

AVX Specialty Catalog



Version 14.4

AVX INTERCONNECT
A KYOCERA GROUP COMPANY

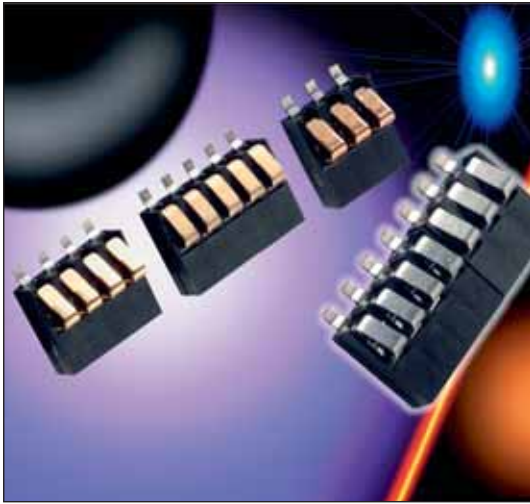
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Standard 2.5mm Pitch Battery

9155-000



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

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.

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles



HOW TO ORDER

STANDARD

00	9155	00X	00	X	01	X
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) / 1.65 (0.064) 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, Standard 8 = 0.8µm Selective Gold, Special Order

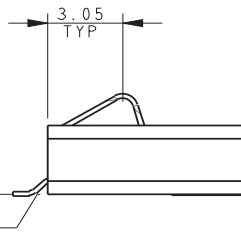
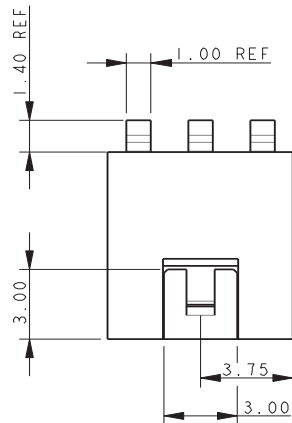
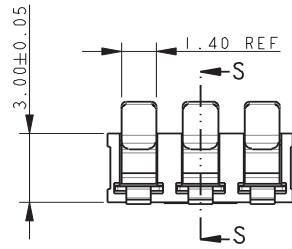
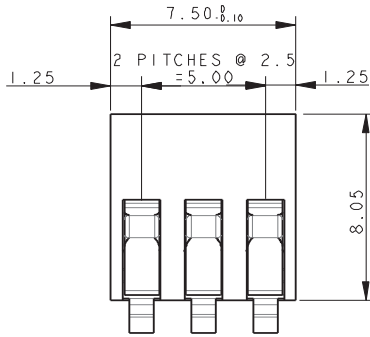
REDUCED NOSE

00	9155	00X	05	X	01	X
Prefix	Series	No of Ways	Standard Battery Connector	Contact Height	Bracket	Plating Option
00 = Standard 58 = Special		3 = 003 4 = 004 5 = 005	05 = Reduced Nose	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, Standard 8 = 0.8µm Selective Gold, Special Order

Standard 2.5mm Pitch Battery

9155-000

3 WAY BATTERY CONNECTOR

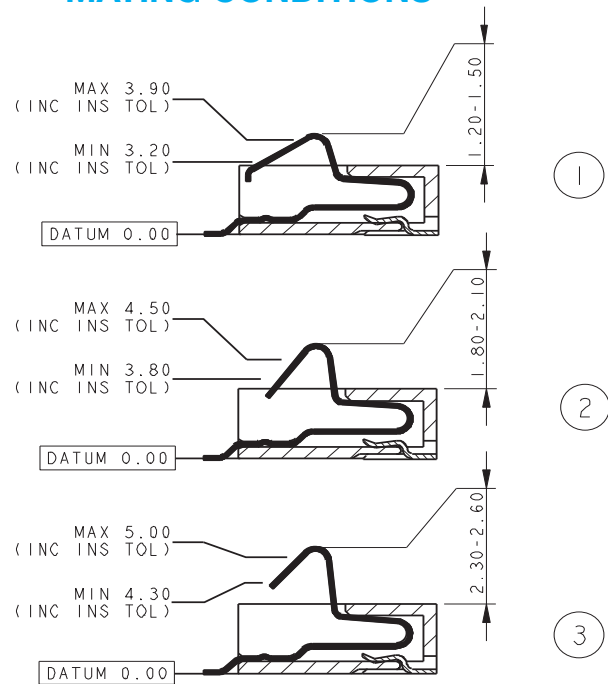


CONTACT TAILS TO BE WITHIN A 0.1 COPLANARITY RANGE WHEN INSULATOR IS SITTING ON DATUM FACE.

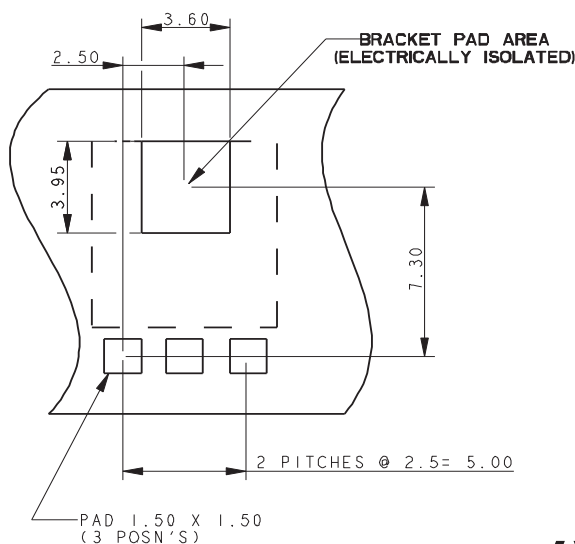
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-050.
2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 6.
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

MATING CONDITIONS

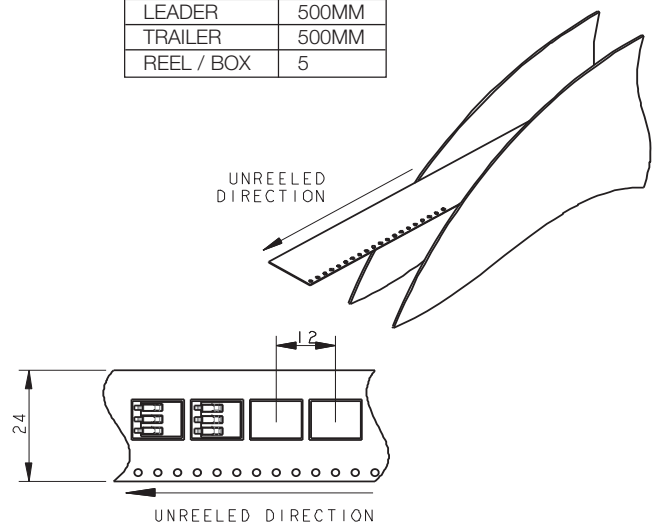


PCB BOARD LAYOUT



PACKING DETAILS

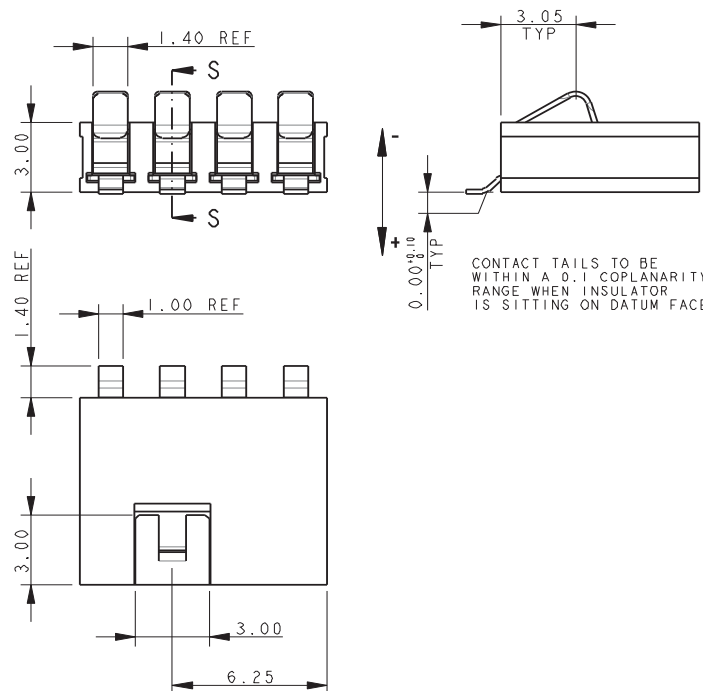
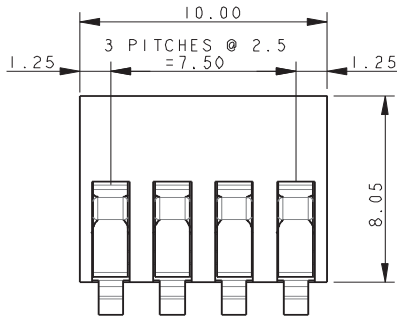
REEL QTY	1000
LEADER	500MM
TRAILER	500MM
REEL / BOX	5



Standard 2.5mm Pitch Battery

9155-000

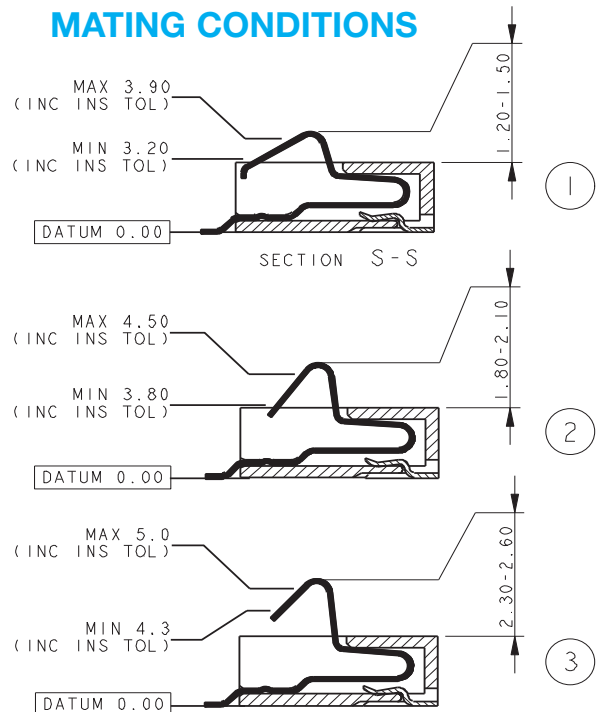
4 WAY BATTERY CONNECTOR



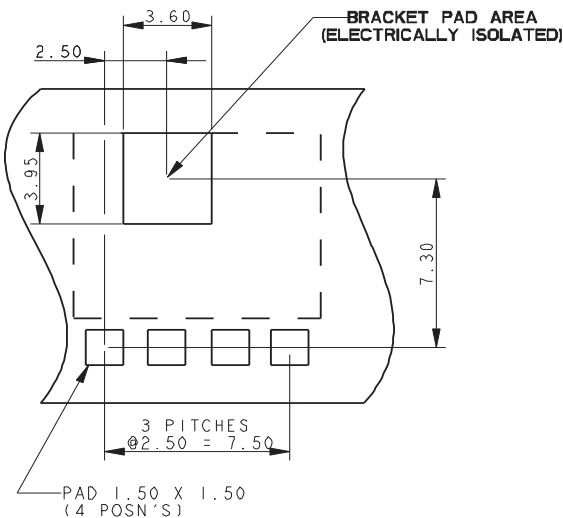
NOTES:

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4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
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6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

MATING CONDITIONS

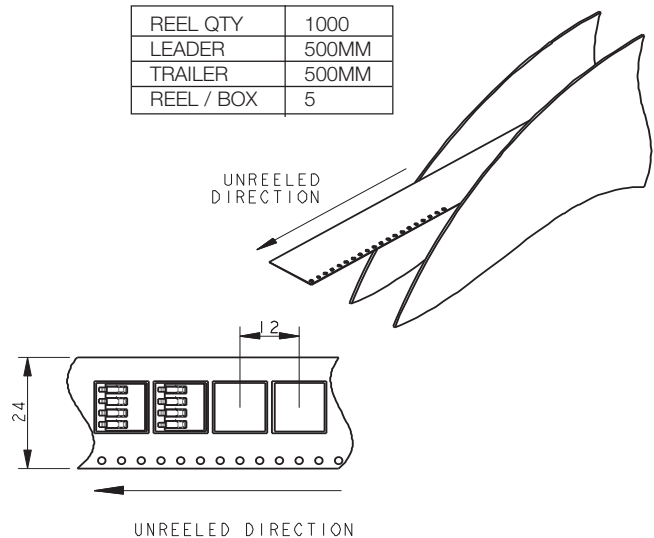


PCB BOARD LAYOUT



PACKING DETAILS

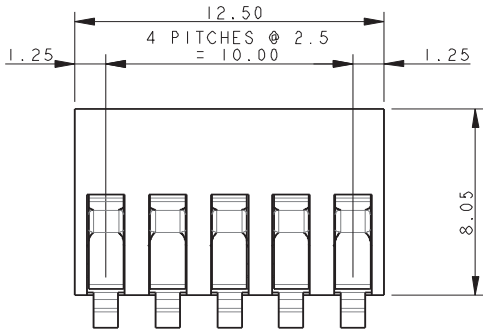
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LEADER	500MM
TRAILER	500MM
REEL / BOX	5



Standard 2.5mm Pitch Battery

9155-000

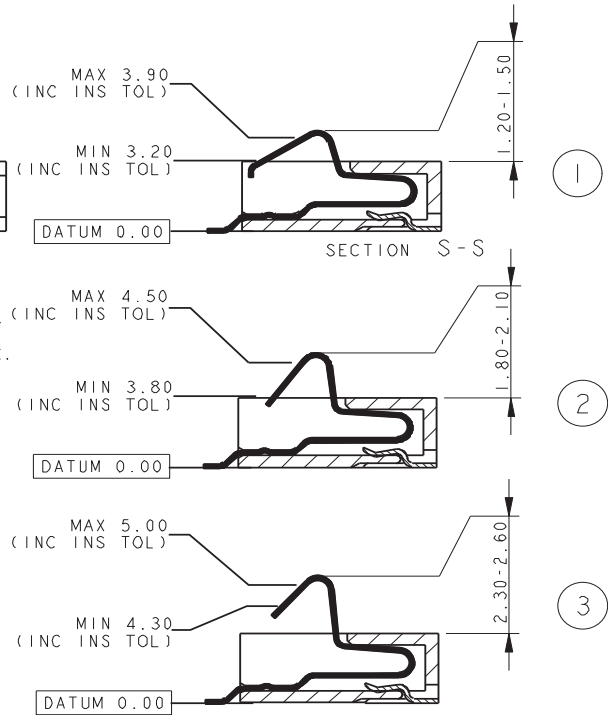
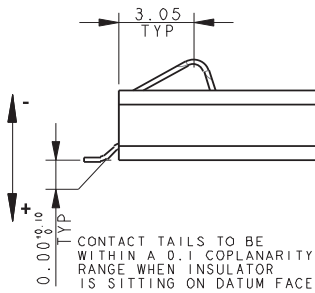
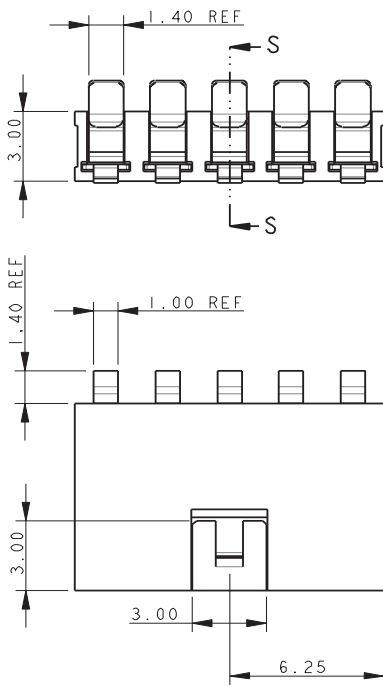
5 WAY BATTERY CONNECTOR



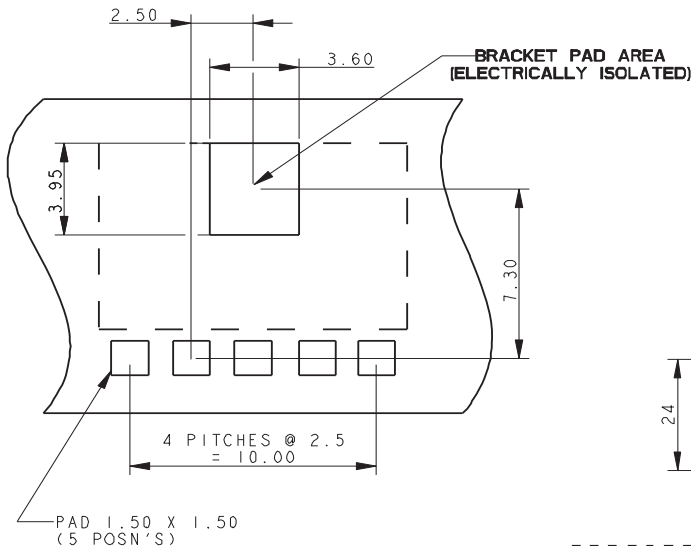
NOTES:

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7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

MATING CONDITIONS

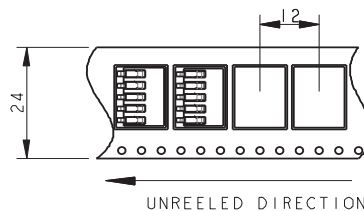
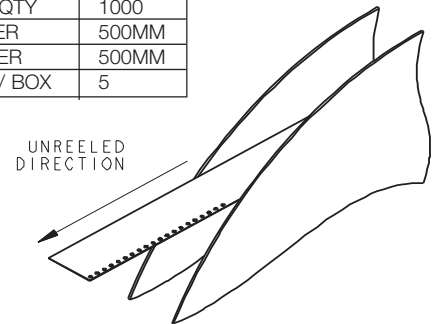


PCB BOARD LAYOUT

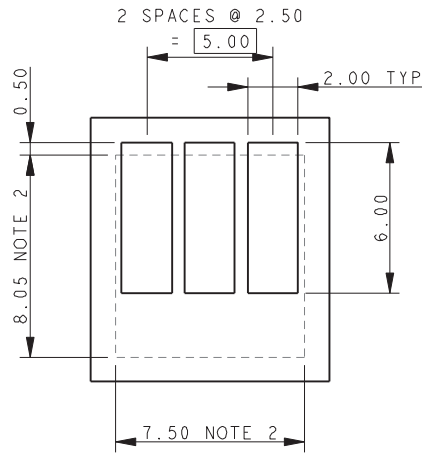


PACKING DETAILS

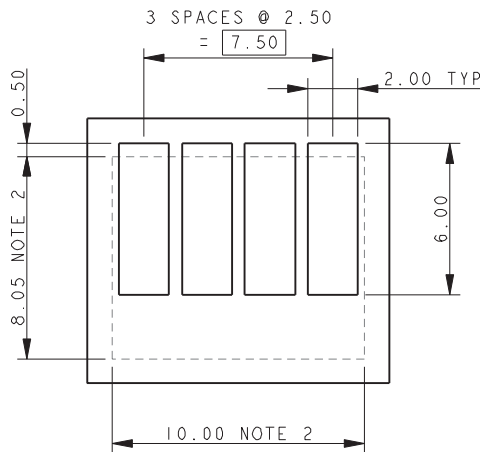
REEL QTY	1000
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TRAILER	500MM
REEL / BOX	5



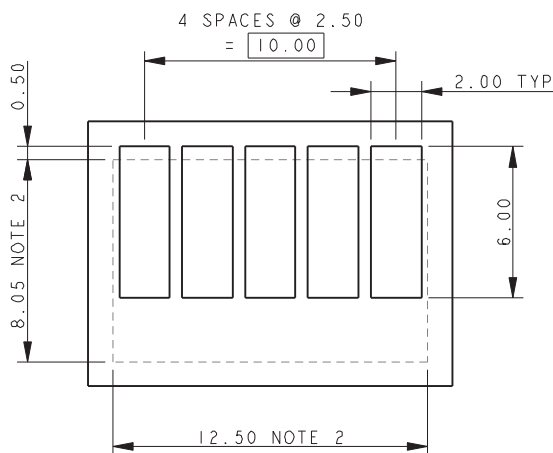
STANDARD BATTERY – MATING PADS



3 WAY MATING PADS



4 WAY MATING PADS



5 WAY MATING PADS

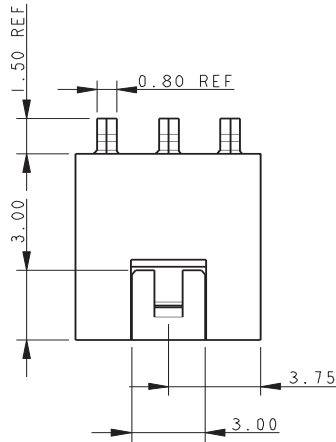
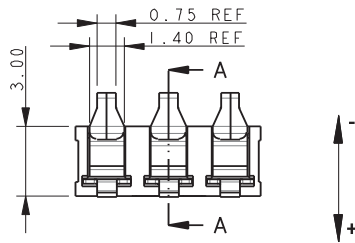
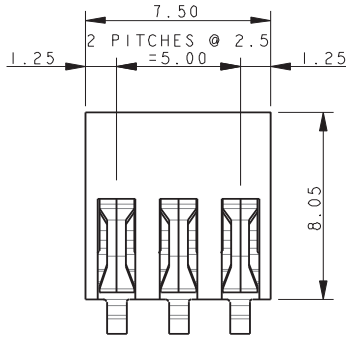
NOTES:

1. SUGGESTED MATING PADS FOR STANDARD BATTERY CONNECTORS.
2. OUTLINE OF CONNECTOR.
3. PREFERRED PLATING ON PADS GOLD OVER NICKEL.
4. PAD LENGTH MAY REQUIRE ADJUSTMENT OF MATCH THE CUSTOMERS ASSEMBLY.
5. REFERENCE DIMENSIONS.

Standard 2.5mm Pitch Battery

9155-000

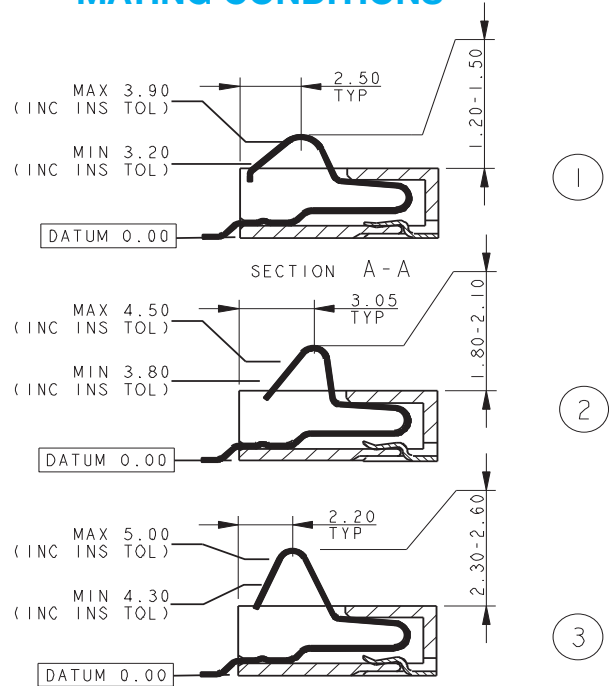
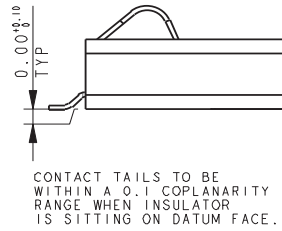
3 WAY BATTERY CONNECTOR REDUCED NOSE



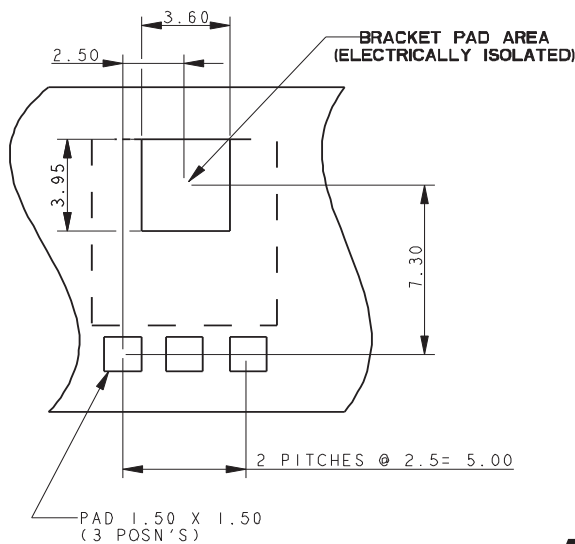
NOTES:

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2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 9.
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

MATING CONDITIONS

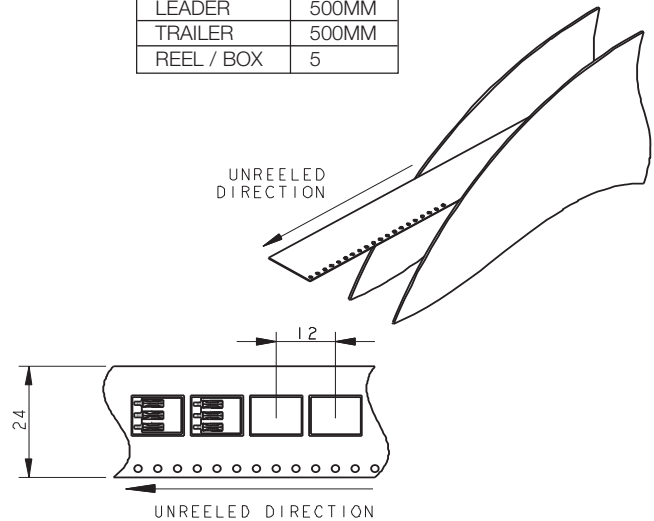


PCB BOARD LAYOUT



PACKING DETAILS

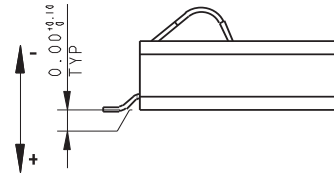
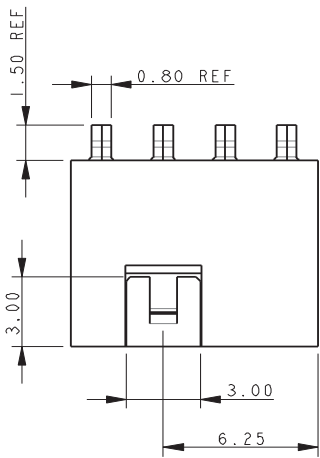
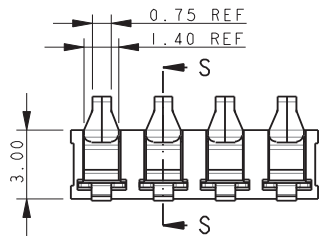
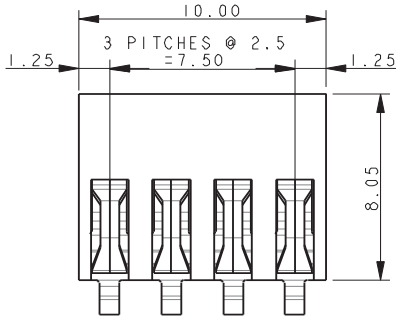
REEL QTY	1000
LEADER	500MM
TRAILER	500MM
REEL / BOX	5



Standard 2.5mm Pitch Battery

9155-000

4 WAY BATTERY CONNECTOR REDUCED NOSE

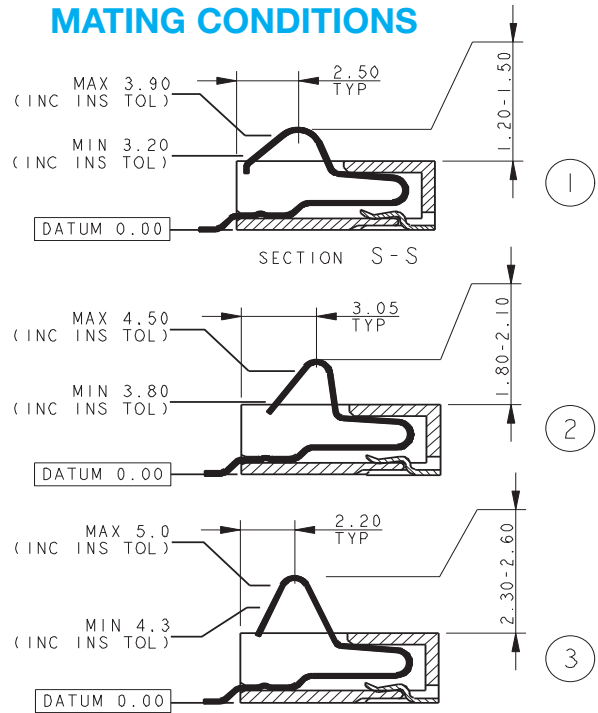


CONTACT TAILS TO BE WITHIN A 0.1 COPLANARITY RANGE WHEN INSULATOR IS SITTING ON DATUM FACE.

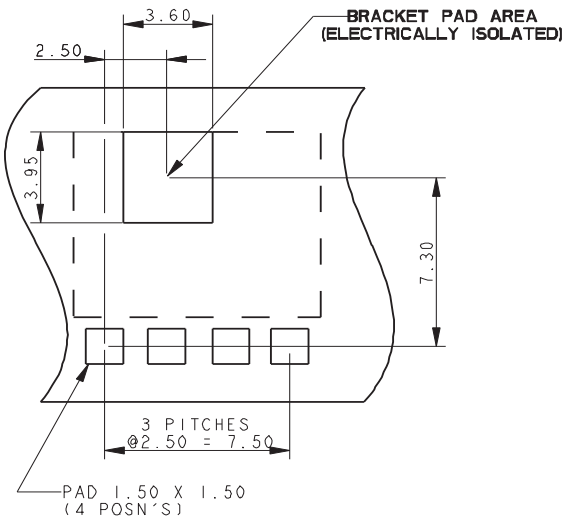
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MATING CONDITIONS

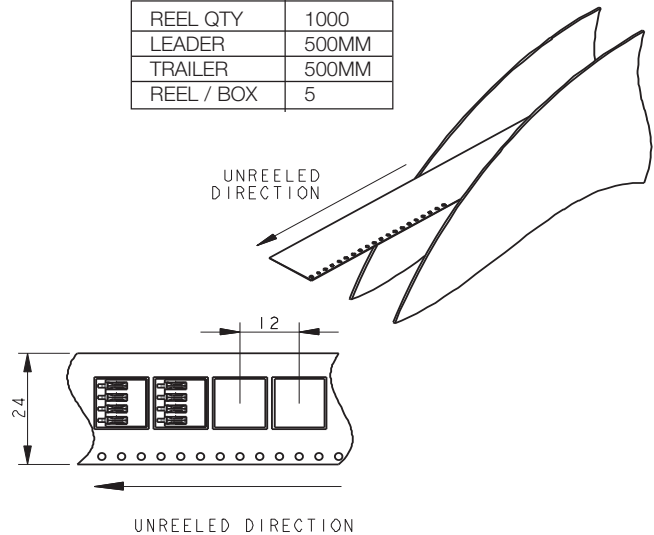


PCB BOARD LAYOUT



PACKING DETAILS

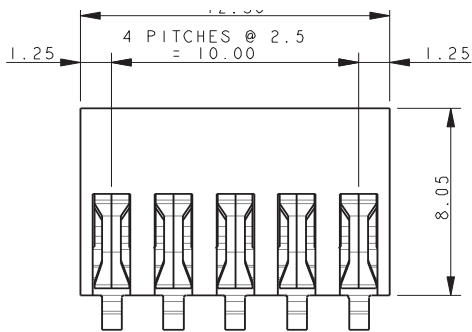
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LEADER	500MM
TRAILER	500MM
REEL / BOX	5



Standard 2.5mm Pitch Battery

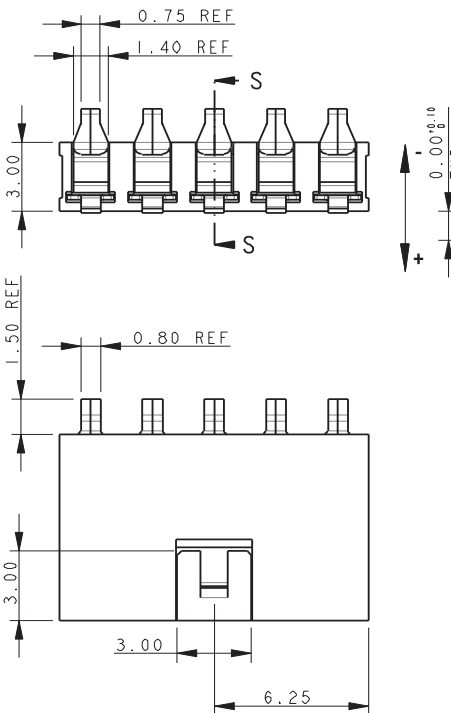
9155-000

5 WAY BATTERY CONNECTOR REDUCED NOSE

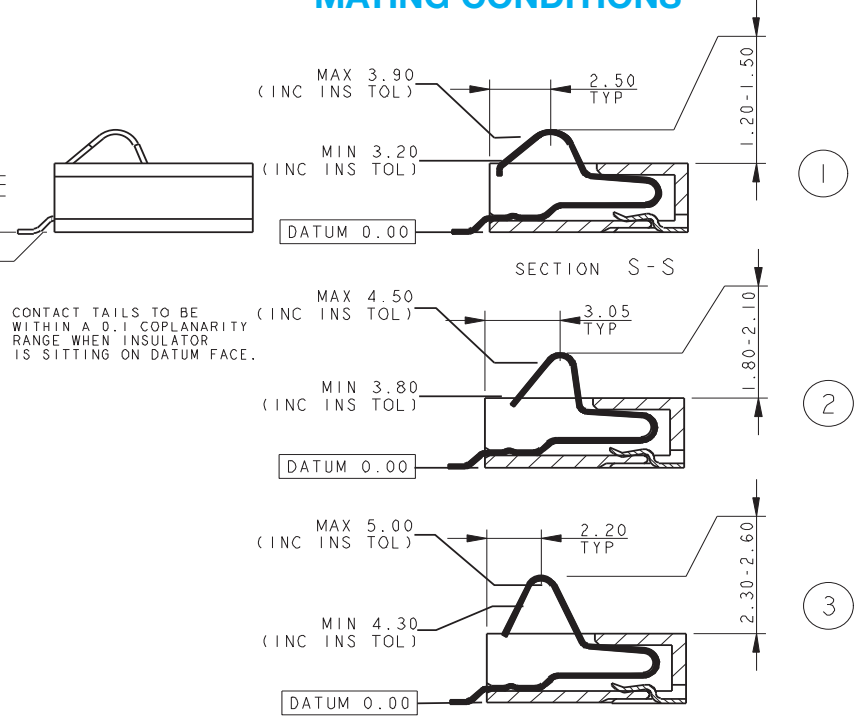


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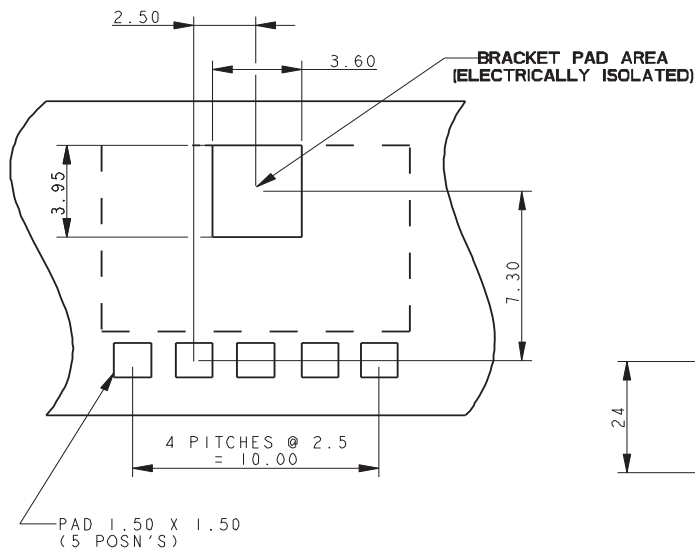
1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-050.
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MATING CONDITIONS

