

# 3M™ Mini D Ribbon (MDR) Cable Assembly

.050" High Speed Digital Data Transmission System, 26 Position

1W226-TZLB-XXX-0LC



- Supports LVDS Channel Link™ signaling
- Supports Camera Link® Specification V1.0
- 11 shielded pairs (100 ohm) +4 grounds for high bandwidth applications
- High density 26 position MDR with rugged ribbon type contact
- Overmolded backshell
- Thumbscrew latching options
- Used for bulkhead connection, or rack IO panel connection
- Used to extend the length of a standard Camera Link® cable assembly
- RoHS\* compliant

Date Modified: May 29, 2006

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## Physical

### Connector Contact Plating

Wiping Area: 30μ" [ 0.76μm ] Min. Gold

Shell Color: Beige

Shell Material: Acrylonitrile Butadiene Styrene (ABS)

Cable Color: Beige

Cable Jacket Material: Polyvinyl Chloride (PVC)

Cable Flammability: AWM VW-1

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## Electrical

**Voltage Rating:** 30 V

**Current Rating:** 1 A

**Insulation Resistance:**  $> 1 \times 10^8 \Omega$  at @100 Vdc

**Withstanding Voltage:** 350 Vrms for 1 minute

### Individually Shielded Twisted Pairs

**Characteristic Impedance:**  $100 \pm 10 \Omega$

**Conductor Size:** 28 AWG Stranded

**Propagation Velocity:** 1.25 ns/ft [4.1 ns/m ]

**Skew (within pair):** 50 ps / meter maximum

**Skew (channel skew per chipset):** 50 ps / meter maximum

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## Environmental

**Temperature Rating:** -20°C to +75°C

\*RoHS = Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment  
"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.

UL File No.: E86982

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Interconnect Solutions

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

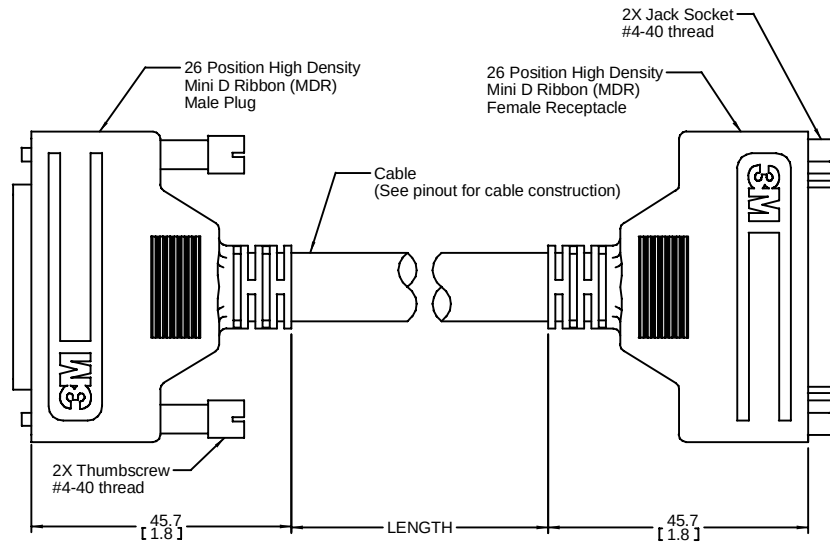
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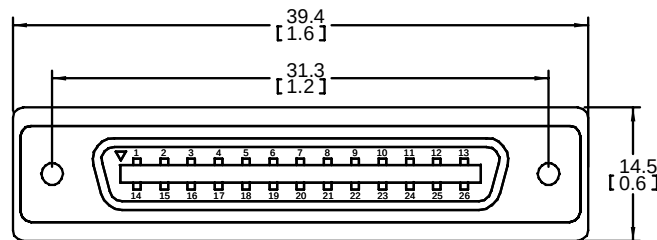
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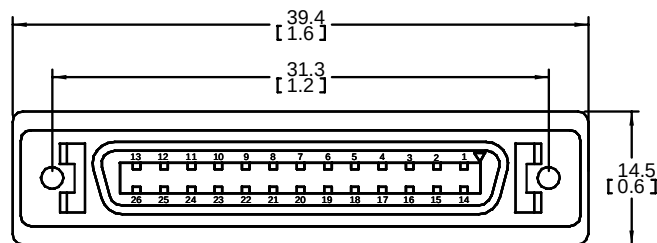


