

Product: 4505ANH

12 GHz Coax, 4K UHD Precision Video Coax, RG-59, 75 Ohm, 20 AWG Solid, CMG-LS

Product Description

12 GHz Coax, 4K UHD Precision Video Cable, RG-59, 75 Ohm, 20 AWG solid .032" silver plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to core + tinned copper braid shield (95% coverage), LSZH jacket.

Technical Specifications

Product Overview

Suitable Applications:	SMPTE 2082-1 12 Gb/s UHDTV, SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080P

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)	Duofoil®	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
10.2 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 MHz - 1600 MHz	23 dB
1600 MHz - 4500 MHz	21 dB
4500 MHz - 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 Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination

Temperature Range

UL Temp Rating:	75°C
Operating Temp 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/Minor Axis:	2.5 in

Standards

NEC/(UL) Compliance:	CMG-LS
CEC/C(UL) Compliance:	CMG

CPR Euroclass:	Dca-s1,d1,a1
RG Type:	59

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor - Euroclass Dca
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

Suitability

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

Flammability, LS0H, Toxicity Testing

C(UL) Flammability:	FT4
CSA Flammability:	FT4
IEC Flammability:	IEC 60332-1-2

Plenum/Non-Plenum

Plenum (Y/N):	No

Related Part Numbers

Non-Plenum Number:	4505R

Variants

Item #	Color	Put-Up Type	Length	UPC
4505ANH G751000	Aqua	Reel	1,000 ft	612825437307
4505ANH G751640	Aqua	Reel	1,640 ft	612825437352
4505ANH G753280	Aqua	Reel	3,280 ft	612825437413
4505ANH 0101000	Black	Reel	1,000 ft	612825437345
4505ANH 0101640	Black	Reel	1,640 ft	612825437406
4505ANH 0103280	Black	Reel	3,280 ft	612825437451
4505ANH 0061000	Blue, Light	Reel	1,000 ft	612825437321
4505ANH 0061640	Blue, Light	Reel	1,640 ft	612825437383
4505ANH 0063280	Blue, Light	Reel	3,280 ft	612825437437
4505ANH N3U1000	Mil Green	Reel	1,000 ft	612825437314
4505ANH N3U1640	Mil Green	Reel	1,640 ft	612825437376
4505ANH N3U3280	Mil Green	Reel	3,280 ft	612825437420
4505ANH 0071000	Purple	Reel	1,000 ft	612825437338
4505ANH 0071640	Purple	Reel	1,640 ft	612825437390
4505ANH 0073280	Purple	Reel	3,280 ft	612825437444

Product Notes

Notes:	Print legend includes sequential footage marks.

History

Update and Revision:	Revision Number: 0.117 Revision Date: 12-15-2021

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