

AVX **MOBO®** Spring Contact Interconnect Solutions



Version 9.1

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

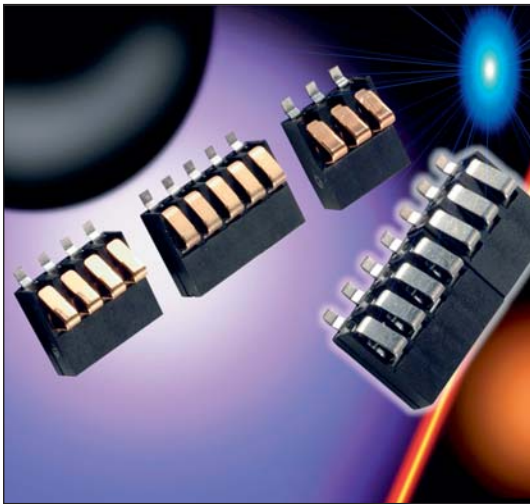
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GENERAL DESCRIPTION

The standard battery connector is specifically designed for mobile equipment. The connectors are available in 3, 4 and 5 contact positions all on a 2.50mm pitch. The insulator height provides a 3mm spacing, with various contact nose heights from 1.20mm to 2.60mm, to provide spacing options to the end user.

All contacts are stamped and are rated to 3A, with Gold plating. Parts are supplied in tape and reel for automatic pick and place. Optional retaining brackets are available to provide greater strength when connected to the PCB.

Whatever your requirements, the 9155 series Battery Connector can also be customized to suit your applications.

APPLICATIONS

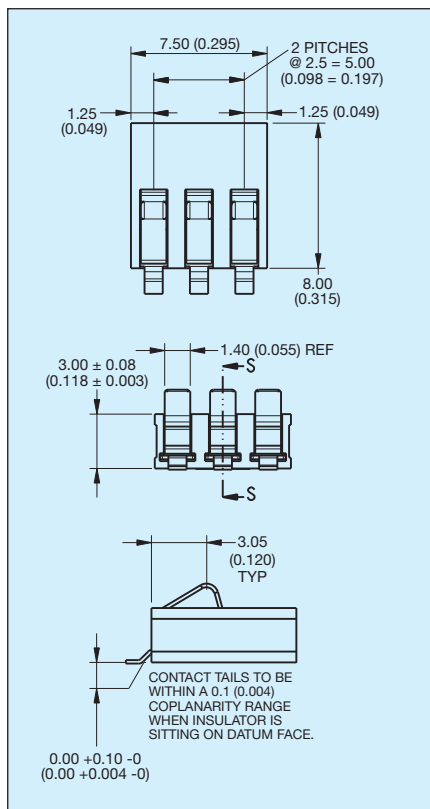
- Mobile Phones
- PDA
- Medical
- PMR
- Industrial

KEY FEATURES AND BENEFITS

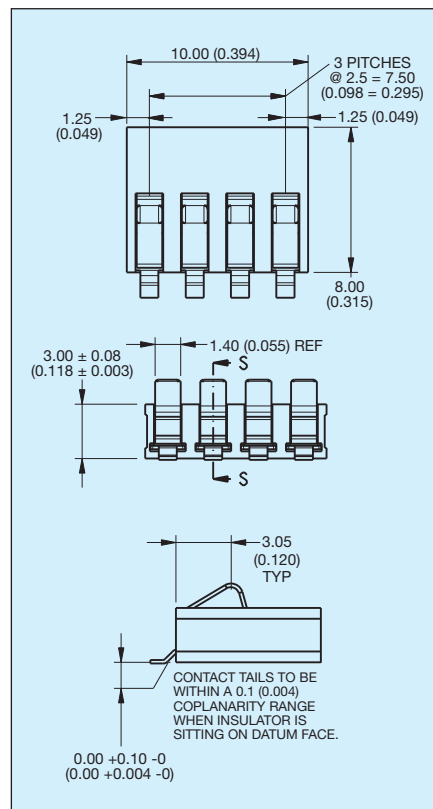
- Suitable for 5000 mechanical cycles.
- Variety of contact heights offered to suit different mechanical designs.
- Connectors can be end to end stackable.
- RoHS Compliant available.



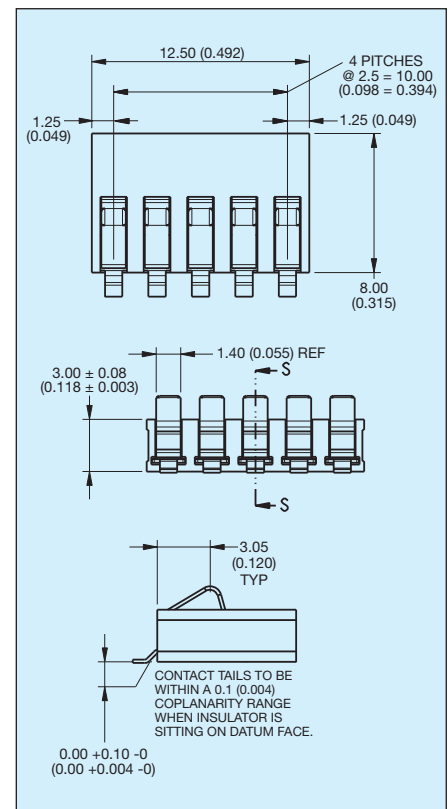
3 Way Battery Connector



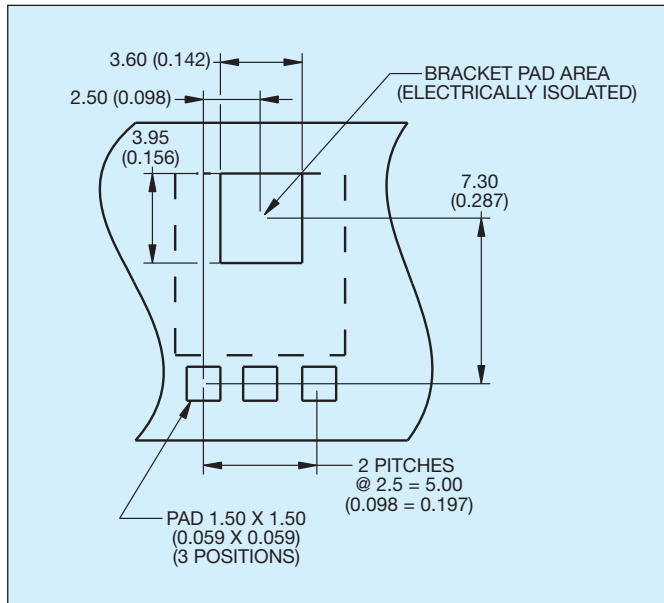
4 Way Battery Connector



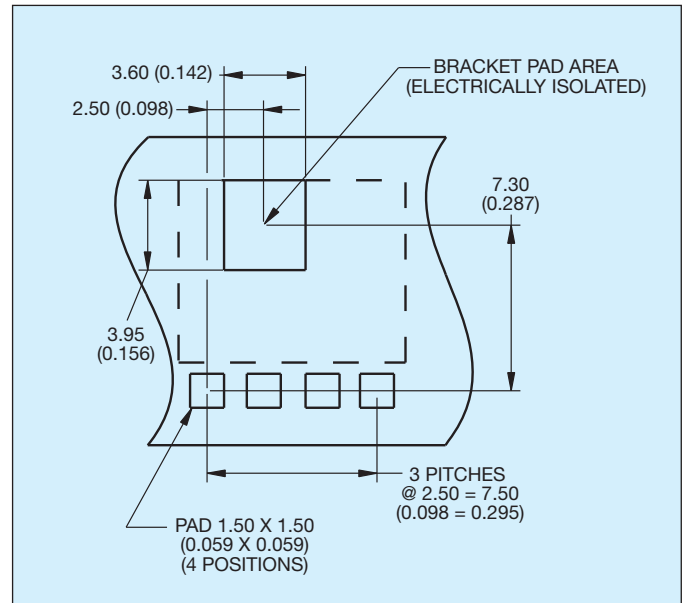
5 Way Battery Connector



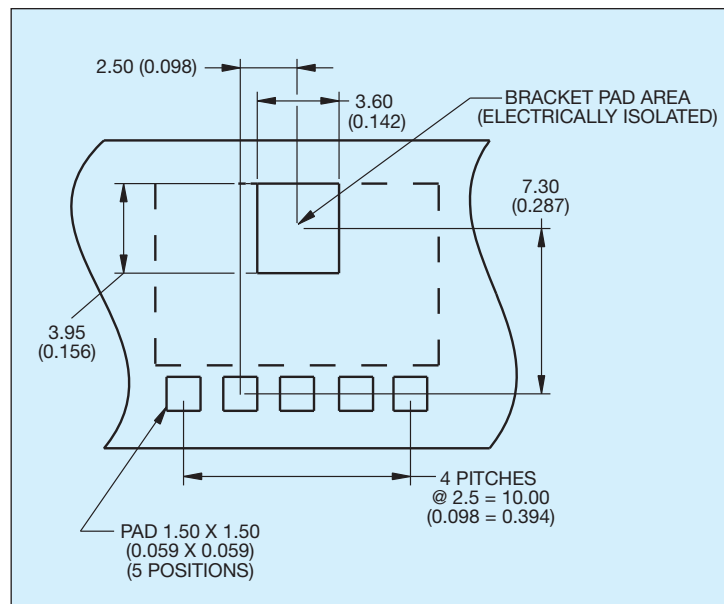
3 Way PCB Board Layout



4 Way PCB Board Layout



5 Way PCB Board Layout



HOW TO ORDER

00	9155	003	00	1	01	6
Prefix	Series	No of Ways	Standard Battery Connector	Contact Height	Bracket	Plating Option
00 = Standard 58 = Special		3 = 003 4 = 004 5 = 005	00 = Standard Force	1 = 1.20 (0.047) / 1.50 (0.059) 2 = 1.80 (0.071) / 2.10 (0.083) 3 = 2.30 (0.091) / 2.60 (0.102)	01 = With Bracket	6 = 0.4µm Selective Gold, Pure Tin Tail 8 = 0.8µm Selective Gold, Pure Tin Tail

9155 Size Reduced Battery Connector

GENERAL DESCRIPTION

The newest product in AVX's Interconnect family of battery connectors saves 50% in volume over the initial 9155 series compression connectors as illustrated in the photograph. These connectors are rated at a full 3 amps per contact on 2.5mm centers. Sizes range from 2 positions through 5 positions and are end to end stackable.

APPLICATIONS

- Cellular Phones
- Handheld Devices
- Industrial Modules
- Medical Electronics

KEY FEATURES AND BENEFITS

- 2.4mm insulator height
- 3 amps/contact
- Large SMT mounting area for positive mechanical attachment
- 5k mating cycles
- End-to-end stackable



HOW TO ORDER

00
|
Prefix

9155
|
Series

003
|
No. of Ways

Code	No. of Ways	Reel Qty	Packing Qty
002	2	2000	2000
003	3	2000	2000
004	4	2000	2000
005	5	2000	2000

201
|
Reduced Size Battery Connector

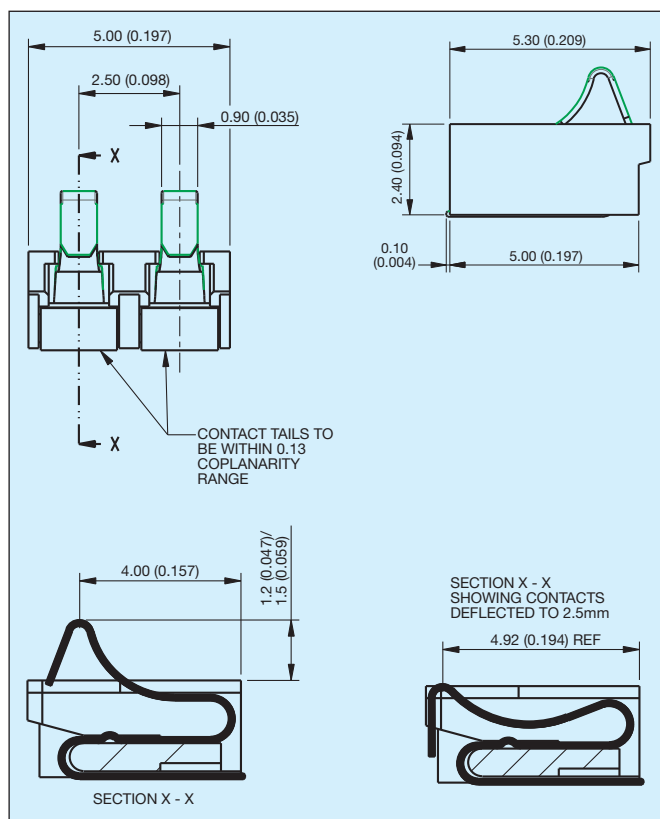
Code	Description
201	Reduced Size Battery Connector

XXX
|
Plating Option

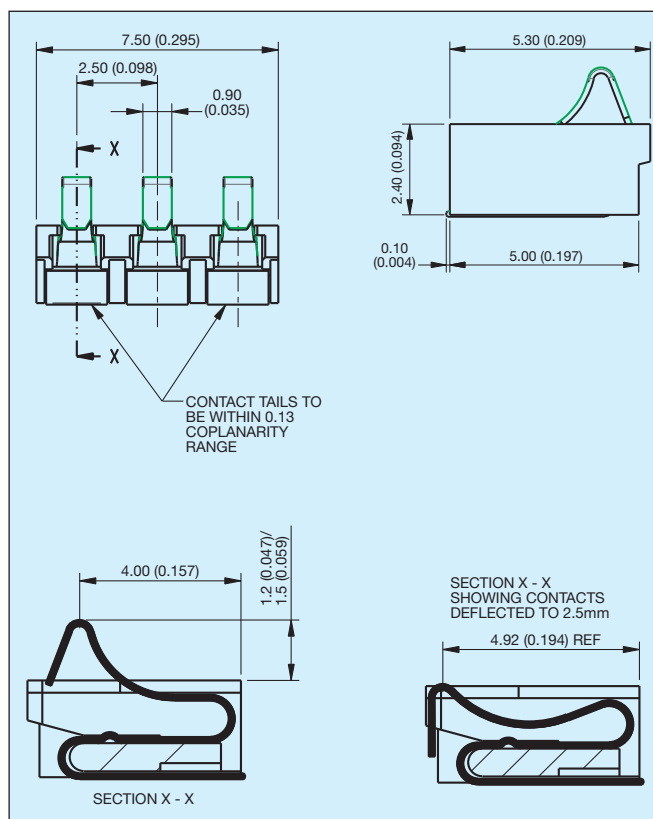
Code	Description
006	0.4µm Selective Gold, Pure Tin Tail
008	0.8µm Selective Gold, Pure Tin Tail

9155 Size Reduced Battery Connector **AVX**

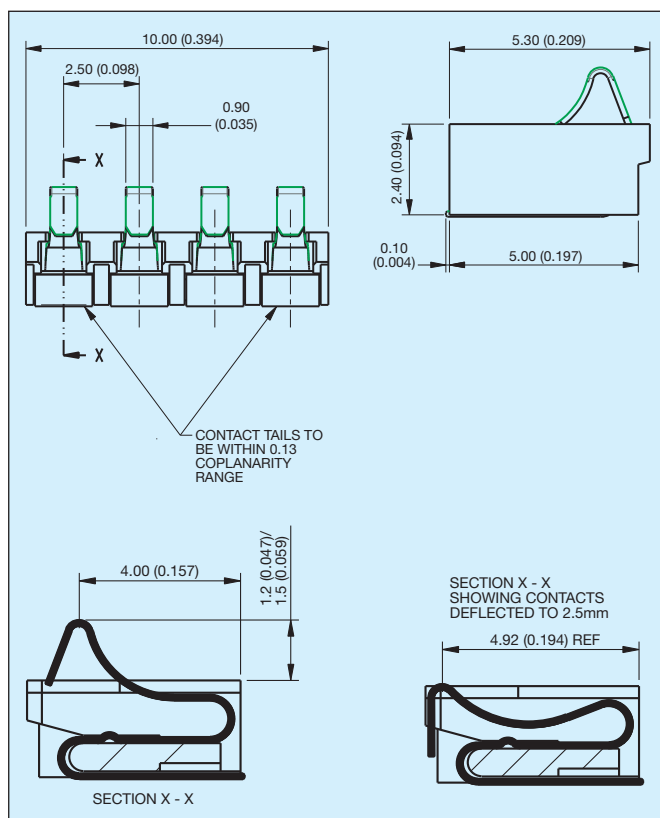
2 Way Reduced Battery Connector



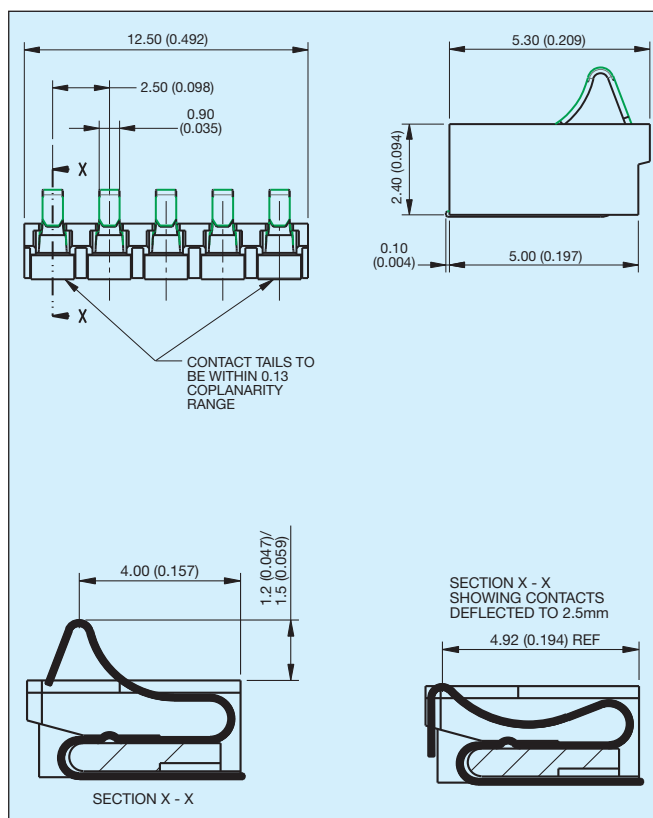
3 Way Reduced Battery Connector



4 Way Reduced Battery Connector

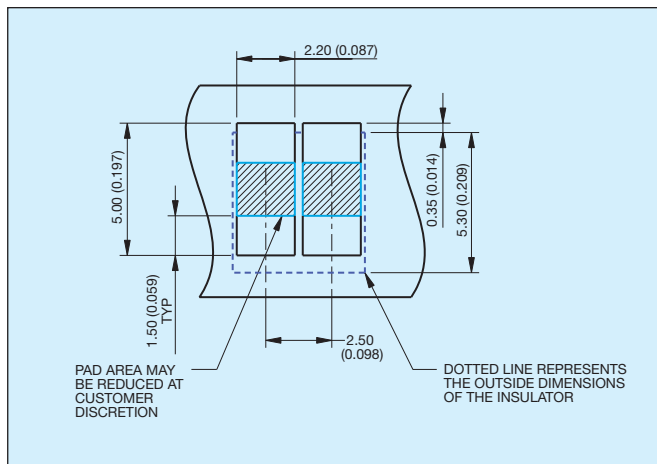


5 Way Reduced Battery Connector

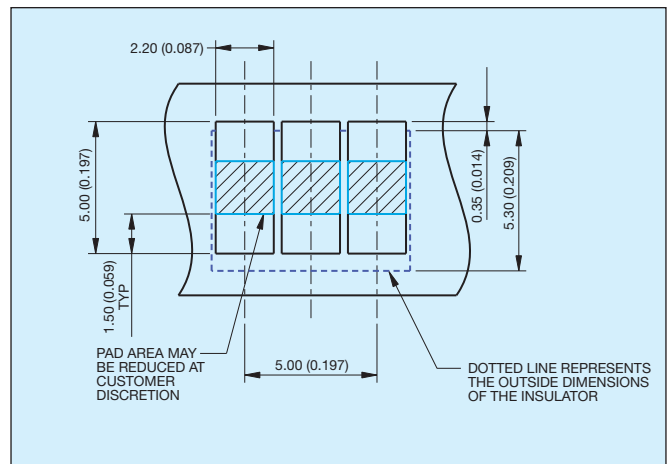


9155 Size Reduced Battery Connector

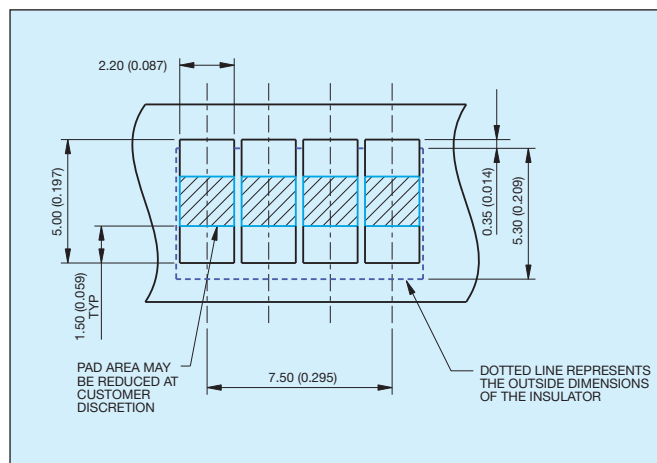
2 Way Reduced Battery Connector PCB Layout



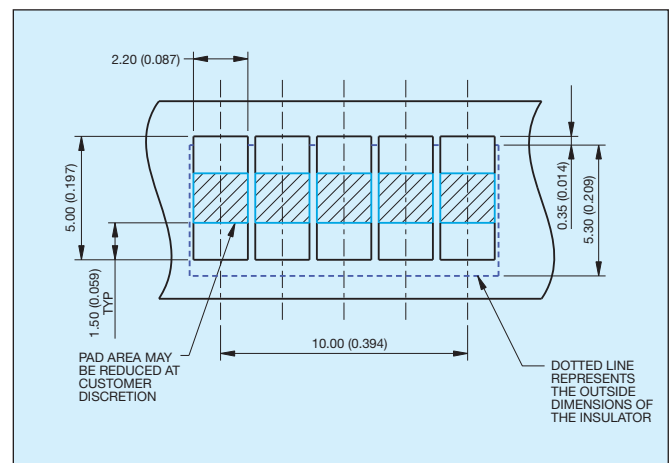
3 Way Reduced Battery Connector PCB Layout



4 Way Reduced Battery Connector PCB Layout



5 Way Reduced Battery Connector PCB Layout



9155 Ultra-Low Profile Battery



GENERAL DESCRIPTION

The AVX Interconnect group has released a new ultra-low profile 3 amp per contact connector for battery pack or slide-in module applications. The compressed "Z" axis height of 1.3mm leads the industry from a profile standpoint. The initial product is in a 2 & 3 position configuration with other sizes expected to follow. The connector has an integral end block to act as a mechanical stop.

