

USB, MINI USB, MICRO USB FIREWIRE & MINI FIREWIRE

UNIVERSAL SERIAL BUS & IEEE 1394 FIREWIRE USB & FWC SERIES

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 mΩ max.
Insulation Resistance: 1000 MΩ min.
Dielectric Withstanding Voltage: 100V AC for 1 minute

Mechanical:

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

Temperature Ratings:

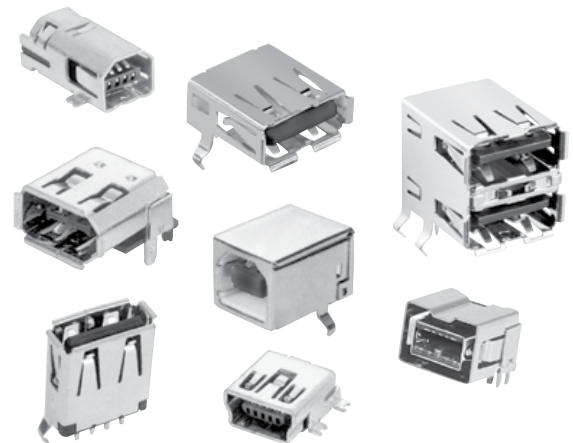
Operating Temperature: -55°C to +85°C
Soldering process temperature:
Standard insulator: 235°C
Hi-Temp insulator: 260°C

PACKAGING:

Anti-ESD plastic trays or tubes

APPROVALS AND CERTIFICATIONS:

UL Recognized & CSA Certified, File no. E224053



ORDERING INFORMATION

USB	A	S	RA
SERIES INDICATOR USB = Universal Serial Bus MUSB = Mini USB MCR = Micro USB FWC = IEEE 1394, Firewire MFW = Mini IEEE 1394, Firewire	TYPE A = USB Type "A" A3 = USB 3.0 Type "A" B = USB Type "B" B3 = USB 3.0 Type "B" AB = USB Type "AB" (Mini) mid-mount B4 = USB Type "B" (Mini) 4 pin B5 = USB Type "B" (Mini) 5 pin C = Firewire (IEEE 1394) D = Firewire (IEEE 1394B) Bilingual Type P = Firewire Plug (IEEE 1394) AP = USB Type A Plug BP = USB Type B Plug AB1 = USB Type AB (Mini Top Mount)	MOUNTING ANGLE RA = Right Angle RU = Right Angle Upright VT = Vertical Mount S = Wire Termination (Plug Only) PORTS S = Single port D = Dual port T = Triple port Q = Quad port	

OPTIONS:
Add as Suffix to basic part no.

SMT = Surface Mount Leads with Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

TSMT = True Surface Mount Leads with Hi-Temp insulator for Hi-Temp soldering processes up to 260°C

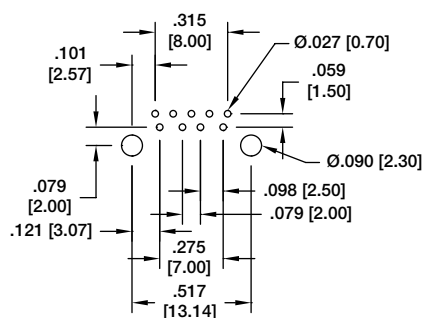
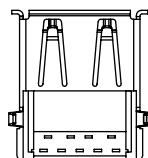
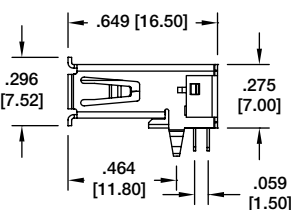
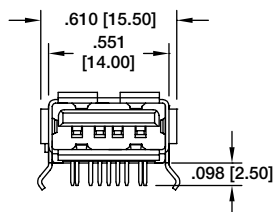
30 = 30 μin gold plating in contact area

WT = White 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)*

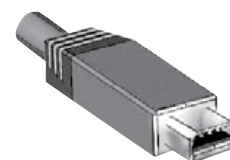
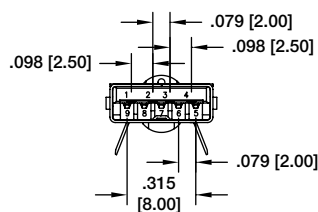
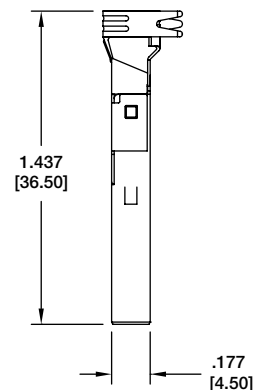
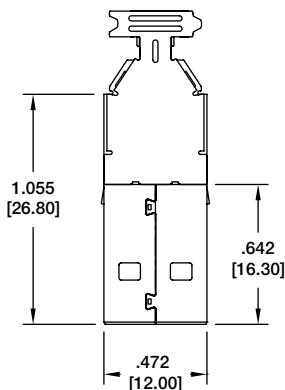
T/R = Tape & Reel packaging

USB 3.0, TYPE A PLUG



USB-A3-S-RA

Recommended PCB Layout

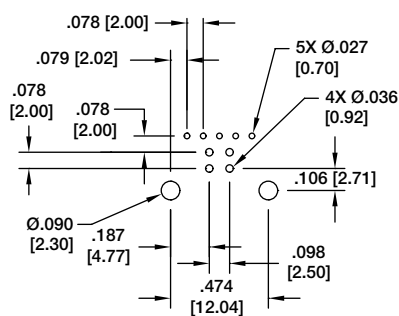
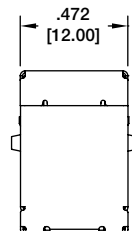


USB-AP3-S

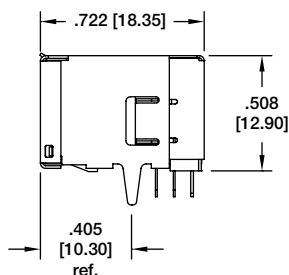
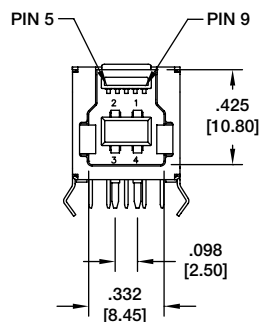
USB 3.0, TYPE B RIGHT ANGLE THRU-HOLE



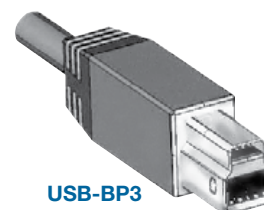
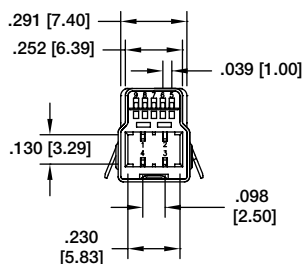
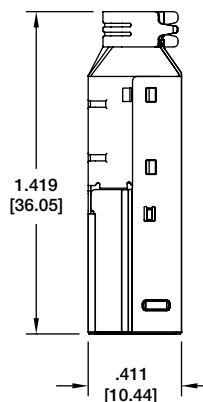
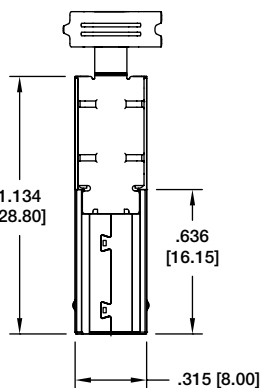
USB-B3-S-RA



