Horizontal Plug: 10-9159-100

General Description

The 9159 series of Board-to-Board interconnect system allows two PCB's to be mated end-to-end creating strips of LED lighting. Designed specifically for the unique Solid State Lighting (SSL) market requiring coplanar (horizontal-to-horizontal) PCB mating with a 5 Amp current rating in the smallest package available. These single sided SMT connectors are perfect for both FR4 and metal boards where you need to butt the boards up together to minimize separation. Availability of both white and black insulation colors make them perfect for lighting as well as industrial applications. With sizes from 2p-6p, these high reliability connectors boast gold plated beryllium copper receptacle contacts for harsh environments.

APPLICATIONS

- Coplanar PCB mating in SSL products
- LED linear lighting strips
- Application Notes: refer to 201-01-123
- Specification Notes: refer to 201-01-119

FEATURES AND BENEFITS

- Single sided SMT: supports FR4 and metal PCB's
- 5 Amp current rating: exceeds general market needs
- 5.5mm mated width: minimizes PCB space to decrease LED pitch
- Gold plated BeCu spring contacts: reliability for harsh environments
- Optional retaining clip: provides positive connector mating during vibration
- Available in white: supports SSL market preferences

ELECTRICAL

- Current Rating: 5 Amps / Contact
- Voltage Rating: 125 VAC (RMS) or DC equivalent

ENVIRONMENTAL

- Operating Temperature: -40°C to +125°C
- Storage Temperature: -40°C to +70°C

MECHANICAL

- Insulator Material: Nylon: UL94V-0
- Contact Material: BeCu / Phos Bronze
- Plating: Gold / Tin over Nickel
- Durability: 10 Cycles

HOW TO ORDER

10	9159	00X	1	01	9	16
Plug	Series	Number of Ways	2 Part PCB Strip Connector	Connector Pitch 01 = 3mm	Color/Approval	Plating Option

Number of Ways

Code	No of Ways	Details
002	2	Page 3
003	3	Page 4
004	4	Page 5
005	5	Page 6
006	6	Page 7

Optional Retaining Clip
Page 8

Color/Approval

Code	Color	Approval
8	Black	UL Approved
9	White	UL Approved

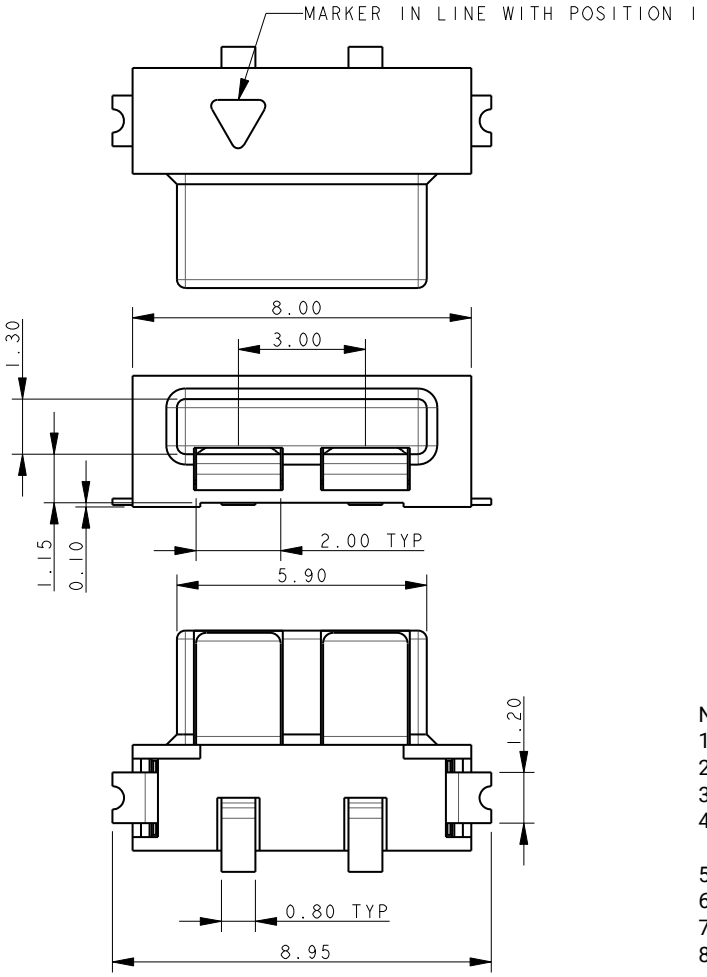
Plating Option

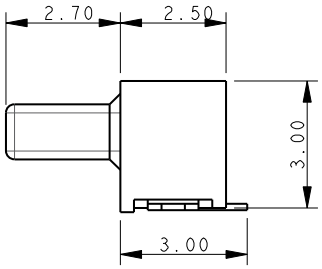
Code	Contact	Bracket
16	Gold in Contact Area Tin on Solder Tail	Tin all over