APPLICATIONS

- Cellular Phones
- Handheld Devices
- Industrial Modules
- Medical Electronics

KEY FEATURES AND BENEFITS

- Ultra-Low Profile
- 3 amps/contact
- Integral End Stop
- 5k mating cycles



HOW TO ORDER

00
Prefix

9155
Series

003
No. of Ways

Code	No. of Ways	Qty. Per Reel
002	2	1500
003	3	1200

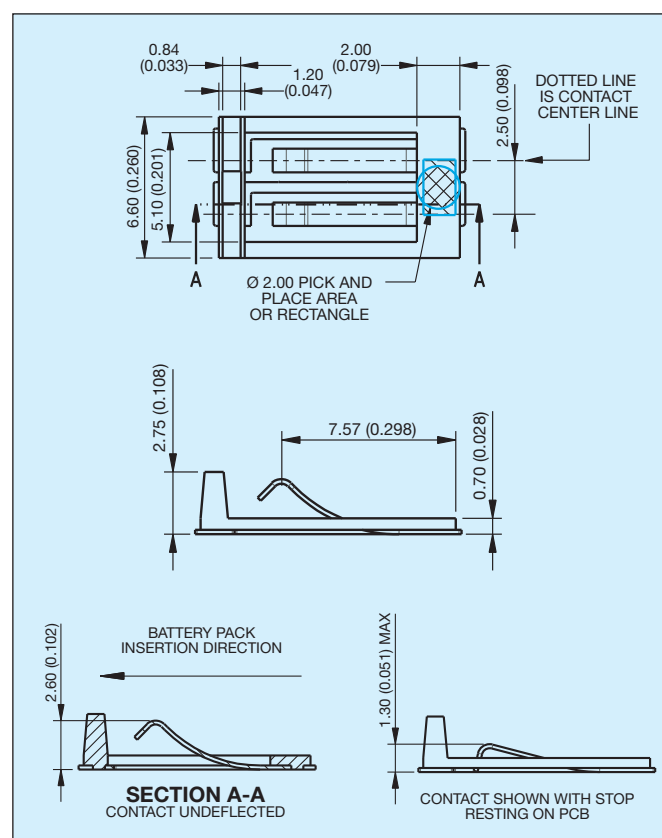
101
Low Profile Battery Connector

Code	Description	Operating Height
101	Low Profile Battery Connector	1.30 (0.051)

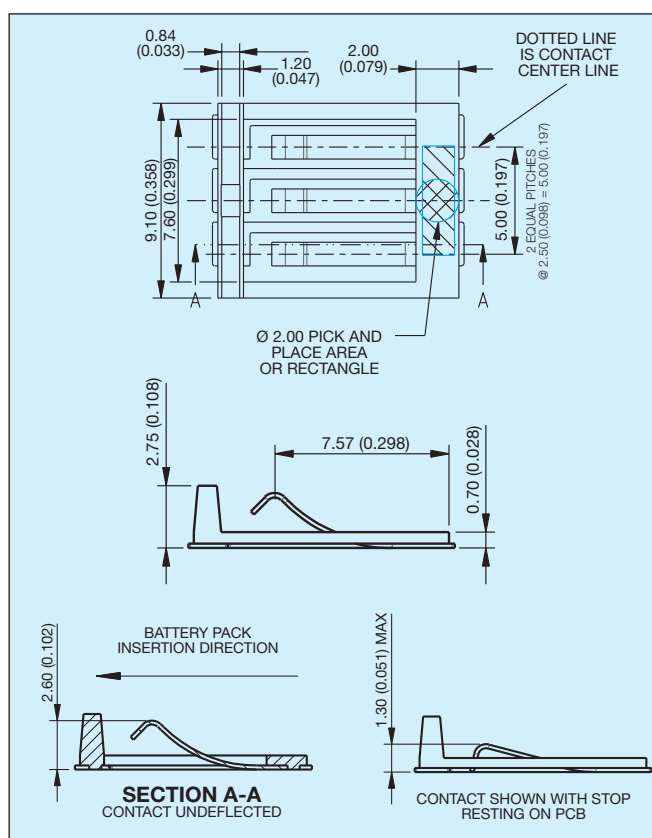
XXX
Plating Option

Code	Description
006	0.4µm Selective Gold, Pure Tin Tail
008	0.8µm Selective Gold, Pure Tin Tail

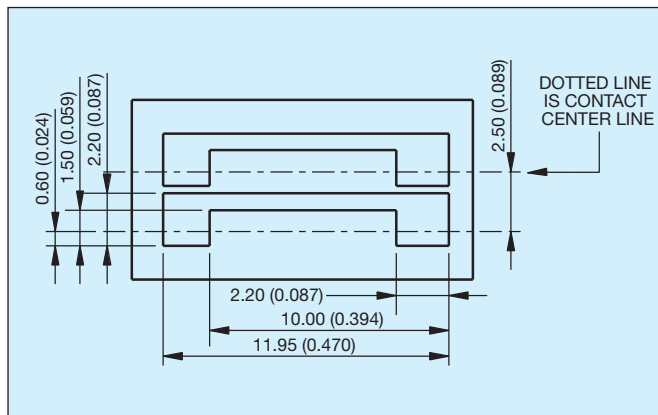
2 Way Low Profile Battery Connector



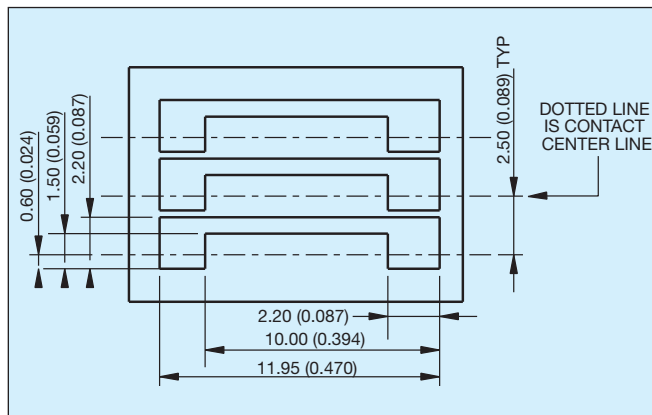
3 Way Low Profile Battery Connector



2 Way Low Profile Battery Connector PCB Layout



3 Way Low Profile Battery Connector PCB Layout



9155 MOBO® Solderless Battery Connectors



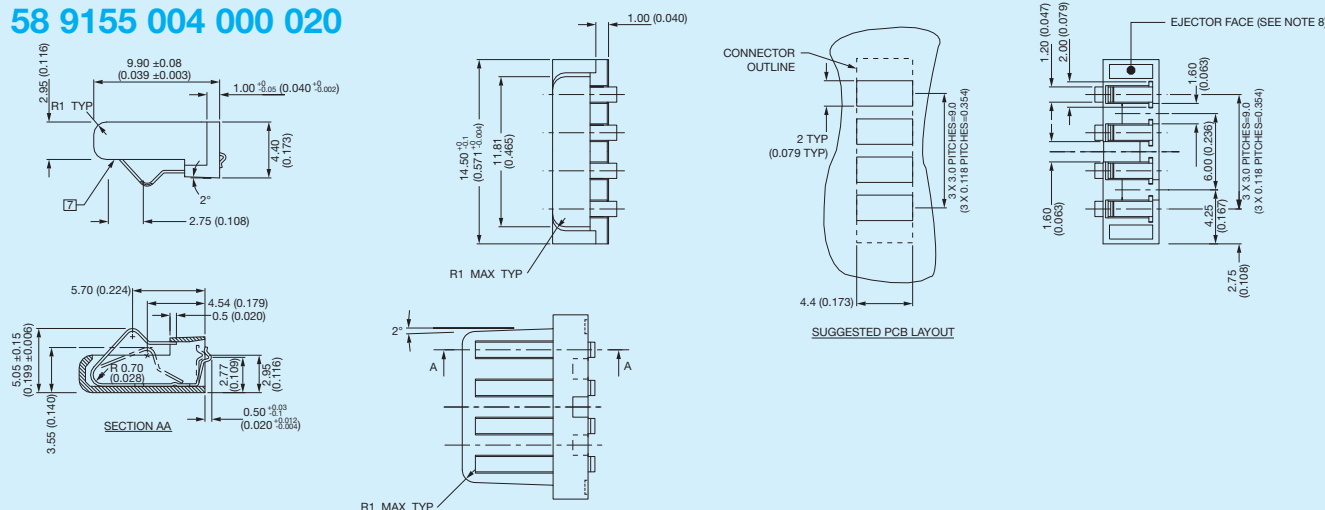
GENERAL DESCRIPTION

As an addition to our range of Battery connectors we have added a solderless termination option. This option has the termination area gold plated and the contact form is compression to the PCB and to the Battery which is used in the end equipment.

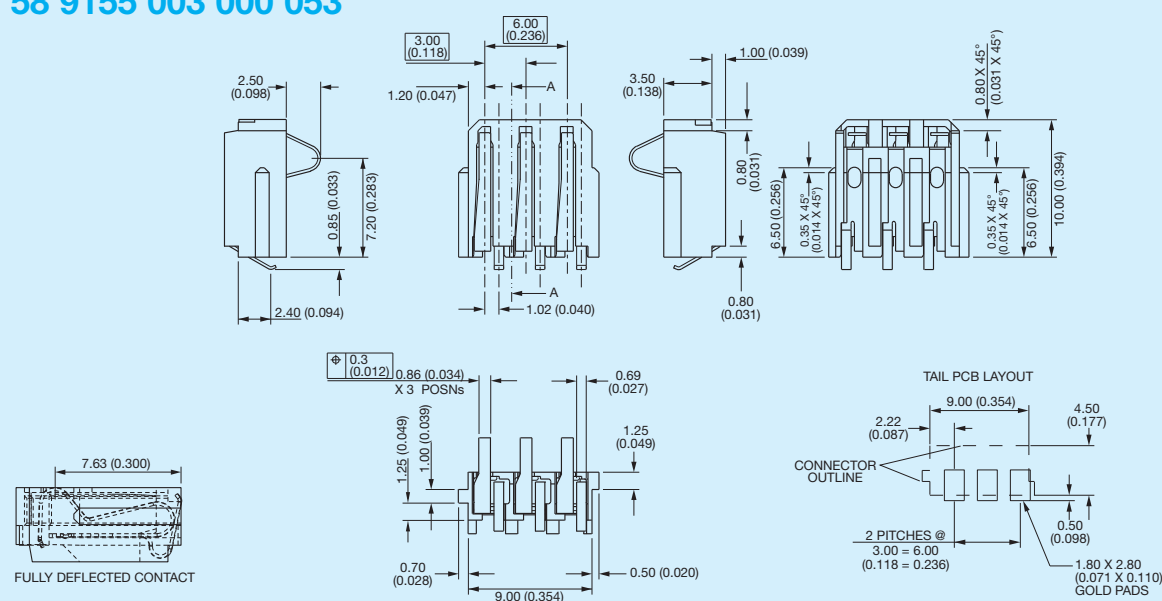
Rated at 3 Amps and 5,000 operations (the same as the SMT version). These battery connectors compliment the existing standard range of RoHS compliant components giving the designer an added option of the solderless termination.

When these connectors are held in place by the casing of the end equipment, the connection to the PCB is achieved by compressing the connector contacts against the PCB and against the actual battery. It is the housing which maintains the connection.

58 9155 004 000 020



58 9155 003 000 053



9155 MOBO®

3.0mm Pitch Right Angle Battery Connectors

GENERAL DESCRIPTION

A further addition to the battery connector range offered by AVX is a 90 degree version. On a 3mm pitch, offered in 2 to 5 contact positions and rated as with all of the battery range at 3 amps. The connector's design is small and compact to minimize its profile yet stable while having a contact point 4.61mm above the PCB.

The stability comes from the addition of extra SMT anchor brackets that are in between the SMT contact pads and both at the front of the connector and within the row of the contact SMT pads.

As with the other 9155 series of battery connectors offered by AVX the 90 degree version is rated at 3 amps and 5000 mating cycles, RoHS compliant and using high temperature plastic enables the connectors to be processed at up to 260°C.



APPLICATIONS

- Mobile phones
- Digital music players
- Hand held terminals
- Data terminals or any other small portable device

FEATURES AND BENEFITS

- Simple designed spring contact
- End to end stackable for larger pin counts
- Additional contact anchor brackets to added stability on the PCB
- Robust to shock and vibration
- Selectively plated contact area



HOW TO ORDER

00
Prefix

9155
Series

002
No. of Ways

301
Right Angle Battery Connector

Code	Description
301	Right Angle 3.00mm Battery Connector

XXX
Plating Option

Code	Description
006	0.4µm Selective Gold, Pure Tin Tail
008	0.8µm Selective Gold, Pure Tin Tail

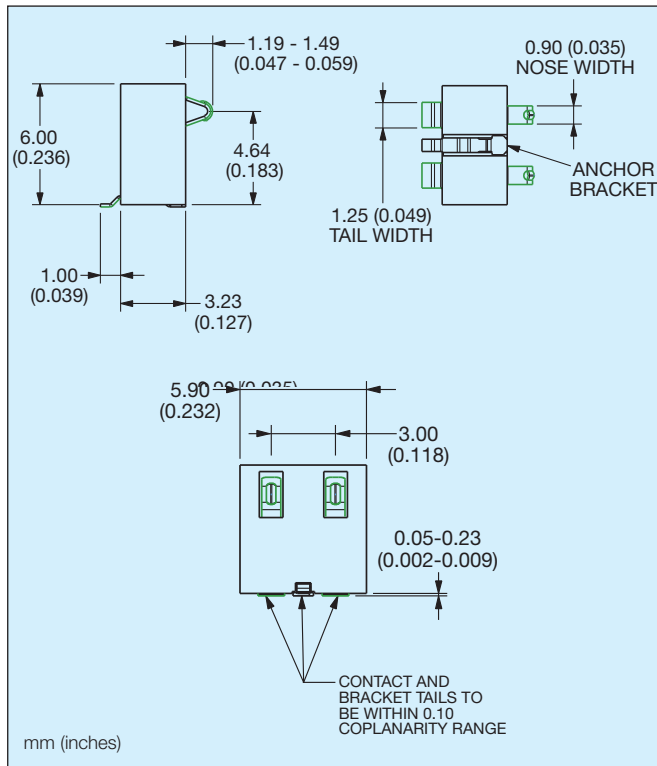
Code	No. of Ways
002	2
003	3
004	4
005	5

9155 MOBO®

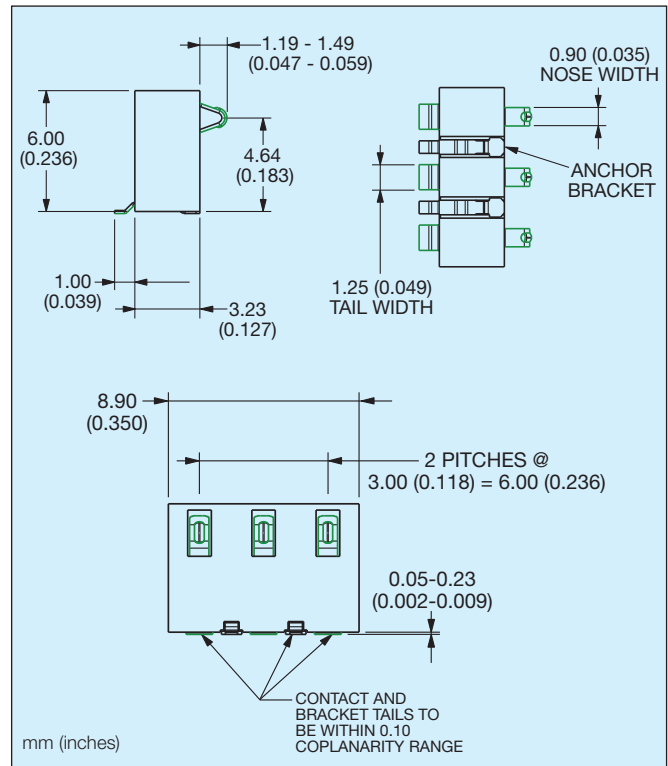
3.0mm Pitch Right Angle Battery Connectors



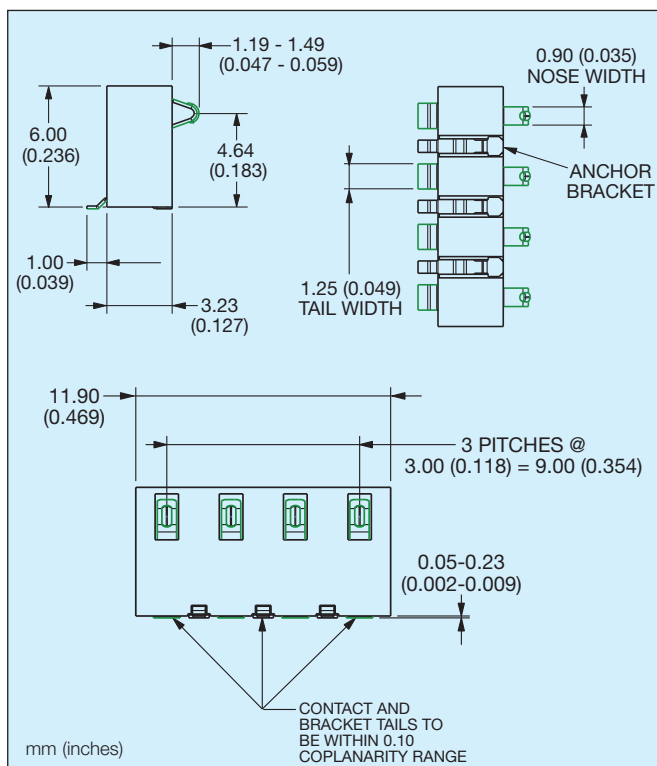
2 Way Right Angle Battery Connector



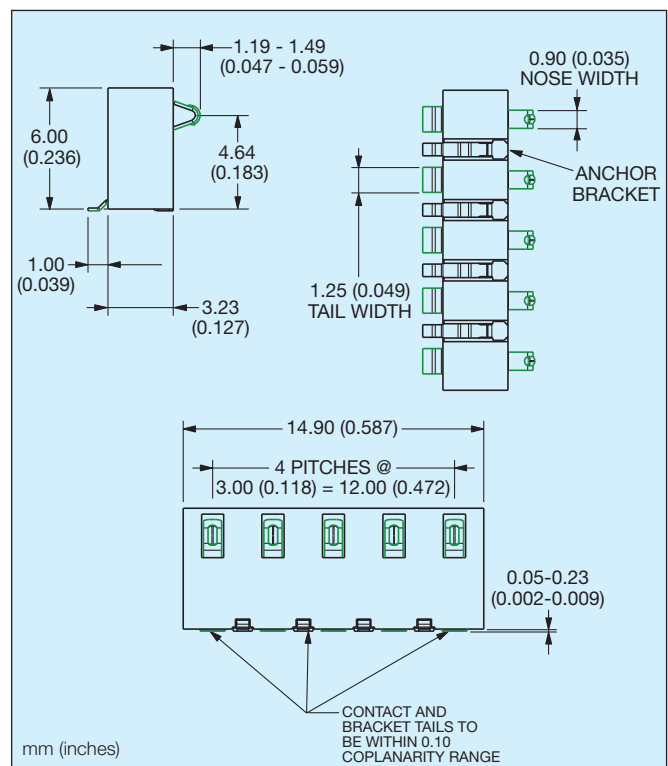
3 Way Right Angle Battery Connector



4 Way Right Angle Battery Connector



5 Way Right Angle Battery Connector

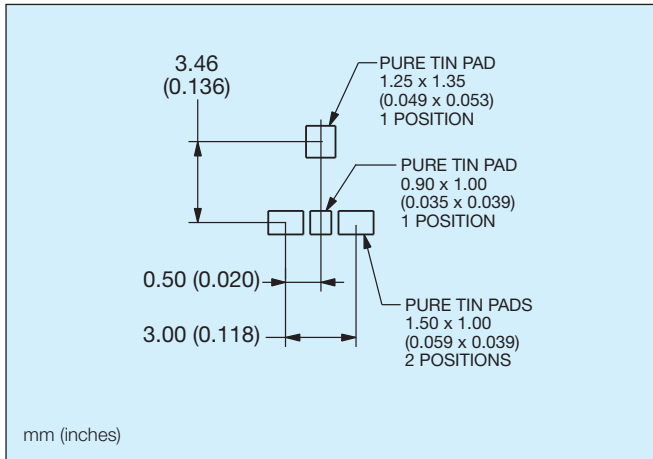


9155 MOBO®

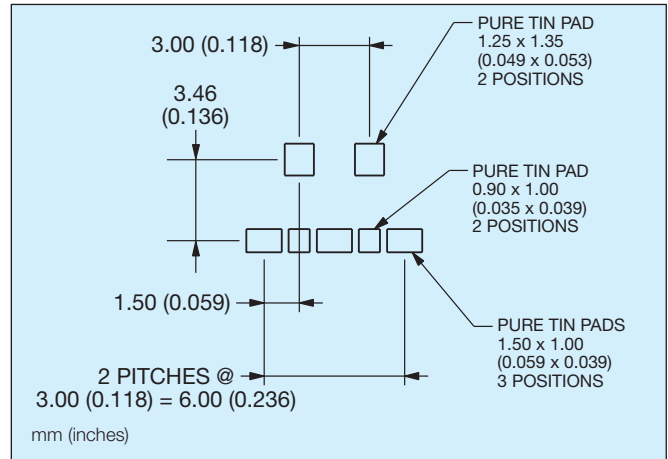
3.0mm Pitch Right Angle Battery Connectors



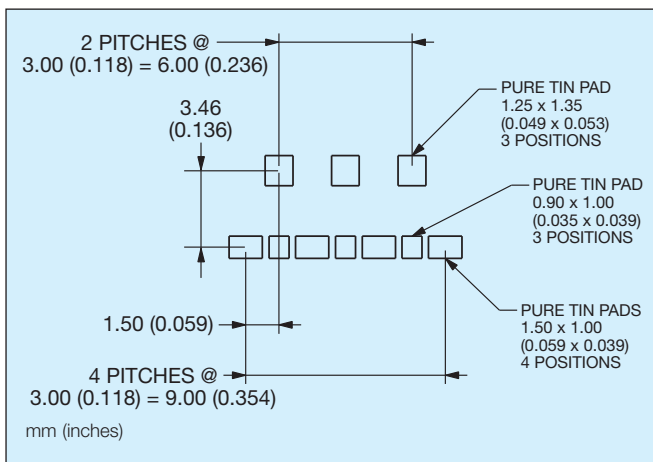
2 Way Right Angle Battery Connector PCB Layout



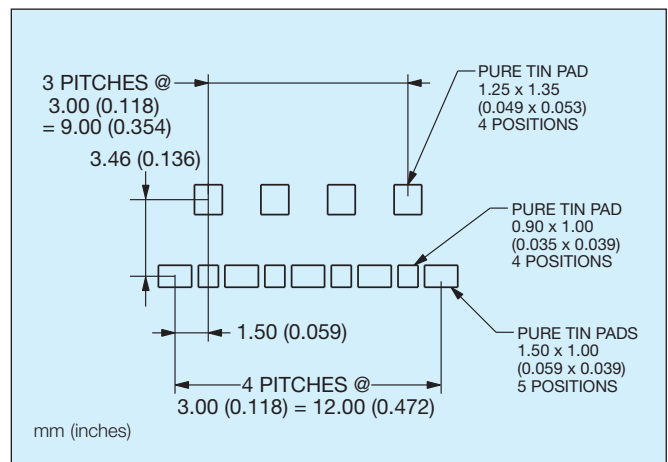
3 Way Right Angle Battery Connector PCB Layout



4 Way Right Angle Battery Connector PCB Layout



5 Way Right Angle Battery Connector PCB Layout



9155 MOBO®

2.5mm Pitch Right Angle Battery Connector



GENERAL DESCRIPTION

AVX extends the battery connector range with the addition of a low profile 2.5mm pitch right angle connector. This connector is offered in 2 to 5 positions and is rated at 3 amps. The connector's design is small and compact to minimize its profile yet functionally stable having a contact point at 2.20mm above the PCB.