Recommended PCB Layout

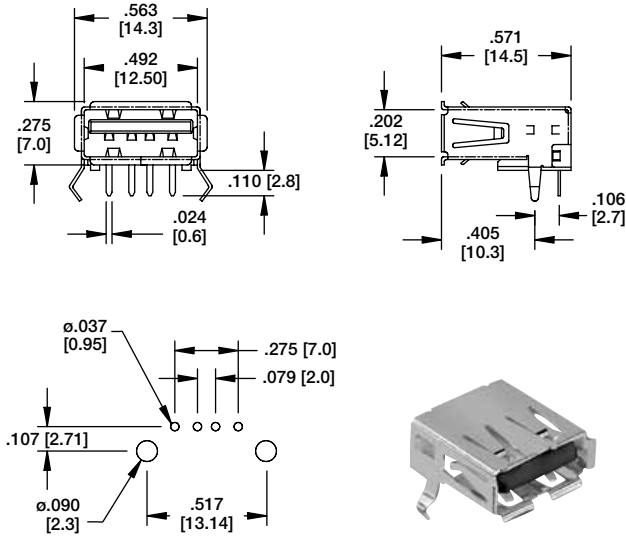


USB 3.0, TYPE B PLUG



USB-BP3

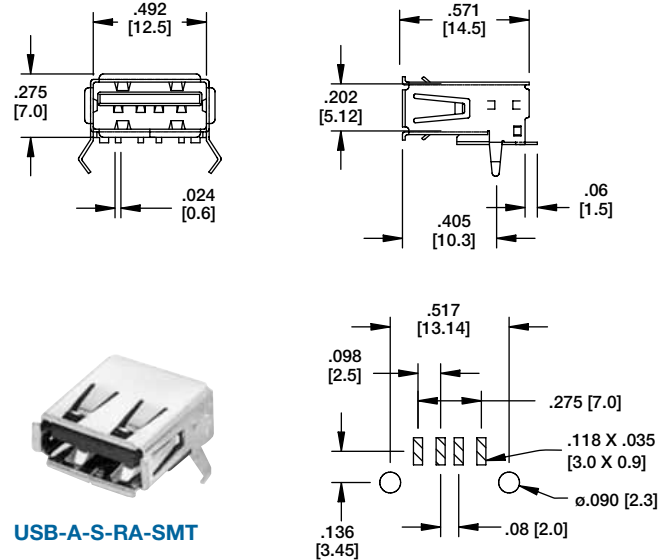
USB 2.0, TYPE A RIGHT ANGLE THRU-HOLE



Recommended PCB Layout

USB-A-S-RA

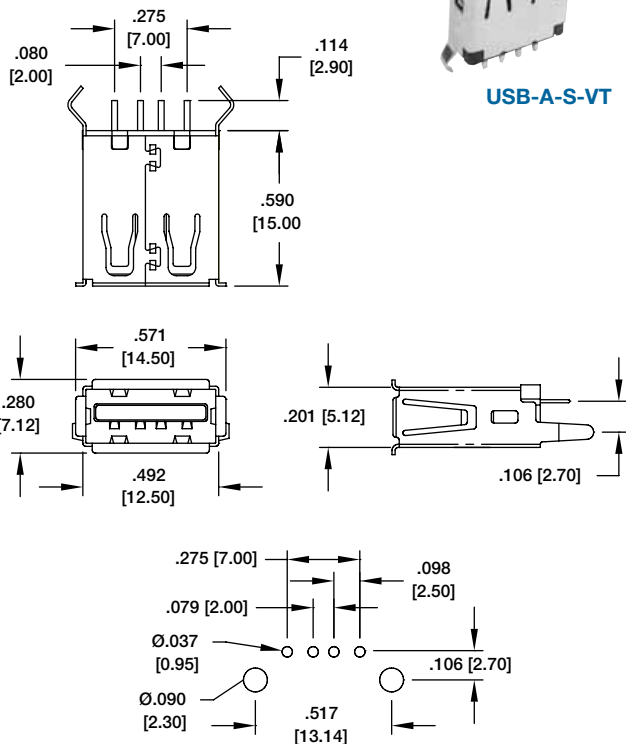
USB 2.0, TYPE A RIGHT ANGLE SMT



Recommended PCB Layout

USB-A-S-RA-SMT

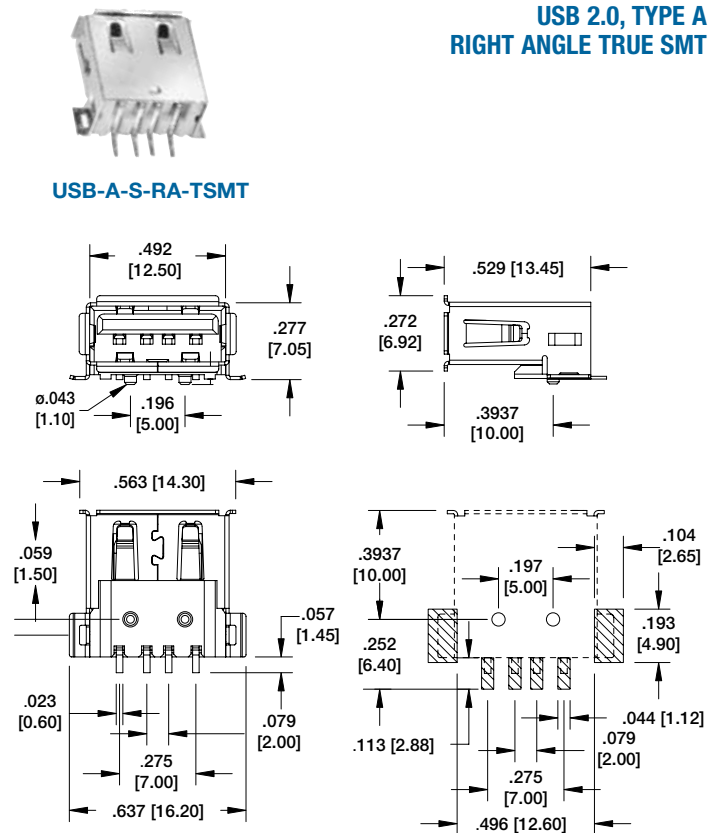
USB 2.0, TYPE A VERTICAL THRU-HOLE



Recommended PCB Layout

USB-A-S-VT

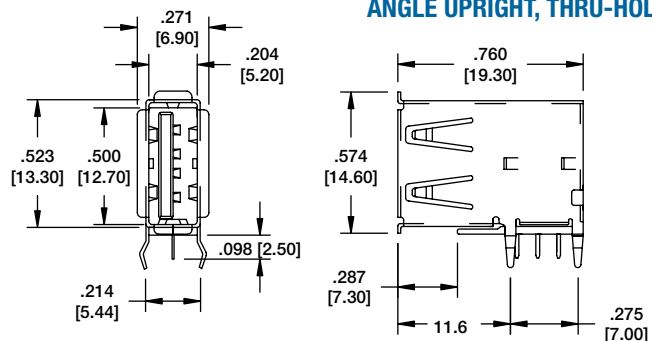
USB 2.0, TYPE A RIGHT ANGLE TRUE SMT



Recommended PCB Layout

USB-A-S-RA-TSMT

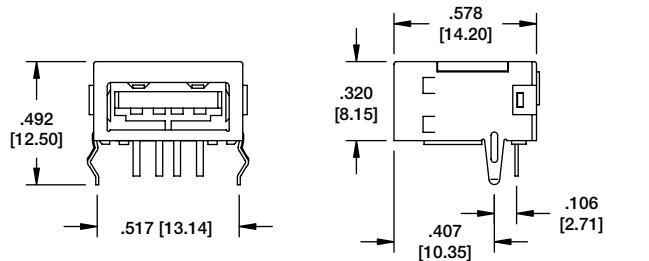
USB 2.0, TYPE A ANGLE UPRIGHT, THRU-HOLE



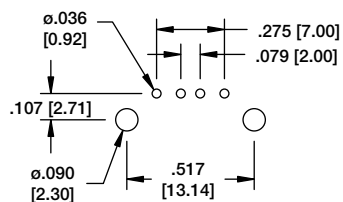
USB-A-S-RU

Recommended PCB Layout

USB 2.0, TYPE A RIGHT ANGLE, THRU-HOLE

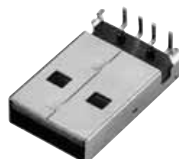
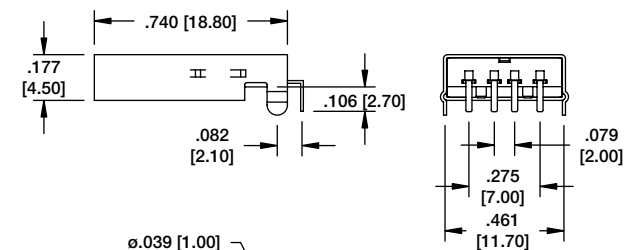


USB-A-S-RA-FS



Recommended PCB Layout

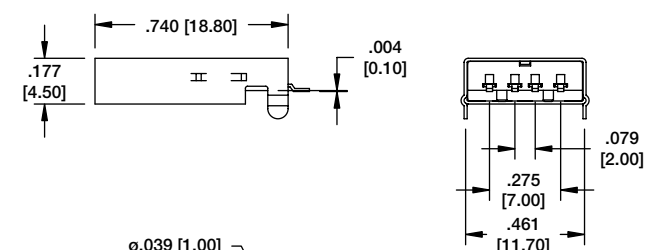
USB 2.0, TYPE A PLUG RIGHT ANGLE, THRU-HOLE



