



**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

#### Insulation

Material	Nom. Insulation Diameter
PE - Polyethylene (Foam)	0.145 in (3.68 mm)

#### 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%

#### 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

#### 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

#### Electricals

Nom. Conductor DCR	Nom. Outer Shield DCR	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance	Nom. Velocity of Prop.
10.1 Ohm/1000ft (33.1 Ohm/km)	3.4 Ohm/1000ft (11 Ohm/km)	16.1 pF/ft (52.8 pF/m)	75 Ohm	83%

#### Voltage

UL Voltage Rating
300 V (CMR, CMG)

## Mechanical Characteristics

#### Temperature

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

#### Bend Radius

Installation Min.
2.3 in

Max. Pull Tension:	52 lbs (24 kg)
Bulk Cable Weight:	31 lbs/1000ft

## Standards and Compliance

Environmental Suitability:	Indoor - Riser, Indoor, UV Resistance, Aerial - Black only, When supported by messenger wire
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	UL1666 Vertical Shaft, FT4
NEC / UL Compliance:	CMR
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)
APAC Compliance:	China RoHS II (GB/T 26572-2011)
Non-Plenum Number:	4505P

## History

Update and Revision:	Revision Number: 0.288 Revision Date: 04-08-2022
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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