a lightweight, fine pitched, polarized, high reliability connection system.

## FEATURES:

Multiple pitches and configurations
Matched Housing \& Header system
Straight, Right Angle or SMT Headers
Sure fit, Fine Pitched \& Polarized

## MATING CONNECTORS:

Each set has a male and female mate

## SPECIFICATIONS:

## Material:

Insulator: Thru-hole: PBT, glass reinforced, rated UL94V-0
SMT: Nylon 46 or 6T, rated UL94V-0
Contacts: Brass

## Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 100V AC max.
Current rating: 0.5-5 Amps max.
Insulation resistance: $1000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 800V AC for 1 minute

## Mechanical:

Insertion force: 1.28 lbs max
Withdrawal force: 0.180 lbs min.
Temperature Rating:
Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION CRIMP CONTACT


1CTA $=1.00 \mathrm{~mm}$ Body Style "A" Contact 125CTA $=1.25 \mathrm{~mm}$ Body Style "A" Contact 125CTB $=1.25 \mathrm{~mm}$ Body Style "B" Contact 125CTC $=1.25 \mathrm{~mm}$ Body Style "C" Contact 15CTA $=1.50 \mathrm{~mm}$ Body Style "A" Contact 15CTB $=1.50 \mathrm{~mm}$ Body Style "B" Contact 2CTB $=2.00 \mathrm{~mm}$ Body Style "B" Contact 2CTC $=2.00 \mathrm{~mm}$ Body Style "C" Contact 25CTB $=2.50 \mathrm{~mm}$ Body Style "B" Contact 25CTC $=2.50 \mathrm{~mm}$ Body Style "C" Contact


## ORDERING INFORMATION CRIMP HOUSING



## ORDERING INFORMATION SHROUDED HEADER



SERIES INDICATOR
$08 \mathrm{SH}=0.80 \mathrm{~mm}$
1SH $=1.00 \mathrm{~mm}$
125SH $=1.25 \mathrm{~mm}$
$15 \mathrm{SH}=1.50 \mathrm{~mm}$
2SH $=2.0 \mathrm{~mm}$
$25 \mathrm{SH}=2.50 \mathrm{~mm}$

## OPTIONS:

Add designator(s) to end of part number
SMT = Surface mount leads with Hi-Temp insulator

## 0.8 mm TYPE A



### 1.00mm TYPE A

| 1CH-A-04 <br> Replace (XX) with No. of positions <br> $\mathrm{A}=.039$ [1.00] X No. of Positions -1 <br> $B=.039$ [1.00] X No. of Positions + . 118 [3.00] | 1.00 mm TERMINAL <br> Recommended wire size 32-28 awg. |
| :---: | :---: |
| Replace (XX) with No. of positions <br> $\mathrm{A}=.039$ [1.00] X No. of Positions -1 <br> $\mathrm{B}=.039$ [1.00] X No. of Positions + . 078 [2.00] | 1SH-A-04-TR-SMT <br> Replace (XX) with No. of positions <br> Recommended <br> $A=.039$ [1.00] X No. of Positions -1 <br> $B=.039$ [1.00] X No. of Positions + . 078 [2.00] |


| Replace (XX) with No. of positions <br> $A=.049$ [1.25] X No. of Positions -1 <br> $B=.049$ [1.25] X No. of Positions + . 068 [1.75] | 1.25 mm CRIMP TERMINAL <br> 125CTA-R <br> Recommended wire size 32-28 awg. |
| :---: | :---: |
| Recommended PCB Layout <br> Replace (XX) with No. of positions <br> $A=.049$ [1.25] X No. of Positions -1 <br> $B=.049$ [1.25] X No. of Positions + . 068 [1.75] | Recommended PCB Layout <br> Replace (XX) with No. of positions <br> $\mathrm{A}=.049$ [1.25] X No. of Positions -1 <br> $B=.049$ [1.25] X No. of Positions + . 068 [1.75] |
| 125SH-A-XX-TS-SMT <br> 1.25 mm VERTICAL SMT HEADER <br> 125SH-A-04-TS-SMT <br> (25SH-A-04-TS-SMT <br> Recommended PCB Layout | Recommended PCB Layout |


| 1.25 mm CRIMP HOUSING <br> 125CH-B-10 <br> Replace (XX) with No. of positions <br> $A=.049$ [1.25] X No. of Positions -1 <br> $B=.049$ [1.25] X No. of Positions + . 017 [0.45] <br> $\mathrm{C}=.049$ [1.25] X No. of Positions + . 068 [1.75] | 1.25mm CRIMP TERMINAL <br> 125CTB-R <br> Recommended wire size 32-28 awg. |
| :---: | :---: |
|  |  |
| 125SH-B-04-TR-SMT | Replace (XX) with No. of positions <br> A=. 049 [1.25] X No. of Positions -1 <br> $B=.049$ [1.25] X No. of Positions + . 068 [1.75] <br> $\mathrm{C}=.049$ [1.25] X No. of Positions + . 187 [4.75] |



(

125SH-G-XX-TR-SMT 1.25 mm RIGHT ANGLE


## 1.5 mm TYPE A

| 1.5mm CRIMP HOUSING | Recommended wire size 26-30 awg. |
| :---: | :---: |
| Replace (XX) with No. of positions <br> A=. 059 [1.50] X No. of Positions -1 <br> $\mathrm{B}=.059$ [1.50] X No. OF SPACES +. 059 [1.50] |  |
| 15SH-A-XX-TS-SMT <br> 1.5mm VERTICAL SMT HEADER <br> Replace (XX) with No. of positions <br> $A=.059$ [1.50] X No. of Positions -1 <br> Recommended <br> $\mathrm{C}=.059$ [1.50] X No. of Positions + . 118 [3.00] PCB Layout |  |

## 1.5mm TYPE B

| 15CH-B-XX <br> 1.5mm CRIMP HOUSING <br> Replace (XX) with No. of positions $A=.059$ [1.50] X No. of Positions -1 <br> $\mathrm{B}=.059$ [1.50] X No. of Positions +. 043 [1.10] | Recommended wire size 28-24 awg. |
| :---: | :---: |
|  | Replace (XX) with No. of positions <br> $A=.059$ [1.50] X No. of Positions -1 <br> $B=.059$ [1.50] X No. of Positions +. 051 [1.30] <br> 15SH-B-XX-TR-SMT <br> 1.5mm RIGHT ANGLE <br> SMT HEADER <br> Recommended PCB Layout |

## 2mm TYPE B

| 2CH-B-XX <br> 2mm CRIMP HOUSING <br> 2CH-B-10 <br> Replace (XX) with No. of positions <br> $B=.079[2.00] \times$ No. of Positions +. 063 [1.60] |  |
| :---: | :---: |
| 2SH-B-XX-TS 2 mm VERTICAL HEADER <br> Recommended <br> $\mathrm{A}=.079$ [2.00] x No. of Positions -1 PCB Layout <br> $B=.079$ [2.00] x No. of Positions +. 078 [2.00] | 2SH-B-XX-TR <br> 2 mm RIGHT ANGLE <br> HEADER <br> 2SH-B-10-TR <br> Recommended <br> Replace (XX) with No. of positions PCB Layout <br> A $=.079$ [2.00] x No. of Positions -1 <br> $B=.079$ [2.00] x No. of Positions +. 078 [2.00] |

2mm TYPE C


## 2mm TYPE D

| 2.0mm CRIMP HOUSING <br> Positions: 2 thru 15 <br> Replace (XX) with No. of positions <br> $A=.079[2.00] \times$ No. of Spaces $\mathrm{B}=.079[2.00] \times \text { No. of Spaces }+.110[2.80]$ $\mathrm{C}=.079 \text { [2.00] } \times \text { No. of Spaces }+.157 \text { [4.00] }$ | 2.0mm CRIMP TERMINAL <br> 2CTD-R <br> Recommended wire size 26-30 awg |
| :---: | :---: |
| 2SH-D-XX-TS <br> 2.0mm VERTICAL HEADER <br> Positions: 2 thru 15 <br> Replace (XX) with No. of positions <br> A $=.079$ [2.00] x No. of Spaces <br> $B=.079[2.00] \times$ No. of Spaces $+.152[3.85]$ | Positions: 2 thru 15 <br> Replace (XX) with No. of positions <br> A = . 079 [2.00] $\times$ No. of Spaces <br> $B=.079[2.00] \times$ No. of Spaces +.152 [3.85] |

## 2mm TYPE F



2mm TYPE F


## 2mm TYPE H



2mm TYPE J


## 2.5mm TYPE E

| Positions: 2 thru 18 <br> Replace (XX) with No. of positions <br> A = . 098 [2.50] x No. of Positions -1 <br> 2.0mm CRIMP HOUSING <br> $B=.098[2.50] \times$ No. of Positions +.130 [3.30] <br> $\mathrm{C}=.098$ [2.50] $\times$ No. of Positions +.193 [4.90] | 25CTE-R <br> Recommended wire size 22-28 awg |
| :---: | :---: |
| Positions: 2 thru 18 <br> Replace (XX) with No. of positions <br> 25SH-E-XX-TS <br> A = . 098 [2.50] x No. of Positions -1 <br> 2.5mm VERTICAL HEADER <br> $B=.098$ [2.50] $\times$ No. of Positions +. 197 [5.00] <br> 25SH-E-05-TS <br> Recommended PCB Layout | Positions: 2 thru 18 <br> Replace (XX) with No. of positions <br> 25SH-E-XX-TR <br> A = . 098 [2.50] x No. of Positions -1 <br> 2.5mm RIGHT ANGLE <br> $B=.098$ [2.50] $\times$ No. of Positions +. 197 [5.00] <br> HEADER <br> PCB Layout |

2.5mm TYPE B

|  |  |
| :---: | :---: |
|  | 2.5mm RIGHT ANGLE HEADER <br> Positions: 2 thru 20 <br> Replace (XX) with No. of positions <br> A = . 098 [2.50] x No. of Positions -1 $\mathrm{B}=.098[2.50] \times \text { No. of Positions + } 102 \text { [2.60] }$ <br> Wire sizes $28-24$ awg. |

## 2.5mm TYPE C

| Positions: 2 thru 20 <br> Replace (XX) with No. of positions <br> A = . 098 [2.50] $\times$ No. of Positions -1 <br> $B=.098[2.50] \times$ No. of Positions + . 178 [2.00] | 25CTC-R <br> 2.5 mm CRIMP TERMINAL |
| :---: | :---: |
| 25SH-C-XX-TS <br> 2.5mm VERTICAL HEADER <br> Positions: 2 thru 15 <br> Replace (XX) with No. of positions <br> A = . 098 [2.50] x No. of Positions -1 <br> PCB Layout <br> $B=.098[2.50] \times$ No. of Positions +.198 [2.50] | 25SH-C-XX-TR <br> 2.5 mm RIGHT ANGLE HEADER <br> Positions: 2 thru 15 <br> Replace (XX) with No. of positions <br> A = . 098 [2.50] x No. of Positions -1 <br> $B=.098[2.50] \times$ No. of Positions +.198 [2.50] <br> PCB Layout |

MTE


A = . 100 [2.54] X No. of SPACES
$B=.100[2.54] \times$ No. of SPACES +.200 [5.08]


MTE-08

DUAL ROW




MTE-C
CRIMP CONTACT


## ORDERING INFORMATION

HOUSING


CRIMP CONTACT


## INTRODUCTION:

Adam Tech CDR \& CDH series latching header \& housing sets were designed to attach wires to a PCB. This series features a latching housing which mates to a polarized, locking header. This set provides a secure, easy to mate connection with superior electrical characteristics.

## FEATURES:

Secure, latching header \& housing sets
Precision .025" sq. posts
Latching housing
Polarized anti-vibration design
Available in 2-12 positions

## MATING CONNECTORS:

All industry standard .100 centerline compatible latching headers and housings

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-0
Insulator Color: Black (White optional)
Contacts: Brass

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250 V AC max.
Current rating: 3 Amps max.
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Recommended wire size: 22 to 28 Awg with .059"
O.D. insulation max.

Temperature Rating:
Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

## 只




HEADER ORDERING INFORMATION

| CDR |  |  |
| :--- | :--- | :--- |

HOUSING ORDERING INFORMATION


POSITIONS
CDH = Latching Housing
02 thru 12
CDN = Non Latching Housing

## CONTACT ORDERING INFORMATION



SERIES INDICATOR CDH-C = Crimp Contact


PACKAGING
B = Loose in bag $\mathbf{R}=$ Chain on reel


## INTRODUCTION:

Adam Tech's Latching Header \& Housing sets were designed to attach wires to a PCB. This series features a friction locking header which mates to a polarized wire housing with crimp contacts. This set provides a secure, easy to mate connection with superior electrical characteristics.

## FEATURES:

Precision . 025" sq. posts
Secure friction lock
Polarized anti-vibration design
Available in 2-20 positions

## MATING CONNECTORS:

All industry standard . 100 centerline compatible latching headers and housings

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-2
Insulator Color: White
Contacts: Phosphor bronze and Brass

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max.
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Recommended wire size: 22 to 28 Awg with .059"
O.D. insulation max.

Temperature Rating:
Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION FRICTION LOCK HEADER


## HOUSING



CRIMP CONTACT

| MTA-C |  |
| :--- | :---: |
| SERIES INDICATOR |  |


| MTA-C $=$ Crimp contact |
| :--- | :--- |

PACKAGING

MTS-C $=$ Crimp contact $\quad$| $\mathbf{R}=6,000$ piece loose cut |
| :--- | :--- |

| LHA <br> STRAIGHT | MTA <br> HOUSING |
| :---: | :---: |
| LHA <br> RIGHT ANGLE | MTA-C CONTACT |
| LHA <br> REVERSE RIGHT ANGLE | Recommended PCB Layout $\begin{aligned} & \mathrm{A}=.100[2.54] \times \text { No. of Spaces } \\ & \mathrm{B}=.100[2.54] \times \mathrm{No} \text { of Spaces }+.100[2.54] \\ & \mathrm{C}=.100[2.54] \times \text { No. of Spaces }+.122[3.11] \end{aligned}$ |


$A=.100[2.54] \times$ No. of Spaces
$B=.100[2.54] \times$ No. of Spaces +.104 [2.65]


Recommended PCB Layout

## INTRODUCTION:

Adam Tech .156" Headers and Housings are two matched sets of Crimp Wire Housings and PCB mounted Latching Headers available in Straight and Right Angle orientation. This system is available with a front locking header, a rear locking header or without a locking feature. Each of the locking types are polarized to fit in only one direction with the housing. This system provides a sturdy, high current, high reliability connection with or without the polarized locking option.