Over-molded #4-40 Thumbscrew



MDR 26 Position Plug  
One End

Over-molded #4-40 Jack Socket



MDR 26 Position Receptacle  
One End

mm  
[Inch]

| Tolerance Unless Noted |      |       |
|------------------------|------|-------|
|                        | 0.0  | 0.00  |
| mm                     | ± .1 | ± .10 |

[ ] 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

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Length:  
050 = .5 meters    450 = 4.5 meters  
100 = 1 meters    500 = 5 meters  
200 = 2 meters    600 = 6 meters  
250 = 2.5 meters    700 = 7 meters  
300 = 2 meters    800 = 8 meters  
350 = 3.5 meters    900 = 9 meters  
400 = 4 meters    A00 = 10 meters

Note:

1. Use 3341-31 jacksocket for mounting receptacle to panel.

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# 3M™ Mini D Ribbon (MDR) Cable Assembly

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| MDR 26 Position Pinout                                                                           |        |          |      |       |        |          |
|--------------------------------------------------------------------------------------------------|--------|----------|------|-------|--------|----------|
| P1                                                                                               |        |          |      | P2    |        |          |
| Pair                                                                                             | Signal | Position |      | Pair  | Signal | Position |
| shld                                                                                             | Ishld  | 26       |      | shld  | Ishld  | 26       |
| shld                                                                                             | Ishld  | 13       |      | shld  | Ishld  | 13       |
| 1                                                                                                | Y0-    | 25       |      | 1     | Y0-    | 25       |
| 1                                                                                                | Y0+    | 12       |      | 1     | Y0+    | 12       |
| 2                                                                                                | Y1-    | 24       |      | 2     | Y1-    | 24       |
| 2                                                                                                | Y1+    | 11       |      | 2     | Y1+    | 11       |
| 3                                                                                                | Y2-    | 23       |      | 3     | Y2-    | 23       |
| 3                                                                                                | Y2+    | 10       |      | 3     | Y2+    | 10       |
| 4                                                                                                | Yelk-  | 22       |      | 4     | Yelk-  | 22       |
| 4                                                                                                | Yelk+  | 9        |      | 4     | Yelk+  | 9        |
| 5                                                                                                | Y3-    | 21       |      | 5     | Y3-    | 21       |
| 5                                                                                                | Y3+    | 8        |      | 5     | Y3+    | 8        |
| 6                                                                                                | 100Ohm | 20       |      | 6     | 100Ohm | 20       |
| 6                                                                                                | term   | 7        |      | 6     | term   | 7        |
| 7                                                                                                | Z0-    | 19       |      | 7     | Z0-    | 19       |
| 7                                                                                                | Z0+    | 6        |      | 7     | Z0+    | 6        |
| 8                                                                                                | Z1-    | 18       |      | 8     | Z1-    | 18       |
| 8                                                                                                | Z1+    | 5        |      | 8     | Z1+    | 5        |
| 9                                                                                                | Z2-    | 17       |      | 9     | Z2-    | 17       |
| 9                                                                                                | Z2+    | 4        |      | 9     | Z2+    | 4        |
| 10                                                                                               | Zelk-  | 16       |      | 10    | Zelk-  | 16       |
| 10                                                                                               | Zelk+  | 3        |      | 10    | Zelk+  | 3        |
| 11                                                                                               | Z3-    | 15       | 11   | Z3-   | 15     |          |
| 11                                                                                               | Z3+    | 2        | 11   | Z3+   | 2      |          |
| shld                                                                                             | Ishld  | 14       | shld | Ishld | 14     |          |
| shld                                                                                             | Ishld  | 1        | shld | Ishld | 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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