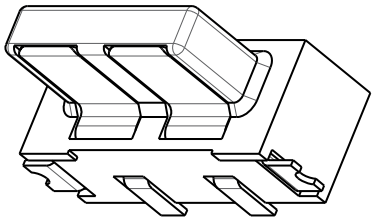
RoHS COMPLIANT

Safety Standards: UL 1977-File #E90723

PLUG
2 WAY 2 PART PCB STRIP CONNECTOR

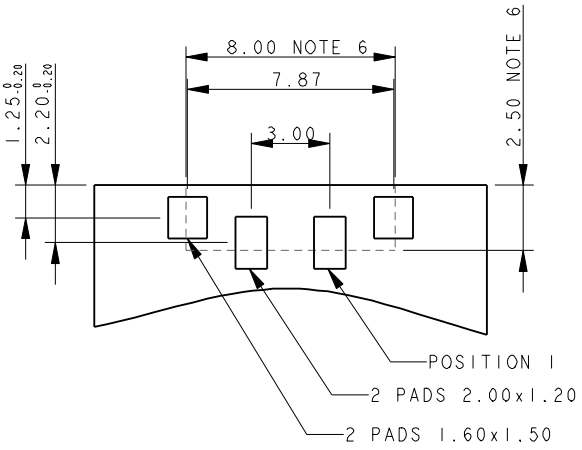




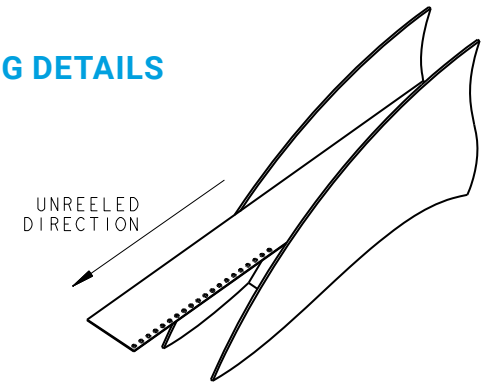


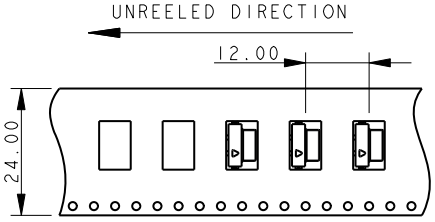
NOTES:
1. FOR MORE INFORMATION REFER TO PRODUCT SPEC 201-01-119
2. DIMENSIONS ARE REFERENCE DIMENSIONS UNLESS TOLERANCED.
3. INSULATOR MATERIAL: NYLON 46.
4. CONTACT MATERIAL: COPPER ALLOY, SELECTIVE GOLD OVER NICKEL TIN PLATED ON TAILS.
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