## FEATURES:

Matched Latching Housing \& Header system
Straight, Right Angle mounting Headers
Choice of Two Latching Types
Housings feature High pressure, Low insertion force contacts

## MATING CONNECTORS:

Adam Tech MTB series and all industry standard latching type .156 [ 3.96 mm ] centers

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-2
Insulator Color: Natural
Contacts: Phosphor bronze and Brass
Contact Plating:
Tin over copper underplate overall

## Electrical:

Operation voltage: 250 V AC max.
Current rating: 5 Amp max.
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Recommended wire size: 18 to 24 Awg

## Environmental:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-static plastic bags

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


|  | RIGHT ANGLE WITHOUT BACK <br> 回 <br> LHB-08-SB2 |
| :---: | :---: |
|  | RIGHT ANGLE WITH BACK |
|  | MTB <br> CRIMP CONTACT |
| A = . 156 [3.96] $\times$ No. of Spaces <br> $B=.156$ [3.96] X No. of Positions | Recommended PCB Layout |


| LHC <br> STRAIGHT WITH REAR LOCK | MTC <br> HOUSING |
| :---: | :---: |
|  | MTC-06 |
|  |  |
| LHC <br> RIGHT ANGLE WITH REAR LOCK | MTC-C <br> CRIMP CONTACTS |
|  | MTC-C-R |
| $\begin{aligned} & \mathrm{A}=.156[3.96] \times \text { No. of Spaces } \\ & \mathrm{B}=.156[3.96] \times \text { No. of Spaces }+.156[3.96] \end{aligned}$ | Recommended PCB Layout |



## INTRODUCTION:

Adam Tech's Mini-Flex series of connectors include cable to board, wire to board and board to board choices. This series is designed with a dual contact point mating system and an array of locating posts and PCB pegs for positive alignment and friction lock mating. Rigid, staggered solder tails provide excellent stability for rugged use and feature kinked tails for PCB retention.

## FEATURES:

Fine .050" Pitch for Hi-Density connection
Flat heavy gauge contact blades for positive connectivity
Equipped with Polarizing posts and locating pegs
Positive Friction Locking mating
Kinked solder tails for PCB retention

## SPECIFICATIONS:

## Material:

Insulator: Polyester, glass filled, rated UL94V-0 Insulator Color: Red
Contacts: Phosphor Bronze or Brass

## PLATING:

Tin over Copper underplate overall

## ELECTRICAL:

Operating Voltage: 250V AC
Current Rating: 1.2 Amps Max.
Contact Resistance: $10 \mathrm{~m} \Omega$ Max.
Insulation Resistance: $1000 \mathrm{M} \Omega$ Min.
Dielectric Withstanding Voltage: 750V AC for 1 Minute

## TEMPERATURE RATING:

Operation Temperature: $-25^{\circ} \mathrm{C} \sim+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti ESD plastic trays or Tubes
SAFETY AGENCY APPROVALS:
UL Recognized
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


ORDERING INFORMATION


## OPTIONS

$15=15 u$ " Gold on contact area
$30=30 \mathrm{u}$ " Gold on contact area
L = Locking Flange



Recommended PCB Layout
$\mathrm{A}=.050$ [1.27] X \# of positions +.120 [3.05]
$B=.050[1.27] X$ \# of spaces


MPF-20-SMT-SG


A = . 050 [1.27] X \# of spaces
$\mathrm{B}=.050[1.27] \mathrm{X} \#$ of positions + . 020 [0.52] $\mathrm{C}=.050[1.27] \mathrm{X}$ \# of positions +.078 [2.00] $\mathrm{D}=.050$ [1.27] X \# of positions + . 181 [4.60]


MPH-20-F-SG


MFC
FLAT CABLE TO PCB PLUG


MFC-20-F-SG


Recommended PCB Layout
$\mathrm{A}=.050[1.27] \mathrm{X} \#$ of positions +.120 [3.05]
$B=.050[1.27]$ X \# of spaces

## INTRODUCTION:

Adam Tech's Memory Connector series is a complete range of memory sockets for most memory card applications including Compact Flash, PCMCIA, Memory Stick and Secure Digital. Our advanced designs are focused on their ease of use, mating accuracy, card retention and cycle life. Precision engineered, extremely durable mating contacts and PCB leads contribute to a solid, high reliability, long life design.

## FEATURES:

Multitude of sockets to satisfy most applications
Precision, compact designs
Fine pitched, heavy duty contacts
Sockets conform to CFA, JEIDA, PCMCIA \& JEDEC

## MATING OPTIONS:

All industry standard memory cards

## SPECIFICATIONS:

## Material:

Insulator: PA9 or LCP, glass reinforced, rated UL94V-0
Contacts: Phosphor Bronze
Frame / shield: Brass, nickel plated

## Contact Plating:

Gold over nickel underplate on contact area, tin over copper underplate on tails.

## Electrical:

Operation voltage: 250 V AC max.
Current rating: 0.5 and 1 Amps max.
Contact resistance: $40 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 10,000 cycles min.

## Temperature Rating:

Operating temperature: $-20^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

Memory Stick


Micro Secure Digital
(Push-Push Type)


Mini Secure Digital


## Compact Flash



SIM Card Sockets, Hinge Type, Push-Push, Top Mount SMT

MINI \& MICRO
SECURE DIGITAL SOCKETS


SECURE DIGITAL


## COMPACT FLASH SOCKETS

## 50 PIN SLIM TYPE

| COMPACT FLASH TYPE II, SHORT SLIDE TOP MOUNT SMT <br> Type II card connectors in broad range of styles with multiple profiles and slide options <br>  <br> CF SERIES | COMPACT FLASH <br> SLIM TYPE I/II TOP MOUNT SMT <br> Type I \& II card connector in broad range of styles with multiple profiles and slide options <br> CF SERIES |
| :---: | :---: |

## COMPACT FLASH SOCKETS

COMPACT FLASH
TYPE I
CFMPACT FLASH
TYP I EJECTOR

COMPACT FLASH SOCKETS STRADDLE MOUNT \& SURFACE MOUNT


MEMORY STICK \& SIM CARD SOCKET


## INTRODUCTION:

Adam Tech 0.8 mm and 1.00 mm Pin Header and Female Header series is a fine pitch, low profile, dual row, PCB mounted connector set intended for limited space applications or where total weight is a factor. Our specially tooled insulators and contacts maintain consistent high quality through our automated production processes. Each series is available in thru-hole PCB or SMT mounting and plated tin, gold or selective gold as specified.

## FEATURES:

0.8 mm and 1.0 mm versions

Pin Header and Female Header set
Lightweight and Compact
Hi Temp Insulators

## MATING OPTIONS:

Mates with all industry standard 0.8 mm \& 1.0 mm pitch headers and female headers

## SPECIFICATIONS:

## Material:

Standard Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Plating:

$\mathrm{U}=$ Gold over nickel underplate
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall.

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 500 cycles min.
Temperature Ratings:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Max process temp: $230^{\circ} \mathrm{C}$ for $30 \sim 60$ seconds
( $260^{\circ} \mathrm{C}$ for 10 seconds)
Soldering process temperature: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic bags or tubes
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053
0.8mm MALE ORDERING INFORMATION

0.8mm FEMALE ORDERING INFORMATION


## 1.Omm MALE ORDERING INFORMATION



## 1.Omm FEMALE ORDERING INFORMATION



MPH \& SPH / MRS \& SRS

## 0.8 mm SUB-MICRO HEADERS

|  | $\mathrm{A}=.031[.80] \times$ No of Positions Per Row | SRS2-60-U <br> 0.8 mm Female Header SRS2 Series |
| :---: | :---: | :---: |
|  | $\mathrm{A}=.031[.80] \mathrm{X}$ No of Positions Per Row | SRS2-60-U-SMT <br> 0.8 mm SMT Female Header |

## 1.0mm MICRO HEADERS



## INTRODUCTION:

Adam Tech .050" HPH Series Pin Headers are fine pitched, low profile, PCB mounted pin headers intended for limited space applications or where overall size is a factor. Our specially tooled insulators and contacts offer consistent high quality through automated production processes. This series offers an extensive range of single, dual and stacked versions. Each is available in thru-hole PCB or SMT mounting with choice of tin, gold or selective gold plating.

## FEATURES:

Single and Dual Row
Stacked, Thru-Hole and SMT mounting
Pin Header and Female Header sets
Lightweight and Compact
Hi Temp Insulator available
Choice of plating

## MATING OPTIONS:

Mates with all industry standard .050 " [1.27mm] pitch female headers designed for use with 0.4 mm Sq. pins and Low profile receptacle

## SPECIFICATIONS:

## Material:

Standard Hi-Temp insulator: Nylon 6T or Nylon 46, rated UL94V-0 Insulator Color: Black
Contacts: Brass or Phosphor Bronze

## Plating:

U = Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega \mathrm{max}$. Initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 500 Cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

## OPTIONS:

Add designator(s) to end of part number
HT = Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)
SMT = Dual Row Surface Mount leads with Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
SMT-A = Single Row Surface Mount Leads Type A
SMT-B = Single Row Surface Mount Leads Type B
P = Optional locating peg


ORDERING INFORMATION


050" Single row
Pin Header
HPH2 =
.050" Dual Row
Pin Header

## INSULATOR

SIZE
A $=1.00 \mathrm{~mm}$ insulator thickness single or dual row
(dual row .050"x.050")
B =.100" insulator thickness single or dual row (dual row .050"x.100")

## ORDERING INFORMATION



SERIES INDICATOR DHPH =
Dual insulator .050" centerline Pin Header

NO. OF ROWS
1 = Single row .050"
2 = Dual row
.050"x.100"

## SPECIFIED IN INCHES

AS: C DIM./D DIM./E DIM.
(replace D Dim. with SMT
for surface mount option)

## PLATING

SG = Selective gold plating in contact area and Tin plating on solder tails
U = Gold Plated
$\mathbf{T}=$ Tin Plated

## POSITIONS

01 thru 50 (single row)
04 thru 100 (dual row)

| $A=.050$ [1.27] X No. of Positions <br> $B=.050$ [1.27] X No. of Spaces <br> Recommended PCB Layout | HPH1-A <br> SINGLE ROW STRAIGHT WITH 1.00 mm INSULATOR <br> HPH1-A-20-UA |
| :---: | :---: |
| A = . 050 [1.27] X No. of Positions <br> $B=.050[1.27] \times$ No. of Spaces <br> Recommended PCB Layout | HPH1-B <br> SINGLE ROW STRAIGHT WITH .100" INSULATOR $120111410414111141 / 1$ <br> HPH1-B-20-UA |
| $\begin{aligned} & A=.050[1.27] \times \text { No. of Positions per row } \\ & B=.050[1.27] \times \text { No. of Spaces } \end{aligned}$ <br> Recommended PCB Layout | HPH2-A <br> DUAL ROW STRAIGHT <br> WITH 1.00mm INSULATOR <br> Whwnwnewnentwhy <br> HPH2-A-40-UA |
| $\begin{aligned} & A=.050[1.27] \times \text { No. of Positions per row } \\ & B=.050[1.27] \times \text { No. of Spaces } \end{aligned}$ <br> Recommended PCB Layout | HPH2-B <br> DUAL ROW STRAIGHT WITH .100" INSULATOR |
| A $=.050[1.27] \times$ No. of Positions $B=.050[1.27] \times$ No. of Spaces <br> Recommended PCB Layout | HPH1-A (SMT) <br> SINGLE ROW STRAIGHT SMT WITH 1.00 mm INSULATOR <br>  <br> HPH1-A-20-UA-SMT |
| $\begin{aligned} & A=.050[1.27] \times \text { No. of Positions } \\ & B=.050[1.27] \times \text { No. of Spaces } \end{aligned}$ <br> Recommended PCB Layout |  |


| $\begin{aligned} & \mathrm{A}=.050[1.27] \times \text { No. of Positions per row } \\ & \mathrm{B}=.050[1.27] \times \text { No. of Spaces } \\ & \quad \text { Recommended PCB Layout } \end{aligned}$ |  | (SM |
| :---: | :---: | :---: |
|  |  | Dwg. |
| A $=.050[1.27] \times$ No. of Positions per row $B=.050[1.27] \times$ No. of Spaces Recommended PCB Layout |  | HPH2-B (SMT) |
|  |  | HPH2-B-40-UA-SMT |
| A = . 050 [1.27] X No. of Positions $B=.050[1.27] \times$ No. of Spaces <br> Recommended PCB Layout |  |  |
|  |  | DHPH-1-20-U-.079/.079/.354 |
| A $=.050$ [1.27] X No. of Positions per row $B=.050[1.27] \times$ No. of Spaces <br> Recommended PCB Layout $\underset{[2.54]}{.100} \mathbb{T} \circ \circ \circ \circ \circ \circ \circ \circ \circ \circ$ |  | DHPH-2 <br> DHPH-2-32-U-.079/.079/.354 |
| A =. 050 [1.27] X No. of Positions $B=.050[1.27] \times$ No. of Spaces <br> Recommended PCB Layout |  | HPH-1 (SMT) |
|  |  | DHPH-1-10-U-.079/SMT-A/.3.54 |
| $\begin{aligned} & A=.050[1.27] \times \text { No. of Positions per row } \\ & B=.050[1.27] \times \text { No. of Spaces } \end{aligned}$ <br> Recommended PCB Layout |  | DHPH-2 (SMT) |
|  |  | DHPH-2-40-U-.079/SMT/.3.54 |


| MALE HEADER <br> ORDERING INFORMATION <br> HSH <br> 50 <br> G | Standard: With key \& without peg $\begin{aligned} & \mathrm{A}=.050 \times \text { No. of Spaces }+.168[4.27] \\ & \mathrm{B}=.500 \times \text { No. of Spaces }+.074[1.87] \\ & \mathrm{C}=.050 \times \text { No. of Spaces } \end{aligned}$ |
| :---: | :---: |
| SERIES PLATING <br> INDICATOR G $=$ Gold plated <br> HSH $=$ T |  |
| FEMALE HEADER <br> ORDERING INFORMATION <br> HFH <br> 50 <br> G | Recommended PCB Layout <br> $\mathrm{A}=.050 \mathrm{XNo}$. of Spaces +.068 [1.73] <br> $\mathrm{B}=.050 \times$ No. of Spaces <br> $\mathrm{C}=.050 \mathrm{X}$ No. of Spaces +.120 [3.05] <br> HFH SERIES <br> SHROUDED FEMALE HEADER |
|  |  |
| OPTIONS: $\begin{aligned} \text { SMT } & =\text { Surface mount leads } \\ & \text { with Hi-Temp insulator } \\ \mathbf{N P} & =\text { No peg } \\ \mathbf{N K} & =\text { No Key } \\ \mathbf{P} & =\text { Peg option (thru hole only) } \end{aligned}$ |  |

## HBHR SERIES

Adam Tech HBHR Series .050" Box Headers are fine pitched, dual row shrouded headers for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi-Temp insulator. Additional options include latches and custom pin lengths.

