

3M™ Mini D Ribbon (MDR) Cable Assembly

.050" High Speed Digital Data Transmission System, 50 Position

14150-EZBB-XXX-0LC



- Supports LVDS Channel Link™ signaling
- Ideal for high speed switch backplanes
- 20 shielded pairs (100 ohm) +6 grounds for high bandwidth applications
- High density 50 position MDR with rugged ribbon type contact
- Quick release latches
- RoHS* compliant

Date Modified: January 25, 2007

TS-0959-08
Sheet 1 of 3

Physical

Connector Contact Plating

Wiping Area: 30μ" [0.76μm] Min. Gold

Shell

Color: Beige

Material: Acrylonitrile Butadiene Styrene (ABS)

Cable

Color: Beige

Jacket Material: Polyvinyl Chloride (PVC)

Flammability: AWM VW-1

Electrical

Voltage Rating: 30 V

Current Rating: 1 A

Insulation Resistance: $> 1 \times 10^8 \Omega$ at @100 V_{DC}

Withstanding Voltage: 350 V_{RMS} for 1 minute

Individually Shielded Twisted Pairs

Characteristic Impedance: $100 \pm 10 \Omega$

Conductor Size: 28 AWG Stranded

Propagation Delay: 1.25 ns/ft [4.1 ns/m]

Environmental

Temperature Rating: -20°C to +75°C

**RoHS compliant" means that the product or part does not contain any of the following substances in excess of the following maximum concentration values in any homogeneous material, unless the substance is in an application that is exempt under RoHS: (a) 0.1% (by weight) for lead, mercury, hexavalent chromium, polybrominated biphenyls or polybrominated diphenyl ethers; or (b) 0.01% (by weight) for cadmium. Unless otherwise stated by 3M in writing, this information represents 3M's knowledge and belief based upon information provided by third party suppliers to 3M.

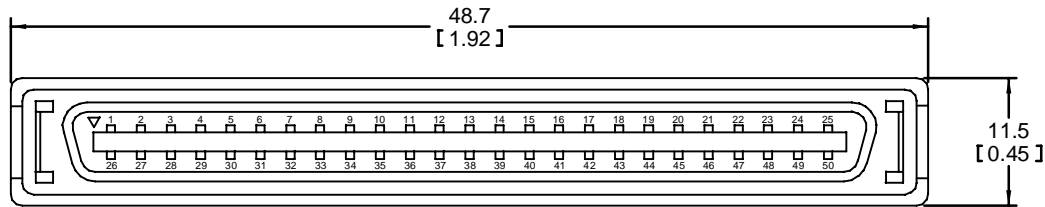
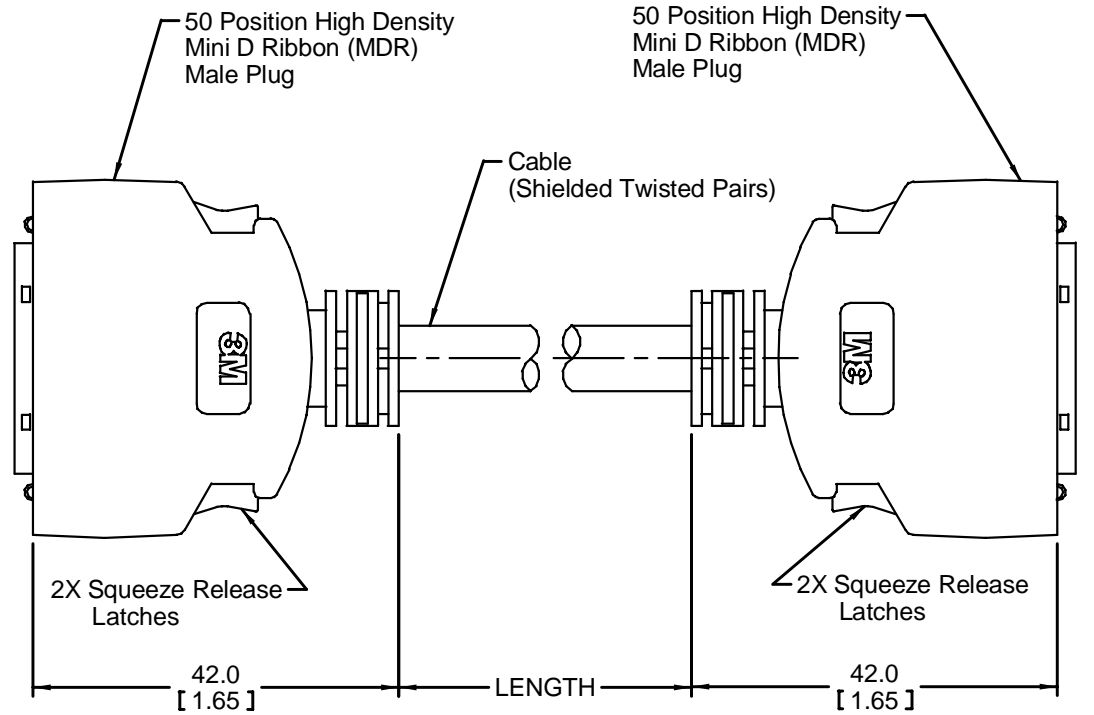
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MDR 50 Position Plug
Both Ends

| mm [inch] | | |
|------------------------|-----|------|
| Tolerance Unless Noted | | |
| | 0.0 | 0.00 |
| mm | ±.1 | ±.01 |