2 WAY PCB BOARD LAYOUT

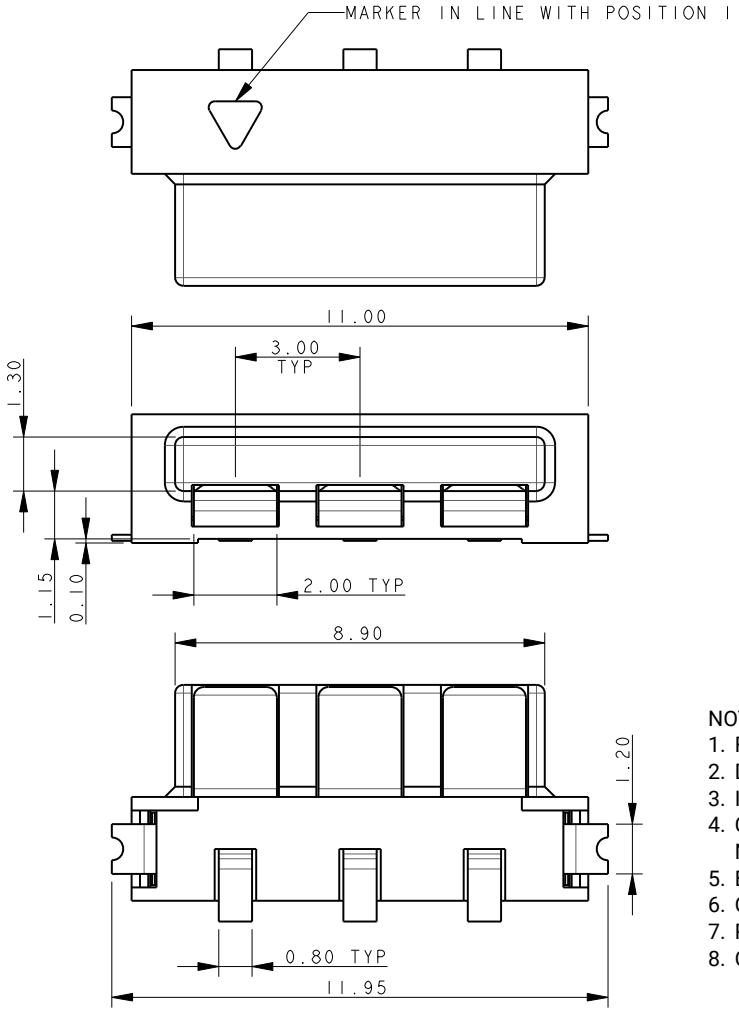


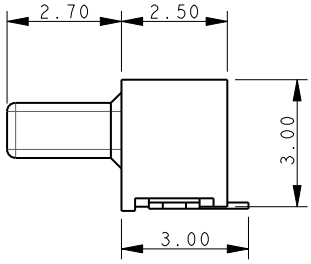
PACKING DETAILS

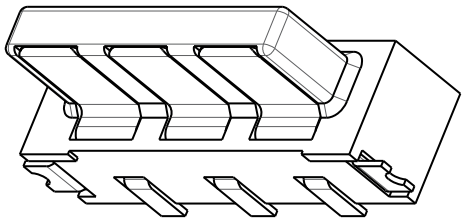




PLUG
3 WAY 2 PART PCB STRIP CONNECTOR







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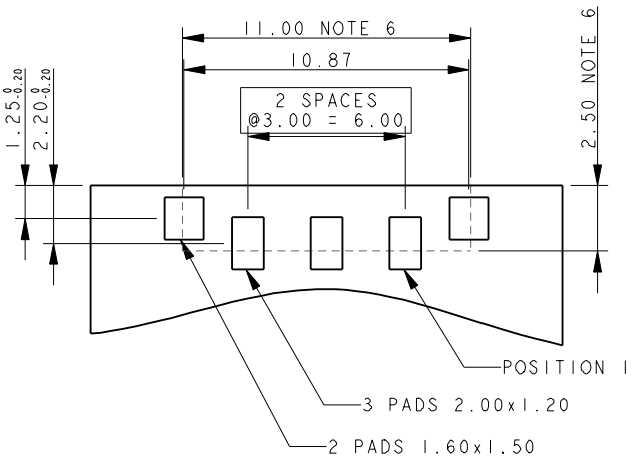
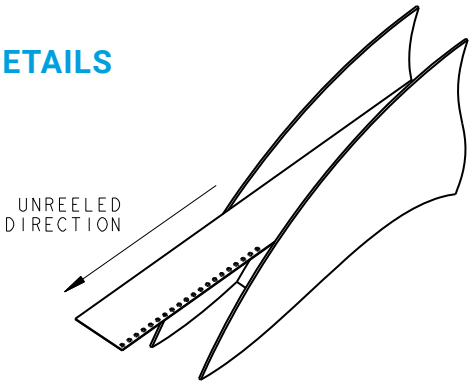
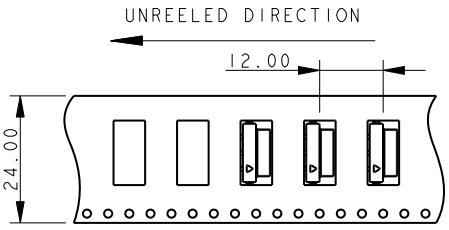
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