## FEATURES:

Shrouded, insulated connection
Superior low profile design
Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Options include Elevated types and integral latches
Hi-Temp insulator available

## MATING RECEPTACLES:

Mates with all industry standard .050 " $[1.27 \mathrm{~mm}$ ] pitch dual row IDC sockets

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, glass reinforced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Brass

## Plating:

$\mathrm{G}=$ Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053


## ORDERING INFORMATION



This series is availabe in an elevated version similar to our BHRE Series as shown on pgs. 286-287

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
SMT = Surface mount leads with Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
HT = Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)


## INTRODUCTION:

Adam Tech HMHR Series .050" Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

## FEATURES:

Integral Latches provide Shock and Vibration Proof connection Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Elevated option available
Hi-Temp insulator available

## MATING SOCKETS:

.050" X .050" \& .050" X .100" Dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate overall
SG = Gold over nickel on contact area,
Tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250 V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Mating durability: 500 Cycles min.

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION

| HMHR | 26 | V | U | A | L |
| :---: | :---: | :---: | :---: | :---: | :---: |
| SERIES |  |  |  |  | LATCHING |
| INDICATOR |  |  |  |  | FEATURES |
| HMHR = |  |  |  |  | S = Short latches |
| $\text { .050" x . } 100 \text { " }$ |  |  |  |  | (for sockets |
| $\begin{aligned} & 2 \text { row PCB } \\ & \text { HMHR-A = } \end{aligned}$ |  |  |  |  | w/o strain relief) |
| .050" x .050" |  |  |  |  | L = Long latches |
| 2 row PCB |  |  |  |  | (for sockets |
| HMHR-B = |  |  |  |  | w/strain relief |
| .050" x . 100 " |  |  |  |  | $\mathrm{N}=$ No latches |

POSITIONS
10, 16, 20, 26,
30, 32, 34, 40,
44, 50, 52, 60,
64, 68, 70, 80,
100

MOUNTING ANGLE
$\mathbf{V}=$ Straight Mount
H = Right Angle Mount

## PIN LENGTHS

A = Standard length solder tail
B = Special length, customer specified

CONTACT PLATING
$\mathbf{U}=$ Gold plated
$\mathbf{S G}=$ Gold plating in contact area, Tin plated solder tails
$\mathbf{T}=$ Tin plated

OPTIONS:
Add designator(s) to end of part number
SMT = Surface mount leads Dual row with Hi-Temp insulator HT = High-temp insulator for high-temp soldering processes

HMHR-A
.050" X .050"


HMHR-A-50-VUAS


Recommended PCB Layout
$A=.050[1.27] \times$ No. of Spaces +.233 [5.92]
$B=.050[1.27] \times$ No. of Spaces
$\mathrm{C}=.050[1.27] \times$ No. of Spaces +.621 [15.77]
HMHR-A
.050" X .050"
RIGHT ANGLE PCB MOUNT

$A=.050[1.27] \times$ No. of Spaces +.233 [5.92]
$B=.050[1.27] \times$ No. of Spaces


Recommended PCB Layout

HMHR-A


Recommended PCB Layout

HMHR-B
.050" X .100"
STRAIGHT PCB MOUNT


HMHR-B-50-VUAL
$\mathrm{A}=.050$ [1.27] X No. of Spaces +.306 [7.78]
$B=.050[1.27] \times$ No. of Spaces
$C=.050[1.27]$ X No. of Spaces +.829 [21.07]

HMHR-B
.050" X . 100" 4 ROW RIGHT ANGLE PCB MOUNT


HMHR-B-60-HUAL
$A=.050[1.27] \times$ No. of Spaces $+.306[7.78]$
$B=.050[1.27]$ X No. of Spaces
$\mathrm{C}=.050$ [1.27] X No. of Spaces +.829 [21.07]


Recommended PCB Layout

Latch Options


## Header with

Short Ejector/Latch for Sockets without Strain Reliefs


Header with Long Ejector/Latch for Sockets with Strain Reliefs


HMHR-80-VUAS

$\mathrm{A}=.050[1.27] \times$ No. of Spaces $+.306[7.78]$ $B=.050[1.27] \times$ No. of Spaces C = . 050 [1.27] X No. of Spaces + . 829 [21.07]

HMHR
.050" X .100"


RIGHT ANGLE PCB MOUNT

$\mathrm{A}=.050[1.27] \times$ No. of Spaces $+.306[7.78]$ $B=.050[1.27]$ X No. of Spaces $\mathrm{C}=.050[1.27] \mathrm{X}$ No. of Spaces +.829 [21.07]


Latch Options


Header with Short Ejector/Latch for Sockets without Strain Reliefs


Header with Long Ejector/Latch for Sockets with Strain Reliefs

## INTRODUCTION:

Adam Tech HRS Series .050" Receptacle Strips are offered in a multitude of sizes and profiles designed to satisfy most .050" socket requirements. Available in Single and Dual rows they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which produces a high normal force connection and is available with gold, tin or selective gold plating. All are available with standard or Hi-Temp thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape \& reel packaging.

## FEATURES:

Broad range of sizes and profiles
Contact systems with high normal force
Choice of contact plating
SMT pick \& place option
Optional Tape \& reel packaging

## MATING CONNECTORS

Adam Tech HPH headers and all industry standard .050" pitch pin headers with .016 " $[0.4 \mathrm{~mm}$ ] square pins

## SPECIFICATIONS:

## Material:

Insulator: Hi-Temp insulator: Nylon 6T, rated UL94V-0 Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

G = Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.375 lbs per contact max. Withdrawal force: 0.125 lbs per contact min.

## Temperature rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD trays or tubes
(Tape and Reel optional for SMT type)
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053



ORDERING INFORMATION


SERIES
INDICATOR
HRS = .050"
Receptacle Strip
NO. OF ROWS / PROFILE
1A = Single Row, Standard Profile
1B = Single Row, Low Profile
1C = Single Row, .085" Height
2A = Dual Row, Standard Profile .050"x.100"
2B = Dual Row, Low Profile .050"x. 100 "
2C = Dual Row, Low Profile .050"x.050"(SMT) or PCB
2F = Dual Row, Low Profile .050"x. 100"(SMT)
1F = Single Row (SMT) .228" Height
1G = Single Row, .079" Height, Top Entry, (SMT)
2E = Dual Row, . 134" Height .050"x.050" (SMT or PCB)
2F = Dual Row, .230" Height .050"x. 100 "
2G = Dual Row, .085" Height .050"x.050" (SMT)

## CONTACT

## PLATING

G = Gold plated

## T = Tin plated

$\mathbf{S G}=$ Gold plated contact area,
tin plated solder tails

NO. OF POSITIONS
Single Row: 02 thru 40
Dual Row: 04 thru 80
.050" RECEPTACLE STRIPS .079", .085", . 181 " \& .335" HEIGHT

| TITM M ITMI <br> HRS-1B-12-GA | HRS-2B <br> HRS-2B-24-GA |
| :---: | :---: |
| HRS-1A-12-GA | HRS-2A-24-GA |
|  |  |



| HRS-1C <br> SINGLE ROW <br> HRS-1C-13-GA $\begin{aligned} & A=.050[1.27] X \text { No. of Pos. }+.018[0.46] \\ & B=.050[1.27] \times \text { No. of Spaces } \end{aligned}$ | Ordering Information <br> DUAL ROW pg. 294 <br> HRS-2C-26-GA $\begin{aligned} \mathrm{A}= & .050[1.27] \mathrm{X} \text { No. of Pos. } \\ & +.018[0.46] \\ \mathrm{B}= & .050[1.27] \mathrm{X} \text { No. of Spaces } \end{aligned}$ |
| :---: | :---: |
| HRS-2C-SMT <br> DUAL ROW WITH END PEGS <br> HRS-2C-20-SG-SMT-E <br> OPTIONAL <br> $B=.050[1.27]$ X No. of Spaces | HRS-2C-SMT <br> DUAL ROW WITH UNDERSIDE PEGS <br> HRS-2C-20-SG-SMT <br> $A=.050[1.27] \times$ No. of Pos. $+.018[0.46] \quad$ Optional <br> $B=.050[1.27] X$ No. of Spaces |
| HRS-2E <br> DUAL ROW |  |
|  |  |
|  |  |

## INTRODUCTION

Adam Tech 2PH \& D2PH Series 2.0 mm Pin Headers offer a full range of fine pitched headers in a variety of configurations including Single, Dual and Three rows, Straight \& Right Angle in Thru-Hole or SMT mounting. Their close tolerance .020" sq. posts are smoothly finished and taper tipped to eliminate insertion damage to the PCB or mating connector. Adam Tech 2.0 mm Pin Headers can be easily cut into exact sizes as required. Options include stacked insulator versions and choice of tin, gold or selective gold plating. This series is compatible with all industry standard 2.0 mm pitch mating connectors.

## FEATURES:

Single, Dual or Three Row
Tin, gold or selective gold plating options
Thru-hole or SMT mounting
Stacked and Custom length versions available
Versatile Breakaway design
Hi Temp Insulator available

## MATING RECEPTACLES:

Mates with all industry standard .050 " pitch female headers

## SPECIFICATIONS:

## Material:

Standard insulator: PBT, glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 1,000 cycles

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature: $260^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic bags
(Tape and Reel available for SMT option)
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053

ORDERING INFORMATION


B = Special length, customer specified defined as: tail dim/total length

PLATING
$\mathbf{U}=$ Gold plated
$\mathbf{T}=$ Tin plated
SG = Selective gold plating in contact area, tin plating on solder tails
POSITIONS
Single row: 1 thru 40
Dual row: 2 thru 80

## ORDERING INFORMATION DUAL INSULATOR HEADERS



POSITIONS
Single row: 2 thru 40
Dual row: 4 thru 80
OPTIONS: Add designator(s) to end of part number
SMT = Surface Mount leads Dual Row
SMT-A = Surface Mount leads Type A
SMT-B = Surface Mount Leads Type B
HT = Hi-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$
(Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)
$\mathbf{L}=$ Low profile 1.5 mm insulator thickness
P = Locating pegs
BR = Board retention solder tails

| $\begin{aligned} & A=.079 "[2.00] \times \text { No. of positions } \\ & B=.079 "[2.00] \times \text { No. of spaces } \end{aligned}$ | 2PH1-16-UA <br> Recommended PCB Layout |
| :---: | :---: |
| $\begin{aligned} & A=.079^{"}[2.00] \times \text { No. of positions } \\ & B=.079^{\prime \prime}[2.00] \times \text { No. of spaces } \end{aligned}$ | 2PH1R-16-UA <br> Recommended PCB Layout |
| $A=.079^{\prime \prime}[2.00] \times$ No. of positions $B=.079^{\prime \prime}[2.00] \times$ No. of spaces | 2PH2-32-UA <br> Recommended PCB Layout |
| $\text { A = .079" [2.00] } \times \text { No. of positions }$ B = .079" [2.00] x No. of spaces | Recommended PCB Layout |




## INTRODUCTION:

Adam Tech 2BHR Series 2.0mm Box Headers are dual row shrouded headers for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi-Temp insulator. Additional options include latches and custom pin lengths.

