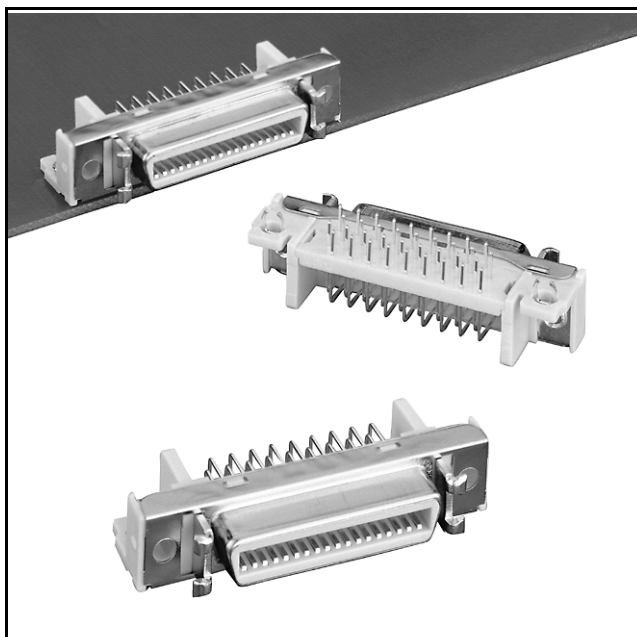


3M™ Mini D Ribbon (MDR) Connectors

.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

102 Series



- Wiper-on-wiper contact for reliable repetitive plugging
- SMT compatible PCT insulator material
- Ground lock PCB retention
- Interface latch design for connection stability
- MDR digital LCD interface as a 20 or 26 contact connector
- Contacts: 14, 20, 26, 36, 40, 50 and 68
- RoHS* compliant version (-PL or -PC plating suffix) available

Date Modified: April 5, 2005

TS-0621-10

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Physical

Insulation

Material: Glass Reinforced Polyester (PBT)

Flammability: UL 94V-0

Color: See ordering information

Contact Material: Copper Alloy (C521)

Plating

Underplating: See ordering information

Wiping Area: See ordering information

Solder Tails: See ordering information

Shroud & Latch Hook

Material: Steel

Plating: Nickel

Ground Lock

Material: Copper Alloy

Plating: Matte 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 Rating: 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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3M™ Mini D Ribbon (MDR) Connectors

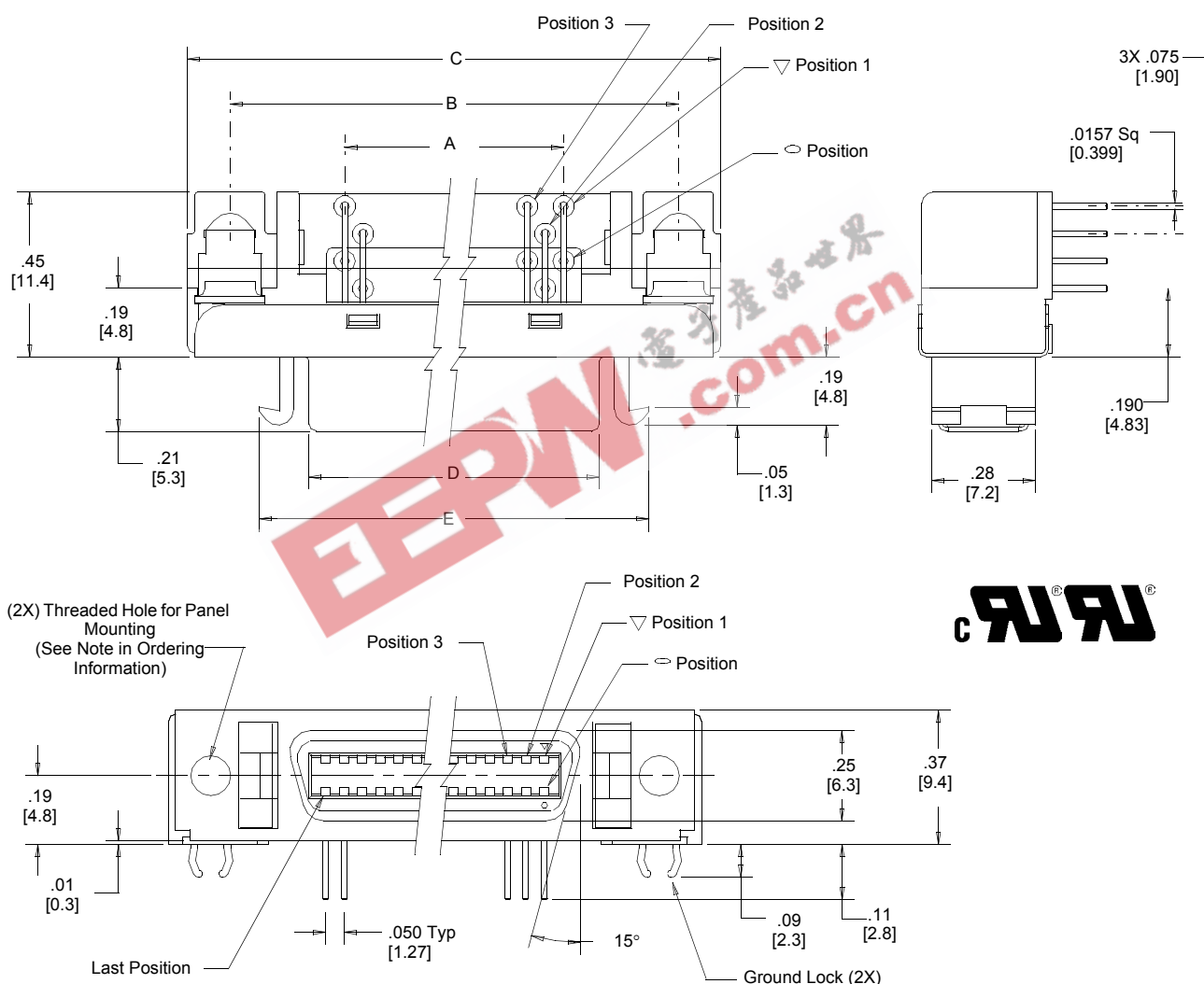
.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

