

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

.80 mm High Speed Digital Data Transmission, 26 position

1SF26-L1XX-00C-XXX



- Supports new AIA Industrial Camera Link® Standard for new Mini C/L camera to new 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
- R/A overmolded backshells eliminate bend radius
- See regulatory information appendix (RIA) for chemical compliance information

Date Modified: December 13, 2007

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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

### Shell Options:

Color: Parchment / Beige and Black

Material: Overmolded option: Polyvinyl Chloride (PVC)

### Cable:

Color: Parchment / Beige

Jacket Material: Polyvinyl Chloride (PVC)

Flammability: AWM VW-1

Marking: 3M Logo

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## 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

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## Environmental

**Temperature Rating:** 0°C to +70°C

UL File No.: E86982

Camera Link is a certification mark of Automated Imaging Association

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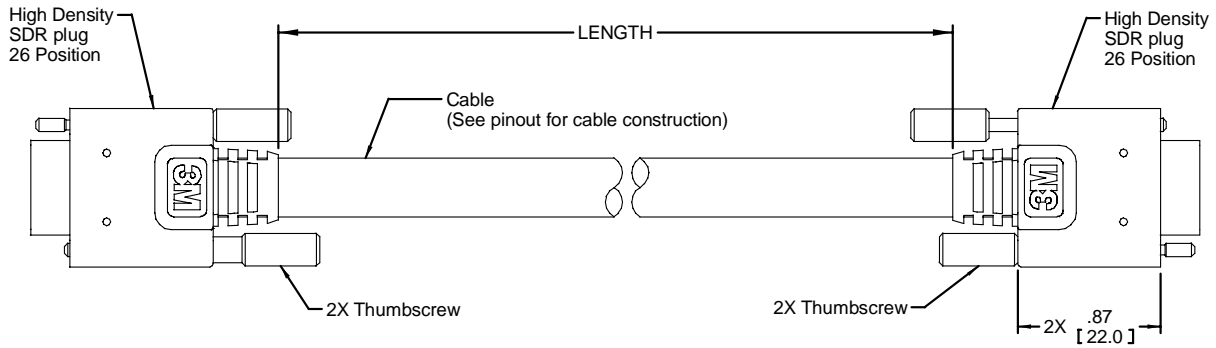


Figure 1  
Straight SDR to Straight SDR Cable Assembly  
Option 20

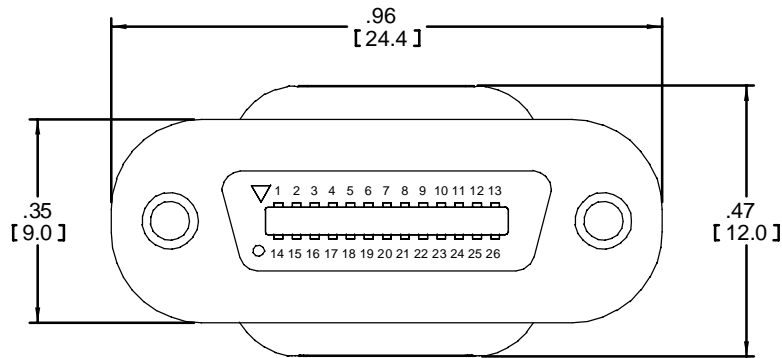


Figure 2  
Straight SDR to Straight SDR Cable Assembly

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



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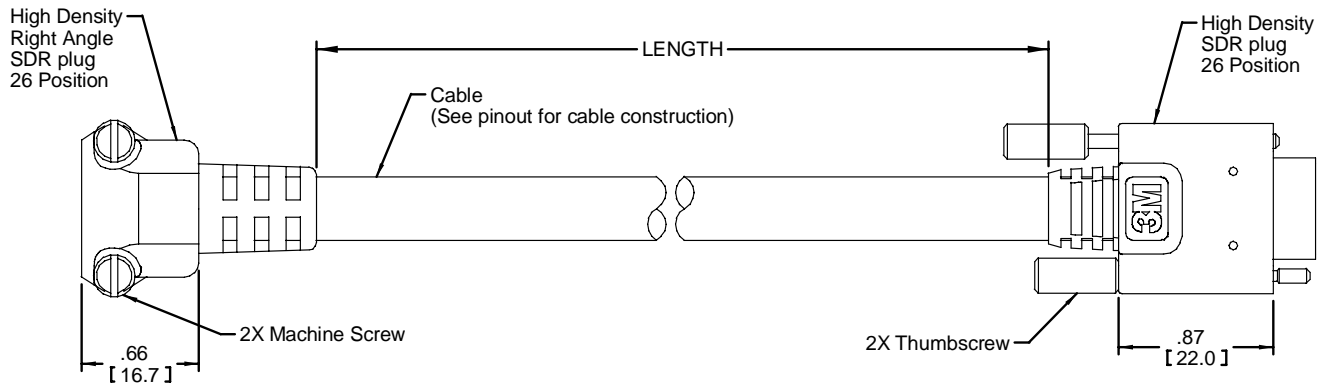