## FEATURES:

Shrouded, insulated connection
Superior low profile design
Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Options include Elevated types and integral latches
Hi-Temp insulator available

## MATING SOCKETS:

Adam Tech .079" [2.0mm] X .079" [2.0mm] dual row IDC sockets
SPECIFICATIONS:

## Material:

Standard insulator: PBT, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Brass

## Plating:

U = Gold over nickel underplate
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Mating durability: 500 cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## APPROVALS AND CERTIFICATIONS:

UL Recognized File no. E224053

HITEMP
TNSULASOR


## INTRODUCTION:

Adam Tech 2MHR Series 2mm Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

## FEATURES:

Integral Latches provide Shock and Vibration Proof connection Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Elevated option available
Hi-Temp insulator available

## MATING SOCKETS:

2mm X 2mm Dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass

## Plating:

U = Gold over nickel underplate overall
SG = Gold over nickel on contact area,
Tin over copper underplate on tails.
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega \mathrm{max}$. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Mating durability: 500 Cycles min.
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


2 mm Shrouded Header w/Latches

S = Short latches (for sockets w/o strain relief)
L = Long latches (for sockets w/strain relief) $\mathrm{N}=$ No latches

## PIN LENGTHS

A = Standard length solder tail
MOUNTING ANGLE
B = Special length, customer specified

H = Right Angle Mount

This series is availabe in an elevated version similar to our BHRE Series as shown on pgs. 322-323

## CONTACT PLATING

$\mathbf{U}=$ Gold plated
SG = Gold plating in contact area, Tin plated solder tails $\mathbf{T}=$ Tin plated

OPTIONS:
Add designator(s) to end of part number
HT = High-temp insulator for high-temp soldering processes

$\mathrm{A}=.079[2.00] \mathrm{X}$ No. of Spaces +.697 [17.70] B = . 079 [2.00] X No. of Spaces


| LATCH DIMENSIONS |  |  |
| :--- | :---: | :---: |
|  | X | Y |
| LONG LATCH | $.775[19.70]$ | $.452[11.50]$ |
| SHORT LATCH | $.665[16.90]$ | $.342[8.70]$ |

2MHR


2MHR-40-HUAS


Recommended PCB Layout

## INTRODUCTION:

Adam Tech 2RS Series 2.00 mm Receptacle Strips are offered in several sizes and profiles designed to satisfy most 2.00 mm socket requirements. Available in Single and Dual rows, they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which uses a wiping mating action and produces a high normal force connection with gold, tin or selective gold plating. All are available with Standard or Hi-Temp Thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape \& reel packaging.

## FEATURES:

Single and dual row in straight, right angle and SMT mounting forms Top, side and bottom entry versions
Plated full gold, full tin or duplex plated
Five different body heights
Standard PBT insulator or optional Hi Temp insulator
Tape and reel packaging available

## MATING CONNECTORS:

Adam Tech 2PH headers and all industry standard 2.0 mm pin headers with a $.020 "[0.5 \mathrm{~mm}]$ square pin.

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

G = Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250 V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.313 lbs per contact max.
Withdrawal force: 0.175 lbs per contact min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
(Tape and Reel optional for SMT option)
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


2RS1 $=2.00 \mathrm{~mm}$ Single Row, Vertical Mount, Receptacle
2RS2 $=2.00 \mathrm{~mm}$ Dual Row, Vertical Mount, Receptacle
2RS1R $=2.00 \mathrm{~mm}$ Single Row, Right Angle, Receptacle
2RS2R $=2.00 \mathrm{~mm}$ Dual Row, Right Angle, Receptacle

POSITIONS SINGLE ROW: 2 thru 40 DUAL ROW: 4 thru 80

2RS4 $=2.00 \mathrm{~mm} 4$ Row, Vertical Mount, Receptacle
2RS2BR $=2.00 \mathrm{~mm}$ Dual Row, Right Angle, 3 -Sided Contact Receptacle
2RS1H $=2.00 \mathrm{~mm}$ Single Row, Vertical Mount, .248" Height Receptacle
2RS2H $=2.00 \mathrm{~mm}$ Dual Row, Vertical Mount, .248" Height Receptacle
2RS2T $=2.00 \mathrm{~mm}$ Dual Row, Surface Mount, .106" Height, Top Entry Receptacle
2RS2B $=2.00 \mathrm{~mm}$ Dual Row, Surface Mount, .106" Height, Bottom Entry Receptacle

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
SMT = SMT leads with Hi-Temp insulator dual row
SMT-A = SMT Single Row Type A with Hi-Temp insulator
SMT-B = SMT Single Row Type B with Hi-Temp insulator
$\mathbf{P}=$ Optional guide peg on SMT version
PP = Pick and place pad
HT = Hi-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)



|  | A $=.079$ [2.00] X No. of Positions B = . 079 [2.00] x No of Spaces | 2RS1H-16-G <br> Recommended PCB Layout |
| :---: | :---: | :---: |
|  | A = . 079 [2.00] X No. of Positions Per Row B = . 079 [2.00] x No of Spaces | 2RS2H-32-G <br> Recommended PCB Layout |
|  | A $=.079$ [2.00] X No. of Positions Per Row B = . 079 [2.00] $\times$ No of Spaces | 2RS2T-SMT TOP ENTRY SOCKET <br> -SMT <br> Recommended PCB Layout |
|  | A $=.079$ [2.00] X No. of Positions Per Row B $=.079$ [2.00] $\times$ No of Spaces | 2RS2B-SMT <br> BOTTOM ENTRY SOCKET |
|  |  | Recommended PCB Layout |

## INTRODUCTION:

Adam Tech PH Series .100" Pin Headers are a full range headers in a variety of configurations including Single, Dual and Three rows, Straight or Right Angle in Thru-Hole or SMT mounting. Their close tolerance .025" sq. posts are smoothly finished and taper tipped to eliminate insertion damage to the PCB or mating connector. Adam Tech Pin Headers can be easily cut into exact sizes as required. Options include stacked insulator versions and choice of tin, gold or selective gold plating. This series is compatible with all industry standard .100 " pitch pin headers.

## FEATURES:

Single, Dual or Three Row
Tin, gold or selective gold plating options
Thru-hole or SMT mounting
Stacked and Custom length versions available
Versatile Breakaway design
Hi Temp Insulator available

## MATING RECEPTACLES:

Mates with all industry standard receptacles accepting a .025" square post on . 100 " $[2.54 \mathrm{~mm}$ ] centerlines

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 2 oz lbs max.
Withdrawal force: . 75 oz lbs min
Mating durability: 1000 cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
Soldering process temperature:
Standard insulator: $235^{\circ} \mathrm{C}$
Hi-Temp insulator: $260^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053



## ORDERING INFORMATION



PH1RA = Single Row, Right Angle, High Profile
PH1RB= Single Row, Right Angle, Low Profile
PH2 = Dual Row, Straight
PH2RA = Dual Row, Right Angle
PH3 = Three Row, Straight
PH3RA = Three Row, Right Angle

POSITIONS-
PH1: 1 thru 40
PH2: 2 thru 80
PH3: 3 thru 120

## PLATING

$\mathbf{U}=$ Gold flash overall
$\mathbf{V}=15 \mu$ in gold on mating area $100 \mu$ in tin on solder tail
$\mathbf{W}=30 \mu$ in gold on mating area $100 \mu$ in tin on solder tail
$\mathbf{T}=100 \mu$ in tin overall
SG = Gold flash on mating area $100 \mu \mathrm{in}$ tin on solder tail

## OPTIONS:

Add designator(s) to end of part number
SMT = Surface mount leads Dual row with Hi -Temp insulator
SMT-A = Surface mount leads Type A with Hi-Temp insulator
SMT-B = Surface mount leads Type B with Hi-Temp insulator
HT = Hi-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)
$\mathbf{L}=$ Low profile 1.50 mm insulator thickness


PH1-16-UA


Recommended PCB Layout

$A=.100[2.54] \times$ No. of Positions per row.
$B=.100[2.54] \times$ No. of Spaces.
PH2
DUAL ROW



PH2-32-UA

Recommended PCB Layout


PH3
TRIPLE ROW


Recommended PCB Layout


$A=.100[2.54] \times$ No. of Positions.
$B=.100$ [2.54] X No. of Spaces.
$A=.100[2.54] \times$ No. of Positions per row.
$B=.100$ [2.54] X No. of Spaces.

PH2RA
DUAL ROW


$A=.100[2.54] \times$ No. of Positions per row.
$B=.100[2.54] \times$ No. of Spaces.



PH3RA
TRIPLE ROW


PH3RA-48-UA


$A=.100[2.54] \times$ No. of Positions. $B=.100[2.54] \times$ No. of Spaces.



PH1-15-UA-SMT-B


PH1
SMT-SINGLE ROW STRAIGHT



PH2-26-UA-SMT

$\mathrm{A}=.100$ [2.54] X No. of Positions.
$B=.100[2.54]$ X No. of Spaces.


SMT-SINGLE ROW RIGHT ANGLE


PH1RB-10-UA-SMT


Recommended PCB Layout



## INTRODUCTION:

Adam Tech MS Series Mini Shunts are available in .050", 2.0 mm , .100 "and .200 " centerlines. They quickly and easily jump individual pins on pin headers to perform manual programming on PCB's. This series offers a broad range of sizes, shapes and colors. Shunts are designed with detents at top for easy fingertip installation and removal. Options include integrated pull tabs and gang types which are molded in one piece. This series is extremely low cost and is a highly economical, cost effective solution to replacing PCB switches. Adam Tech's shunts are available in Gold or Tin plating.

## FEATURES:

Electrically connects two or more pin header posts
Wide variety of bodies and styles to choose from
Superior insulator design provides easy Fingertip extraction
Pull Tab and Ganged options available
Choice of Gold or Tin-plated contact area
Side and end stackable

## MATING OPTIONS:

Mates with $.025^{\prime \prime}$ sq. pin headers on .100 " centers and all industry standard pin headers with $.025^{\prime \prime}$ square post on .100 " [2.54mm] centerlines.

## SPECIFICATIONS:

## Material:

Insulator: PBT, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

$\mathrm{G}=$ Gold over nickel underplate overall
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 1.57 lbs max.
Withdrawal force: . 65 lbs min
Mating durability: 50 Cycles Gold
20 Cycles Tin

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

## "  <br> 

## ORDERING INFORMATION



## BODY STYLE/HEIGHT

MSA = Closed top, . $256{ }^{\prime \prime}$
MSB = Open top, .236"
ING
G = Gold plated
T = Tin plated
MSC = Open top, .177"
MSDA = Closed top, . $315^{\prime \prime}$
MSDB = Open top, $.315^{\prime \prime}$
MSBH = Handle-top, $.531^{\prime \prime}$
HMSA = .050" Mini Shunt ( $1 \times 2$ )
HMSB $=.050$ " Mini Shunt $(2 \times 2)$
HMSC = .050" Mini Shunt, .118"
MSE = Closed top, 3 position
MST = 10 piece strip
MSBG = Ganged, block type
(Specify \# of positions, 2 thru 10)
2.00mm SHUNTS - pg. 267

## OPTIONS:

Add designator(s) to end of part number $30=30 \mu$ in gold plating in contact area

STANDARD INSULATOR COLOR IS BLACK
Other insulator colors available
Add designator(s) to end of part number
$\mathbf{R}=$ Red ${ }^{*}$
B = Blue *
$\mathbf{W}=$ White *
Y = Yellow *
$\mathbf{G}=$ Green *

* Minimum order required



## INTRODUCTION:

Adam Tech BHR Series .100" Box Headers are a dual row shrouded header for use with dual row IDC female socket connectors. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Box Headers are available in Straight PCB Mount, Right Angle PCB Mount and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold. SMT versions are manufactured with a Hi -Temp insulator. Additional options include latches and custom pin lengths.

## FEATURES:

Superior low profile design
Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Options include Elevated types and integral latches Hi-Temp insulator available

## MATING SOCKETS:

Adam Tech $.100 " \mathrm{X} .100^{\prime \prime}$ dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 500 cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## SAFETY AGENCY APPROVALS:

UL Recognized File no. E224053


## ORDERING INFORMATION



## OPTIONS:

Add designator(s) to end of part number
LL = Box header with long plastic latches
SL= Box header with short plastic latches
ML= Box header with long metal latches
$\mathbf{M S}=$ Box header with short metal latches
$30=30 \mu$ in gold plating in contact area
GY = Gray color insulator
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)


A $=.100$ [2.54] X No. of Positions $/ 2+.300$ [7.62]
$B=.100[2.54]$ X No. of Positions $/ 2+.200$ [5.08] $\mathrm{C}=.100$ [2.54] X No. of Spaces


RIGHT ANGLE PCB MOUNT


Recommended PCB Layout

. 025 [0.64] SQ.

BHR


BHR-30-VSG-SMT


Recommended PCB Layout

STRAIGHT MOUNT BOX HEADER WITH LATCHES

$=.100[2.54]$ X No. of Positions $/ 2+.301[7.66]$
$=.100[2.54]$ X No. of Positions $/ 2+.189$ [4.80] $=.100$ [2.54] X No. of Positions /2 -1

BHR


BHR-34-HUA-ML


| LATCH TYPE | DIMENSIONS |  |
| :---: | :---: | :---: |
|  | X | Y |
| LONG LATCH (-ML) | $1.035[26.30]$ | $.575[14.60]$ |
| SHORT LATCH $(-\mathrm{MS})$ | $.901[22.90]$ | $.417[10.60]$ |

## INTRODUCTION:

Adam Tech BHRE Series Elevated Box Headers provide all of the advantages of our standard Box Headers such as our Low Profile design, snug fit \& polarized mating but have additional plastic insulators in place to stabilize rows of pins for stacking applications. This series is available in Straight, Right Angle \& SMT mounting with standard or customer specified Stacking Heights and PCB tail lengths.

