



Part Number: 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

Environmental Space:	Indoor - Euroclass Cca
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	SPC - Silver Plated Copper	0.032 in	1

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.145 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester/Aluminum	Bonded Duofoil® (Bonded to Dielectric)	100.0 %
Braid	2	TC - Tinned Copper		95.0 %

Outer Jacket Material

Material	Nominal Diameter
LSZH - Low Smoke Halogen Free	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 MHz	0.30 dB/100ft
3.58 MHz MHz	0.60 dB/100ft
5 MHz MHz	0.63 dB/100ft
6 MHz MHz	0.69 dB/100ft
7 MHz MHz	0.74 dB/100ft
10 MHz MHz	0.90 dB/100ft
12 MHz MHz	0.91 dB/100ft
25 MHz MHz	1.30 dB/100ft
55 MHz MHz	1.98 dB/100ft
67.5 MHz MHz	2.05 dB/100ft
71.5 MHz MHz	2.1 dB/100ft
88.5 MHz MHz	2.2 dB/100ft
100 MHz 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	83.0 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination
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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 Recommended Pulling Tension:	52 lbs
Min Bend Radius/Minor Axis:	2.5 in

Standards

NEC/(UL) Specification:	CMG-LS
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Cca-s1,d1,a1
RG Type:	59/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	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, LSOH, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Non-Plenum Number:	4505R
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Variants

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

Product Notes

Notes:	Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.14 Revision Date: 08-22-2019
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