The unique design of this stamped contact allows for a maximum insulator height of 4.0mm which makes it size compatible with more expensive pogo pin style battery connectors.

The complete family of battery connectors from AVX offer all of the same advantages; Beryllium Copper base material for enhanced contact performance, a full 3 amp current rating, selective gold plating for 5000 mating cycles and high temperature plastic for RoHS soldering.

APPLICATIONS

- Mobile Phones
- Digital Music Players
- Any Handheld Devices

KEY FEATURES AND BENEFITS

- Reliable stamped contact with coined nose
- Full 1.5mm nose deflection for large operating range
- Two anchor tabs for mechanical stability
- 5000 cycle durability rating
- Minimized X, Y and Z package dimensions



HOW TO ORDER

00

Prefix

9155

Series

002

No. of Ways

Code	No. of Ways
002	2
003	3
004	4
005	5

541

Right Angle Battery Connector

Code	Description
541	Right Angle 2.5mm Battery Connector

XXX

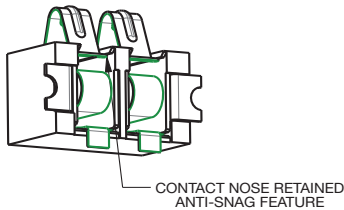
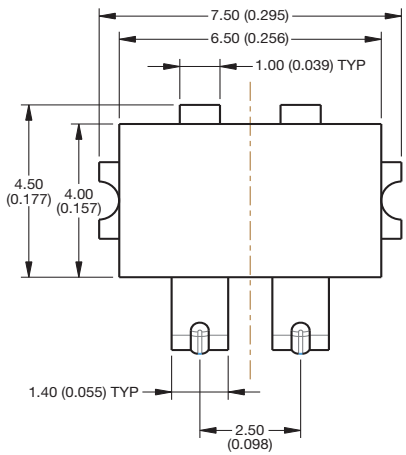
Plating Option

Code	Description
006	0.4µm Selective Gold, Pure Tin Tail
008	0.8µm Selective Gold, Pure Tin Tail

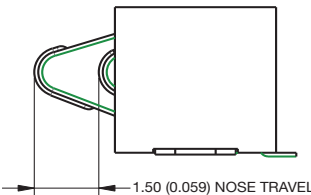
9155 MOBO® 2.5mm Pitch Right Angle Battery Connector



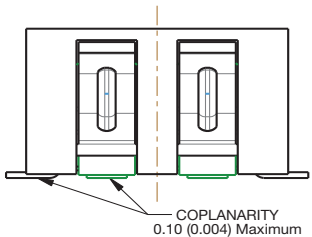
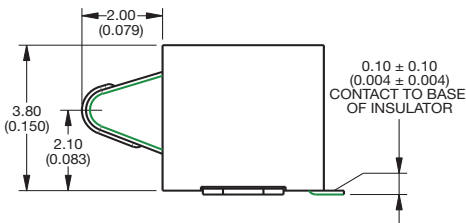
2 Way Right Angle Battery Connector



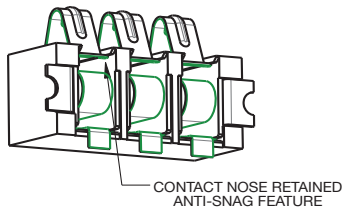
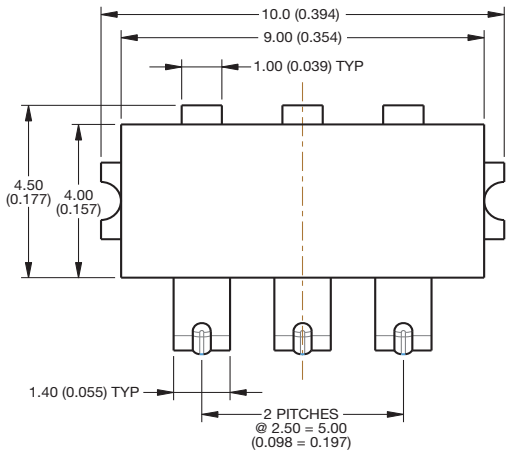
DEFLECTED CONNECTOR



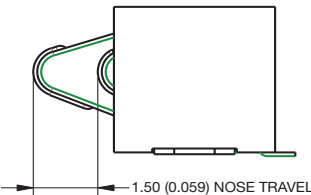
UNDEFLECTED CONTACT



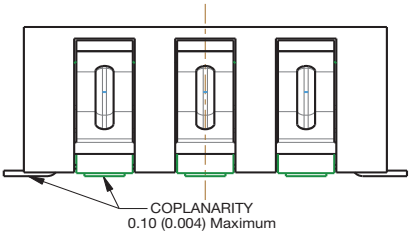
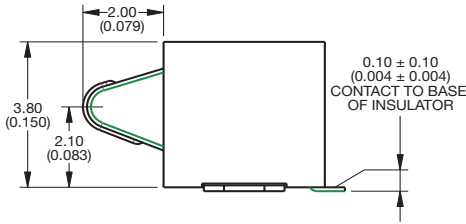
3 Way Right Angle Battery Connector



DEFLECTED CONNECTOR



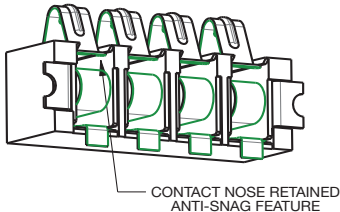
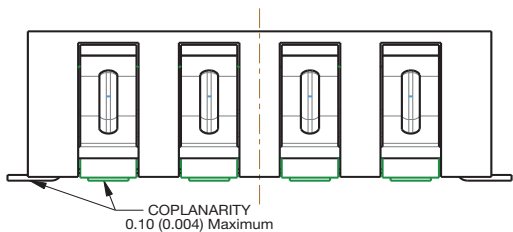
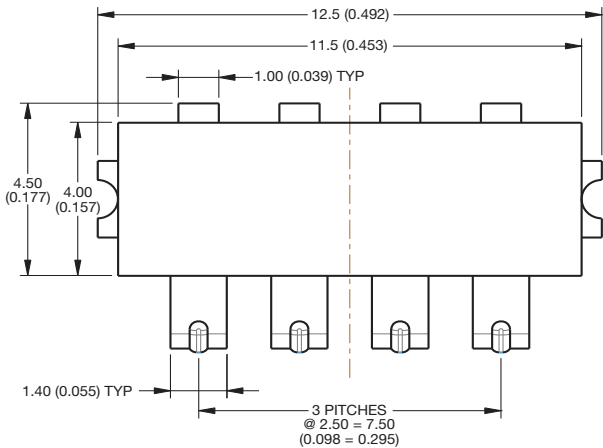
UNDEFLECTED CONTACT



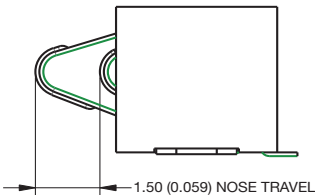
9155 MOBO® 2.5mm Pitch Right Angle Battery Connector



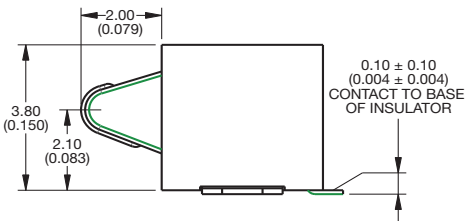
4 Way Right Angle Battery Connector



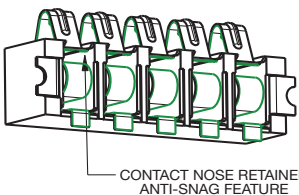
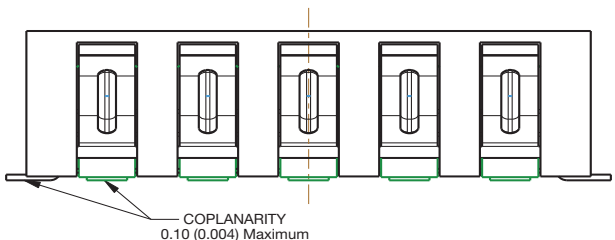
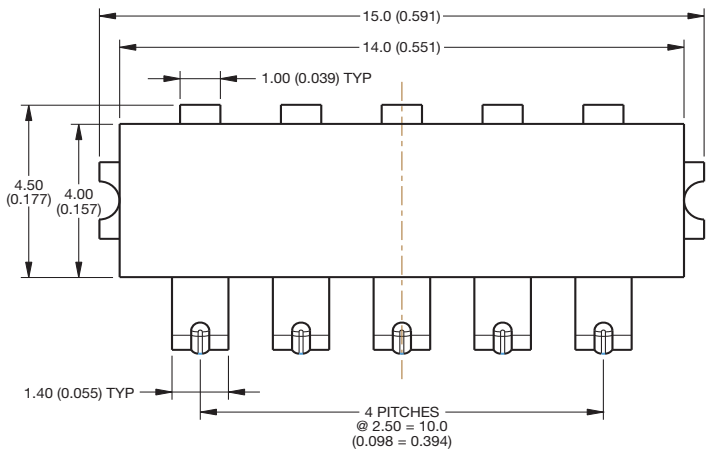
DEFLECTED CONNECTOR



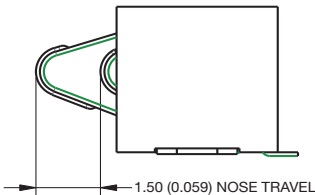
UNDEFLECTED CONTACT



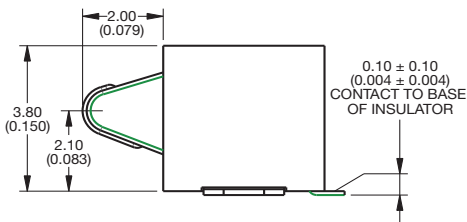
5 Way Right Angle Battery Connector



DEFLECTED CONNECTOR



UNDEFLECTED CONTACT

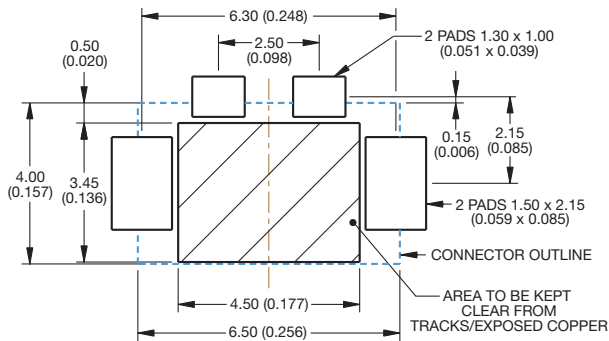


9155 MOBO®

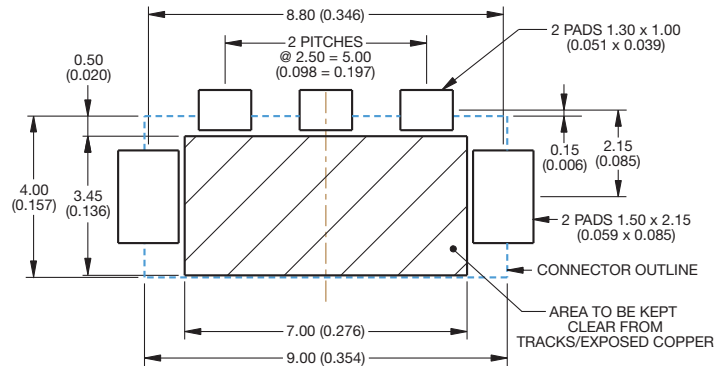
2.5mm Pitch Right Angle Battery Connector



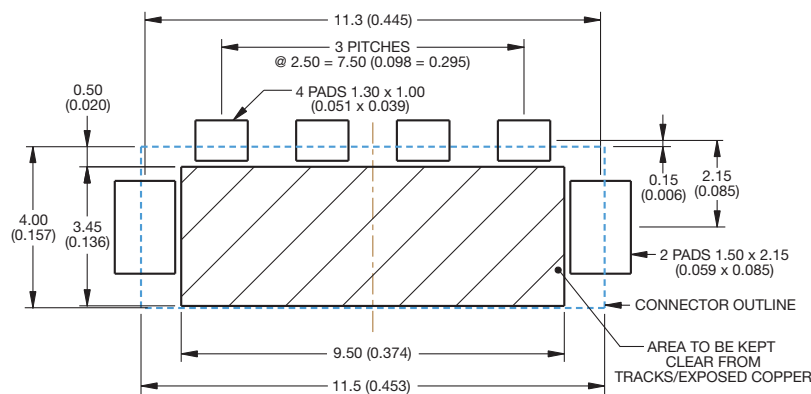
2 Way Right Angle Battery Connector PCB Layout



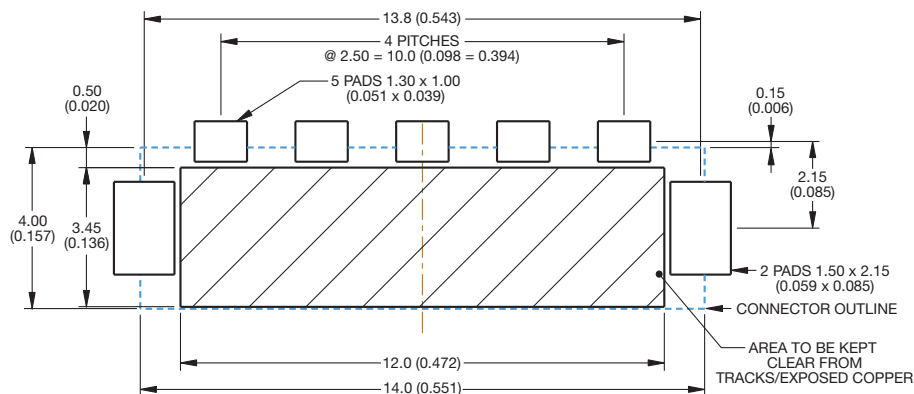
3 Way Right Angle Battery Connector PCB Layout



4 Way Right Angle Battery Connector PCB Layout



5 Way Right Angle Battery Connector PCB Layout





GENERAL DESCRIPTION

The standard SIM connector is specifically designed for handheld devices requiring secure subscriber identification.

Following on from the introduction of our standard SIM block with an offering of 3 standard heights, 0.80mm, 1.60mm, or 2.40mm, AVX is now adding another standard to the 9162 series SIM connectors, the slide-in SIM.

Unlike SIM blocks which require SIM card guides to aid insertion, removal and retention of the SIM card, the slide-in SIM has guides as part of the connector mold design.

Contacts are stamped, gold plated, rated 0.5A, and 5000 mechanical cycles.

Our contact design is specifically rounded to avoid any possible damage during and after card insertion to the card itself, assuming normal use. The design also incorporates protection features to avoid contact damage during this operation such as contact snagging.

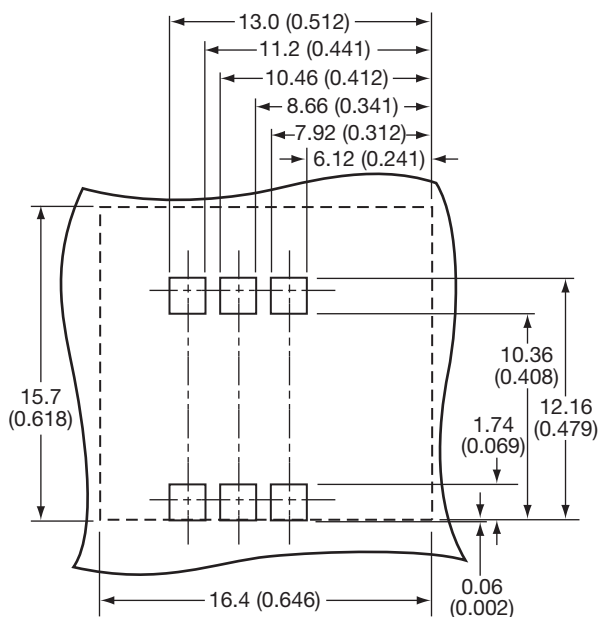
Please contact the appropriate sales office for further details of this service.

KEY FEATURES AND BENEFITS

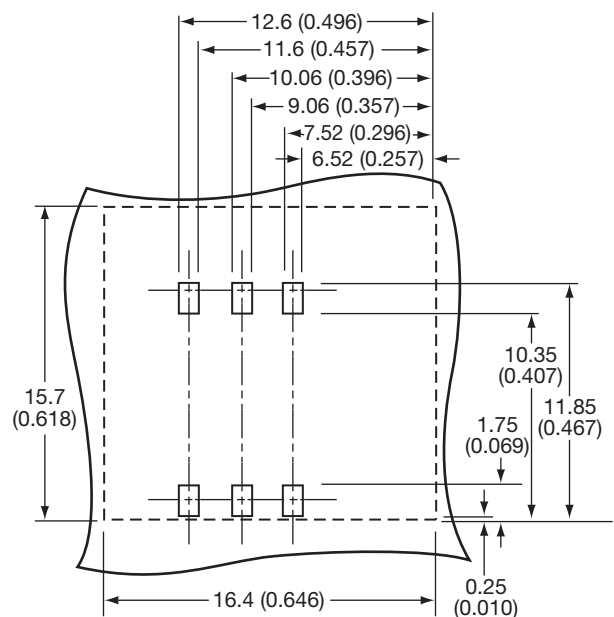
- Produced for use with micro SIM cards.
- The insulator is molded from high temperature plastic enabling the connector to be used in convection or infrared soldering processes.
- Supplied on tape and reel packaging for pick and place assembly.
- The all plastic design, assuming normal use prevents damage to the SIM card on insertion.
- Optional SMT contact size:
Standard SMT contact size – 1.60mm x 1.60mm
Narrow SMT contact size – 1.05mm x 0.60mm
- RoHS Compliant available.



Standard SMT Contact Layout



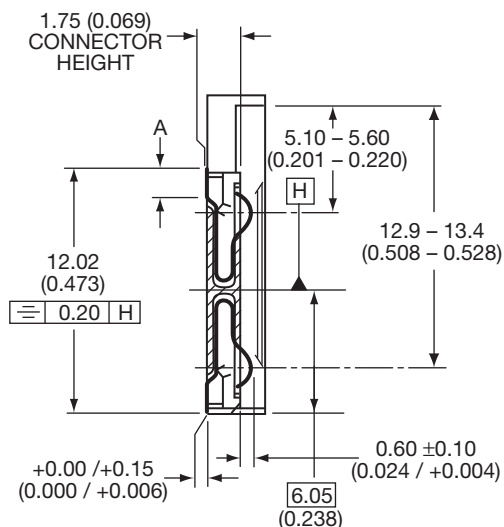
Narrow SMT Contact Layout



9162 Slide-In SIM Card Connector

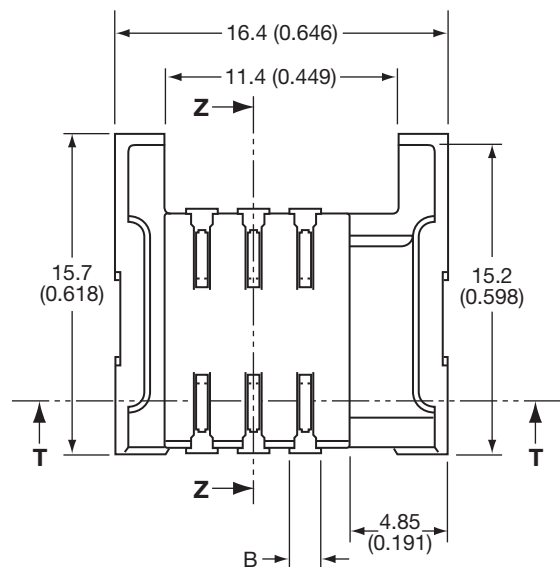


Connector Height 1.75mm

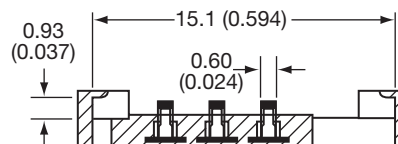


SECTION Z-Z

	Standard	Narrow
A	1.46 (0.057)	1.05 (0.041)
B	1.60 (0.063)	0.60 (0.024)



SECTION T-T



HOW TO ORDER

00

Prefix

00 = Standard
58 = Special

9162

Series

006

No. of Contacts

006 = 6

2X 6

SIM Type

20 = Standard SMT Footprint
21 = Narrow SMT Footprint

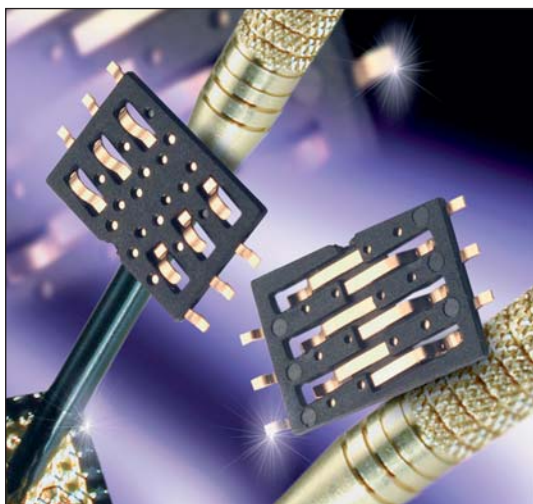
Plating Options

Selective Gold,
Pure Tin Tail

XXX

Connector Height

XXX refers to
Connector Height
175 = 1.75mm stack height



GENERAL DESCRIPTION

The standard SIM connector is specifically designed for handheld devices requiring secure subscriber identification.

The connectors are available in a standard 6 pin configuration on a 2.54mm pitch and at optional heights of 0.8mm, 1.6mm or 2.4mm.

Contacts are stamped, gold plated, rated at 0.5A, and 5000 mechanical cycles.

Our contact design is specifically rounded to avoid any possible damage during and after card insertion to the card itself, assuming normal use. The design also incorporates protection features to avoid contact damage during this operation such as contact snagging.

In addition to our offering presented here, other operating heights are available as custom alternatives.

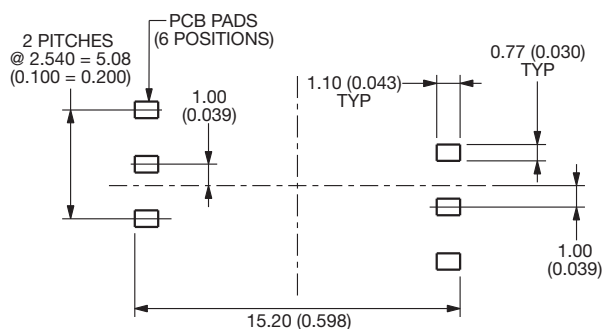
Please contact the appropriate sales office for further details of this service.

