

.100" [2.54] CENTERLINE SINGLE & DUAL ROW LHA, LHS, MTA, MTS & HHS SERIES

#### **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  $M\Omega$  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°C to +85°C

#### **PACKAGING:**

Anti-ESD plastic bags

#### **SAFETY AGENCY APPROVALS:**

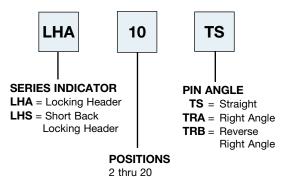
UL Recognized & CSA Certified, File no. E224053



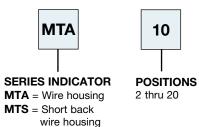




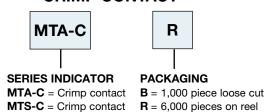
## ORDERING INFORMATION FRICTION LOCK HEADER



#### **HOUSING**



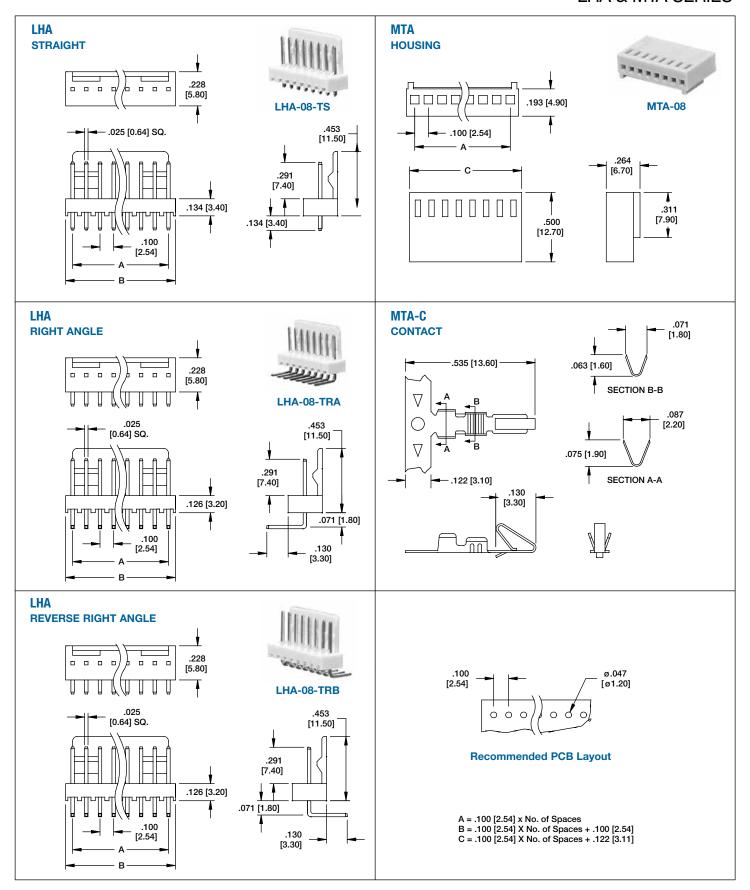
#### CRIMP CONTACT





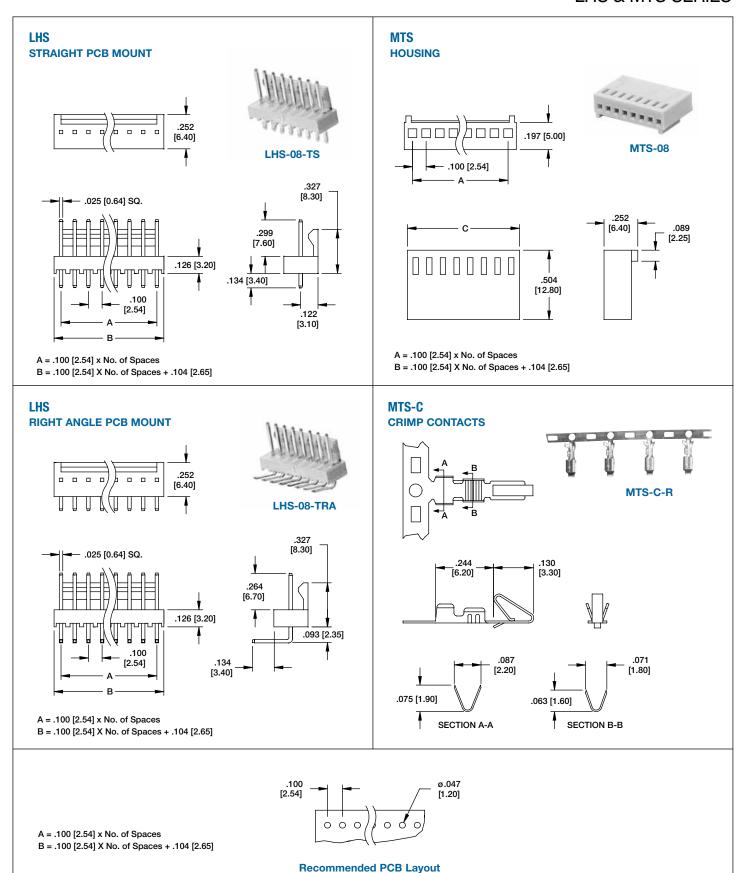
## .100" HEADER & HOUSING SETS

.100" [2.54] CENTERLINE LHA & MTA SERIES





.100" [2.54] CENTERLINE SINGLE & DUAL ROW LHS & MTS SERIES





.156" [3.96] CENTERLINE LHB, LHC, LHD & MTB SERIES

#### **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 [3.96mm] 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: 250V AC max. Current rating: 5 Amp max. Insulation resistance: 1000  $M\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Recommended wire size: 18 to 24 Awg

#### **Environmental:**

Operating temperature: -25°C to +85°C

#### **PACKAGING:**

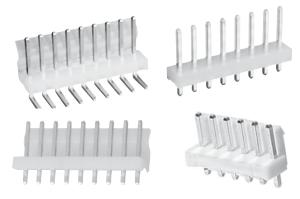
Anti-static plastic bags

#### **APPROVALS AND CERTIFICATIONS:**

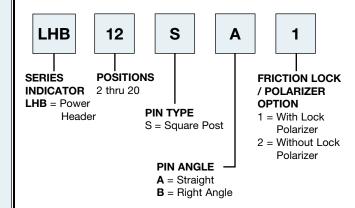
UL Recognized & CSA Certified, File no. E224053



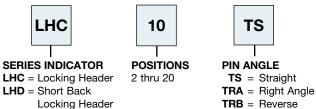




#### **POWER HEADER**



#### **POWER HEADER**



#### **HOUSING**



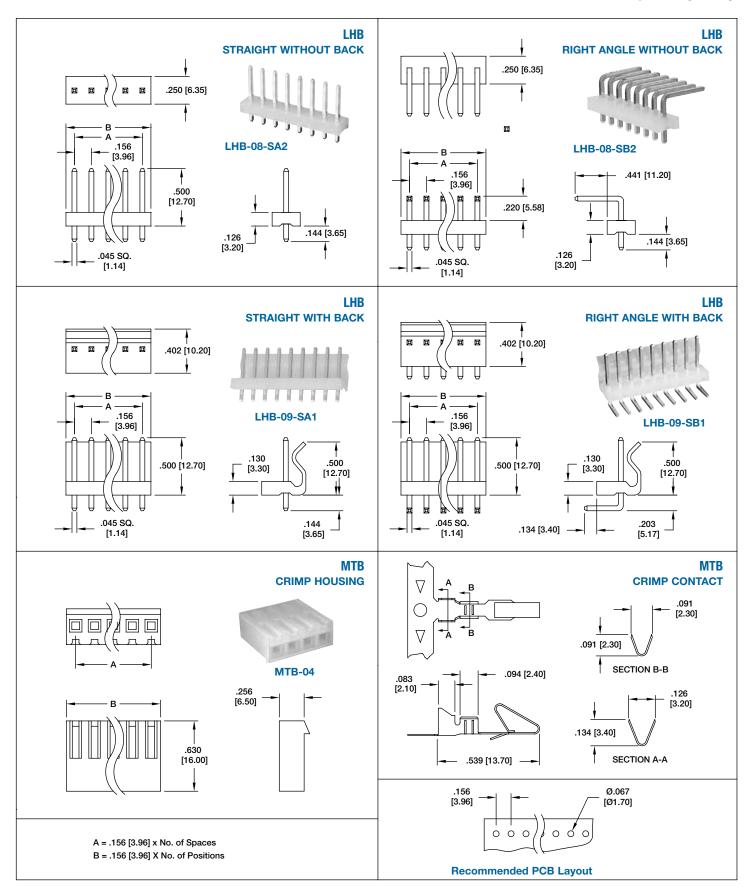
#### **CRIMP CONTACT**



Right Angle

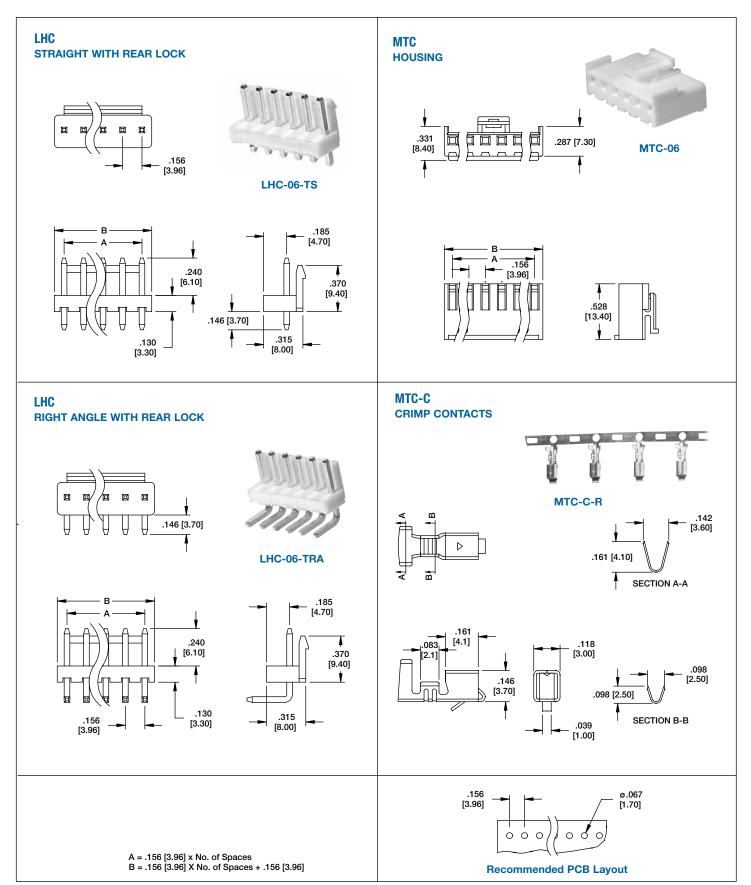


.156" [3.96] CENTERLINE LHB & MTB SERIES



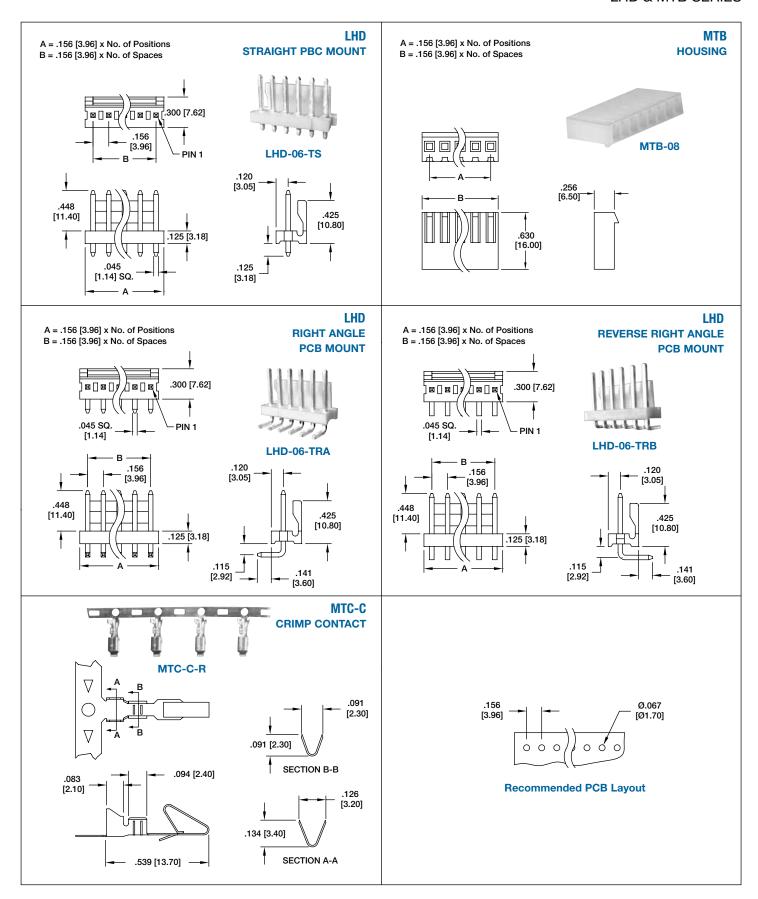


.156" [3.96] CENTERLINE LHC & MTC SERIES





.156" [3.96] CENTERLINE LHD & MTB SERIES





## MINI FLEX CONNECTOR

FLAT CABLE TO PCB SYSTEM MF SERIES

#### **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 m $\Omega$  Max. Insulation Resistance: 1000 M $\Omega$  Min.