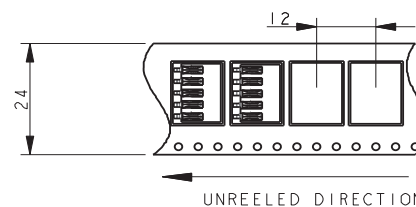
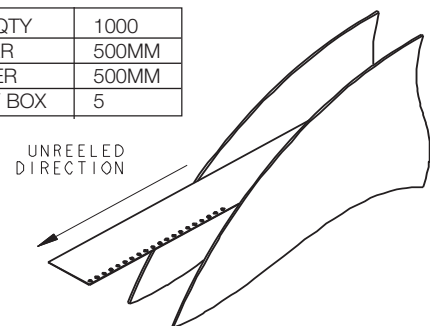


PCB BOARD LAYOUT

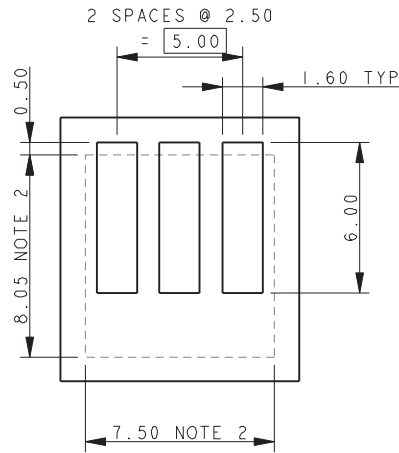


PACKING DETAILS

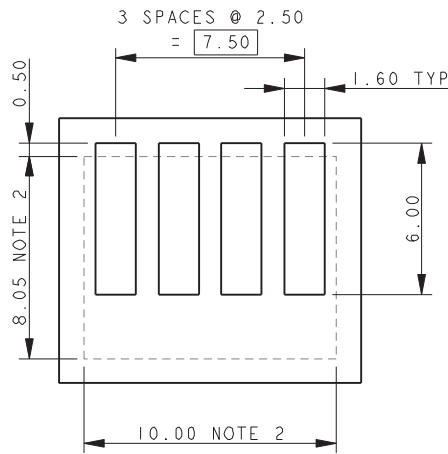
REEL QTY	1000
LEADER	500MM
TRAILER	500MM
REEL / BOX	5



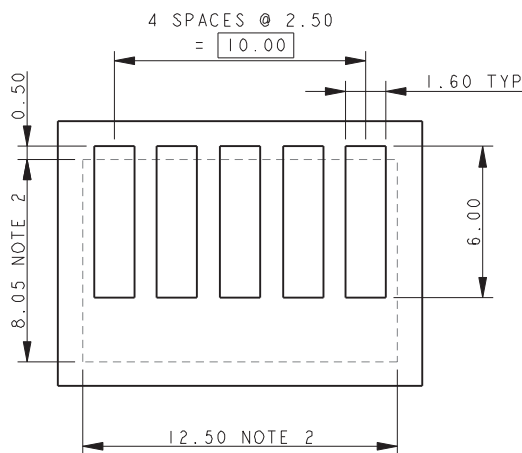
STANDARD BATTERY – MATING PADS



3 WAY MATING PADS



4 WAY MATING PADS



5 WAY MATING PADS

NOTES:

1. SUGGESTED MATING PADS FOR STANDARD BATTERY CONNECTORS.
2. OUTLINE OF CONNECTOR.
3. PREFERRED PLATING ON PADS GOLD OVER NICKEL.
4. PAD LENGTH MAY REQUIRE ADJUSTMENT OF MATCH THE CUSTOMERS ASSEMBLY.
5. REFERENCE DIMENSIONS.

Ultra-Low Profile 2.5mm Pitch Battery

9155-100



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

FEATURES AND BENEFITS

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

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00 Prefix
9155 Series
00X No. of Ways
2 = 002
3 = 003

10X Low Profile Battery Connector

Code	Description	Operating Height
100	Low Profile Battery Connector No Stop	1.30 (0.051)
101	Low Profile Battery Connector Stop	1.30 (0.051)

00X Plating Option

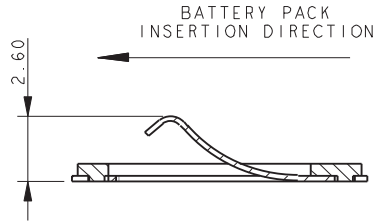
Code	Description
006	0.4µm Selective Gold, Standard
008	0.8µm Selective Gold, Special Order



Ultra-Low Profile 2.5mm Pitch Battery

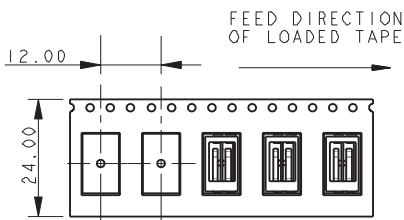
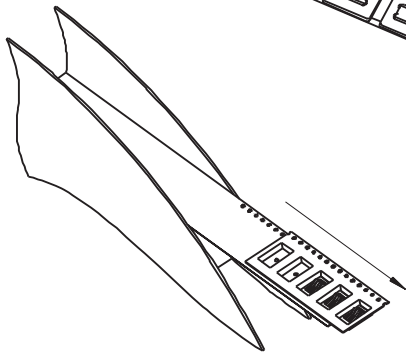
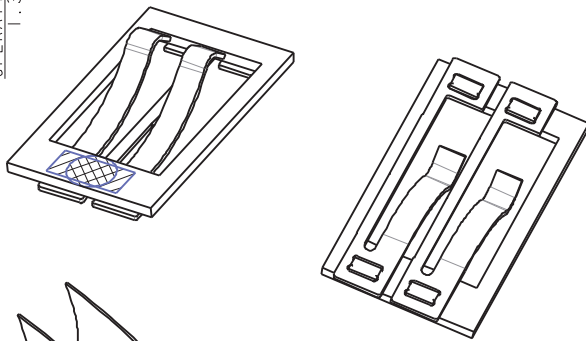
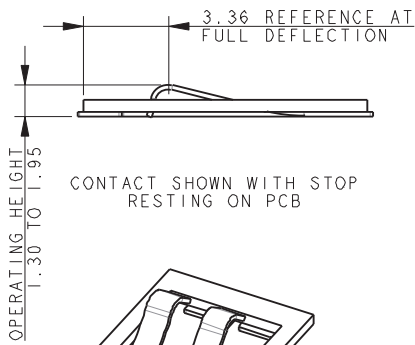
9155-100

2 WAY LOW PROFILE BATTERY CONNECTOR – NO STOP



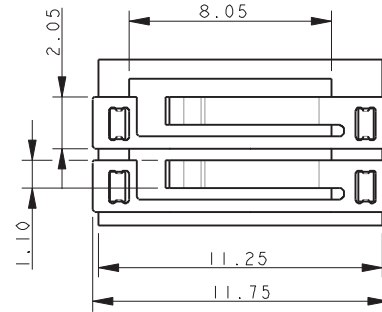
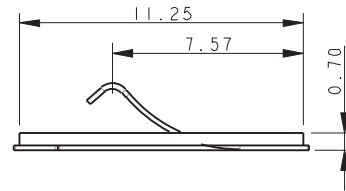
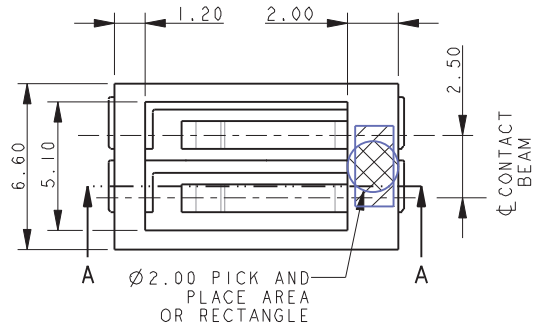
SECTION A-A

PURE CONTACT UNDEFLECTED

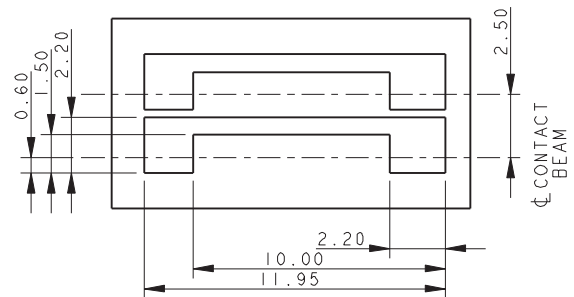


PACKING DETAILS

REEL QTY	1500
LEADER	500MM
TRAILER	500MM



SUGGESTED PCB LAYOUT



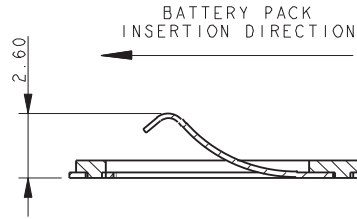
NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT – COPPER ALLOW, INSULATOR – GLASS FILLED NYLON. COLOR BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS. SEE TABLE.
5. FOR MATING PAD DETAILS REFER TO PAGE 16.

Ultra-Low Profile 2.5mm Pitch Battery

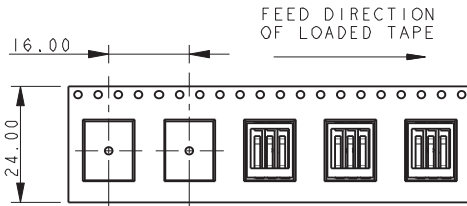
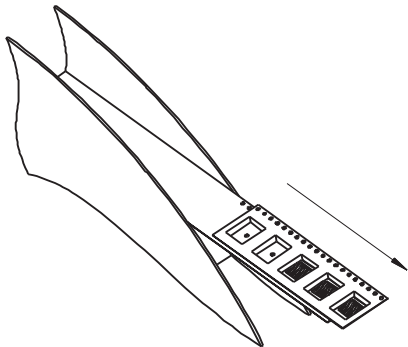
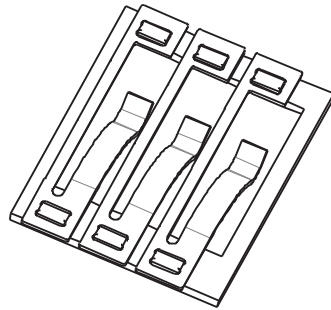
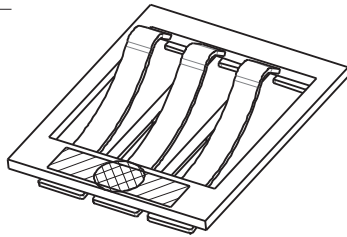
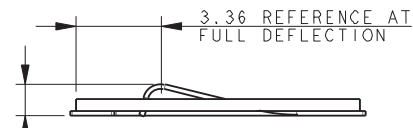
9155-100

3 WAY LOW PROFILE BATTERY CONNECTOR – NO STOP



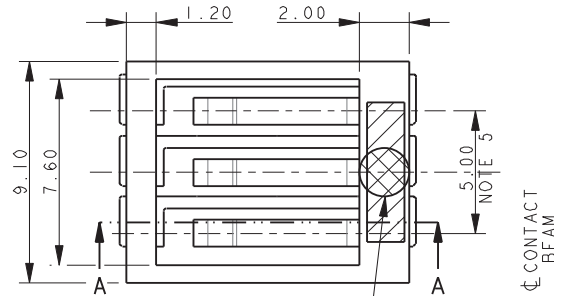
SECTION A-A

PURE CONTACT UNDEFLECTED

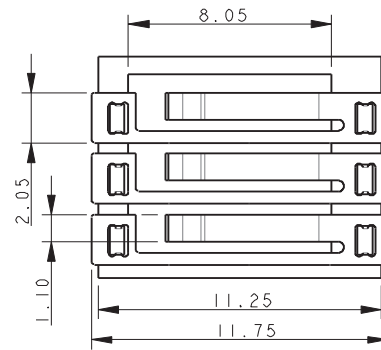
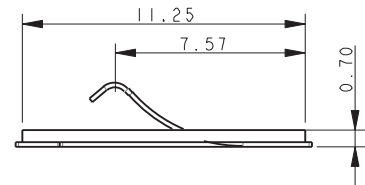


PACKING DETAILS

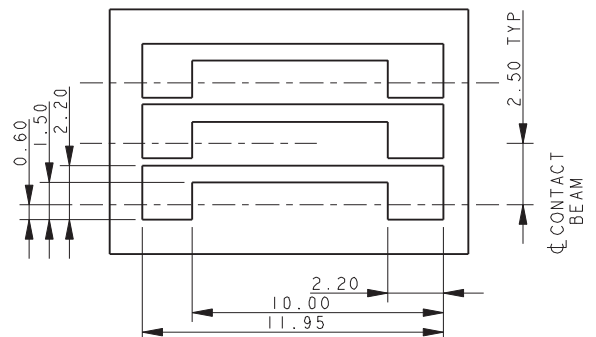
REEL QTY	1200
LEADER	500MM
TRAILER	500MM



∅ 2.00 PICK AND
PLACE AREA
OR RECTANGLE



SUGGESTED PCB LAYOUT



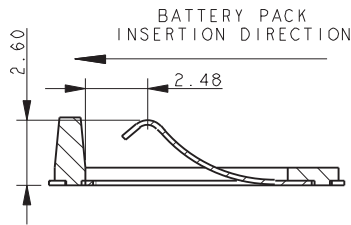
NOTES:

- FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
- MATERIALS: CONTACT – COPPER ALLOW, INSULATOR – GLASS FILLED NYLON. COLOR BLACK.
- TOLERANCE ± 0.20 UNLESS SPECIFIED.
- PACKING DETAILS. SEE TABLE.
- FOR MATING PAD DETAILS REFER TO PAGE 16.

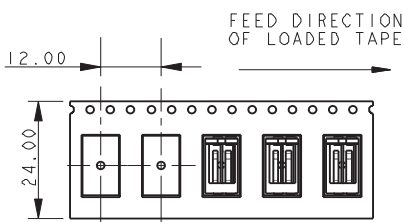
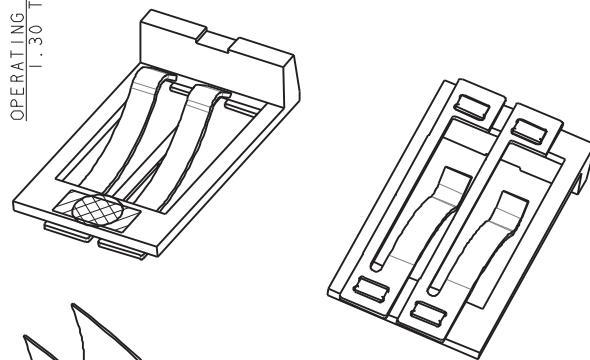
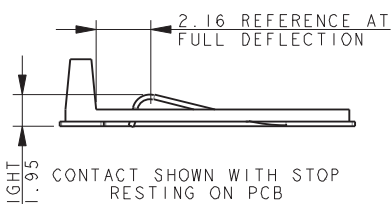
Ultra-Low Profile 2.5mm Pitch Battery

9155-100

2 WAY LOW PROFILE BATTERY CONNECTOR – WITH STOP

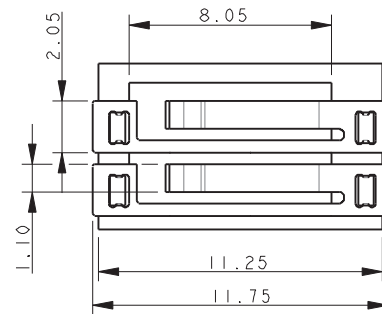
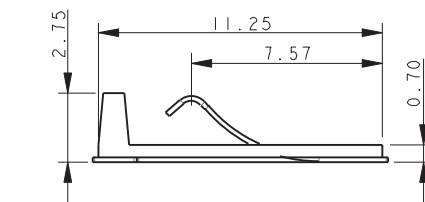
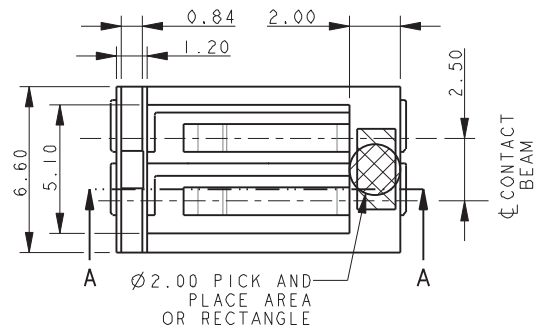


SECTION A-A
PURE CONTACT UNDEFLECTED

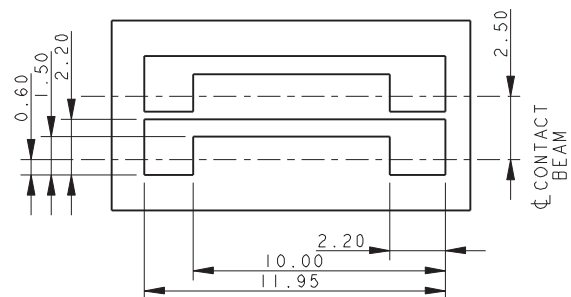


PACKING DETAILS

REEL QTY	1500
LEADER	500MM
TRAILER	500MM



SUGGESTED PCB LAYOUT



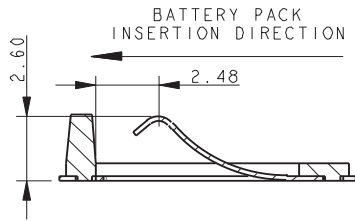
NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT – COPPER ALLOW, INSULATOR – GLASS FILLED NYLON. COLOR BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS. SEE TABLE.
5. FOR MATING PAD DETAILS REFER TO PAGE 16.

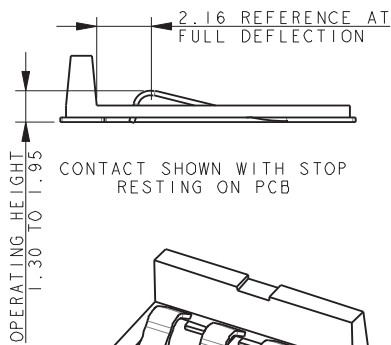
Ultra-Low Profile 2.5mm Pitch Battery

9155-100

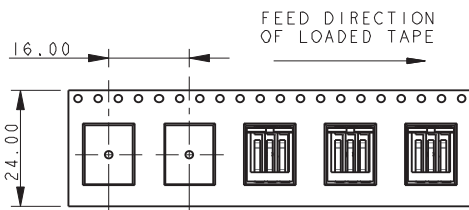
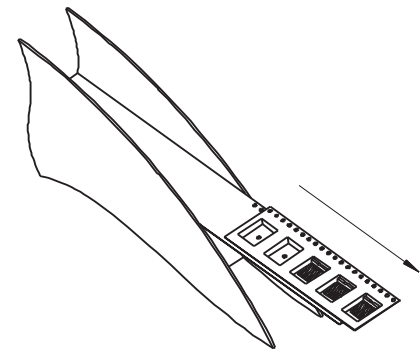
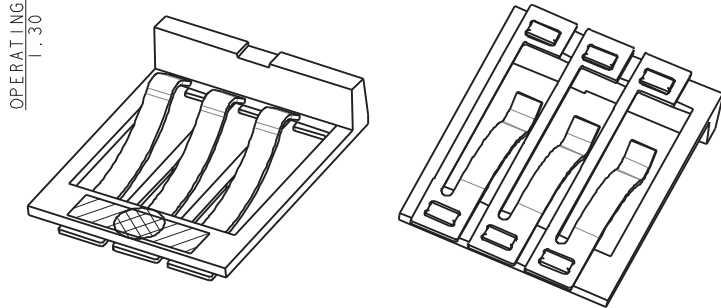
3 WAY LOW PROFILE BATTERY CONNECTOR – WITH STOP



SECTION A-A
PURE CONTACT UNDEFLECTED

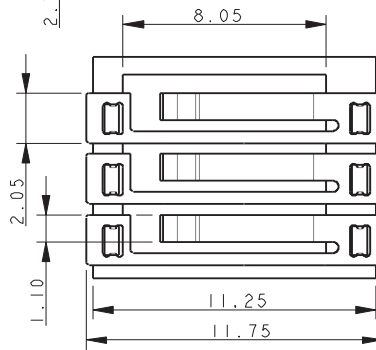
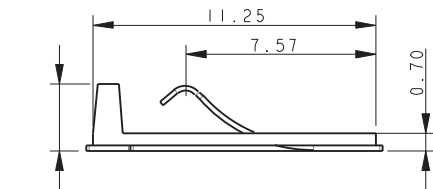
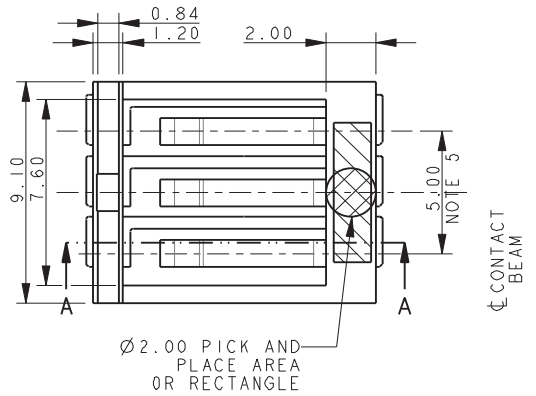


CONTACT SHOWN WITH STOP
RESTING ON PCB

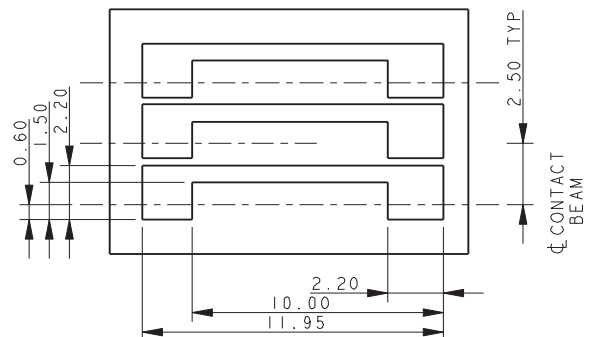


PACKING DETAILS

REEL QTY	1200
LEADER	500MM
TRAILER	500MM



SUGGESTED PCB LAYOUT



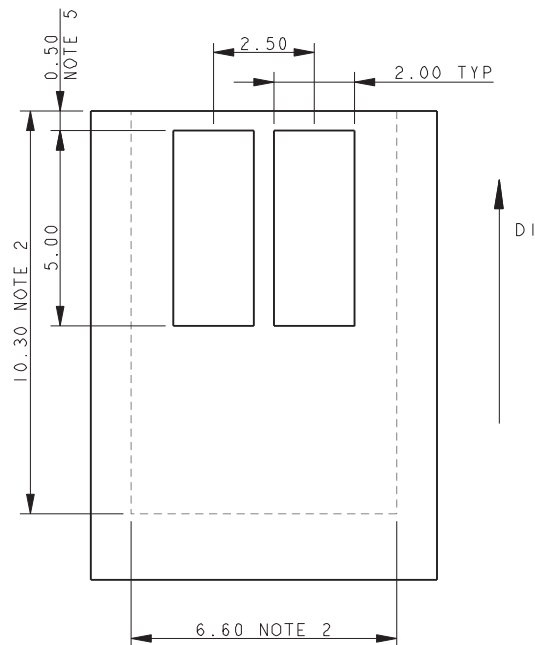
NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-094.
2. MATERIALS: CONTACT – COPPER ALLOW, INSULATOR – GLASS FILLED NYLON. COLOR BLACK.
3. TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. PACKING DETAILS. SEE TABLE.
5. FOR MATING PAD DETAILS REFER TO PAGE 16.

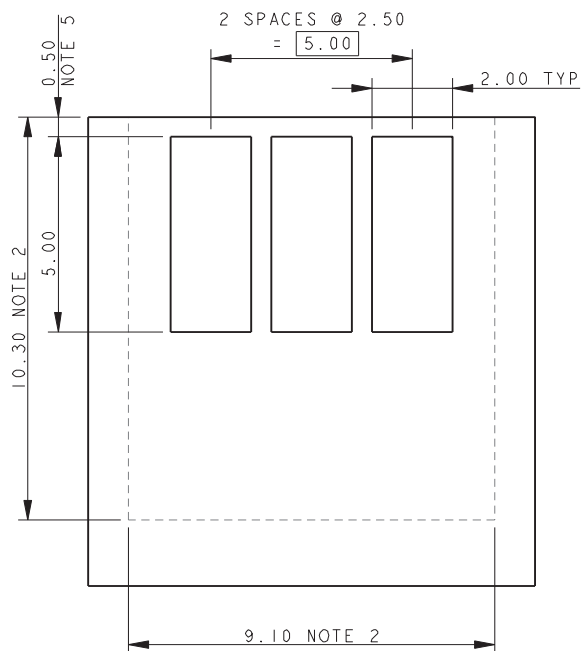
Ultra-Low Profile 2.5mm Pitch Battery

9155-100

LOW PROFILE BATTERY – MATING PADS



2 WAY MATING PADS



3 WAY MATING PADS

- NOTES:
1. SUGGESTED MATING PADS FOR LOW PROFILE BATTERY CONNECTORS.
 2. OUTLINE OF CONNECTOR.
 3. PREFERRED PLATING ON PADS GOLD OVER NICKEL.
 4. REFERENCE DIMENSIONS.
 5. DIMENSIONS TO EDGE OF BOARD FOR CONNECTOR WITH STOP.

Reduced Battery 2.5mm Pitch

9155-200



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

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

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00

Prefix

9155

Series

00X

No. of Ways

- 2 = 002
- 3 = 003
- 4 = 004
- 5 = 005

201

Reduced Size Battery Connector

Code	Description
201	Reduced Size Battery Connector

00X

Plating Option

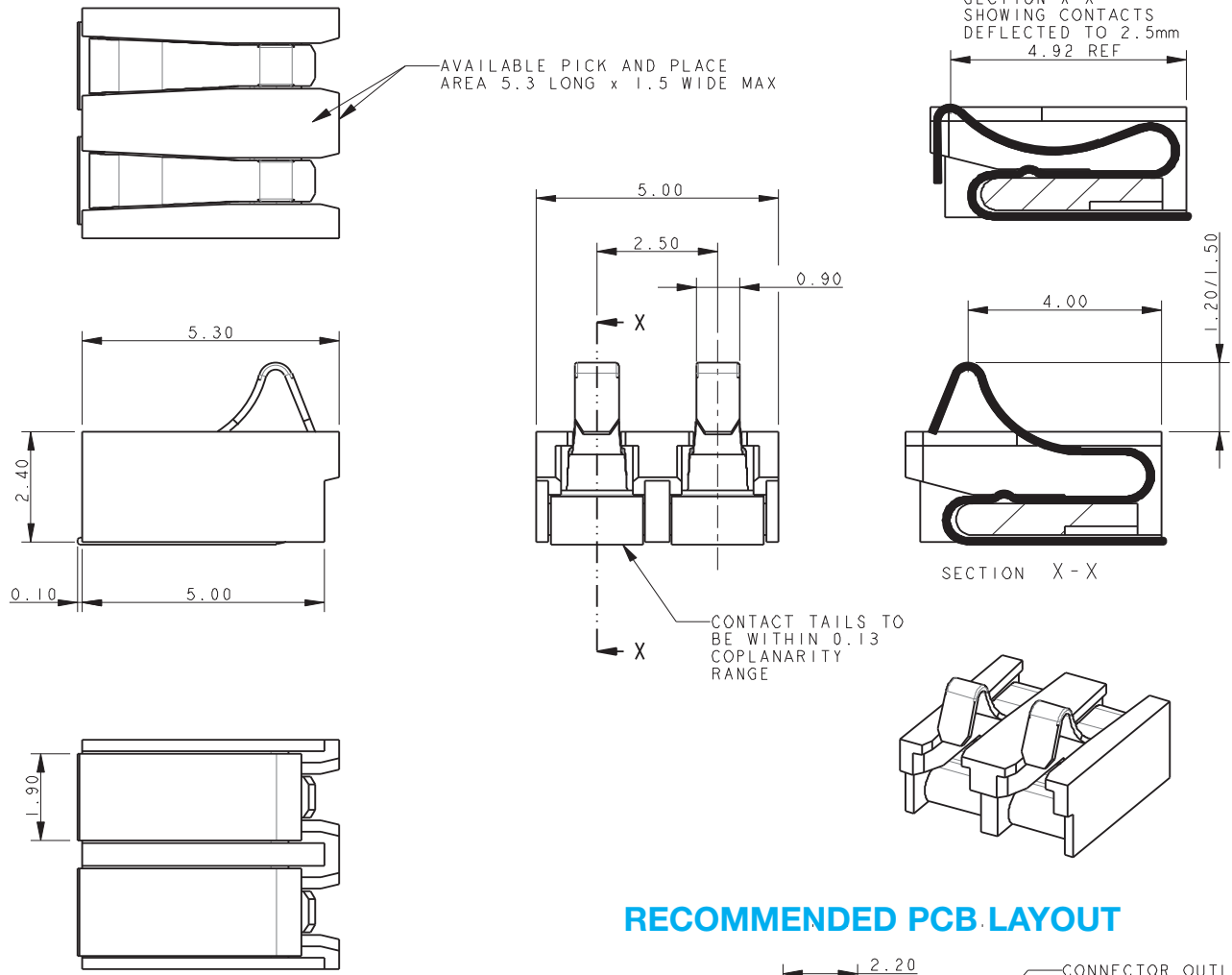
Code	Description
006	0.4µm Selective Gold, Standard
008	0.8µm Selective Gold, Special Order



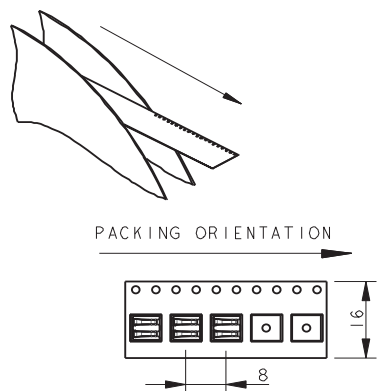
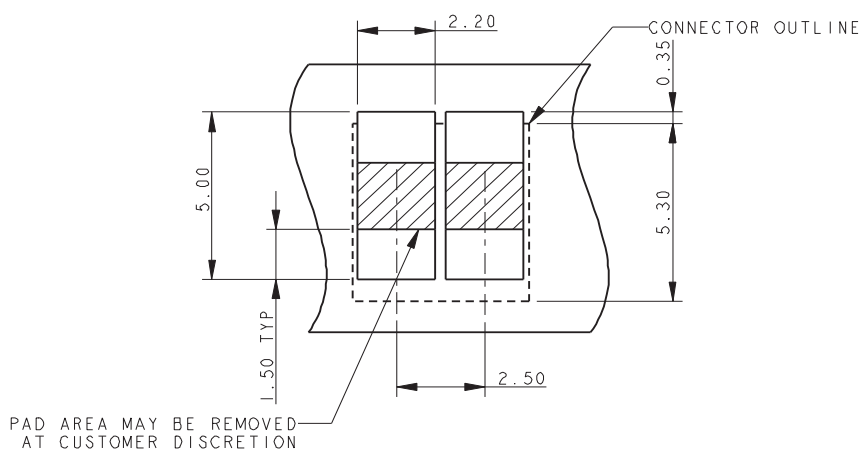
Reduced Battery 2.5mm Pitch

9155-200

2 WAY REDUCED SIZE BATTERY CONNECTOR



RECOMMENDED PCB LAYOUT



PACKING DETAILS

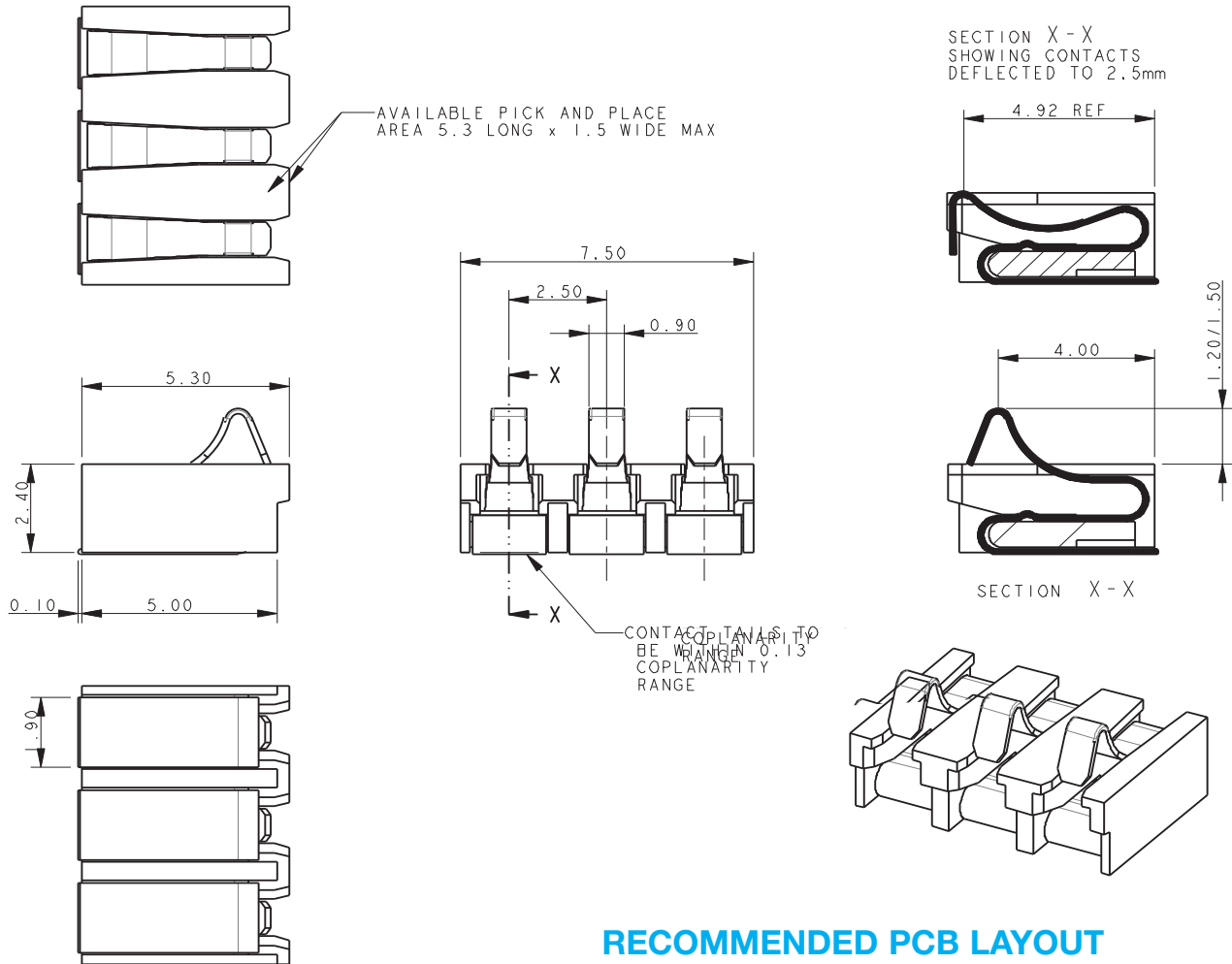
REEL QTY	2000
LEADER	500MM
TRAILER	500MM

- NOTES:
1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-093.
 2. FOR MATING PAD DETAILS REFER TO PAGE 22.
 3. GENERAL TOLERANCE ± 0.20 .
 4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 HB, COLOR BLACK.
 5. CONTACT MATERIAL: BERYLLIUM COPPER.
 6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.