KEY FEATURES AND BENEFITS

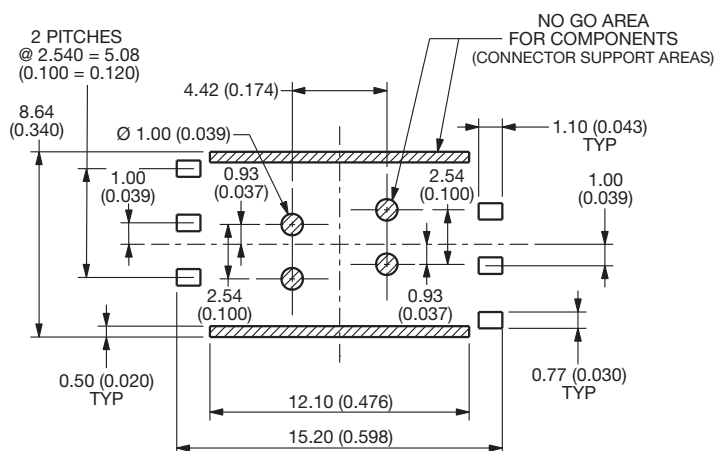
- Produced for use with both full ISO cards and micro SIM cards.
- Stand-off designs allow other components to be mounted underneath the connector offering greater effective use of PCB real estate.
- The insulator is molded from high temperature plastic enabling the connector to be used in convection or infrared soldering processes.
- Supplied on tape and reel packaging for pick and place assembly.
- RoHS Compliant.



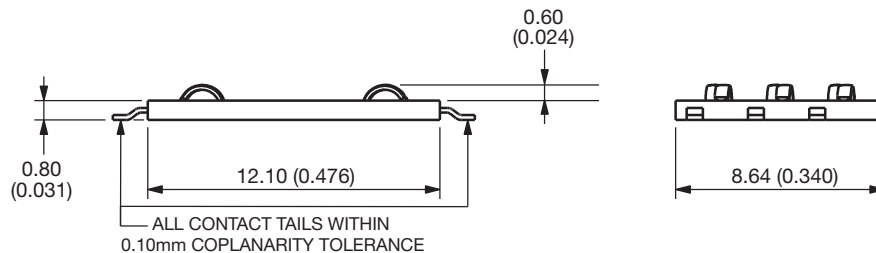
0.8mm PCB Pad Layout



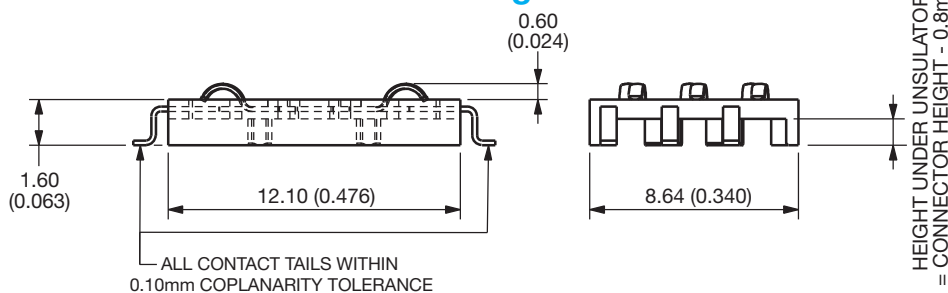
1.6mm / 2.4mm PCB Pad Layout



Connector Height 0.8mm



Connector Height 1.6mm



Connector Height 2.4mm

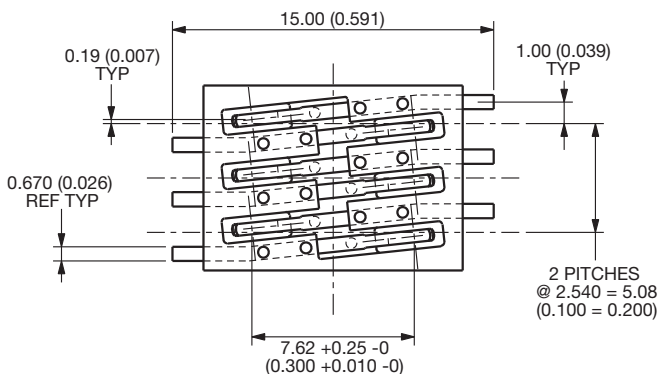
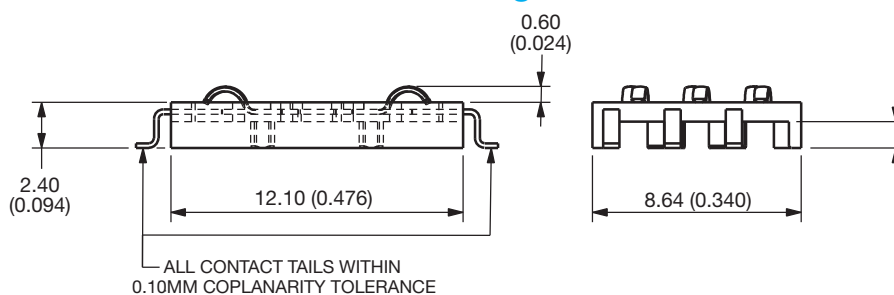
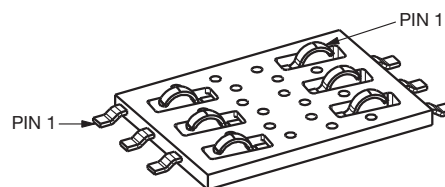


Illustration of Pin Configuration



HOW TO ORDER

00

Prefix

9162

Series

006

Number of Contacts

006

SIM Type
006 = Selective Gold,
Pure Tin Tail

080

Connector Height
080 = 0.8mm stack height
160 = 1.6mm stack height
240 = 2.4mm stack height

9162 SIM Connector with Locking Latch



GENERAL DESCRIPTION

For 9162 Slide-IN & 9162 SIM/microSD

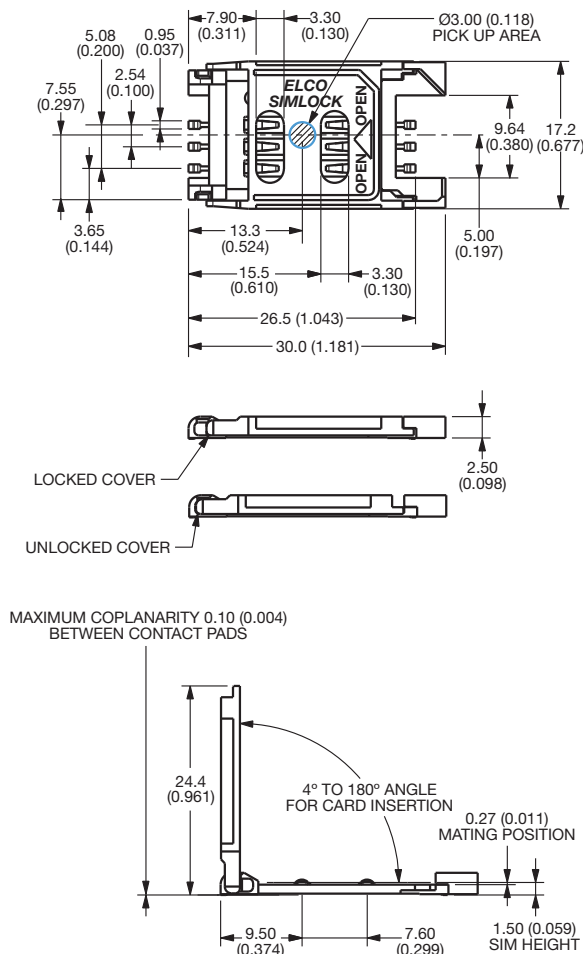
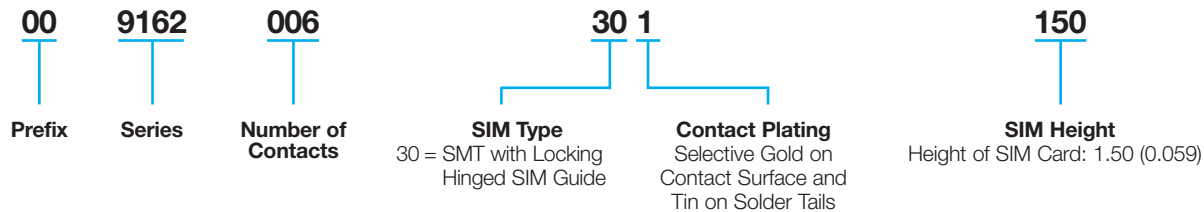
- Accepts GSM Standard 11.11 cards
- Secure locking latch mechanism
- Robust, good resistance against shock and vibration
- SIM Installed Height – 1.50mm
- Polarized to eliminate improper insertion of the card

KEY FEATURES AND BENEFITS

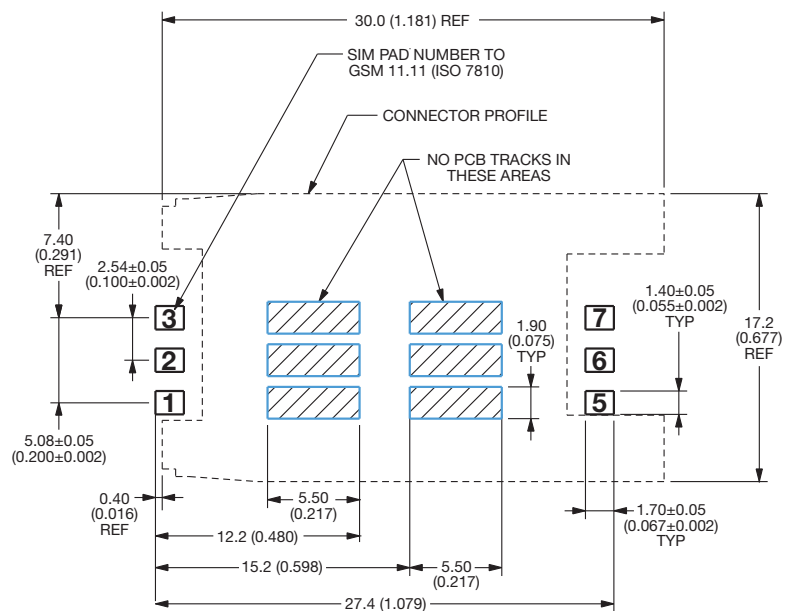
- SMT with locking hinged guide
- 2.50mm connector height
- Selective gold on mating surface/tin on solder tails
- Tape and reel packaging



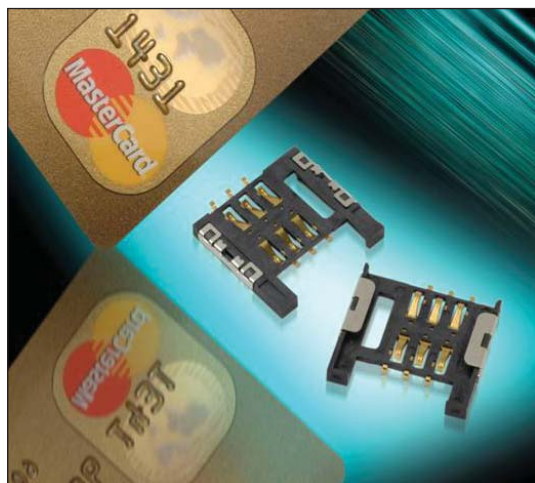
HOW TO ORDER



Suggested PCB Layout



9162 Slide-In Low Profile SIM Connector



GENERAL DESCRIPTION

- Six position Slide-In SIM
- Low Profile – 0.70mm to SIM base
- Side bracket to add solder security
- SIM guidance using the side walls

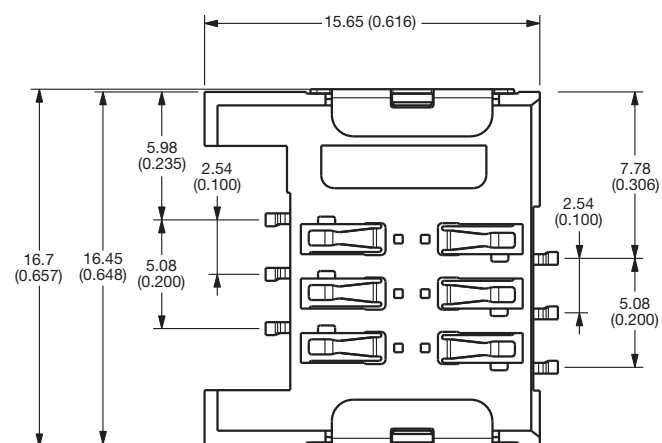
KEY FEATURES AND BENEFITS

- SMT Slide-In SIM
- Molded in high temperature LCP
- 0.38µm Gold on contact surface and gold flash on contact tails
- 1.60mm connector height
- Tape & Reel packaging

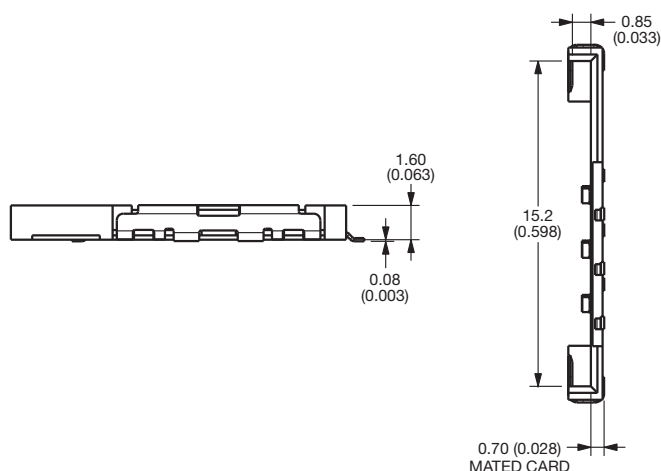
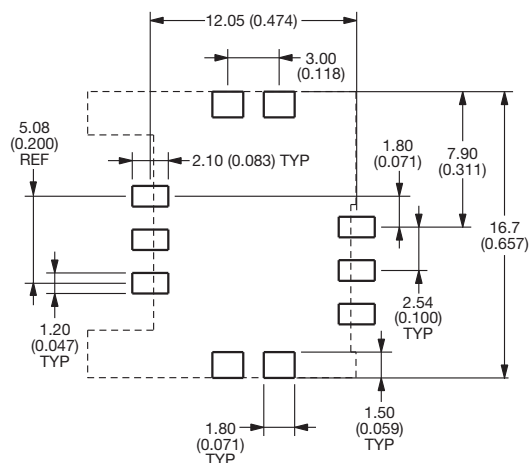


HOW TO ORDER

00	9162	006	40	1	070
Prefix	Series	Number of Contacts	SIM Type	Contact Plating	SIM Height
			40 = SMT, Slide-in SIM	0.38µm Gold on Contact Surface and Gold Flash on Solder Tails. Underplated 1.27µm Nickel.	Height of SIM Card: 0.70 (0.028)



Suggested PCB Layout



9162 SIM/microSD Micro Combination Connector



GENERAL DESCRIPTION

- Six position slide-in SIM connector & Push-Push microSD connector
- Allows two cards to be inserted into the same connector
- Card detect switch on the microSD

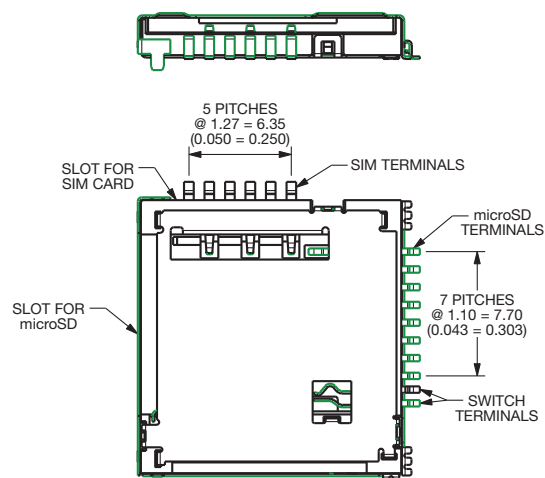
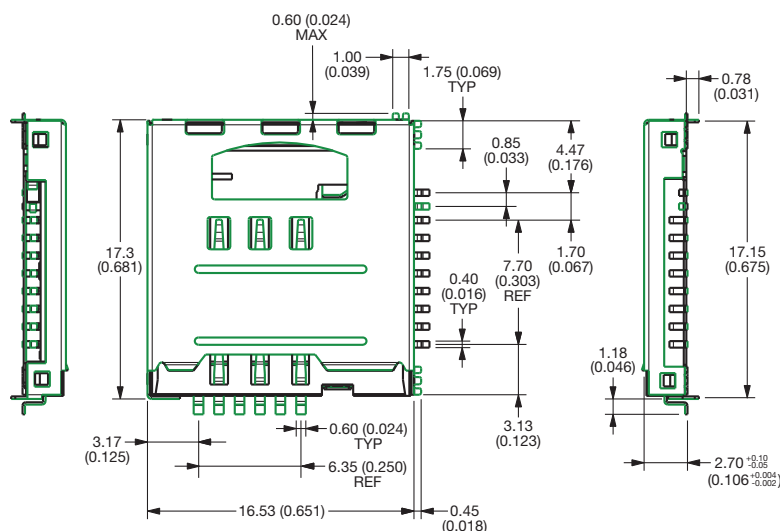
KEY FEATURES AND BENEFITS

- Space saving connector combination
- Integrates 2 connectors into 1
- Contact Plating: Gold
- Insulator molded from LCP UL94 V-O
- Low profile 1.50mm to SIM
- 2.70mm connector height



HOW TO ORDER

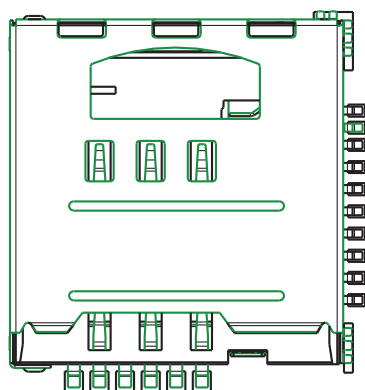
00	9162	006	50 1	150
Prefix	Series	Number of Contacts	SIM Type 50 = SMT with SIM and microSD Slots at 90°	Sim Height Height of SIM Card: 1.50 (0.059)
			Contact Plating Gold Plating over Nickel	



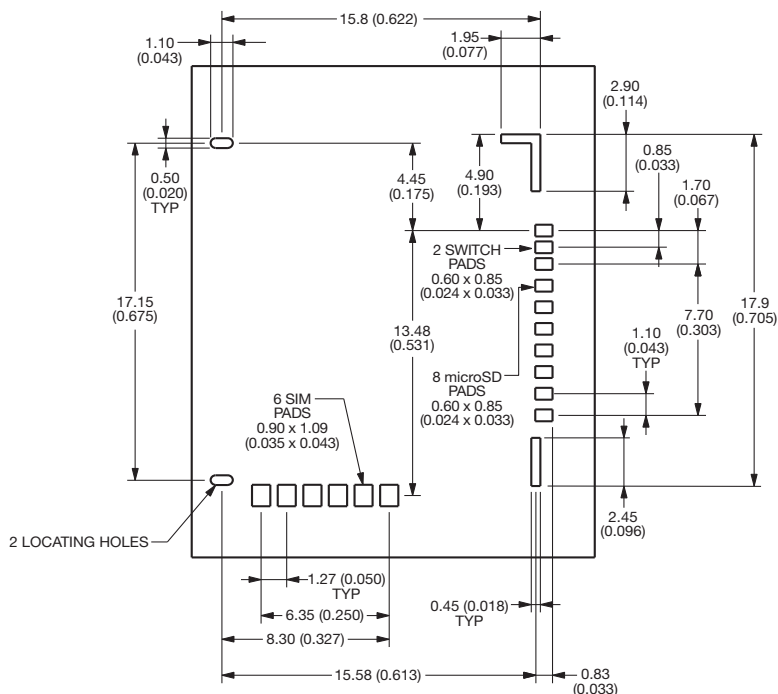
9162 SIM/microSD Micro Combination Connector



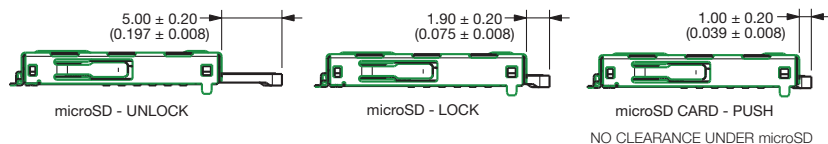
Connector on PCB



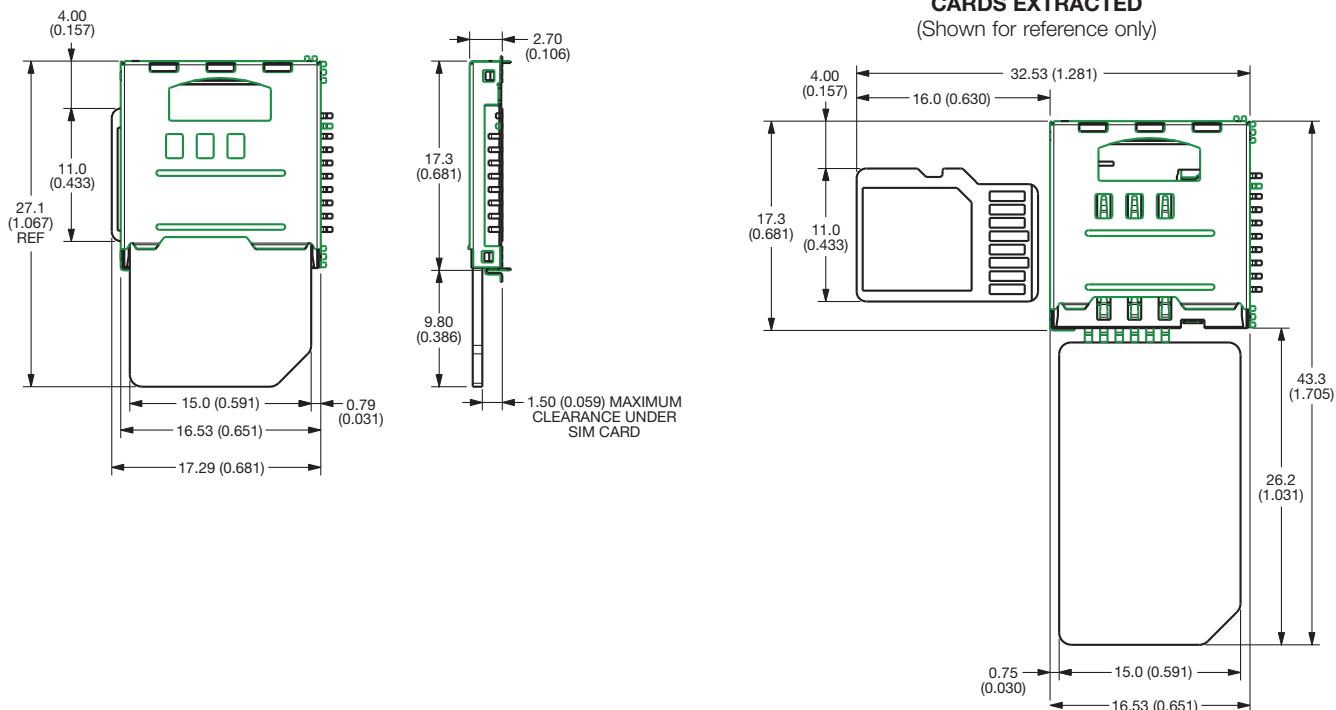
Recommended PCB Layout

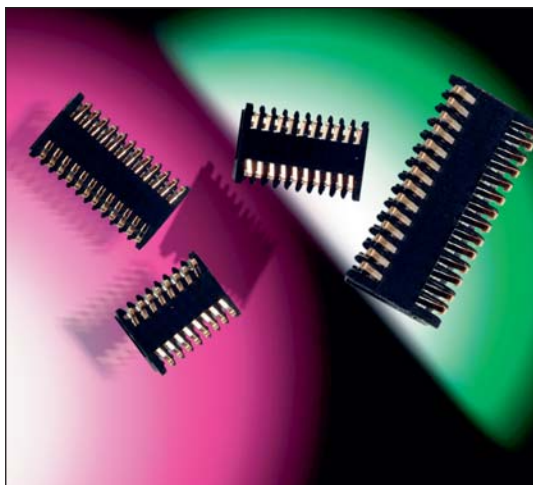


PCB SPACE USED BY CONNECTOR CARDS FULLY INSERTED



CARDS EXTRACTED (Shown for reference only)





GENERAL DESCRIPTION

The MOBO® series 9158 is a one-piece connector used to connect two PCBs within mobile phones, pagers, PDAs, security, handheld scanners, etc. in a cost-effective manner.