## FEATURES:

Elevated for Stacking applications
Low Profile design
Straight, Right Angle \& SMT mounting options
Standard or customer specified Stacking
Heights \& PCB tail lengths

## MATING SOCKETS:

Adam Tech .100" X .100" dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
T = Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute
Mechanical:
Mating durability: 500 cycles min.
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


## OPTIONS:

Add designator(s) to end of part number
$30=30 u^{\prime \prime}$ Gold on contact area
GY = Gray color insulator
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi -Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)


## INTRODUCTION:

Adam Tech MHR Series .100" pitch Latch Headers are dual row, PCB mounted, shrouded headers with latches for use with dual row IDC female socket connectors. In addition to providing a shock and vibration proof connection the locking latches also act as ejectors to remove the mating socket. Our low profile, space saving design has a center slot for the socket's polarization bump. Adam Tech's Latch Headers are available in Straight PCB Mount, Right Angle PCB and SMT Mounting. Plating options include choice of Gold, Tin or Selective Gold

## FEATURES:

Integral Latches provide Shock and Vibration Proof connection Slot for IDC socket Polarization bump
Straight PCB, Right Angle PCB and SMT versions
Gold, Tin or Selective Gold plating
Elevated option available
Hi-Temp insulator available

## MATING SOCKETS:

.100" X .100" Dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass

## Plating:

$\mathrm{U}=$ Gold over nickel underplate overall
SG = Gold over nickel on contact area, Tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Mating durability: 500 Cycles min.
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


MOUNTING ANGLE
V = Straight Mount
H = Right Angle Mount

This series is availabe in an elevated version similar to our BHRE Series as shown on pgs. 322-323

OPTIONS:

## PIN LENGTHS

A = Standard length solder tail
B = Special length, customer specified

Add designator(s) to end of part number
GY = Gray color insulator
HT = High-temp insulator for high-temp soldering processes


## INTRODUCTION:

Adam Tech RS Series .100 " pitch Receptacle Strips are a series of sockets offered in a multitude of sizes and profiles designed to satisfy most .100 " pitch socket requirements. Available in Single, Dual and Triple row, they are offered in Straight, Right Angle, SMT, Bottom Entry and Pass Through PCB mounting styles. Each type has a specially designed contact system which uses a wiping mating action and produces a high normal force connection with gold, tin or selective gold plating. All are available with Standard or Hi-Temp Thermoplastic insulators. Our SMT offering is available with optional pick and place pads and tape \& reel packaging.

## FEATURES:

Broad range of sizes and profiles
Contact systems with high normal force
Choice of contact plating
SMT pick \& place option
Optional Tape \& reel packaging

## MATING CONNECTORS:

Adam Tech PH series .100" pitch pin headers and all industry standard pin headers with a .025" $(0.64 \mathrm{~mm}]$ square pin.

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

G = Gold over nickel underplate overall
SG = Gold over nickel underplate on contact area, tin over copper underplate on tails.
$\mathrm{T}=$ Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 3 Amps max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.375 lbs per contact max.
Withdrawal force: 0.125 lbs per contact min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
(Tape and Reel optional for SMT option)
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053 - ALLALE

ORDERING INFORMATION


RS1 = Single row vertical mount receptacle
RS1R = Single row right angle mount receptacle
RS2 = Dual row vertical mount receptacle
RS2R = Dual row right angle mount receptacle
RSB = Dual row straight PCB mount with polarization bump


PLATING
G = Gold plated
$\mathbf{T}=$ Tin plated
SG = Gold plating in contact area, Tin Plated solder tails and keyed corner contacts
RSBR = Dual row right angle PCB mount with polarization bump and keyed corner contacts
RSE1 = Single row elevated recepticle
RSE2 = Dual row elevated recepticle
RSM1 = Single row surface mount
RSM2= Dual row surface mount

## OPTIONS:

Add designator(s) to end of part number
SMT = SMT Dual row with Hi-Temp insulator
SMT-A = SMT Single Row Type A with Hi-Temp insulator
SMT-B = SMT Single Row Type B with Hi-Temp insulator $30=30 \mu$ in gold plating in contact area
$\mathbf{P}=$ Optional guide peg on SMT version
$\mathbf{H T}=\mathrm{Hi}$-Temp insulator for Hi-Temp soldering processes up to $260^{\circ} \mathrm{C}$ (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

RECEPTACLE STRIPS
FOUR SIDED CONTACT
PAGE 293, 294 \& 298


RECEPTACLE STRIPS BOTTOM, PASS THROUGH OR DUAL ENTRY

## RECEPTACLE STRIPS LOW PROFILE PAGE 297



SERIES INDICATOR
RS1L = Single row, .224" body height
RS2L = Dual row, .224" body height

RECEPTACLE STRIPS VERY LOW PROFILE PAGE 292


POSITIONS
Single Row: Dual Row: 4 Thru 72

PROFILE / NO. OF ROWS
1A = Single row,
.138" body height
1B = Single row,
.205" body height
$2 \mathrm{~A}=$ Dual row,
.138" body height
2B = Dual row,
.205" body height

## OPTIONS:

Add designator(s) to end of part number
A = Type A PCB Layout
B = Type B PCB Layout

$A=.100[2.54] \times$ No. of Positions
$B=.100[2.54]$ X No. of Spaces

$A=.100[2.54]$ X No. of Positions Per Row
$B=.100[2.54]$ X No. of Spaces

Recommended PCB Layout

A $=.100$ [2.54] X No. of Positions
B = . 100 [2.54] X No. of Spaces


A = . 100 [2.54] X No. of Positions Per Row
B = . 100 [2.54] X No. of Spaces


Recommended PCB Layout


$\mathrm{A}=.100[2.54] \times$ No. of Positions per row +.020 [0.50]
$B=.100[2.54] \times$ No. of Spaces

Ordering Information pg. 290-291
RS2


Recommended PCB Layout

$\mathrm{A}=.100[2.54] \times$ No. of Positions per row +.020 [0.50]
$B=.100$ [2.54] x No. of Spaces

$A=.100[2.54] \times$ No. of Positions per row $B=.100[2.54] \times$ No. of Spaces


$A=.100$ [2.54] X No. of Positions + . 300 [7.62] $B=.100[2.54] \times$ No. of Spaces


Recommended PCB Layout

$A=.100[2.54] \times$ No. of Positions +.300 [7.62]
$B=.100[2.54] \times$ No. of Spaces



$A=.100$ [2.54] X No. of Positions per row
$B=.100[2.54] \times$ No. of Spaces



Recommended PCB Layout

# BOTTOM, PASS THRU \& DUAL ENTRY <br> RS SERIES 



RS1BE-B-10-SG-A

$A=.100[2.54]$ X No. of Positions
$B=.100[2.54]$ X No. of Spaces


TYPE A


TYPE B

Recommended PCB Layouts




Recommended PCB Layout



## INTRODUCTION:

Adam Tech PCE \& PCD Series receptacles are PCB mounted sockets that have integral PC Board hooks which wrap around the edge of the PCB for added stability. They are made with three mounting and mating configurations which include Top, Bottom \& Side entry. Offered in pitches of .100 " \& .156" they contain a high reliability contact system that offers superior connectivity through a set of long, wide, precision stamped contacts which provide ample contact pressure with a smooth wiping action.

## FEATURES:

.100" \& .156" Centerlines
Hooks for stability to PCB
High normal force contacts
Low insertion force
Three mounting orientation options

## MATING HEADERS:

Adam Tech PH \& LHB headers and all industry standard .100" and .156 " pitch pin headers with a $.025^{\prime \prime}$ or $.045^{\prime \prime}$ square or round pins

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-0
Insulator Color: Natural
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: . 100 pitch: 3 Amp max.
.156 pitch: 7 Amps max.
Contact resistance: $10 \mathrm{~m} \Omega$ max. Initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1500V AC for 1 minute

## Mechanical:

Insertion force: 0.375 lbs max
Withdrawal force: 0.187 lbs min.
Recommended PCB Thickness: 0.063" (1.6mm]

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

## ORDERING INFORMATION



POSITIONS
02 thru 20

## OPTIONS

Add designator(s) to end of part number NH = No Board hooks


Recommended PCB Layout


TOP ENTRY PCE-A-05


A = . 100 [2.54] x No. of Positions
$B=.100[2.54] \times$ No. of Spaces

PCE-B


SIDE ENTRY PCE-B-07

$A=.100[2.54] \times$ No. of Positions $B=.100[2.54] \times$ No. of Spaces

PCE-C


Recommended
PCB Layout


A =. 100 [2.54] x No. of Positions
$B=.100[2.54] \times$ No. of Spaces


## INTRODUCTION:

Adam Tech .050" IDC Sockets and Transition Plugs are low profile, precision designed flat cable connectors that feature either .050" x . 100 " centerlines or .050 " x .050 " centerlines. These series quickly and easily mass terminate flat cable in one simple step. Our superior contact design provides a smooth, high pressure wiping action to ensure excellent continuity. They are used with a single layer of .025" flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

## FEATURES:

.050" x .050" or .050" x .100"
Low Profile and High Density
Uses Single layer .025" Flat Cable
Quickly and easily mass terminates standard Flat Cable
Smooth High Pressure Wiping Contacts

## MATING CONNECTORS:

Adam Tech .050" HBHR series box headers, latch headers or HPH2 series pin headers

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Tin over copper underplate overall

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. Initial
Insulation resistance: $5000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.312 lbs per contact max.
Withdrawal force: 0.094 lbs per contact min.
Recommended wire size: 28 Awg stranded
Cable retention: 22 lbs. min axial force per inch.
Mating durability: 500 cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION


## HFCS SERIES STRAIN RELIEF

HFSR-X (replace $X$ with number of positions)

## OPTIONS

Add designator(s) to end of part number
$\mathbf{N}=$ No polarization bump (HFCS series)

HFCS-A


HFCS-A-34-SG


|  <br> POSITIONS | DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
|  | A |  | B |  |
| HFCS-A-10 SG | .450 | $[5.08]$ | .413 | $[10.50]$ |
| HFCS-A-20 SG | .450 | $[11.43]$ | .665 | $[16.90]$ |
| HFCS-A-26 SG | .600 | $[15.24]$ | .815 | $[20.70]$ |
| HFCS-A-34 SG | .800 | $[20.32]$ | 1.016 | $[25.80]$ |
| HFCS-A-40 SG | .950 | $[24.13]$ | 1.165 | $[29.60]$ |
| HFCS-A-50 SG | 1.200 | $[30.48]$ | 1.413 | $[35.90]$ |




HFCS-40-SG

|  <br> POSITIONS | Dimensions |  |
| :--- | :--- | :---: |
|  | A |  |
| HFCS-10 SG | $0.437[5.08]$ | $0.200[11.10]$ |
| HFCS-20 SG | $0.687[11.43]$ | $0.450[17.45]$ |
| HFCS-30 SG | $0.937[17.78]$ | $0.700[23.80]$ |
| HFCS-40 SG | $1.187[24.13]$ | $0.950[30.15]$ |
| HFCS-50 SG | $1.437[30.48]$ | $1.200[36.50]$ |
| HFCS-60 SG | $1.687[36.83]$ | $1.450[42.85]$ |
| HFCS-70 SG | $1.937[43.18]$ | $1.700[49.20]$ |
| HFCS-80 SG | $2.187[49.53]$ | $1.950[55.55]$ |
| HFCS-90 SG | $2.437[55.88]$ | $2.200[61.90]$ |
| HFCS-100 SG | $2.687[62.23]$ | $2.450[68.25]$ |



|  | A |  | B |  |
| :--- | :---: | :---: | :---: | :---: |
| Part No. | in | mm | in | mm |
| FDH-10-T | .689 | 17.50 | .450 | 11.43 |
| FDH-14-T | .889 | 22.58 | .650 | 16.51 |
| FDH-16-T | .989 | 25.12 | .750 | 19.05 |
| FDH-20-T | 1.189 | 30.20 | .950 | 24.13 |
| FDH-26-T | 1.489 | 37.82 | 1.250 | 31.75 |
| FDH-34-T | 1.889 | 47.98 | 1.650 | 41.91 |
| FDH-40-T | 2.189 | 55.60 | 1.950 | 49.53 |
| FDH-50-T | 2.689 | 68.30 | 2.450 | 62.23 |
| FDH-60-T | 3.189 | 81.00 | 2.950 | 74.93 |

## INTRODUCTION:

Adam Tech 2FCS Series 2.00 mm IDC Sockets are low profile, precision designed flat cable sockets that feature 2.00 mm pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of 2.00 mm pin headers. Our superior selectively gold plated contact design provides a smooth, high pressure wiping action to ensure excellent continuity. They are used with a single layer of 1.00 mm flat cable. Their small size, light weight and high density make them ideal for compact and limited space applications.

## FEATURES:

Low Profile and High Density
Uses Single layer 1.00 mm Flat Cable
Quickly and easily mass terminates standard Flat Cable

## MATING CONNECTORS:

Adam Tech 2.0mm 2BHR series box headers, 2MHR latch headers and 2PH series pin headers

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Gold flash ( $30 \mu$ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $3000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: 0.661 lbs per contact max.
Withdrawal force: 0.044 lbs per contact min.
Recommended wire size: 30-28 Awg stranded Cable retention: 24 lbs . min axial force per inch. Mating durability: 500 cycles min.

Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

2.00mm IDC SOCKET \& TRANSITION PLUG
.079" [2.00 X 2.00] CENTERLINE 2FCS \& 2FTR SERIES


## ORDERING INFORMATION



NOTE:
Mating Box Headers for 2FCS series located on page 302-303
OPTIONS:
Add designator(s) to end of part number $30=30 \mu$ in gold plating in contact area
PB = Polarizing bump


## INTRODUCTION:

Adam Tech FCS Series .100" IDC Sockets are extremely popular, low profile, precision designed flat cable sockets that feature .100" pin to pin and row to row centerlines. These sockets quickly and easily mass terminate flat cable in one simple step. Their versatility allows them to mate with a multitude of .025 " sq. post pin headers. Our superior selectively gold plated contact design provides a smooth high pressure wiping action to ensure excellent continuity. They are used with a single layer of .050" flat cable. Their small size, light weight, low cost and high density make them ideal for use in many applications.

## FEATURES:

Choice of Single or Dual beam contact design
Low Profile and High Density
Uses Single layer .050" standard Flat Cable
Quickly and easily mass terminates Flat Cable
Smooth High Pressure Wiping Contacts

## MATING CONNECTORS:

Adam Tech .100" BHR series box headers and PH2 series pin headers

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Phosphor Bronze

## Contact Plating:

Gold flash ( $30 \mu$ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 500V AC for 1 minute

## Mechanical:

Insertion force: FCS-D2: 0.5 lbs per contact max.
Withdrawal force: FCS-D2: 0.094 lbs per contact min.
Recommended wire size: 28 Awg stranded
Cable retention: 28 lbs . min axial force per inch.
Mating durability: 500 cycles min.

