

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

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

14X50-SZWB-XXX-0NC



- Supports LVDS Channel Link™ signaling
- 20 shielded pairs (100 ohm) +4 drains for high bandwidth applications
- High density 50 position MDR with rugged ribbon type contact
- 3 Unshielded Twisted 28 AWG Pairs
- EMI shielded junction shell in either plastic or over-molded construction
- Rugged thumbscrew retention
- RoHS\* compliant

Date Modified: May 12, 2006

TS-2103-03  
Sheet 1 of 4

---

## 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 Vdc

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

### Individually Shielded Twisted Pairs

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

**Conductor Size:** 28 AWG Stranded

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

---

## 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

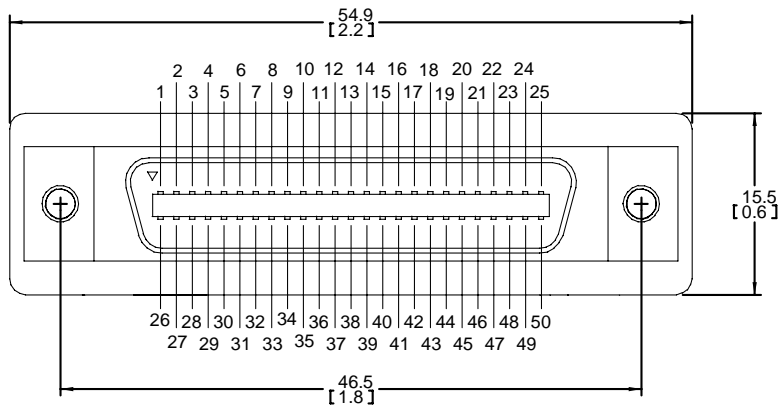
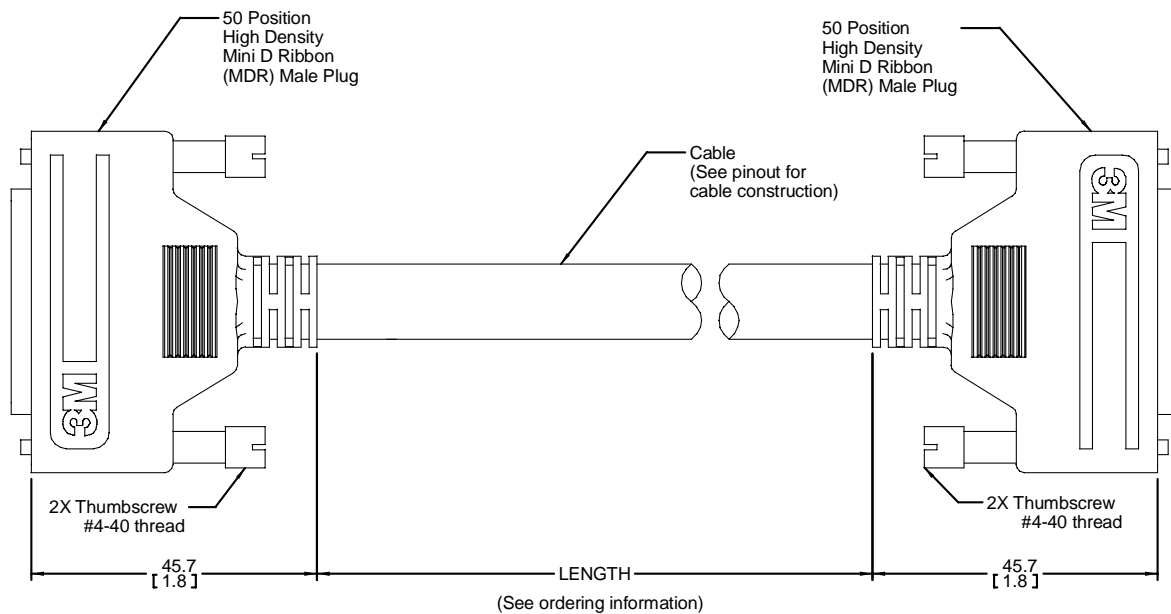
Channel Link is a trademark of National Semiconductor.