Dielectric Withstanding Voltage: 750V AC for 1 Minute

#### **TEMPERATURE RATING:**

Operation Temperature: -25°C ~ +105°C

#### PACKAGING:

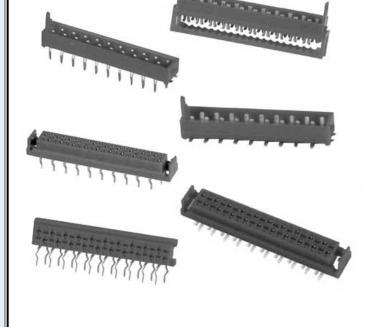
Anti ESD plastic trays or Tubes

#### **SAFETY AGENCY APPROVALS:**

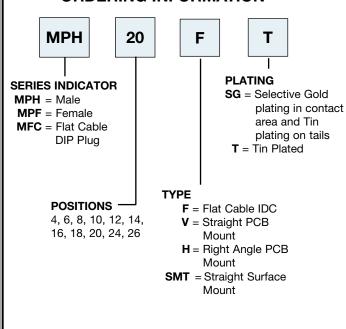
UL Recognized CSA Certified

#### **APPROVALS AND CERTIFICATIONS:**

UL Recognized & CSA Certified, File no. E224053



#### ORDERING INFORMATION



#### **OPTIONS**

15 = 15u" Gold on contact area 30 = 30u" Gold on contact area

**L** = Locking Flange

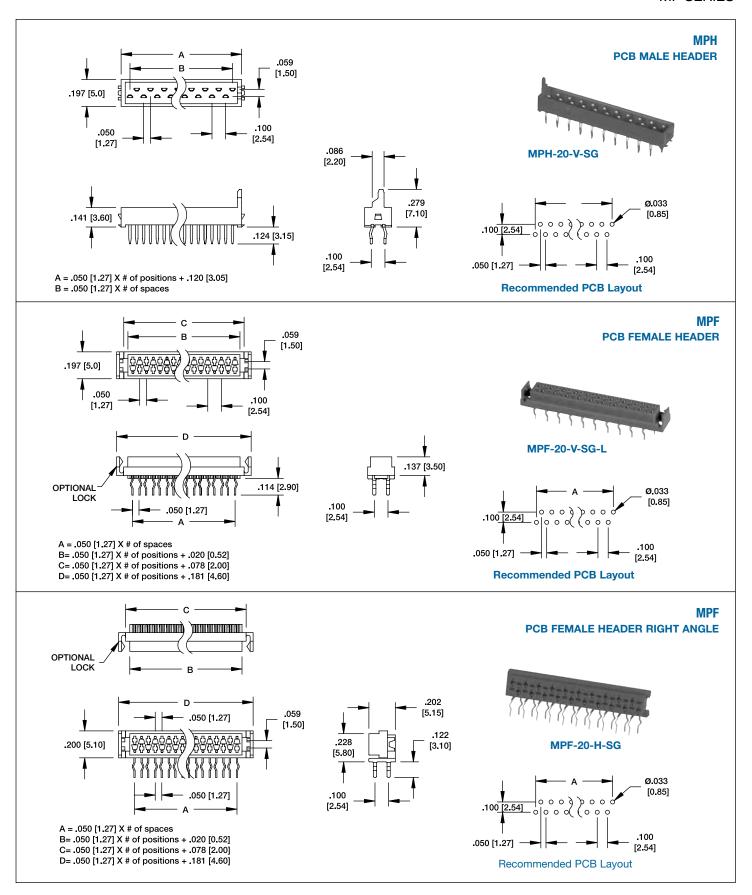






## MINI FLEX CONNECTOR

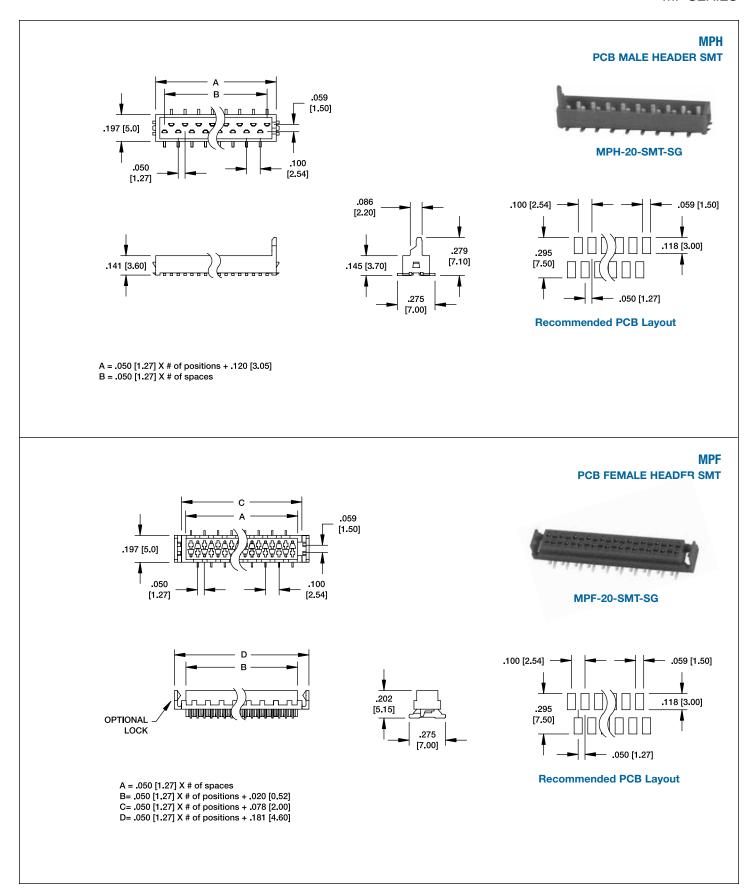
MALE & FEMALE PCB MOUNT MF SERIES





## **MINI FLEX CONNECTOR**

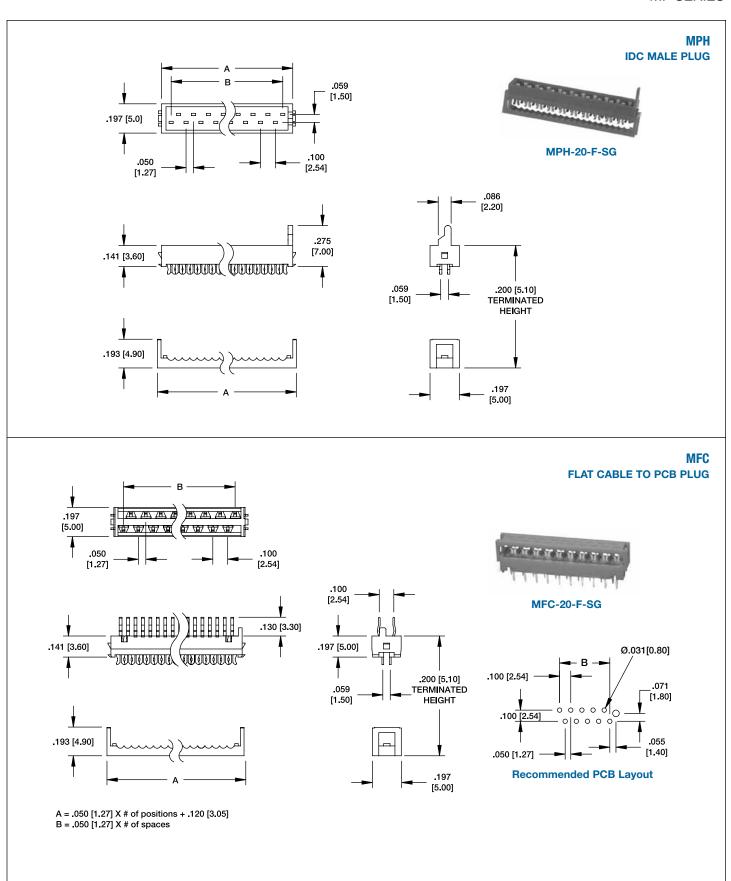
MALE & FEMALE PCB-SMT MF SERIES





## **MINI FLEX CONNECTOR**

FLAT CABLE IDC MF SERIES





#### 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: 250V AC max. Current rating: 0.5 and 1 Amps max. Contact resistance: 40 m $\Omega$  max. initial Insulation resistance: 1000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 10,000 cycles min.

#### **Temperature Rating:**

Operating temperature: -20°C to +85°C

#### PACKAGING:

Anti-ESD plastic trays

#### **SAFETY AGENCY APPROVALS:**

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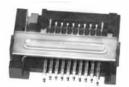




## **MEMORY SOCKETS**

MEMORY STICK, SMART MEDIA, SECURE DIGITAL & PCMCIA COMPACT FLASH

#### **Memory Stick**



MS-10-A-SG Pg 276

Micro Secure Digital (Push-Push Type)



MCSP-08-C-SG (Reverse Type)
Pg 276

#### **Mini Secure Digital**



MSD-11-B-SG (Standard Type)
Pg 278



CFA-50-A-SG-B-1 Pg 280-281

#### **Compact Flash**



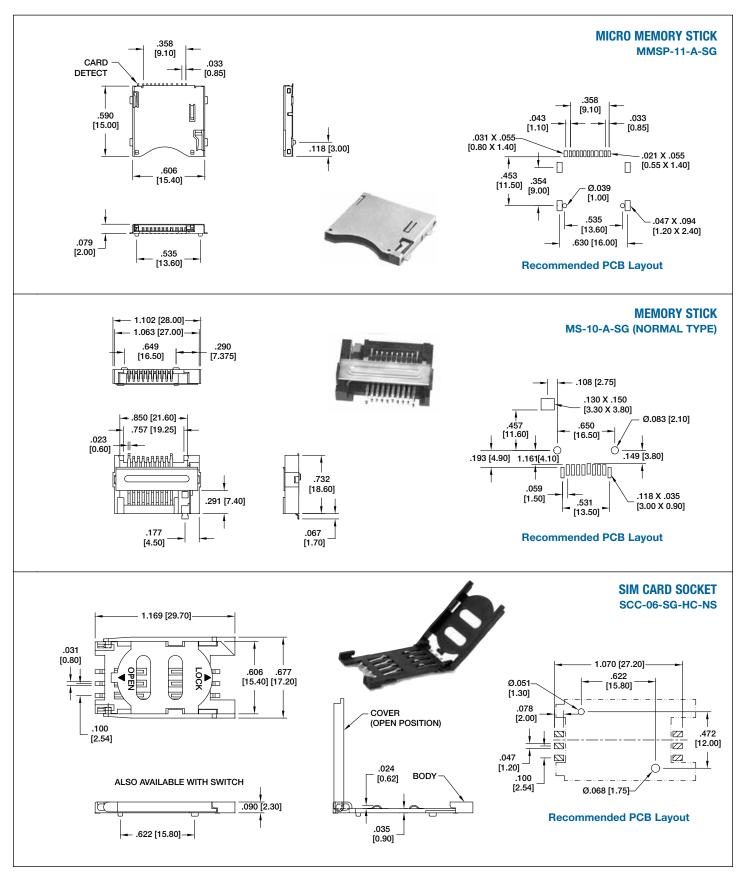
#### OPTIONS:

