



Product: [4505R](#)

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

Product Description

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

Technical Specifications

Product Overview

Suitable Applications:	Ultra-High Definition Digital Video, 4K Single-link 12 Gb/s UHDTV, 4K D-Cinema, 8K Quad-link UHDTV, HD-SDI 1080p
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Construction Details

RG Type:	59
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Conductor

Size	Stranding	Nom. Diameter	Material
20 AWG	Solid	0.032 in	SC - Silvered Copper

Conductor

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20 AWG	Solid	0.032 in	SC - Silvered Copper

Insulation

Material	Nom. Insulation Diameter	Color Code	Notes
PE - Polyethylene (Foam)	0.145 in (3.68 mm)	White	Gas Injected

Insulation

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PE - Polyethylene (Foam)	0.145 in (3.68 mm)	White	Gas Injected

Outer Shield

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

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Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.233 in (5.92 mm)

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.233 in (5.92 mm)

Overall Cable Diameter (Nominal):	0.233 in (5.92 mm)
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Electrical Characteristics

Return Loss (RL)

Frequency	Min. Return Loss
5 - 1600 MHz	23 dB
1600 - 4500 MHz	21 dB
4500 - 12000 MHz	15 dB

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5 - 1600 MHz	23 dB
1600 - 4500 MHz	21 dB
4500 - 12000 MHz	15 dB

Attenuation

Frequency	Nom. Attenuation
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

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6000 MHz	19.7 dB/100ft
12000 MHz	28.7 dB/100ft

Electricals

Nom. Conductor DCR	Nom. Outer Shield DCR	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance	Nom. Velocity of Prop.
10.1 Ohm/1000ft	3.4 Ohm/1000ft (11 Ohm/km)	16.1 pF/ft (52.8 pF/m)	75 Ohm	83%

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Voltage

UL Voltage Rating
300 V (CMR, CMG)

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300 V (CMR, CMG)

Mechanical Characteristics

Temperature

UL Temperature	Operating
60°C	-20°C to +75°C

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Bend Radius

Installation Min.
2.3 in (58 mm)

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2.3 in (58 mm)

Max. Pull Tension:	52 lbs (24 kg)
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Bulk Cable Weight:	30 lbs/1000ft
Bulk Cable Weight:	30 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor - Riser, Indoor, Aerial - Black only, When supported by messenger wire
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Sustainability:	CA Prop 65
Sustainability:	CA Prop 65

Flammability / Reaction to Fire:	UL1666 Vertical Shaft
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CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
CPR Compliance:	CPR Euroclass: Eca; CPR UKCA Class: Eca
NEC / UL Compliance:	CMR
NEC / UL Compliance:	CMR
CEC / C(UL) Compliance:	CMG
CEC / C(UL) Compliance:	CMG
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
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UK Regulation Compliance:	UKCA Mark
UK Regulation Compliance:	UKCA Mark
APAC Compliance:	China RoHS II (GB/T 26572-2011)
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Plenum Number:	4505P
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History

Update and Revision:	Revision Number: 0.444 Revision Date: 04-29-2024
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Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC
4505R 0101000	Black	Reel	1,000 ft	612825396895
4505R 0105000	Black	Reel	5,000 ft	612825396901
4505R 01010000	Black	Reel	10,000 ft	612825436157
4505R 0061000	Blue, Light	Reel	1,000 ft	612825396871
4505R 0065000	Blue, Light	Reel	5,000 ft	612825436621
4505R 00610000	Blue, Light	Reel	10,000 ft	612825436546
4505R N3U1000	Mil Green	Reel	1,000 ft	612825396840
4505R 0031000	Orange	Reel	1,000 ft	612825396864
4505R 0071000	Purple	Reel	1,000 ft	612825396888
4505R 0021000	Red	Reel	1,000 ft	612825396857
4505R 0025000	Red	Reel	5,000 ft	612825436614
4505R 00210000	Red	Reel	10,000 ft	612825436539
4505R 0075000	Violet	Reel	5,000 ft	612825436638
4505R 00710000	Violet	Reel	10,000 ft	612825436553
4505R 0091000	White	Reel	1,000 ft	612825413257

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4505R 0105000	Black	Reel	5,000 ft	612825396901
4505R 01010000	Black	Reel	10,000 ft	612825436157
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4505R 00610000	Blue, Light	Reel	10,000 ft	612825436546
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4505R 0071000	Purple	Reel	1,000 ft	612825396888
4505R 0021000	Red	Reel	1,000 ft	612825396857
4505R 0025000	Red	Reel	5,000 ft	612825436614
4505R 00210000	Red	Reel	10,000 ft	612825436539
4505R 0075000	Violet	Reel	5,000 ft	612825436638
4505R 00710000	Violet	Reel	10,000 ft	612825436553
4505R 0091000	White	Reel	1,000 ft	612825413257

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