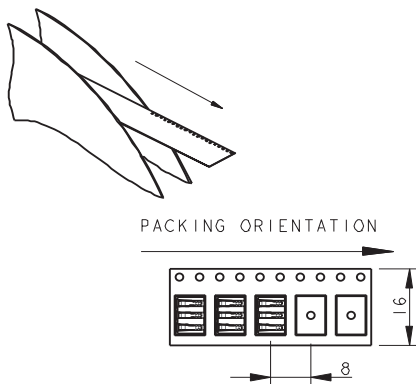
Reduced Battery 2.5mm Pitch

9155-200

3 WAY REDUCED SIZE BATTERY CONNECTOR

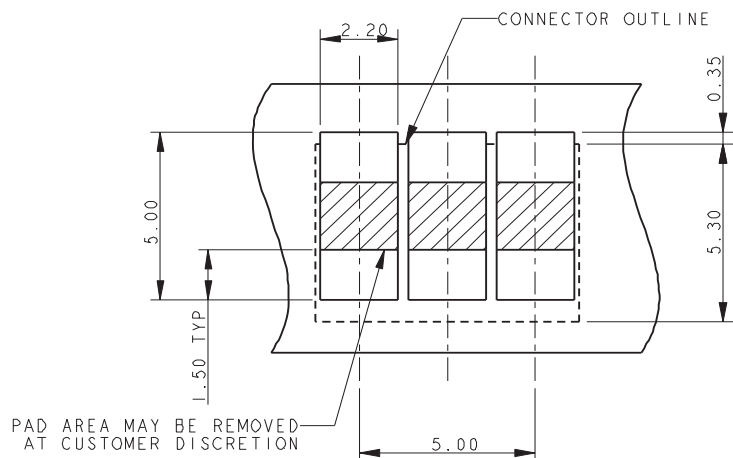


RECOMMENDED PCB LAYOUT



PACKING DETAILS

REEL QTY	2000
LEADER	500MM
TRAILER	500MM



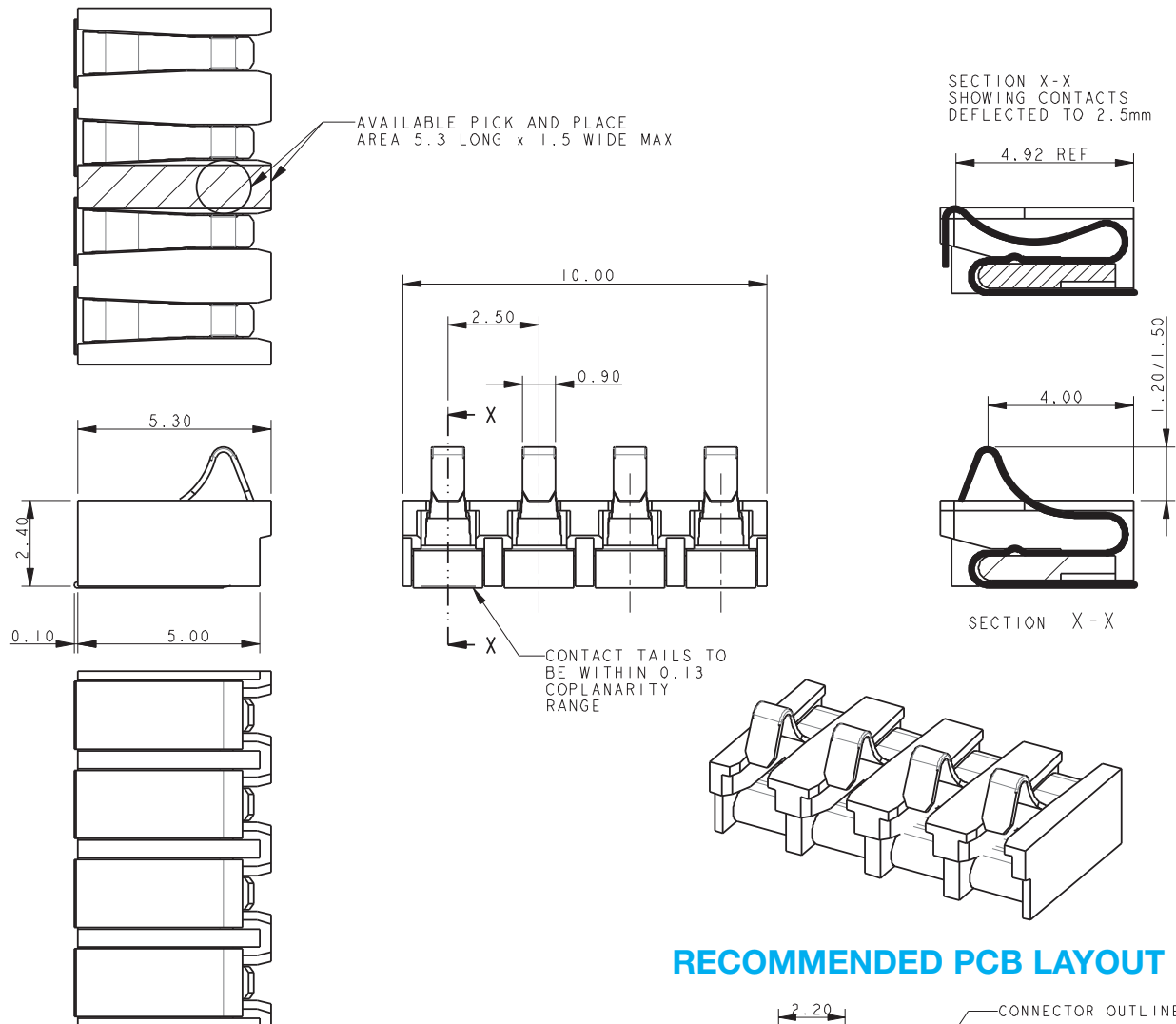
NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-093.
2. FOR MATING PAD DETAILS REFER TO PAGE 22.
3. GENERAL TOLERANCE ± 0.20 .
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 HB, COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.

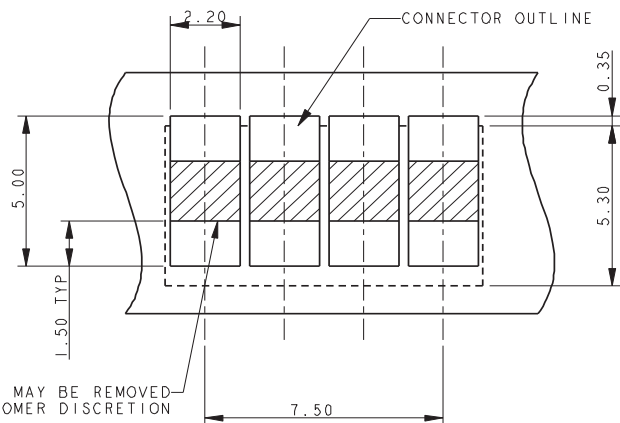
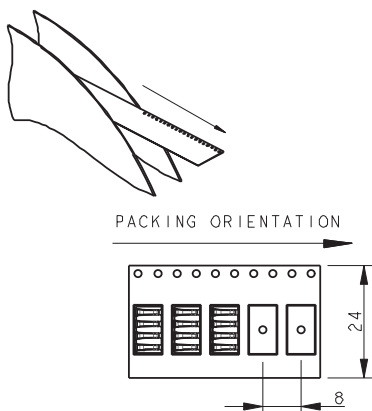
Reduced Battery 2.5mm Pitch

9155-200

4 WAY REDUCED SIZE BATTERY CONNECTOR



RECOMMENDED PCB LAYOUT



PACKING DETAILS

REEL QTY	2000
LEADER	500MM
TRAILER	500MM

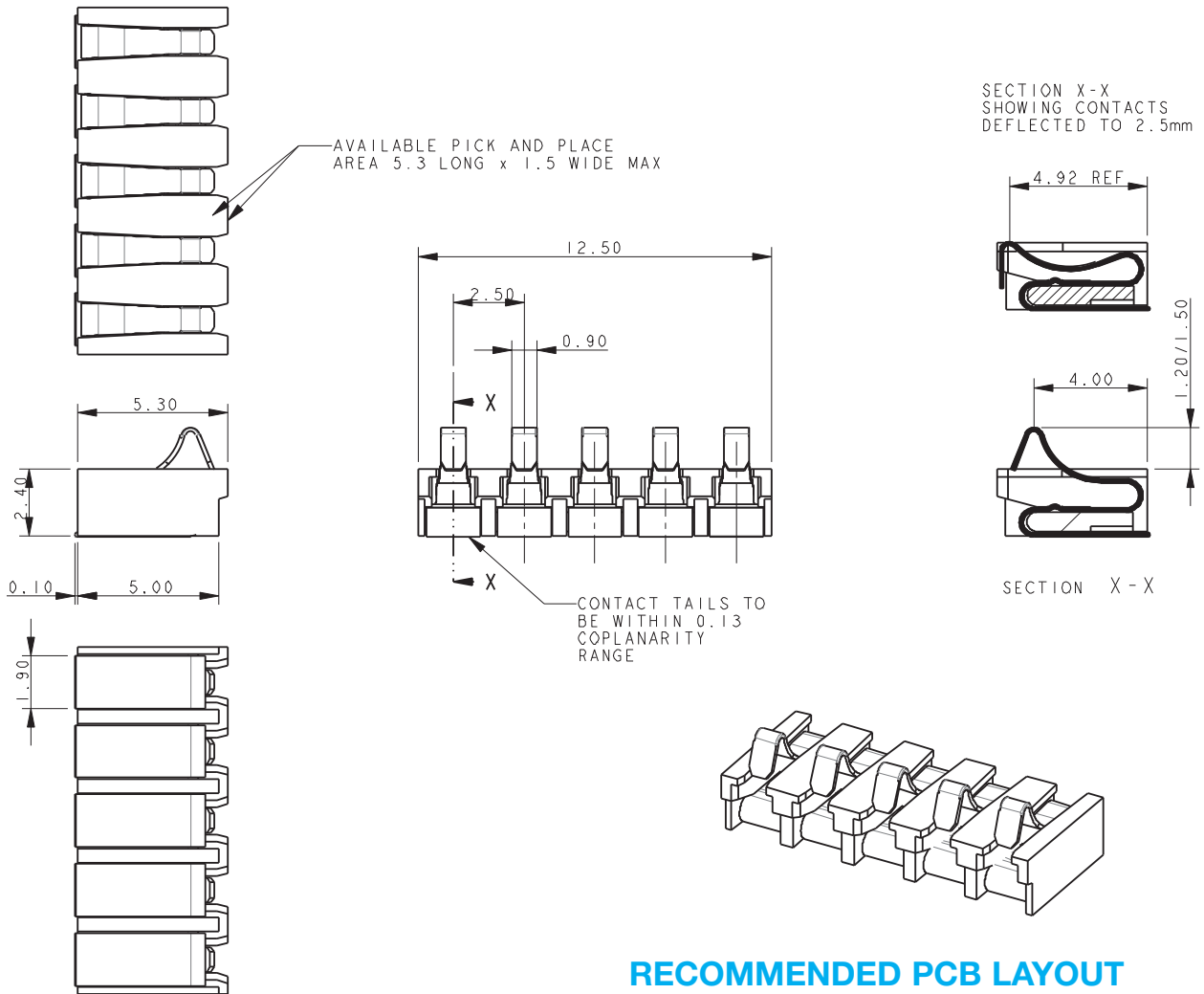
NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-093.
2. FOR MATING PAD DETAILS REFER TO PAGE 22.
3. GENERAL TOLERANCE ± 0.20 .
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 HB, COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.

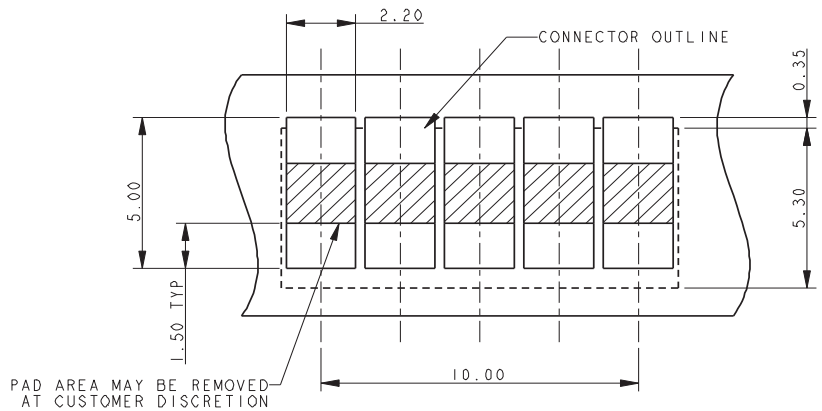
Reduced Battery 2.5mm Pitch

9155-200

5 WAY REDUCED SIZE BATTERY CONNECTOR

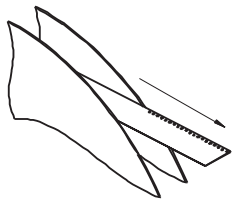


RECOMMENDED PCB LAYOUT

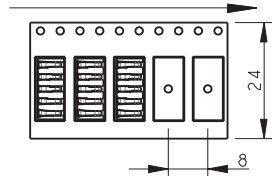


NOTES:

1. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-093.
2. FOR MATING PAD DETAILS REFER TO PAGE 22.
3. GENERAL TOLERANCE ± 0.20 .
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 HB, COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.



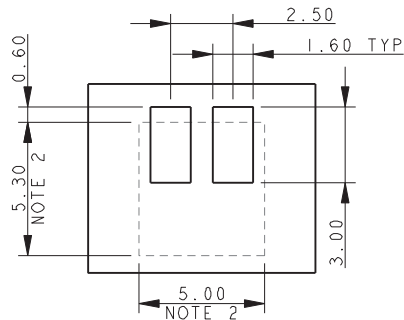
PACKING ORIENTATION



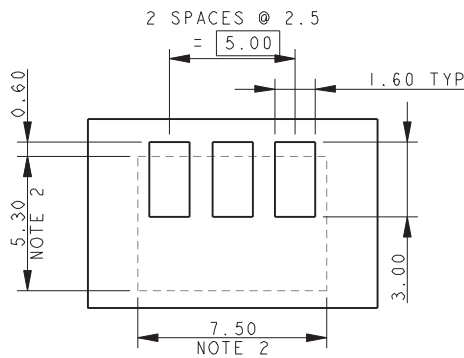
PACKING DETAILS

REEL QTY	2000
LEADER	500MM
TRAILER	500MM

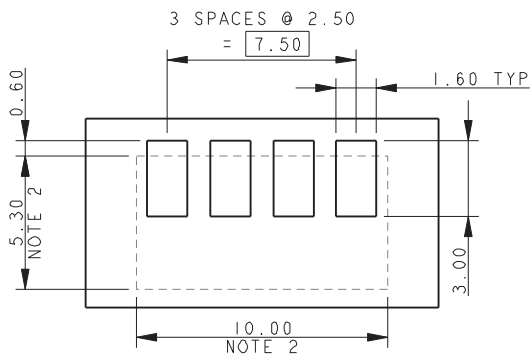
REDUCED SIZE BATTERY CONNECTOR – MATING PADS



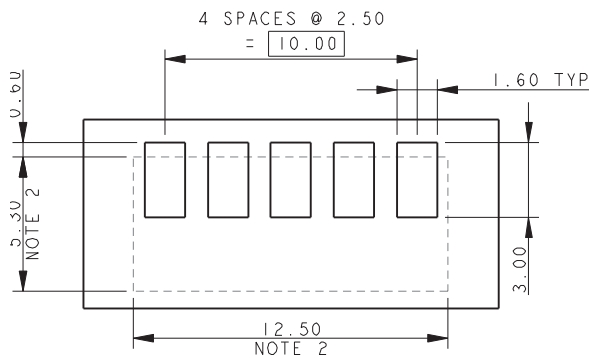
2 WAY MATING PADS



3 WAY MATING PADS



4 WAY MATING PADS



5 WAY MATING PADS

NOTES:

1. SUGGESTED MATING PADS FOR REDUCED SIZE BATTERY CONNECTORS.
2. OUTLINE OF CONNECTOR.
3. PREFERRED PLATING ON PADS GOLD OVER NICKEL.
4. REFERENCE DIMENSIONS.

Right Angle 3.0mm Pitch Battery

9155-300



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

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00	9155	00X
Prefix	Series	No. of Ways
		2 = 002
		3 = 003
		4 = 004
		5 = 005

301				
Right Angle Battery Connector				
<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>301</td> <td>Right Angle 3.00mm Battery Connector</td> </tr> </tbody> </table>	Code	Description	301	Right Angle 3.00mm Battery Connector
Code	Description			
301	Right Angle 3.00mm Battery Connector			

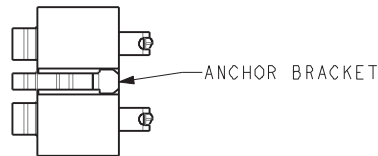
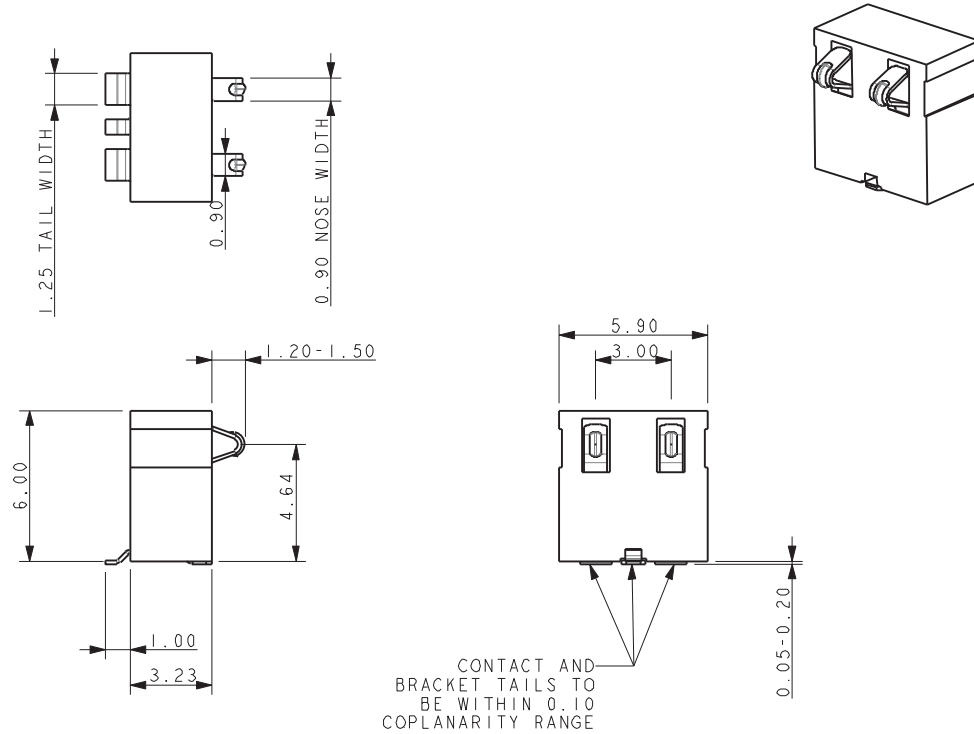
00X						
Plating Option						
<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> </tr> </thead> <tbody> <tr> <td>006</td> <td>0.4µm Selective Gold, Standard</td> </tr> <tr> <td>008</td> <td>0.8µm Selective Gold, Special Order</td> </tr> </tbody> </table>	Code	Description	006	0.4µm Selective Gold, Standard	008	0.8µm Selective Gold, Special Order
Code	Description					
006	0.4µm Selective Gold, Standard					
008	0.8µm Selective Gold, Special Order					



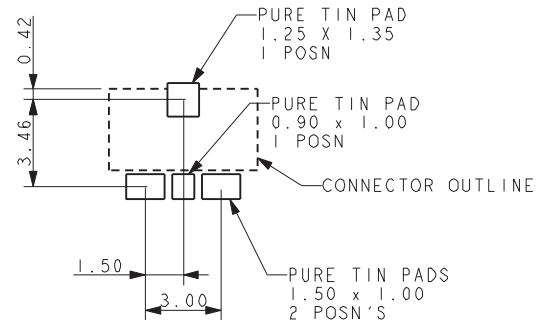
Right Angle 3.0mm Pitch Battery

9155-300

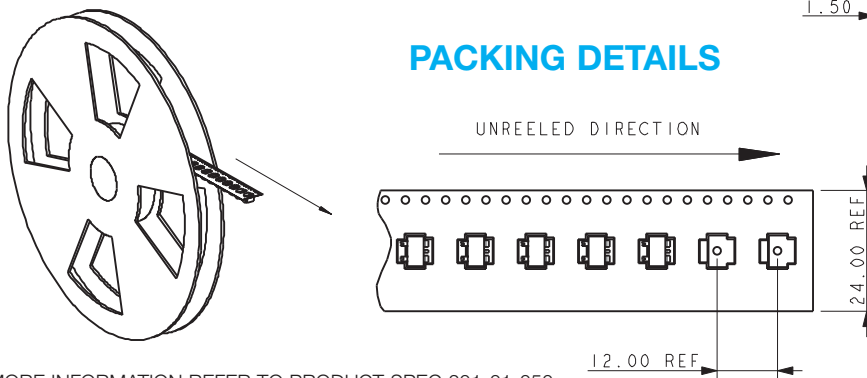
2 WAY RIGHT ANGLE BATTERY CONNECTOR



PCB LAYOUT



PACKING DETAILS



REEL QTY	800
LEADER	480MM
TRAILER	480MM

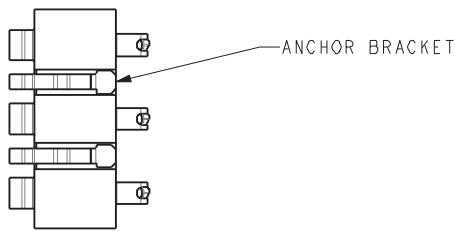
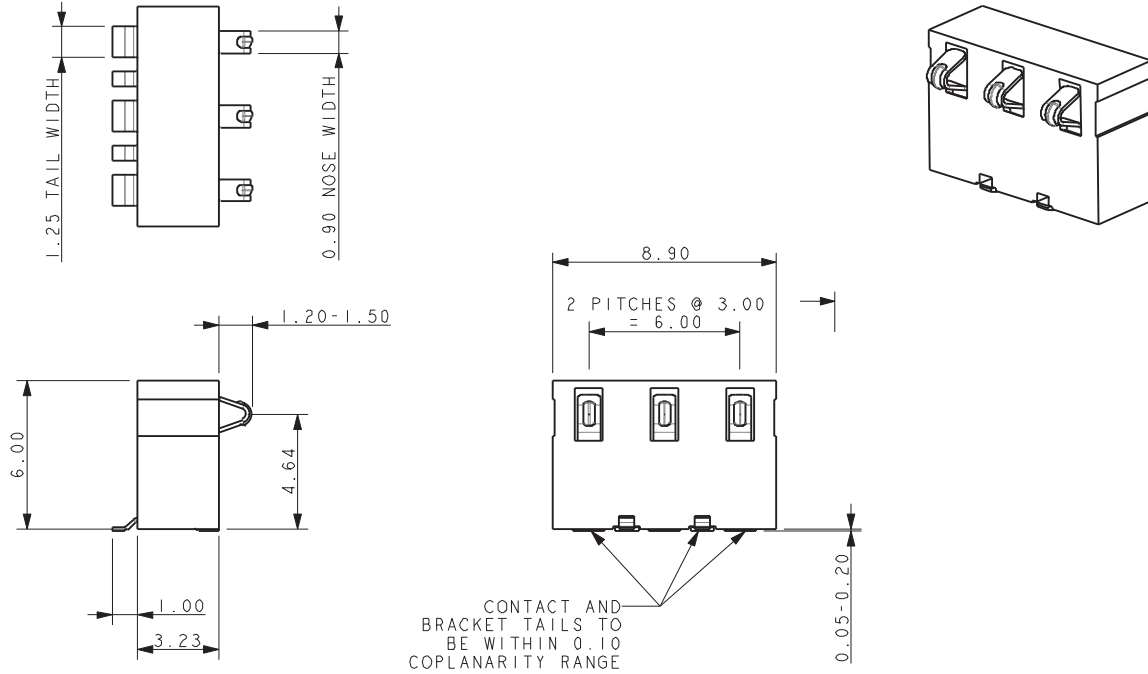
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-050.
2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 28.
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

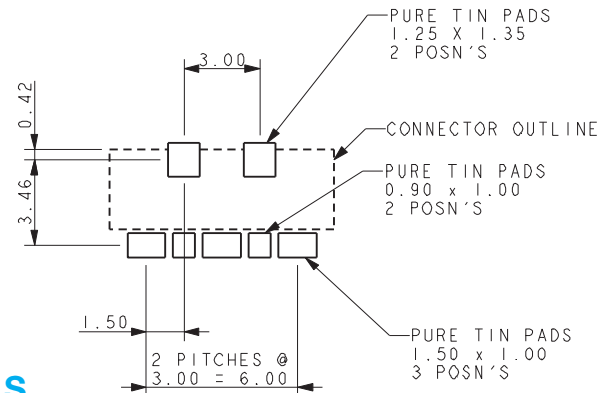
Right Angle 3.0mm Pitch Battery

9155-300

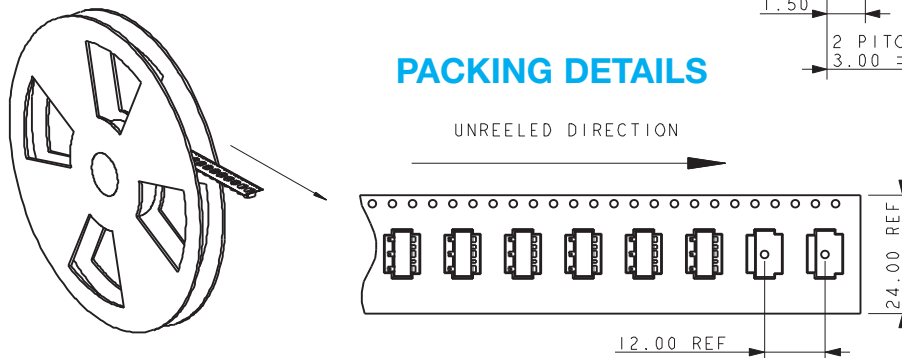
3 WAY RIGHT ANGLE BATTERY CONNECTOR



PCB LAYOUT



PACKING DETAILS



REEL QTY	800
LEADER	480MM
TRAILER	480MM

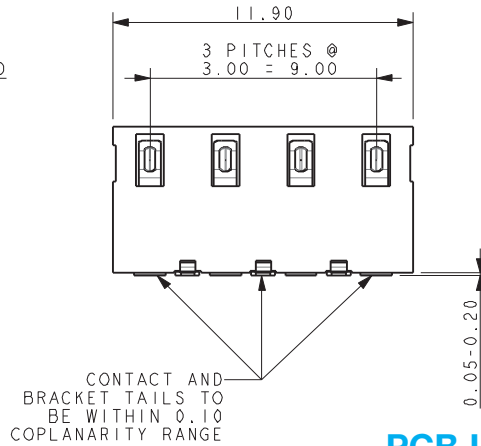
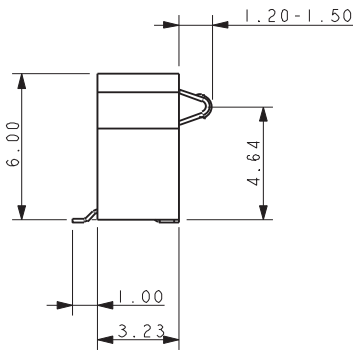
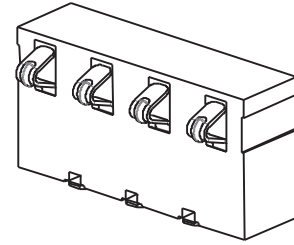
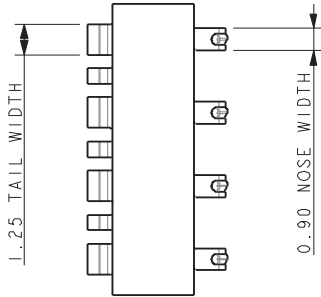
NOTES:

1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-050.
2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 28.
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

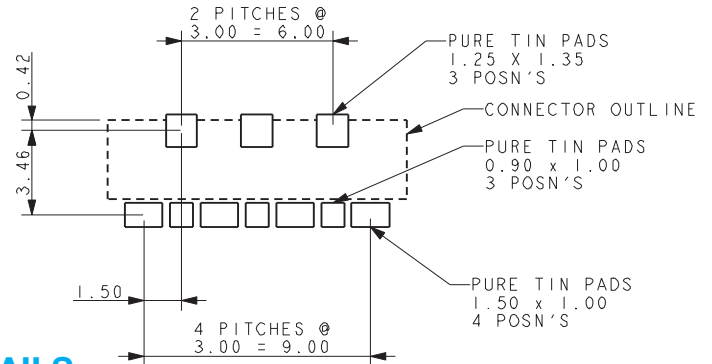
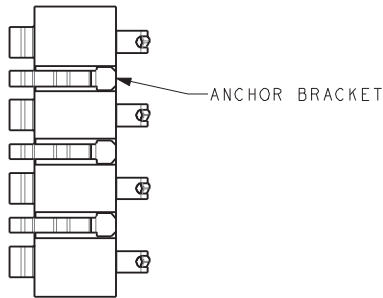
Right Angle 3.0mm Pitch Battery

9155-300

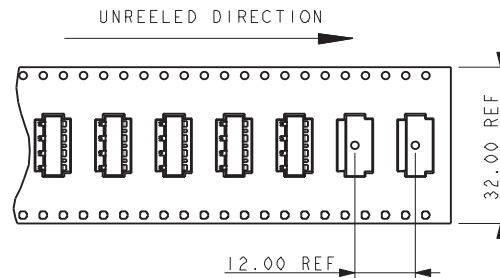
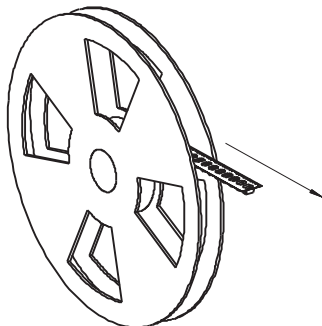
4 WAY RIGHT ANGLE BATTERY CONNECTOR



PCB LAYOUT



PACKING DETAILS



REEL QTY	800
LEADER	480MM
TRAILER	480MM

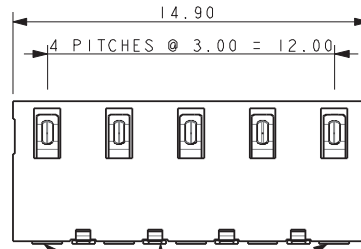
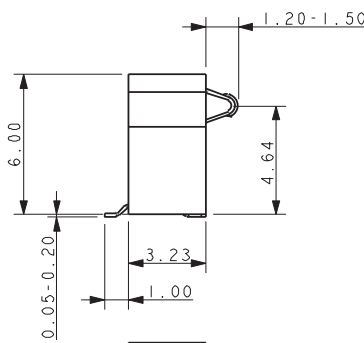
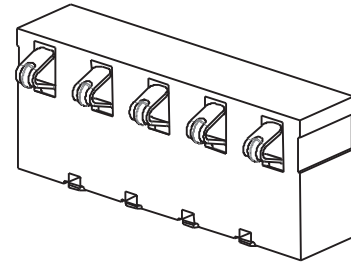
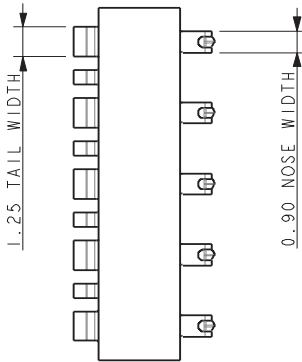
NOTES:

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2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 28.
4. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
5. CONTACT MATERIAL: BERYLLIUM COPPER.
6. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL. PURE TIN ON TAILS.
7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

Right Angle 3.0mm Pitch Battery

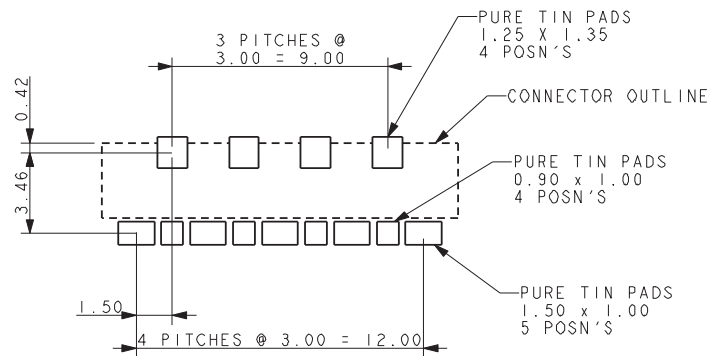
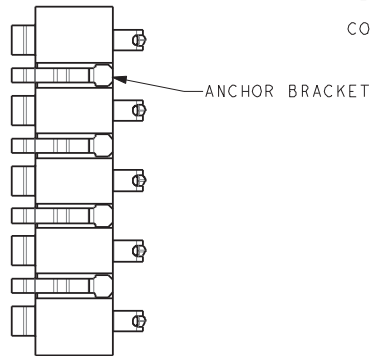
9155-300

5 WAY RIGHT ANGLE BATTERY CONNECTOR

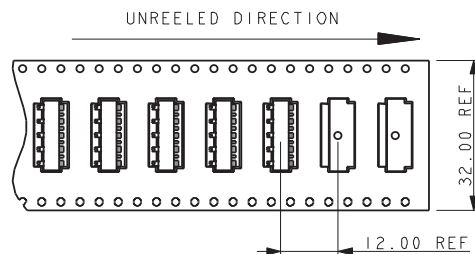
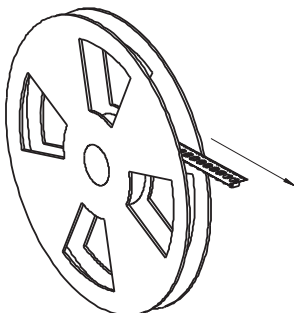


CONTACT AND BRACKET TAILS TO BE WITHIN 0.10 COPLANARITY RANGE

PCB LAYOUT



PACKING DETAILS

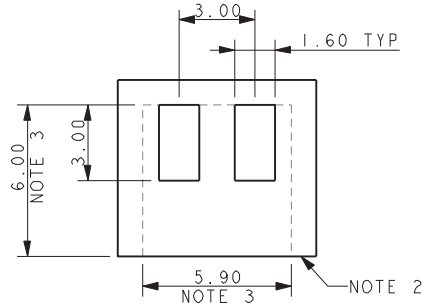


REEL QTY	800
LEADER	480MM
TRAILER	480MM

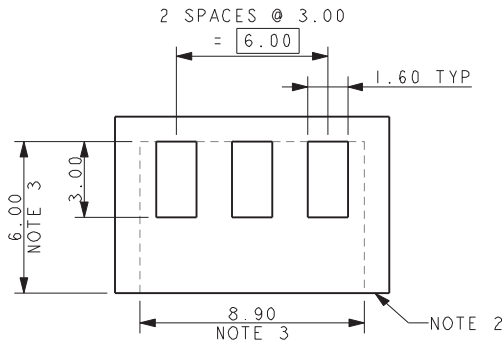
NOTES:

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2. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
3. FOR MATING PAD DETAILS REFER TO PAGE 28.
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7. BRACKET MATERIAL: PHOSPHOR BRONZE.
8. BRACKET PLATING: PURE TIN OVER NICKEL.