USB-AP-S-RA

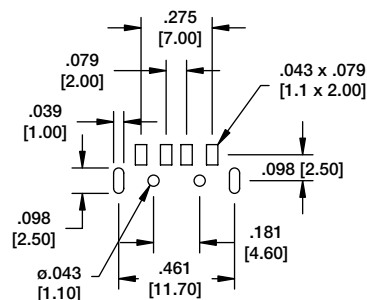
Recommended PCB Layout

USB 2.0, TYPE A PLUG RIGHT ANGLE, SMT

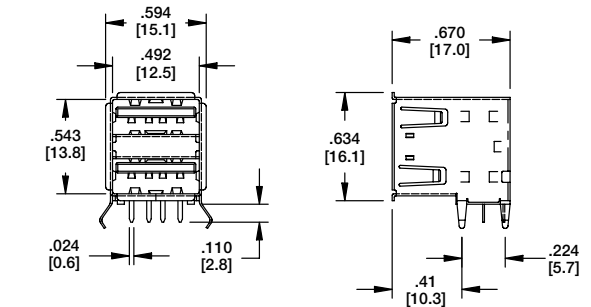


USB-AP-S-RA-SMT

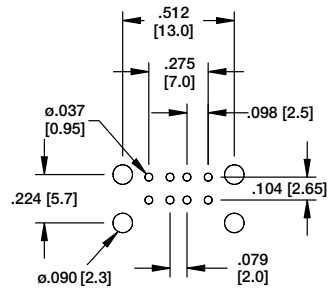
Recommended PCB Layout



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

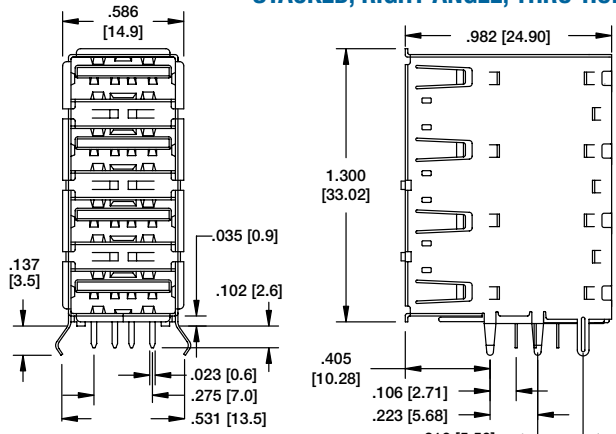


USB-A-D-RA

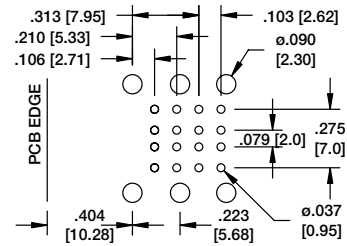


**Recommended PCB Layout
(Bottom View)**

USB 2.0, TYPE A, 4 PORT STACKED, RIGHT ANGLE, THRU-HOLE

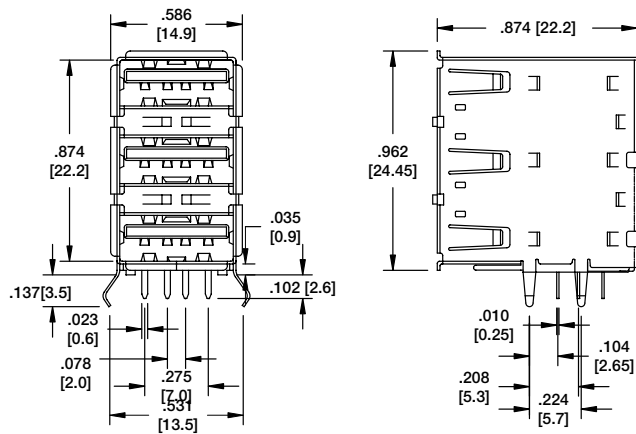


USB-A-Q-RA

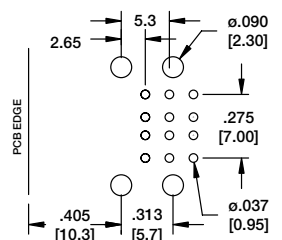


Recommended PCB Layout

USB 2.0, TYPE A, 3 PORT STACKED, RIGHT ANGLE, THRU-HOLE

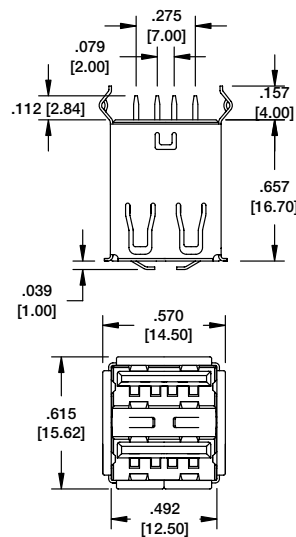


USB-A-T-RA

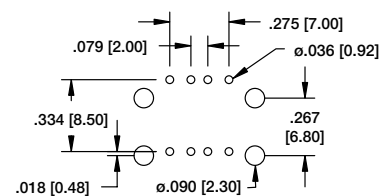


**Recommended PCB Layout
(Bottom View)**

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

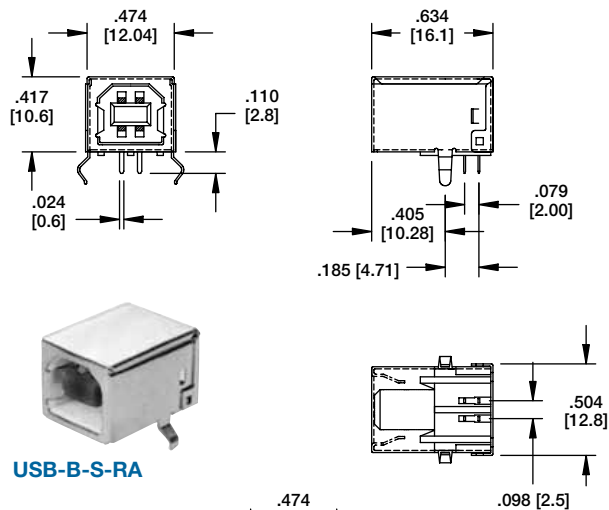


USB-A-D-VT

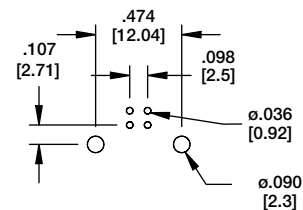


Recommended PCB Layout

USB 2.0, TYPE B RIGHT ANGLE, THRU-HOLE

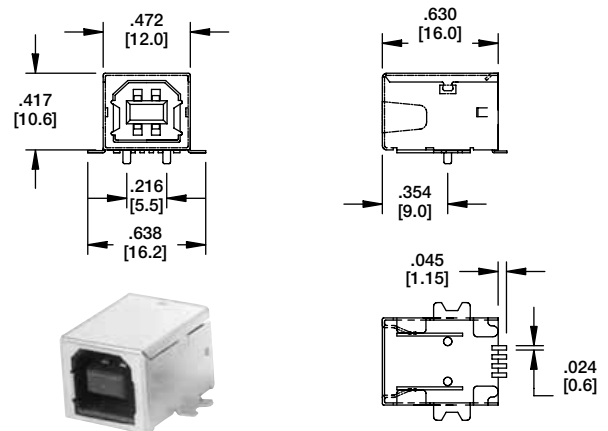


USB-B-S-RA

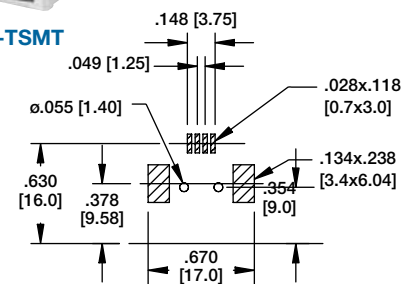


Recommended PCB Layout

USB 2.0, TYPE B RIGHT ANGLE, TRUE SMT

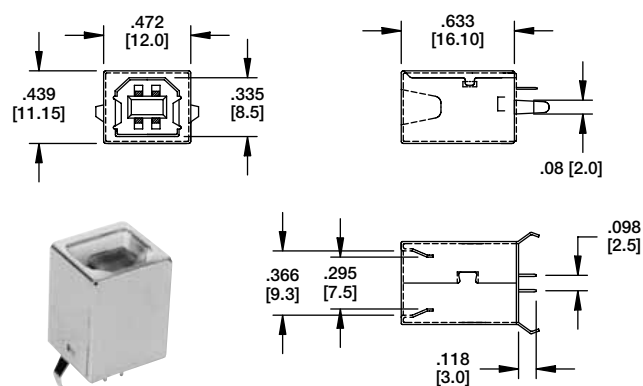


USB-B-S-R-TSMT

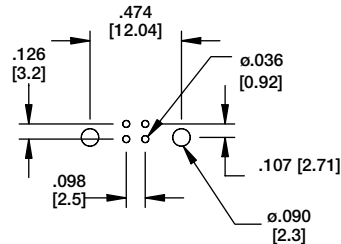


Recommended PCB Layout

USB 2.0, TYPE B VERTICAL, THRU-HOLE



USB-B-S-VT

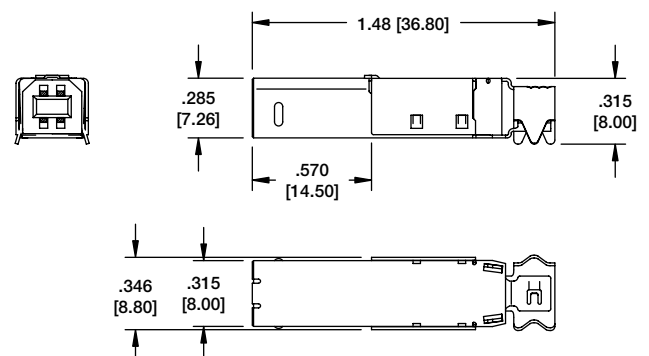


Recommended PCB Layout
(Component Side)