3 WAY PCB BOARD LAYOUT

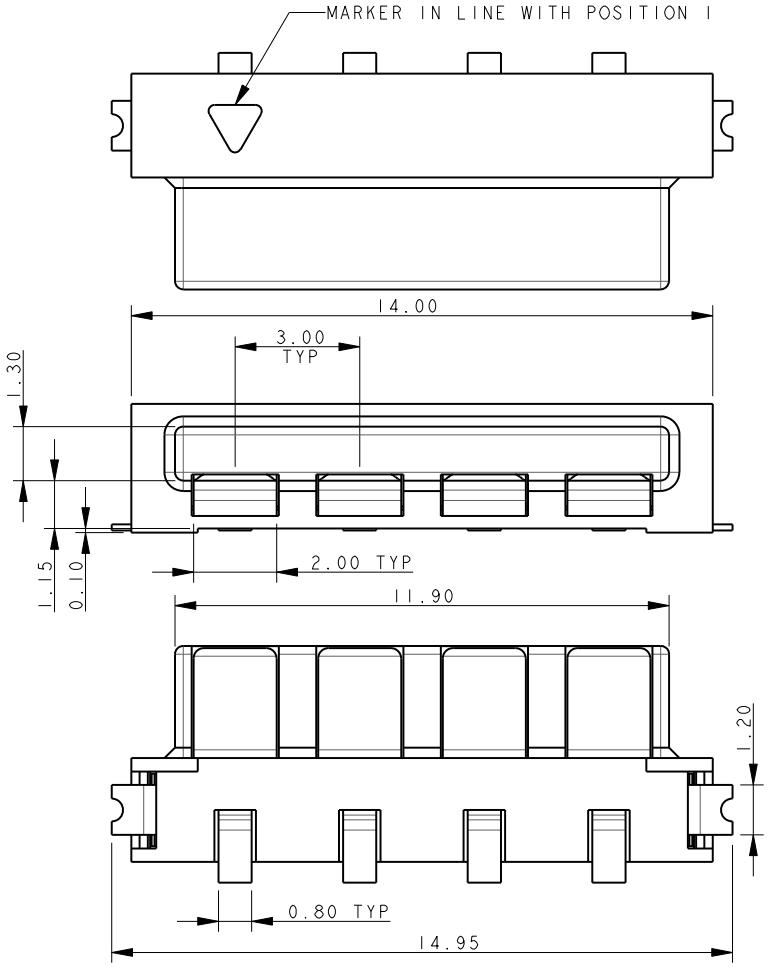


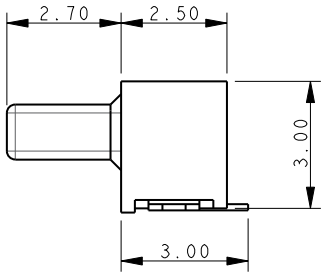
PACKING DETAILS

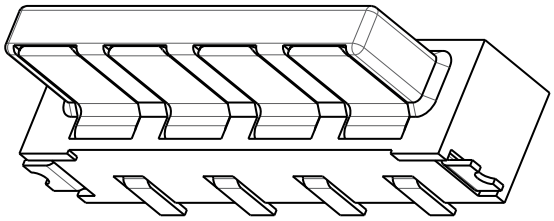




PLUG
4 WAY 2 PART PCB STRIP CONNECTOR







NOTES:
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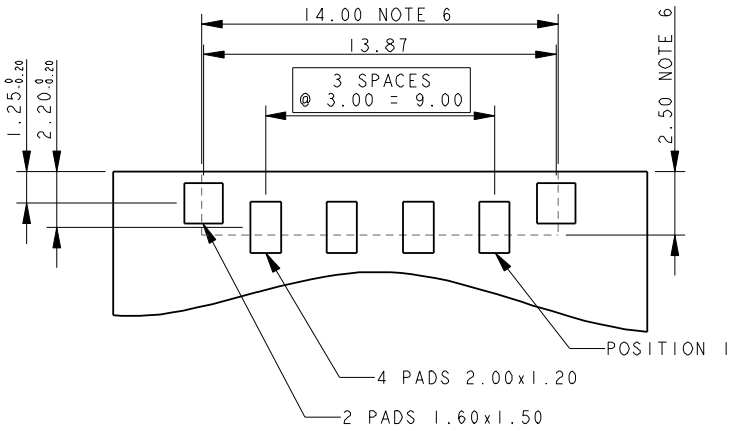
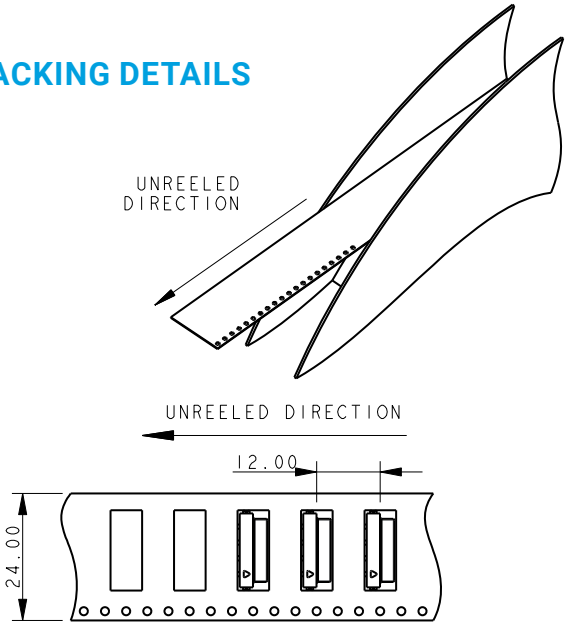
5. BRACKETS: COPPER ALLOY, TIN PLATED.
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