Figure 3  
R/A SDR to SDR Cable Assembly  
Options 36 & 37

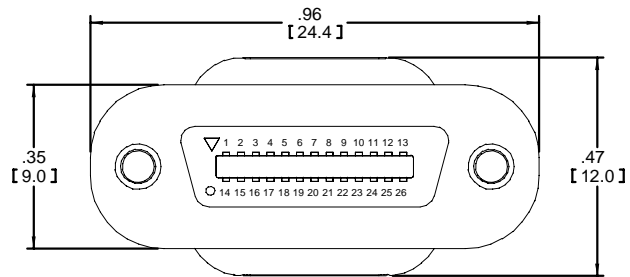
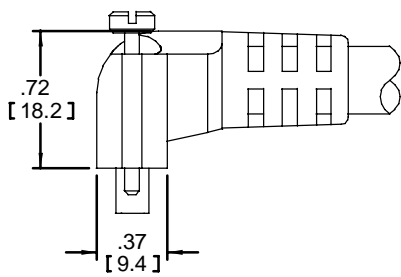


Figure 4  
Overmolded R/A SDR Connector

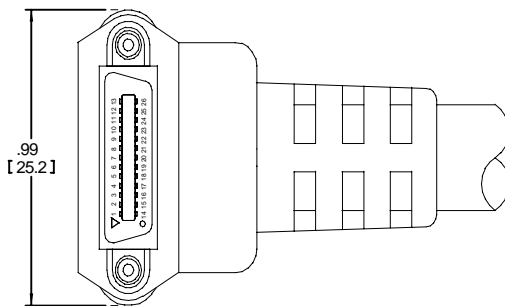


Figure 5  
Overmolded R/A SDR Connector  
(36 option)

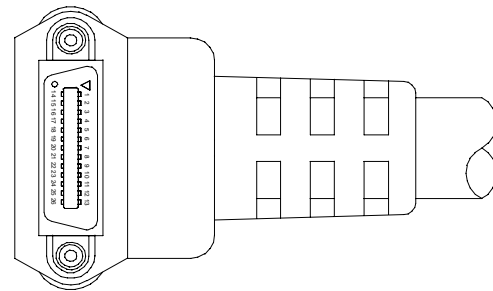


Figure 6  
Overmolded R/A SDR Connector  
(37 option)

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

.80 mm High Speed Digital Data Transmission, 26 position

1SF26-L1XX-00C-XXX

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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# Regulatory Information Appendix

## 3M Electronic Solutions Division/Interconnect

### EUROPE

#### Appendix E1: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product is RoHS Compliant 2005/95/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E2: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains lead in the compliant pin area in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/747/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E3: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment as amended by Commission Decision 2005/618/EC.

**This product contains lead in the solder tail area in excess of the maximum concentration value allowed.**

Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

#### Appendix E4: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical & Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains decaBDE in the insulating material in excess of the maximum concentration value allowed but is compliant by exemption under EU Commission Decision 2005/717/EC.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

# Appendix E5: European Union RoHS

Directive 2002/95/EC, Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment, as amended by EU Commission Decision 2005/618/EC.

**This product contains lead in excess of the maximum concentration value allowed but is compliant by exemption under Item 6 of the Annex to the Directive.**

“RoHS Compliant 2005/95/EC” means that the product or part (“Product”) does not contain any of the substances in excess of the maximum concentration values in EU Directive 2002/95/EC, as amended by Commission Decision 2005/618/EC, unless the substance is in an application that is exempt under EU RoHS. Unless otherwise stated by 3M in writing, this information represents 3M’s best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

## CHINA

### Appendix C1: China RoHS



Electronic Industry Standard of the People’s Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, 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: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the Warranty stated below.

### Appendix C2: China RoHS



Electronic Industry Standard of the People’s Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

The numerical reference in the symbol above should not be construed as a representation regarding the product’s life or an extension of a product warranty. The product warranty is stated below. In the event any product is proven not to conform with 3M’s Regulatory Information Appendix, then 3M’s entire liability and Buyer’s exclusive remedy will be in accordance with the product Warranty stated below.

产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
端子镀层(contact plating)	×	○	○	○	○	○
○: 表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.) ×: 表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)						

# Appendix C3: China RoHS

Electronic Industry Standard of the People's Republic of China, SJ/T11363-2006, Requirements for Concentration Limits for Certain Hazardous Substances in Electronic Information Products.

This symbol, per Marking for the Control of Pollution Caused by Electronic Information Products, SJ/T11364-2006, means that the product or part **does** contain a substance, as detailed in the chart below, in excess of the following maximum concentration values in any homogeneous material: (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 best knowledge and belief based upon information provided by third party suppliers to 3M.

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产品中有毒有害物质或元素的名称及含量 Name and Content of Hazardous Substances or Elements

部件名称 (Part or Component Name)	有毒有害物质或元素 (Hazardous Substances or Elements)					
	铅(Pb)	汞(Hg)	镉(Cd)	六价铬(Cr(VI))	多溴联苯(PBB)	多溴二苯醚(PBDE)
合金(Metal alloy)	×	○	○	○	○	○
○：表示该有毒有害物质在该部件所有均质材料中的含量均在SJ/T11363-2006 标准规定的限量要求以下。(Indicates that this hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement in SJ/T11363-2006.) ×：表示该有毒有害物质至少在该部件的某一均质材料中的含量超出SJ/T11363-2006 标准规定的限量要求。(Indicates that this hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement in SJ/T11363-2006.)						

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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.

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