USB 2.0, TYPE B PLUG



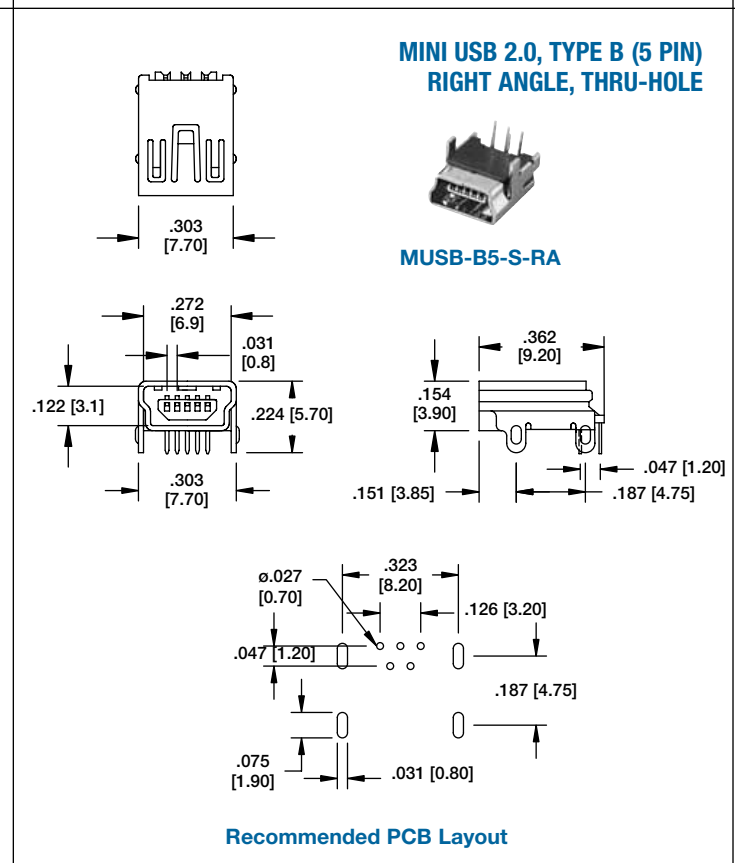
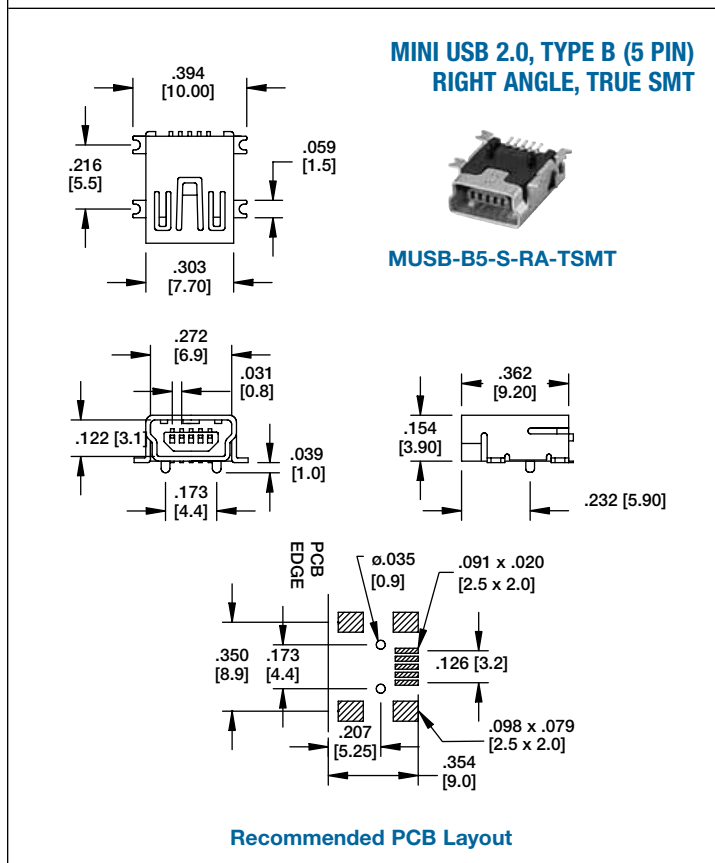
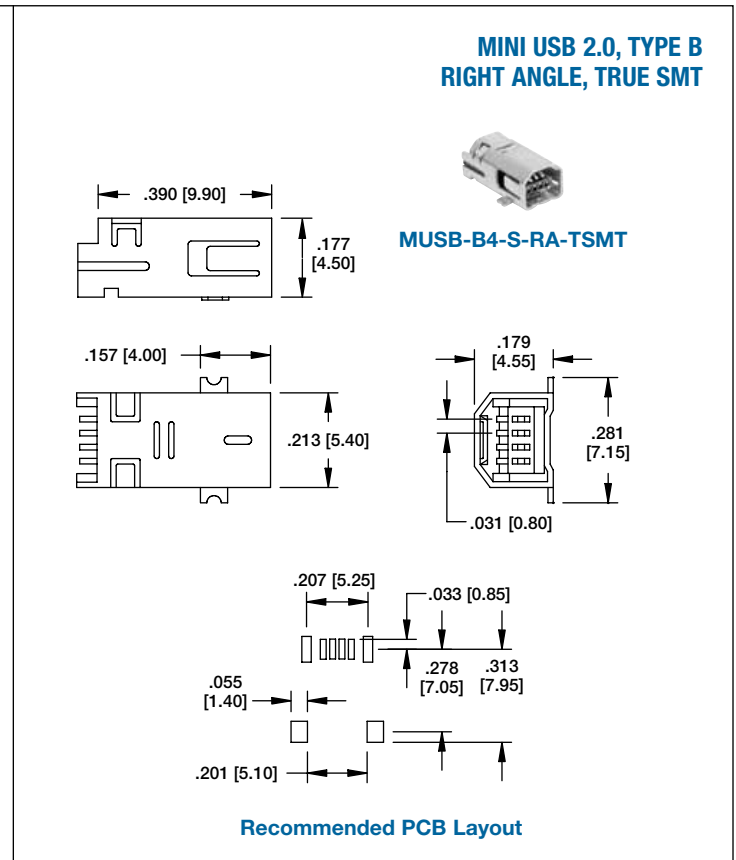
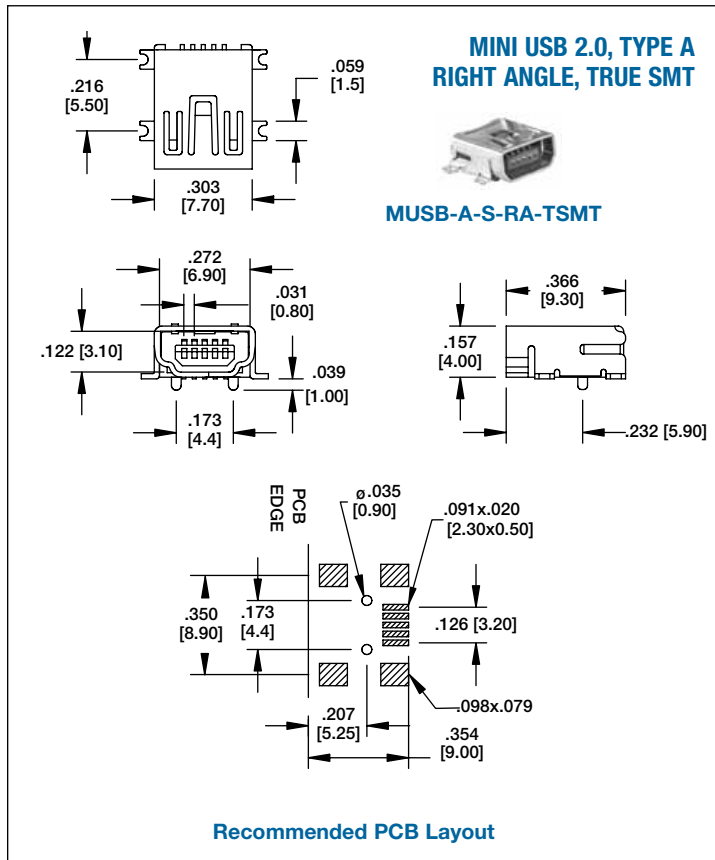
USB-BP-S