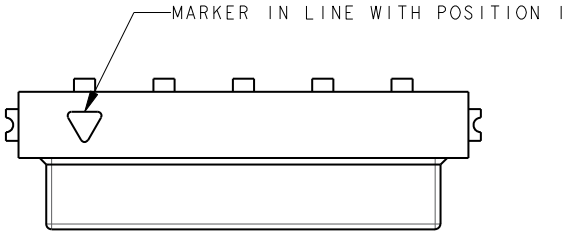
4 WAY PCB BOARD LAYOUT

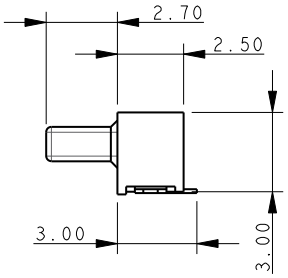


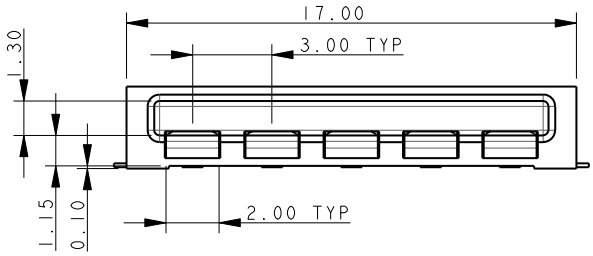
PACKING DETAILS

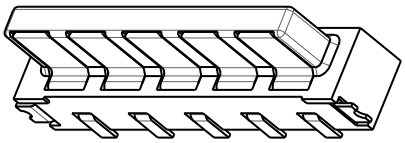


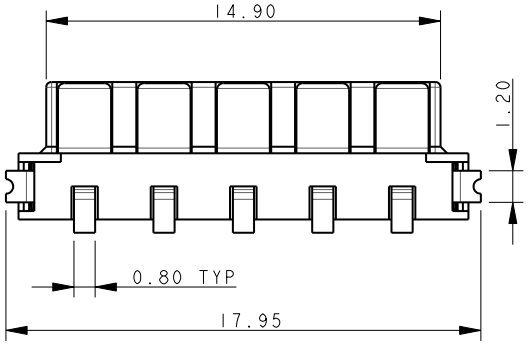
PLUG
5 WAY 2 PART PCB STRIP CONNECTOR











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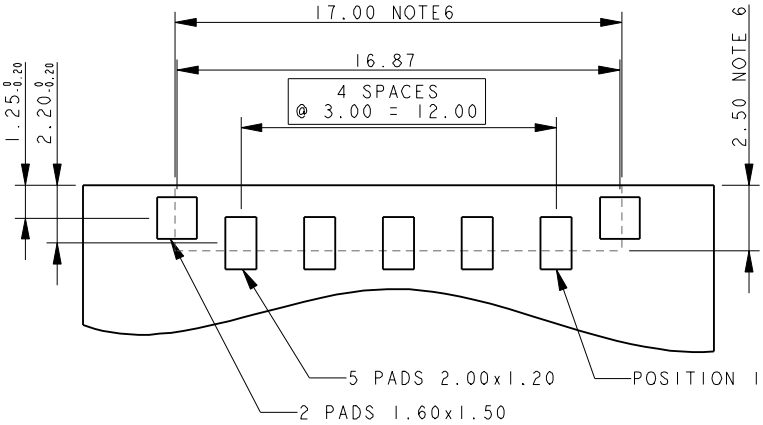
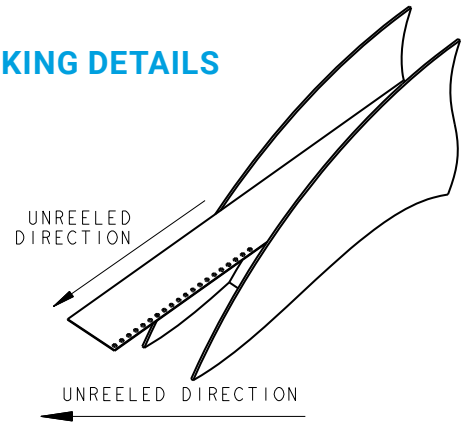
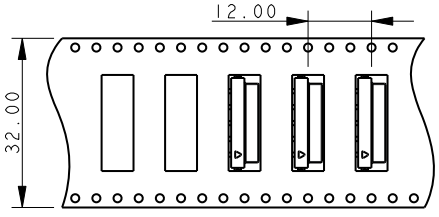
6. OUTLINE OF CONNECTOR.
7. PACKING TAPE AND REEL, QUANTITY 1400 PER REEL.
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

