

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

.050" High Speed Digital Data Transmission System, 100 Pos. 141A0-SZ5B-XXX-0DC



- 24 shielded quad pairs (96 cond.) plus 4 drains
- Solution for high speed datacom and telecom applications
- Each differential pair is shielded with foil and braid for additional signal protection
- Rugged MDR ribbon type contact
- Quick release latches
- RoHS\* compliant

Date Modified: October 11, 2005

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## Physical

### Connector Contact Plating

Wiping Area: 30  $\mu$ " [ 0.76  $\mu$ m ] Min. Gold

### Shell

Plating: Nickel

Material: Aluminum

### Cable

Color: Parchment/Beige

Jacket Material: Polyvinyl Chloride (PVC)

Flammability: AWM VW-1

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## Electrical

**Voltage Rating:** 30 V

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

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

**Current Rating:** 1 A

### Individually Shielded Balanced Quads

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

**Conductor Size:** 30 AWG

**Propagation Velocity:** 1.45 ns/ft [4.8 ns/m ]

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## Environmental

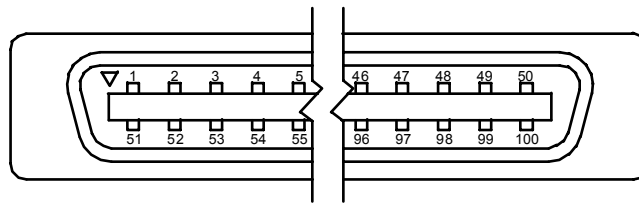
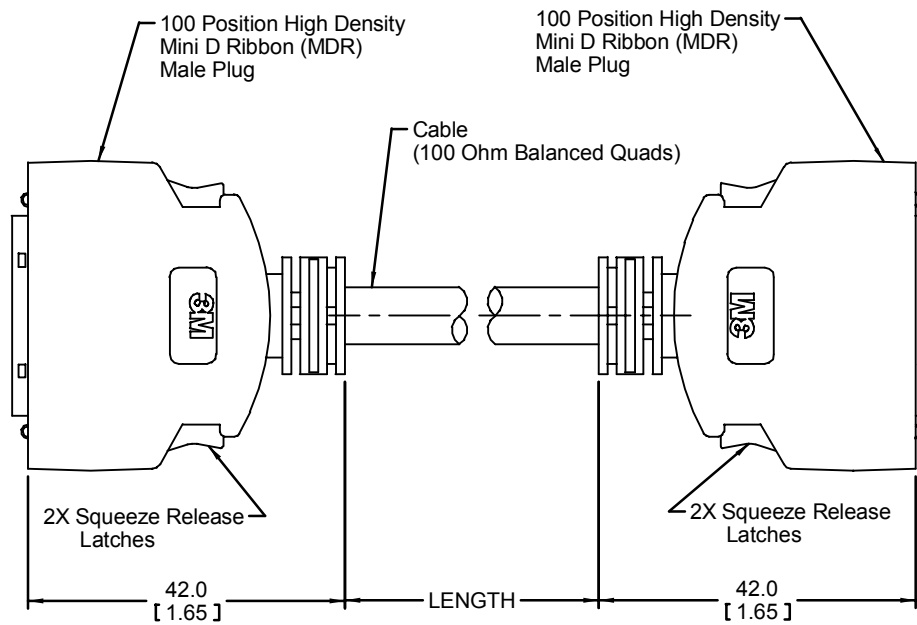
**Temperature Rating:** -20°C to +75°C

"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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mm  
[Inch]

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

[ ] Dimensions for Reference only



## Ordering Information

**141A0-SZ5B-XXX-0DC**

Length: \_\_\_\_\_  
300 = 3 meters  
500 = 5 meters

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

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| MDR 100 Position Pinout F100-1 |             |       |      |             |       |
|--------------------------------|-------------|-------|------|-------------|-------|
| Quad                           | Signal      | Pin # | Quad | Signal      | Pin # |
|                                | LVDS GRND 1 | 1     | 2    | 25M         | 26    |
| 11                             | 1M          | 51    | 2    | 26M         | 76    |
| 11                             | 2M          | 2     | 2    | 25P         | 27    |
| 11                             | 1P          | 52    | 2    | 26P         | 77    |
| 11                             | 2P          | 3     | 7    | 27M         | 28    |
| 12                             | 3M          | 53    | 7    | 28M         | 78    |
| 12                             | 4M          | 4     | 7    | 27P         | 29    |
| 12                             | 3P          | 54    | 7    | 28P         | 79    |
| 12                             | 4P          | 5     | 8    | 29M         | 30    |
| 13                             | 5M          | 55    | 8    | 30M         | 80    |
| 13                             | 6M          | 6     | 8    | 29P         | 31    |
| 13                             | 5P          | 56    | 8    | 30P         | 81    |
| 13                             | 6P          | 7     |      | LVDS GRND 3 | 32    |
| 14                             | 7M          | 57    | 9    | 31M         | 82    |
| 14                             | 8M          | 8     | 9    | 32M         | 33    |
| 14                             | 7P          | 58    | 9    | 31P         | 83    |
| 14                             | 8P          | 9     | 9    | 32P         | 34    |
| 15                             | 9M          | 59    | 10   | 33M         | 84    |
| 15                             | 10M         | 10    | 10   | 34M         | 35    |
| 15                             | 9P          | 60    | 10   | 33P         | 85    |
| 15                             | 10P         | 11    | 10   | 34P         | 36    |
| 16                             | 11M         | 61    | 18   | 35M         | 86    |
| 16                             | 12M         | 12    | 18   | 36M         | 37    |
| 16                             | 11P         | 62    | 18   | 35P         | 87    |
| 16                             | 12P         | 13    | 18   | 36P         | 38    |
| 17                             | 13M         | 63    | 19   | 37M         | 88    |
| 17                             | 14M         | 14    | 19   | 38M         | 39    |
| 17                             | 13P         | 64    | 19   | 37P         | 89    |
| 17                             | 14P         | 15    | 19   | 38P         | 40    |
|                                | LVDS GRND 2 | 65    | 20   | 39M         | 90    |
| 3                              | 15M         | 16    | 20   | 40M         | 41    |
| 3                              | 16M         | 66    | 20   | 39P         | 91    |
| 3                              | 15P         | 17    | 20   | 40P         | 42    |
| 3                              | 16P         | 67    | 21   | 41M         | 92    |
| 4                              | 17M         | 18    | 21   | 42M         | 43    |
| 4                              | 18M         | 68    | 21   | 41P         | 93    |
| 4                              | 17P         | 19    | 21   | 42P         | 44    |
| 4                              | 18P         | 69    | 22   | 43M         | 94    |
| 5                              | 19M         | 20    | 22   | 44M         | 45    |
| 5                              | 20M         | 70    | 22   | 43P         | 95    |
| 5                              | 19P         | 21    | 22   | 44P         | 46    |
| 5                              | 20P         | 71    | 23   | 45M         | 96    |
| 6                              | 21M         | 22    | 23   | 46M         | 47    |
| 6                              | 22M         | 72    | 23   | 45P         | 97    |
| 6                              | 21P         | 23    | 23   | 46P         | 48    |
| 6                              | 22P         | 73    | 24   | 47M         | 98    |
| 1                              | 23M         | 24    | 24   | 48M         | 49    |
| 1                              | 24M         | 74    | 24   | 47P         | 99    |
| 1                              | 23P         | 25    | 24   | 48P         | 50    |
| 1                              | 24P         | 75    |      | LVDS GRND 4 | 100   |

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## Electronics

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*Minimum 10%  
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