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



# MICRO STICK, MEMORY STICK & SIM CARD SOCKET

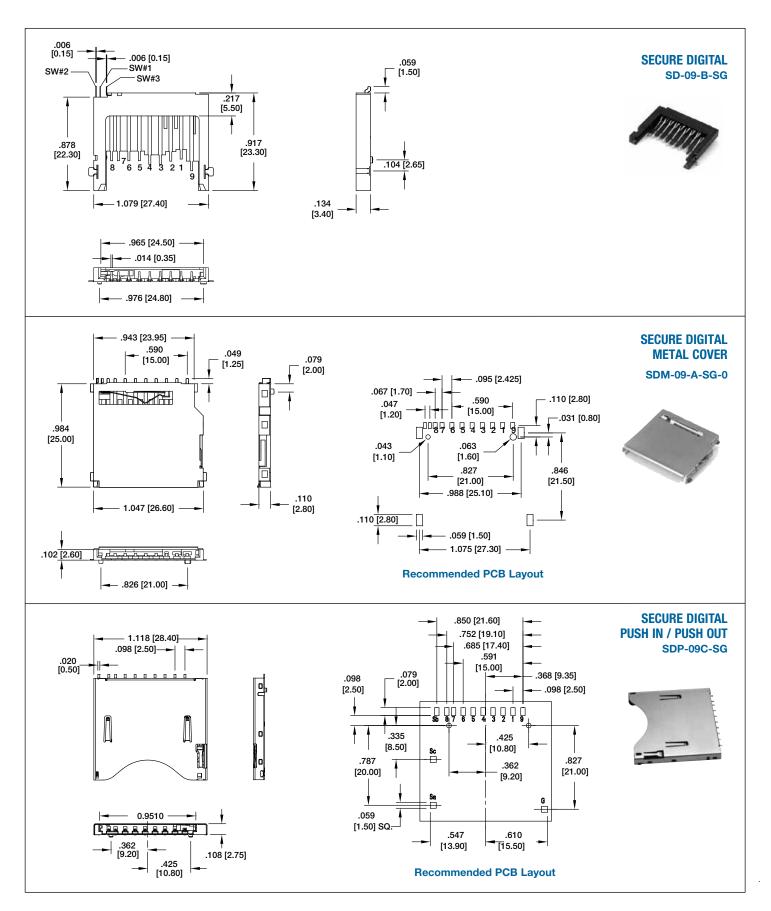
**MEMORY SOCKETS** 





## **SECURE DIGITAL**

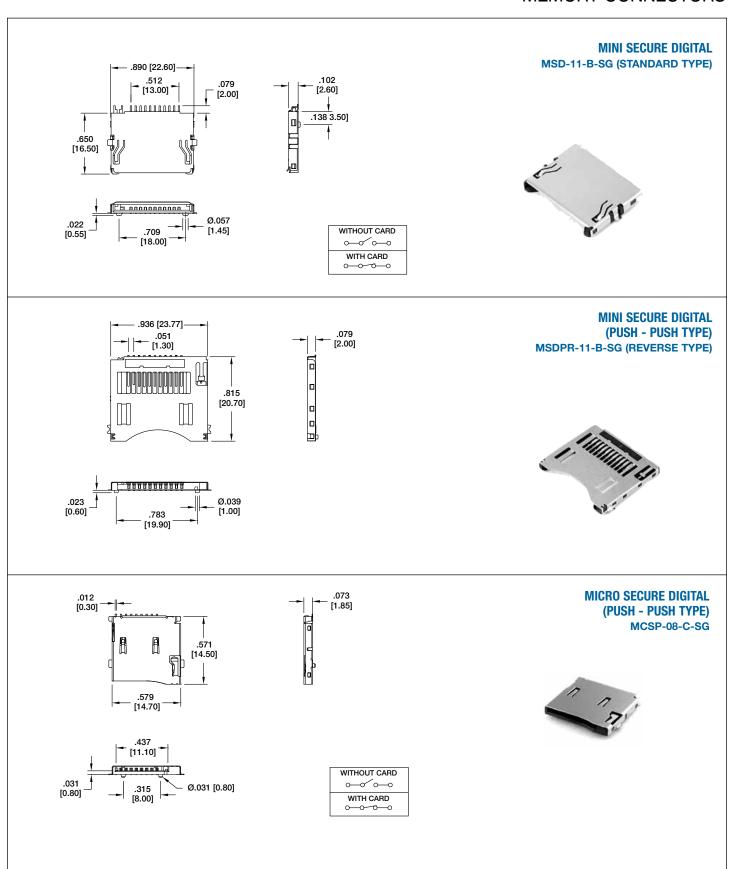
### **MEMORY SOCKETS**





# MINI & MICRO SECURE DIGITAL SOCKETS

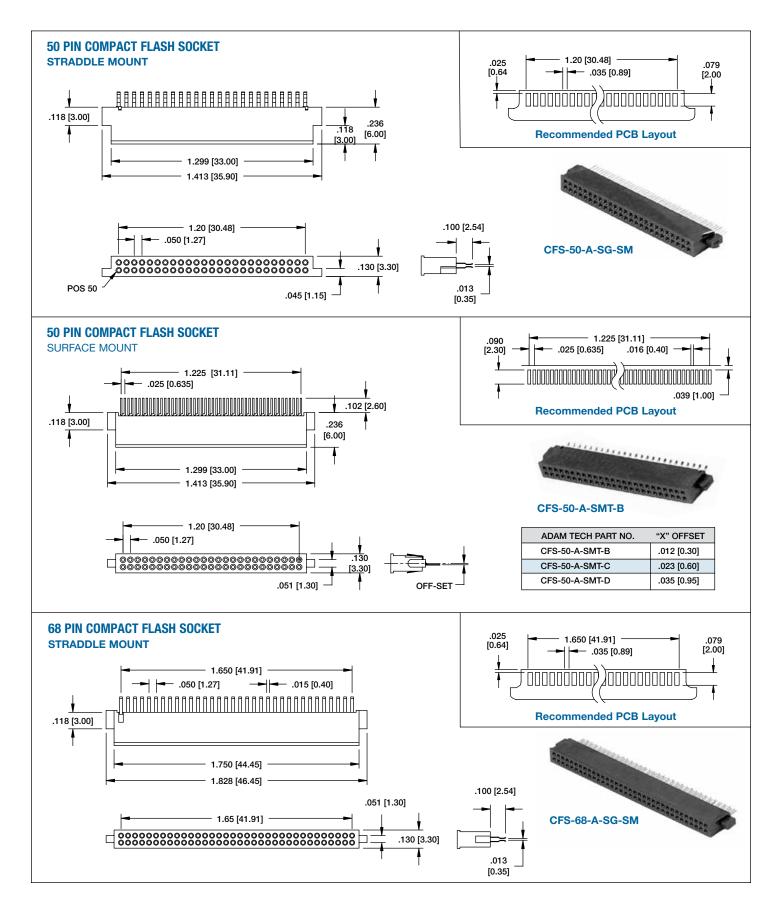
**MEMORY CONNECTORS** 





## **COMPACT FLASH SOCKETS**

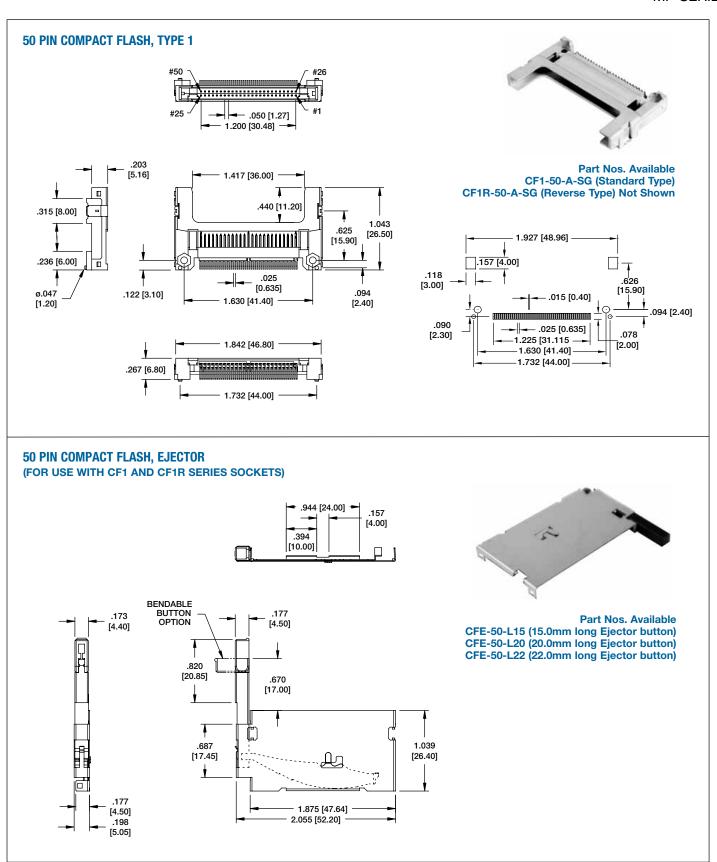
STRADDLE MOUNT & SURFACE MOUNT MP SERIES





## **COMPACT FLASH SOCKETS**

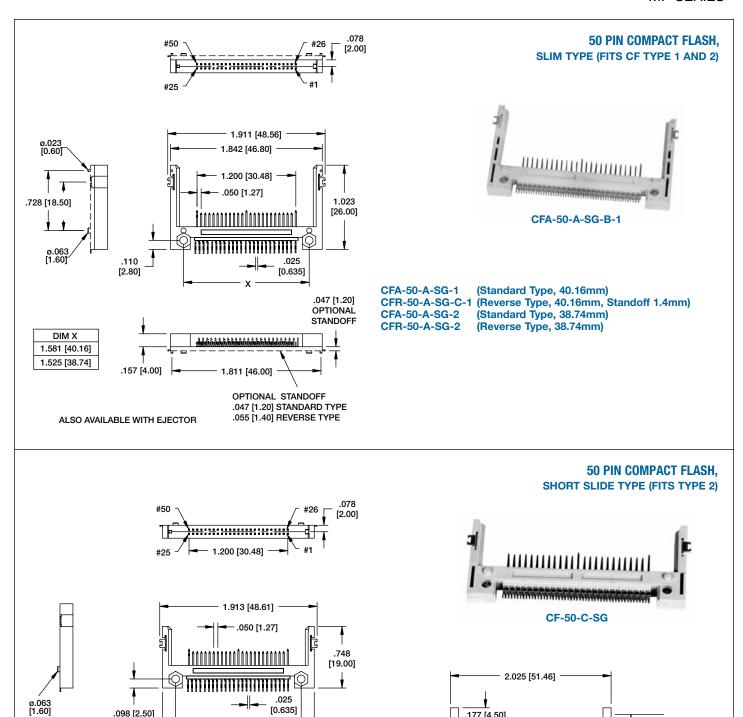
TYPE 1 & EJECTER MP SERIES





## **COMPACT FLASH SOCKETS**

50 PIN SLIM TYPE MP SERIES



.315 [8.00]

ø.086

[2.20]

.118 [3.00]

.177 [4.50]

.025 [0.635]

1.225 [31.115] -1.525 [38.74]

.118

[3.00] ø.070 [1.80]

.122 [3.10]

.137 [3.50]

[0.635]

1.525 [38.74]

1.842 [46.80]

.098 [2.50]

.157 [4.00]



# 0.80mm SUB-MICRO HEADERS 1.00mm MICRO HEADERS

.031" [0.80] & .039" [1.00] CENTERLINE MPH & SPH / MRS & SRS

#### **INTRODUCTION:**

Adam Tech 0.8mm and 1.00mm 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:**

0.8mm and 1.0mm versions
Pin Header and Female Header set
Lightweight and Compact
Hi Temp Insulators

#### **MATING OPTIONS:**

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

#### SPECIFICATIONS:

#### Material:

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

Insulator Color: Black Contacts: Phosphor Bronze

#### Plating:

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 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 cycles min.

#### **Temperature Ratings:**

Operating temperature: -40°C to +105°C

Max process temp: 230°C for 30 ~ 60 seconds
(260°C for 10 seconds)

Soldering process temperature: 260°C

#### **PACKAGING:**

Anti-ESD plastic bags or tubes

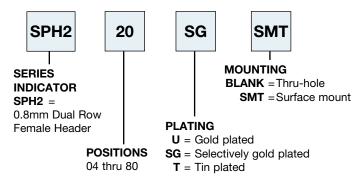
#### APPROVALS AND CERTIFICATIONS:

UL Recognized & CSA Certified, File no. E224053

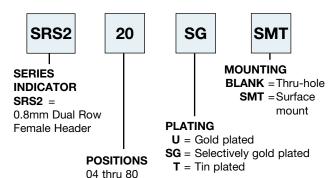




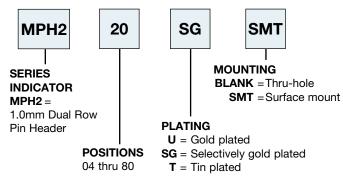
#### 0.8mm MALE ORDERING INFORMATION



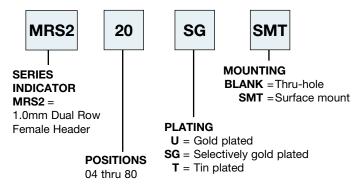
#### 0.8mm FEMALE ORDERING INFORMATION



### 1.0mm MALE ORDERING INFORMATION



### 1.0mm FEMALE ORDERING INFORMATION

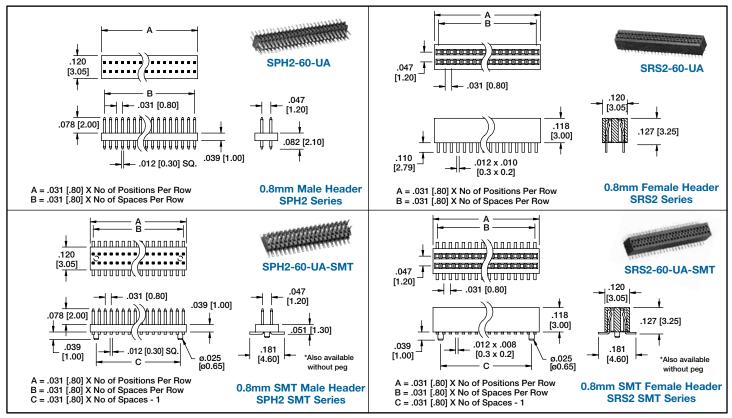




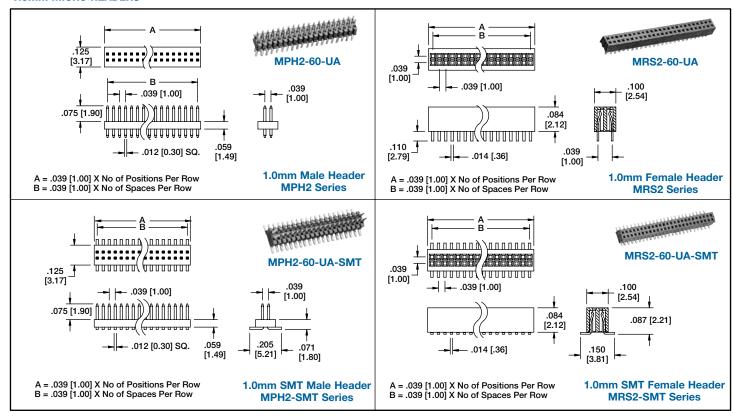
# 0.8mm SUB-MICRO HEADERS 1.00mm MICRO HEADERS

.031" [0.8] & .039" [1.00] CENTERLINE MPH & SPH / MRS & SRS

#### 0.8mm SUB-MICRO HEADERS



#### 1.0mm MICRO HEADERS





## .050" PIN HEADERS

.050" [1.27] CENTERLINE **HPH SERIES** 

#### 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 0.4mm Sg. 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 mΩ max. Initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 500 Cycles min.