5 WAY PCB BOARD LAYOUT

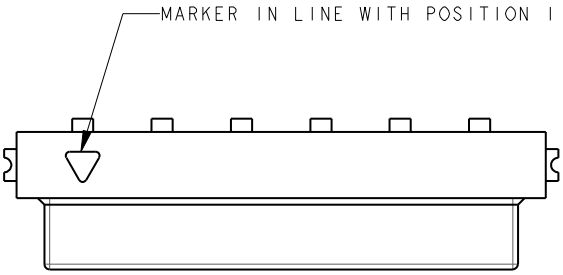


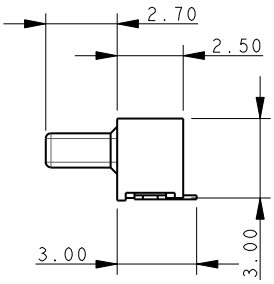
PACKING DETAILS

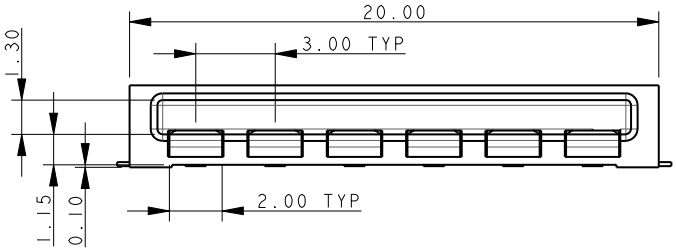


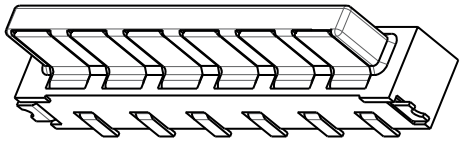


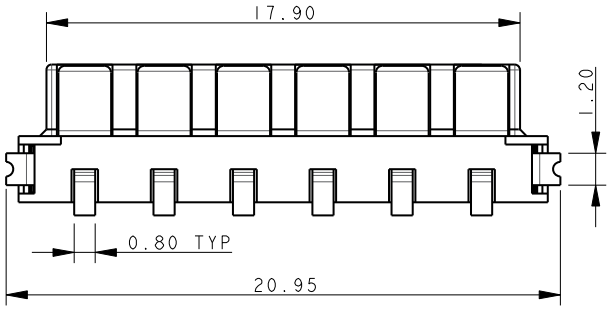
PLUG
6 WAY 2 PART PCB STRIP CONNECTOR











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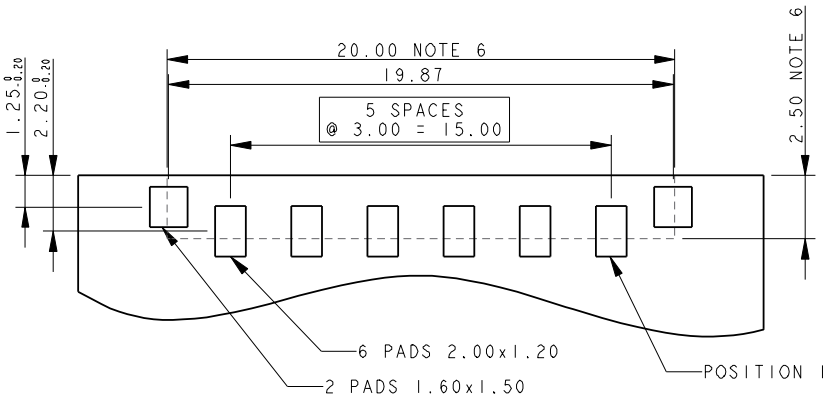
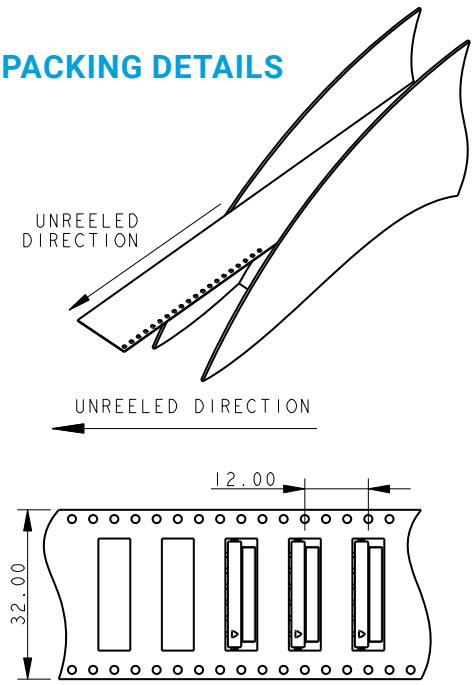
8. OPTIONAL RETAINING CLIP, SEE PAGE 8.

