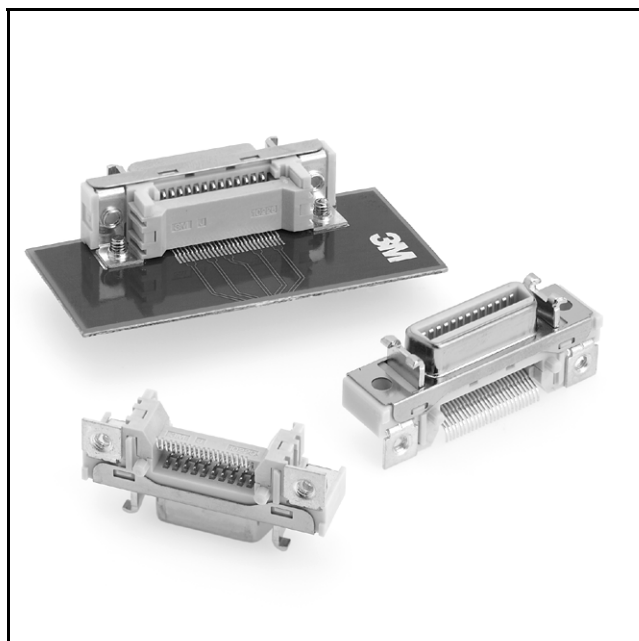


# 3M™ Mini D Ribbon (MDR) Connectors

.050" Surface Mount Right Angle Receptacle - Shielded

102 Series



- Wiper-on-wiper contact for reliable repetitive plugging
- Ultra-low signal skew for high data rate transmission
- Interface latch design for connection stability
- MDR digital LCD interface as a 20 or 26 contact connector
- Contacts: 14, 20, 26, 40 and 50
- RoHS\* compliant version (-PE plating suffix) available

Date Modified: April 5, 2005

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Sheet 1 of 3

## Physical

### Insulation

Material: Glass Reinforced Polyester (PCT)  
Flammability: UL 94V-0  
Color: Beige

### Contact

Material: Copper Alloy (C521)

### Plating

Underplating: 80  $\mu$ " (2.0  $\mu$ m) Nickel - QQ-N-290, Class 2  
Wiping Area: 30  $\mu$ " (0.76  $\mu$ m) Min Gold - MIL-G-45204, Type II, Grade C  
Solder Tails: See ordering information

### Shroud & Latch Hook

Material: Steel  
Plating: Nickel

### Screw Lock

Material: Copper Alloy (C521)  
Plating: Tin

Marking: 3M Logo & Part Number

## Electrical

Current Rating: 1 A

Insulation Resistance:  $> 5 \times 10^8 \Omega$  at 500 VDC

Withstanding Voltage: 500 Vrms for 1 Minute

## Environmental

Temperature Rating: -55°C to +105°C

Process: Surface mount compatible - max. temp. 240°-250°C for 10 seconds.

UL File No.: E68080 \*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment



Interconnect Solutions

<http://www.3M.com/interconnects/>

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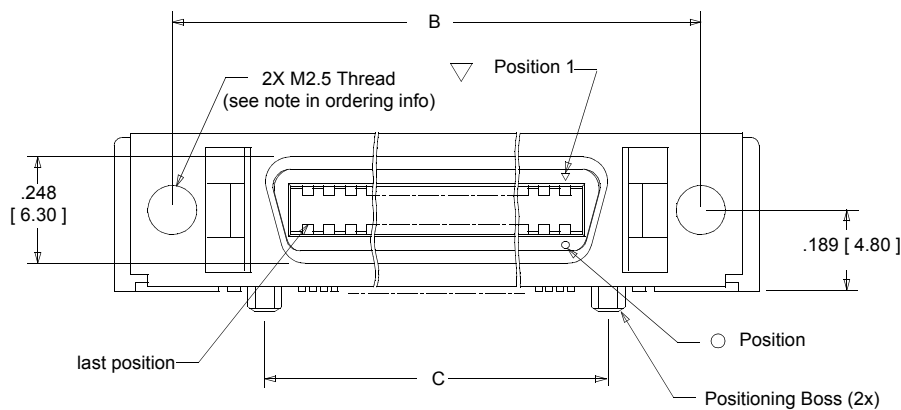
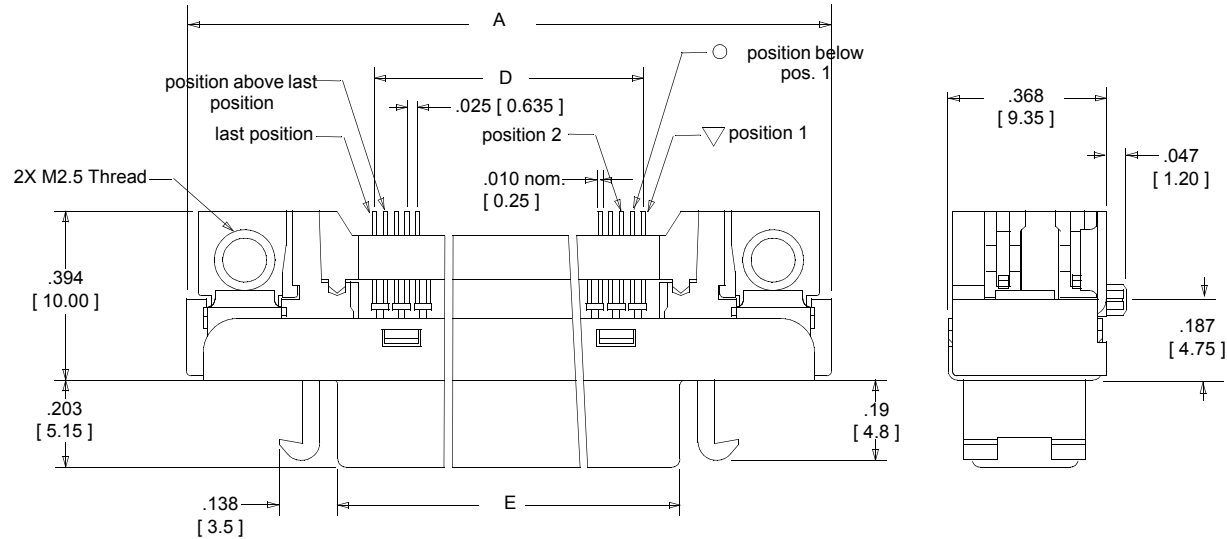
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# 3M™ Mini D Ribbon (MDR) Connectors