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053



## ORDERING INFORMATION



FCS = Flat Cable
IDC Socket with standard

PLATING
SG = Selective gold plating single wipe contacts
FCS-D2 = Flat cable
IDC socket with dual wipe contacts

## POSITIONS

06, 08, 10, 12, 14, 16, 20,
24, 26, 30, 34, 40,44, 50,
56, 60, 62, 64

Note: Mating box headers for this series
STRAIN RELIEF:
located on pages 283-289
FSR-XX (XX = No. of Positions)

## PULL TABS:

PT-XX (No. of positions)

## KEYING PLUGS:

FCS-K (Key plugs can also be molded into connector, consult factory)

## OPTIONS:

Add designator(s) to end of part number
$30=30 \mu$ in gold in contact area
GY = Gray color insulator
$\mathbf{N}=$ No polarization bump

FCS
SINGLE WIPE CONTACT


FCS STRAIN RELIEF: FSR-XX (XX = NO. OF POSITIONS)


FCS-D2
DUAL WIPE CONTACT


FCS-D2 STRAIN RELIEF:


| DIMENSIONS |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POSITIONS | 6 | 8 | 10 | 12 | 14 | 16 | 20 | 24 | 26 | 30 | 34 | 40 | 44 | 50 | 56 | 60 | 62 | 64 |
| B | $\begin{aligned} & 0.200 \\ & {[5.08]} \end{aligned}$ | $\begin{aligned} & 0.300 \\ & {[7.62]} \end{aligned}$ | $\begin{gathered} 0.400 \\ {[10.16]} \end{gathered}$ | $\begin{gathered} 0.500 \\ {[12.70]} \end{gathered}$ | $\left[\begin{array}{c} 0.600 \\ {[15.24]} \end{array}\right.$ | $\begin{array}{\|c} 0.700 \\ {[17.78]} \end{array}$ | $\begin{gathered} 0.900 \\ {[22.86]} \end{gathered}$ | $\begin{array}{\|c\|} \hline 1.100 \\ {[27.94]} \end{array}$ | $\begin{array}{\|c} 1.200 \\ {[30.48]} \end{array}$ | $\begin{gathered} 1.400 \\ {[35.56]} \end{gathered}$ | $\begin{gathered} 1.600 \\ {[40.64]} \end{gathered}$ | $\begin{gathered} 1.900 \\ {[48.26]} \end{gathered}$ | $\begin{gathered} 2.100 \\ {[53.34]} \end{gathered}$ | $\begin{gathered} 2.400 \\ {[60.96]} \end{gathered}$ | $\begin{array}{\|c} 2.700 \\ {[68.58]} \end{array}$ | $\begin{gathered} 2.900 \\ {[73.66]} \end{gathered}$ | $\begin{gathered} 3.000 \\ {[76.20]} \end{gathered}$ | $\begin{gathered} 3.100 \\ {[78.74]} \end{gathered}$ |
| A | $\begin{gathered} 0.480 \\ {[12.19]} \end{gathered}$ | $\begin{array}{\|c\|} \hline 0.580 \\ {[14.73]} \end{array}$ | $\begin{array}{\|c} \hline 0.680 \\ {[17.27]} \end{array}$ | $\begin{gathered} 0.780 \\ {[19.81]} \end{gathered}$ | $\begin{gathered} \hline 0.880 \\ {[22.35]} \end{gathered}$ | $\begin{array}{\|c\|} \hline 0.980 \\ {[24.89]} \end{array}$ | $\begin{gathered} \hline 1.180 \\ {[29.97]} \end{gathered}$ | $\begin{gathered} \hline 1.380 \\ {[35.05]} \end{gathered}$ | $\begin{array}{\|c} \hline 1.480 \\ {[37.59]} \end{array}$ | $\begin{array}{c\|} \hline 1.680 \\ {[42.67]} \end{array}$ | $\begin{gathered} 1.880 \\ {[47.75]} \end{gathered}$ | $\begin{gathered} 2.180 \\ {[55.37]} \end{gathered}$ | $\begin{array}{\|c} \hline 2.380 \\ {[60.45]} \end{array}$ | $\begin{gathered} \hline 2.680 \\ {[68.07]} \end{gathered}$ | $\begin{array}{\|c\|} \hline 2.980 \\ {[75.69]} \end{array}$ | $\begin{array}{\|r} 3.180 \\ {[80.77]} \end{array}$ | $\begin{gathered} 3.280 \\ {[83.31]} \end{gathered}$ | $\begin{gathered} 3.380 \\ {[85.85]} \end{gathered}$ |

## INTRODUCTION:

Adam Tech FCE Series IDC Card Edge Connectors are designed to quickly and easily mass terminate .050" flat cable and mate directly with the plated fingers of a PCB as a card edge connector. Our superior designed crimp cap features guides to reduce occurrence of mis-mating and our specially engineered contacts provide strong wiping action and high retention to the PCB.

## FEATURES:

Available with or without mounting ears
Special "easy fit" cap reduces mis-mating
High Retention to PCB
Selectively Gold plated Bifurcated contacts

## MATING OPTIONS:

Printed circuit boards with a thickness of .058" to .070"

## SPECIFICATIONS:

## Material:

Insulator: PBT, glass reinforced, rated UL94V-0
Insulator Color: Black, (Gray optional)
Contacts: Phosphor Bronze

## Contact Plating:

Gold flash ( $30 \mu$ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max.
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 500V AC for 1 minute
Mechanical:
PCB Insertion force: 0.406 lbs per contact max. With .062 thick board
Withdrawal force: 0.312 lbs per contact min. With .062 thick board
Recommended wire size: 28 Awg stranded
Cable retention: 28 lbs . min axial force per inch.
Mating durability: 500 cycles min.
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


ORDERING INFORMATION

## POSITIONS

10, 14, 16, 20,
26, 34,40, 50, 60, 62, 64

## STRAIN RELIEF:

FCR - XX (XX= No. of Positions)

## KEYING PLUGS:

FCE-K (Key plugs can also be molded into connector, consult factory)

## OPTIONS:

Add designator(s) to end of part number $30=30 \mu$ in gold plating in contact area GY = Gray color insulator
$\mathbf{E}=$ Mounting ears with slotted mounting holes

FCE


FCE-20-SG

FCE
WITH MOUNTING EAR OPTION



FCE-20-SG-E

| DIMENSIONS |  |  |  |  |  |  |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| POSITIONS | 10 | 14 | 16 | 20 | 26 | 34 | 40 | 50 | 60 | 62 | 64 |
| A | $\begin{gathered} .400 \\ {[10.16]} \end{gathered}$ | $\begin{gathered} .600 \\ {[15.24]} \end{gathered}$ | $\begin{gathered} .700 \\ {[17.78]} \end{gathered}$ | $\begin{gathered} .900 \\ {[22.86]} \end{gathered}$ | $\begin{aligned} & 1.200 \\ & {[22.86]} \end{aligned}$ | $\begin{gathered} 1.600 \\ {[40.64]} \end{gathered}$ | $\begin{aligned} & 1.900 \\ & {[48.26]} \end{aligned}$ | $\begin{gathered} 2.400 \\ {[60.96]} \end{gathered}$ | $\begin{gathered} 2.900 \\ {[73.66]} \end{gathered}$ | $\begin{gathered} 3.000 \\ {[76.20]} \end{gathered}$ | $\begin{gathered} 3.100 \\ {[78.74]} \end{gathered}$ |
| B | $\begin{gathered} .604 \\ {[15.34]} \end{gathered}$ | $\begin{gathered} .804 \\ {[20.42]} \end{gathered}$ | $\begin{gathered} .904 \\ {[22.96]} \end{gathered}$ | $\begin{aligned} & 1.1040 \\ & {[28.04]} \end{aligned}$ | $\begin{aligned} & 1.404 \\ & {[35.66]} \end{aligned}$ | $\begin{gathered} 1.804 \\ {[45.82]} \end{gathered}$ | $\begin{gathered} 2.104 \\ {[53.44]} \end{gathered}$ | $\begin{gathered} 2.604 \\ {[66.14]} \end{gathered}$ | $\begin{gathered} 3.104 \\ {[78.84]} \end{gathered}$ | $\begin{gathered} 3.204 \\ {[81.38]} \end{gathered}$ | $\begin{gathered} 3.304 \\ {[83.92]} \end{gathered}$ |
| C | $\begin{gathered} .872 \\ {[22.15]} \end{gathered}$ | $\begin{aligned} & 1.072 \\ & {[27.23]} \end{aligned}$ | $\begin{gathered} 1.172 \\ {[29.77]} \end{gathered}$ | $\begin{aligned} & 1.372 \\ & {[34.85]} \end{aligned}$ | $\begin{gathered} 1.672 \\ {[42.47]} \end{gathered}$ | $\begin{gathered} 2.072 \\ {[52.63]} \end{gathered}$ | $\begin{gathered} 2.372 \\ {[60.25]} \end{gathered}$ | $\begin{gathered} 2.872 \\ {[72.95]} \end{gathered}$ | $\begin{gathered} 3.372 \\ {[85.65]} \end{gathered}$ | $\begin{gathered} 3.472 \\ {[88.19]} \end{gathered}$ | $\begin{gathered} 3.304 \\ {[90.73]} \end{gathered}$ |
| D | $\begin{aligned} & 1.300 \\ & {[33.02]} \end{aligned}$ | $\begin{aligned} & 1.500 \\ & {[38.10]} \end{aligned}$ | $\begin{aligned} & 1.600 \\ & {[40.64]} \end{aligned}$ | $\begin{aligned} & 1.800 \\ & {[45.72]} \end{aligned}$ | $\begin{gathered} 2.100 \\ {[53.34]} \end{gathered}$ | $\begin{gathered} 2.500 \\ {[63.50]} \end{gathered}$ | $\begin{gathered} 2.800 \\ {[71.12]} \end{gathered}$ | $\begin{gathered} 3.300 \\ {[83.82]} \end{gathered}$ | $\begin{gathered} 3.800 \\ {[96.52]} \end{gathered}$ | N / A | $\begin{gathered} 4.000 \\ {[101.60]} \end{gathered}$ |
| E | $\begin{aligned} & 1.500 \\ & {[38.10]} \end{aligned}$ | $\begin{aligned} & 1.700 \\ & {[43.18]} \end{aligned}$ | $\begin{aligned} & 1.800 \\ & {[45.72]} \end{aligned}$ | $\begin{gathered} 2.000 \\ {[50.80]} \end{gathered}$ | $\begin{gathered} 2.300 \\ {[58.42]} \end{gathered}$ | $\begin{gathered} 2.700 \\ {[68.58]} \end{gathered}$ | $\begin{gathered} 3.000 \\ {[76.20]} \end{gathered}$ | $\begin{gathered} 3.500 \\ {[88.90]} \end{gathered}$ | $\begin{aligned} & 4.000 \\ & {[101.60]} \end{aligned}$ | N / A | $\begin{gathered} 4.200 \\ {[106.68]} \end{gathered}$ |

## INTRODUCTION:

Adam Tech FCP Series IDC Box Headers are designed to quickly and easily mass terminate to .050 " flat cable. The IDC termination is converted to a Shrouded Box Header output with a polarizing slot that mates with standard IDC sockets. This connector is ideal for splicing and making "T" taps to a cable bus. Adam Tech's sturdy design features solid, selectively gold plated .025 "sq. copper alloy posts.

## FEATURES:

IDC Flat Cable to Shrouded Box Header
Mates with standard IDC sockets
Ideal for splicing and "T" taps to cable bus
Solid selectively gold plated contacts

## MATING CONNECTORS:

Mates with Adam Tech FCS Series .100" [2.54mm] dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, rated UL94V-0
Insulator Color: Gray
Contacts: Brass

## Contact Plating:

Gold flash ( $30 \mu$ in optional) over nickel underplate on contact area, tin over copper underplate on IDC area

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $30 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute

## Mechanical:

Insertion force: 0.5 lbs per circuit max. Withdrawal force: 0.094 lbs per circuit min Mating durability: 500 cycles min. Recommended cable size: 28 Awg stranded

Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053



ORDERING INFORMATION


PLATING
SG = Selective gold plating

## POSITIONS

10, 14, 16, 20, 24, 26,
30, 34, 40, 50, 60, 64

## OPTIONS:

Add designator(s) to end of part number
$\mathbf{E}=$ Mounting Ears
$30=30 \mu$ in gold plating in contact area
BK= Black color insulator

FCP HEADER


FCP-34-SG


FCP HEADER
WITH MOUNTING EAR OPTION


FCP-34-SG-E


| DIMENSIONS |  |  |  |
| :---: | :---: | :---: | :---: |
| POS. | A | B | C |
| 10 | $.400[10.16]$ | $.708[18.00]$ | $.905[23.00]$ |
| 14 | $.600[15.24]$ | $.908[23.08]$ | $1.105[28.08]$ |
| 16 | $.700[17.78]$ | $1.008[25.62]$ | $1.205[30.62]$ |
| 20 | $.900[22.86]$ | $1.208[30.70]$ | $1.405[35.70]$ |
| 24 | $1.100[27.94]$ | $1.408[35.78]$ | $1.605[40.78]$ |
| 26 | $1.200[30.48]$ | $1.508[38.32]$ | $1.705[43.32]$ |
| 30 | $1.400[35.56]$ | $1.708[43.40]$ | $1.905[48.40]$ |
| 34 | $1.600[40.64]$ | $1.908[48.48]$ | $2.105[53.48]$ |
| 40 | $1.900[48.26]$ | $2.208[56.10]$ | $2.405[61.10]$ |
| 50 | $2.400[60.96]$ | $2.708[68.80]$ | $2.905[73.80]$ |
| 60 | $2.900[73.66]$ | $3.208[81.50]$ | $3.405[86.50]$ |
| 64 | $3.100[78.74]$ | $3.408[86.58]$ | $3.605[91.58]$ |

## INTRODUCTION:

Adam Tech MHF Series IDC Latch Headers are designed to quickly and easily mass terminate to .050" flat cable. The IDC termination is converted to a Shrouded Box Header with ejector/latches and a polarizing slot that mates with standard IDC sockets. This connector is ideal for splicing and making "T" taps to a cable bus. Adam Tech's sturdy design features solid, selectively gold plated .025"sq. copper alloy posts.