A standard range is available with 16, 20, 24 and 28 contacts to suit stack heights of 1.90mm to 3.30mm. Other contact variants are also available up to 5.10mm, in custom housings. The SOLO STACKER can allow a spacing tolerance of up to ± 0.30 mm and still provide reliable connections between the PCBs, even if they are not parallel.

SOLO STACKER is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the boards.

Whatever your requirements this SOLO STACKER can also be customized to suit your applications.

APPLICATIONS

Suitable applications include:

- Mobile Phones
- PDA
- Medical
- PMR
- Industrial
- Security
- Handheld Scanner

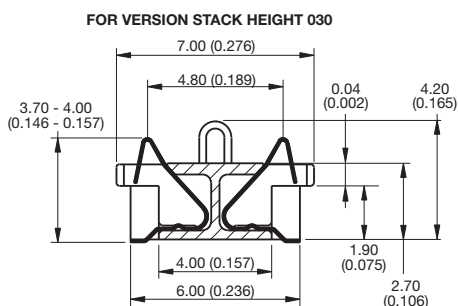
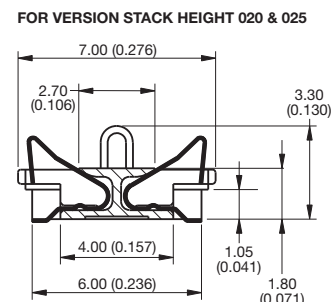
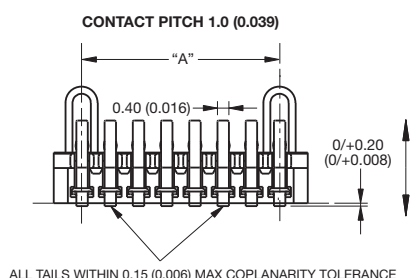
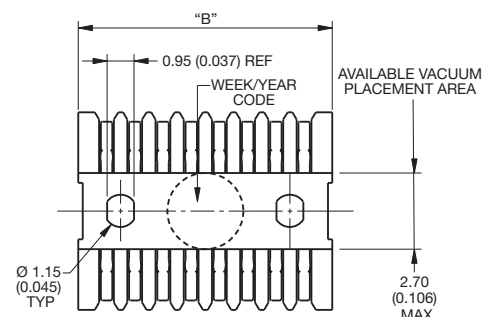
KEY FEATURES AND BENEFITS

Single piece Connector – no mating half connector required to connect two boards together which means:

- Reduced assembly time.
- Only one part to purchase and stock.
- Due to the unique contact design, the mating device does not have to be parallel.
- Extremely robust when subjected to shock and vibration.
- Cost effective.
- Helps reduce tolerance accumulation within system.



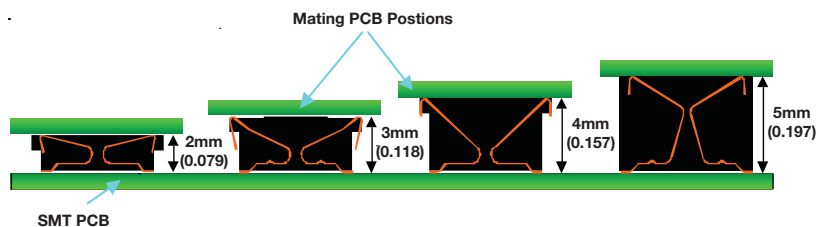
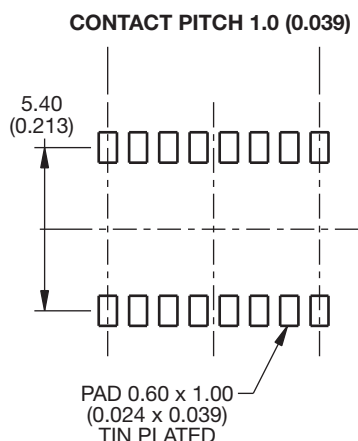
DRAWINGS AND DIMENSIONS



Number of Positions	Part Number	A	B
16	00-9158-016-XXX-XXX	7	9.00
20	00-9158-020-XXX-XXX	9	11.00
24	00-9158-024-XXX-XXX	11	13.00
28	00-9158-028-XXX-XXX	13	15.00

A = Number of contact pitches at 1mm
B = Connector Length

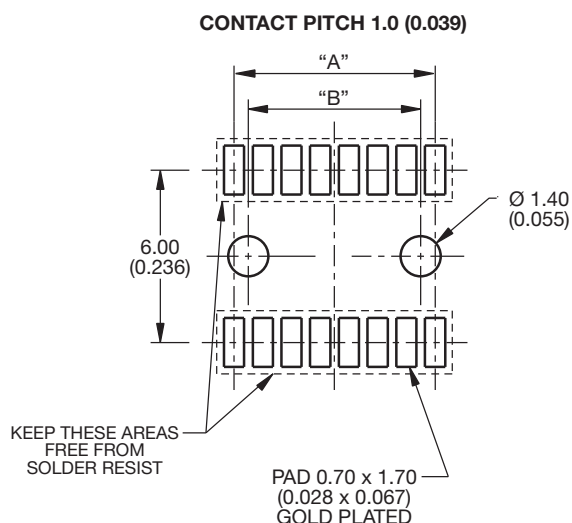
SMT PCB Footprint



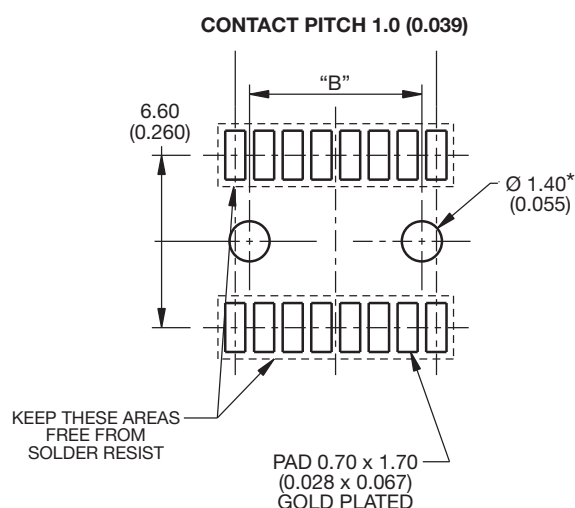
Mating Height	Standard Positions					Special Positions				
	16	20	24	28	32	4	18	30	34	40
2mm	X	X	X	X					X	
3mm	X	X	X	X	X					
4mm						X	X			X
5mm								X		

Other sizes available on request.

Mating PCB Footprint for version stack height 020 & 030



Mating PCB Footprint for version stack height 025



* Used for Boss versions only.

B	Dim
16	6.00 (0.236)
20	8.00 (0.315)
24	10.00 (0.394)
28	12.00 (0.472)

HOW TO ORDER

00
Prefix
00 = Standard
58 = Special

9158
Series

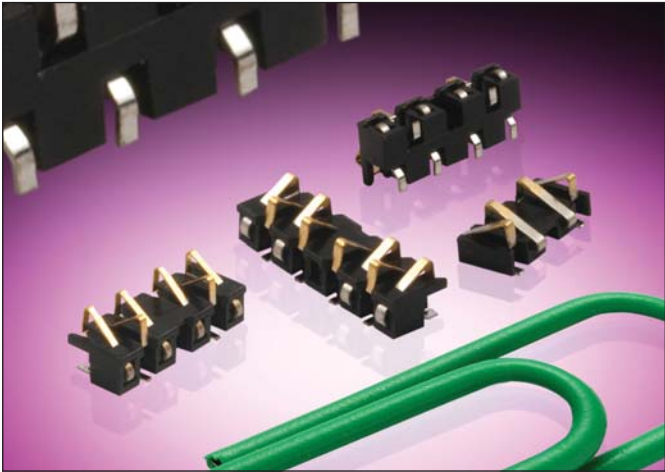
XXX
No of Ways
16 = 016
20 = 020
24 = 024
28 = 028

XXX
Stack Height
020 = 1.9mm to 2.1mm
025 = 2.1mm to 2.7mm
030 = 2.8mm to 3.3mm

06
Plating Variation
06 = Selective Gold
0.25µm
Gold Plated
Contact Nose,
Pure Tin Tail

X
PCB Location Bosses
1 = With PCB Location Bosses
2 = Without PCB Location Bosses

9188 Staggered SOLO Stacker



GENERAL DESCRIPTION

The SOLO series 9188 is a one-piece connector used to connect two PCBs in a cost effective manner.

A standard range is available with 4, 6, 8 staggered contacts to suit stack heights of 1.1mm to 2.1mm (see table below).

SOLO Stacker is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the two boards.

APPLICATIONS

Suitable applications include:

- Handheld Devices:
 - Phones
 - Scanners
 - Radios
 - Medical Diagnostic
 - Security Devices

KEY FEATURES AND BENEFITS

Single piece connector – no mating half required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Helps reduce tolerance accumulation within system



HOW TO ORDER

00
Prefix

9188
Series

004
No. of Ways

Code	No. of Ways
004	4
006	6
008	8

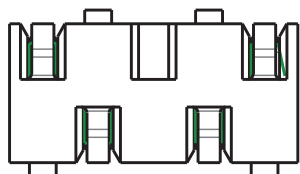
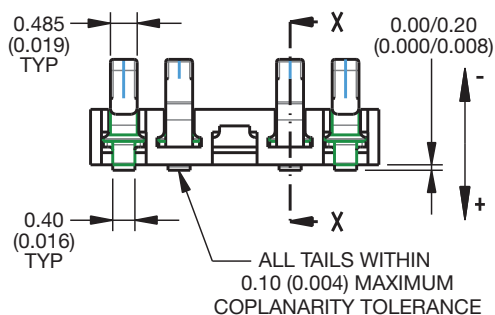
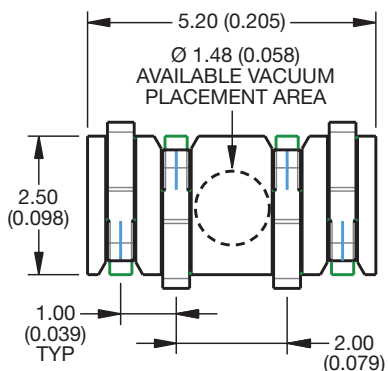
012
Stack Height

Code	Height	No. of Ways
012	1.1mm to 1.3mm	4 only
020	1.9mm to 2.1mm	6 & 8 only

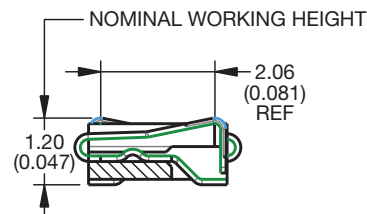
062
Plating Variation

06 = Selective Gold
0.25µm
Gold Plated
Contact Nose,
Pure Tin Tail
No Bosses

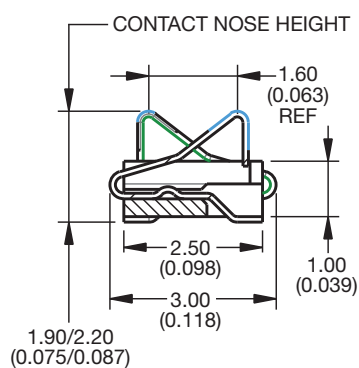
4 Way Staggered Stacker



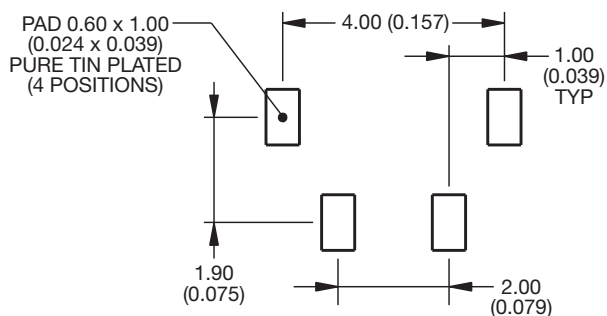
MATING CONDITION



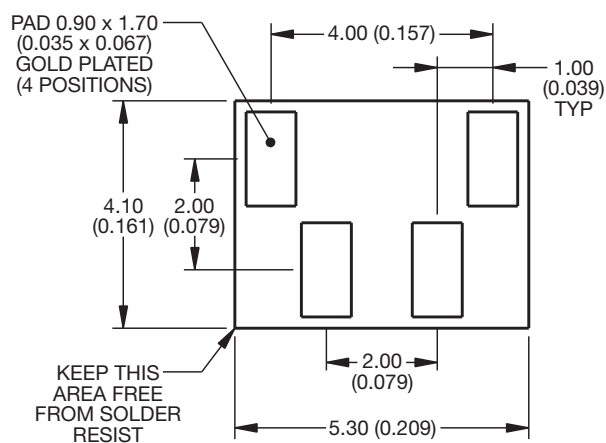
SECTION ON X - X



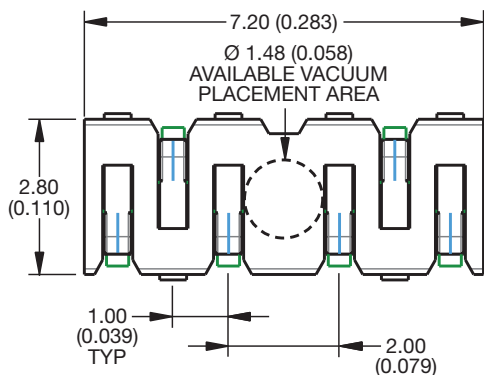
SMT PCB FOOTPRINT



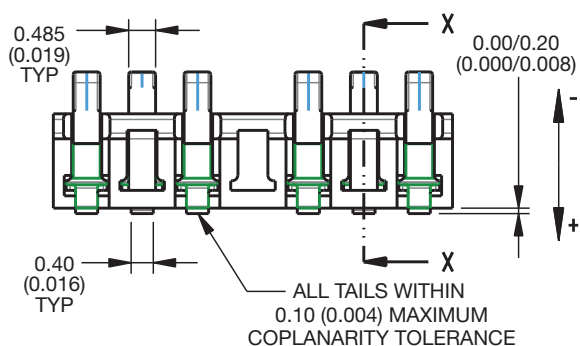
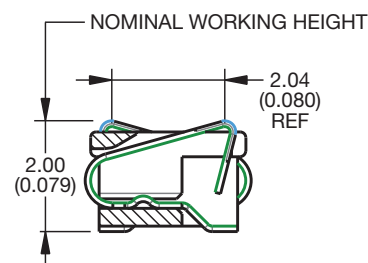
MATING PCB FOOTPRINT



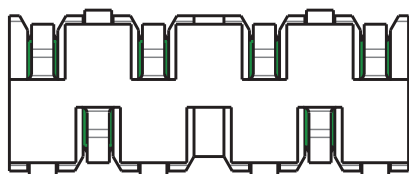
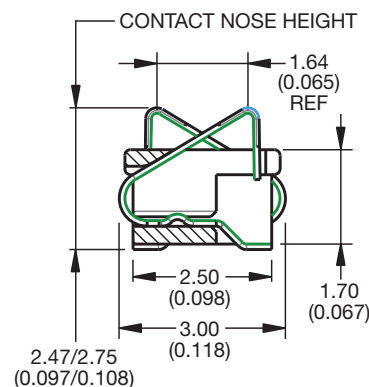
6 Way Staggered Stacker



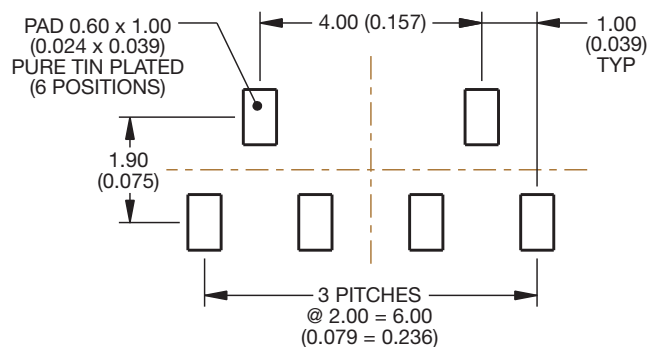
MATING CONDITION



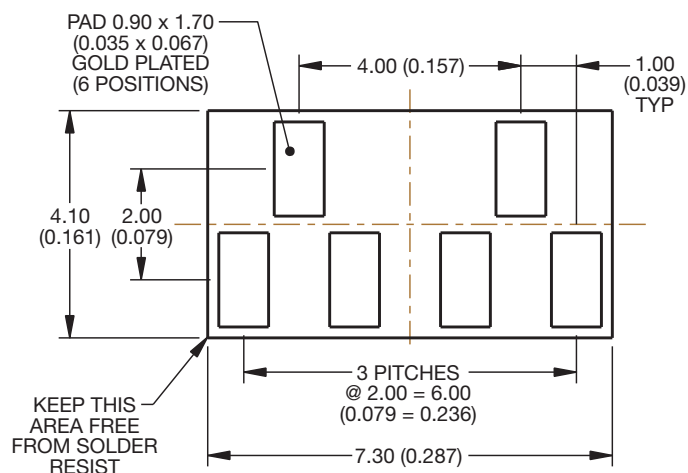
SECTION ON X - X



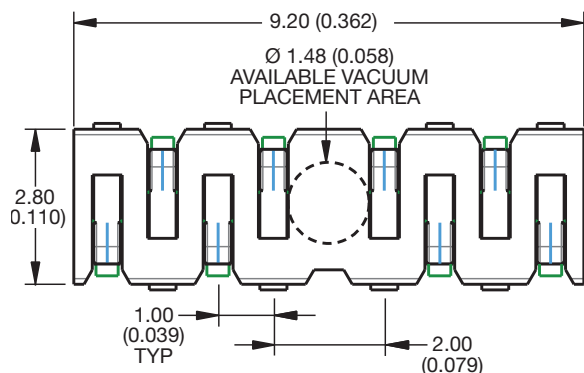
SMT PCB FOOTPRINT



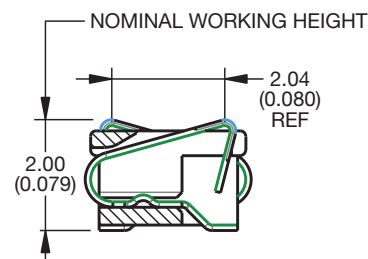
MATING PCB FOOTPRINT



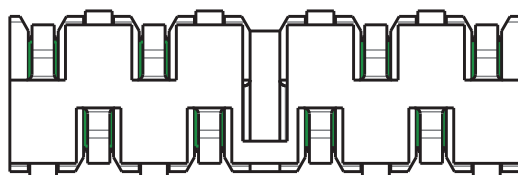
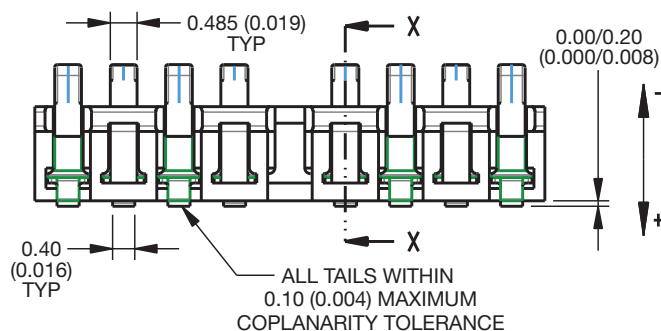
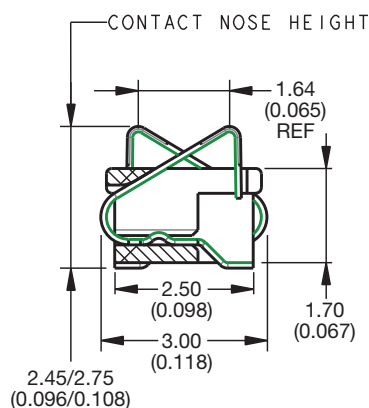
8 Way Staggered Stacker



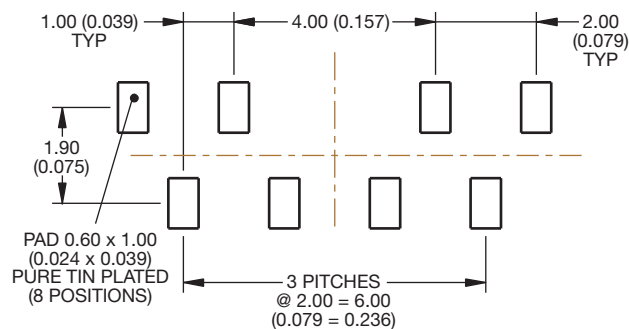
MATING CONDITION



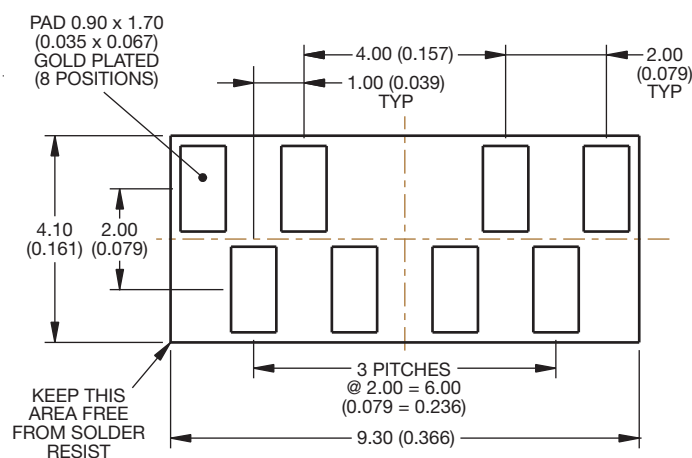
SECTION ON X - X



SMT PCB FOOTPRINT



MATING PCB FOOTPRINT





GENERAL DESCRIPTION

The SOLO series 9258 is a one-piece connector used to connect two PCBs in a cost effective manner.

This connector is a 1.0mm pitch available in an 8 position with stack heights of 0.40mm and 0.80mm. It is available with or without location bosses.

This connector is designed for PCB surface mounting and is supplied in tape and reel packaging. Gold plated pads on the mating PCB or suitable flex circuits provide connection between the boards.