[] Dimensions for Reference Only



Assembly Length Tolerance

Cable Length:
0.5 to 1.5 meters -0 + .05 meters
2 to 10 meters -0 +3% of length

Ordering Information

14150-EZBB-XXX-0LC

| | |
|------------------|-------------------|
| Length: | |
| 050 = 0.5 meter | 400 = 4.0 meters |
| 100 = 1.0 meter | 500 = 5.0 meters |
| 150 = 1.5 meters | 600 = 6.0 meters |
| 200 = 2.0 meters | 700 = 7.0 meters |
| 250 = 2.5 meters | 800 = 8.0 meters |
| 300 = 3.0 meters | 900 = 9.0 meters |
| 350 = 3.5 meters | A00 = 10.0 meters |

TS-0959-08
Sheet 2 of 3

3M™ Mini D Ribbon (MDR) Cable Assembly

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MDR 50 Position, Pinout (C50-1)

| P1 | | | | | | P2 | | | | | |
|------|---------|----------|----------|---------|------|------|---------|----------|----------|---------|------|
| Pair | Signal | Position | Position | Signal | Pair | Pair | Signal | Position | Position | Signal | Pair |
| 1 | A0- | 1 | 26 | drain 1 | | 20 | B0- | 1 | 26 | drain 6 | |
| 1 | A0+ | 2 | 27 | A1- | 2 | 20 | B0+ | 2 | 27 | B1- | 19 |
| 3 | A2- | 3 | 28 | A1+ | 2 | 18 | B2- | 3 | 28 | B1+ | 19 |
| 3 | A2+ | 4 | 29 | AClk- | 4 | 18 | B2+ | 4 | 29 | BClk- | 17 |
| | drain 2 | 5 | 30 | AClk+ | 4 | | drain 5 | 5 | 30 | BClk+ | 17 |
| 5 | A3- | 6 | 31 | A4- | 6 | 16 | B3- | 6 | 31 | B4- | 15 |
| 5 | A3+ | 7 | 32 | A4+ | 6 | 16 | B3+ | 7 | 32 | B4+ | 15 |
| 7 | A5- | 8 | 33 | A6- | 8 | 14 | B5- | 8 | 33 | B6- | 13 |
| 7 | A5+ | 9 | 34 | A6+ | 8 | 14 | B5+ | 9 | 34 | B6+ | 13 |
| 9 | A7- | 10 | 35 | drain 3 | | 12 | B7- | 10 | 35 | drain 4 | |
| 9 | A7+ | 11 | 36 | N/C | | 12 | B7+ | 11 | 36 | N/C | |
| | N/C | 12 | 37 | ICMB+ | 10 | | N/C | 12 | 37 | ICMB+ | 10 |
| 11 | Link A | 13 | 38 | ICMB- | 10 | 11 | Link B | 13 | 38 | ICMB- | 10 |
| 11 | Link B | 14 | 39 | N/C | | 11 | Link A | 14 | 39 | N/C | |
| | N/C | 15 | 40 | B7+ | 12 | | N/C | 15 | 40 | A7+ | 9 |
| | drain 4 | 16 | 41 | B7- | 12 | | drain 3 | 16 | 41 | A7- | 9 |
| 13 | B6+ | 17 | 42 | B5+ | 14 | 8 | A6+ | 17 | 42 | A5+ | 7 |
| 13 | B6- | 18 | 43 | B5- | 14 | 8 | A6- | 18 | 43 | A5- | 7 |
| 15 | B4+ | 19 | 44 | B3+ | 16 | 6 | A4+ | 19 | 44 | A3+ | 5 |
| 15 | B4- | 20 | 45 | B3- | 16 | 6 | A4- | 20 | 45 | A3- | 5 |
| 17 | BClk+ | 21 | 46 | drain 5 | | 4 | AClk+ | 21 | 46 | drain 2 | |
| 17 | BClk- | 22 | 47 | B2+ | 18 | 4 | AClk- | 22 | 47 | A2+ | 3 |
| 19 | B1+ | 23 | 48 | B2- | 18 | 2 | A1+ | 23 | 48 | A2- | 3 |
| 19 | B1- | 24 | 49 | B0+ | 20 | 2 | A1- | 24 | 49 | A0+ | 1 |
| | drain 6 | 25 | 50 | B0- | 20 | | drain 1 | 25 | 50 | A0- | 1 |

Notes:

1. All pairs are individually shielded with aluminum foil.
2. Pair shields are wrapped Aluminum out and in contact with six internal drains (logic ground).
3. Outer braid and foil (chassis ground) is isolated from inner drains (logic ground).



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Minimum 10%
Post-Consumer Fiber

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