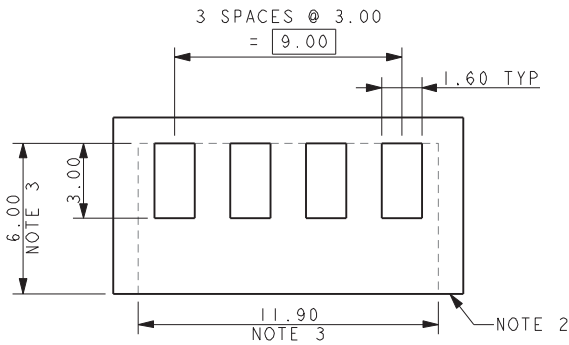
RIGHT ANGLE BATTERY CONNECTOR – MATING PADS



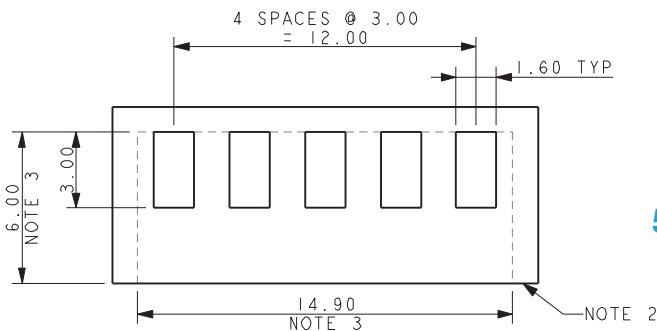
2 WAY MATING PADS



3 WAY MATING PADS



4 WAY MATING PADS



5 WAY MATING PADS

NOTES:

1. SUGGESTED MATING PADS FOR RIGHT ANGLE BATTERY CONNECTORS.
2. TOP SURFACE OF HORIZONTAL PCB/BASE OF CONNECTOR.
3. OUTLINE OF CONNECTOR.
4. PREFERRED PLATING ON PADS GOLD OVER NICKEL.

Right Angle 2.5mm Pitch Battery

9155-500



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

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

ELECTRICAL

- Current Rating: 3 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 HB
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5000 Cycles

HOW TO ORDER

00 Prefix
9155 Series
00X No. of Ways
2 = 002
3 = 003
4 = 004
5 = 005

541 Right Angle Battery Connector

Code	Description
541	Right Angle 2.5mm Battery Connector

00X Plating Option

Code	Description
006	0.4µm Selective Gold, Standard
008	0.8µm Selective Gold, Special Order

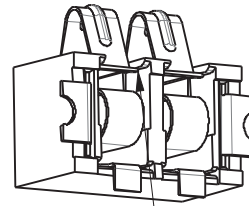
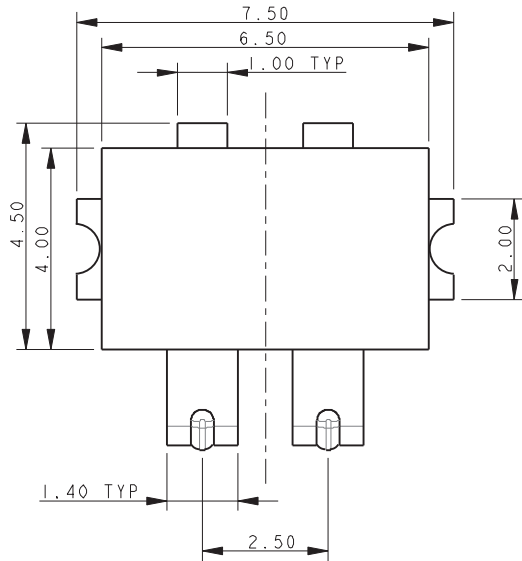


Right Angle 2.5mm Pitch Battery

9155-500

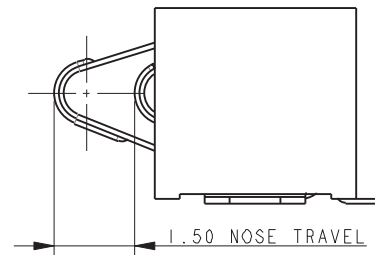


2 WAY RIGHT ANGLE BATTERY CONNECTOR

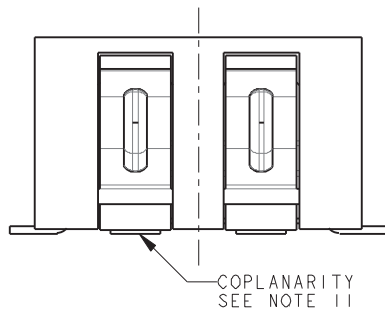
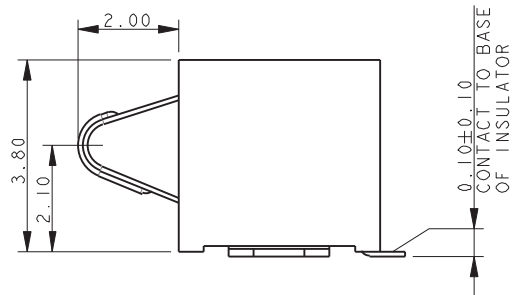


CONTACT NOSE RETAINED
ANTI-SNAG FEATURE

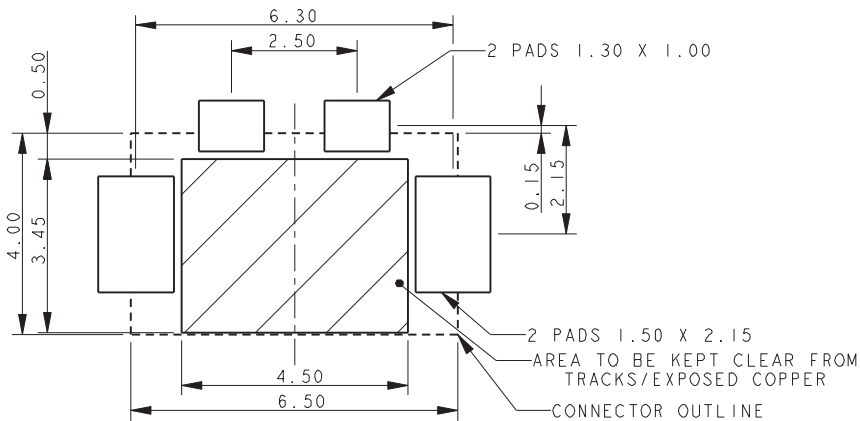
DEFLECTIVE CONNECTOR



UNDEFLECTED CONTACT



SUGGESTED PCB LAYOUT



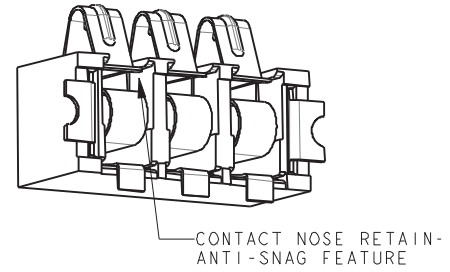
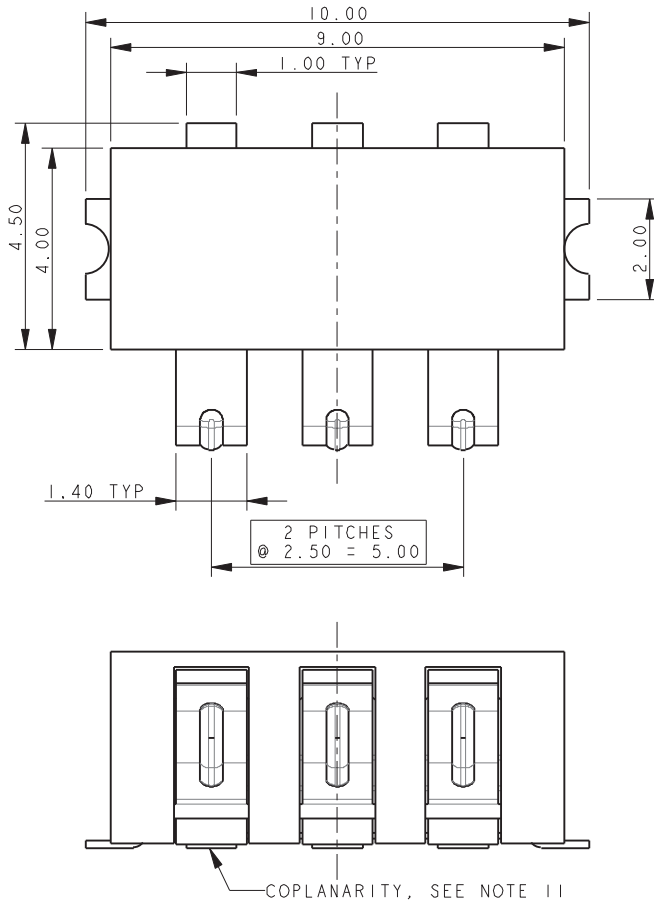
NOTES:

1. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-114.
3. FOR MATING PAD DETAILS REFER TO PAGE 35.
4. PACKING DETAILS ON PAGE 34.
5. INSULATOR MATERIAL: 30% GLASS FILLED NYLON 46, UL94 V-O. COLOR BLACK.
6. CONTACT MATERIAL: BERYLLIUM COPPER.
7. CONTACT PLATING: SELECTIVE GOLD OVER NICKEL, PURE TIN ON TAILS.
8. BRACKET MATERIAL: PHOSPHOR BRONZE.
9. BRACKET PLATING: PURE TIN OVER NICKEL.
10. NOMINAL CONTACT FORCE 140 GRAMS AT 1.50 DEFLECTION.
11. CONPLANARITY OF ALL CONTACT TAILS AND PADS 0.10MM MAXIMUM.

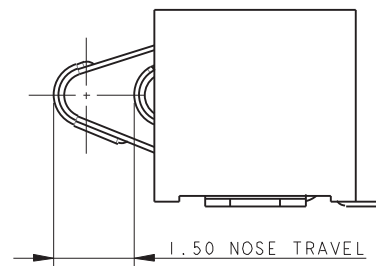
Right Angle 2.5mm Pitch Battery

9155-500

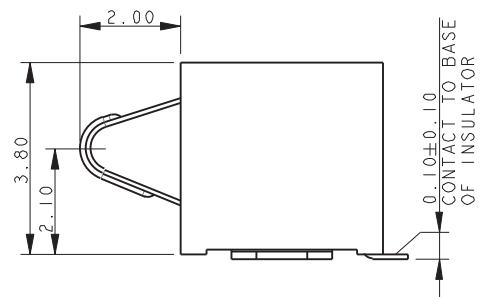
3 WAY RIGHT ANGLE BATTERY CONNECTOR



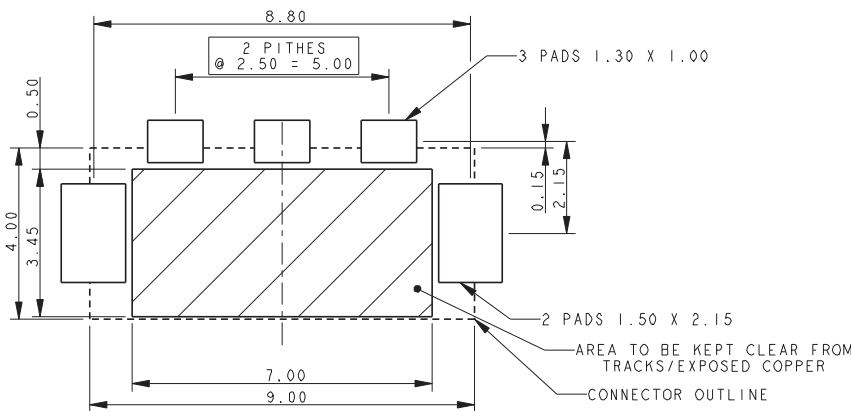
DEFLECTIVE CONNECTOR



UNDEFLECTED CONTACT



SUGGESTED PCB LAYOUT



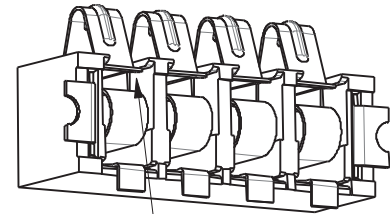
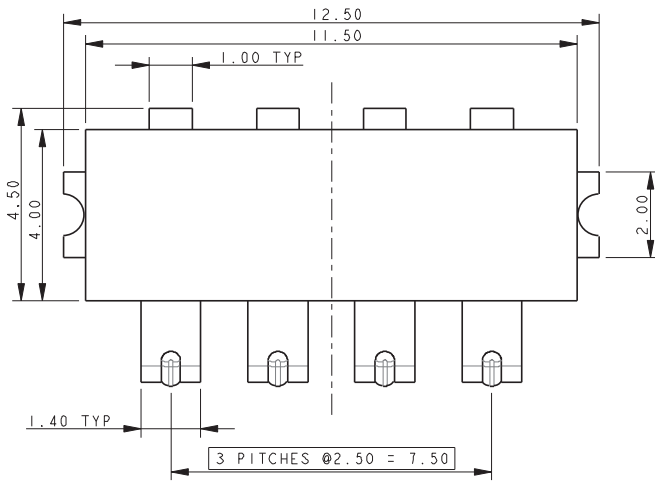
NOTES:

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9. BRACKET PLATING: PURE TIN OVER NICKEL.
10. NOMINAL CONTACT FORCE 140 GRAMS AT 1.50 DEFLECTION.
11. CONPLANARITY OF ALL CONTACT TAILS AND PADS 0.10MM MAXIMUM.

Right Angle 2.5mm Pitch Battery

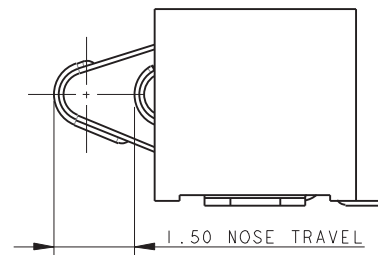
9155-500

4 WAY RIGHT ANGLE BATTERY CONNECTOR

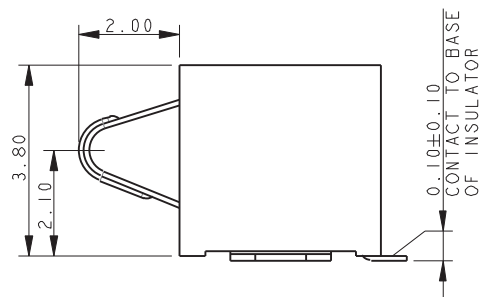


CONTACT NOSE RETAINED
ANTI-SNAG FEATURE

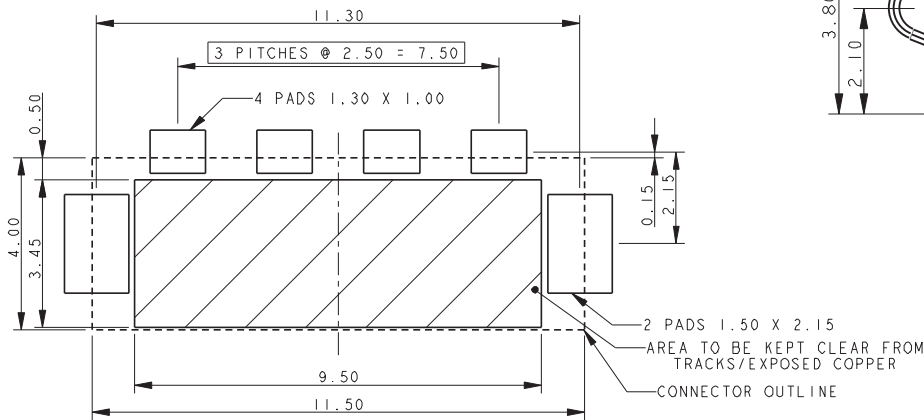
DEFLECTIVE CONNECTOR



UNDEFLECTED CONTACT



SUGGESTED PCB LAYOUT



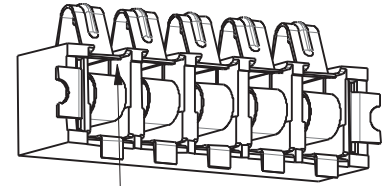
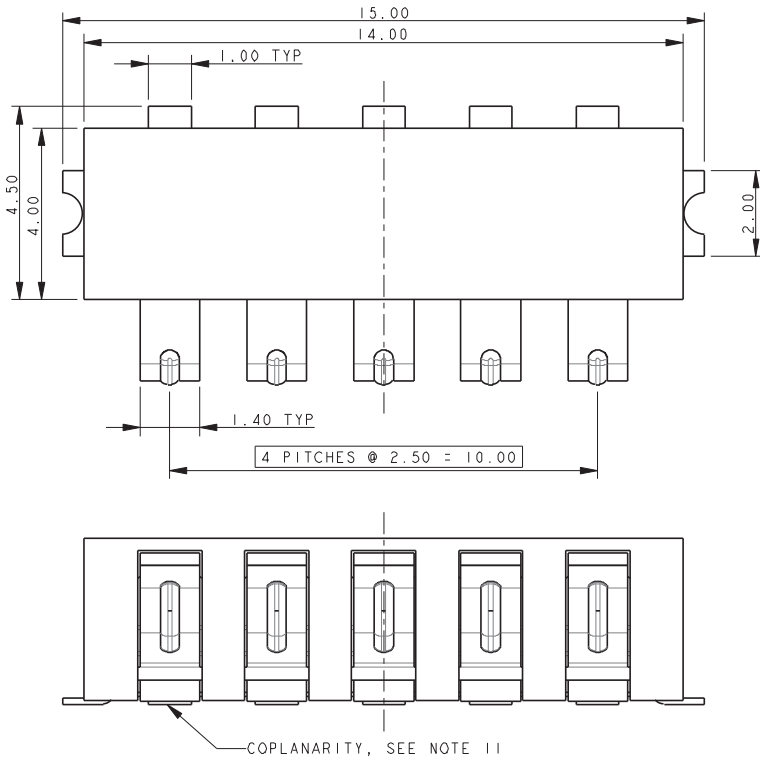
NOTES:

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8. BRACKET MATERIAL: PHOSPHOR BRONZE.
9. BRACKET PLATING: PURE TIN OVER NICKEL.
10. NOMINAL CONTACT FORCE 140 GRAMS AT 1.50 DEFLECTION.
11. CONPLANARITY OF ALL CONTACT TAILS AND PADS 0.10MM MAXIMUM.

Right Angle 2.5mm Pitch Battery

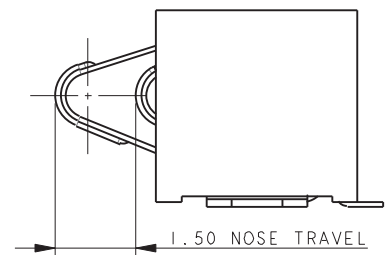
9155-500

5 WAY RIGHT ANGLE BATTERY CONNECTOR

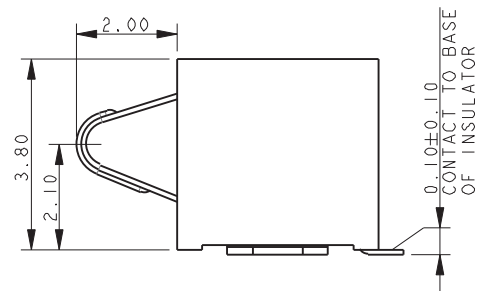


CONTACT NOSE RETAINED ANTI-SNAG FEATURE

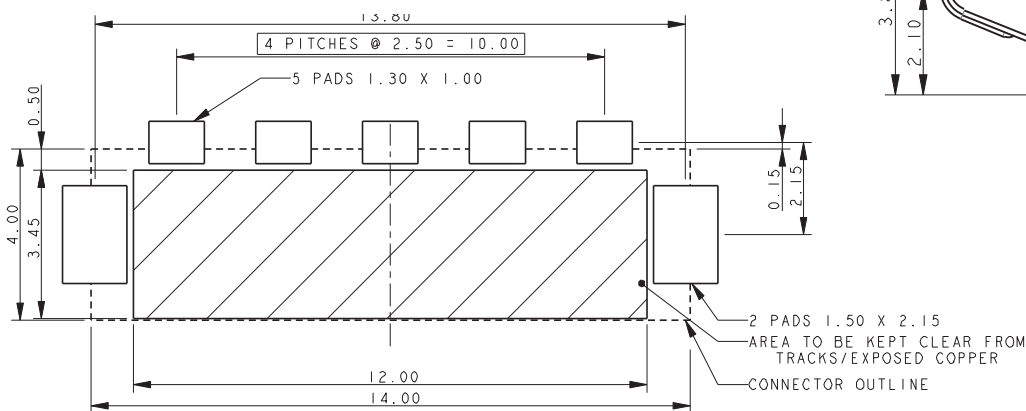
DEFLECTIVE CONNECTOR



UNDEFLECTED CONTACT



SUGGESTED PCB LAYOUT



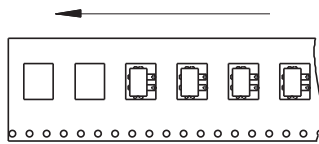
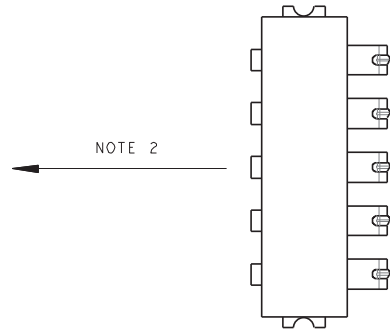
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11. CONPLANARITY OF ALL CONTACT TAILS AND PADS 0.10MM MAXIMUM.

Right Angle 2.5mm Pitch Battery

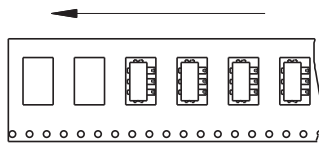
9155-500

PACKING DETAILS



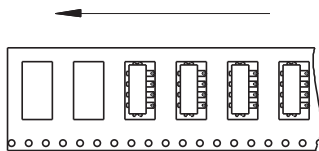
2 WAY

REEL QTY	1000
TAPE WIDTH	25MM
POCKET PITCH	12MM



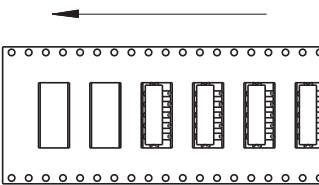
3 WAY

REEL QTY	1000
TAPE WIDTH	25MM
POCKET PITCH	12MM



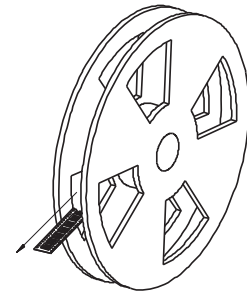
4 WAY

REEL QTY	1000
TAPE WIDTH	25MM
POCKET PITCH	12MM



5 WAY

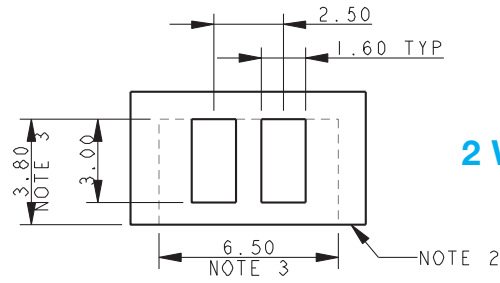
REEL QTY	1000
TAPE WIDTH	25MM
POCKET PITCH	12MM



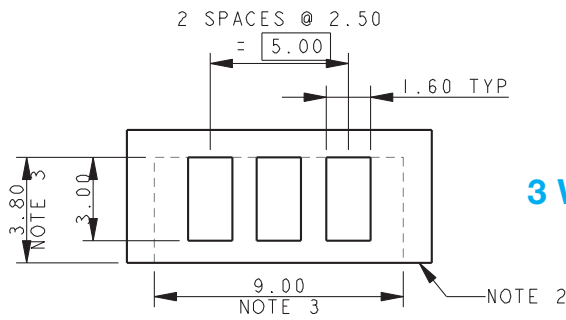
NOTES:

1. PARTS TO BE PACKED ON 330MM REELS.
2. COMPONENT ORIENTATION AS SHOWN.

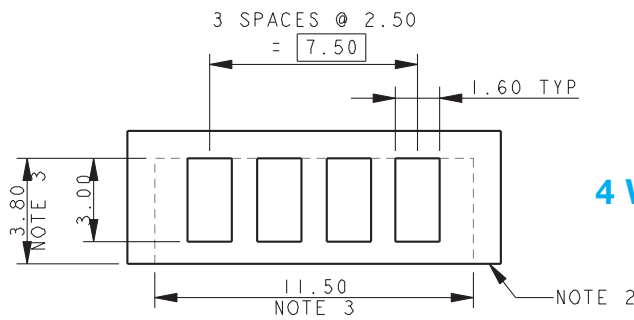
STANDARD RIGHT ANGLE – MATING PADS



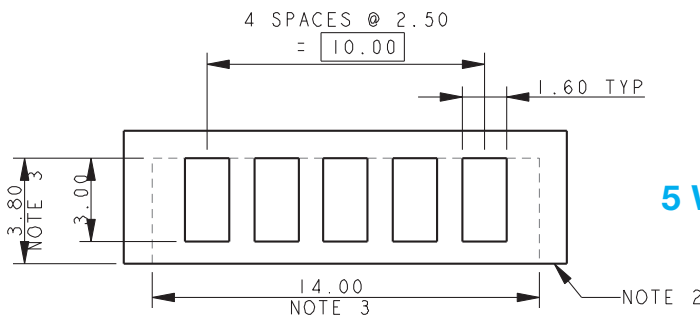
2 WAY MATING PADS



3 WAY MATING PADS



4 WAY MATING PADS



5 WAY MATING PADS

NOTES:

1. SUGGESTED MATING PADS FOR RIGHT ANGLE BATTERY CONNECTORS.
2. TOP SURFACE OF HORIZONTAL PCB/BASE OF CONNECTOR.
3. OUTLINE OF CONNECTOR.
4. PREFERRED PLATING ON PADS GOLD OVER NICKEL.

Single Compression Contact

70-9155



Designers for ruggedized connectors to meet harsh environments continue to look for new products which will reduce size and cost without jeopardizing performance. The new Ultra-Low Profile (ULP) compression contact from AVX surface mounts to a PCB and provides a reliable compression connection to the mating board, even under extreme shock and vibration applications. With over 20 years of 1-Piece compression contact experience, this innovative contact offers full connector performance functionality at the individual contact level. Thus, allowing single contacts to be placed in any location or position on a PCB.

The high force beryllium copper contact is gold plated to maximize reliability and signal integrity. The current offering has two contacts with nominal heights of 1.0mm and 1.5mm. Add in the “Z” axis tolerance range and the compressed height covers 0.75mm up to 1.75mm. The contacts are supplied in tape and reel for easy SMT placement.

APPLICATIONS

- Industrial/Ruggedized handheld or portable devices
- BTB connection for any traditional power or signal application
- Ground connections between PCB's or housings

FEATURES AND BENEFITS

- Reliable gold plated Beryllium Copper contacts for high cycle life and signal integrity up to 1000 cycles
- Tape and reel packaged for automated SMT placement
- Sweeping beam design for pluggable/module applications
- Three gold plating options to match end product environmental or expected life requirements

ELECTRICAL

- Current Rating: 3 Amps
- Voltage Rating: Based on placement distance

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C

MECHANICAL

- Contact Material: Beryllium Copper
- Contact Plating: Gold over Nickel
- Durability: 50, 500 and 1000 cycles

HOW TO ORDER

70 **9155** **001**
 | | |
 Prefix Series Number of Ways

61X

Contact Description

Code	Nominal Operating Height	Contact Operating Height Range
610	1.00mm	0.75mm to 1.25mm
615	1.50mm	1.25mm to 1.75mm

00X

Contact Description

Code	Gold Thickness	Description	Availability
004	0.1µm	Nickel under Plate, Gold on Nose Tin on Remainder	Standard
006	0.4µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order
008	0.8µm	Nickel under Plate, Gold on Nose Tin on Remainder	Special Order

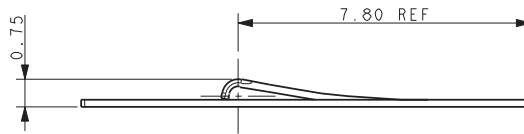
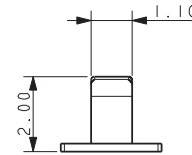
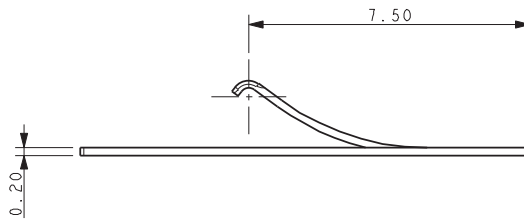
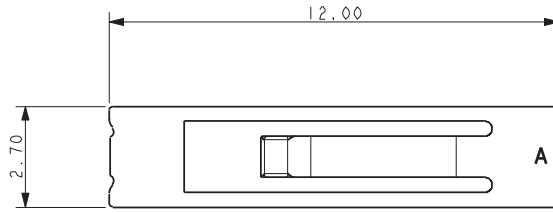
Certification: UL File #E90723



Single Compression Contact

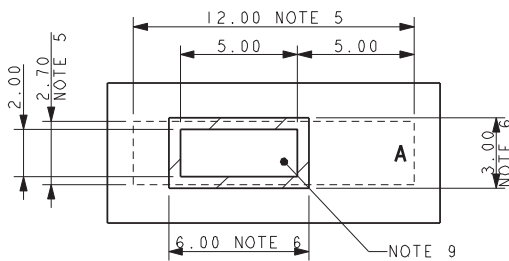
70-9155

70-9155-001-610-006 NOMINAL WORKING HEIGHT 1.00MM



FULLY DEFLECTED CONTACT

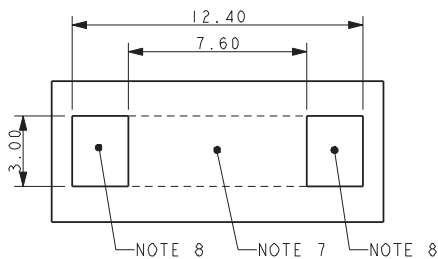
SUGGESTED MATING PCB LAYOUT



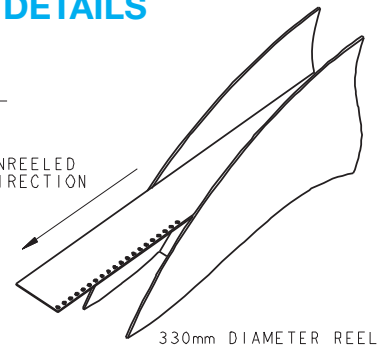
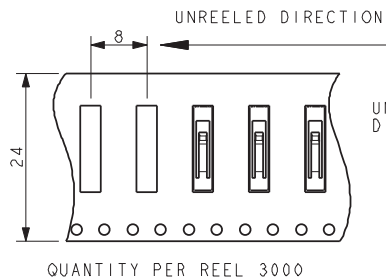
NOTES:

1. 9155 LOW PROFILE CONTACT, WORKING HEIGHT 0.75MM TO 1.25MM.
2. FOR FULL DETAILS REFER TO PRODUCT SPECIFICATION 201-01-153 AND APPLICATIONS NOTES 201-01-154.
3. MATERIAL: COPPER ALLOY 0.2MM THICK.
4. PLATING: NICKEL ALL OVER WITH GOLD ON CONTACT NOSE AND TIN ON THE REMAINDER. PARTS TO BE PACKED IN TAPE AND REEL. QTY PER REEL 3000.
5. OUTLINE OF CONNECTOR, ORIENTATION END "A".
6. AREA TO BE KEPT FREE OF SOLDER RESIST, FURTHER INFORMATION IN APPLICATION NOTES.
7. AREA BETWEEN PADS TO BE KEPT CLEAR OF TRACKS AND COMPONENTS.
8. SMT PADS PLATED TIN.
9. MATING PAD PLATED GOLD OVER NICKEL.

