



Product: [4505ELW](#) 

4K UHD Coax for 12G-SDI, 75 Ohm, RG-59, 20 AWG Solid SC, Foil + 95% TC Braid, LSZH Jkt, CMG-LS

Product Description

75 Ohm SDI Coax, RG-59, 20 AWG Solid Silvered Copper Conductor, PE Insulation, Foil + 95% Tinned Copper Braid Shield, LSZH Jacket, CMG-LS

Technical Specifications

Product Overview

Suitable Applications:	Ultra-High Definition Digital Video, 4K Single-link 12 Gb/s UHD TV, 4K D-Cinema, 8K Quad-link UHDTV, HD-SDI 1080p
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
20	Solid	SC - Silvered Copper	0.032 in	1

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.145 in

Table Notes: Gas Injected

Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duobond® II	100%
Braid	2	Tinned Copper (TC)		95%

Outer Jacket

Material	Nominal Diameter
LSZH - Low Smoke Zero Halogen (Flame Retardant)	0.236 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
10.1 Ohm/1000ft	3.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.1 pF/ft

Inductance

Nominal Inductance
0.107 µH/ft

Impedance

Nominal Characteristic Impedance
75 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5 - 1600 MHz	23 dB
1600 - 4500 MHz	21 dB
4500 - 12000 MHz	15 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.30 dB/100ft
3.58 MHz	0.60 dB/100ft
5 MHz	0.63 dB/100ft
6 MHz	0.69 dB/100ft
7 MHz	0.74 dB/100ft
10 MHz	0.90 dB/100ft
12 MHz	0.91 dB/100ft
25 MHz	1.30 dB/100ft
55 MHz	1.98 dB/100ft
67.5 MHz	2.05 dB/100ft
71.5 MHz	2.1 dB/100ft
88.5 MHz	2.2 dB/100ft
100 MHz	2.3 dB/100ft
135 MHz	2.7 dB/100ft
143 MHz	2.8 dB/100ft
180 MHz	3.1 dB/100ft
270 MHz	3.8 dB/100ft
360 MHz	4.4 dB/100ft
540 MHz	5.5 dB/100ft
720 MHz	6.4 dB/100ft
750 MHz	6.5 dB/100ft
1000 MHz	7.6 dB/100ft
1500 MHz	9.3 dB/100ft
2000 MHz	10.8 dB/100ft
2250 MHz	11.5 dB/100ft
3000 MHz	13.4 dB/100ft
4500 MHz	16.7 dB/100ft
6000 MHz	19.7 dB/100ft
12000 MHz	28.7 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.22 ns/ft	83%

Voltage

UL Description	UL Voltage Rating
CMG-LS	300 V

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination
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Temperature Range

UL Temp Rating:	75°C
Operating Temperature Range:	-30°C to +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	31 lbs/1000ft
Max. Pull Tension:	52 lbs
Min. Bend Radius During Installation:	2.5 in
Min. Bend Radius/Minor Axis:	2.5 in

Standards

NEC/(UL) Compliance:	CMG-LS
CEC/C(UL) Compliance:	CMG-LS
CPR Euroclass:	Cca-s1,d1,a1

RG Type:	59
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Applicable Environmental and Other Programs

Environmental Space:	Indoor - Euroclass Cca
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU (RoHS 2 amendment):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
CA Prop 65:	No
MII Order #39 (China RoHS):	No

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Non-Halogenated:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LSOH, Toxicity Testing

CSA Flammability:	FT4
IEC Flammability:	IEC 60332-1-2

Plenum/Non-Plenum

Plenum (Y/N):	No
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Related Part Numbers

Non-Plenum Number:	4505R
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Product Notes

Notes:	Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.21 Revision Date: 04-29-2024
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