102 Series

Contact Quantity	Dimensions				
	A	B	C	D	E
14	0.300 [7.62]	0.93 [23.6]	1.16 [29.5]	0.50 [12.6]	0.77 [19.5]
20	0.450 [11.43]	1.08 [27.5]	1.31 [33.4]	0.65 [16.4]	0.92 [23.4]
26	0.600 [15.24]	1.23 [31.3]	1.46 [37.2]	0.80 [20.2]	1.07 [27.2]
36	0.850 [21.59]	1.48 [37.6]	1.71 [43.5]	1.05 [26.6]	1.32 [33.5]
40	0.950 [24.13]	1.58 [40.2]	1.81 [46.1]	1.15 [29.1]	1.42 [36.1]
50	1.200 [30.48]	1.83 [46.5]	2.06 [52.4]	1.40 [35.5]	1.67 [42.4]
68	1.650 [41.91]	2.28 [57.9]	2.51 [63.8]	1.85 [46.9]	2.12 [53.8]

Inch [mm]			
Tolerance Unless Noted			
	.0	.00	.000
inch	±.1	±.01	±.005

[] Dimensions for Reference Only



Ordering Information

X102XX-55X3XX

Connector Material:
Blank = Beige
D = Black (20 pos. only)

Contact Quantity:

Wiping area plating:
L = 8 μ" [0.2 μm] Min. Gold over 50 μ" [1.27 μm] Min. Ni.
C = 30 μ" [0.76 μm] Min. Gold over 100 μ" [2.54 μm] Min. Ni.
Solder tail plating:
J or V = tin-lead over Ni
P = flash gold over Ni (RoHS compliant)

Panelmount thread size:
G = M2.5 (14, 20, 26, 36, 40 position)
H = #4-40 (20, 36, 50 & 68 position)

Note: Must order panelmount screws: 3344-38 for M2.5, 3344-44 for #4-40.

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Sheet 2 of 3



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.050" Boardmount Thru-Hole Right Angle Receptacle - Shielded

Contact Quantity	Dimensions		
	A	B	C
14	.300 [7.62]	.931 [23.64]	.78 [19.9]
20	.450 [11.43]	1.081 [27.45]	.94 [23.8]
26	.600 [15.24]	1.231 [31.26]	1.09 [27.6]
36	.850 [21.59]	1.481 [37.61]	1.33 [33.9]
40	.950 [24.13]	1.581 [40.15]	1.44 [36.5]
50	1.200 [30.48]	1.831 [46.50]	1.69 [42.8]
68	1.650 [41.91]	2.281 [57.93]	2.13 [54.2]

(Viewed from Connector Side)

Figure 1: Mechanical drawing of the PCB layout for the 100-pin connector. The drawing shows a top-down view of the PCB with dimensions in inches and millimeters. Key dimensions include: overall width of 0.28 ± 0.04 inches [7.11 ± 0.10 mm], overall height of 0.19 inches [4.83 mm], and a central area of 0.16 inches [4.06 mm] by 0.18 inches [4.57 mm]. The drawing also shows the locations of the 100 pins, with dimensions for the pin pitch (0.050 inches [1.27 mm]) and the distance from the edge of the PCB to the first pin (0.028 inches [0.71 mm]). The drawing is labeled "Figure 1" and "Mechanical drawing of the PCB layout for the 100-pin connector".

[illegible]

Technical drawing of a mechanical part showing dimensions:

- $R.060$ [1.5]
- $C \pm .004$
- $B \pm .004$
- $.319 \pm .004$ [8.10]

Note: Panel thickness .079 [2.00] Max.

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