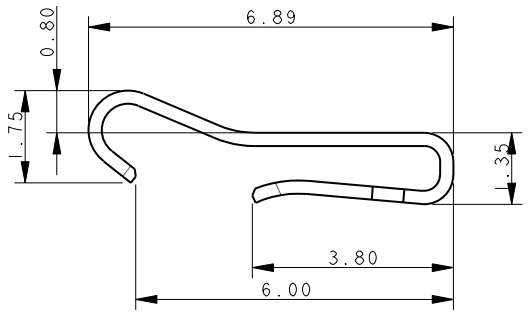
6 WAY PCB BOARD LAYOUT

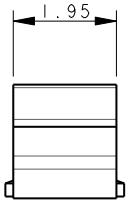


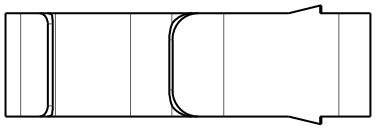
PACKING DETAILS



80-9159-4200-00-000
ACCESSORY RETAINING CLIP

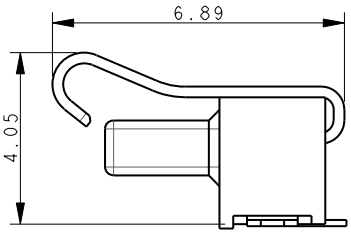






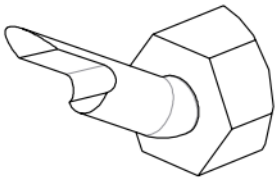
PLUG ASSEMBLY
FOR REFERENCE ONLY

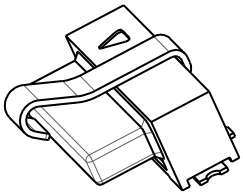
CLIP INSERTED INTO
10-9159-00X-101-X06



HAND INSERTION TOOL

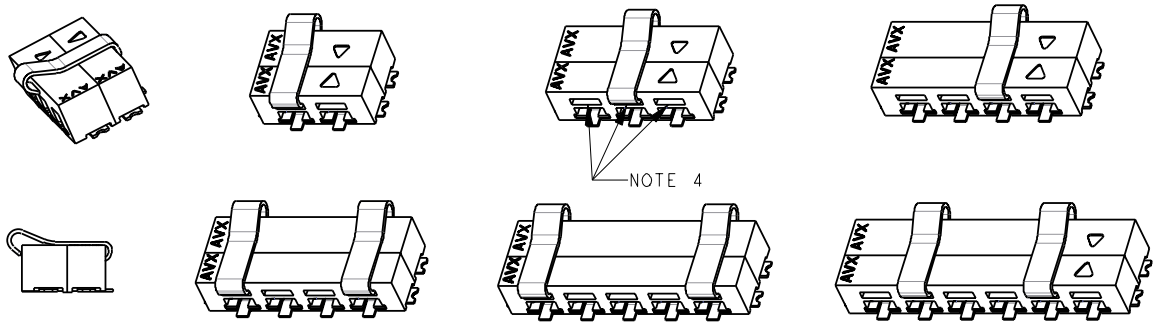
06-9159-7025-01-000





MATED ASSEMBLY – FOR REFERENCE ONLY

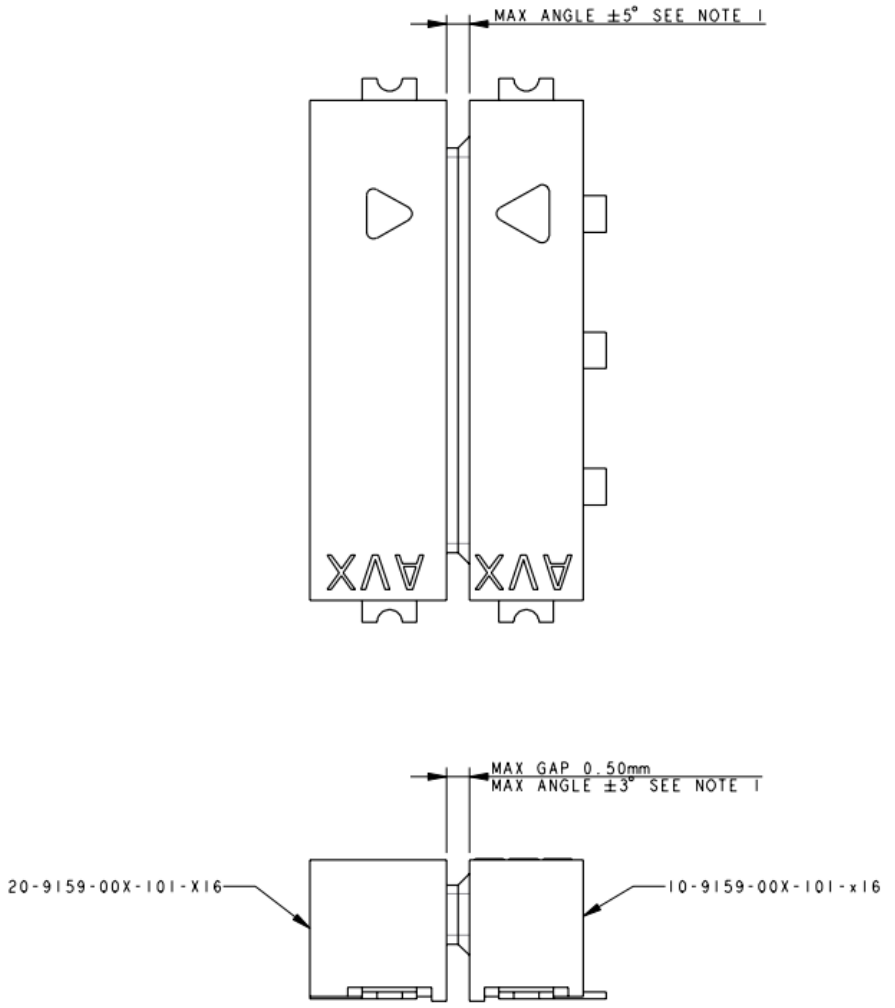
10-9159-00X-101-X06 MATED WITH 20-9159-00X-X06



Description	# of Positions	Part Number	UL File #
Horizontal Plug w/pre-installed locking clip	2	58 9159 002 000 015	E90723
Horizontal Plug w/pre-installed locking clip	3	58 9159 003 000 015	E90723
Horizontal Plug w/pre-installed locking clip	4	58 9159 004 000 015	E90723
Horizontal Plug w/pre-installed locking clips	5	58 9159 005 000 015	E90723