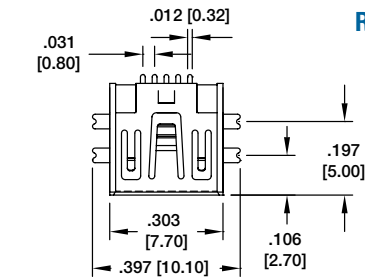
MINI USB 2.0 CONNECTOR

TYPE A, B4 & B5

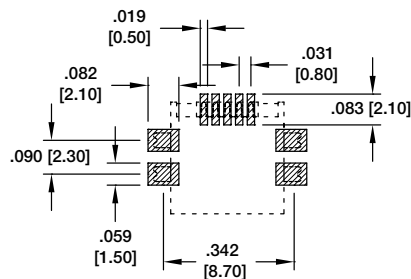
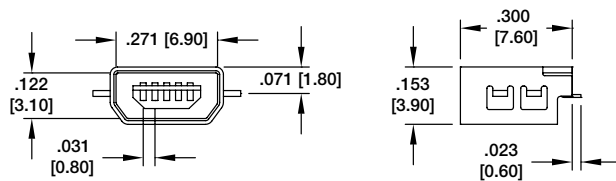
MUSB SERIES



MINI USB 2.0, TYPE AB RIGHT ANGLE MID MOUNT TRUE SMT

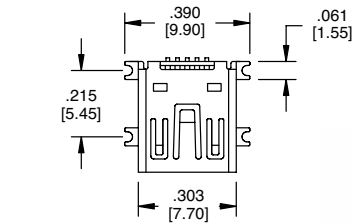


MUSB-AB-S-RA-TSMT

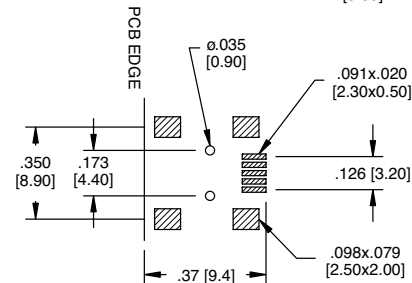
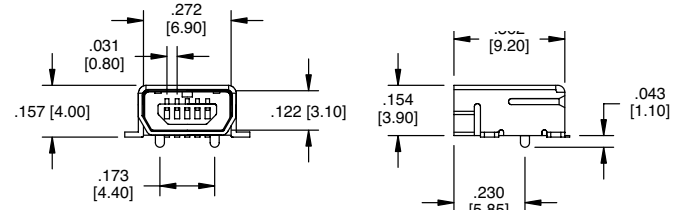


Recommended PCB Layout

MINI USB 2.0, TYPE AB1 RIGHT ANGLE TRUE SMT

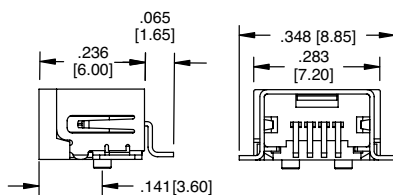


MUSB-AB1-S-RA-TSMT

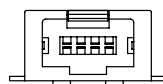


Recommended PCB Layout

MINI USB 2.0, TYPE A4 RIGHT ANGLE, TRUE SMT

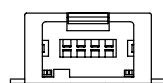


MUSB-A4-S-RA-SMT-MK



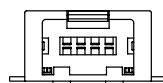
MIDDLE KEY

MUSB-A4-S-RA-SMT-SK

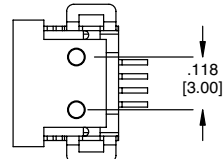


SINGLE KEY

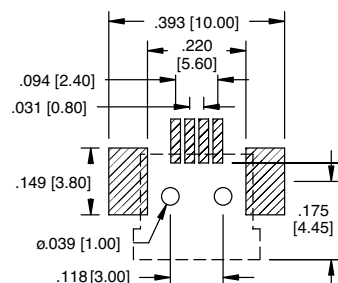
MUSB-A4-S-RA-SMT-DK



DUAL KEY

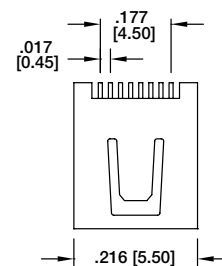


MUSB-A4-S-RA-SMT-XX

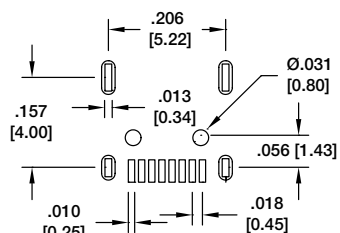
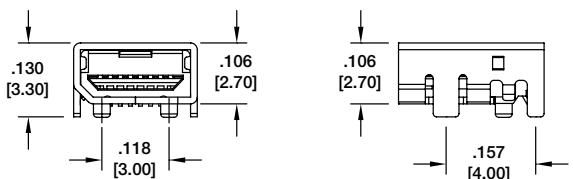


Recommended PCB Layout

MINI USB 2.0, 8 PIN RIGHT ANGLE, SMT



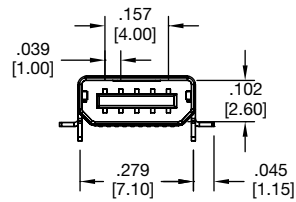
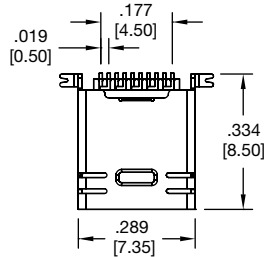
MUSB-8P-S-RA-SMT



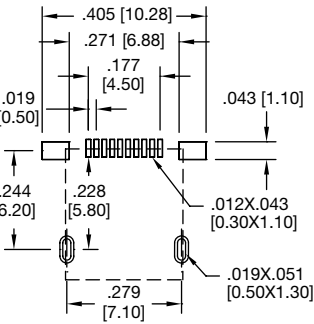
Recommended PCB Layout



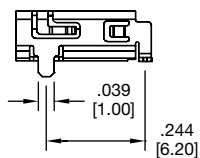
MUSB-10P-S-RA-SMT



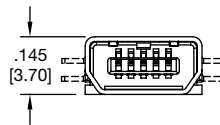
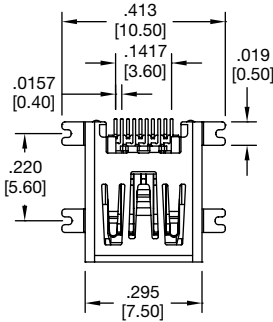
**MINI USB 2.0, 10 PIN
RIGHT ANGLE, SMT**



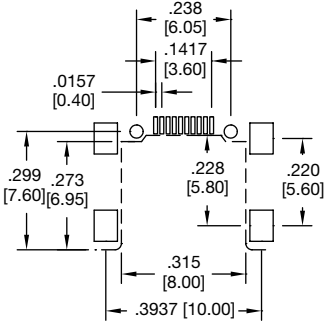
Recommended PCB Layout



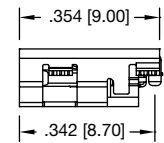
MUSB-10P-S-RA-SMT



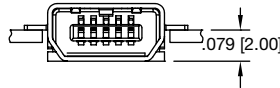
**MINI USB 2.0, 10 PIN
RIGHT ANGLE MID MOUNT, TRUE SMT**



