

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

.050" High Speed Digital Data Transmission System - 20 to 20 Position

14520-EZAB-XXX-0EC



- Supports new VESA™/ DFP standard for 20 position MDR at host device
- LCD monitor assembly for PanelLink® / TMDS™ interface
- Each differential twin-ax pair has foil shield and drain wire
- Entire cable bundle is shielded with foil and braid for additional signal protection
- Rugged MDR ribbon type contact
- Quick release latches
- RoHS\* compliant

Date Modified: May 22, 2006

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## Physical

### Connector Contact Plating

Wiping Area: 30 μ" [0.76μm] Min. Gold

### Shell

Color: Beige

Material: Acrylonitrile Butadiene Styrene (ABS)

**Cable Color:** Beige

Jacket Material: Polyvinyl Chloride (PVC)

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]

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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.

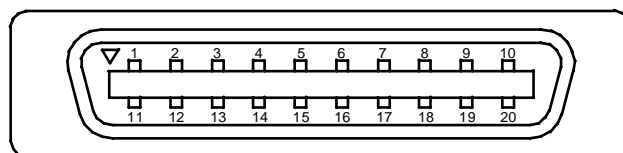
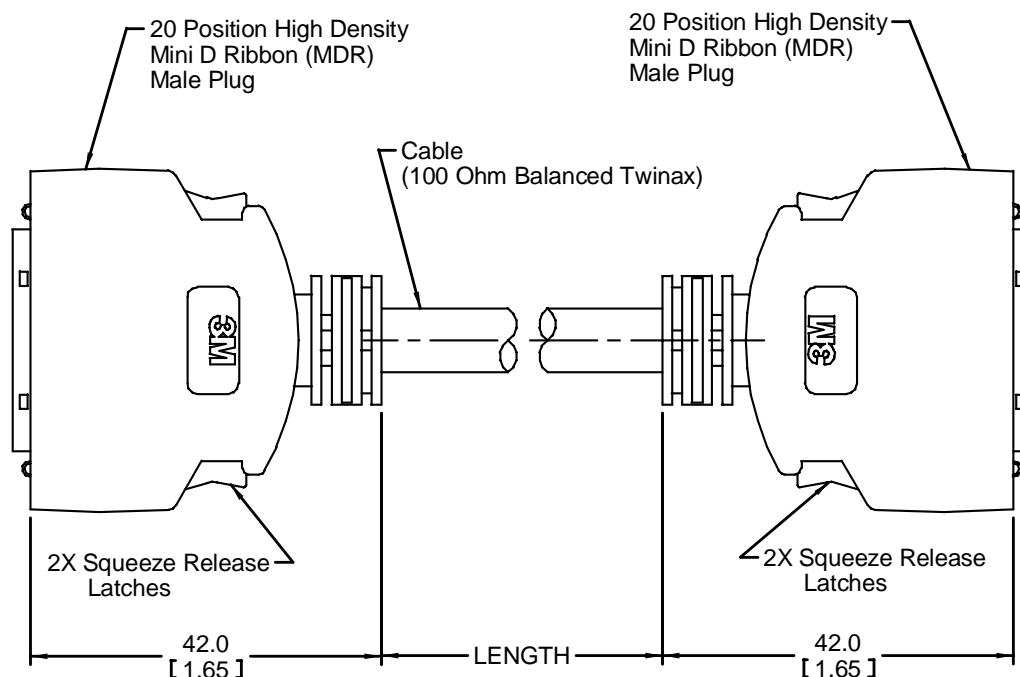
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MDR 20 Position Plug  
Both Ends  
(P20-15 Pinout)



mm  
[Inch]

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

[ ] Dimensions for  
Reference only

## Ordering Information

**14520-EZAB-XXX-0EC**

Length: \_\_\_\_\_  
100 = 1 meters  
200 = 2 meters  
300 = 3 meters  
500 = 5 meters  
A00 = 10 meters

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

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## MDR-DFP 20 to 20 Position, Pinout P20-15 (rev. 0.4a)

(Note: Cable assembly is reversable.)

### DFP Transmitter, Tx

(Host)

### Receiver, Rx

(Monitor)

Pin Number	Signal		Pin Number	Signal
1	Tx 1+		1	Rx 0-
2	Tx 1-		2	Rx 0+
3	Tx 1 shld		3	Rx 0 shld
4	Tx Clk shld		4	Rx 2 shld
5	Tx Clk +		5	Rx 2-
6	Tlk Clk -		6	Rx 2+
7	DDC gnd		7	DDC/SCL
8	DDC +5 Vdc		8	DDC/SDA
9	NC		9	NC
10	NC		10	NC
11	Tx 2+		11	Rx Clk-
12	Tx 2-		12	Rx Clk +
13	Tx 2 shld		13	Rx Clk shld
14	Tx 0 shld		14	Rx 1 shld
15	Tx 0+		15	Rx 1-
16	Tx 0-		16	Rx 1+
17	NC		17	NC
18	sense		18	sense
19	DDC/SDA		19	DDC +5 Vdc
20	DDC/SCL		20	DDC gnd

**Note: Wiring diagram is not Pin 1 to Pin 1.**

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Interconnect Solutions

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Minimum 10%  
Post-Consumer Fiber

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