

# 3M™ Shrunk Delta Ribbon (SDR) Cable Assembly

.80 mm High Speed Digital Data Transmission, 26 position

1SF26-L1XX-00C-XXX



- Supports AIA Industrial Camera Link® Standard for Mini C/L camera to frame grabber applications
- 11 shielded, twisted twinax pairs with four drain wires
- Double overall shield with inner foil and outer braid
- Rugged ribbon contact type
- Rugged thumbscrew retention
- EMI shielded overmolded junction shell
- Optional R/A overmolded backshells eliminate bend radius
- See the Regulatory Information Appendix (RIA) in the “RoHS compliance” section of [www.3M.com/Interconnect](http://www.3M.com/Interconnect) for compliance information (RIA E1 & C1 apply)

Date Modified: August 10, 2009

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## Physical

### Connector Contact Plating:

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

Underplating: 100  $\mu$ " [ 2.55  $\mu$ m ] Nickel

### Overmolded Shell:

Color: Black

Material: Polyvinyl Chloride (PVC)

### Cable:

Color: Beige

Jacket Material: Polyvinyl Chloride (PVC)

Flammability: AWM VW-1

Marking: 3M Logo

## Electrical

**Voltage Rating:** 30 V

**Current Rating:** 0.5 A

**Insulation Resistance:** 1 X 10<sup>8</sup>  $\Omega$  min at 100 V<sub>DC</sub>

**Withstanding Voltage:** 125 V<sub>AC</sub> RMS 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

## Environmental

**Temperature Rating:** 0°C to +70°C

UL File No.: E86982

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Figure 1  
Straight SDR to Straight SDR Cable Assembly  
Option 20



Figure 2  
Straight SDR to Straight SDR Cable Assembly

mm [inch]		
Tolerance Unless Noted		
	.0	.00
mm	± .1	± .01

[ ] Dimensions used for Reference Only

Note:

1. For length dimension, refer to the product ordering number.



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Figure 3  
R/A SDR to SDR Cable Assembly  
Options 36 & 37



Figure 4  
Overmolded R/A SDR Connector



Figure 5  
Overmolded R/A SDR Connector  
(36 option)



Figure 6  
Overmolded R/A SDR Connector  
(37 option)

mm [inch]		
Tolerance Unless Noted		
	.0	.00
mm	± .1	± .01

[ ] Dimensions used for Reference Only

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# 3M™ Shrunk Delta Ribbon (SDR) Cable Assembly

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CN-1 Conn. Pos.	Base Configuration					CN-2 Conn. Pos.
	Full / Medium configuration					
	Cable					
2	XO-	YO-	TWINAX 1	YO-	XO-	25
15	XO+	YO+		YO+	XO+	12
3	X1-	Y1-	TWINAX 2	Y1-	X1-	24
16	X1+	Y1+		Y1+	X1+	11
4	X2-	Y2-	TWINAX 3	Y2-	X2-	23
17	X2+	Y2+		Y2+	X2+	10
5	XC-	Yclk-	TWINAX 4	Yclk-	XC-	22
18	XC+	Yclk+		Yclk+	XC+	9
6	X3-	Y3-	TWINAX 5	Y3-	X3-	21
19	X3+	Y3+		Y3+	X3+	8
7	Ser TC+	100 ohm	TWINAX 6	100 ohm	Ser TC+	20
20	Ser TC-	Terminated		Terminated	Ser TC-	7
8	Ser TFG-	ZO-	TWINAX 7	ZO-	Ser TFG-	19
21	Ser TFG+	ZO+		ZO+	Ser TFG+	6
9	CC1-	Z1-	TWINAX 8	Z1-	CC1-	18
22	CC1+	Z1+		Z1+	CC1+	5
10	CC2+	Z2-	TWINAX 9	Z2-	CC2+	17
23	CC2-	Z2+		Z2+	CC2-	4
11	CC3-	Zclk-	TWINAX 10	Zclk-	CC3-	16
24	CC3+	Zclk+		Zclk+	CC3+	3
12	CC4+	Z3-	TWINAX 11	Z3-	CC4+	15
25	CC4-	Z3+		Z3+	CC4-	2
1	INNER SHIELD	INNER SHIELD	DRAIN WIRE	INNER SHIELD	INNER SHIELD	1
14	INNER SHIELD	INNER SHIELD		INNER SHIELD	INNER SHIELD	14
13	INNER SHIELD	INNER SHIELD		INNER SHIELD	INNER SHIELD	13
26	INNER SHIELD	INNER SHIELD		INNER SHIELD	INNER SHIELD	26
Shell	BRAID SHIELD					Shell

Table 1  
Cable Assembly Wiring Diagram

## Ordering Information

**1SF26-L1XX-00C-XXX** (RIA E1 & C1 apply)

20 = SDR straight to SDR straight backshell.

36 = The direction of the cable for the RA SDR connector dresses down with respect to a horizontal board mount connector. The topology for the 36 option is a straight overmolded SDR backshell to a R/A overmolded SDR backshell.

37 = The direction of the cable for the RA SDR connector dresses up with respect to a horizontal board mount connector. The topology for the 37 option is a straight overmolded SDR backshell to a R/A overmolded SDR backshell.

Length :  
100 = 1m  
200 = 2m  
500 = 5m  
A00 = 10m

Refer to length dimension in figures 1 & 3  
Reference notes 1 & 2 for cable length tolerance

### Notes:

- For a cable length of less than 2m, the length tolerance is +50mm / -0mm
- For a cable length of 2m or more, the length tolerance is +3% / -0% of cable length

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