#### Temperature Rating:

Operating temperature: -40°C to +105°C Soldering process temperature: 260°C

#### PACKAGING:

Anti-ESD plastic bags

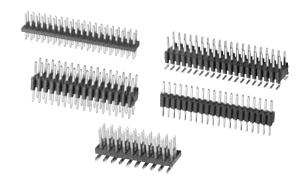
#### **APPROVALS AND CERTIFICATIONS:**

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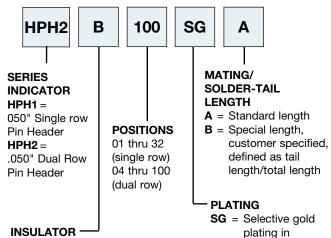


Add designator(s) to end of part number

- HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°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°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



#### **INSULATOR -**SIZE

A = 1.00mm insulator thickness single or dual row (dual row .050"x.050")

**B** = .100" insulator thickness single or dual row (dual row .050"x.100")

contact area

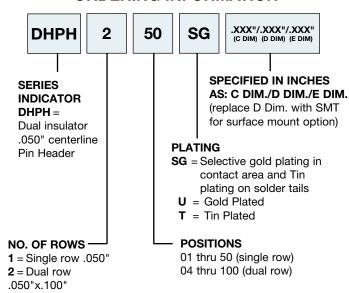
on solder tails

Tin plating

**U** = Gold Plated

T = Tin Plated

#### ORDERING INFORMATION

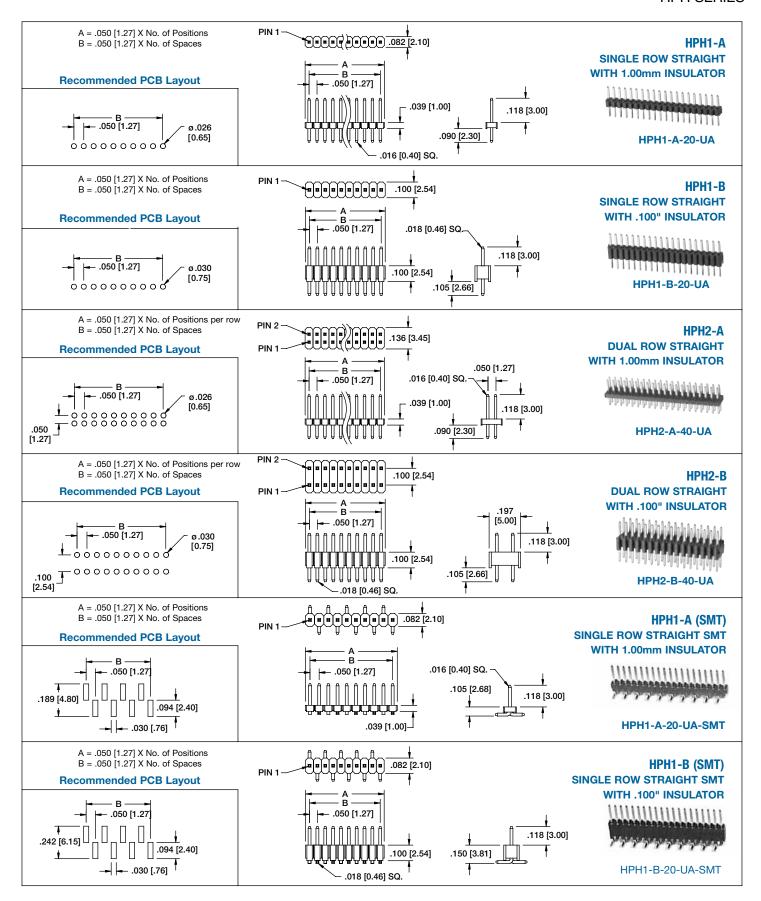


**OPTIONS:** 



## .050" PIN HEADERS

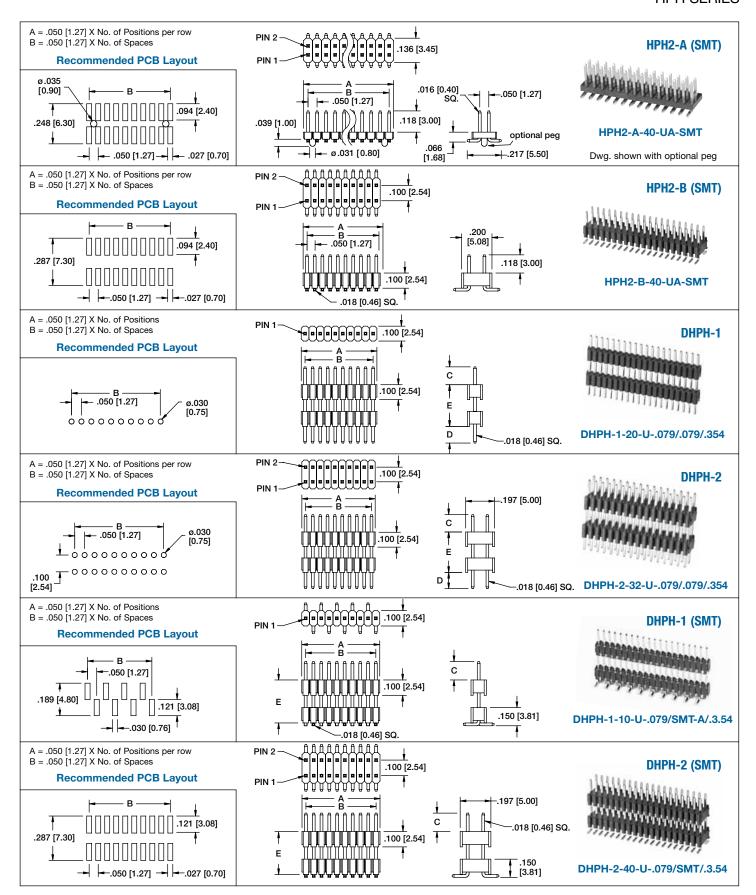
.050" [1.27] CENTERLINE
HPH SERIES





## .050" PIN HEADERS

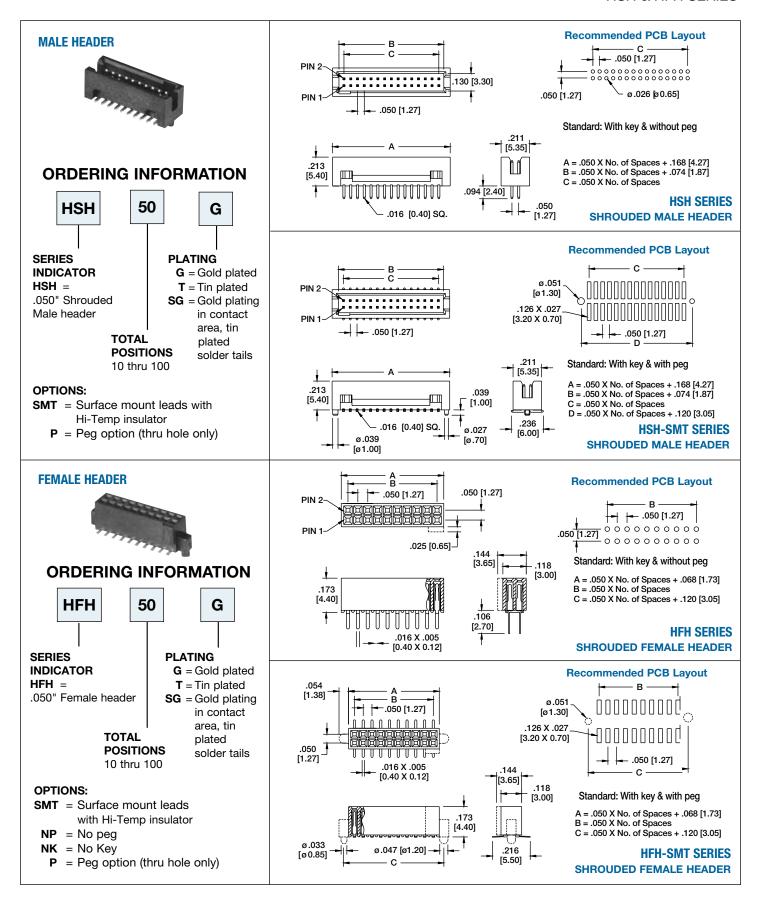
.050" [1.27] CENTERLINE





## .050" MALE & FEMALE HEADER SET

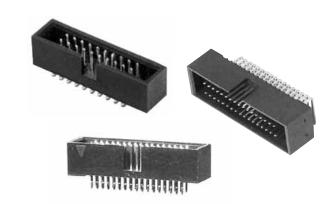
.050" [1.27] CENTERLINE HSH & HFH SERIES





## .050" BOX HEADERS

.050" X .050" & .050" X .100" CENTERLINE HBHR SERIES



#### **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" [1.27mm] 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:

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: 250V AC max. Current rating: 1 Amp max

Contact resistance: 20 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 500V AC for 1 minute

#### Temperature Rating:

Operating temperature: -40°C to +105°C Soldering process temperature: 260°C

#### PACKAGING:

Anti-ESD plastic trays

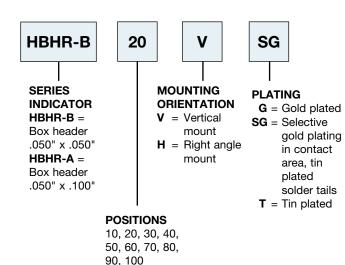
#### APPROVALS AND CERTIFICATIONS:

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#### ORDERING INFORMATION



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

#### **OPTIONS:**

Add designator(s) to end of part number

30 = 30  $\mu$ in gold plating in contact area

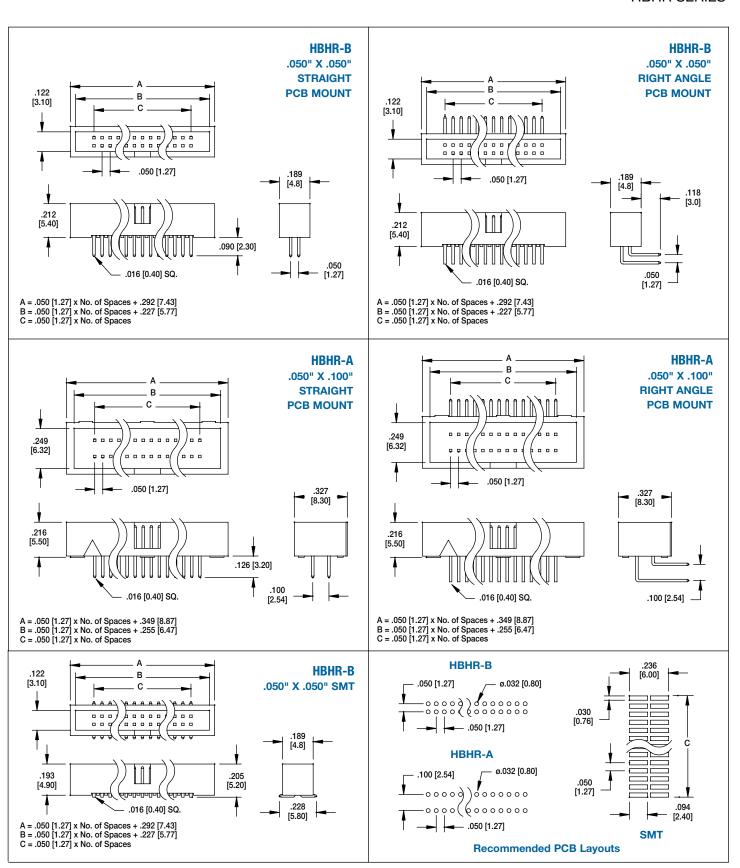
**SMT** = Surface mount leads with Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)



## .050" BOX HEADERS

.050" X .050" & .050" X .100" CENTERLINE HBHR SERIES





## .050" LATCH HEADERS

.050" X .050" & .050" X .100" CENTERLINE

#### **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:

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 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 500V AC for 1 minute

#### Mechanical:

Mating durability: 500 Cycles min.