Horizontal Plug w/pre-installed locking clips	6	58 9159 006 000 015	E90723

NOTES:
1. CLIP TO RETAIN MATED PAIR PLUG AND SOCKET.
2. MATERIAL: STAINLESS STEEL.
3. TAIL INSERTED INTO SLOT OF 9159 2 PART PLUG (10-9159-00X-101-006). LEADING EDGE CLIPS OVER SOCKET.
4. ALL DIMENSIONS SHOWN ARE REFERENCE DIMENSIONS.
5. RECOMMENDED 1 CLIP IN 2, 3 AND 4 WAY. 2 CLIPS IN 5 AND 6 WAY. POSITIONS AT CUSTOMER DISCRETION.

PLUG
MAXIMUM CONNECTOR MISALIGNMENT



NOTES:

1. AT THE MAXIMUM ANGLE BETWEEN THE CONNECTORS THE GAP MUST NOT EXCEDE 0.50mm.
2. THE FIGURES GIVEN ARE THE MAXIMUM PERMITTED MISALIGNMENT, FOR BEST RESULTS MISALIGNMENT SHOULD BE KEPT TO A MINIMUM.
3. 3 WAY CONNECTOR SHOWN, DIMENSIONS APPLY TO 2, 3, 4, 5, AND 6 WAY.

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

KYOCERA AVX:

109159002101116 109159006101116 109159005101116 109159003101116 109159004101116 109159002101916 809159420000000 109159003101916 109159004101916 109159006101916 109159005101916 0109159002101111 109159002101111