## FEATURES:

Latches for secure attachment
Latch ejection feature makes socket removal easy
IDC Cable to Shrouded Box Header
Mates with standard IDC sockets
Ideal for splicing and "T" taps to cable bus
Solid selectively gold plated contacts

## MATING CONNECTORS:

Mates with Adam Tech FCS Series .100" (2.54mm) dual row IDC sockets

## SPECIFICATIONS:

## Material:

Insulator: PBT, rated UL94V-0
Insulator Color: Gray
Contacts: Brass

## Contact Plating:

Gold flash ( $30 \mu$ in optional) over nickel on contact area, Tin over copper underplate on IDC area

## Electrical:

Operating voltage: 250V AC max.
Current rating: 1 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Insertion force: 0.5 lbs per circuit max.
Withdrawal force: 0.094 lbs per circuit min
Mating durability: 500 Cycles min.
Recommended cable size: 28 Awg stranded

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053



ORDERING INFORMATION


MHF =
IDC Latch Header

## POSITIONS

10, 14, 16, 20, 24, 26,
$30,34,40,50,60,64$
PLATING
SG = Selective gold plating

OPTIONS:
Add designator(s) to end of part number E = Mounting ears

MHF HEADER


MHF-34-SG-L

Short Latch (No Strain Relief Type) X= . 236 [6.00]

Long Latch (Strain Relief Type) X=. 315 [8.00]

MHF HEADER
WITH MOUNTING EAR OPTION


|  <br> POSITIONS | DIMENSIONS |  |  |
| :---: | :---: | :---: | :---: |
|  | $1.266[32.17]$ | $.860[21.85]$ | $.400[10.16]$ |
| MHF-14 | $1.466[37.25]$ | $1.060[26.93]$ | $.600[15.24]$ |
| MHF-16 | $1.566[39.79]$ | $1.160[29.47]$ | $.700[17.78]$ |
| MHF-20 | $1.766[44.87]$ | $1.360[34.55]$ | $.900[22.86]$ |
| MHF-24 | $1.966[49.95]$ | $1.560[39.63]$ | $1.100[27.94]$ |
| MHF-26 | $2.066[52.49]$ | $1.660[42.17]$ | $1.200[30.48]$ |
| MHF-30 | $2.266[57.57]$ | $1.860[47.25]$ | $1.400[35.56]$ |
| MHF-34 | $2.466[62.65]$ | $2.060[52.33]$ | $1.600[40.64]$ |
| MHF-40 | $2.766[70.27]$ | $2.360[59.95]$ | $1.900[48.26]$ |
| MHF-50 | $3.266[82.97]$ | $2.860[72.65]$ | $2.400[60.96]$ |
| MHF-60 | $3.766[95.67]$ | $3.360[85.34]$ | $2.900[73.66]$ |
| MHF-64 | $3.966[100.75]$ | $3.560[90.43]$ | $3.100[78.74]$ |

## INTRODUCTION:

Adam Tech's MTD Series .100" \& .156" Housings with IDC contacts are designed to quickly and easily mass terminate discrete wires or pre-notched flat cable. Our stamped contacts are designed to feature a precision, gas tight IDC connection at the wire end and a high pressure, smooth wiping action connection on the mating connector end. Both are available with optional cover in feed through or closed end styles.

## FEATURES:

Easily mass terminates discrete wire and pre-notched flat cable Housings have pre-inserted IDC contacts
High performance Gas tight IDC connection
Optional Feed through or Closed end cover

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-2
Insulator Color: Natural
Contacts: Phosphor bronze and Brass
Contact Plating:
Tin over copper underplate overall

## Electrical:

Operation voltage: 250V AC max.
Current rating:
.100" centers: 4. Amp max.
.156" centers: 6 Amp max.
Insulation resistance: $1000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating force:
.100" \& .156" Center: 1.3 lbs max
Unmating force:
.100" Center: 0.5 lbs min
.156" Center: 1.3 lbs min
.100" Centers: Wire size: 28 Awg to 22 Awg
.156" Centers: Wire size: 26 Awg to 18 Awg

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
APPROVALS AND CERTIFICATIONS:
UL Recognized File no. E224053


## ORDERING INFORMATION CONNECTOR



ORDERING INFORMATION COVER


MTD-A
.100" CENTERLINE



MTD-A-04-D-1


MTD-A-07-D-1

$A=.100[2.54] \times$ No of Positions $B=.100[2.54] \times$ No of Spaces


MTD-B
.156" CENTERLINE

$A=.156$ [3.96] $X$ No of Positions $B=.156$ [3.96] X No of Spaces


MTD-B-07-B-1


## INTRODUCTION:

Adam Tech's Flat Cable DIP \& Transition plugs are a one piece connector system that quickly and easily mass terminates flat cable then mounts directly to the PCB or PCB socket. These connectors are ideal for interconnecting PCB's in a permanent flat cable transition or satisfying disconnect applications. Our low profile design allows an increased board to board stacking density.

## FEATURES:

Available in 8-64 positions
Eliminates need for two piece header \& Socket set
Fast easy mass termination without stripping cable
Heavy duty Tin plated contacts
Low Profile, high density board to board stacking
Plugs into IC Socket or solders directly to PCB

## SPECIFICATIONS:

Material:
Insulator: PBT, glass reinforeced, rated UL94V-0
Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0
Insulator Color: Black (Gray optional)
Contacts: Brass
Contact Plating:
G = Gold over nickel underplate on contact area, Tin over copper underplate on IDC area.
$\mathrm{T}=$ Tin over copper underplate overall
Electrical:
Operating voltage: 250V AC max.
Current rating: 3 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1000 V AC for 1 minute
Mechanical:
Recommended cable size: 28 Awg stranded
Temperature Rating:
Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$
PACKAGING:
Anti-ESD plastic trays
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053


FTR: 08, 10, 14, 16, 20, 24, 26, $28,30,34,40,50,60,64$

FDP-3: .300" row spacing Positions: 08, 10, 14, 16, 18, 20, 24, 26, 28, 34, 40

FDP-6: .600" row spacing Positions: 24, 26, 28, 32, 34, 36, 40

OPTIONS:
Add designator(s) to end of part number
$30=30 \mu$ in gold plating in contact area
GY = Gray color insulator
RT = Board retention
$A=.100[2.54] \times$ No. of Positions per row +.310 [7.88] $B=.100[2.54] \times$ No. of Spaces per row


FTR-14-T


Recommended PCB Layout

## FDP SERIES



Recommended PCB Layout

## FDP SERIES

.100" X .600" (24P-40P)


FDP-24-T



Recommended PCB Layout

## INTRODUCTION

Adam Tech DMH \& DMF Series Power Connectors consist of a receptacle and plug set in a variety of single and multiple row configurations with 165" centerlines. They are manufactured of Nylon $6 / 6$ with a flammability rating of UL94V-2 or UL94V-0. This series is designed as a mated set with a PCB mounted header and a wire mounted socket which securely latches to header when mated. Our specially designed bodies provide polarization to eliminate mismating and our latching system resists heavy vibration. PCB mounted headers have molded pegs which align and brace the PCB tails for trouble free assembly and use.

## FEATURES:

High current rating
Polarized and Positive locking
Vibration resistant
Compatible with Wide Range of wires
Industry standard compatible

## SPECIFICATIONS:

## Material:

Insulator: Nylon 66, rated UL94V-2
Insulator Color: Natural or Black
Contacts: Brass, tin plated

## Electrical:

Operating voltage: 300V AC / DC max.
Current Rating: 5 Amps max
Insulation resistance: $1000 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 1500V AC for 1 minute

## Temperature Rating:

Operating temperature: $-25^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized File no. E224053

CAPABLE
Contact factory
for detail


## ORDERING INFORMATION MALE PCB HOUSING



OPTIONS:
Add designator(s) to end of part number $\mathbf{P}=\mathrm{PCB}$ Peg


Replace (XX) with no. of positions
A = . 118 [3.00] X No. of Positions /2-1
$B=.118$ [3.00] X No. of Positions $/ 2+.145$ [3.70]

DML-XX-A-V-T-TSMT
VERTICAL TRUE SMT


Replace (XX) with no. of positions
A = . 118 [3.00] X No. of Positions /2-1
DML-12-A-V-T-TSMT
$B=.118$ [3.00] X No. of Positions $/ 2+.145$ [3.70]


DML-10-A-V-T-SMT-BL


Recommended PCB Layout
DML-XX-A-V-T-SMT-BL VERTICAL SMT W/BOARDLOCKS

DML-XX-A-V-T-A
VERTICAL THRU HOLE MOUNT

Replace (XX) with no. of positions
$A=.118[3.00]$ X No. of Positions /2-1
$B=.118$ [3.00] X No. of Positions /2 + . 143 [3.65]


DML-10-A-V-T-A
 26 [3.20]

DML-XX-A-H-T-BL
RIGHT ANGLE THRU HOLE


Recommended PCB Layout


Replace (XX) with no. of positions
A = . 118 [3.00] X No. of Positions /2-1
$B=.118$ [3.00] X No. of Positions /2 + . 145 [3.70]


DML-XX-A-H-T-SMT-BL
RIGHT ANGLE SMT W/BOARDLOCKS


Replace (XX) with no. of positions
$A=.118[3.00] \times$ No. of Positions $/ 2-1$
$B=.118$ [3.00] X No. of Positions /2 + . 145 [3.70]

DML-XX-A-H-T-TSMT
RIGHT ANGLE TRUE SMT


DML-08-A-H-T-TSMT


Replace (XX) with no. of positions
$A=.118$ [3.00] X No. of Positions /2-1
$B=.118$ [3.00] X No. of Positions /2 + . 145 [3.70]




## INTRODUCTION:

Adam Tech EB Series Euro Blocks are a broad range of PCB mounted blocks in various sizes and profiles with pitches ranging from 15.00 mm down to 3.50 mm . Included are types that have wire entry from Top, Side or Side Angle. Two piece 'pluggable' versions and 'Lever Actuated' styles are also available. Each contains our unique wire guard design and is precision manufactured for smooth operation and ease of use.

## SPECIFICATIONS:

## Material:

Insulator: PBT or Nylon, glass reinforced, rated UL94V-0 Insulator Color: Green, Black (Blue and Gray optional) Metal cage: Brass, tin plated
Screw: Steel, Galvanized or Chromatized
Wire Guard: Stainless Steel, Tin plated

## Electrical:

Operating voltage: 250V AC max.
Current rating: 7 to 15 Amp max
Contact resistance: $20 \mathrm{~m} \Omega$ max. initial
Insulation resistance: $5000 \mathrm{M} \Omega \mathrm{min}$.
Dielectric withstanding voltage: 1500V AC for 1 minute

## Mechanical:

Recommended wire size:
EBC \& EBF Series: 16 to 26 Awg
EBA, EBB, EBD, EBE, \& EBJ Series: 14 to 22 Awg
EBH \& EBP Series: 12 to 24 Awg
EB108 Series: 18 to 24 Awg
EB109 Series: 10 to 24 Awg
Mating durability: 500 Cycles min.
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic trays

## SAFETY AGENCY APPROVALS:

UL Recognized \& CSA Certified, File no. E333935


ORDERING INFORMATION


SERIES INDICATOR
EBA = .492" Straight
CENTERLINE
EBB = .394" Straight
EBC = .327" Straight
EBD = .354" Right Angle
EBE $=.295$ " Right Angle
EBF = .275" Right Angle
EBG $=.472^{\prime \prime}$ Angled
EBH = .590" Plugable
EBJ = .433" Plugable
EBK = .440" Plugable
EBP = Pin Header, Straight
EBQ = Header, Right Angle
EBR $=$ Pin Header, Straight
EBS = Header, Right Angle
EBT $=$ Pin Header, Straight
EBV = Pin Header, Straight
EBW = .335" Straight
EBV2 = Stacked Euro Blocks
EB108 = .342" Straight
EB109 = .850" Straight
STANDARD BODY COLORS:
BLACK: Series EBA, EBB, EBC, EBD, EBE, EBF, EBG, EBJ, EBT
GREEN: Series EBH, EBP, EBQ, EBK, EBR, EBS, EBV, EBM, EBN, EBW, TSE, EB108, EB109
Consult factory for additional colors
OPTIONS:
Add designator(s) to end of part number
C = Closed sides, body styles EBP \& EBQ
E = Mounting ears, body styles EBH \& EBK

|  |  |
| :---: | :---: |
| Available centerline spacings: $\mathrm{C}=.197[5.00] \quad \mathrm{H}=.394[10.00] \quad \mathrm{K}=.591 \text { [15.00] }$ | Available centerline spacings: $\mathrm{C}=.197[5.00] \quad \mathrm{D}=.200[5.08] \quad \mathrm{H}=.394[10.00] \quad \mathrm{J}=.400[10.16]$ |
| Available centerline spacings: $A=.138[3.50] \quad E=.276[7.00]$ | EBD-03-C <br> Available centerline spacings: $\mathrm{C}=.197[5.00] \quad \mathrm{H}=.394[10.00]$ |




REPLACE ' $Y$ ' WITH PITCH
$\mathrm{A}=.138[3.50] \quad \mathrm{B}=.150[3.81]$
$\mathrm{E}=.276[7.00] \quad \mathrm{G}=.300[7.62]$

EBV2-02-D
2 POSITION STACKED BLOCK SLIDE TOGETHER SIDE STACKABLE


EBV2-03-D
3 POSITION STACKED BLOCK SLIDE TOGETHER SIDE STACKABLE


EBV2-03-D

## INTRODUCTION:

Adam Tech TB \& TD series Terminal Blocks are a full range of Blocks which are most commonly used to terminate wires and eliminate splicing. They are offered in five different centerlines with open or closed back option. Each is available for bulkhead or PCB mounting with choice of Straight or Right Angle PCB terminals, Cliptite and or Turret Terminals. Our TB series is manufactured from flexible thermoplastic and resists cracking and breaking. Our TD series is manufactured from Hi-Temp Phenolic and has current carrying capability up to 30 Amps.