#### **Temperature Rating:**

Operating temperature: -55°C to +105°C

#### **PACKAGING:**

Anti-ESD plastic trays

#### **SAFETY AGENCY APPROVALS:**

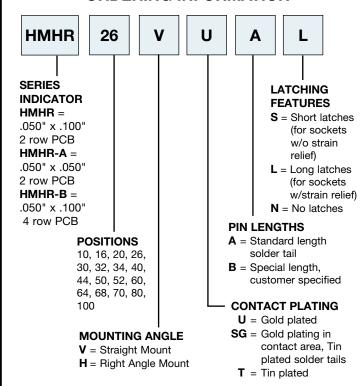
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#### **ORDERING INFORMATION**



#### **OPTIONS:**

Add designator(s) to end of part number

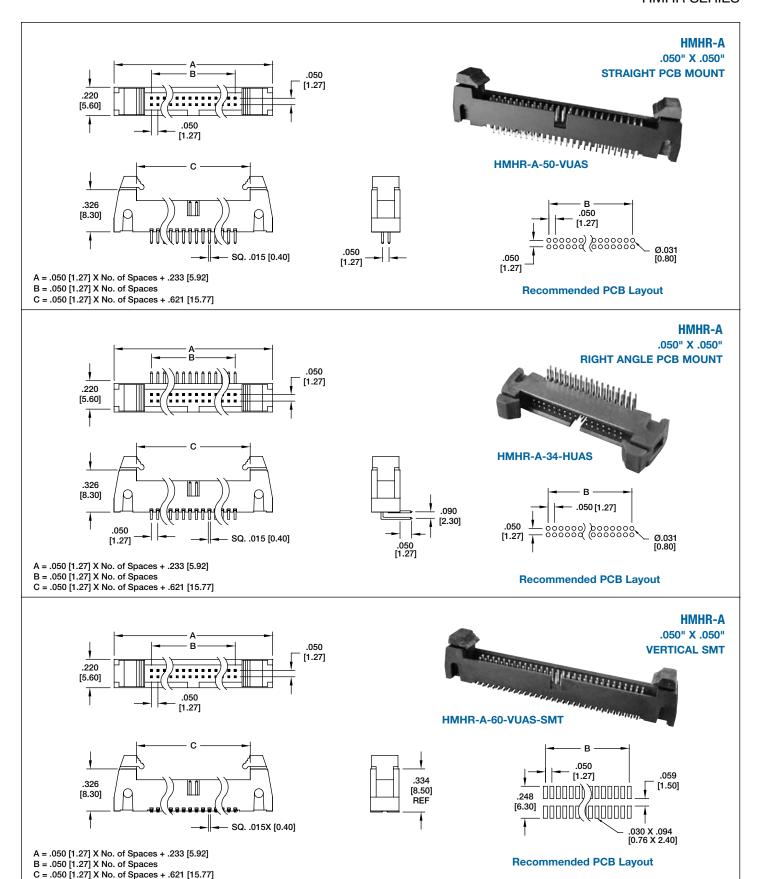
**SMT** = Surface mount leads Dual row with Hi-Temp insulator

**HT** = High-temp insulator for high-temp soldering processes



## .050" LATCH HEADERS

.050" X .050" CENTERLINE

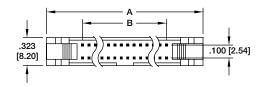


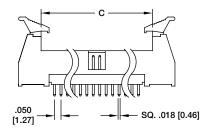


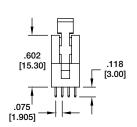
## .050" LATCH HEADERS

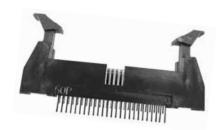
.050" X .100" CENTERLINE

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







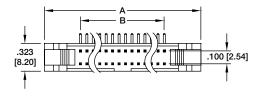


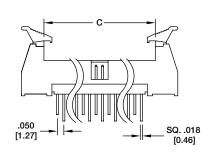
HMHR-B-50-VUAL

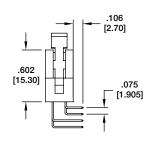
A = .050 [1.27] X No. of Spaces + .306 [7.78] B = .050 [1.27] X No. of Spaces

C = .050 [1.27] X No. of Spaces + .829 [21.07]

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



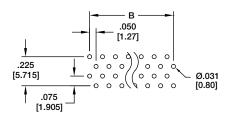




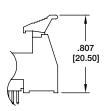


A = .050 [1.27] X No. of Spaces + .306 [7.78] B = .050 [1.27] X No. of Spaces

C = .050 [1.27] X No. of Spaces + .829 [21.07]



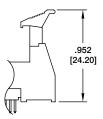
**Recommended PCB Layout** 



Header with Short Ejector/Latch for Sockets without

Strain Reliefs

**Latch Options** 



Header with Long Ejector/Latch for Sockets with Strain Reliefs

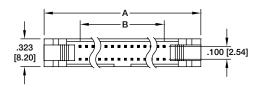


## .050" LATCH HEADERS

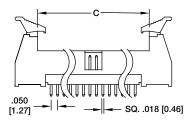
.050" X .100" CENTERLINE HMHR SERIES

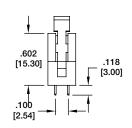


.050" X .100" STRAIGHT PCB MOUNT









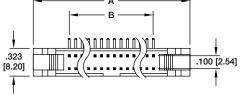
A = .050 [1.27] X No. of Spaces + .306 [7.78]

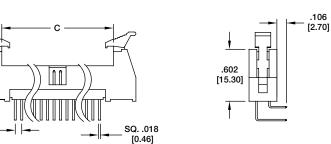
B = .050 [1.27] X No. of Spaces

C = .050 [1.27] X No. of Spaces + .829 [21.07]

#### HMHR .050" X .100"

RIGHT ANGLE PCB MOUNT



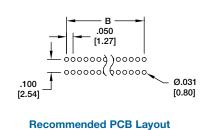




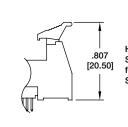
A = .050 [1.27] X No. of Spaces + .306 [7.78]

B = .050 [1.27] X No. of Spaces

C = .050 [1.27] X No. of Spaces + .829 [21.07]



.050 [1.27]





Header with Long Ejector/Latch for Sockets with Strain Reliefs



## .050" RECEPTACLE STRIPS

.050" [1.27] CENTERLINE HRS SERIES

#### 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" [0.4mm] 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 overallSG = 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 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  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°C to +105°C

#### PACKAGING:

Anti-ESD trays or tubes

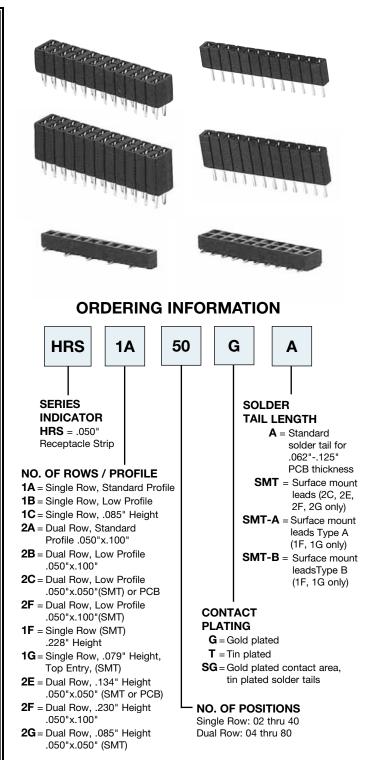
(Tape and Reel optional for SMT option)

#### SAFETY AGENCY APPROVALS:

UL Recognized & CSA Certified, File no. E224053







#### **OPTIONS**:

Add designator(s) to end of part number

**30** =  $30 \mu \text{in gold plating in contact area}$ 

**P** = Guide Pegs

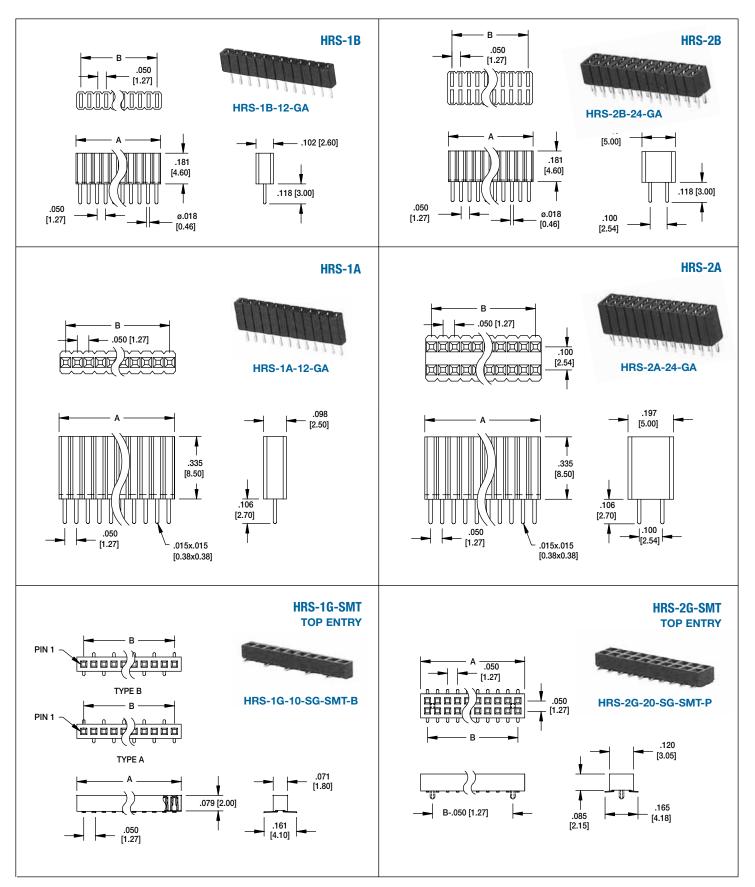
**E** = End Pegs

HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)



## .050" RECEPTACLE STRIPS

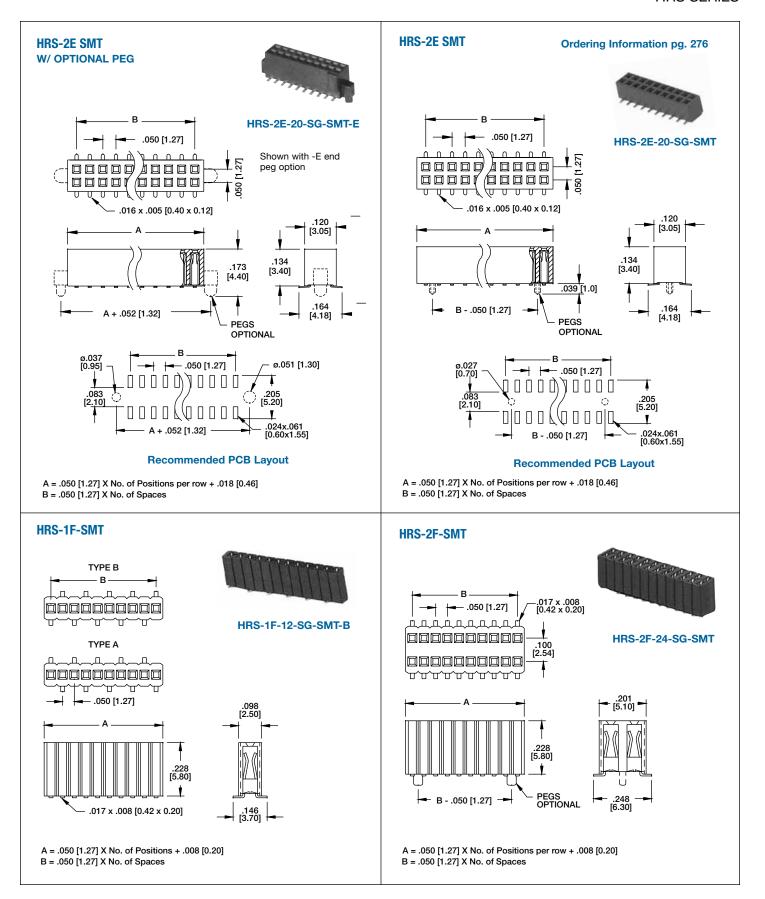
.079", .085", .181" & .335" HEIGHT





## .050" RECEPTACLE STRIPS

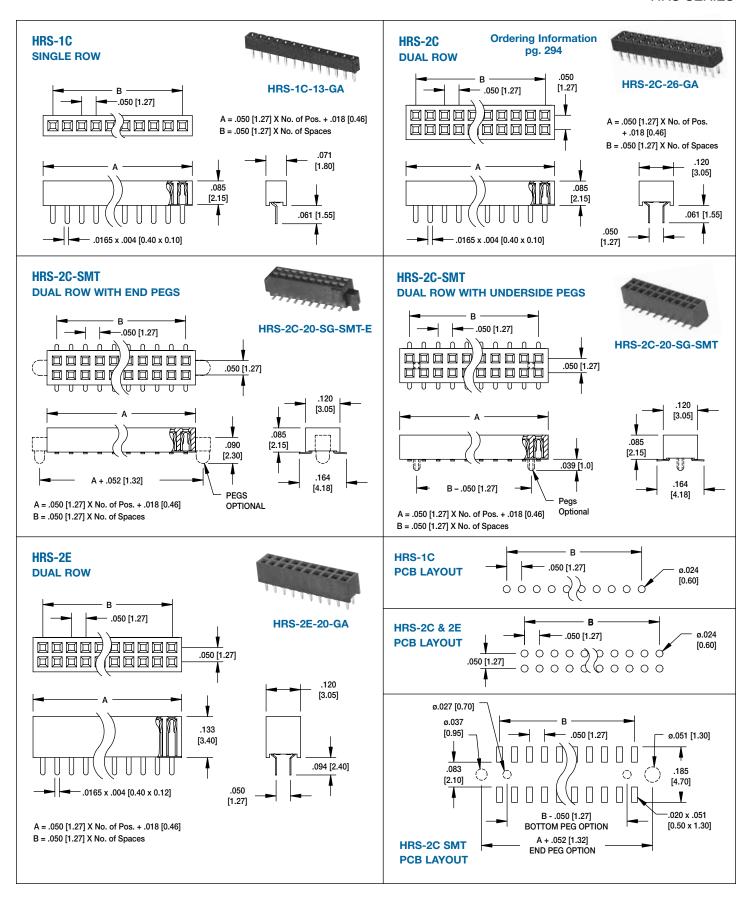
.134" & .228" HEIGHT .050" [1.27] CENTERLINE HRS SERIES





## .050" RECEPTACLE STRIPS

.085" & .133" HEIGHT .050" [1.27] CENTERLINE HRS SERIES





## 2.00mm PIN HEADERS

.079" [2.00] CENTERLINE

#### INTRODUCTION

Adam Tech 2PH & D2PH Series 2.0mm 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 2.0mm 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 2.0mm 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:**

Standard insulator: PBT, glass reinforced, rated UL94V-0 Optional Hi-Temp insulator: Nylon 6T, rated UL94V-0

Insulator Color: Black Contacts: Brass

#### 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 mΩ max, initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

#### Mechanical:

Mating durability: 1,000 cycles

#### **Temperature Rating:**

Operating temperature: -40°C to +105°C Soldering process temperature: 260°C

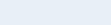
#### PACKAGING:

Anti-ESD plastic bags

(Tape and Reel available for SMT option)