SUGGESTED SMT PCB LAYOUT



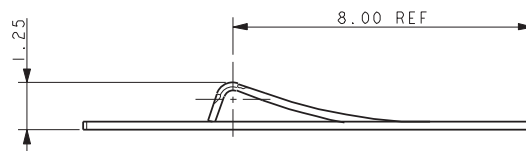
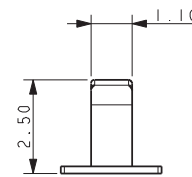
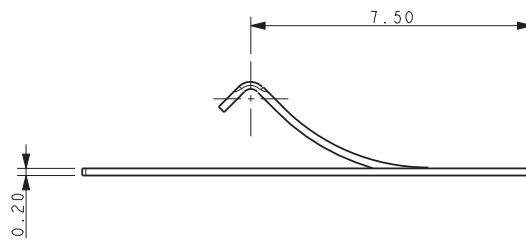
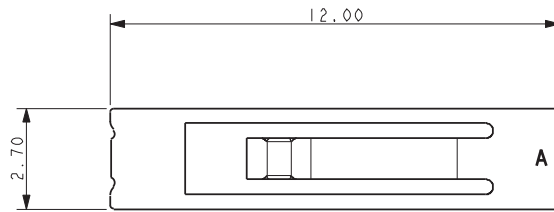
PACKING DETAILS



Single Compression Contact

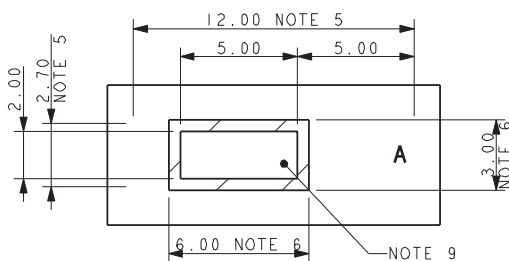
70-9155

70-9155-001-610-006 NOMINAL WORKING HEIGHT 1.50MM



FULLY DEFLECTED CONTACT

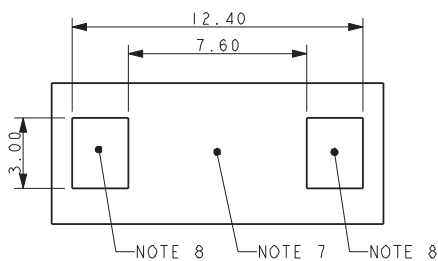
SUGGESTED MATING PCB LAYOUT



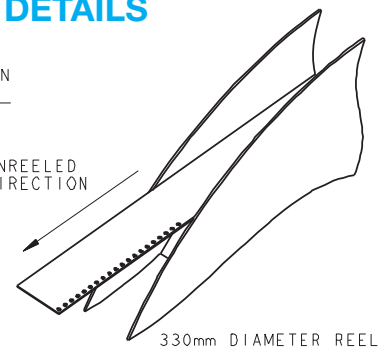
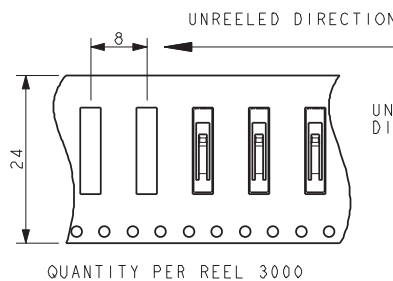
NOTES:

1. 9155 LOW PROFILE CONTACT, WORKING HEIGHT 0.75MM TO 1.25MM.
2. FOR FULL DETAILS REFER TO PRODUCT SPECIFICATION 201-01-153 AND APPLICATIONS NOTES 201-01-154.
3. MATERIAL: COPPER ALLOY 0.2MM THICK.
4. PLATING: NICKEL ALL OVER WITH GOLD ON CONTACT NOSE AND TIN ON THE REMAINDER. PARTS TO BE PACKED IN TAPE AND REEL. QTY PER REEL 3000.
5. OUTLINE OF CONNECTOR, ORIENTATION END "A".
6. AREA TO BE KEPT FREE OF SOLDER RESIST, FURTHER INFORMATION IN APPLICATION NOTES.
7. AREA BETWEEN PADS TO BE KEPT CLEAR OF TRACKS AND COMPONENTS.
8. SMT PADS PLATED TIN.
9. MATING PAD PLATED GOLD OVER NICKEL.

SUGGESTED SMT PCB LAYOUT



PACKING DETAILS



330mm DIAMETER REEL

Standard I/O, 15 Position

XX-9157



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

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

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.

ELECTRICAL

- Current Rating: 1.5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper (plug) Phosphor Bronze (socket)
- Plating: Gold over Nickel
- Durability: 10,000 Cycles

HOW TO ORDER

Plug Options – Example

XX	9157	015	00X
Prefix	Series	No of Ways	RF Coax Option
10 = Plug 58 = Special		15 = 015	000 = No RF Coax 001 = With RF Coax

00X									
Contact Type									
<table border="1"> <thead> <tr> <th>Code</th> <th>Type</th> <th>Contact Plating</th> </tr> </thead> <tbody> <tr> <td>006</td> <td>Wire</td> <td>Nickel, Gold Nose, Pure Tin Tail</td> </tr> <tr> <td>008</td> <td>SMT</td> <td>Nickel, Gold Nose, Pure Tin Tail</td> </tr> </tbody> </table>	Code	Type	Contact Plating	006	Wire	Nickel, Gold Nose, Pure Tin Tail	008	SMT	Nickel, Gold Nose, Pure Tin Tail
Code	Type	Contact Plating							
006	Wire	Nickel, Gold Nose, Pure Tin Tail							
008	SMT	Nickel, Gold Nose, Pure Tin Tail							

PACKING DETAILS		
Type	Size	Description
Wire	580	Tube
SMT	300	Tape & Reel

Socket Options – Example

20	9157	015	00X	006
Prefix	Series	No of Ways	RF Coax Option	Contact Type
20 = Socket 58 = Special		15 = 015	000 = No RF Coax 001 = With RF Coax	006 = SMT

Cover Options – Example

30	9157	9700	00	0XX																										
Prefix	Series	Cover Kit Press and Screw Assembly	Standard	Grommet Variation																										
		<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td rowspan="5">9700</td> <td>Cover Side</td> <td>1</td> </tr> <tr> <td>Cover Body</td> <td>1</td> </tr> <tr> <td>Latch Button</td> <td>2</td> </tr> <tr> <td>Metal Latch</td> <td>2</td> </tr> <tr> <td>Fixing Screw</td> <td>2</td> </tr> </tbody> </table>	Code	Description	Qty	9700	Cover Side	1	Cover Body	1	Latch Button	2	Metal Latch	2	Fixing Screw	2		<table border="1"> <thead> <tr> <th>Code</th> <th>Description</th> <th>Qty</th> </tr> </thead> <tbody> <tr> <td>000</td> <td>No Grommet</td> <td>NA</td> </tr> <tr> <td>035</td> <td>3.5mm Grommet</td> <td>1</td> </tr> <tr> <td>050</td> <td>5.0mm Grommet</td> <td>1</td> </tr> </tbody> </table>	Code	Description	Qty	000	No Grommet	NA	035	3.5mm Grommet	1	050	5.0mm Grommet	1
Code	Description	Qty																												
9700	Cover Side	1																												
	Cover Body	1																												
	Latch Button	2																												
	Metal Latch	2																												
	Fixing Screw	2																												
Code	Description	Qty																												
000	No Grommet	NA																												
035	3.5mm Grommet	1																												
050	5.0mm Grommet	1																												

PACKING DETAILS
Kit to be ordered in multiples of 580

Item	Packing	Parts packed in bags of
Cover Side	Pack Parts in Bags Qty as Column 3	580
Cover Body		580
Latch Button		1160
Metal Latch		1160
Grommet		580
Fixing Screw		1160 When Required

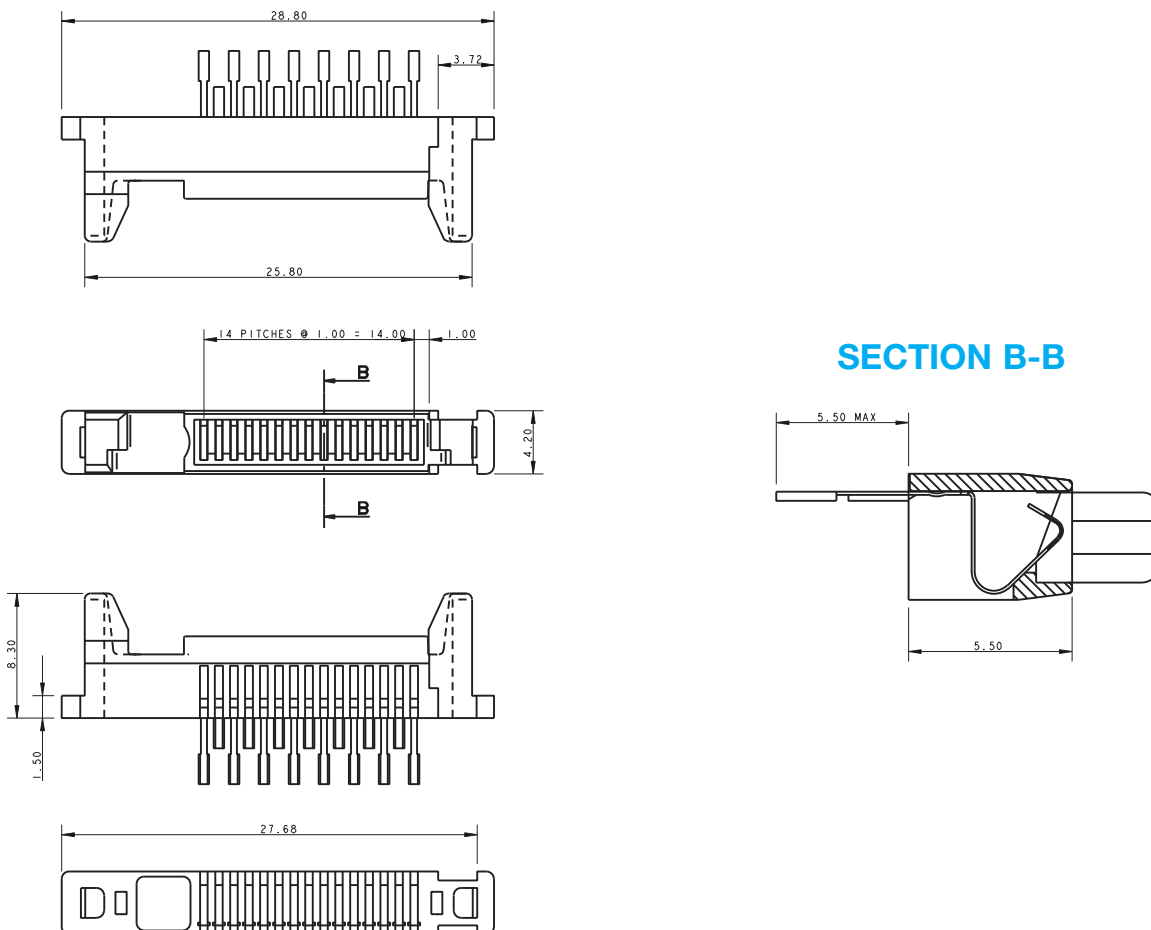


Patent:
2276285
5540599

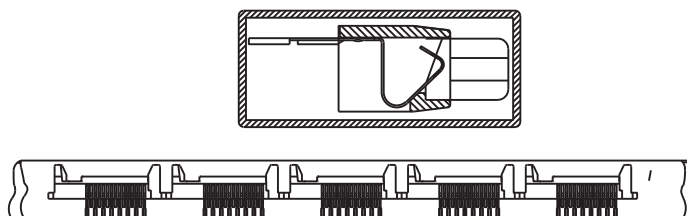
Standard I/O, 15 Position

XX-9157

9157 PLUG WIRE WITHOUT COAX



PACKING DETAIL



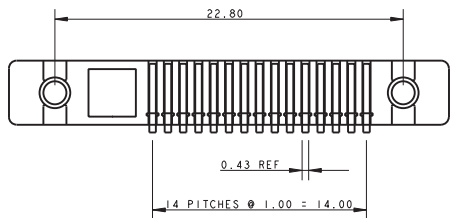
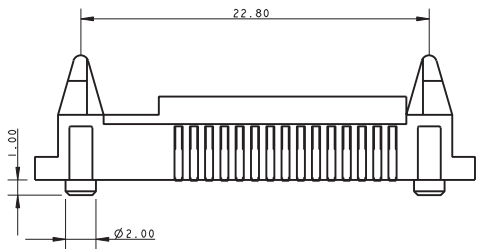
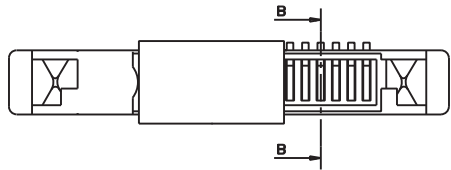
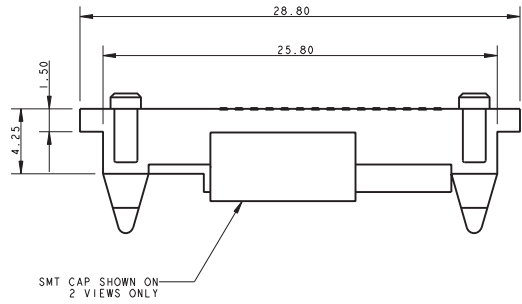
NOTES:

1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
2. PACKED IN TUBES, 20 PIECES PER TUBE.
3. MINIMUM ORDER QUANTITY 580 PIECES, THEREAFTER TO BE SUPPLIED IN MULTIPLES OF 580.
4. FOR FULL PRODUCT INFORMATION REFER TO ELCO SPECIFICATION 201-01-079.

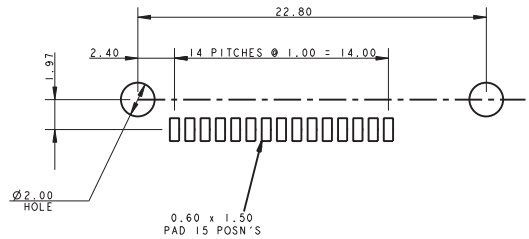
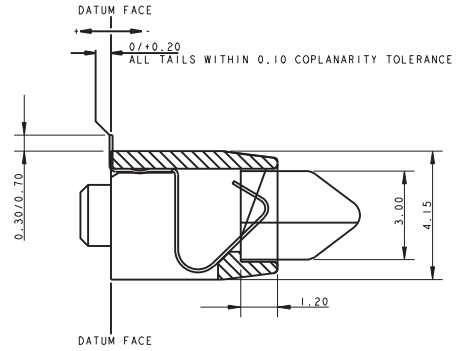
Standard I/O, 15 Position

XX-9157

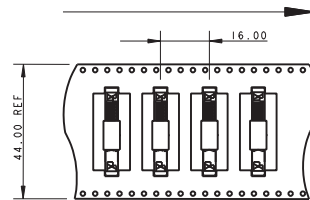
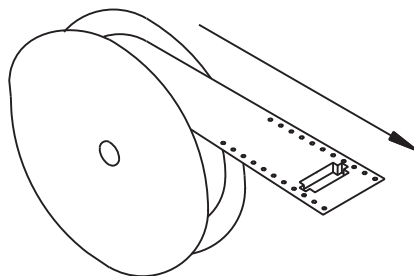
9157 PLUG SMT WITHOUT COAX



SECTION B-B



PACKING DETAIL



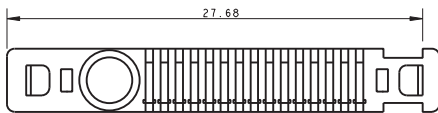
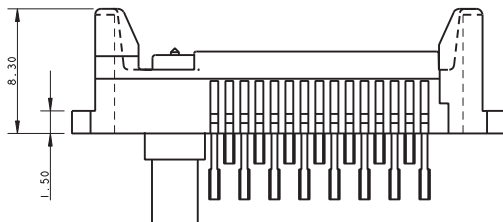
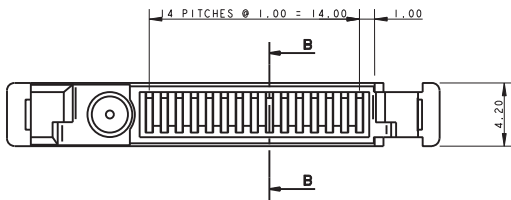
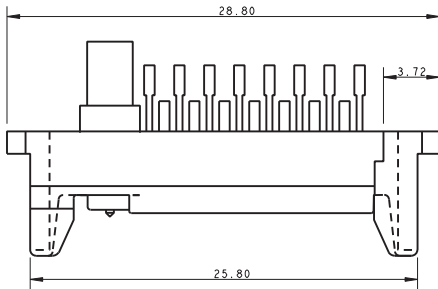
NOTES:

1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
2. PACKED IN TAPE AND REEL, 300 PIECES PER REEL.
3. FOR FULL PRODUCT INFORMATION REFER TO ELCO SPECIFICATION 201-01-079.

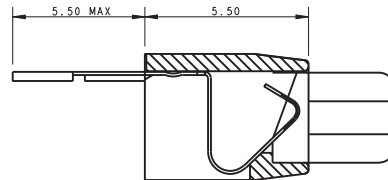
Standard I/O, 15 Position

XX-9157

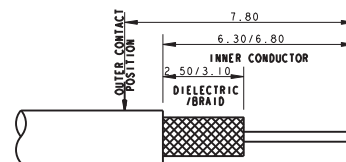
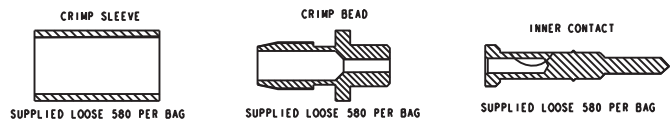
9157 PLUG WIRE WITH COAX



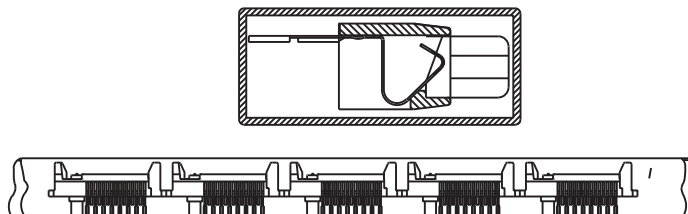
SECTION B-B



CRIMPING DETAILS



PACKING DETAIL



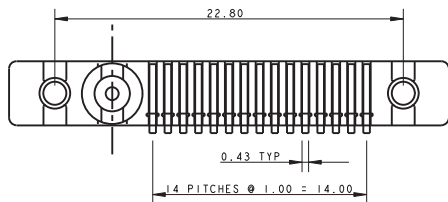
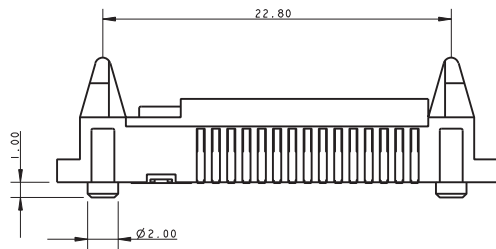
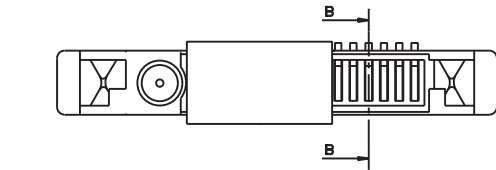
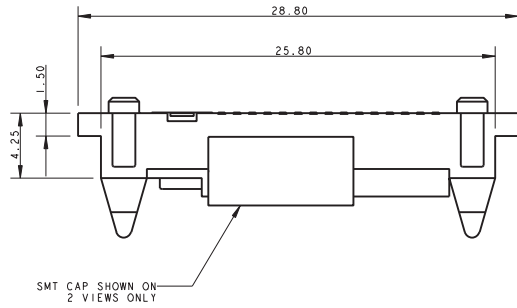
NOTES:

1. TOOL TO CRIP BARREL ELECO PART NUMBER 06-9157-7117-01-000.
2. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
3. PACKED IN TUBES, 20 PIECES PER TUBE.
4. MINIMUM ORDER QUANTITY 580 PIECES, THEREAFTER TO BE SUPPLIED IN MULTIPLES OF 580.
5. FOR FULL PRODUCT INFORMATION REFER TO ELCO SPECIFICATION 201-01-079.

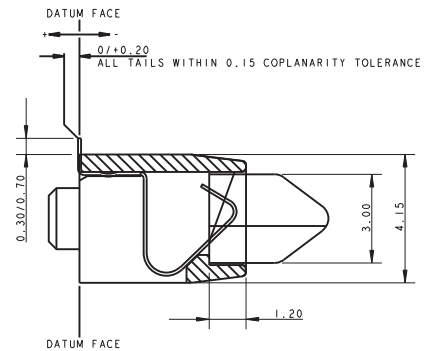
Standard I/O, 15 Position

XX-9157

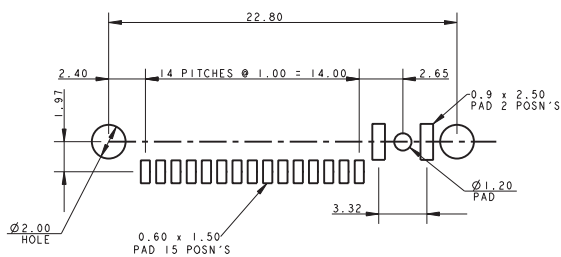
9157 PLUG SMT WITH COAX



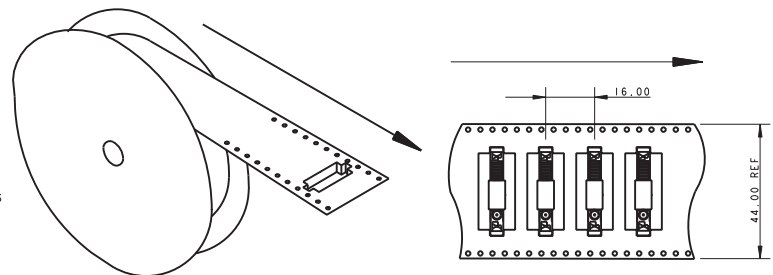
SECTION B-B



PCB LAYOUT



PACKING DETAIL

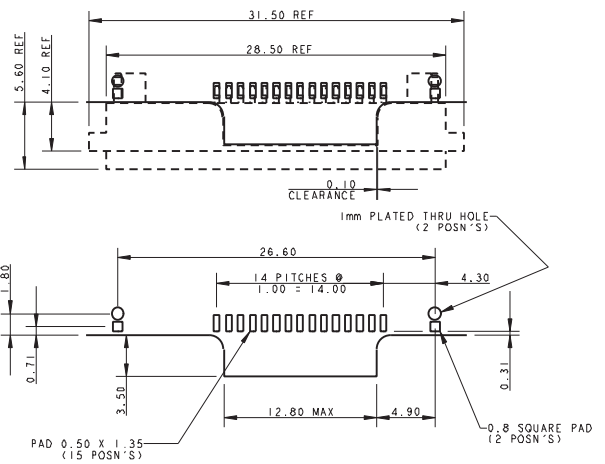
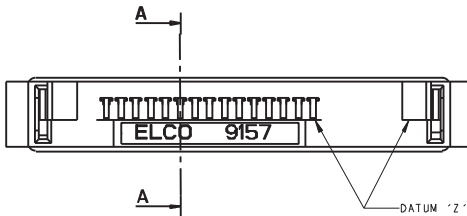
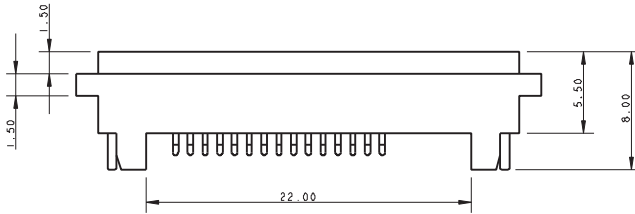
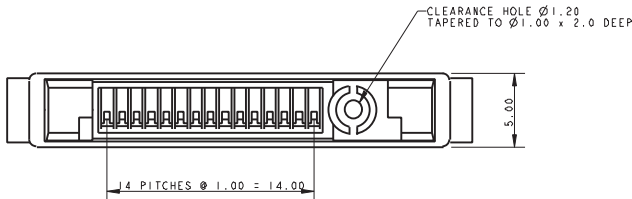
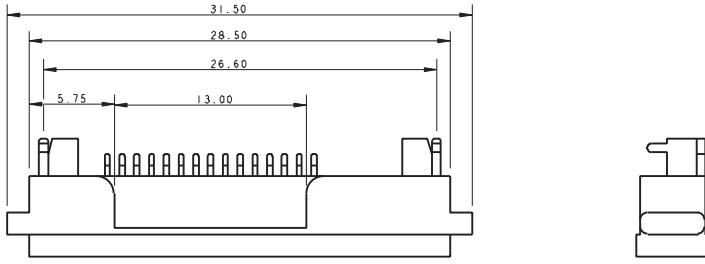


- NOTES:
1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
 2. PACKED IN TAPE AND REEL, 300 PIECES PER REEL.
 3. FOR FULL PRODUCT INFORMATION REFER TO ELCO SPECIFICATION 201-01-079.

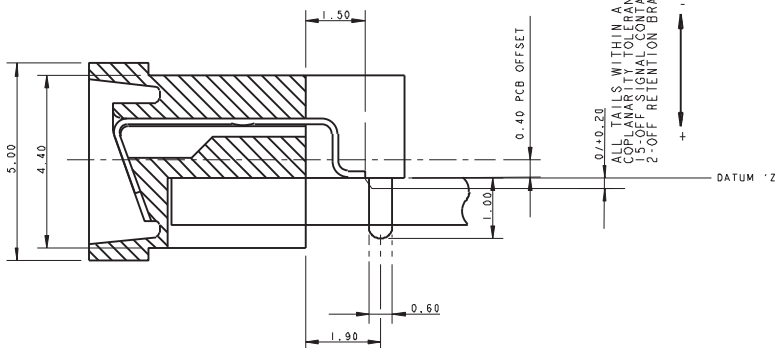
Standard I/O, 15 Position

XX-9157

9157 SOCKET WITHOUT COAX



RECOMMENDED PCB LAYOUT



SECTION A-A

ALL TAILS WITHIN A 0.10 COPLANARITY TOLERANCE
COMPARISON TOLERANCE APPLIES TO :-
2 OFF RETENTION BRACKETS.

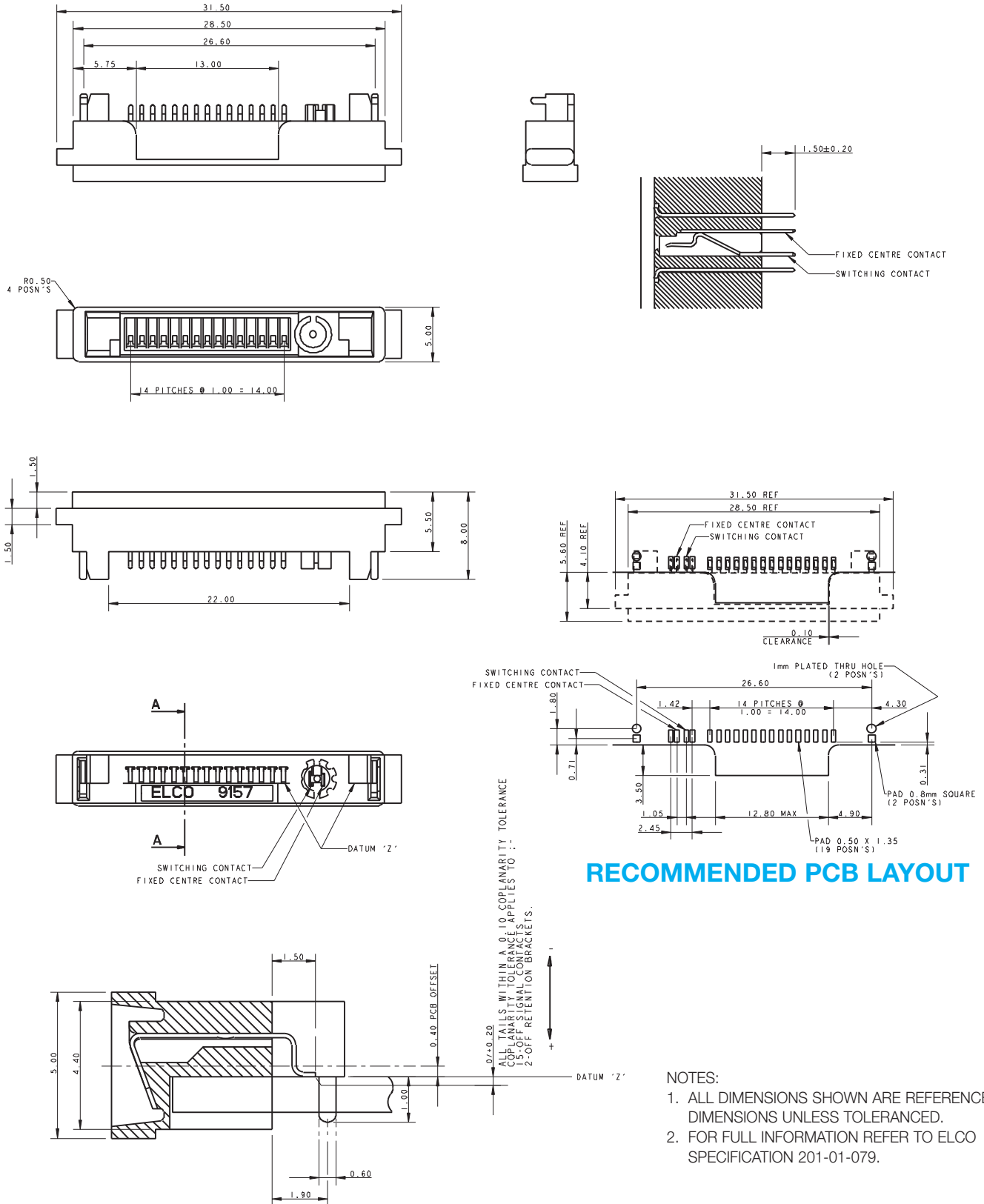
NOTES:

1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
2. FOR FULL INFORMATION REFER TO ELCO SPECIFICATION 201-01-079.