APPLICATIONS

Suitable applications include:

- Mobile phones
- Handheld scanners
- Portable medical devices
- Display interface

KEY FEATURES AND BENEFITS

Single piece connector – no mating half connector required to connect two boards together which means:

- Reduced assembly time
- Only one part to purchase and stock
- Due to the unique contact design, the mating device does not have to be parallel
- Extremely robust when it comes to shock and vibration

HOW TO ORDER

00
Prefix
00 = Standard

9258
Series

008
No of Ways

XXX
Stack Height
004 = 0.40mm
008 = 0.80mm

06
Plating Variation
06 = Selective Gold
0.25µm
Gold Plated
Contact Nose,
Pure Tin Tail

X
PCB Location Bosses
1 = With Mating PCB Location Bosses (top side)
2 = Without PCB Location Bosses
3 = With SMT PCB Location Bosses (bottom side)
4 = With SMT and Mating PCB Location Bosses (top and bottom sides)

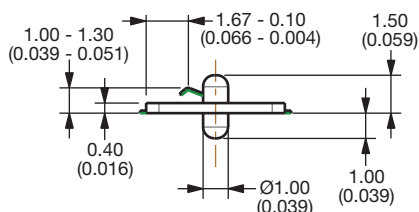
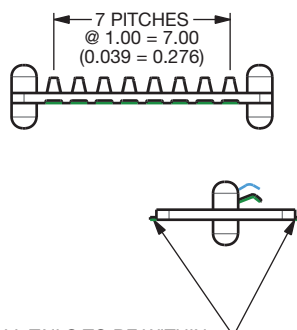
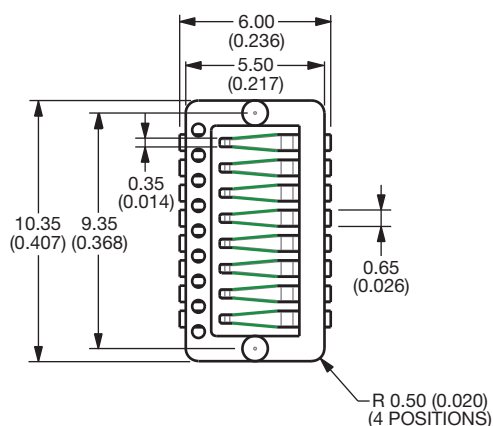


9258 Ultra Low Profile Stacker

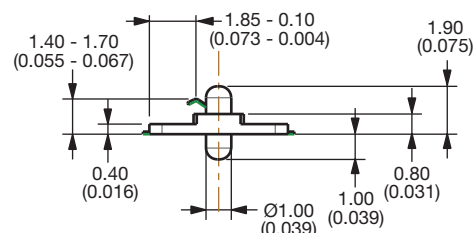
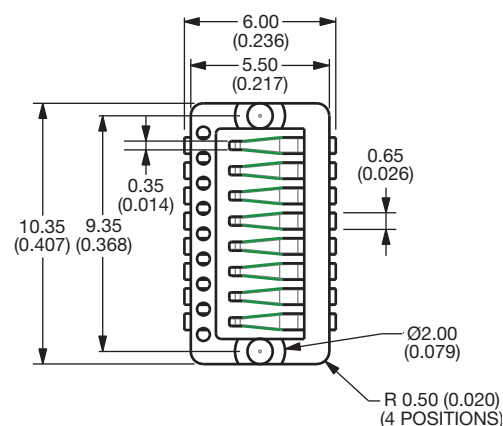


0.4mm Ultra Low Profile Stacker

0.8mm Ultra Low Profile Stacker

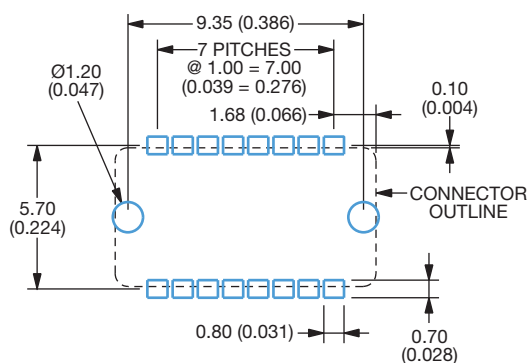


ALL TAILS TO BE WITHIN
0.10 (0.004) MAXIMUM
COPLANARITY TOLERANCE

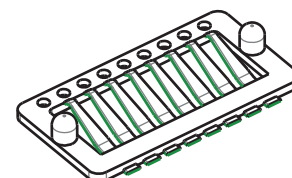


PROPOSED SMT PCB LAYOUT

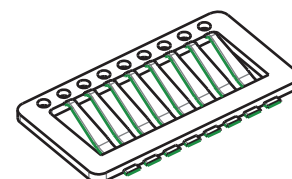
ALL PADS PURE TIN PLATE



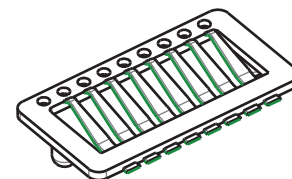
WITH MATING PCB
LOCATION BOSSES
(TOP SIDE)



WITHOUT PCB
LOCATION BOSSES

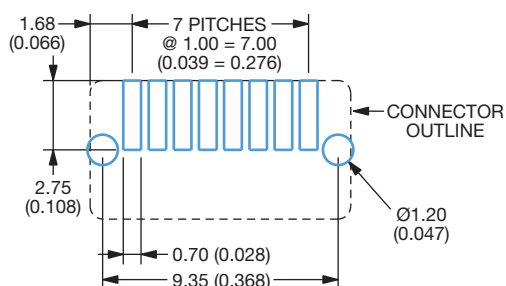


WITH SMT PCB
LOCATION BOSSES
(BOTTOM SIDE)

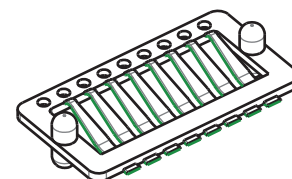


PROPOSED MATING PCB LAYOUT

ALL PADS GOLD PLATE



WITH PCB AND SMT
LOCATION BOSSES





GENERAL DESCRIPTION

The 9157 series was specifically designed for portable equipment.

AVX now offers this two-part system as a standard product. The fixed SMT socket is designed to be housed within the confined dimensional constraints of the portable device.

The plug/cover connector has sprung contacts and is designed for termination to accessory equipment. The connector is designed to house fifteen signal contacts on a 1mm pitch rated at 1.5A. There is the option to include a switching RF coax.

A cradle SMT plug connector for docking applications is also available as standard and has the option of including a SMT RF coax.

Whatever your requirements, the 9157 series can also be customized to suit your application.

APPLICATIONS

Suitable applications include:

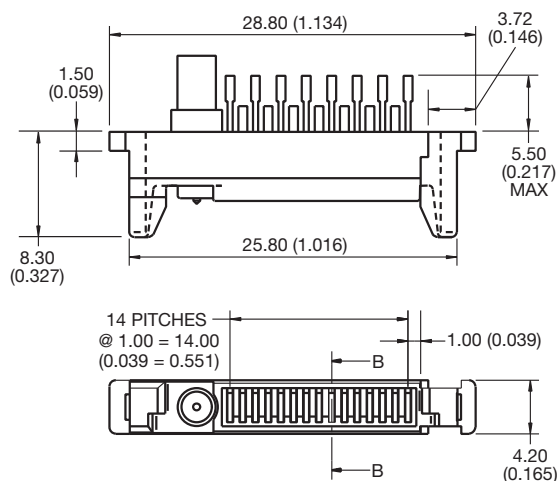
- Mobile Phones
- PDA
- Medical
- Docking/Charging for any portable device

KEY FEATURES AND BENEFITS

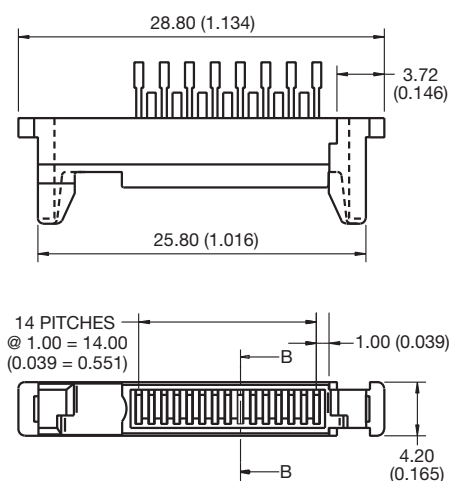
- Patented 20° angled face on the socket gives self-cleaning face when mated with plug.
- Metal Latching area integral to socket which saves PCB real estate.
- Integral to socket is a mechanical 50Ω switching coax for SMT termination.
- Single sprung plug contact design gives ten thousand mating cycles and cleaning/wiping action.
- Customer has option to terminate own RF coax using AVX custom tooling: 06-9157-7116-01-000.
- SMT plug has unique location pyramids that give positive alignment to portable device, and assist blind mating.
- RoHS Compliant.



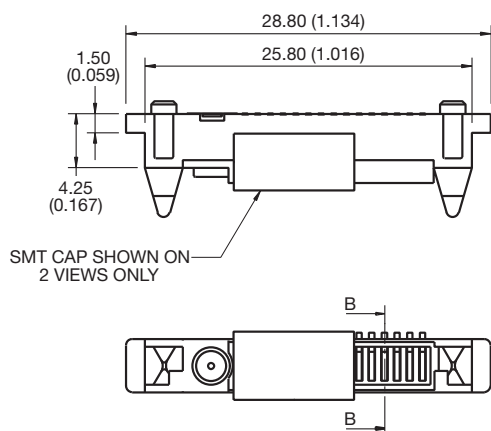
Plug Wire with Coax



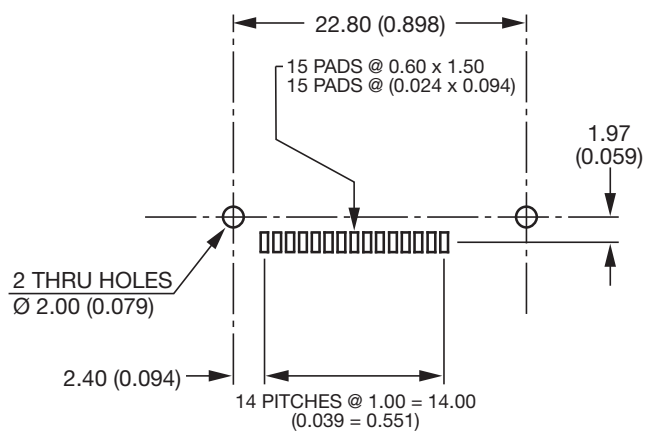
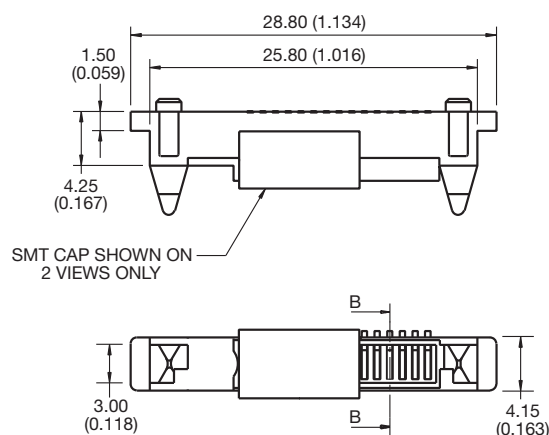
Plug Wire without Coax



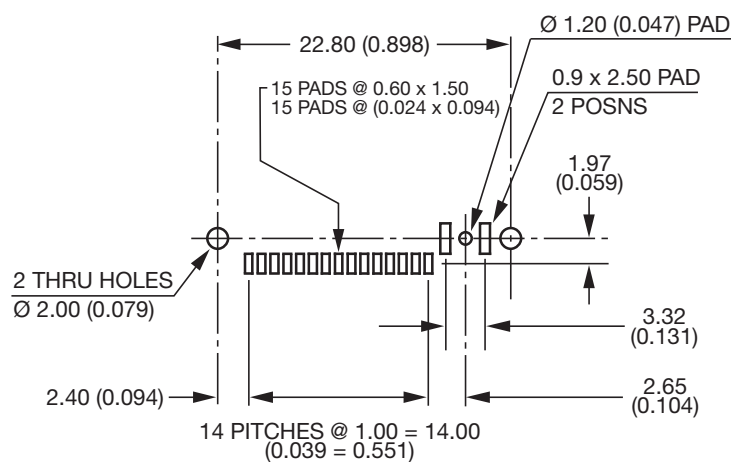
SMT Plug with Coax



SMT Plug without Coax

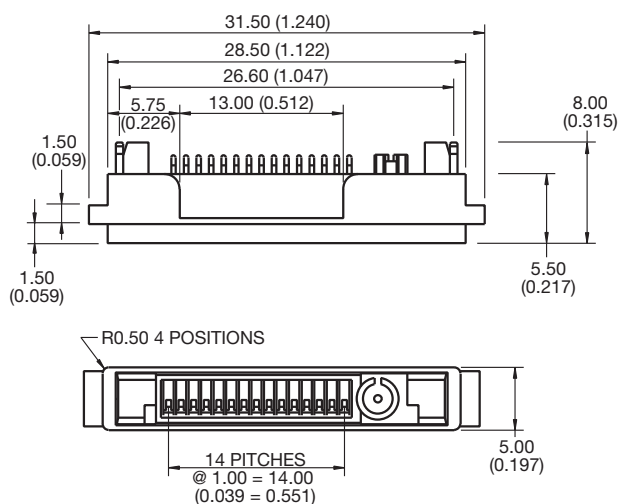


SUGGESTED PCB LAYOUT

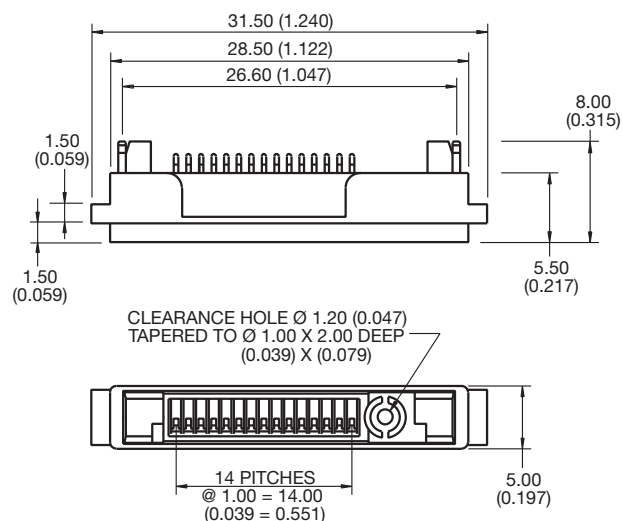


SUGGESTED PCB LAYOUT

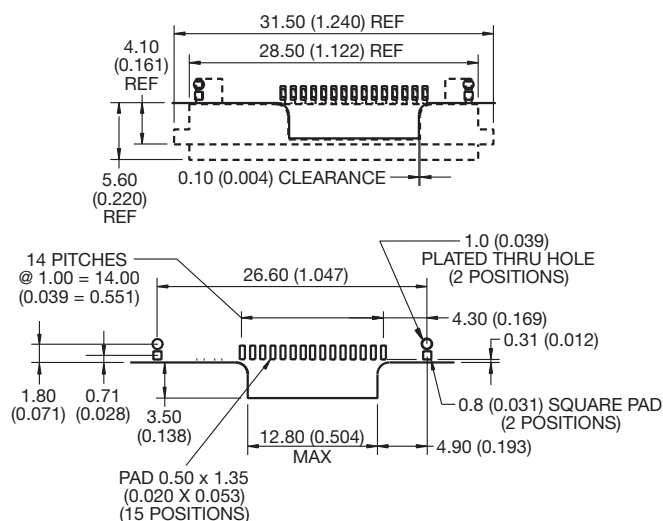
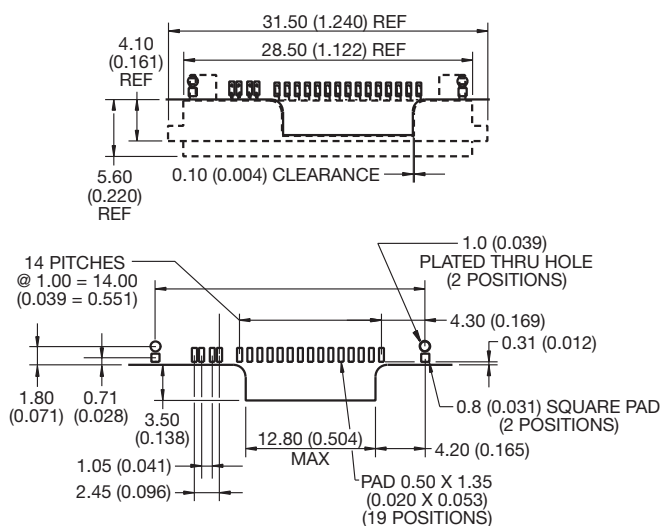
SMT Socket with Coax



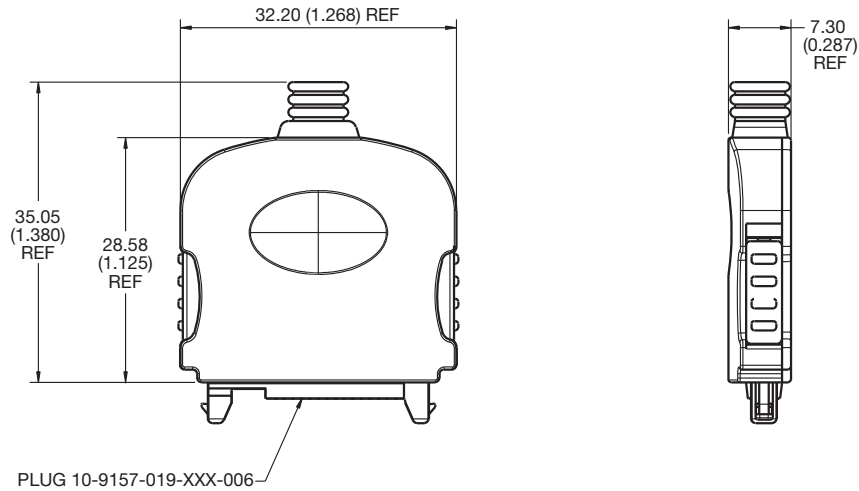
SMT Socket without Coax



SMT PAD LAYOUT



Cover Kit



HOW TO ORDER

Plug Options – Example

<u>10</u>	<u>9157</u>	<u>015</u>	<u>000</u>	<u>006</u>
Prefix 10 = Plug 58 = Special	Series	No of Ways 15 = 015	RF Coax Option 000 = No RF Coax 001 = With RF Coax	Contact Type 006 = Solder Wire 007 = SMT

Socket Options – Example

<u>20</u>	<u>9157</u>	<u>015</u>	<u>000</u>	<u>006</u>
Prefix 20 = Socket 58 = Special	Series	No of Ways 15 = 015	RF Coax Option 000 = No RF Coax 001 = With RF Coax	Contact Type 006 = SMT

Cover Options – Example * Parts supplied in kit form

<u>30</u>	<u>9157</u>	<u>9700</u>	<u>00</u>	<u>000</u>
Prefix 30 = Sub Assembly 58 = Special	Series	Cover Version 9700 = Screw/Press-fit Version	Standard	Grommet Variation 000 = No Grommet 035 = to suit $\phi 3.50$ cable 050 = to suit $\phi 5.00$ cable

Patent: 2276285
5540599

Note: Application tooling to terminate coax cable 06-9157-7116-01-000.

9157 MOBO® 19 Way I/O Connector



GENERAL DESCRIPTION

Based on our standard 15 way 9157 I/O family, AVX has now released a family 19 way devices. This range includes a SMT 90 degree plug, a wire socket version that is used with the standard 9157 cover and a SMT socket for charging applications.

Options with the 90 degree SMT socket include the sealing of the connector contacts and the connector to the housing up to IP67. There is also an option to have an EMLB (early mate, late break) on pins 1 and 19.

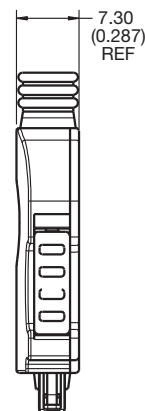
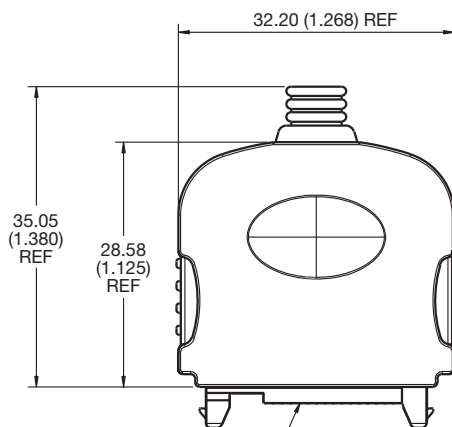
To achieve the seal to the device housing, it may be necessary to customize the device housing design.

On the SMT 90 degree version, we also have the capability of an integrated DC jack, enabling both the DC jack and the 19 way cover to be plugged in at the same time.

AVAILABLE DEVICES:

10 9157 019 000 006	Plug wire version
10 9157 019 000 007	SMT charging version
20 9157 019 000 006	90 degree SMT socket
30 9157 97 XX 00 000	Cover options see page 36

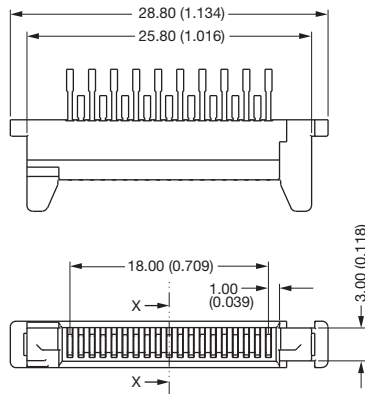
Cover Kit



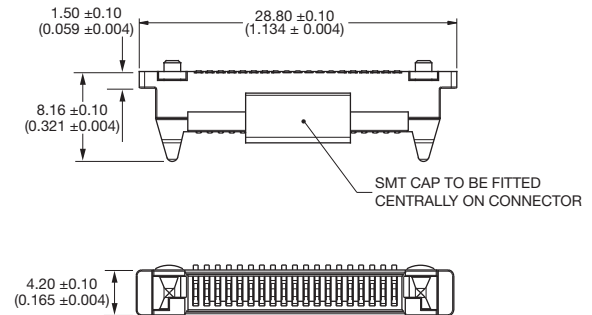
9157 MOBO® 19 Way I/O Connector



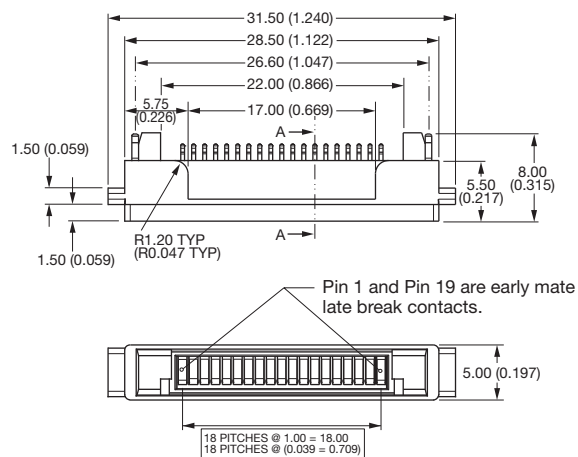
Plug Wire



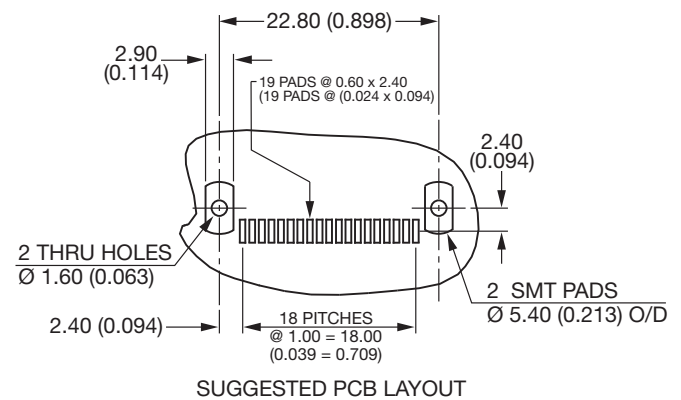
SMT Plug



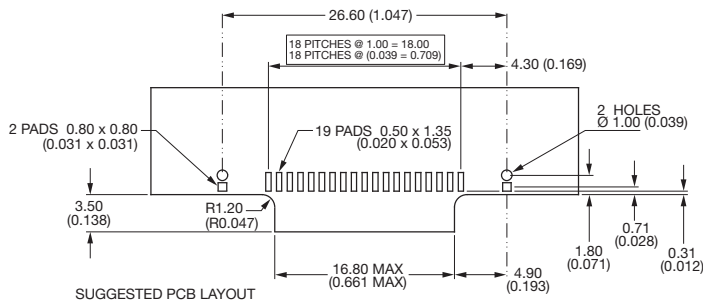
SMT Socket



SMT Plug (Suggested PCB Layout)



SMT Socket (Suggested PCB Layout)





GENERAL DESCRIPTION

An I/O interconnect system designed for portable equipment.