#### **APPROVALS AND CERTIFICATIONS:**

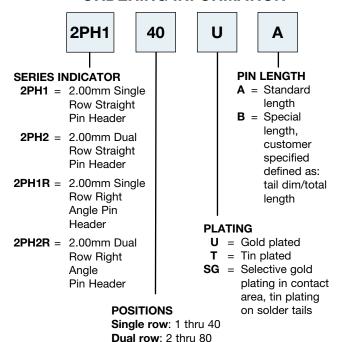
UL Recognized & CSA Certified, File no. E224053



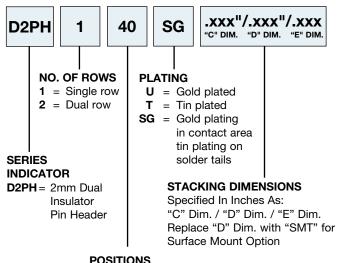




#### ORDERING INFORMATION



### 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

(Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)

L = Low profile 1.5mm insulator thickness

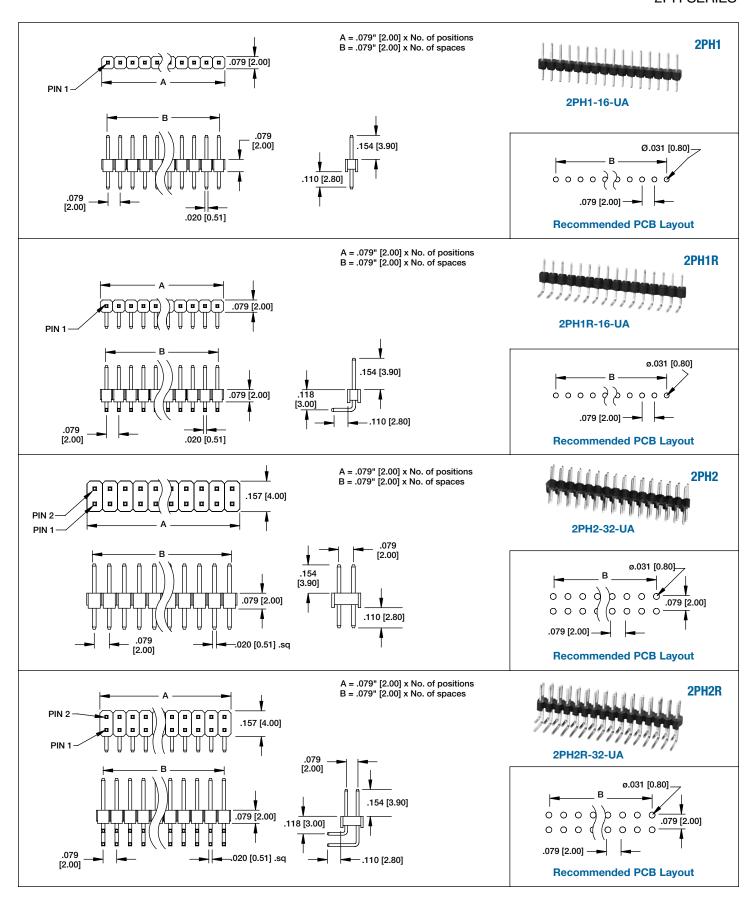
**P** = Locating pegs

**BR** = Board retention solder tails



## 2.00mm PIN HEADERS

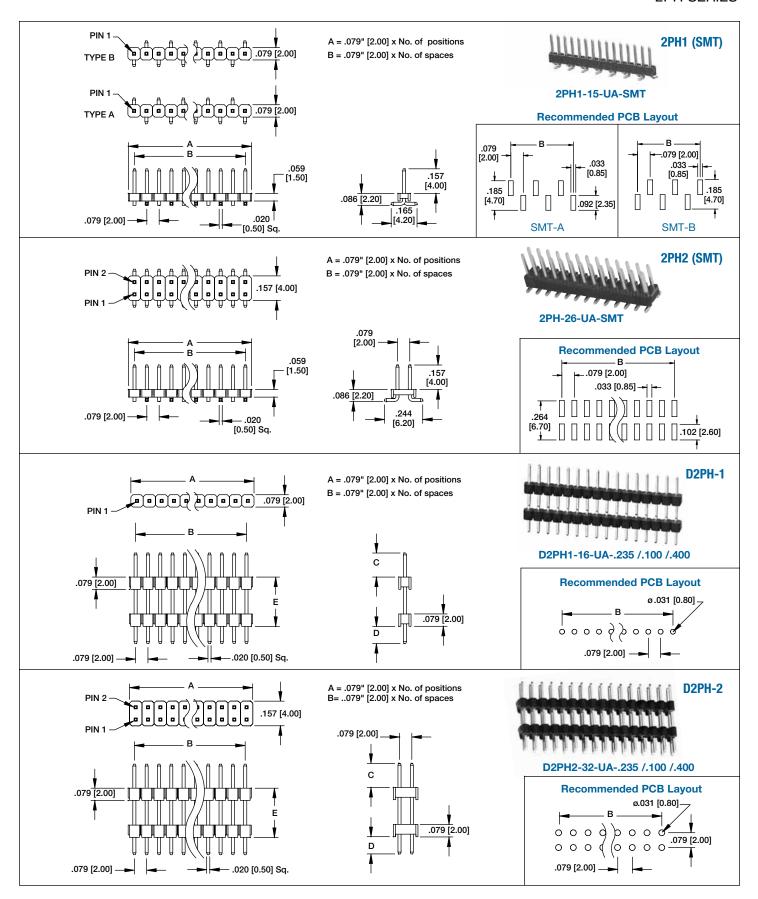
.079" [2.00] CENTERLINE 2PH SERIES





# 2.00mm PIN HEADERS

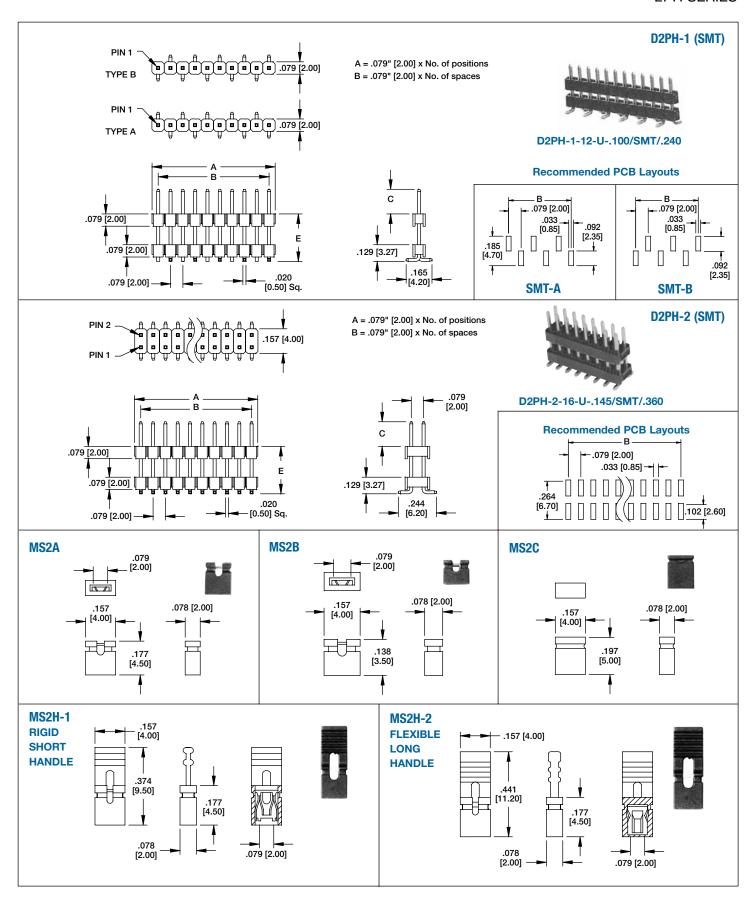
.079" [2.00] CENTERLINE 2PH SERIES





# 2.00mm HEADERS & SHUNTS

.079" [2.00] CENTERLINE 2PH SERIES





# 2.00mm BOX HEADERS

.079" [2.00] CENTERLINE 2BHR SERIES

### 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.
 T = Tin over copper underplate overall

# Electrical:

Operating voltage: 250V AC max. Current rating: 1 Amp max

Contact resistance: 20 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

### Mechanical:

Mating durability: 500 cycles min.

### **Temperature Rating:**

Operating temperature: -40°C to +105°C

Soldering process temperature: Standard insulator: 235°C Hi-Temp insulator: 260°C

### PACKAGING:

Anti-ESD plastic trays

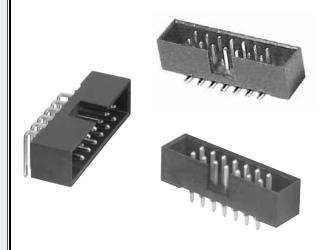
# **APPROVALS AND CERTIFICATIONS:**

UL Recognized & CSA Certified, File no. E224053

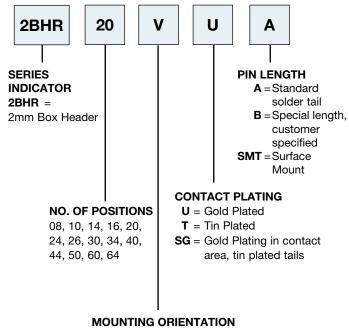








# ORDERING INFORMATION



V = Straight MountH = Right Angle Mount

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

# **OPTIONS:**

Add designator(s) to end of part number

**30** = 30  $\mu$ in gold plating in contact area

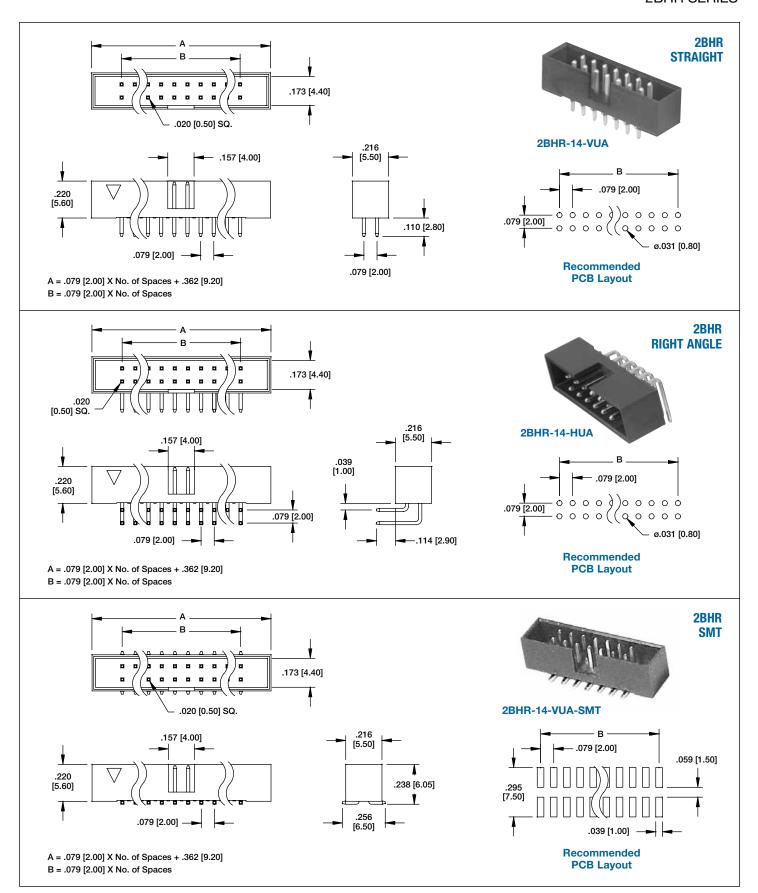
**GY** = Gray color insulator

HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)



# 2.00mm BOX HEADERS

.079" [2.00] CENTERLINE 2BHR SERIES





# 2.00mm LATCH HEADER

.079" [2.00] CENTERLINE 2MHR SERIES

### 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

#### **MATING SOCKETS:**

Hi-Temp insulator available

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 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  min.

Dielectric withstanding voltage: 1000V AC for 1 minute

## Mechanical:

Mating durability: 500 Cycles min.