Standard I/O, 15 Position

XX-9157

9157 SOCKET WITH COAX

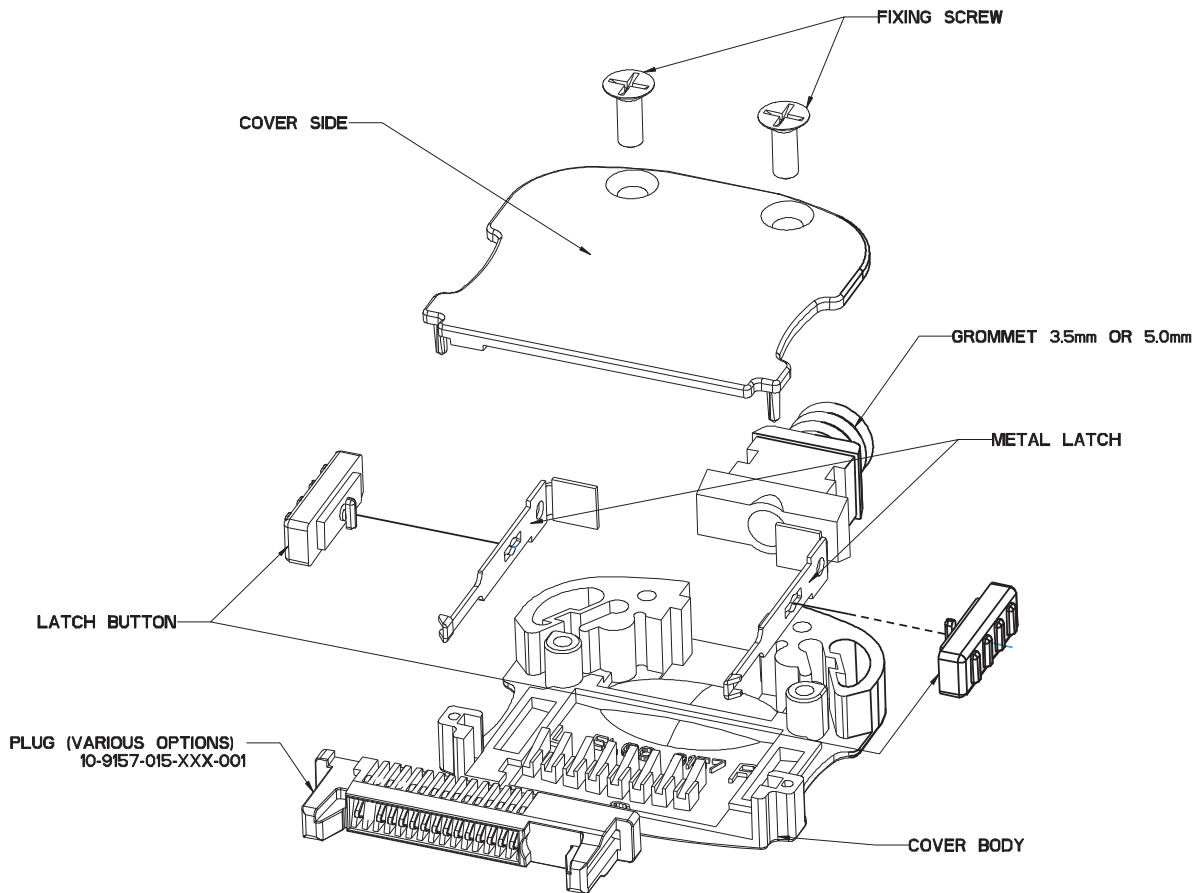


SECTION A-A

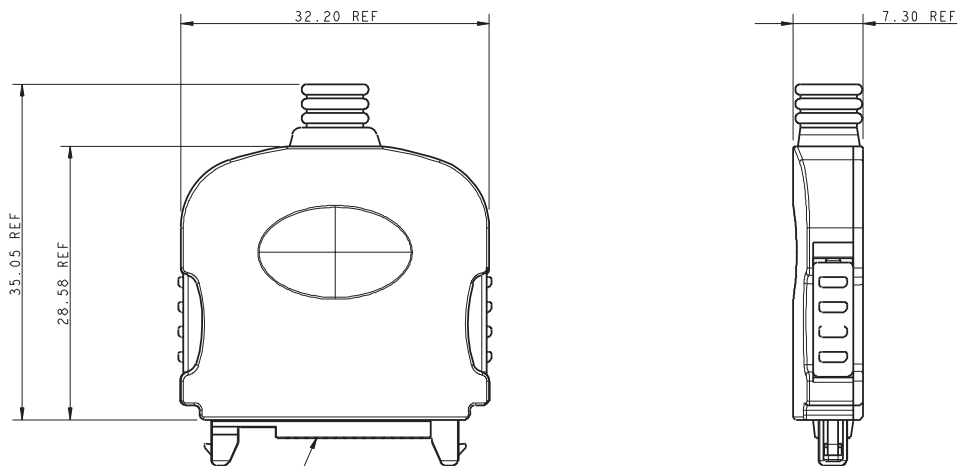
Standard I/O, 15 Position

XX-9157

30-9157-9700-00-XXX PRESS AND SCREW VERSION



COVER KIT SHOWN FULL ASSEMBLED WITH PLUG ASSEMBLY 10-91557-015-XXX-001



PLUG 10-9157-015-XXX-001

NOTES:
3FOR FULL PRODUCT INFORMATION REFER TO
ELCO SPECIFICATION 201-01-079.

Standard I/O, 19 Position

XX-9157



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.

APPLICATIONS

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

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.

ELECTRICAL

- Current Rating: 1.5 Amps / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: Glass-Filled Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper (plug)
Phosphor Bronze (Socket)
- Plating: Gold over Nickel
- Durability: 10,000 Cycles

AVAILABLE DEVICES:

10 9157 019 000 006

10 9157 019 000 007

20 9157 019 000 006

30 9157 97 XX 00 000

Plug wire version

SMT charging version

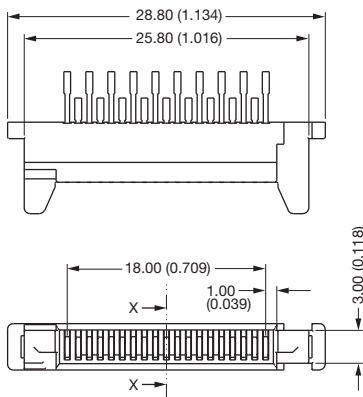
90 degree SMT socket

Cover options

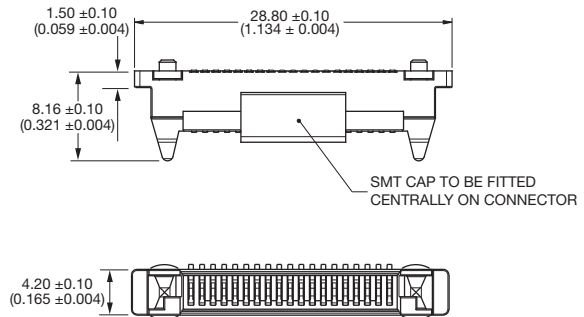
Standard I/O, 19 Position

XX-9157

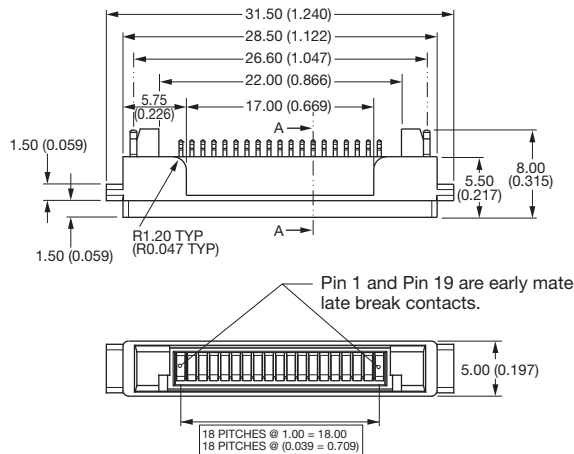
Plug Wire



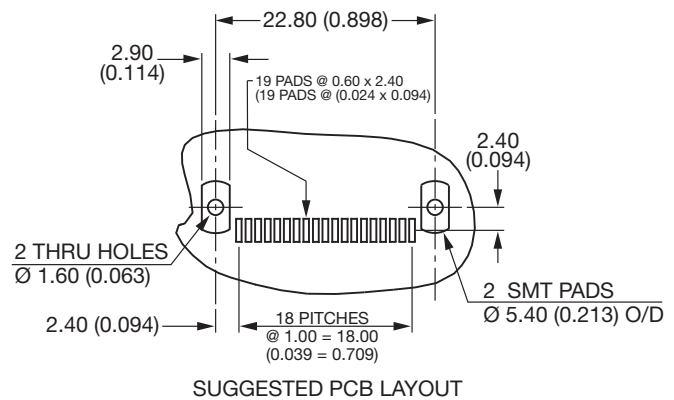
SMT Plug



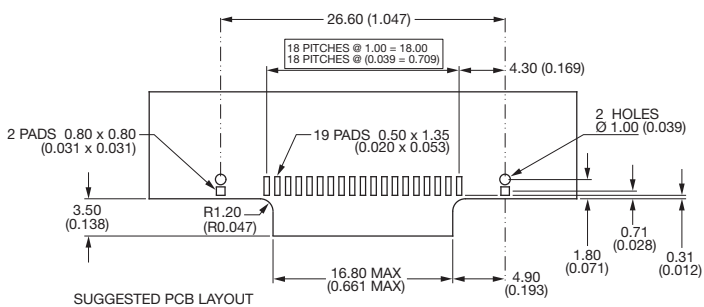
SMT Socket



SMT Plug (Suggested PCB Layout)



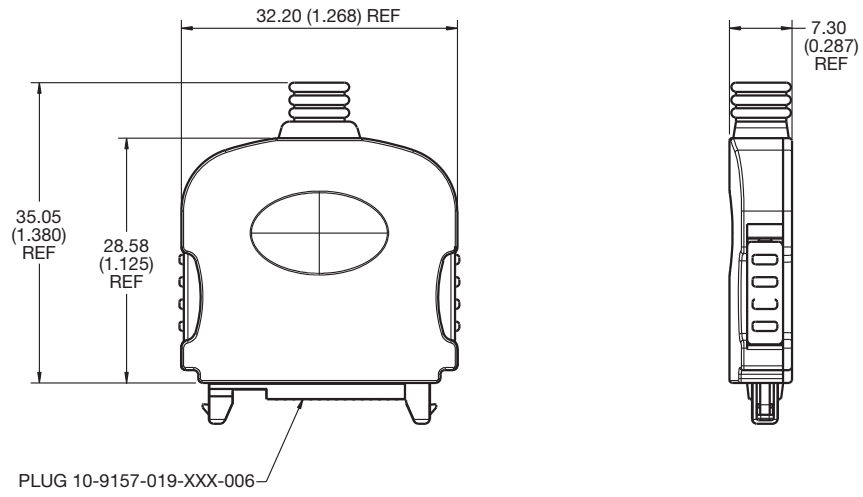
SMT Socket (Suggested PCB Layout)



Standard I/O, 19 Position

XX-9157

Cover Kit



Reduced Size I/O, 16 Position

XX-9257



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

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

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.

ELECTRICAL

- Current Rating: 1 Amp / Contact
- Voltage Rating: 125 VAC

ENVIRONMENTAL


- Operating Temperature: -55°C to +85°C

MECHANICAL

- Insulator Material: Nylon 46; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5,000 Cycles

HOW TO ORDER

Plug Options – Example

10	9257	0XX	001	003	PACKING	
Prefix 10 = Plug	Series	No of Ways 008 = 8 Way – One side of the moulding loaded with contacts 016 = 16 Way – Both sides of the moulding loaded with contacts	Contact 001 = Solder Bucket	Plating Option 003 = 0.8µm Selective Gold, Pure Tin Tail	Parts packed in tubes 50 per tube	

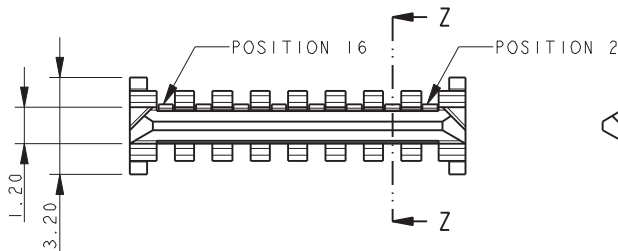
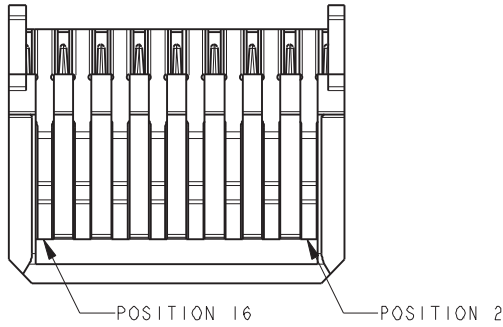
Socket Options – Example

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

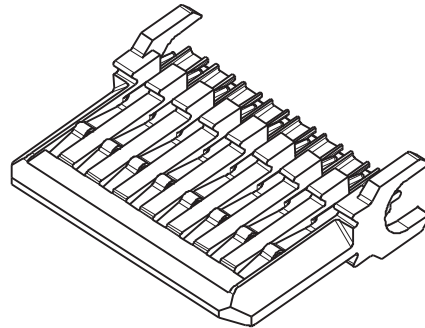
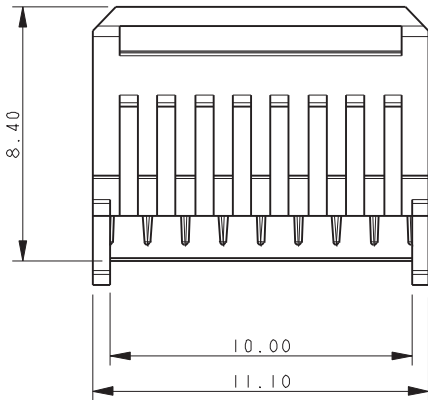
Reduced Size I/O, 16 Position

XX-9257

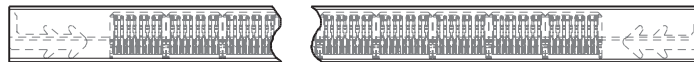
SINGLE SIDED 8 WAY I/O PLUG CONNECTOR



SECTION Z-Z



50 PARTS PER TUBE



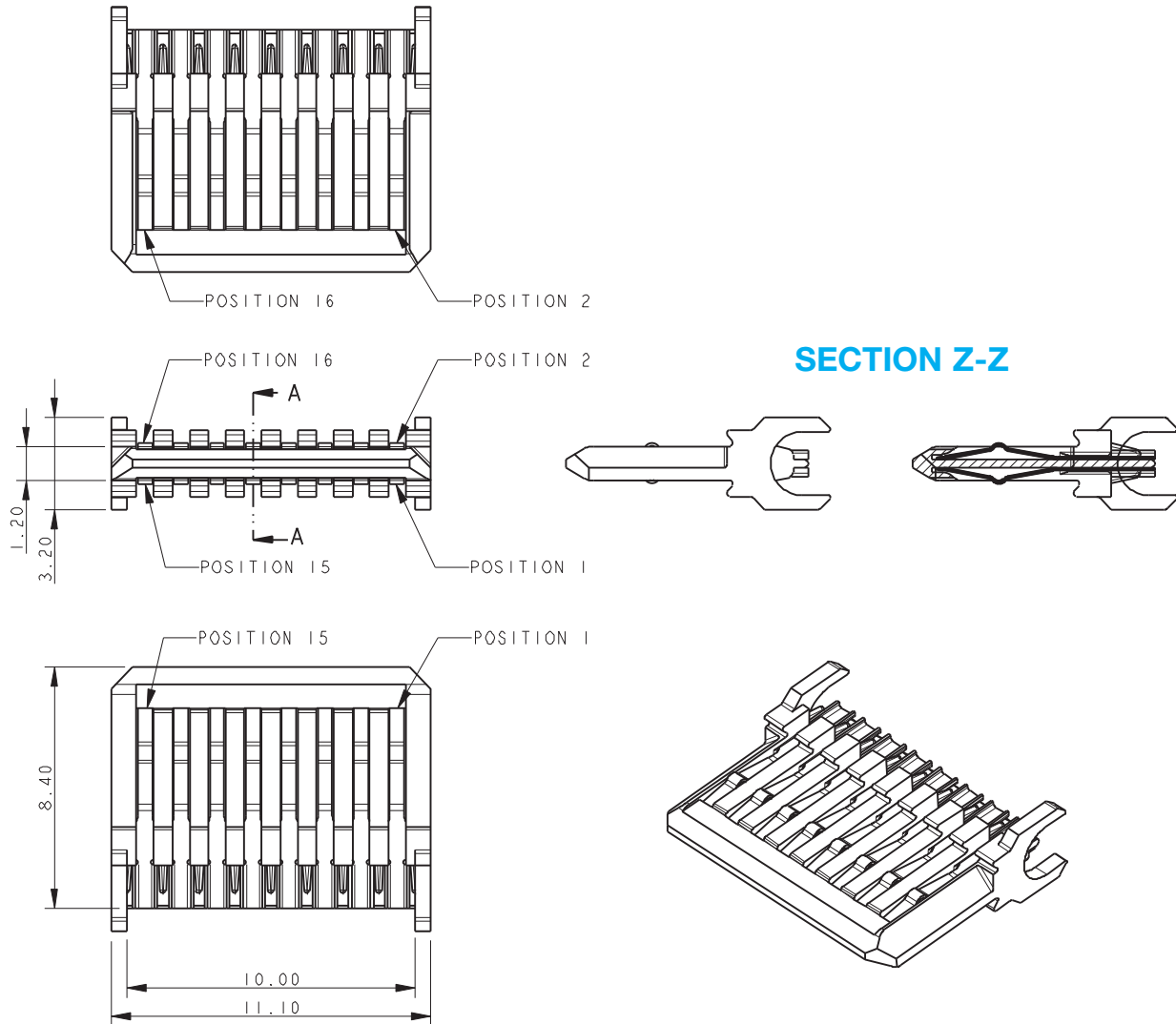
NOTES:

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS TOLERANCED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-089.
3. POSITIONS 2, 4, 6 ... 16 USED, POSITION 1, 3, 5 ... UNUSED.

Reduced Size I/O, 16 Position

XX-9257

DOUBLE SIDED 16 WAY I/O PLUG CONNECTOR



50 PARTS PER TUBE



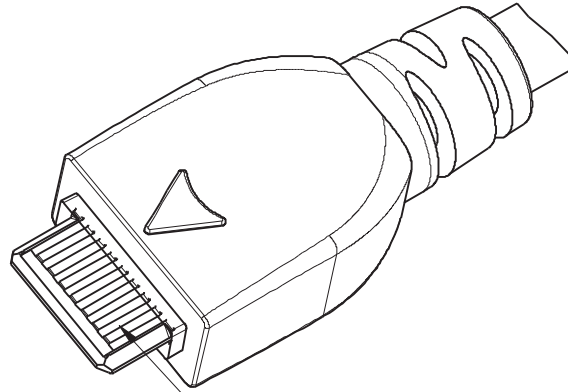
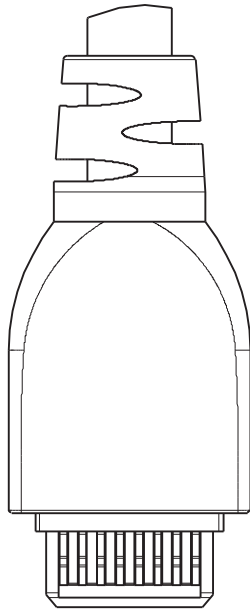
NOTES:

1. ALL DIMENSIONS ARE FOR REFERENCE ONLY UNLESS TOLERANCED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-089.
3. POSITIONS 2, 4, 6 ... 16 USED, POSITION 1, 3, 5 ... UNUSED.

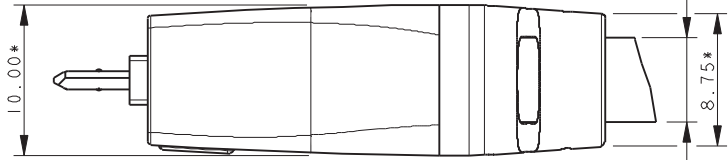
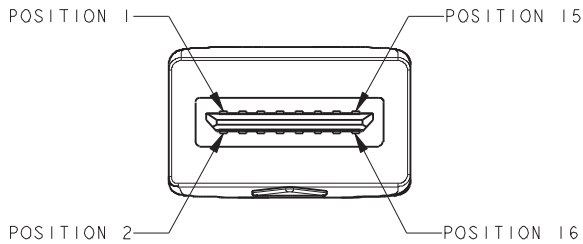
Reduced Size I/O, 16 Position

XX-9257

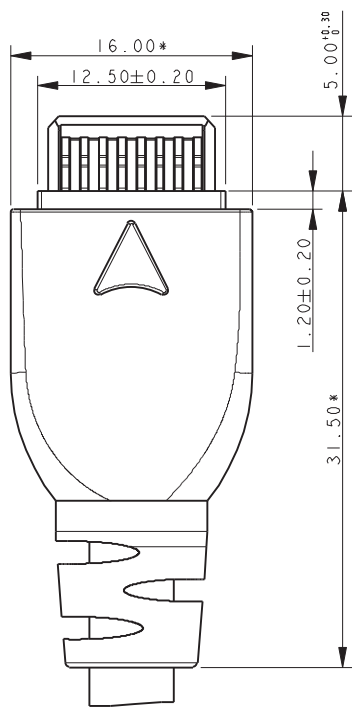
SUGGESTED OVERMOULDING FOR PLUG CONNECTOR (16 WAY – STANDARD STYLE)



FACIA AREA DESIGNED TO ALLOW FOR SOCKET CONNECTOR TO BE RECESSED IN CASING



CABLE DIAMETER
NOTE 3



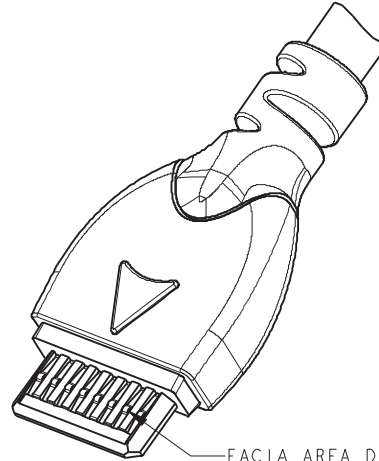
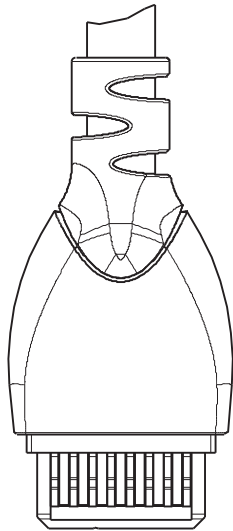
NOTES:

1. STANDARD STRAIN RELIEF MOULDING.
2. DIMENSION MARKED WITH A * ARE VARIABLE DIMENSION TO SUIT CUSTOMER DESIGN AND APPLICATION.
3. TYPICALLY FOR CABLE OUTER JACKET DIAMETERS ABOVE 4.50MM.

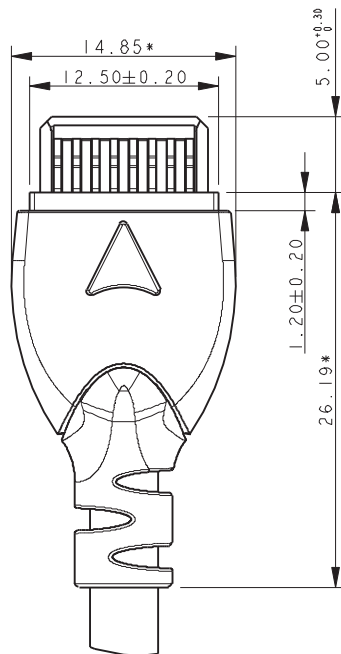
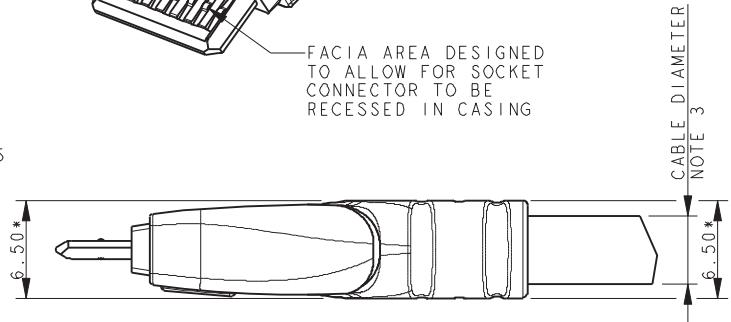
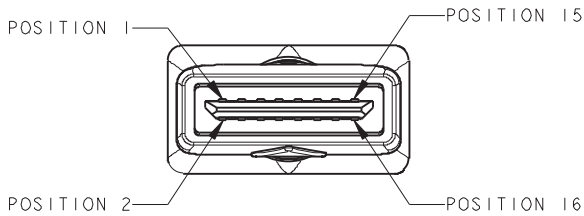
Reduced Size I/O, 16 Position

XX-9257

SUGGESTED OVERMOULDING FOR PLUG CONNECTOR (16 WAY – SLIM STYLE)



FACIA AREA DESIGNED TO ALLOW FOR SOCKET CONNECTOR TO BE RECESSED IN CASING



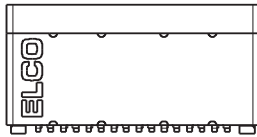
NOTES:

1. STANDARD STRAIN RELIEF MOULDING.
2. DIMENSION MARKED WITH A * ARE VARIABLE DIMENSION TO SUIT CUSTOMER DESIGN AND APPLICATION.
3. TYPICALLY FOR CABLE OUTER JACKET DIAMETERS ABOVE 4.50MM.

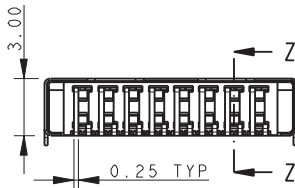
Reduced Size I/O, 16 Position

XX-9257

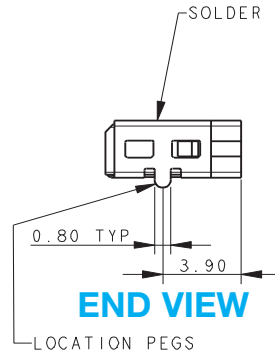
16 WAY SOCKET CONNECTOR



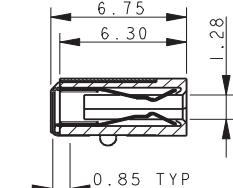
TOP VIEW



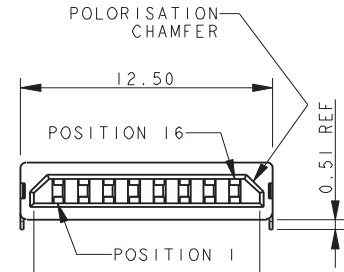
REAR VIEW



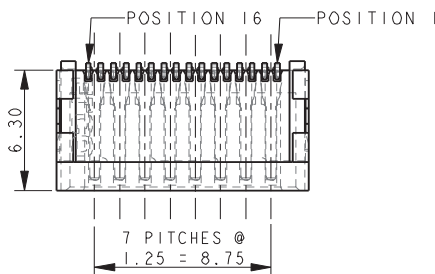
END VIEW



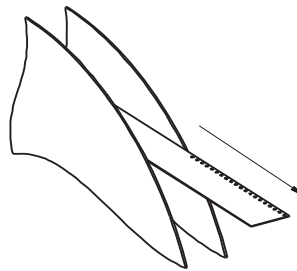
SECTION Z-Z



FRONT VIEW

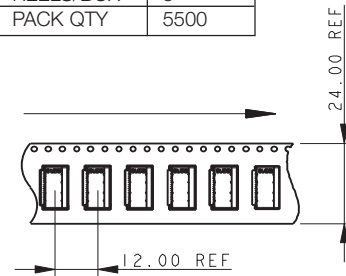


UNDERSIDE VIEW

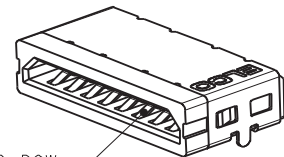
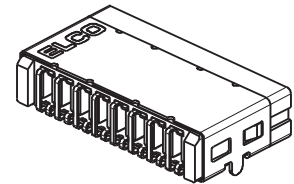
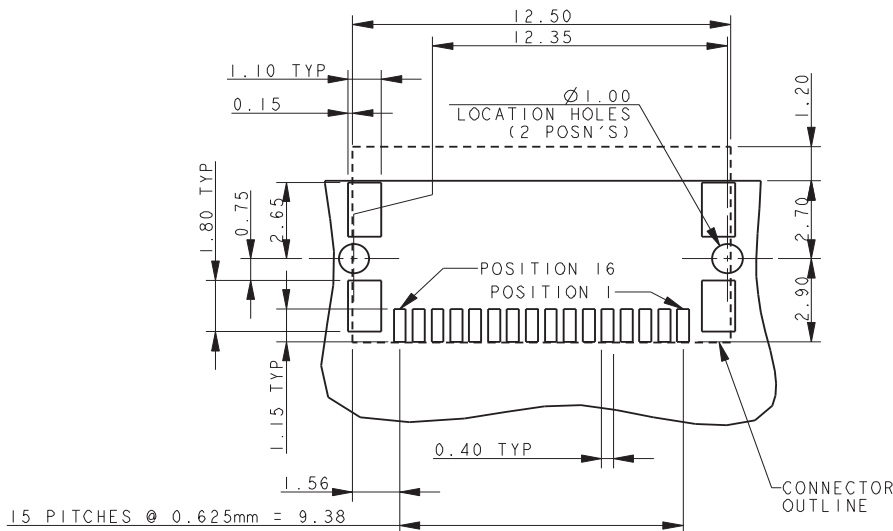


PACKING DETAILS

REEL QTY	1100
LEADER	33 PKTS
TRAILER	33 PKTS
REELS/BOX	5
PACK QTY	5500



PCB LAYOUT



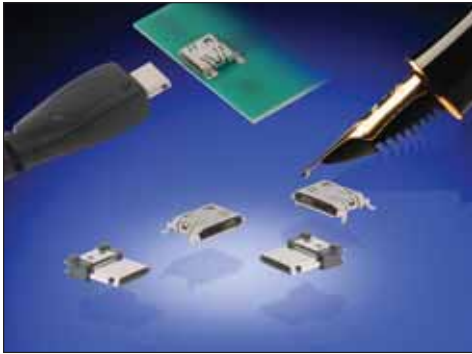
ODD NUMBERED CONTACTS LOWER ROW
EVEN NUMBERED CONTACTS UPPER ROW

NOTES:

1. PROPOSAL FOR 16 WAY I/O SOCKET.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELECO SPEC 201-01-089.
3. GENERAL TOLERANCE $\pm 0.20\text{MM}$ UNLESS OTHERWISE STATED.
4. SMT FEET WITHIN $\pm 0.10\text{MM}$ COPLANARITY.

Mini I/O, 12 Position

XX-9257



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

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.

ELECTRICAL

- Current Rating: 0.5 Amp / Contact
- Voltage Rating: 50 VAC

ENVIRONMENTAL


- Operating Temperature: -55°C to +85°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 V-O
- Contact Material: Phosphor Bronze (Plug)
Copper Alloy (Socket)
- Plating: Gold over Nickel
- Durability: 5,000 Cycles

HOW TO ORDER

Plug Options

10	9257	012	101	006	
Prefix	Series	No of Ways	Contact	Contact Plating Option	
10 = Plug		012 = 12 Way	001 = Solder Tail	006 = 0.25µm Gold over Nickel	

Socket Options

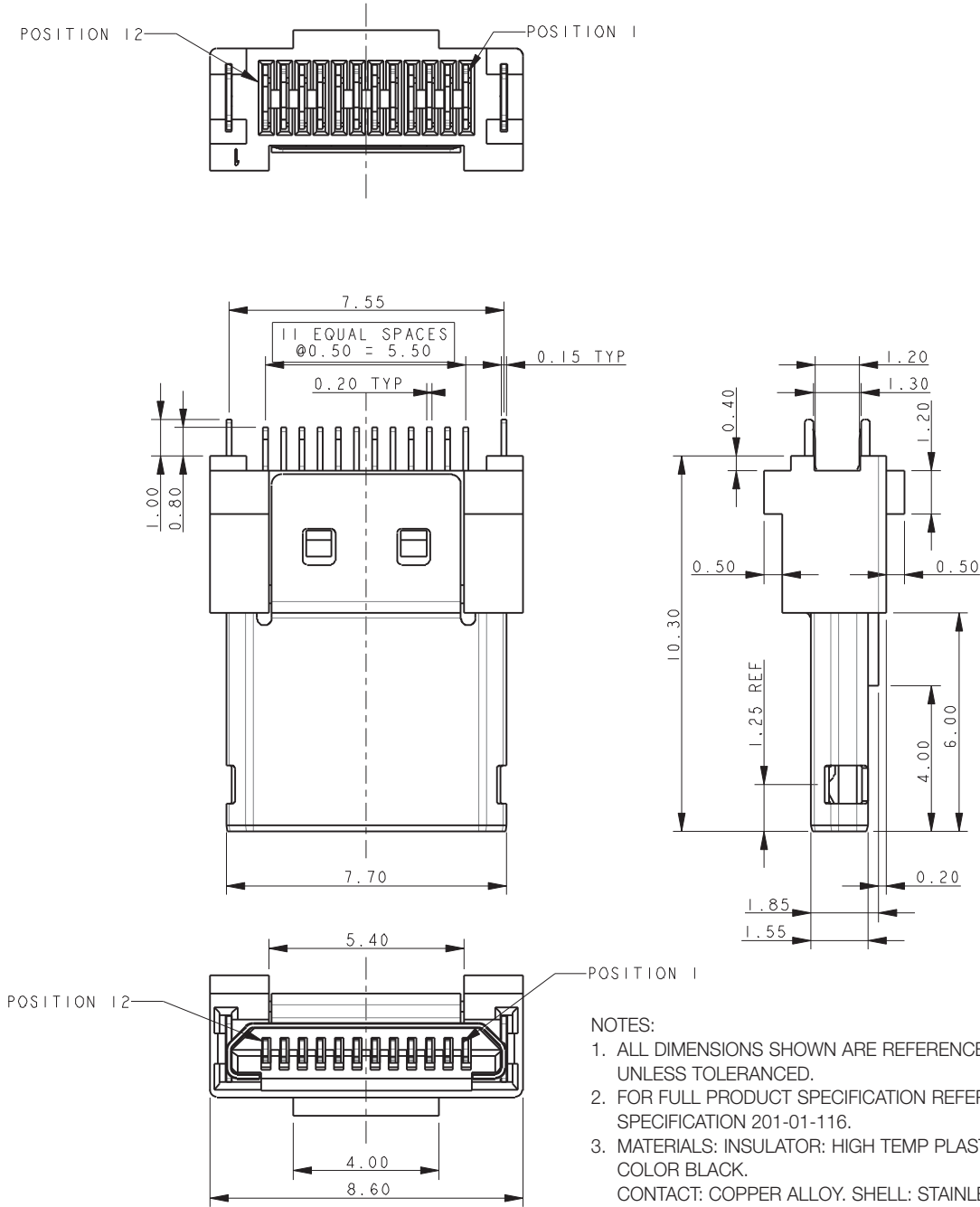
20	9257	012	101	01	6
Prefix	Series	No of Ways	Contact	Solder Bracket	Plating Option
20 = Socket		012 = 12 Way	101 = SMT Termination	01 = Solder Bracket with Location Pegs	3 = 0.25µm Gold over Nickel

Certification: UL File #E90723

Mini I/O, 12 Position

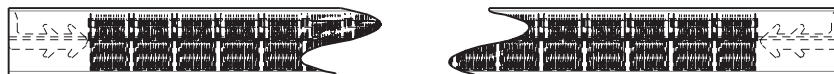
XX-9257

9257 STANDARD 12 WAY MINI I/O PLUG



- NOTES:
1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
 2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-116.
 3. MATERIALS: INSULATOR: HIGH TEMP PLASTIC, UL94 V-O, COLOR BLACK.
CONTACT: COPPER ALLOY. SHELL: STAINLESS STEEL.
 4. PLATING: CONTACT: GOLD OVER NICKEL. SHELL: GOLD OVER NICKEL.
 5. PACKED IN TUBES, 60 PIECES PER TUBE.