## FEATURES:

Wide range of sizes and profiles
Choice of open or closed back design
Choice of multiple terminations
Flexible Break resistant Thermoplastic.

## SPECIFICATIONS:

## Material:

Insulator:
TB Series: PBT, rated UL94V-0
TD Series: Phenolic, glass reinforced, rated UL94V-0
Insulator Color: Black
Contacts: Brass, tin plated
Screws: Steel, nickel plated
Hardware: Brass, tin plated

## Electrical:

Operation voltage: 300V AC max.
Current rating:
TBA / TBB / TDA series: 10 Amps max.
TBC / TBD / TBE / TBF / TBG / TBH series: 15 Amps max.
TDB series: 20 Amps max
TDC series: 30 Amps max
TDD series: 35 Amps max
TDG series: 6 Amps max
TDH series: 15 Amps max
TDJ series: 50 Amps max
Contact resistance: $20 \mathrm{M} \Omega \max$
Insulation resistance: $500 \mathrm{M} \Omega$ min.
Dielectric withstanding voltage: 2000V AC for 1 minute

## Mechanical:

Wire Range:
TBA / TBB Series: 22 - 16 Awg
TBC / TBE Series: 22-14 Awg
TBD Series: 22-14 Awg
TBF / TBG Series: 22 - 14 Awg
TDA / TDB / TDC Series: 18-12 Awg
TDD/TDH Series: 22-10 Awg
TDG Series: 22-12 Awg
TDJ Series: 16-8 Awg

## Temperature Rating:

Operating temperature: $-40^{\circ} \mathrm{C}$ to $+105^{\circ} \mathrm{C}$

## PACKAGING:

Anti-ESD plastic bags
SAFETY AGENCY APPROVALS:
UL Recognized \& CSA Certified,
File no. E333935


## ORDERING INFORMATION TB SERIES TERMINAL BLOCKS



SERIES INDICATOR
TBA = 250" Centerline
Barrier Block
TBB = .250" Closed Side Barrier Block
TBC = .325" Centerline Barrier Block (Offset Tails)
TBD = .325" Centerline Barrier Block (Centered Tails)
TBE = .325" Closed Side Barrier Block
TBF = .374" Centerline Barrier Block
TBG = .374" Closed Side Barrier Block
TBH = .325" Centerline Stacked Block

NO. OF POSITIONS
02 Thru 30

## TERMINAL TYPE

01 = Straight PCB
Tail

02 = Closed Side
Exit PCB Tail
$03=$ Right Angle
PCB Tail
$04=$ Cliptite
Terminal
$05=$ Turrett
Terminal
06 = Wire Wrap
Terminal

MOUNTING ORIENTATION
B = Barrier End
M = Mount End

ORDERING INFORMATION TD SERIES DUAL ROW BLOCKS


SERIES INDICATOR
TDA = .374" Centerline Dual Row Block
TDB = .433" Centerline Dual Row Block
TDC = .551" Centerline Dual Row Block
TDD = .471" Centerline Dual Row Block
TDG = .315" Centerline Dual Row Block
TDH = .393" Centerline Dual Row Block
TDJ = .571" Centerline Dual Row Block

NO. OF POSITIONS
02 Thru 56

(2) $\varnothing .118$ [3.00]

$A=.250[6.35] \times$ No. of Poles +.545 [13.85]
$B=.250[6.35] \times($ No. of Poles $+.250[6.35])$


TBA-05-04-M


TBA-05-04-B

(2) $\varnothing .118$ [3.00]


TBA-05-01-M


TBA-05-01-B


TBB-05-01-B


TBB-03-01-M
$A=.250[6.35] \times$ No. of Poles +.557 [14.15]
$B=.250[6.35] \times($ No. of Poles $+.250[6.35])$


TBB-05-02-B


TBB-03-02-M

$A=.250[6.35] \times$ No. of Poles +.557 [14.15]
$B=.250[6.35] \times($ No. of Poles $+.250[6.35])$



TBC-03-01-M


TBC-03-01-B
$\mathrm{A}=.325[8.25] \times$ No. of Poles +.728 [18.5]
$\mathrm{B}=.325$ [8.25] x (No. of Poles +.325 [8.25])


TBC-03-06-M


TBC-03-06-B





(4) ø. 16 [4.00]


TDA-03

$\mathrm{A}=.374$ [9.50] $\times$ No. of Poles +.670 [17.00]
$B=.374$ [9.50] $\times$ No. of Poles +.374 [9.50]

(4) ø. 16 [4.00]


TDB-04

$A=.433[11.00] \times$ No. of Poles +.815 [20.70] $B=.433$ [11.00] $\times$ No. of Poles +.433 [11.00]


TDC


## INTRODUCTION:

Adam Tech BH and BS series Battery Holders, Mobile Battery Connectors and Battery Snaps are designed to contain batteries in electronic equipment. This series includes battery holders and coin cell holders for AAA, AA, C, D, 9V and lithium coin cells. Adam Tech produces this series in a variety of terminations such as thru-hole PCB leads, SMT leads, wire leads and solder lugs. Custom lead lengths on wired configurations are also available. Our superior retention holders are molded of UL94-VO or UL94-HB material with spring steel contacts and perform extremely well under normal or adverse environment conditions.

## BATTERY HOLDER SPECIFICATIONS:

## Material:

Insulator: Impact resistant Polypropylene, rated UL94-HB
9V Holder, ABS, Glass filled rated UL94-HB
Insulator Color: Black
Spring: Spring Steel, Nickel plated
Contacts: Spring steel, Nickel plated
Snap terminals: Brass, Nickel plated
Wire: 26 Awg, PVC
Electrical:
Operating voltage: 1.5 V to 9 V DC max.
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## BATTERY SNAPS <br> SPECIFICATIONS:

## Material:

Soft PVC or rigid PP or PE
Snap terminals: Brass, nickel plated
Wire: 26 Awg stranded, UL1007, PVC insulation

## Electrical:

Operating voltage: 9V max.

## Temperature Rating:

Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## COIN CELL HOLDER \& MOBILE BATTERY CONNECTOR SPECIFICATIONS:

## Material:

Thru-hole: PBT Thermoplastic rated UL-94-VO
SMT: Hi-Temp Thermoplastic rated UL-94-VO

## Electrical:

Operating voltage: 9V max.
Temperature Rating:
Operating temperature: $-55^{\circ} \mathrm{C}$ to $+85^{\circ} \mathrm{C}$

## SAFETY AGENCY APPROVALS:

Manufactured with UL Recognized Materials

## ORDERING INFORMATION BATTERY HOLDER



## BATTERY SNAPS



## MOBILE BATTERY CONNECTOR



SERIES
INDICATOR
MBC = Mobile
Battery Connector


TYPE
P thru W


POSITIONS
2 thru 6

BATTERY HOLDERS<br>ALKALINE - AA, AAA, C, D \& 9V<br>BH SERIES



BATTERY HOLDERS LITHIUM COIN CELL BATTERY HOLDERS<br>BH SERIES

| BH-25-1 <br> Recommended PCB Layout | Recommended PCB Layout |
| :---: | :---: |
|  |  |
| COIN CELL BATTERY HOLDER <br> BH-41B-1 | Recommended PCB Layout <br> BH-32-1 |

ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



## INTRODUCTION:

Adam Tech PC Series International Power Cordset series offers a wide range of cordsets with numerous international approvals for worldwide applications. Each is approved for use by one or all of the major safety organizations such as UL, CSA \& VDE. This series is available in a wide range of cord types with choice of wire gauge and various shielding options. We offer numerous standard Power Cords designed to comply with specific world market requirements and an unlimited variety of custom cords manufactured to our customers specifications.

## FEATURES:

Sturdy, high reliability designs Worldwide Safety agency approvals Standard and Custom Power Cords Choice of cord types and shielding options

## MATING CONNECTORS:

Adam Tech IEC series \& power line filters, all international IEC 60320 power connectors.

## SPECIFICATIONS:

## Material:

Outer Jacket Color: Black, other colors optional


## Temperature Rating:

Outer Jacket Temperature: $60^{\circ} \mathrm{C}$
$\left(75^{\circ} \mathrm{C}\right.$ and $105^{\circ} \mathrm{C}$ optional)


Safety Agency Approvals:
UL Recognized
File no. E303525 \& E256360 Consult factory for additional international safety agency approvals


ORDERING INFORMATION


SERIES INDICATOR
PC = Power Cord

## LENGTH

(Specified in ft/in)
$060=6 \mathrm{FT} 0 \mathrm{IN}$
$076=7$ FT 6 IN
State length as required

PLUG \& SOCKET OPTIONS
$01=$ American, NEMA 5-15P Straight
01H = North American Hospital Grade NEMA 5-15
01HB = Color Black
01HC = Color Clear
01HG = Color Gray
$02=$ International Female, IEC C13 straight
03 = International Female, IEC C13 R/A
04 = International Male, IEC C14
06 = European, CEE 7/7 Straight
07 = European, CEE 7/7 R/A
08 = United Kingdom Fused, BS 1363
10 = American, NEMA 1-15P Straight Non Polarized
11 = Swiss, SEV 1011 Straight

12 = Italian, CEI 23-16 Grounded
13 = Australian, AS 3112 Grounded
$15=$ Jacket and Conductor Stripped, Jacket 2.0" / Conductors 0.37" (Consult factory for custom jacket and conductor strip lengths)
$16=$ Blunt Cut
17 = International Female, IEC C7
25 = American, NEMA 5-15P R/A
$28=$ European, CEE 7/16 Straight
29 = Italian, CEI 23-16
30 = International Female, IEC C5
31 = Danish, SRAF
$32=$ South African, BS-546
33 = South African, BS-546 R/A
34 = Israel, SI-32 R/A
$35=$ Australian, AS 3112
38 = European, CEE 7/17 Straight

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I = H05VV-F $3 \times 0.75 \mathrm{~mm}$
$J=H 05 V V-F 3 X 1.00 \mathrm{~mm}$
$\mathbf{K}=\mathrm{H} 03 \mathrm{VV}-\mathrm{H} 2 \times 0.75 \mathrm{~mm}$
M $=$ SPT-1 NON-I NTEGRAL
$\mathrm{N}=$ SPT- 2 NON-INTEGRAL
R = SJT, CEE
$\mathbf{S}=$ SVT, CEE
$\mathbf{Q}=$ SJT, $105^{\circ} \mathrm{O}$
V = SVT, $105^{\circ} \mathrm{C}$
W = SJTO
$\mathbf{X}=\mathrm{H} 05 \mathrm{~V}-\mathrm{F} 2 \times 1.00 \mathrm{~mm}$
$\mathbf{Y}=$ H05RN-F $3 \times 1.00 \mathrm{~mm}$
Z $=$ S.O
A3 $=$ ST
A4 $=$ STO
A5 = SJT, CEE, $75^{\circ} \mathrm{C}$
A6 = SVT, CEE, $75^{\circ} \mathrm{C}$
A7 $=$ SPT $-2,105^{\circ} \mathrm{C}$
A8 $=$ SJTO, $105^{\circ} \mathrm{C}$
B1 = SJTW $105^{\circ} \mathrm{C}$
B2 $=$ SVT, CEE, $105^{\circ} \mathrm{C}$

## PLUG \& SOCKET OPTIONS



Adam Tech manufactures a wide selection of low cost, custom cable assemblies to exact customer specifications using our UL approved connectors, wire and cable. Our production lines utilize the most updated equipment and processes to provide our customers with the highest level of quality and reliability. Many application specific assembly types are shown below. Please provide us with your application details to recieve our competitive quotiation.

- 100\% Tested \& Guaranteed
- Many Custom Varations of Industry Standard Assemblies are Available
- "Zero Defect" QA Program


## Custom Cable Assemblies

- HDMI
- DVI \& SVGA
- DisplayPort
- Serial ATA
- USB
- D-Sub
- Firewire
- OBD II cables
- Network assemblies
- Flat Ribbon cable assemblies
- Discrete Wire cable assemblies
- Power Cord cable assemblies
- Patch Cord cable assemblies, Cat 5, 5e, 6
- RF Co-Axial: MHF, W.FL, MCX, MMCX



## Adam Tech can provide custom solutions from concept through production

Adam Tech utilizes almost 30 years of experience to create high quality and reliable Application Specific Interconnect Solutions. Send us your requirements and let our experienced team of design engineers provide solutions for you. We offer a 'complete capability' service which includes in-house engineering, component manufacturing, assembly \& technical sales support.

- Providing service from concept through design to production
- Improvements to quality or function
- Solving capacity or lead time issues
- Solution for single sourced components
- Cost reduction specialist

Our manufacturing is done at our ISO 9001 certified facilities using our UL approved components. All of our products are serviced by our worldwide network of Representatives and Authorized Distributors.

Let us show you how quickly we can provide innovative, high quality, low cost solutions for any of your applications.


CERTIFIED ISO 9001:200E

| 08CH ...................................218-219 | D***-PQ..................................62-64 | HDT**SD .................................88-89 | MSD .......................................... 246 |
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| D***-PR....................................78-79 | HDT**PT.................................. 90-91 | MS*..................................... 281-282 |  |




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Hami


## ADAM TECH

## ADVANCED INTERCONNECT PRODUCTS AND SYSTEMS



## CUSTOM SOLUTIONS



- Providing service from concept through design to production
- Improvements to quality or function

- Solving capacity or lead time issues
- Solution for single sourced components
- Cost reduction specialist




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[^0]:    LED
    LX = Led Color
    (See Chart on page 43)

[^1]:    *PART NUMBERS SHOWN ARE FOR 1.5 mm PANEL THICKNESS. CONSULT FACTORY FOR OTHER PANEL THICKNESSES REQUIREMENTS