### **Temperature Rating:**

Operating temperature: -40°C to +105°C

### PACKAGING:

Anti-ESD plastic trays

#### SAFETY AGENCY APPROVALS:

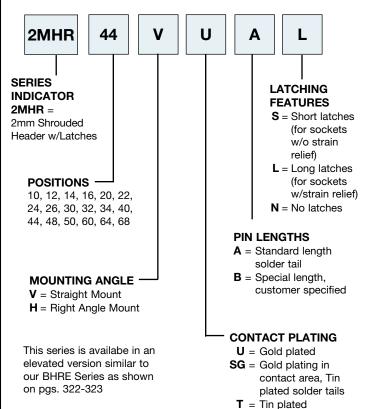
UL Recognized & CSA Certified, File no. E224053







# **ORDERING INFORMATION**



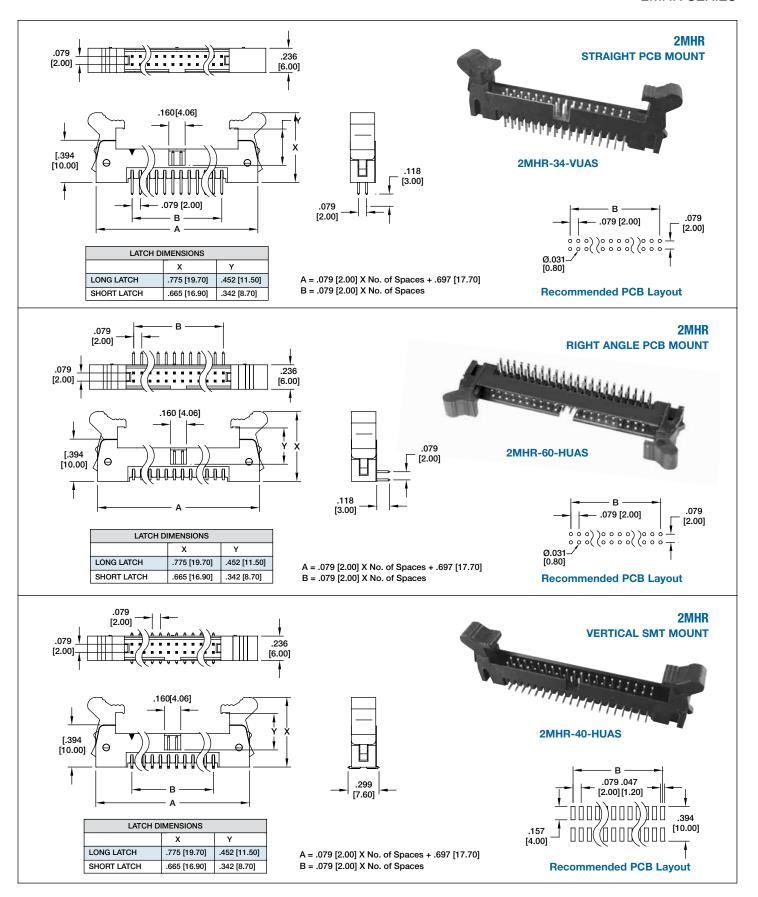
## **OPTIONS**:

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



# 2.00mm LATCH HEADER

.079" [2.00] CENTERLINE 2MHR SERIES





.079" [2.00] CENTERLINE

### **INTRODUCTION:**

Adam Tech 2RS Series 2.00mm Receptacle Strips are offered in several sizes and profiles designed to satisfy most 2.00mm 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 2.0mm pin headers with a .020" [0.5mm] 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: 250V AC max. Current rating: 1 Amp max.

Contact resistance: 20 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  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°C to +105°C

### PACKAGING:

Anti-ESD plastic trays

(Tape and Reel optional for SMT option)

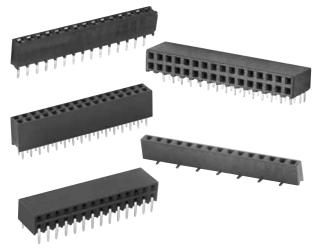
### **SAFETY AGENCY APPROVALS:**

UL Recognized & CSA Certified, File no. E224053









# **ORDERING INFORMATION**



40



**G** = Gold plated

tin plated

solder tails

contact area,

**SG** = Gold plated

T = Tin plated

SINGLE ROW: 2 thru 40

**DUAL ROW**: 4 thru 80

FOUR ROW: 8 thru 120

**PLATING** 

**POSITIONS** 

### **SERIES INDICATOR**

2RS1 = 2.00mm Single Row, Vertical Mount, Receptacle

**2RS2** = 2.00mm Dual Row, Vertical Mount, Receptacle

2RS1R = 2.00mm Single Row, Right Angle, Receptacle

2RS2R = 2.00mm Dual Row,

Right Angle,
Receptacle

2RS4 = 2.00mm 4 Row, Vertical Mount, Receptacle

**2RS2BR** = 2.00mm Dual Row, Right Angle, 3-Sided

Contact Receptacle

**2RS1H** = 2.00mm Single Row, Vertical Mount,

.248" Height Receptacle

2RS2H = 2.00mm Dual Row, Vertical Mount,

.248" Height Receptacle

2RS2T = 2.00 mm Dual Row, Surface Mount,

.106" Height, Top Entry Receptacle

**2RS2B** = 2.00mm 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

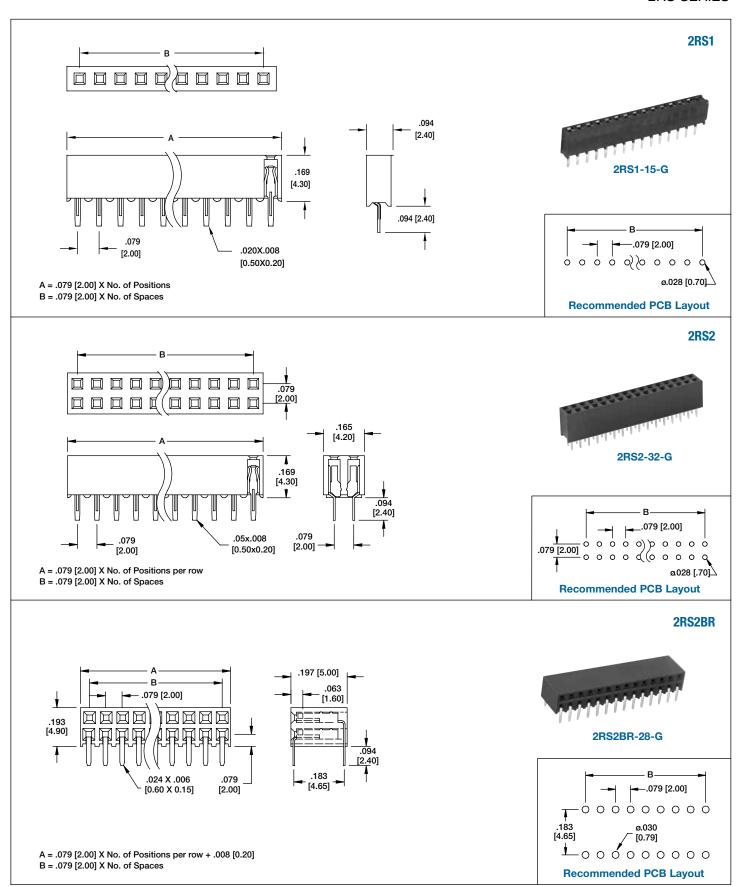
**P** = Optional guide peg on SMT version

**PP** = Pick and place pad

HT = Hi-Temp insulator for Hi-Temp soldering processes up to 260°C (Add this option for thru-hole products only. All SMT products are manufactured with Hi-Temp insulators)



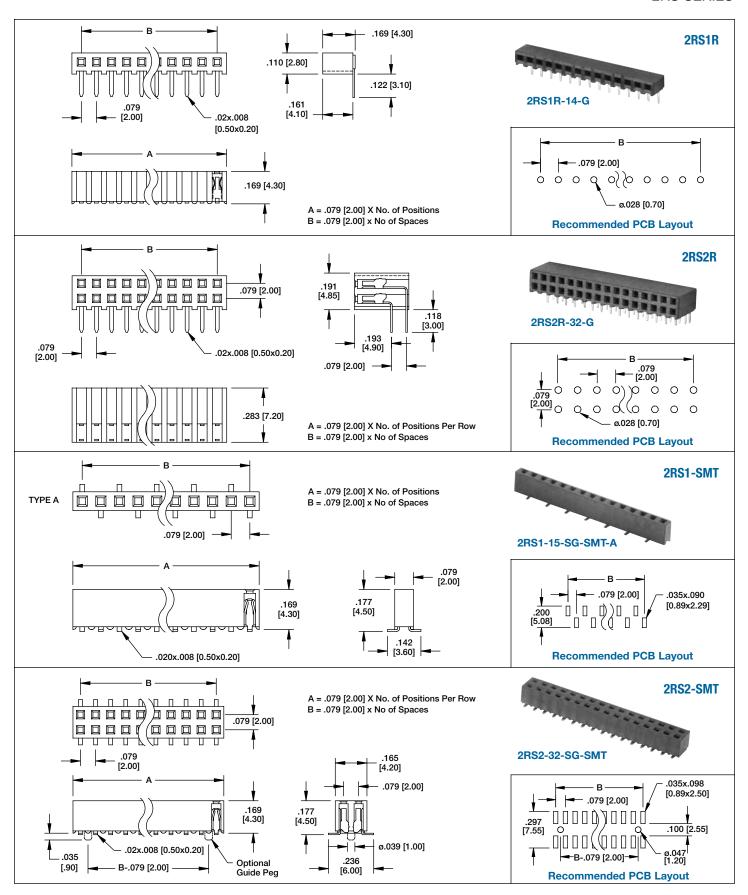
.169" & .193" HEIGHT .079" [2.00] CENTERLINE 2RS SERIES





# 2.00mm RECEPTACLE STRIPS

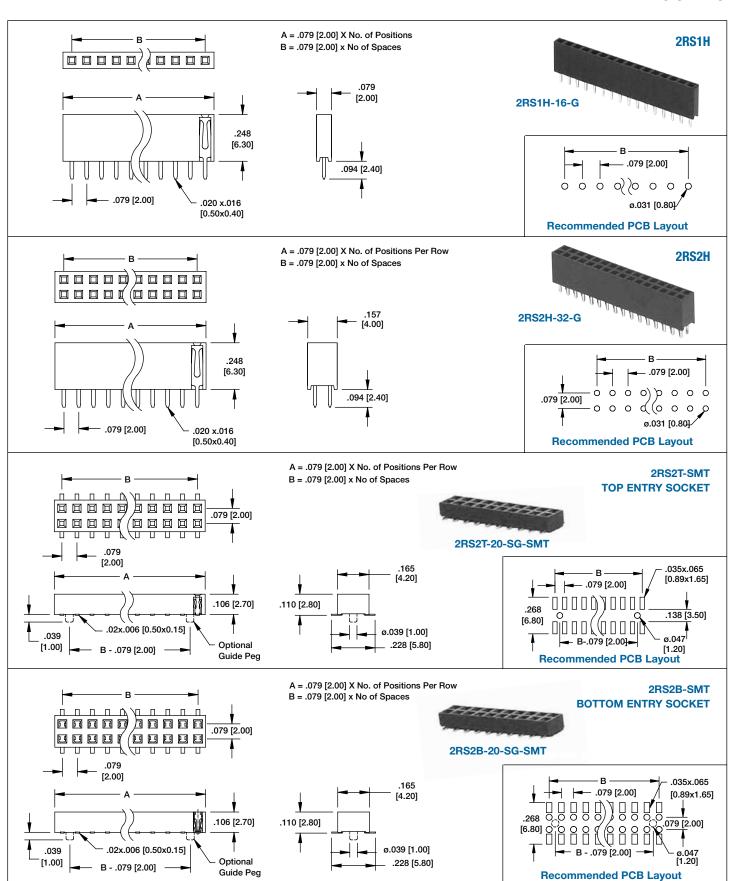
.110", .169" & .191" HEIGHT .079" [2.00] CENTERLINE 2RS SERIES





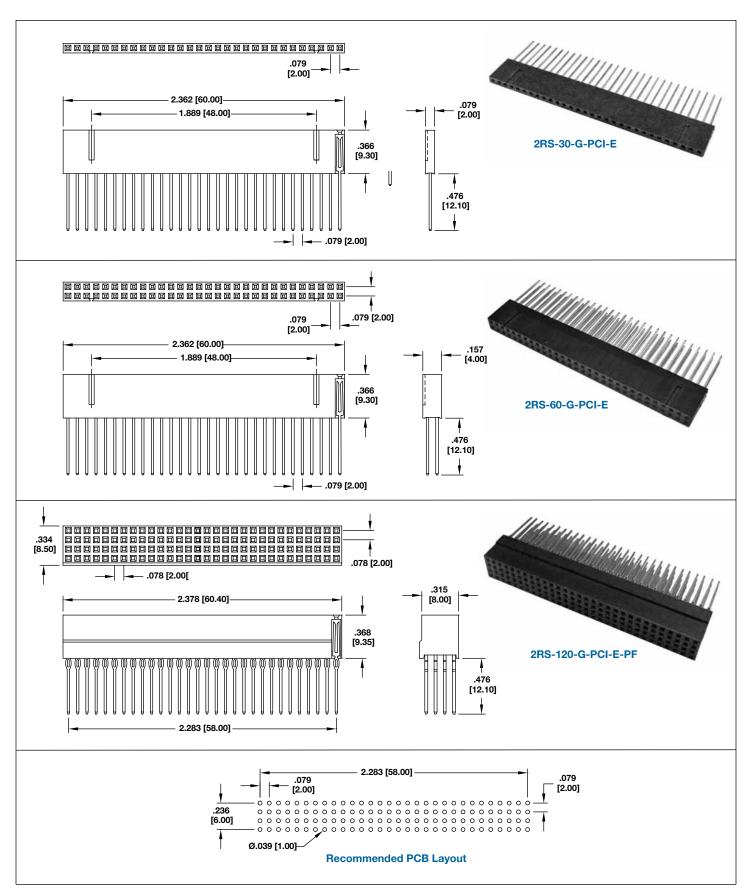
# 2.00mm RECEPTACLE STRIPS

.106" & .248" HEIGHT .079" [2.00] CENTERLINE 2RS SERIES



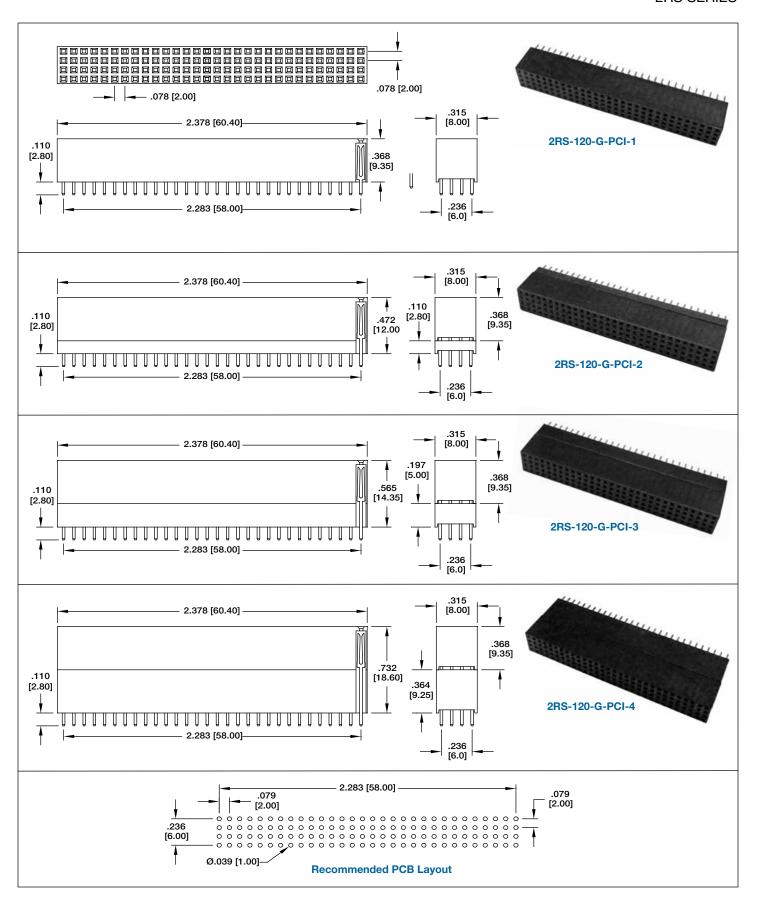


PC104 PCI SOCKET 2RS SERIES





PC104 PCI SOCKET 2RS SERIES





# .100" PIN HEADERS

.100" [2.54] CENTERLINE PH SERIES

# 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" [2.54mm] 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:

U = Gold over nickel underplateSG = 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: 3 Amps max