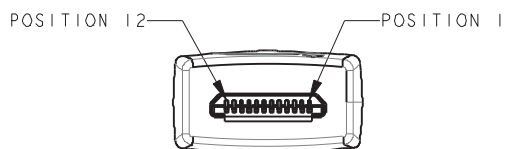
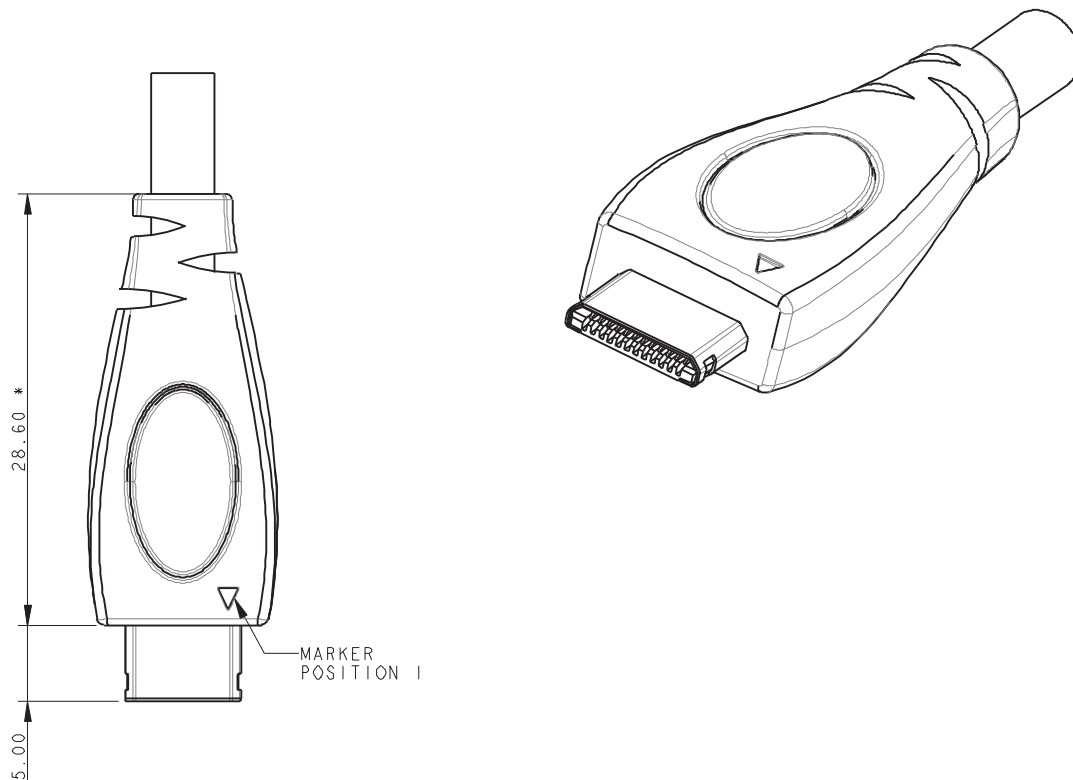
PACKING DETAILS 60 PARTS PER TUBE



Mini I/O, 12 Position

XX-9257

SUGGESTED OVERMOULDING FOR PLUG CONNECTOR

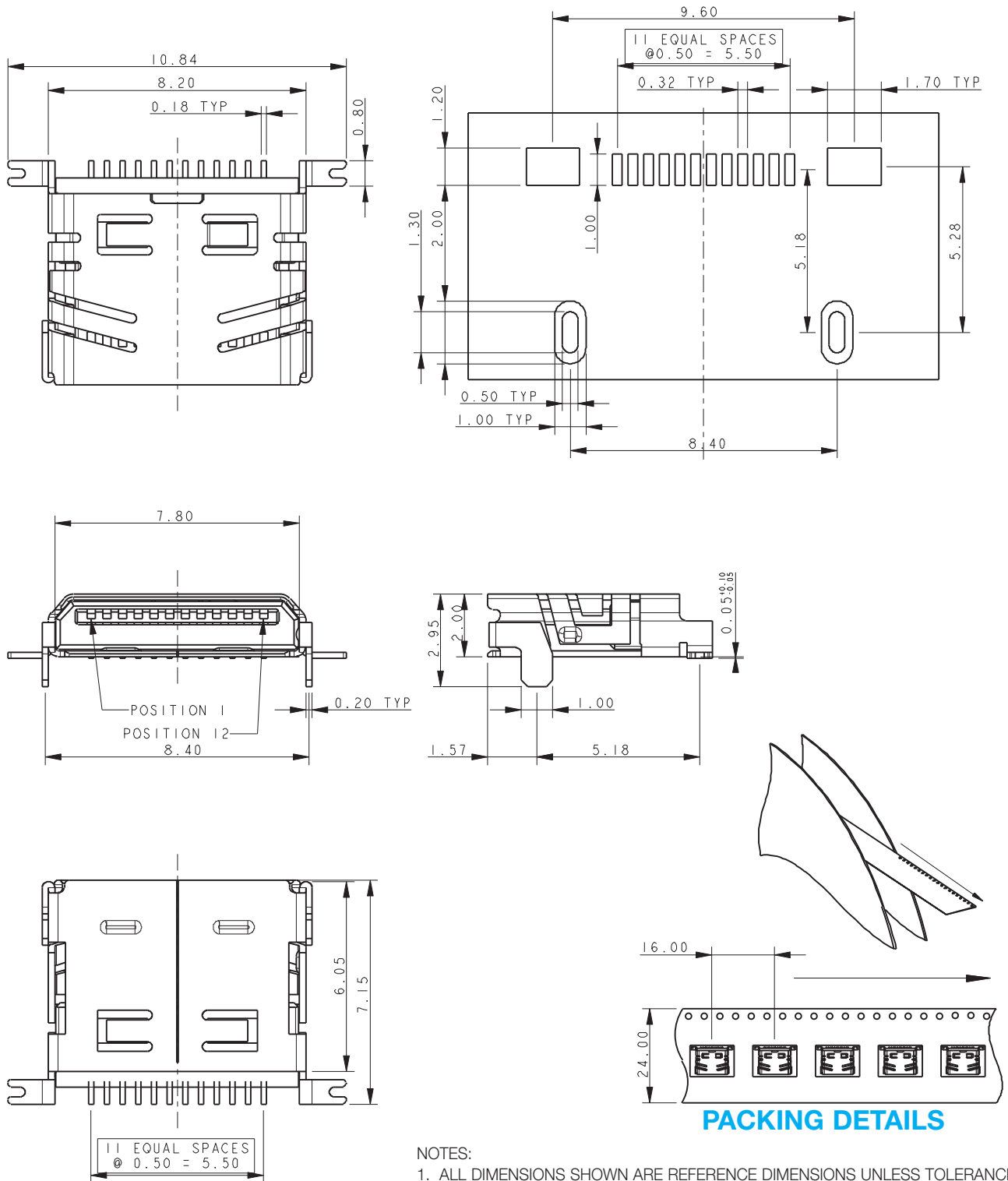


NOTES:
DIMENSIONS MARKED WITH A * ARE VARIABLE DIMENSIONS
TO SUIT CUSTOMER DESIGN AND APPLICATION

Mini I/O, 12 Position

XX-9257

9257 STANDARD 12 WAY MINI I/O SOCKET

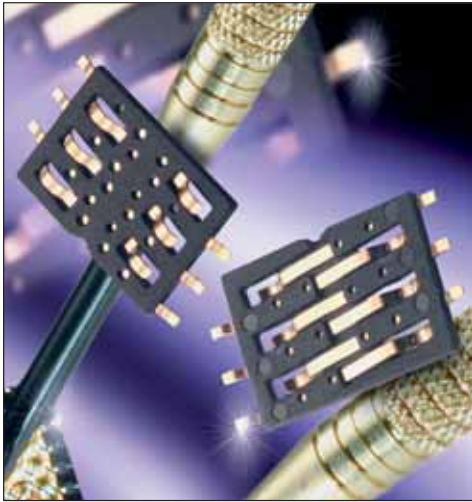


NOTES:

1. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
2. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPECIFICATION 201-01-116.
3. MATERIALS: INSULATOR: HIGH TEMP PLASTIC, UL94 V-0, COLOR BLACK.
CONTACT: COPPER ALLOY. SHELL: STAINLESS STEEL.
4. PLATING: CONTACT: GOLD OVER NICKEL. SHELL: GOLD OVER NICKEL.
5. PACKED IN TAPE AND REEL, 1200 PIECES PER REEL.

SIM Block

9162-000



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 with a 0.8mm height.

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.

Please contact the appropriate sales office for further details.

APPLICATIONS

- Cellular Phones
- Radios

FEATURES AND BENEFITS

- Produced for use with both full ISO cards and mini 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.
- RoHS Compliant.

ELECTRICAL

- Current Rating: 0.5 Amp / Contact
- Voltage Rating: 50 VAC

ENVIRONMENTAL

- Operating Temperature:
-55°C to +80°C

MECHANICAL

- Insulator Material: Glass Filled LCP
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: 5,000 Cycles

HOW TO ORDER

00
Prefix

9162
Series

006
Number of
Contacts

006
SIM Type
006 = SMT Low Profile
SIM Pure Tin Contact

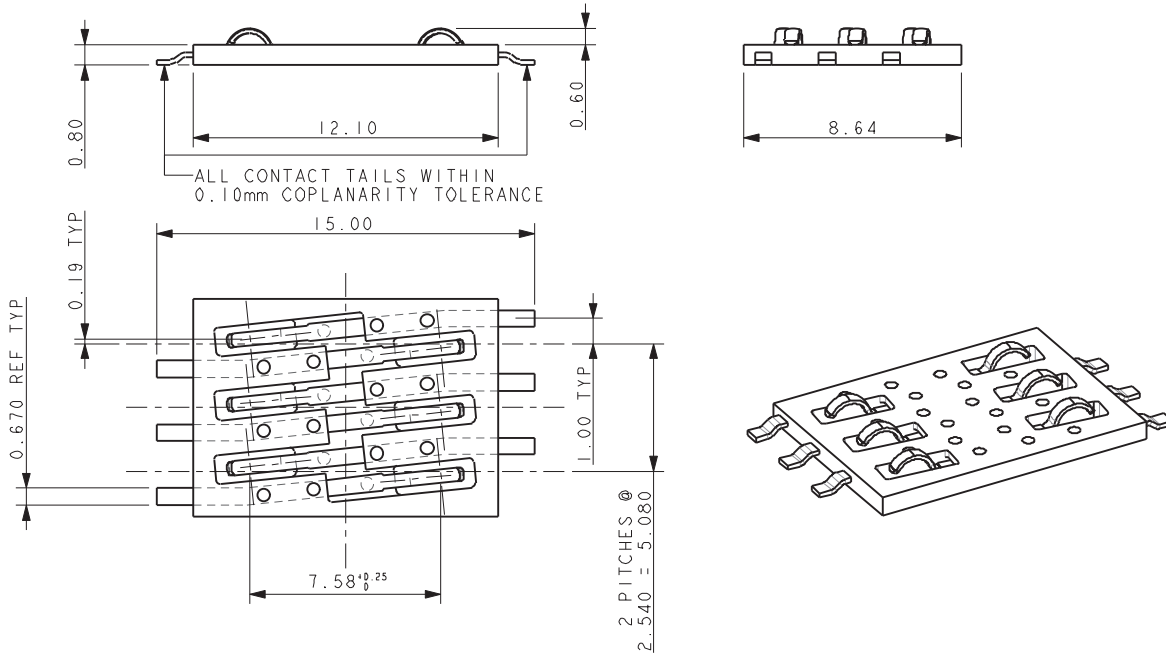
080
Connector Height
080 = 0.80mm



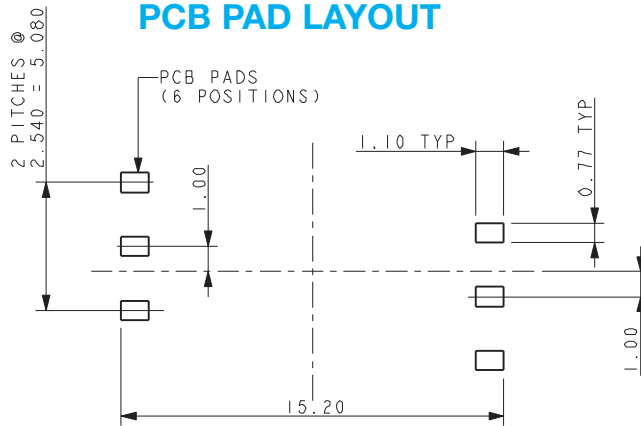
SIM Block

9162-000

CONNECTOR HEIGHT 0.80MM

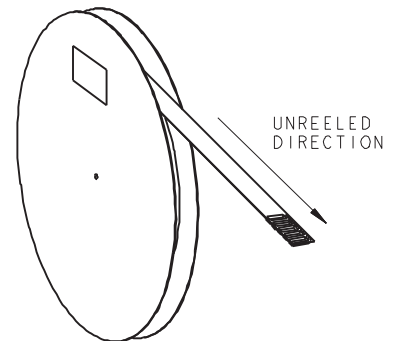
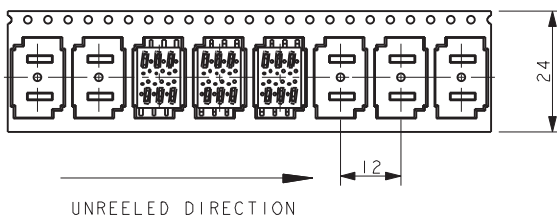


PCB PAD LAYOUT



PACKING DETAILS

REEL QTY	1300
LEADER	500MM
TRAILER	500MM
REELS/BOX	5
PACK QTY	6500



(SHOWING USER DIRECTION OF FEED)

NOTES:

1. SALES DRAWING FOR SLIDE IN SIM READER.
2. FOR PRODUCT SPECIFICATION REFER TO ELCO SPEC. 201-01-084.
3. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
4. INSULATOR MATERIAL: LCP, GLASS FILLED, COLOR BLACK.
5. CONTACT MATERIAL COPPER ALLOY: SIM CONTACTS NOSE PLATED WITH GOLD, SMT PADS PLATED WITH PURE TIN.

Slide-In SIM

9162-200



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.

APPLICATIONS

- Cellular Phones
- Radios

FEATURES AND BENEFITS

- Produced for use with mini 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.

ELECTRICAL

- Current Rating: 0.5 Amp / Contact
- Voltage Rating: 50 VAC

ENVIRONMENTAL

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

MECHANICAL

- Insulator Material: Glass Filled LCP
- Contact Material: Phosphor Bronze
- Plating: Gold over Nickel
- Durability: 5,000 Cycles

HOW TO ORDER

00

Prefix

9162

Series

006

Number of
Contacts

2X

SIM Type

20 = Standard SMT Foot
Slide-in SIM Reader
21 = Narrow SMT Foot
Slide-in SIM Reader

6

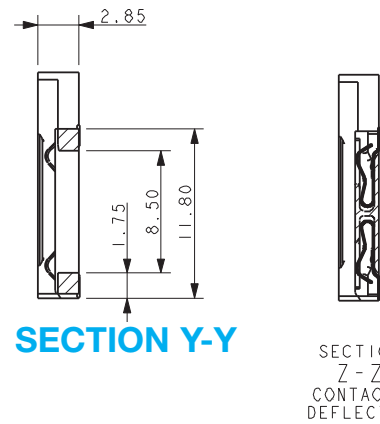
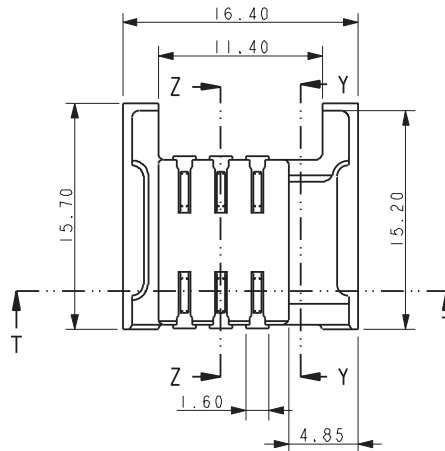
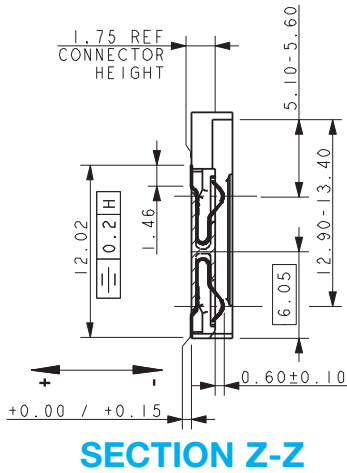
Plating Option
6 = Selective Gold
Pure Tin Tails

175

Connector Height
175 = 1.750mm
See pages 63 & 64

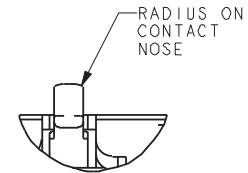
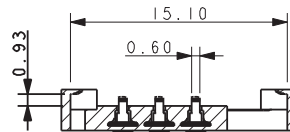


WIDE SMT FOOT VERSION

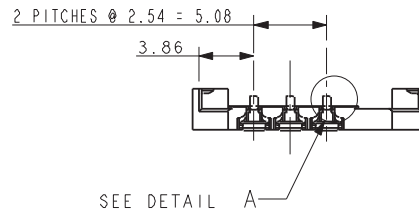


CONTACT TAILS WITHIN 0.10mm COPLANARITY TOLERANCE SINGLE ROW

PART SECTION Z-Z ROTATED THRO 90°

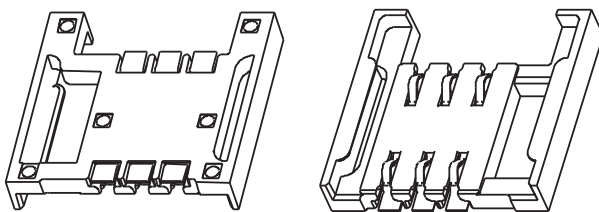


DETAIL A

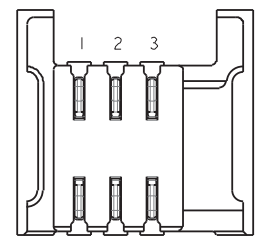
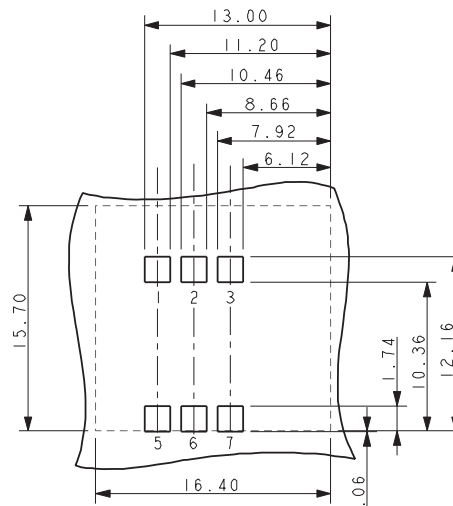


CONTACT FUNCTIONS (ISO78161):

1. SSUPPLY VOLTAGE Vcc.
2. RESET
3. CLOCK
4. GROUND
5. PROGRAM VOLTAGE Vpp.
6. I/O



PAD LAYOUT

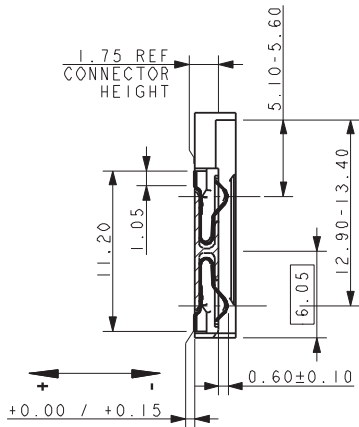


SIM ORIENTATION

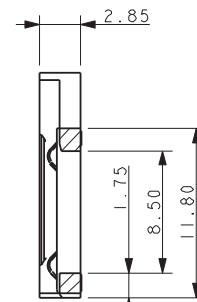
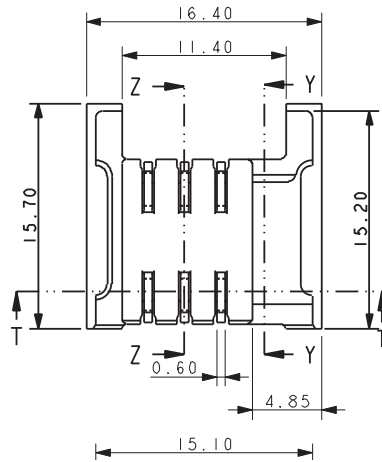
NOTES:

1. SALES DRAWING FOR SLIDE IN SIM READER.
2. FOR PRODUCT SPECIFICATION REFER TO ELCO SPEC. 201-01-085.
3. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
4. INSULATOR MATERIAL: NYLON GLASS FILLED.
5. CONTACT MATERIAL COPPER ALLOY: SIM CONTACTS NOSE PLATED WITH GOLD, SMT PADS PLATED WITH PURE TIN.
6. PACKING DETAILS SEE PAGE 65.

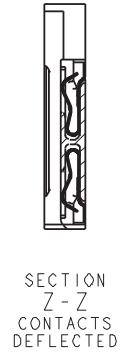
NARROW SMT FOOT VERSION



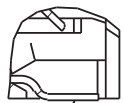
SECTION Z-Z



SECTION Y-Y



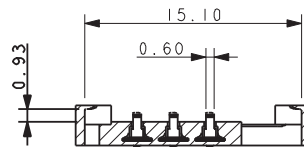
SECTION Z-Z
CONTACTS
DEFLECTED



CONTACT TAILS
WITHIN 0.10mm
COPLANARITY
TOLERANCE
SINGLE ROW

PART SECTION Z-Z
ROTATED THRO' 90°

PART SECTION Z-Z ROTATED THRO' 90°

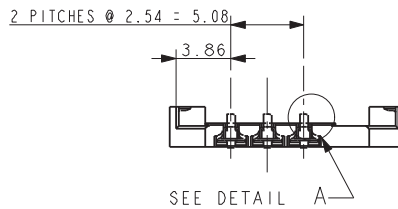


SECTION T-T

RADIUS ON
CONTACT NOSE

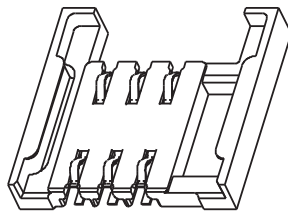
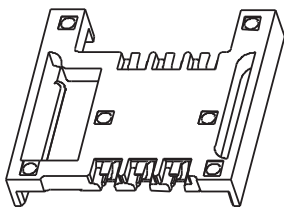


DETAIL A

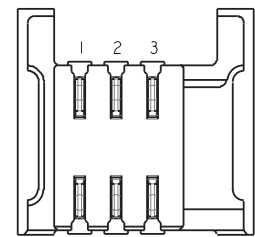
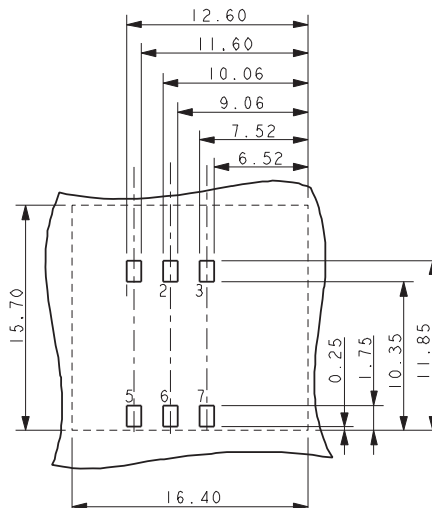


CONTACT FUNCTIONS (ISO78161):

1. SSUPPLY VOLTAGE Vcc.
2. RESET
3. CLOCK
4. GROUND
5. PROGRAM VOLTAGE Vpp.
6. I/O



PAD LAYOUT



SIM
ORIENTATION

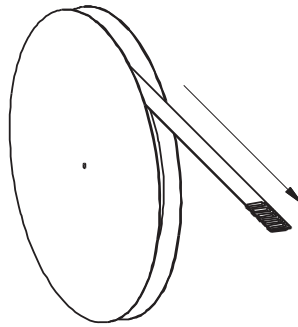
NOTES:

1. SALES DRAWING FOR SLIDE IN SIM READER.
2. FOR PRODUCT SPECIFICATION REFER TO ELCO SPEC. 201-01-085.
3. GENERAL TOLERANCE ± 0.20 UNLESS OTHERWISE STATED.
4. INSULATOR MATERIAL: NYLON GLASS FILLED.
5. CONTACT MATERIAL COPPER ALLOY:
SIM CONTACTS NOSE PLATED WITH GOLD,
SMT PADS PLATED WITH PURE TIN.
6. PACKING DETAILS SEE PAGE 65.

Slide-In SIM

9162-200

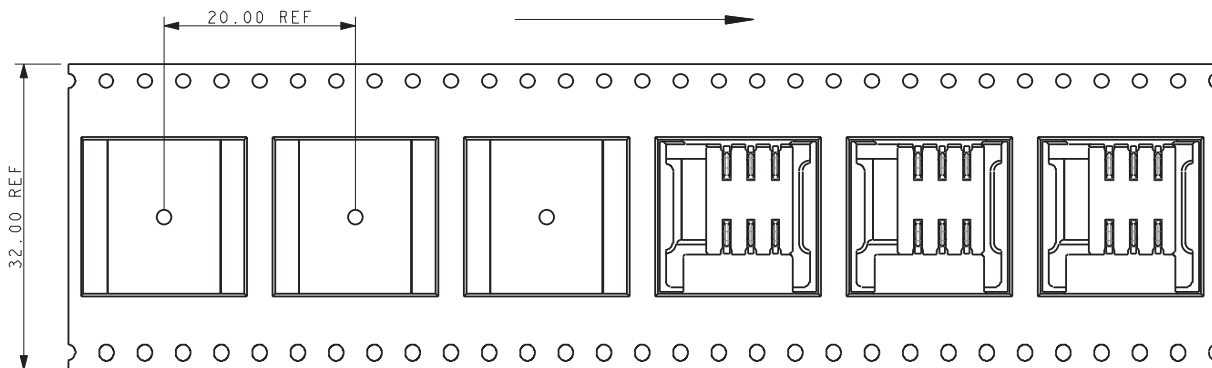
PACKING DETAILS



(SHOWING USER DIRECTION OF FEED)

Reel Size 380mm Dia.

REEL QTY	1100
LEADER	500MM
TRAILER	500MM
REELS/BOX	4
PACK QTY	4400



Locking SIM

9162-300



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

APPLICATIONS

- Cellular Phones
- Radios

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

ELECTRICAL

- Current Rating: 0.3 Amp / Contact
- Voltage Rating: 30 VAC

ENVIRONMENTAL

- Operating Temperature: -55°C to +125°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 V-O
- Contact Material: Copper Alloy
- Plating: Gold over Nickel
- Durability: 10,000 Cycles

HOW TO ORDER

00

Prefix

9162

Series

006

Number of
Contacts

30

SIM Type
30 = SMT with Locking
Hinge SIM Guide

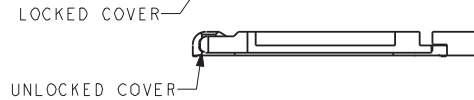
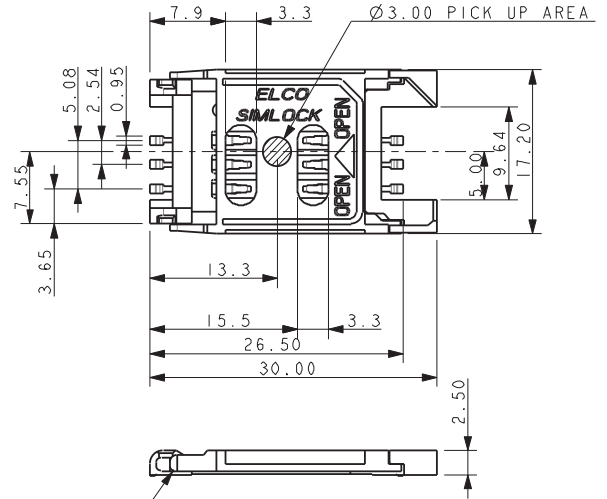
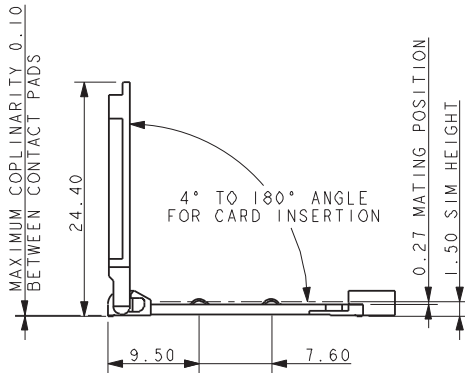
1

Contact Plating
1 = Selective Gold on Contact
Surface and Tin on Solder Tails

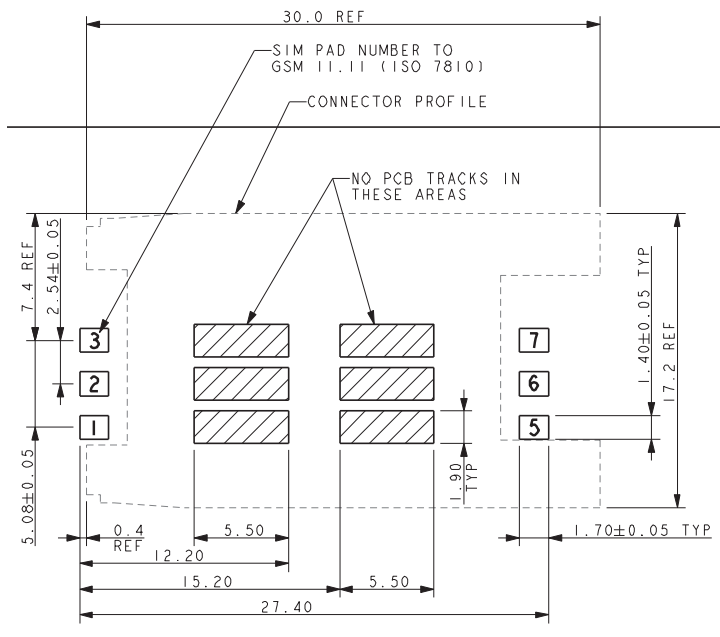
150

SIM Height
150 = 1.50mm on SIM Card
2.50mm on Connector

CONNECTOR DETAILS



SUGGESTED PCB LAYOUT



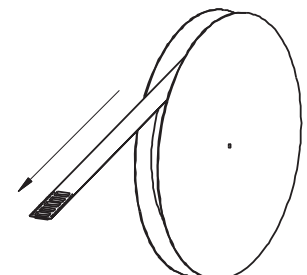
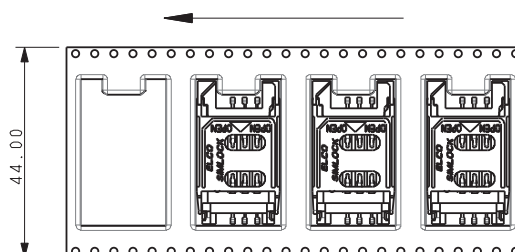
NOTES:

1. SALES DRAWING FOR SIMLOCK SIM READER.
2. ALL DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. FOR PRODUCT SPECIFICATION REFER TO ELCO SPEC. 201-01-111.
4. PACKING IN TAPE AND REEL, 600 PIECES IN A 330MM REEL.
5. MATERIAL: COVER AND HOUSING: HIGH TEMPERATURE THERMOPLASTIC UL94 V-O, COLOR BLACK. CONTACT: COPPER ALLOY, GOLD PLATING IN CONTACT AREA, TIN PLATING ON SOLDER TAILS, NICKEL UNDERCOAT ON ALL SURFACES.

PACKING DETAILS

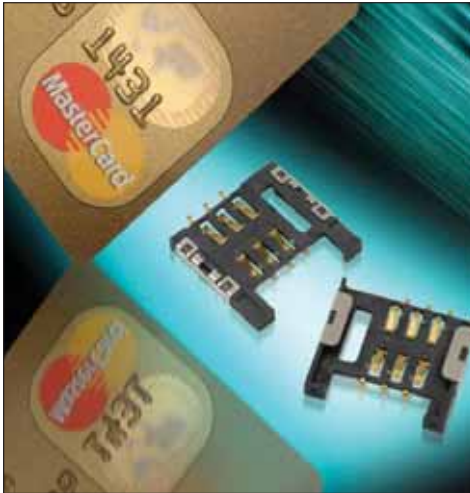
CONTACT FUNCTIONS (ISO78161):

1. SSUPPLY VOLTAGE Vcc.
2. RESET
3. CLOCK
4. GROUND
5. PROGRAM VOLTAGE Vpp.
6. I/O



Slide-In Low Profile SIM

9162-400



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

APPLICATIONS

- Cellular Phones
- Radios

FEATURES AND BENEFITS

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

ELECTRICAL

- Current Rating: 0.3 Amp / Contact
- Voltage Rating: 15 VAC

ENVIRONMENTAL

- Operating Temperature: -55°C to +70°C

MECHANICAL

- Insulator Material: High Temperature Plastic; UL94 V-0
- Contact Material: Copper Alloy
- Plating: Gold over Nickel
- Durability: 10,000 Cycles

HOW TO ORDER

00

Prefix

9162

Series

006

Number of
Contacts

40

SIM Type

40 = SMT Slide-in SIM

1

Contact Plating

1 = 0.38 μ m Gold on Contact Surface and Gold Flash on Solder Tails. Underplated 1.27 μ m Nickel.