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

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

14X50-SZWB-XXX-0NC

## Over-Molded #4-40 Thumbscrew



mm  
[Inch]

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

[ ] Dimensions for Reference only

**Generic End Detail**  
**MDR 50 Position Plug**  
( Both Ends )

### Assembly Length Tolerance

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

## Ordering Information

**14X50-SZWB-XXX-0NC**

Backshell Options:  
T = Over-molded 4-40 thumbscrew  
B = Discrete 4-40 thumbscrew shell kit

Length:  
100 = 1.0 meters  
200 = 2.0 meters  
500 = 5.0 meters

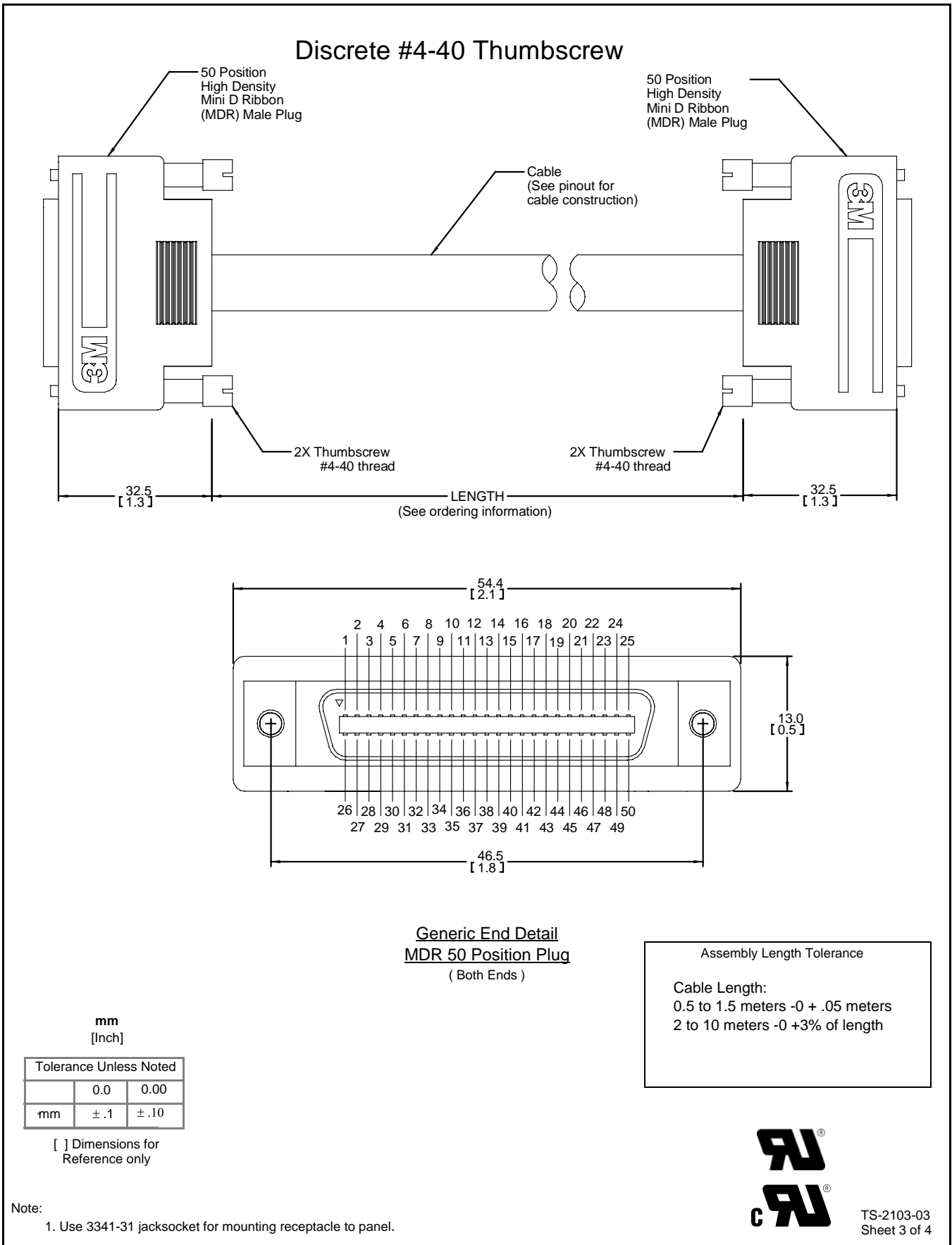


TS-2103-03  
Sheet 2 of 4

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

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

14X50-SZWB-XXX-0NC



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

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

14X50-SZWB-XXX-0NC

MDR 50 Position Pinout (F50-13)											
P1						P2					
Pair	Signal	Position	Position	Signal	Pair	Pair	Signal	Position	Position	Signal	Pair
1	A0M	1	38	DDC Gnd	TP2	1	A0M	1	38	DDC Gnd	TP2
1	A0P	26	14	DDC SCL	TP2	1	A0P	26	14	DDC SCL	TP2
2	A1M	2	39	DDC SDA	TP3	2	A1M	2	39	DDC SDA	TP3
2	A1P	27	15	A8M	11	2	A1P	27	15	A8M	11
3	A2M	3	40	A8P	11	3	A2M	3	40	A8P	11
3	A2P	28	16	A9M	12	3	A2P	28	16	A9M	12
4	CLK1M	4	41	A9P	12	4	CLK1M	4	41	A9P	12
4	CLK1P	29	17	A10M	13	4	CLK1P	29	17	A10M	13
5	A3M	5	42	A10P	13	5	A3M	5	42	A10P	13
5	A3P	30	18	CLK3M	14	5	A3P	30	18	CLK3M	14
N/A	Shield 1	6	43	CLK3P	14	N/A	Shield 1	6	43	CLK3P	14
N/A	Shield 1	31	19	A11M	15	N/A	Shield 1	31	19	A11M	15
6	A4M	7	44	A11P	15	6	A4M	7	44	A11P	15
6	A4P	32	20	Shield 4	N/A	6	A4P	32	20	Shield 4	N/A
7	A5M	8	45	Shield 3	N/A	7	A5M	8	45	Shield 3	N/A
7	A5P	33	21	A12M	16	7	A5P	33	21	A12M	16
8	A6M	9	46	A12P	16	8	A6M	9	46	A12P	16
8	A6P	34	22	A13M	17	8	A6P	34	22	A13M	17
9	A7M	10	47	A13P	17	9	A7M	10	47	A13P	17
9	A7P	35	23	A14M	18	9	A7P	35	23	A14M	18
10	CLK2M	11	48	A14P	18	10	CLK2M	11	48	A14P	18
10	CLK2P	36	24	A15M	19	10	CLK2P	36	24	A15M	19