Contact resistance: 20 m $\Omega$  max. initial Insulation resistance: 5000 M $\Omega$  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°C to +105°C

Soldering process temperature: Standard insulator: 235°C Hi-Temp insulator: 260°C

### **PACKAGING:**

Anti-ESD plastic bags

### **SAFETY AGENCY APPROVALS:**

UL Recognized & CSA Certified, File no. E224053

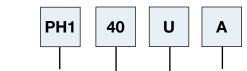








### ORDERING INFORMATION



#### **SERIES INDICATOR**

**PH1** = Single Row, Straight

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

### MATING/TAIL LENGTH

A = Mating Length ("C" dim.) = .235" Solder Tail ("D" dim.) = .120"

B = Mating Length ("C" dim.) = .318" Solder Tail Length ("D" dim.) = .120" Special lengths available contact factory

# PLATING

**U** = Gold flash overall

 $V = 15 \mu in gold on mating area 100 <math>\mu in tin on solder tail$ 

 $\mathbf{W}$  = 30  $\mu$ in gold on mating area 100  $\mu$ in tin on solder tail

 $T = 100 \mu in tin overall$ SG = Gold flash on

mating area 100  $\mu$ in tin lead 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

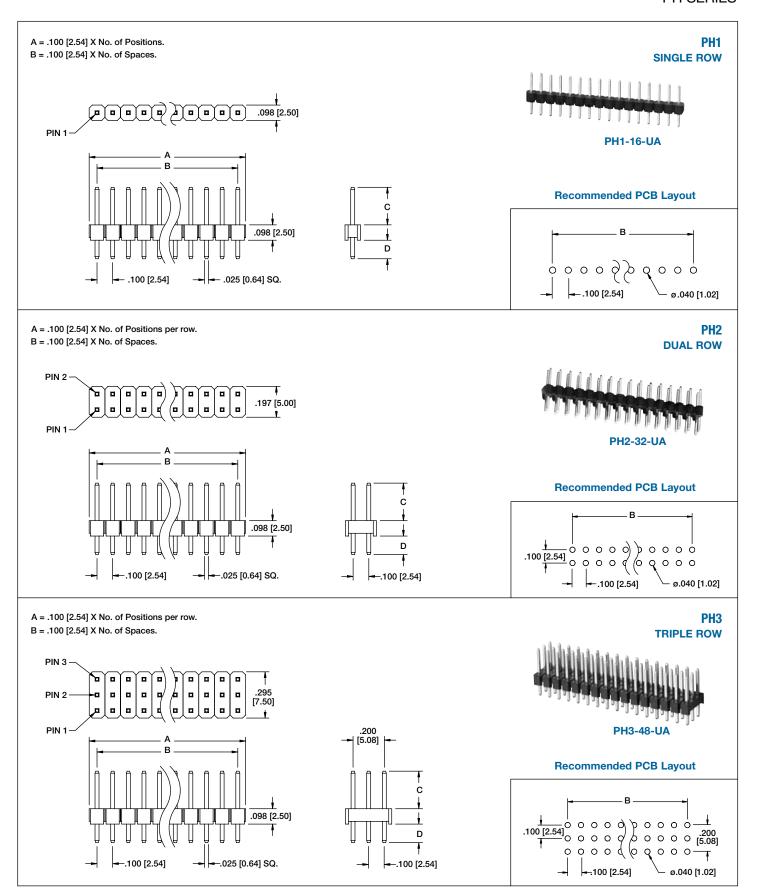
up to 260°C (Add this option for thru-hole products only.

All SMT products are manufactured with Hi-Temp insulators)

L = Low profile 1.50 mm insulator thickness

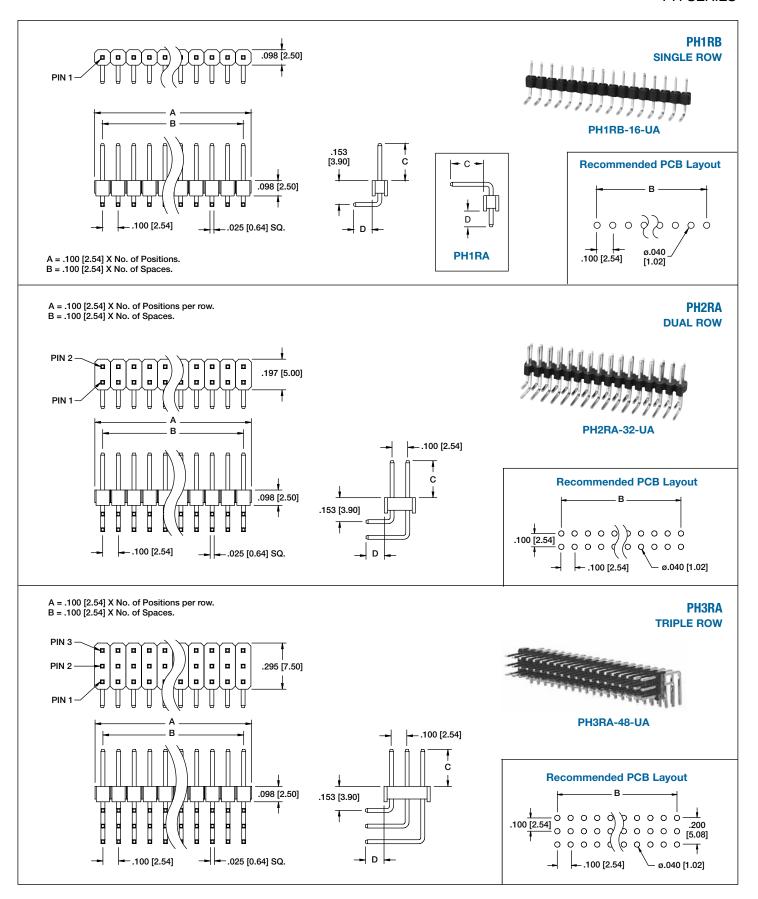


.100" [2.54] CENTERLINE PH SERIES



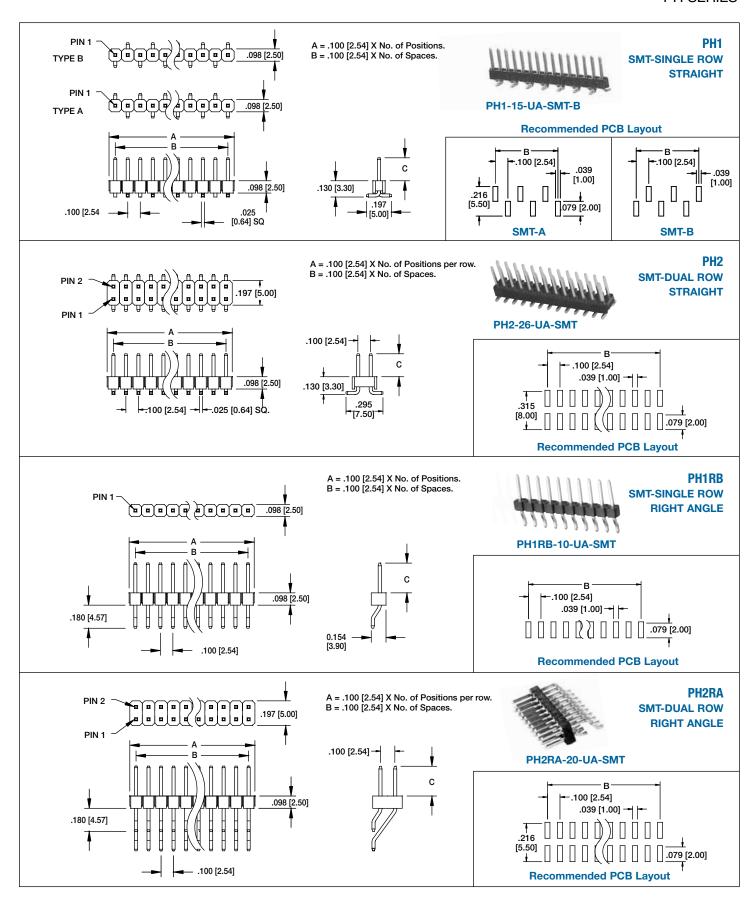


.100" [2.54] CENTERLINE PH SERIES



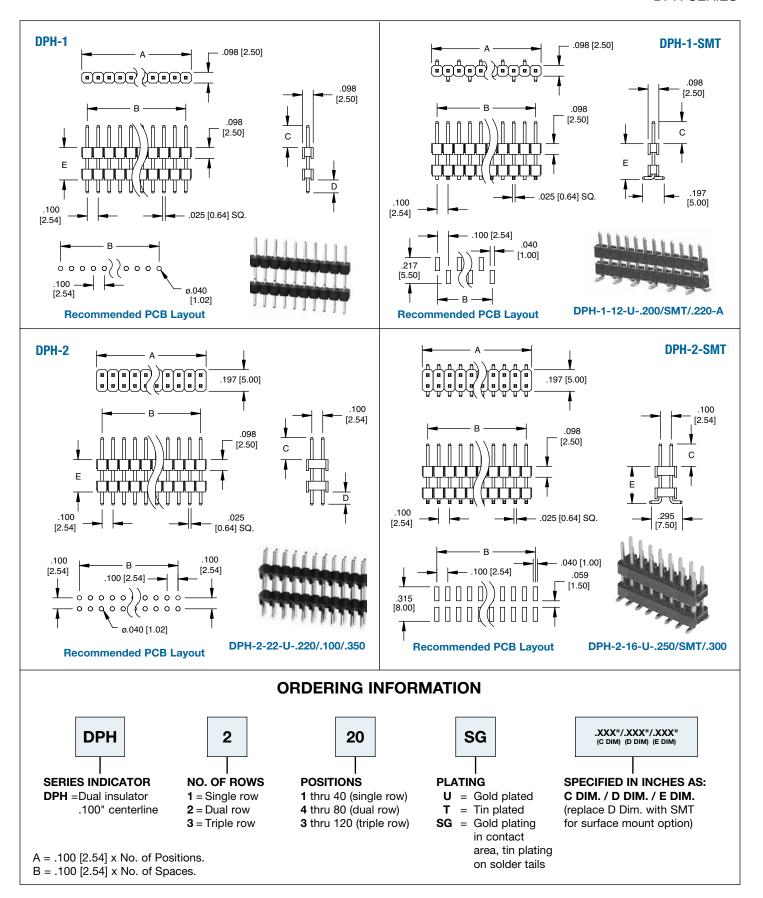


.100" [2.54] SURFACE MOUNT PH SERIES





DUAL INSULATOR .100" [2.54] CENTERLINE DPH SERIES





# MINI SHUNTS

.050", 2mm, .100" & .200" CENTERLINE

### **INTRODUCTION:**

Adam Tech MS Series Mini Shunts are available in .050", 2.0mm, .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" sq. pin headers on .100" centers and all industry standard pin headers with .025" square post on .100" [2.54mm] centerlines.

### SPECIFICATIONS:

#### Material:

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

### **Contact Plating:**

G = Gold over nickel underplate overall T = Tin over copper underplate overall

Operating voltage: 250V AC max. Current rating: 3 Amps max

Contact resistance: 20 mΩ max. initial Insulation resistance: 5000 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°C to +105°C

### PACKAGING:

Anti-ESD plastic bags

#### **SAFETY AGENCY APPROVALS:**

UL Recognized & CSA Certified, File no. E224053







## ORDERING INFORMATION



### **BODY STYLE/HEIGHT**

**PLATING** MSA = Closed top, .256" G = Gold plated MSB = Open top, .236" T = Tin plated

MSC = Open top, .177" MSDA = Closed top, .315" MSDB = Open top, .315" **MSBH** = Handle-top, .531" **HMSA** = .050" Mini Shunt (1 x 2)

**HMSB** = .050" Mini Shunt (2 x 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. 301

### **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

 $\mathbf{R} = \text{Red }^*$ 

**B** = Blue \*

W = White \*

Y = Yellow \*

G = Green \* \* Minimum order required