070

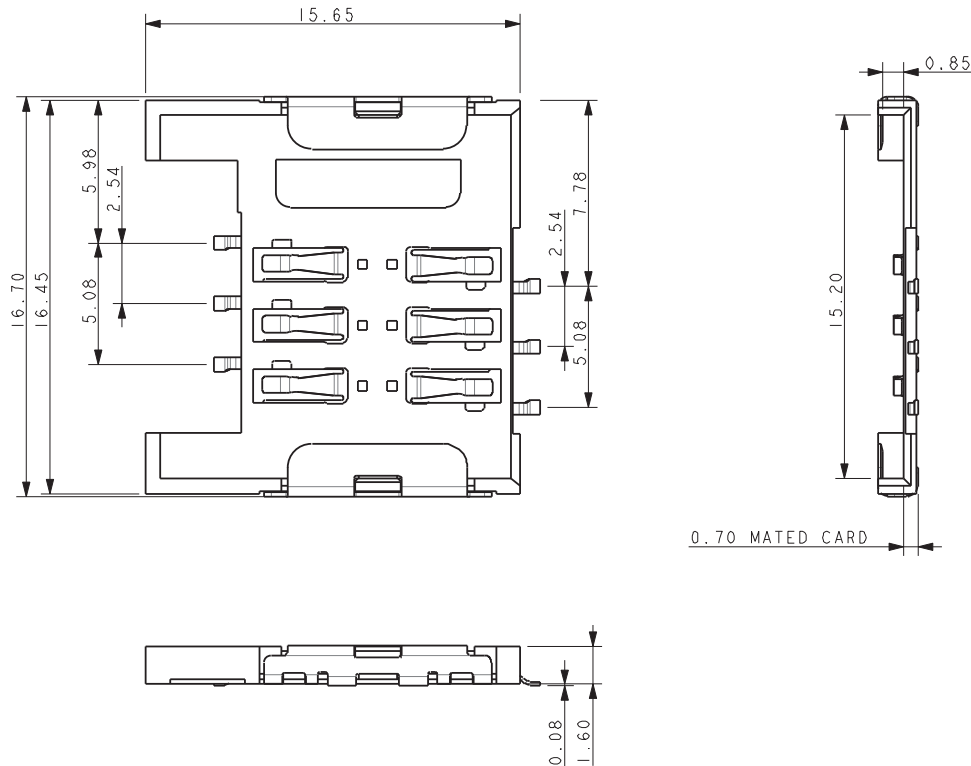
SIM Height

070 = 0.70mm on SIM Card
1.60mm on Connector

Slide-In Low Profile SIM

9162-400

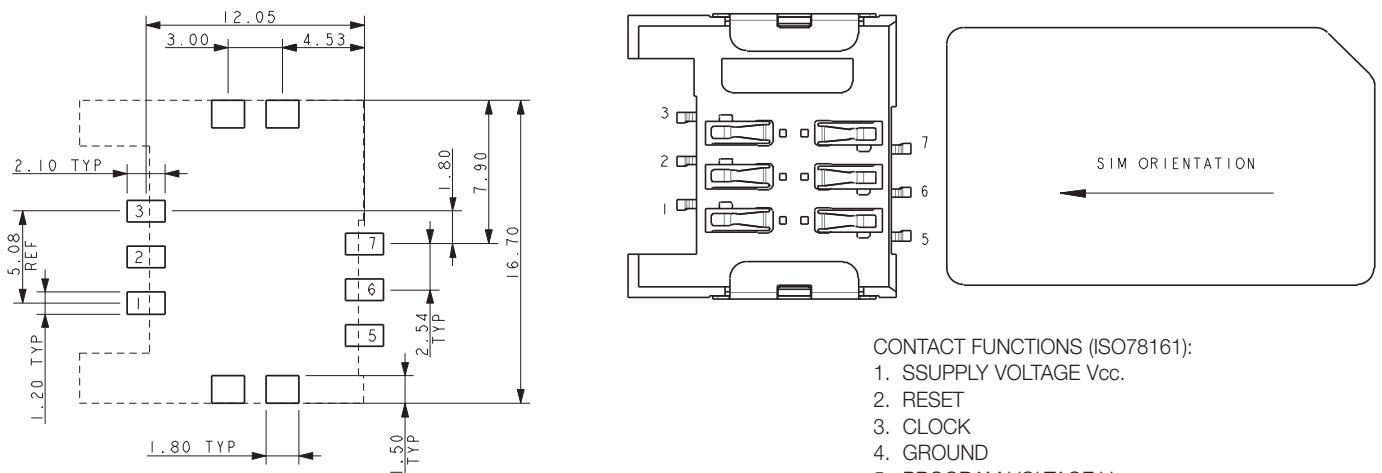
CONNECTOR DETAILS



NOTES:

1. DIMENSIONS SHOWN ARE REFERENCED DIMENSIONS.
2. INSULATOR MATERIAL: LCP, UL94 V-O, COLOR BLACK.
3. CONTACT MATERIAL: PHOSPHOR BONZE.
4. CONTACT PLATING: NICKEL ALL OVER, GOLD ON CONTACT, GOLD FLASH ON TAILS.
5. PADS: NICKEL PLATED STAINLESS STEEL, PURE TIN PLATING.
6. COPLANARITY OF PADS 0.10 MAXIMUM.
7. FOR FULL PRODUCT SPECIFICATION REFER TO ELCO SPEC 201-01-112.

SUGGESTED PCB LAYOUT



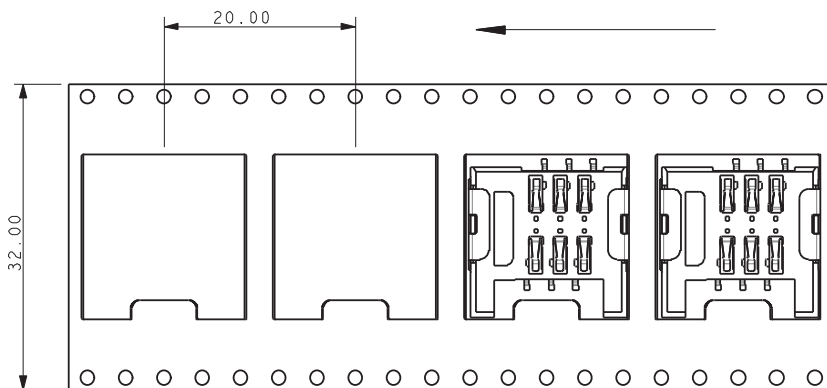
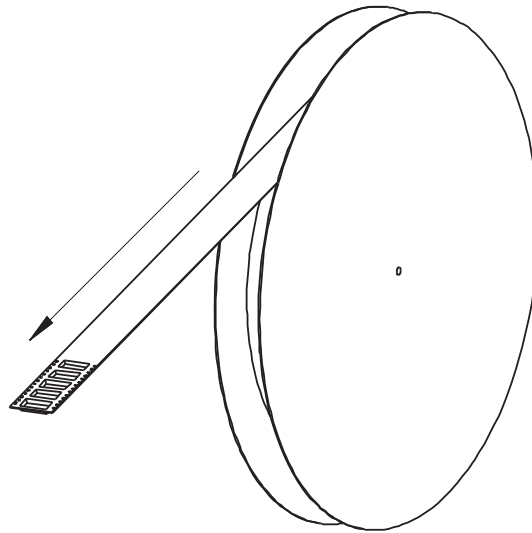
CONTACT FUNCTIONS (ISO78161):

1. SSUPPLY VOLTAGE Vcc.
2. RESET
3. CLOCK
4. GROUND
5. PROGRAM VOLTAGE Vpp.
6. I/O

Slide-In Low Profile SIM

9162-400

PACKING DETAILS



NOTES:

1. TO BE PACKED IN TAPE AND REEL.
2. 1000 PIECES ON A 330MM REEL.
3. COMPONENT DIRECTION AS SHOWN.



- 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

APPLICATIONS

- Cellular Phones
- Radios

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

ELECTRICAL

- Current Rating: 0.3 Amp / Contact
- Voltage Rating: 15 VAC

ENVIRONMENTAL

- Operating Temperature: -55°C to +70°C

MECHANICAL

- Insulator Material: LCP; UL94 V-O
- Contact Material: Beryllium Copper
- Plating: Gold over Nickel
- Durability: SIM @10,000 Cycles / SD @ 6000 Cycles

HOW TO ORDER

00
Prefix

9162
Series

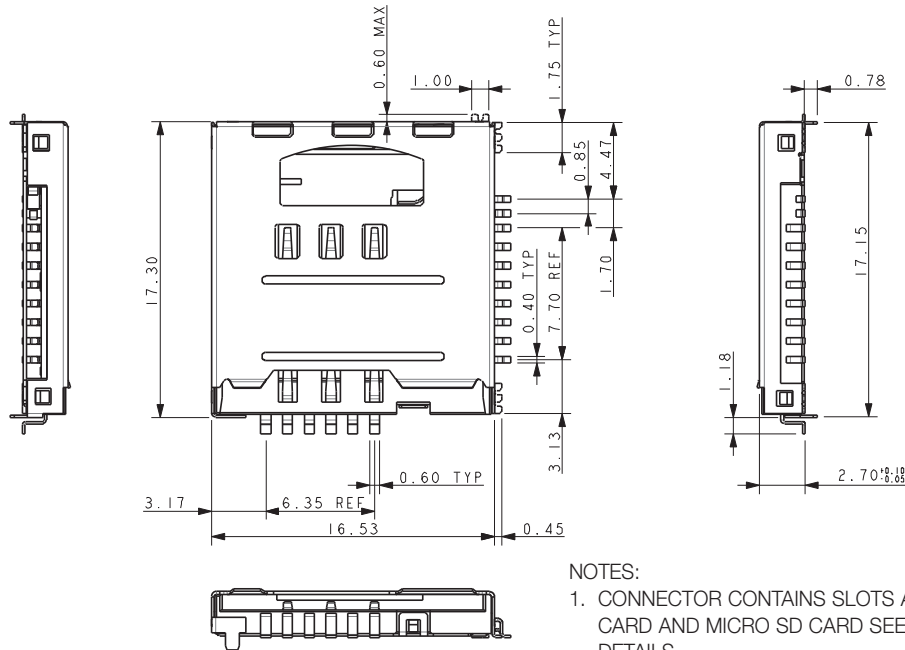
006
Number of
Contacts

50
SIM Type
50 = SMT with SIM
and Micro SD
Slots at 90°

1
Contact Plating
1 = Gold Plating over Nickel

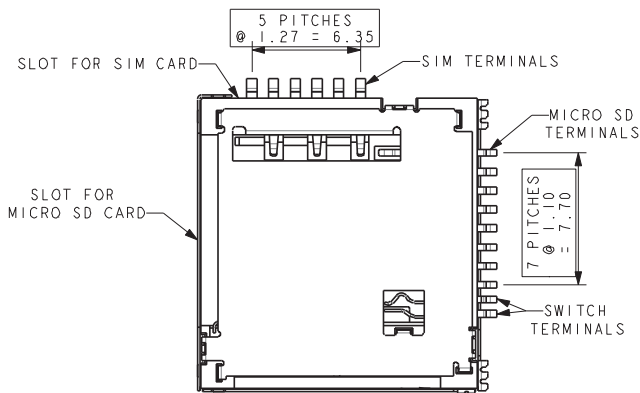
150
SIM Height
150 = 1.50mm on SIM Card
2.70mm on Connector

CONNECTOR DETAILS

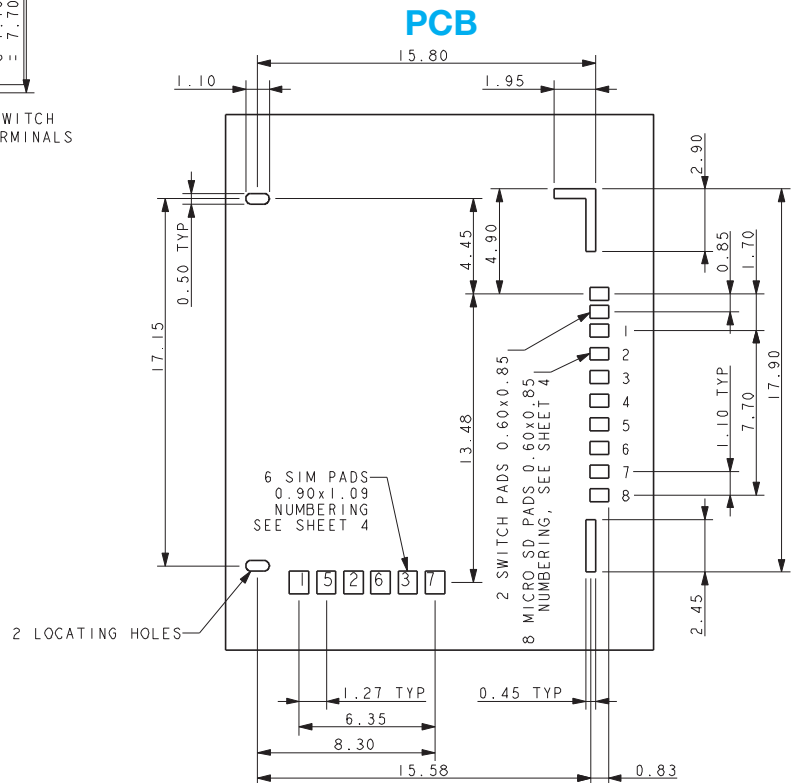
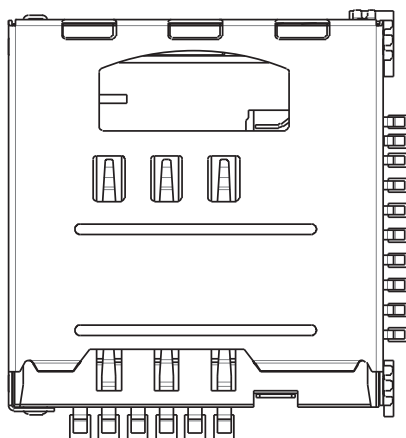


NOTES:

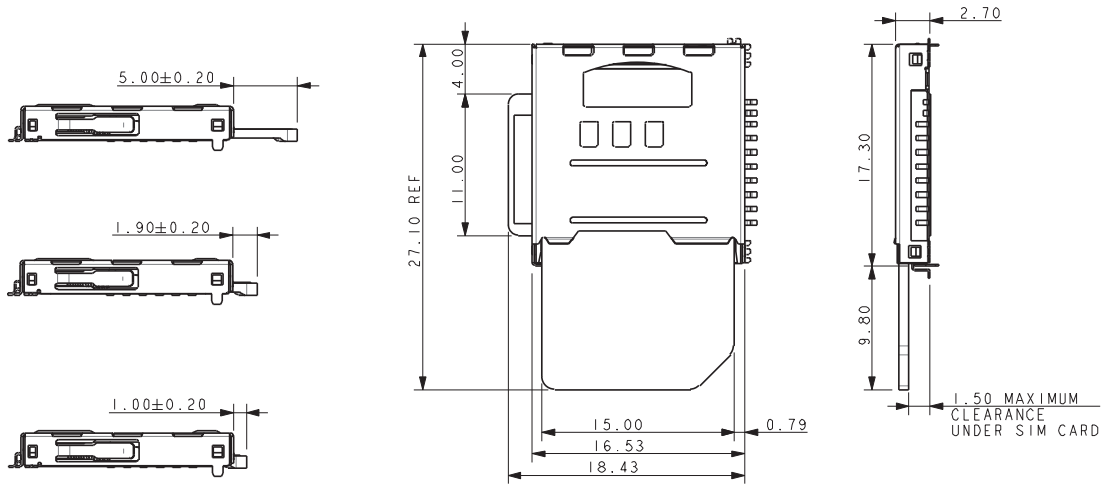
- CONNECTOR CONTAINS SLOTS AT RIGHT ANGLES FOR A SIM CARD AND MICRO SD CARD SEE PAGE 72 FOR FURTHER DETAILS.
- 6 WAY SIM CONNECTOR.
- MICRO SD CONNECTOR HAS SWITCH AND LATCH.
- DIMENSION SHOWN ARE REFERENCE DIMENSIONS.
- MATERIALS: CONTACTS: GOLD PLATED BERYLLIUM COPPER, INSULATOR: LCP, UL94 V-O, COLOR BLACK. SHELL: NICKEL PLATED STAINLESS STEEL. OTHER PARTS: STAINLESS STEEL.
- FURTHER DETAILS REFER TO ELCO SPEC 201-01-113.
- DETAILS OF PIN FUNCTIONS REFER TO PAGE 72.



CONNECTOR ON PCB

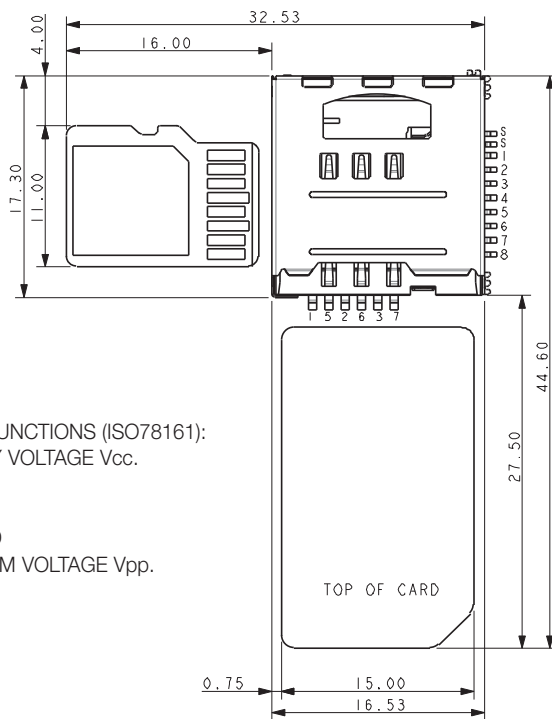


PCB SPACE USED BY CONNECTOR CARDS FULLY INSERTED



CARDS EXTRACTED

SHOWN FOR REFERENCE ONLY



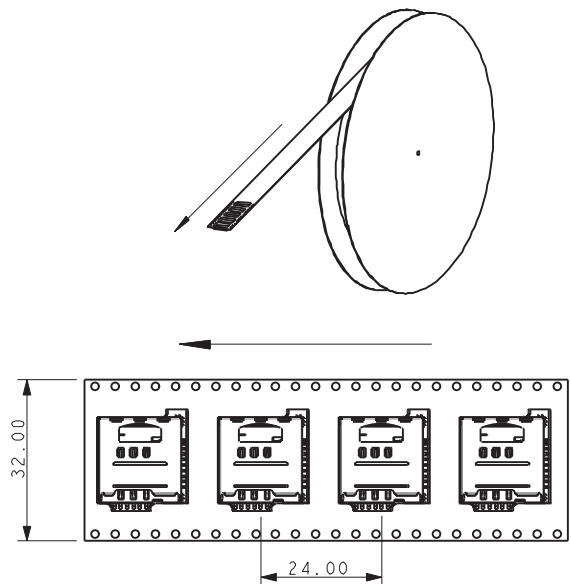
CONTACT FUNCTIONS (ISO78161):

1. SSUPPLY VOLTAGE Vcc.
2. RESET
3. CLOCK
4. GROUND
5. PROGRAM VOLTAGE Vpp.
6. I/O

MICRO SD FUNCTIONS:

- S. SWITCH
- S. SWITCH
1. DAT2
2. CD/DAT3
3. CMD
4. Vdd
5. CLOCK
6. Vss
7. DAT0
8. DAT1

PACKING DETAILS

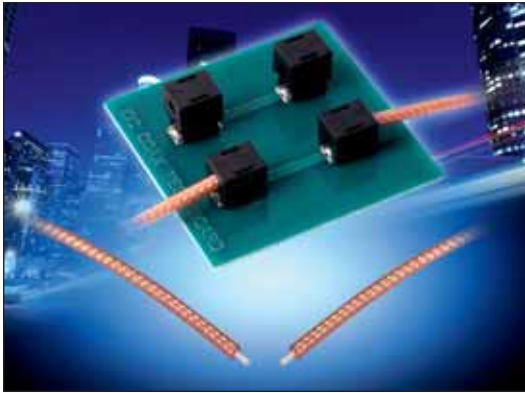


NOTES:

1. PACKING IN TAPE AND REEL, 700 PER REEL.
2. REEL SIZE 330MM DIAMETER.

IDC SMT Coax 1 Position

00-9178



AVX has developed a unique 50 Ohm SMT Coax Connector based on our industry proven discrete wire Insulation Displacement Connector (IDC) technology. By combining two different sized IDC contacts, we can reliably pierce the center conductor and outside jacket dielectric materials to make electrical connection to the signal wire and braid (ground connection). Designed specifically for RG178 cable, the concept can be applied to other cable sizes.

The connector comes with a pre-attached cap in tape & reel packaging. The coax cable only needs the outer jacket and braid stripped. The cable is then inserted into the connector and the cap can be pressed down via a small press or hand tool. The biggest advantage of this connector is that it is extremely easy to terminate, no soldering, additional stripping processes or crimp tools are needed. The all plastic design is more cost effective than plated screw machine components while providing a VSWR less than 1.2:1 in excess of 700MHz.

APPLICATIONS

- Reliable & Repeatable termination of RG178 coax cable to a PCB to replace hard solder connections
- Cost effective replacement of standard coax connectors in low frequency applications for RG178 cable
- Standard Microminiature type RF products: GPS, Radio Boards, Meters, RFID and data communications
- Application notes: refer to 201-01-131

FEATURES AND BENEFITS

- “Gas Tight” IDC termination for long term reliability
- Simple strip, insert and press down termination process
- High temperature endurance testing for 1000 hrs at 125°C
- Industrial operating temperature range for harsh environments

ELECTRICAL

- Current Rating: 0.5A
(Current limit is cable dependent)
- Voltage Rating: 125V
- VSWR less than 1.2:1 in excess of 700MHz

ENVIRONMENTAL

- Operating Temperature:
-40°C to +125°C

MECHANICAL

- Insulator Material: Nylon 46: UL94 V-O
- Contact Material: Phosphor Bronze, Tin Plated
- Latching Cap: Single Use
- Cable retention: 10N in each axis

HOW TO ORDER

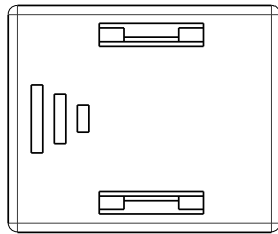
00	9178	00X	00X	X	06															
Prefix	Series	Number of Ways	Cable Type	Insulator Color	Plating Option															
		<table border="1"> <thead> <tr> <th>Code</th> <th>No of Ways</th> <th>Details</th> </tr> </thead> <tbody> <tr> <td>001</td> <td>1</td> <td>Page 75</td> </tr> </tbody> </table>	Code	No of Ways	Details	001	1	Page 75	001 = RG178B/U (M17/93-RG178)	<table border="1"> <thead> <tr> <th>Code</th> <th>Color</th> <th>Application</th> </tr> </thead> <tbody> <tr> <td>0</td> <td>Black</td> <td>Industrial</td> </tr> <tr> <td>1</td> <td>White</td> <td>Lighting</td> </tr> </tbody> </table>	Code	Color	Application	0	Black	Industrial	1	White	Lighting	06 = Pure Tin all over
Code	No of Ways	Details																		
001	1	Page 75																		
Code	Color	Application																		
0	Black	Industrial																		
1	White	Lighting																		

IDC SMT Coax 1 Position

00-9178

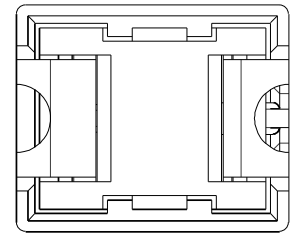
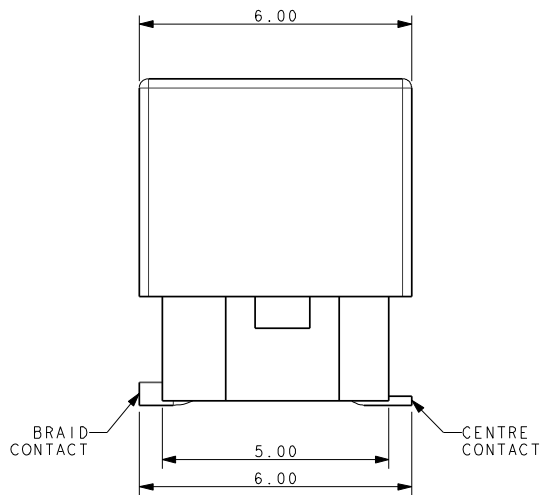
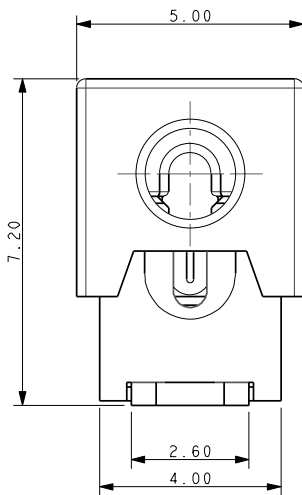
CONNECTOR DETAILS - RG178B/U

CABLE INSERTION DIRECTION
ALSO REFER TO PAGE 76 FOR
PACKING ORIENTATION



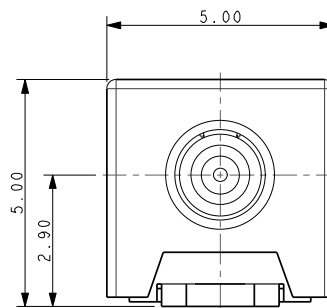
NOTES:

1. CONNECTOR FOR RG178B/U (M17/93-RG178) MIL SPEC COAX CABLE. FOR OTHER CABLES REFER TO AVX FOR FURTHER INFORMATION.
2. FOR FURTHER DETAILS REFER TO ELCO PRODUCT SPECIFICATION 201-01-130 AND APPLICATION NOTES 201-01-131.
3. GENERAL TOLERANCE ± 0.20 UNLESS SPECIFIED.
4. CONNECTOR SUPPLIED AS SHOWN WITH THE CAP IN THE UP POSITION.



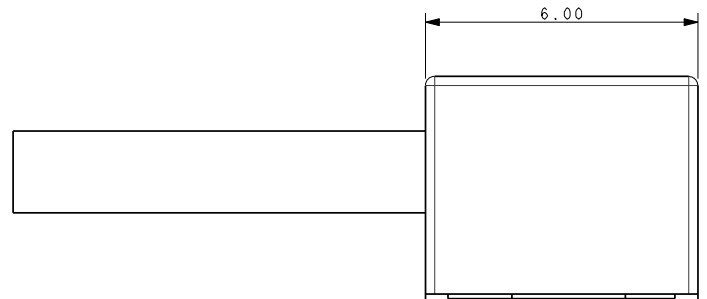
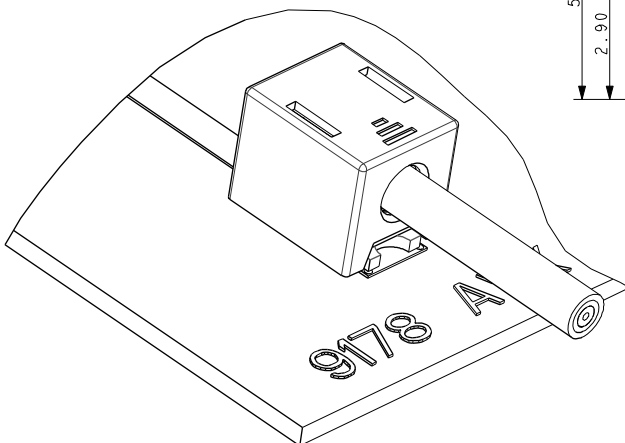
WIRED CONNECTOR

TRIM LENGTH 2.30 ± 0.20
BRAID AND OUTER JACKET ONLY

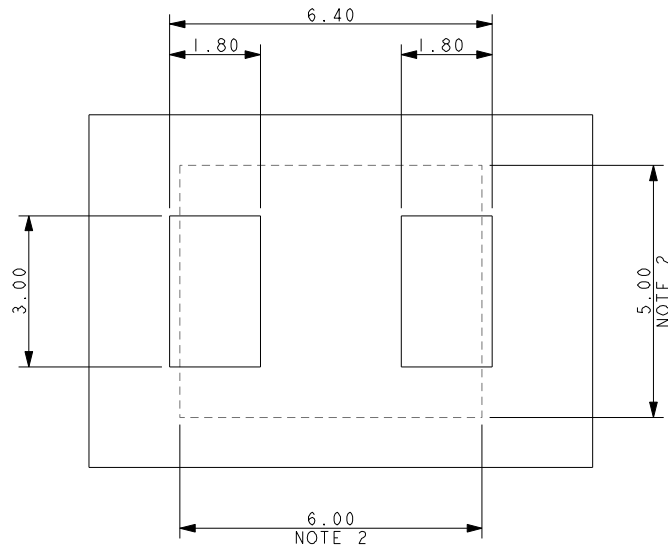


NOTES:

1. CONNECTOR SHOWN IN ASSEMBLED CONDITION, CAP PUSHED DOWN.
2. CAP LOCKS IN LOWER POSITION, TERMINATION CANNOT BE REMADE.
3. FOR FULL DETAILS REFER TO APPLICATION NOTES 201-01-131.
4. CONNECTOR FOR RG178B/U (M17/93-RG178) MIL SPEC COAX CABLE ONLY.
5. ALL LOOSE MATERIAL MUST BE REMOVED FROM TRIMMED CABLE.



SUGGESTED PCB LAYOUT

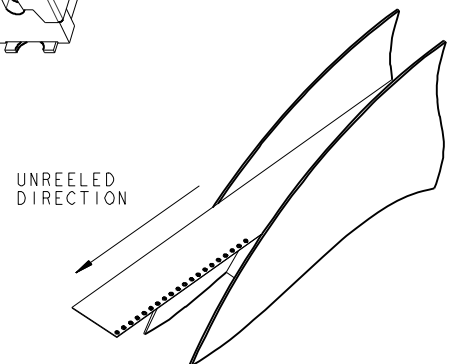
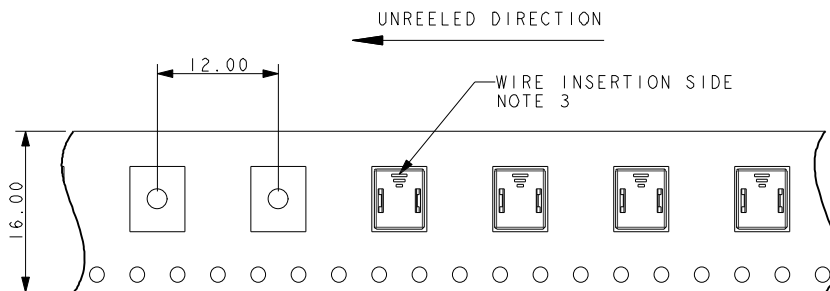
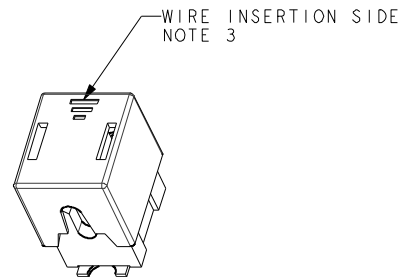


NOTES:

1. PADS SHOWN FOR CONNECTOR FEET ONLY, OTHER DETAILS WILL DEPEND ON THE CUSTOMERS PCB SPECIFICATION AND PERFORMANCE REQUIREMENTS.
2. OUTLINE OF THE CONNECTOR.
3. TYPICAL CIRCUIT CONFIGURATION:
BRAID CONNECTED THROUGH BOARD TO GROUND PLANE.
CENTER CONDUCTOR TRACK 1.5MM WIDE ON 0.8MM THICK PCB

PACKING DETAILS

REEL QTY	700
LEADER	480MM
TRAILER	120MM



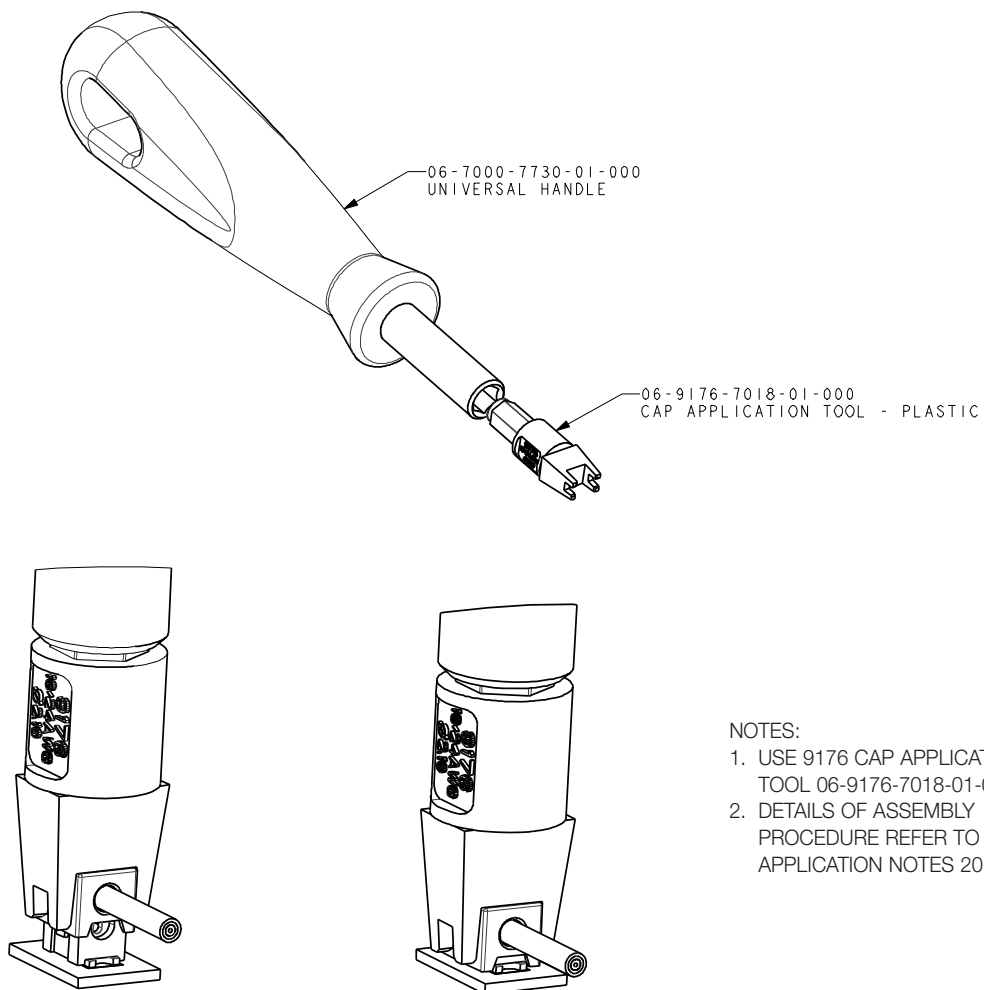
NOTES:

1. PACKING IN TAPE AND REEL.
2. PIECES PER REEL.
3. PARTS TO BE IN THE CORRECT ORIENTATION.

IDC SMT Coax 1 Position

00-9178

HAND ASSEMBLY TOOL



AMERICAS

AVX Greenville, SC
Tel: 864-967-2150

AVX Northwest, WA
Tel: 360-699-8746

AVX Midwest, IN
Tel: 317-861-9184

AVX Mid/Pacific, CA
Tel: 408-988-4900

AVX Northeast, MA
Tel: 617-479-0345

AVX Southwest, CA
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AVX Canada
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AVX SRL, Italy
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AVX/ELCO UK
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AVX Benelux
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