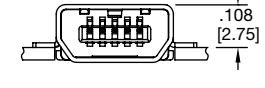
Recommended PCB Layout



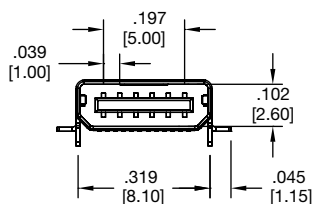
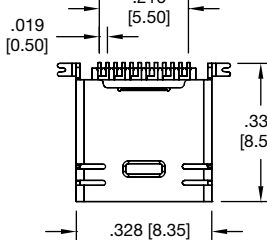
MUSB-10P-S-RA-M1-SMT



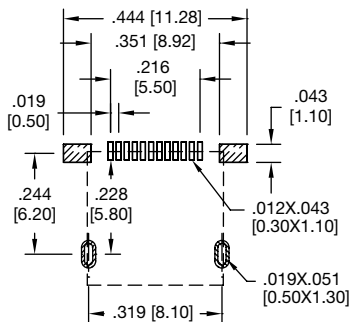
MUSB-10P-S-RA-M2-SMT



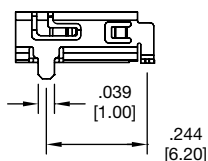
MUSB-12P-S-RA-SMT



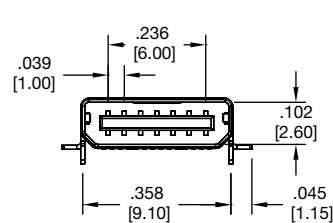
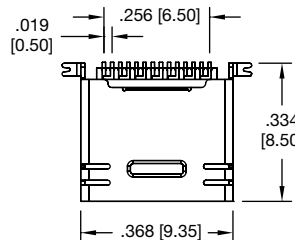
**MINI USB 2.0, 12 PIN
RIGHT ANGLE, SMT**



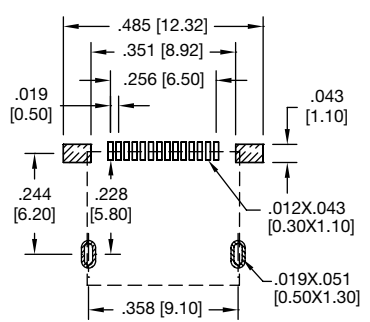
Recommended PCB Layout



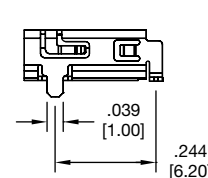
MUSB-14P-S-RA-SMT



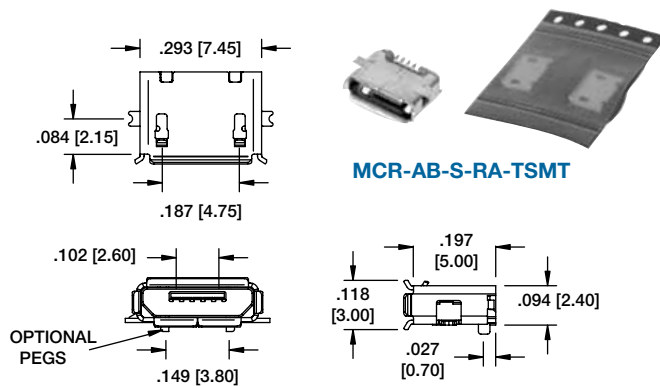
**MINI USB 2.0, 14 PIN
RIGHT ANGLE, SMT**