AVX offers this plug and socket reduced size system as a standard product. The fixed SMT socket is designed to be mounted on a PCB and housed within a portable device. The plug is designed for cable termination with options of single and double sided contacts and customizing the overmold cover or parts can be supplied as connector only for sub contract termination. The socket connector houses 16 contacts in two rows on 1.25mm pitch with a rating of 1 amp per contact. Both connectors are RoHS compliant.

APPLICATIONS

Suitable applications include:

- Cellular Phones
- Handheld Devices
- Industrial Modules
- Medical Electronics

KEY FEATURES AND BENEFITS

- No latching is required due to the click design of the contacts.
- Optional customization of the overmold cover.
- Options of single row (8 way) or dual row (16 way) plug connector.
- Compact size to optimize PCB real estate.
- Metal outer cover provides integrated PCB location and solder tab.
- Positive alignment and orientation of the plug and socket.
- 5K mating cycles and 1 amp rated.

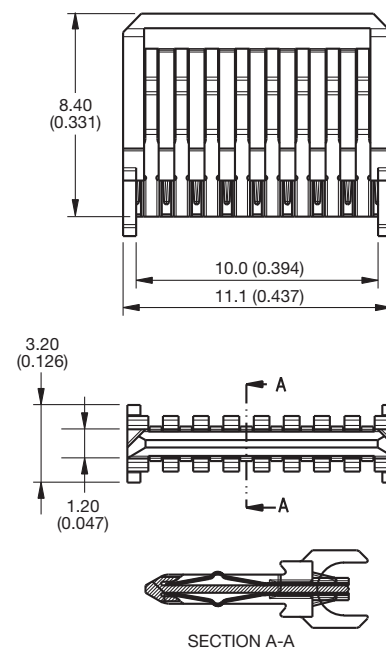
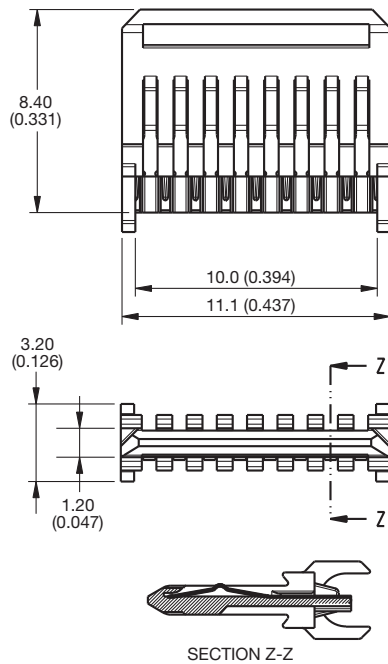


9257 Reduced Size I/O Connector

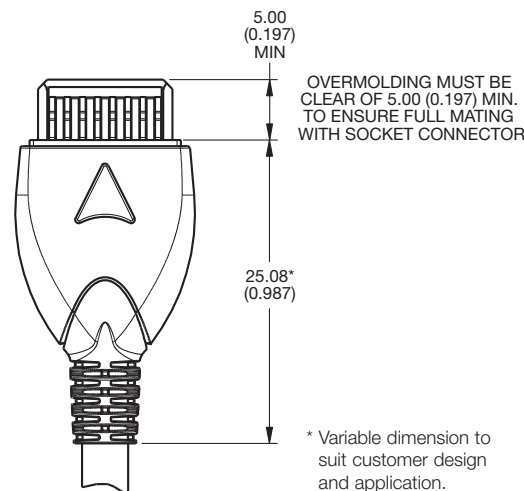


Single Sided 8 Way I/O Plug Connector

Dual Sided 16 Way I/O Plug Connector



Suggested Overmolding for Plug Connector



HOW TO ORDER

10
Prefix
10 = Plug Connector

9257
Series

016
No of Ways
016 = 16 way dual sided
008 = 8 way single sided

001
Contact
001 = Solder Bucket

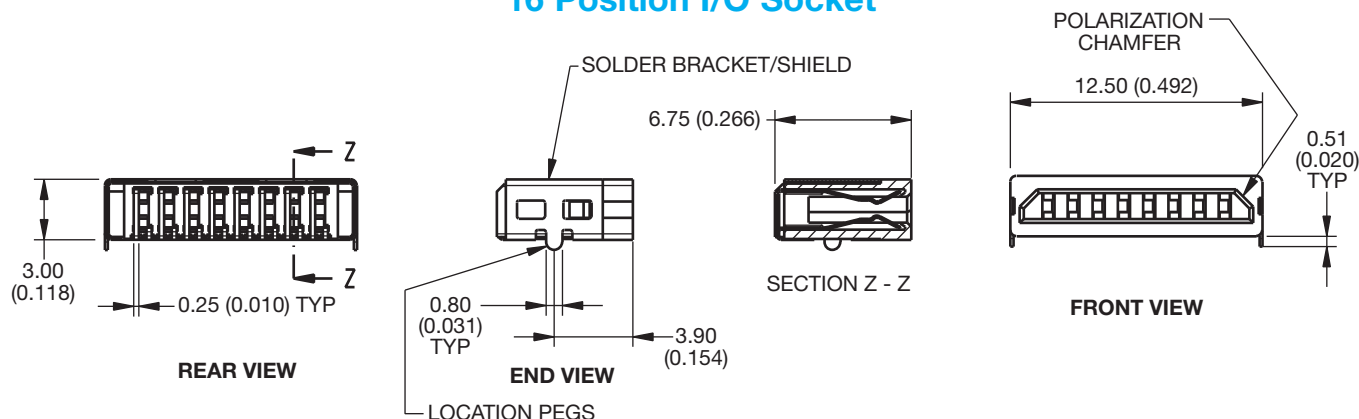
003
Plating Option
003 = 0.8µm Selective Gold,
Tin Tail

Notes:
1. All dimensions are for reference only unless toleranced.
2. For full product specification refer to AVX spec 201-01-089.
3. Parts packed in tube with 50 parts per tube.

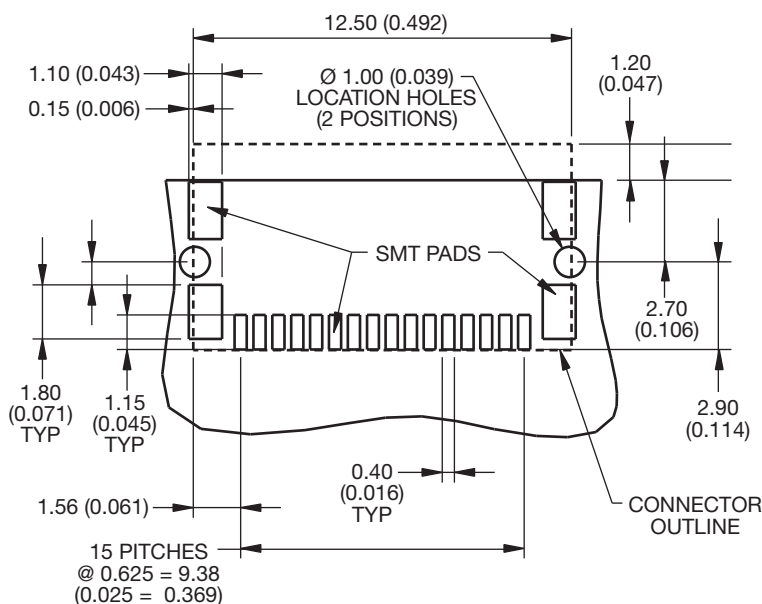
9257 Reduced Size I/O Connector



16 Position I/O Socket



PCB Layout



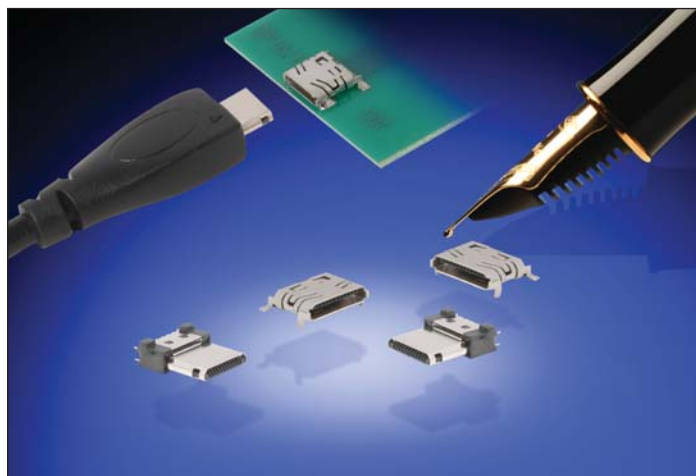
HOW TO ORDER

20	9257	016	001	01	3
Prefix	Series	No of Ways	Contacts	Solder Bracket	Plating Option
20 = Socket Connector		16 = 016	001 = SMT Termination	01 = Solder Bracket with location pegs	3 = 0.8µm Selective Gold, Tin Tail

Packing Details	
Reel Qty.	1100
Pack Qty.	5500

- Notes:
1. 16 Way I/O Socket.
 2. For full product specification refer to AVX spec 201-01-089.
 3. General tolerance ± 0.20 (0.008) unless otherwise stated.
 4. SMT feet within 0.13 (0.005) coplanarity.





GENERAL DESCRIPTION

AVX offers the 12 way mini I/O connector as a standard product. The fixed SMT socket is designed to be mounted on a PCB and housed within a portable device. The plug is designed for cable termination with options of single and double sided contacts. Parts can be supplied as connectors only for sub contract termination, or with a custom overmold cover. The socket connector houses 12 contacts in a single row on 0.50mm pitch.

APPLICATIONS

- Medical Electronics
- Cellular Phones
- Industrial Modules
- Hand Held Devices

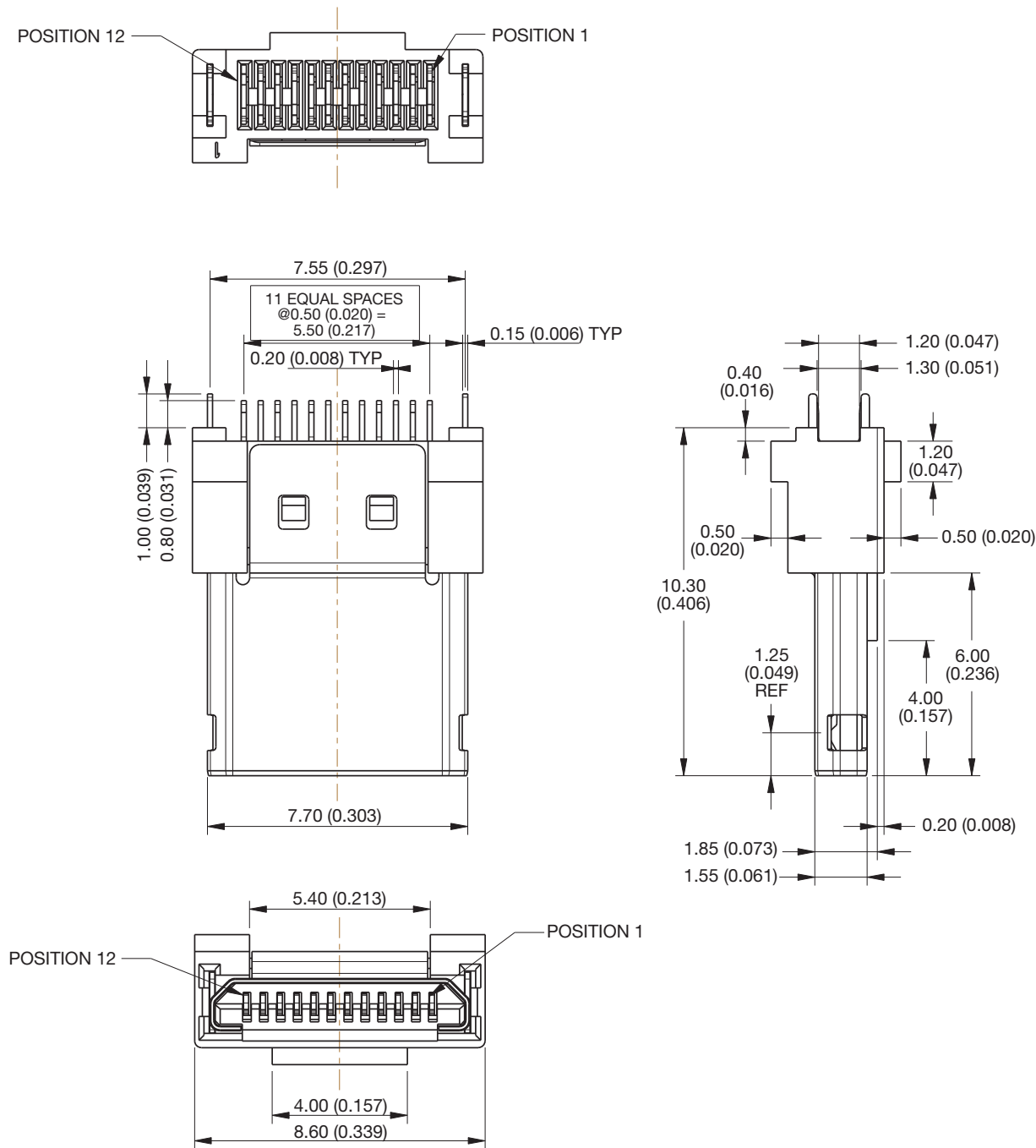
KEY FEATURES AND BENEFITS

- No latching required due to the click design of the contacts.
- Optional customization of the overmold cover.
- Compact size to optimize PCB real estate.
- Metal outer cover provides integrated PCB location and solder tab.
- Positive alignment and orientation of the plug and socket.

9257 Mini I/O Connector



9257 STANDARD 12 WAY MINI I/O PLUG

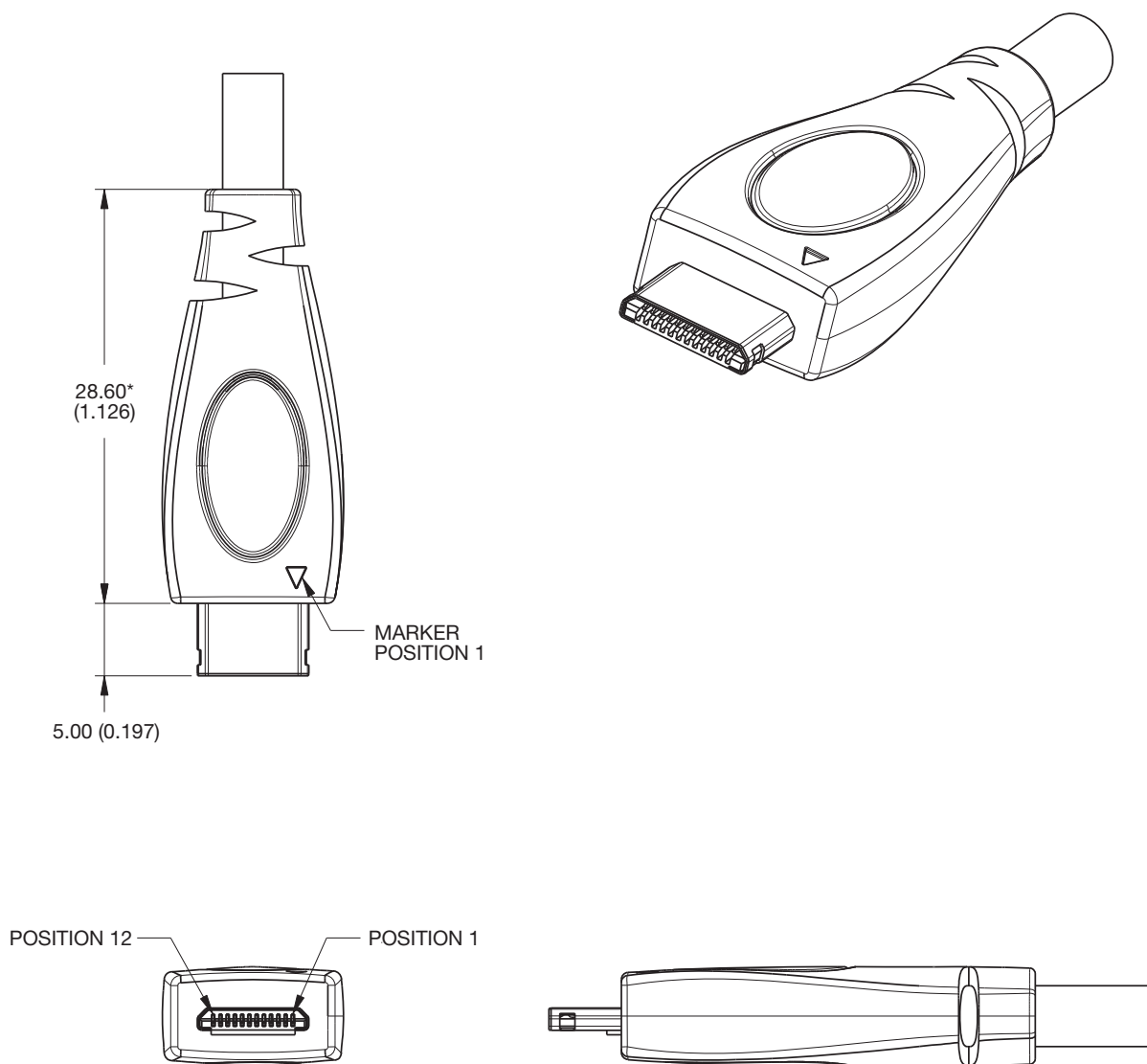


HOW TO ORDER

10	9257	012	101	006
Prefix	Series	No of Ways	Contacts	Plating Option
10 = Plug Connector		12 = 012	101 = Solder Tail	006 = 0.25µm Gold over Nickel



SUGGESTED OVERMOLDING FOR PLUG CONNECTOR

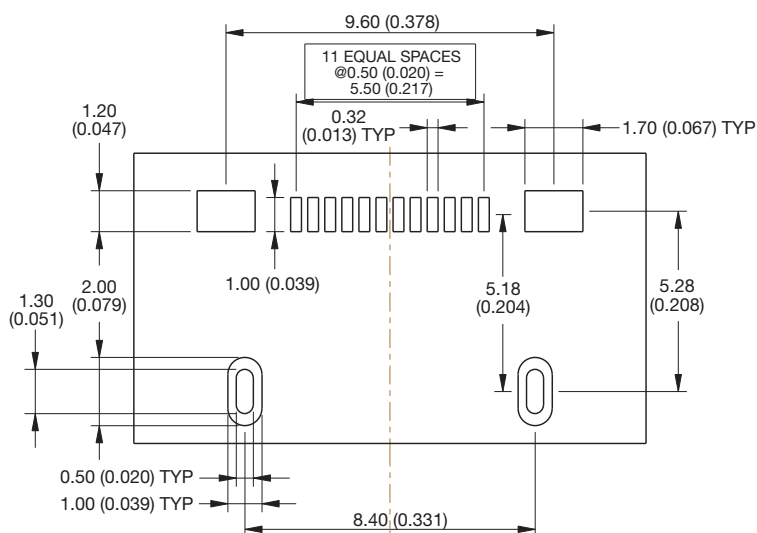
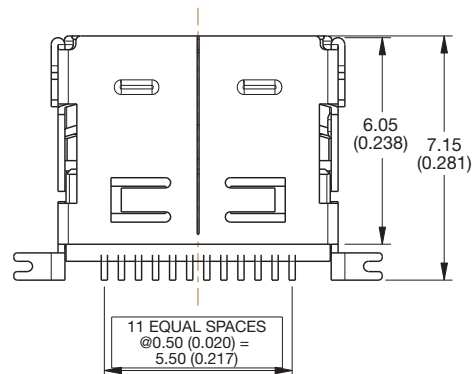
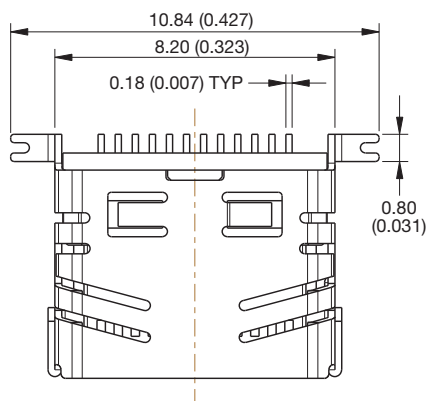


DIMENSION MARKED WITH A * ARE
VARIABLE DIMENSION TO SUIT
CUSTOMER DESIGN AND APPLICATION

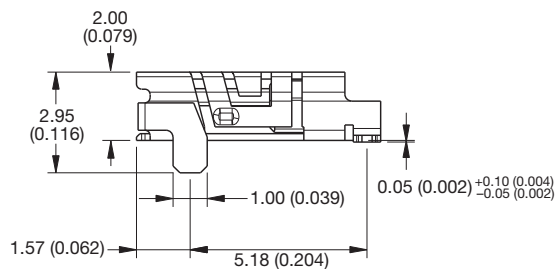
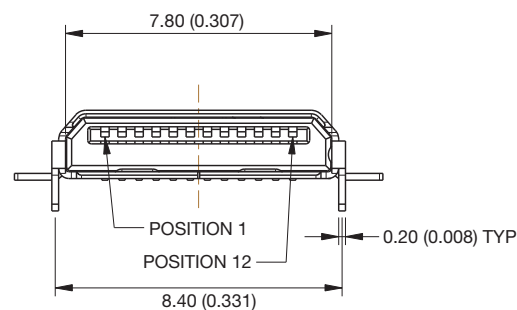
9257 Mini I/O Connector



9257 STANDARD 12 WAY MINI I/O SOCKET



SUGGESTED PCB LAYOUT



HOW TO ORDER

20

Prefix
20 = Socket Connector

9257

Series

012

No of Ways
12 = 012

101

Contacts
101 = SMT Termination

01

Solder Bracket
01 = Solder Bracket with location pegs

6

Plating Option
6 = 0.25µm Gold over Nickel



9175 Series

Wire to Board IDC Connector



The 9175 series from AVX offers customers the ability of connecting individual wires to a single row of contacts using IDC technology.

Available as a 2 or 3 pin connector it is both low profile and has a small PCB footprint. The connector is SMT assembled to the PCB prior to assembly of the wire.