.050" Surface Mount Right Angle Receptacle - Shielded

102 Series

| Contact Quantity | 3M Part Number | Dimensions    |                 |                 |                 |                |
|------------------|----------------|---------------|-----------------|-----------------|-----------------|----------------|
|                  |                | A±.008        | B±.006          | C±.006          | D±.006          | E±.006         |
| 14               | 10214-1210 VE  | 1.16 [ 29.5 ] | .93 [ 23.64 ]   | .47 [ 12.70 ]   | .33 [ 8.26 ]    | .50 [ 12.6 ]   |
| 20               | 10220-1210 VE  | 1.32 [ 33.4 ] | 1.081 [ 27.45 ] | .650 [ 16.51 ]  | .475 [ 12.07 ]  | .646 [ 16.4 ]  |
| 26               | 10226-1210 VE  | 1.50 [ 38.2 ] | 1.231 [ 31.26 ] | .800 [ 20.32 ]  | .625 [ 15.88 ]  | .795 [ 20.2 ]  |
| 40               | 10240-1210 VE  | 1.85 [ 47.1 ] | 1.581 [ 40.15 ] | 1.150 [ 29.21 ] | .975 [ 24.77 ]  | 1.150 [ 29.2 ] |
| 50               | 10250-1210 VE  | 2.06 [ 52.4 ] | 1.831 [ 46.50 ] | 1.400 [ 35.56 ] | 1.225 [ 31.12 ] | 1.40 [ 35.5 ]  |



Inch  
[mm]

| Tolerance Unless Noted |     |      |       |
|------------------------|-----|------|-------|
|                        | .0  | .00  | .000  |
| inch                   | ±.1 | ±.01 | ±.005 |

[ ] Dimensions for Reference Only

## Ordering Information

102XX-1210XE

Contact Quantity  
(See Table)

Solder tail plating:  
V = tin-lead over Ni  
P = flash gold over Ni (RoHS compliant)

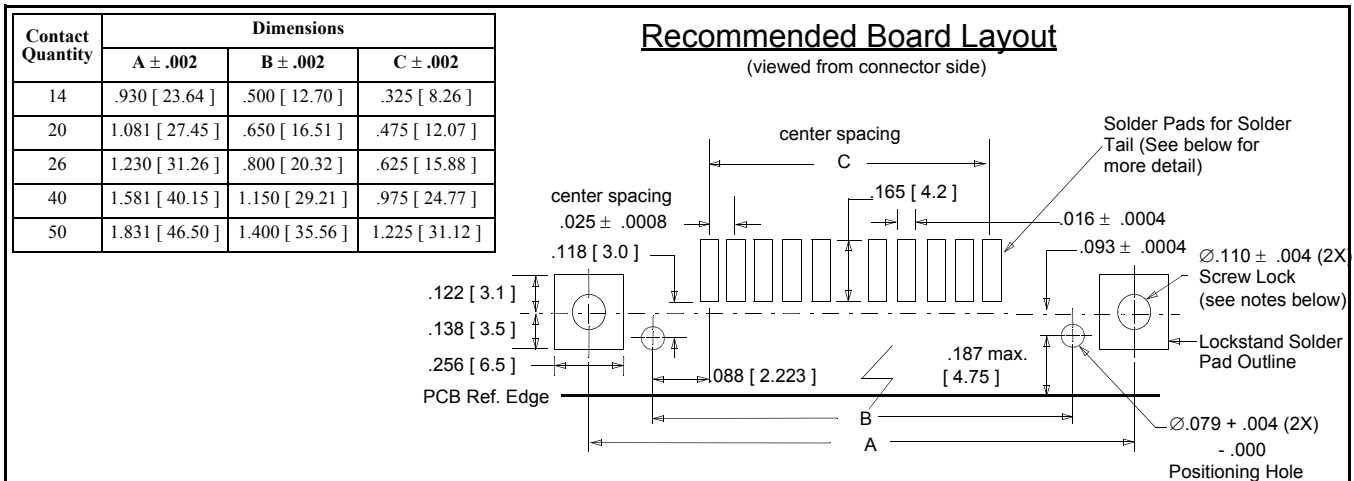
Note: Use (M2.5x8 mm) screws to mount to panel with max. thickness of 2.0 mm.