Recommended PCB Layout

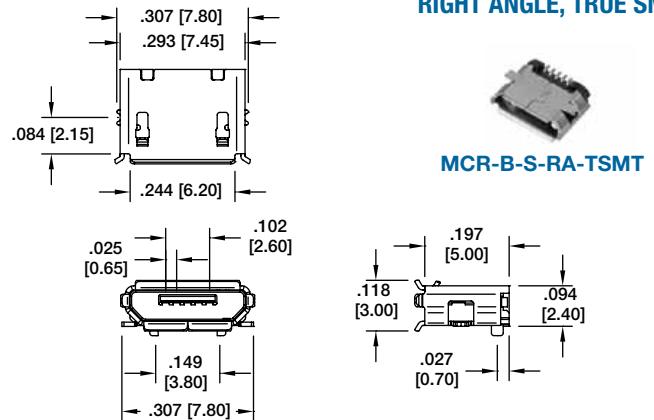


MICRO USB 2.0, TYPE AB RIGHT ANGLE, TRUE SMT



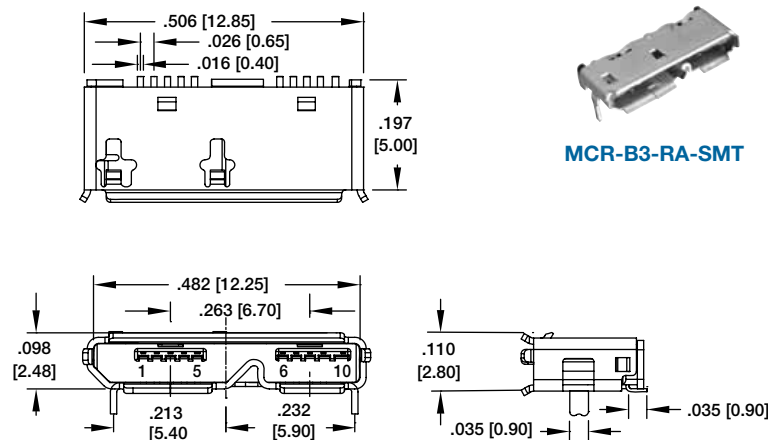
MCR-AB-S-RA-TSMT

MICRO USB 2.0, TYPE B RIGHT ANGLE, TRUE SMT

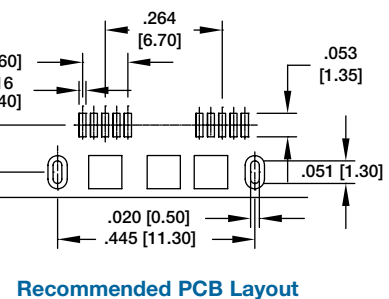


MCR-B-S-RA-TSMT

MICRO USB 3.0, RIGHT ANGLE TRUE SMT

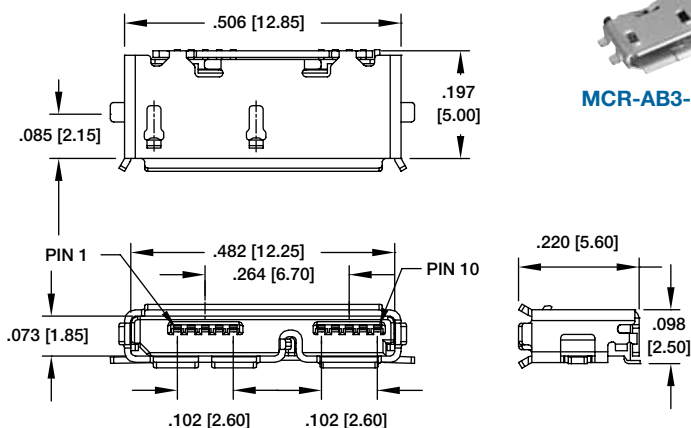


MCR-B3-RA-SMT

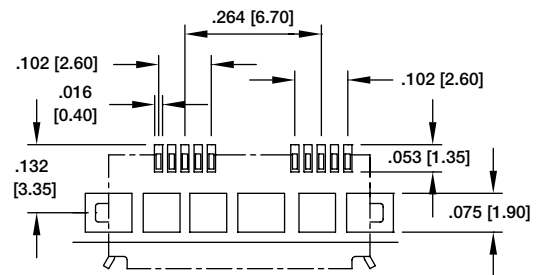


Recommended PCB Layout

MICRO USB 3.0, RIGHT ANGLE SMT



MCR-AB3-RA-TSMT

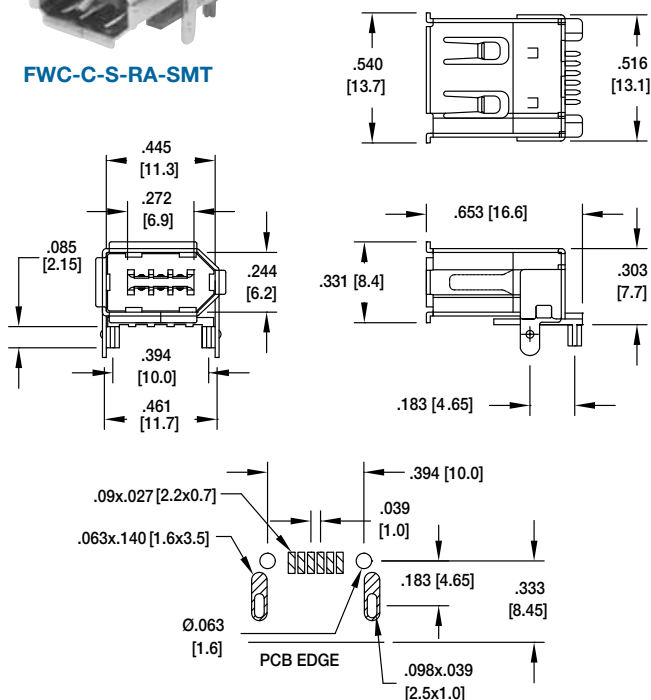


