



Product: [1694ELV](#) 

75 Ohm SDI Coax, RG-6, 18 AWG, Solid BC, Foil + 95% TC Braid, LSZH Jkt

Product Description

75 Ohm SDI Coax, RG-6, 18 AWG Solid Bare Copper Conductor, PE Insulation, Foil + 95% Tinned Copper Braid Shield, LSZH Jacket, B2ca.

Technical Specifications

Product Overview

Suitable Applications:	Digital Video, 6 Gb/s UHDTV, HD-SDI 1080p; The cable is UV-resistant and suitable for indoor and outdoor use
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	Diameter +/- Tolerance	No. of Coax
18	Solid	BC - Bare Copper	1.02 mm	0.03 mm	1

Conductor Count:	1
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Insulation

Type	Material	Nominal Diameter	Diameter +/- Tolerance
Dielectric	PE - Polyethylene (Foam)	4.57 mm	0.15 mm

Outer Shield

Type	Layer	Material	Coverage [%]	Min. Overlap	Nominal Diameter	Coverage +/- Tolerance
Tape	1	Tri-Laminate (Alum+Poly+Alum)	100%	2 mm		
Braid	2	Tinned Copper (TC)	95%		5.4 mm	5%

Outer Jacket

Material	Nominal Diameter	Diameter +/- Tolerance
LSZH - Low Smoke Zero Halogen (Flame Retardant)	6.96 mm	0.2 mm

Construction and Dimensions

Min Elongation at Break of Jacket:	125 %
Min Tensile Strength of Jacket:	9 MPa

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
21 Ohm/km	9.2 Ohm/km

Capacitance

Nom. Capacitance	Capacitance Tolerance
53 pF/m	2 pF/m

Min Insulation Resistance:	10000 MOhm*km
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Impedance

Nominal Characteristic Impedance	Nominal Characteristic Tolerance
75 Ohm	3 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5 - 1600 MHz	23 dB
1600 - 4500 MHz	21 dB
4500 - 6000 MHz	15 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.8 dB/100m
3.6 MHz	1.5 dB/100m
10 MHz	2.4 dB/100m
71.5 MHz	5.6 dB/100m
135 MHz	7.4 dB/100m
270 MHz	10.4 dB/100m
360 MHz	12.1 dB/100m
540 MHz	14.8 dB/100m
720 MHz	17.5 dB/100m
750 MHz	17.9 dB/100m
1000 MHz	20.7 dB/100m
1500 MHz	25.6 dB/100m
2250 MHz	32.2 dB/100m
3000 MHz	37.7 dB/100m
4500 MHz	47.6 dB/100m
6000 MHz	58.1 dB/100m

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]	Velocity of Propagation Tolerance
407 ns/ft	82%	2%

Voltage

Voltage Test Dielectric
2.0 kV DC

Temperature Range

Installation Temp Range:	-5°C To +50°C
Storage Temp Range:	-30°C To +70°C
Operating Temp Range:	-30°C To +70°C

Mechanical Characteristics

Max. Pull Tension:	300 N
Min Bend Radius (W/o Pulling Strength):	70 mm

Standards

CPR Euroclass:	B2ca-s1a,d1,a1
CENELEC Compliance:	EN 50117-1
RG Type:	6

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor - Euroclass B2ca
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Flammability, LS0H, Toxicity Testing

IEC Flammability:	IEC 60332-1-2
LOI of Jacket:	Min. 35 %
IEC 60754-1 - Halogen Amount:	Zero
IEC 60754-2 - Halogen Acid Gas Amount - Max. Conductivity:	2.5 µS/mm
IEC 60754-2 - Halogen Acid Gas Amount - Min. pH:	4.3
IEC 61034-2 - Smoke Density Min. Transmittance:	80%

History

Update and Revision:	Revision Number: 0.19 Revision Date: 09-08-2021
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