Using a small application tool, the wires are then inserted into the contact slot. This process cuts the insulation and enables the individual conductors of the wire to form a homogeneous joint. The shape of the molding also forms a restraint to the wire when fully inserted in the contact. These connectors are supplied in tape and reel for easy pick and place. The wire options are 28 or 26 AWG solid or stranded wire.

APPLICATIONS

- PCB to PCB individual wire interconnect
- High volume and high speed assembly
- Device to PCB interconnect (coils, sensors, etc.)

FEATURES AND BENEFITS

- Small single row IDC
- Rated at 1 amp
- Uses both stranded and solid wire (26 or 28 AWG)
- Insulators are end to end stackable for higher pin counts
- Uses simple hand tool for higher volume applications

HOW TO ORDER

00

Prefix

9175

Series

002

Number of Ways

002 = 2
003 = 3

001

Wire Gauge Size

Code	Accepted Wire Gauge	Wire Insulation
001	28 Gauge Solid or Stranded 26 Gauge Solid or Stranded	Min Ø 0.70 Max Ø 1.00

006

Plating Option

006 = Pure Tin All Over

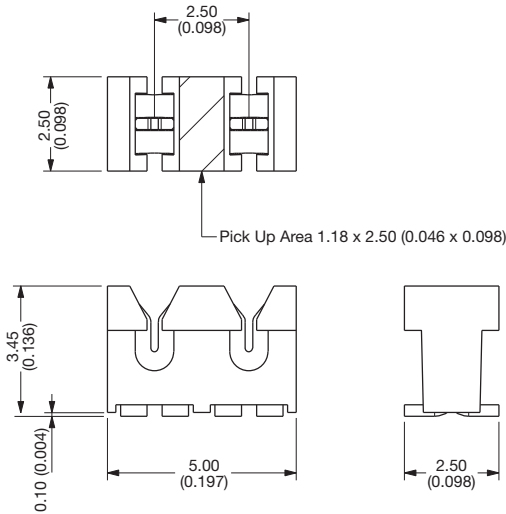


9175 Series

Wire to Board IDC Connector



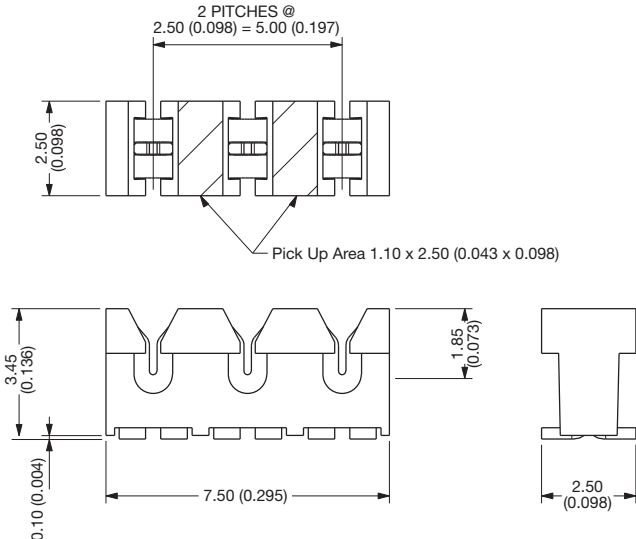
2 WAY IDC CONNECTOR



SMT PCB LAYOUT

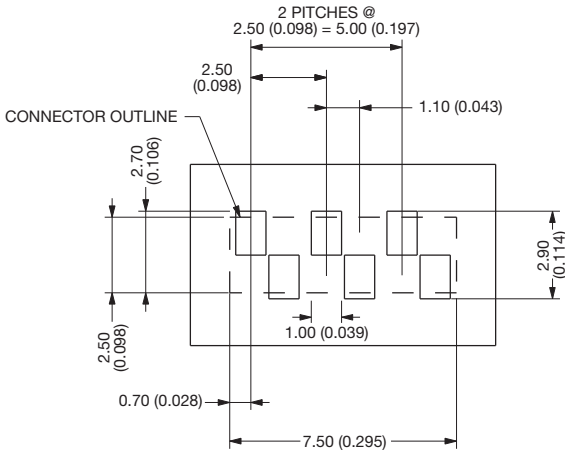
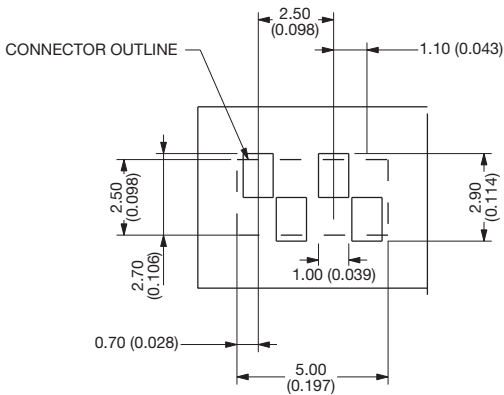
PURE TIN PADS

3 WAY IDC CONNECTOR

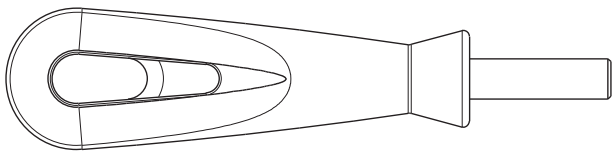


SMT PCB LAYOUT

PURE TIN PADS

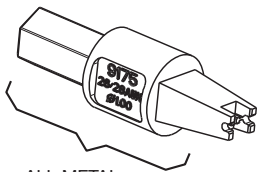


HAND INSERTION TOOLING



UNIVERSAL HANDLE

Details	Tool Part Number
6.35 A/F HEX BIT HOLDER	06 7000 7730 01 000



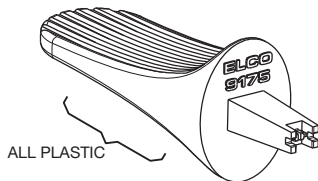
ALL METAL HIGH PRODUCTION Metal

Max Insulation Dia	Tool Part Number
Ø 1.00	06 9175 7017 01 000



MED PRODUCTION Metal/Plastic

Max Insulation Dia	Tool Part Number
Ø 1.00	06 9175 7016 01 000



LOW PRODUCTION Plastic

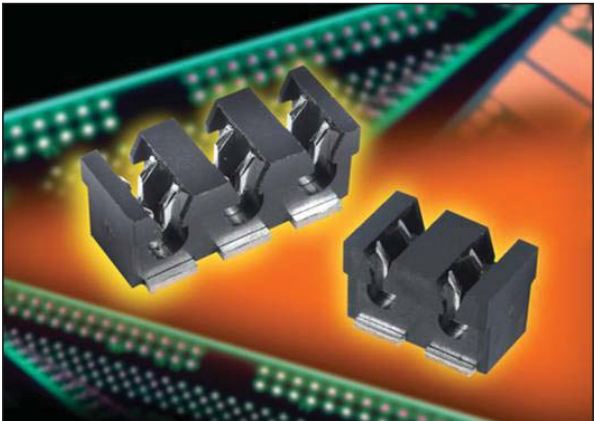
Max Insulation Dia	Tool Part Number
Ø 1.00	06 9175 7004 01 000



9176 Series



Wire to Board Strip IDC Connector



The 9176 series from AVX offers customers the ability of connecting individual wires to a single row of contacts using IDC technology.

Available as a 2 or 3 pin connector it is both low profile and has a small PCB footprint. The connector is SMT assembled to the PCB prior to assembly of the wire.

Using a small application tool, the wires are then inserted into the contact slot. This process cuts the insulation and enables the individual conductors of the wire to form a homogeneous joint. The shape of the molding also forms a restraint to the wire when fully inserted in the contact. These connectors are supplied in tape and reel for easy pick and place. The wire options are 18 to 24 AWG stranded wire.

APPLICATIONS

- PCB to PCB individual wire interconnect
- Device to PCB interconnect (LED Modules and LED Strips)

FEATURES AND BENEFITS

- Small single row IDC
- Rated at 10 amps
- Uses both stranded wire (18 to 24 gauge)
- Insulators are end to end stackable for higher pin counts
- Uses simple hand tool for higher volume applications

HOW TO ORDER

00

Prefix

9176

Series

002

Number of Ways

002 = 2
003 = 3

001

Wire Gauge Size

Code	Accepted Wire Gauge	Wire Insulation
001	18 Gauge Stranded	Ø 1.6 - 2.1
011	20 Gauge Stranded	Ø 1.6 - 2.1
022	22 Gauge Stranded	Ø 1.1 - 1.6
032	24 Gauge Stranded	Ø 1.1 - 1.6

006

Plating Option

006 = Pure Tin All Over

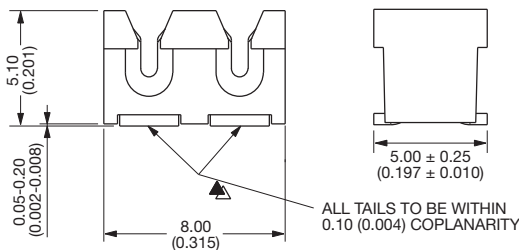
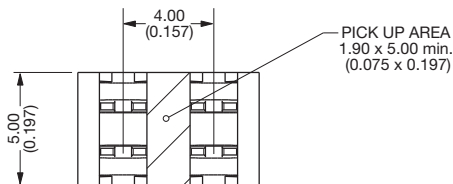


9176 Series

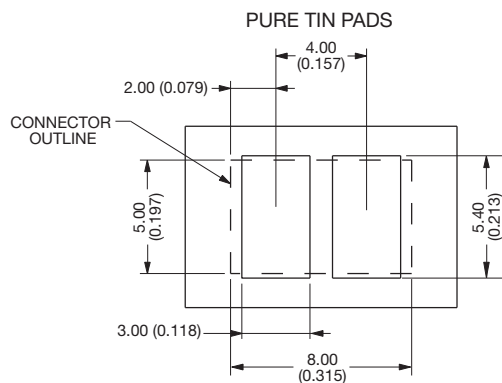
Wire to Board Strip IDC Connector



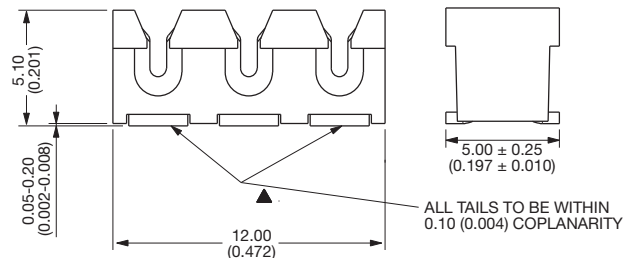
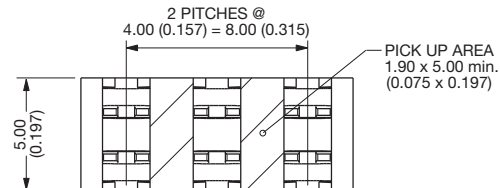
2 WAY IDC CONNECTOR



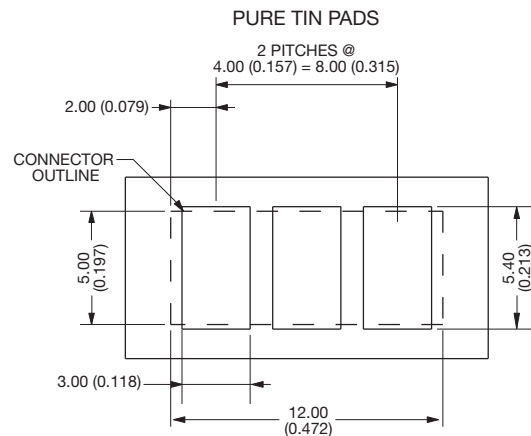
SMT PCB LAYOUT



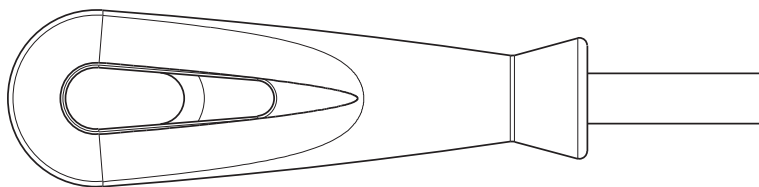
3 WAY IDC CONNECTOR



SMT PCB LAYOUT



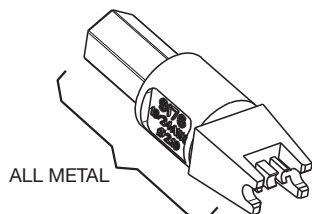
HAND INSERTION TOOLING



UNIVERSAL HANDLE

Details	Tool Part Number
6.35 A/F HEX BIT HOLDER	06 7000 7730 01 000

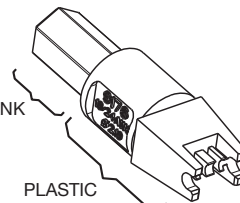
HIGH PRODUCTION Metal



Max Insulation Dia	Tool Part Number
Ø 2.10	06 9176 7017 01 000
Ø 1.60	06 9176 7017 02 000

METAL SHANK

MED PRODUCTION Metal/Plastic

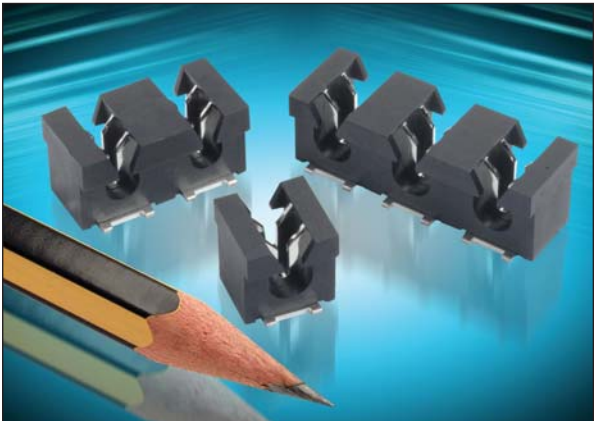


Max Insulation Dia	Tool Part Number
Ø 2.10	06 9176 7016 01 000
Ø 1.60	06 9176 7016 02 000



9177 Series

Wire to Board IDC Connector



The 9177 Series from AVX offers customers the ability of connecting individual wires to a single row of contact using IDC technology.

Available as a single contact version or 2 and 3 way offers the user flexibility of placement on the PCB for single or multiple wires.

Application tooling for the 9177 comes in the form of flat rock plates for each of the sizes. The wires are inserted into the slots by the application tools cutting through the insulation and exposing the inner cores, which then form a homogenous joint with the contact.

The molding is shaped to form a restraint to the wire insulation therefore adding to the strength of the joint. Supplied in tape and reel for easy pick and place. Suitable wire options are stranded wire between 14 and 20 AWG.

For wire diameters you do not see listed please consult the factory for recommendations.

APPLICATIONS

- Termination of any individual wires within the specified wire range to a PCB
- High power termination to 15 amps
- Voltage critical areas up to 650V

FEATURES AND BENEFITS

- Eliminates the need for hand soldering
- Connectors are end to end stackable for larger pin counts
- Uses stranded wire with no preparation
- Integrated cable restraint within the molding
- Offers a fit and forget termination by using IDC
- Tooling allows mass termination of each connector size

HOW TO ORDER

00

Prefix

9177

Series

001

No. of Ways

Code	No. of Ways
001	1
002	2
003	3

001

Wire Insulation/Gauge Size

Code	Accepted Wire Gauge	Wire Insulation
001	14 AWG	ø4.25 max
012	16 AWG	ø3.50 max
022	18 AWG	ø3.50 max
033	20 AWG	ø2.75 max

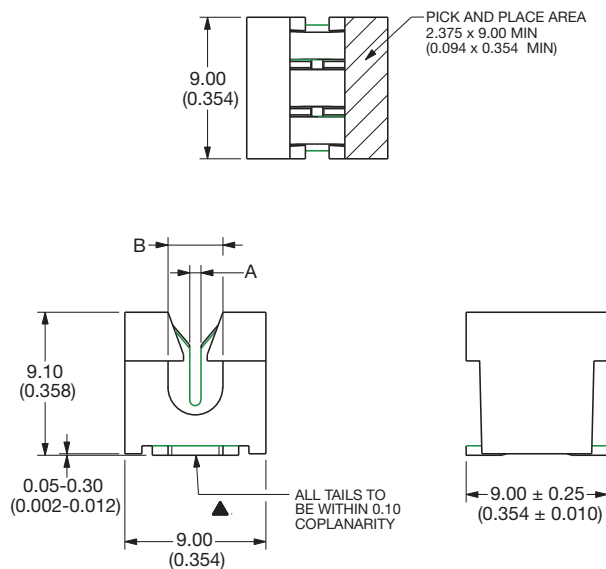
006

Plating Option

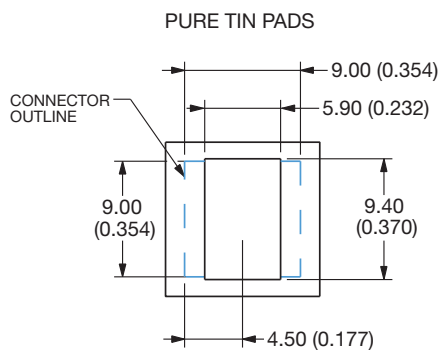
Code	Description
006	Pure Tin All Over



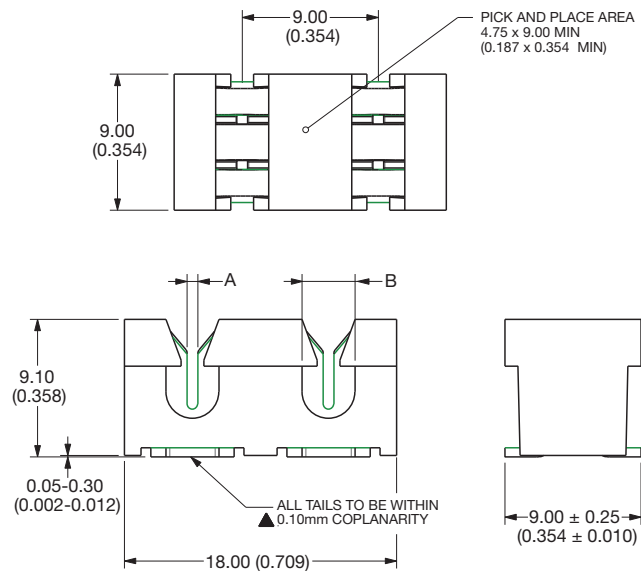
1 WAY IDC CONNECTOR



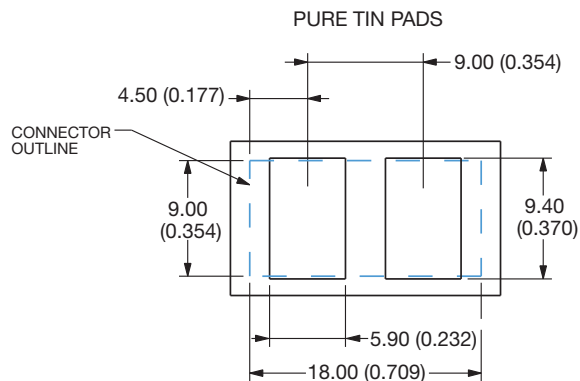
SMT PCB LAYOUT



2 WAY IDC CONNECTOR



SMT PCB LAYOUT

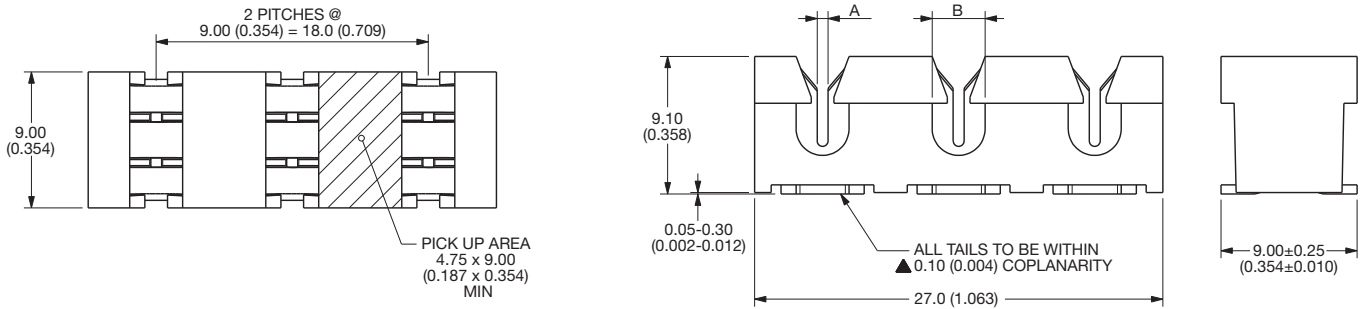


9177 Series



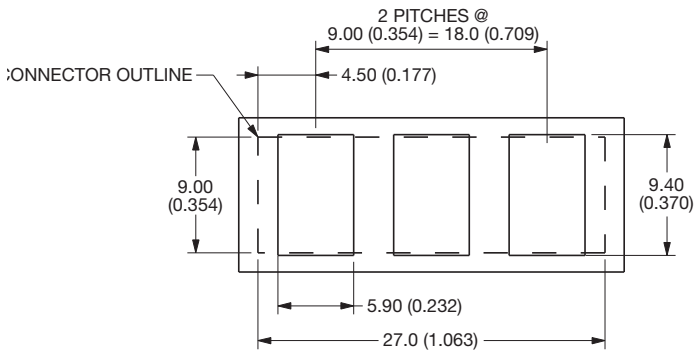
Wire to Board IDC Connector

3 WAY IDC CONNECTOR

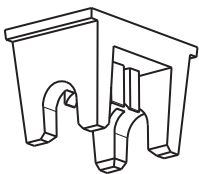


SMT PCB LAYOUT

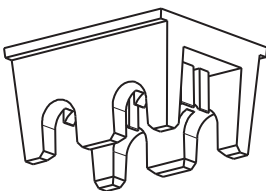
PURE TIN PADS



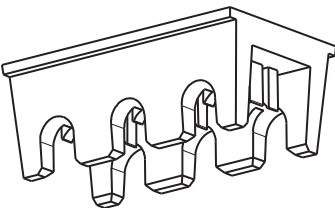
HAND INSERTION TOOLING



1 WAY



2 WAY



3 WAY

HIGH PRODUCTION METAL

No. of Ways	Max Insulation Dia.	Tool Part Number
1	Ø 4.25	06 9177 7017 01 001
	Ø 3.50	06 9177 7017 02 001
	Ø 2.75	06 9177 7017 03 001
2	Ø 4.25	06 9177 7017 01 002
	Ø 3.50	06 9177 7017 02 002
	Ø 2.75	06 9177 7017 03 002
3	Ø 4.25	06 9177 7017 01 003
	Ø 3.50	06 9177 7017 02 003
	Ø 2.75	06 9177 7017 03 003

MED PRODUCTION PLASTIC

No. of Ways	Max Insulation Dia.	Tool Part Number
1	Ø 4.25	06 9177 7016 01 001
	Ø 3.50	06 9177 7016 02 001
	Ø 2.75	06 9177 7016 03 001
2	Ø 4.25	06 9177 7016 01 002
	Ø 3.50	06 9177 7016 02 002
	Ø 2.75	06 9177 7016 03 002
3	Ø 4.25	06 9177 7016 01 003
	Ø 3.50	06 9177 7016 02 003
	Ø 2.75	06 9177 7016 03 003



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