Recommended PCB Layout

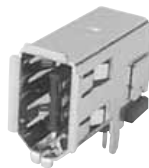


FWC-C-S-RA-SMT

**IEEE 1394,
RIGHT ANGLE, SMT**

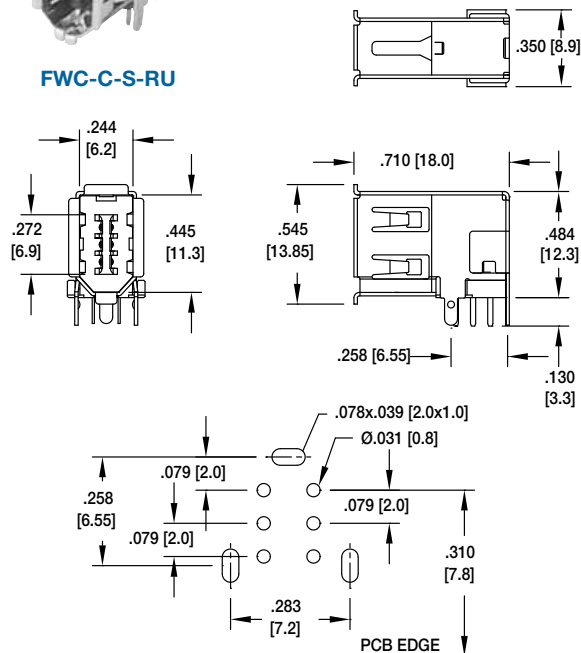


Recommended PCB Layout



FWC-C-S-RU

**IEEE 1394,
RIGHT ANGLE UPRIGHT, THRU-HOLE**

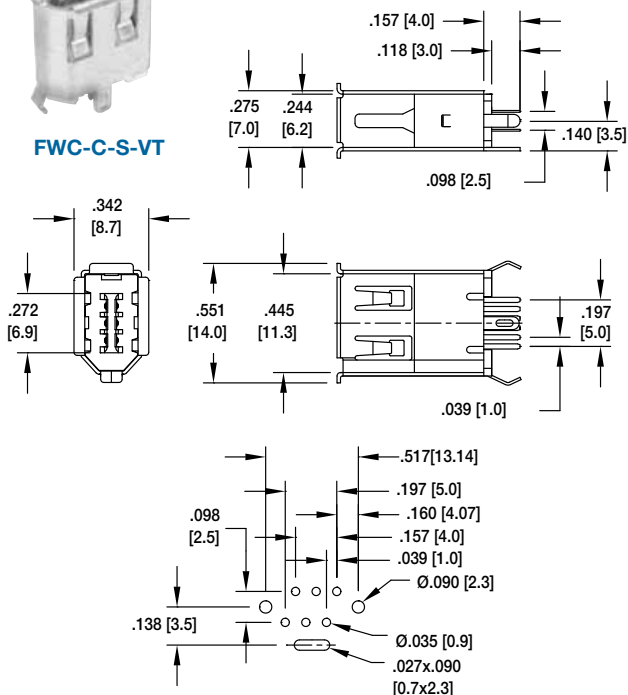


Recommended PCB Layout



FWC-C-S-VT

IEEE 1394, VERTICAL THRU-HOLE

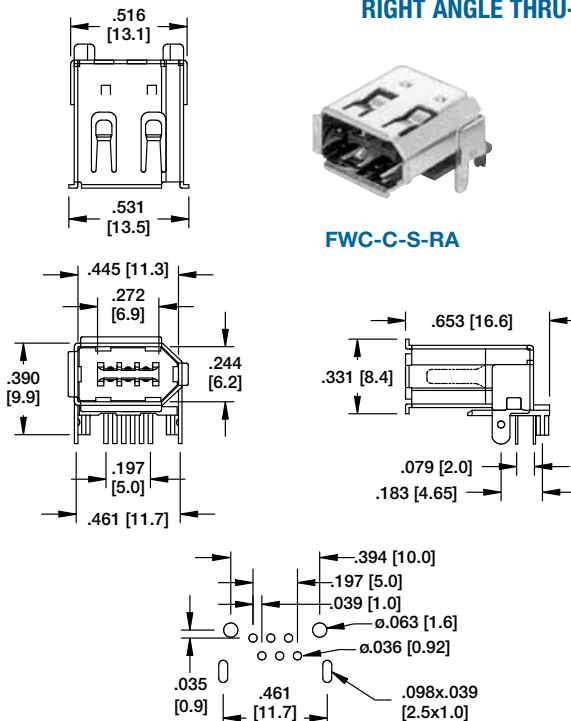


Recommended PCB Layout



FWC-C-S-RA

**IEEE 1394,
RIGHT ANGLE THRU-HOLE**



Recommended PCB Layout