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Sheet 2 of 3

# 3M™ Mini D Ribbon (MDR) Connectors

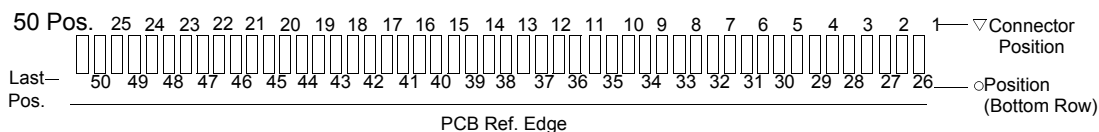
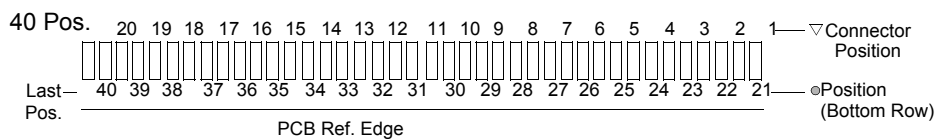
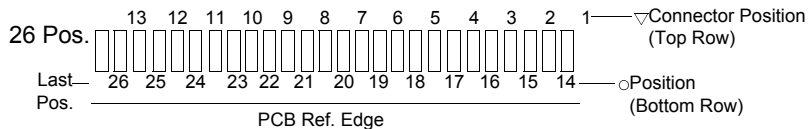
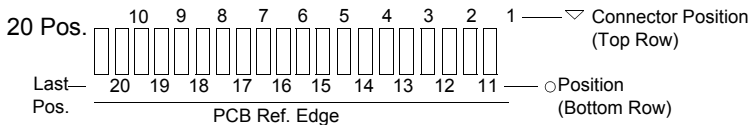
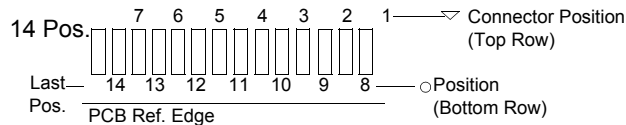
.050" Surface Mount Right Angle Receptacle - Shielded

102 Series



## Solder Tail Layout Detail

(#'s Correspond to Connector Contact # Shown on Previous Page)



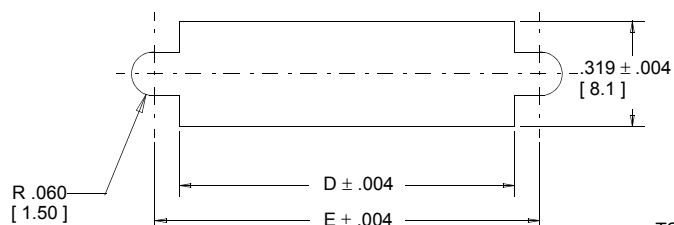
| Contact Quantity | D             | E               |
|------------------|---------------|-----------------|
| 14               | 1.10 [ 19.9 ] | .931 [ 23.64 ]  |
| 20               | .94 [ 23.8 ]  | 1.081 [ 27.45 ] |
| 26               | 1.09 [ 27.6 ] | 1.231 [ 31.26 ] |
| 40               | 1.44 [ 36.5 ] | 1.581 [ 40.15 ] |
| 50               | 1.69 [ 42.8 ] | 1.830 [ 46.50 ] |

\*\*Notes:

1. Plated through holes for .062" board thickness.
2. Use mounting screws ( M2.5 ) to fasten to board.

## Recommended Panel Cut-out

Note: Panel thickness .079 [ 2.00 ] Max.



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6801 River Place Blvd.  
Austin, TX 78726-9000  
[www.3M.com/esd](http://www.3M.com/esd)



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