TP1	twpr-	12	49	A15P	19	TP1	twpr-	12	49	A15P	19
TP1	twpr+	37	25	CLK4M	20	TP1	twpr+	37	25	CLK4M	20
TP3	DDC+5V	13	50	CLK4P	20	TP3	DDC+5V	13	50	CLK4P	20

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).

TS-2103-03  
Sheet 4 of 4

## Important Notice

All statements, technical information, and recommendations related to 3M's products are based on information believed to be reliable, but the accuracy or completeness is not guaranteed. Before using this product, you must evaluate it and determine if it is suitable for your intended application. You assume all risks and liability associated with such use. Any statements related to the product which are not contained in 3M's current publications, or any contrary statements contained on your purchase order shall have no force or effect unless expressly agreed upon, in writing, by an authorized officer of 3M.



### 3M Electronics

6801 River Place Blvd.  
Austin, TX 78726-9000  
800/225-5373  
[www.3M.com/electronics](http://www.3M.com/electronics)

## Warranty; Limited Remedy; Limited Liability.

This product will be free from defects in material and manufacture for a period of one (1) year from the time of purchase. **3M MAKES NO OTHER WARRANTIES INCLUDING, BUT NOT LIMITED TO, ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE.** If this product is defective within the warranty period stated above, your exclusive remedy shall be, at 3M's option, to replace or repair the 3M product or refund the purchase price of the 3M product. **Except where prohibited by law, 3M will not be liable for any indirect, special, incidental or consequential loss or damage arising from this 3M product, regardless of the legal theory asserted.**



Minimum 10%  
Post-Consumer Fiber

Printed in USA.

© 3M 2006



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



#### Как с нами связаться

**Телефон:** 8 (812) 309 58 32 (многоканальный)

**Факс:** 8 (812) 320-02-42

**Электронная почта:** [org@eplast1.ru](mailto:org@eplast1.ru)

**Адрес:** 198099, г. Санкт-Петербург, ул. Калинина, дом 2, корпус 4, литера А.