Product: 4505P

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

Product Description

12 GHz, 4K UHD Precision Video Cable, 75 Ohm RG-59 Type 20 AWG solid silver plated copper conductor, foam FEP core, Duofoil® bonded to core+95% tinned copper braid, CMP, Flamarrest® 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

Construction Details

RG Type:	59

Conductor

No. of Elements	Size	Stranding	Nom. Diameter	Material
1	20 AWG	Solid	0.032 in	SC - Silvered Copper

Insulation

Material	Nom. Insulation Diameter	Color Code
FEP - Fluorinated Ethylene Propylene (Foam)	0.133 in (3.38 mm)	White

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
PVC - Polyvinyl Chloride	0.197 in (5.00 mm)

Overall Cable Diameter (Nominal):	0.197 in (5.00 mm)

Electrical Characteristics

Return Loss (RL)

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

Attenuation

Frequency	Nom. Attenuation
1 MHz	0.26 dB/100ft
3.58 MHz	0.59 dB/100ft
5 MHz	0.68 dB/100ft
6 MHz	0.73 dB/100ft
7 MHz	0.79 dB/100ft
10 MHz	0.93 dB/100ft

12 MHz	1.01 dB/100ft
25 MHz	1.41 dB/100ft
55 MHz	2.01 dB/100ft
67.5 MHz	2.20 dB/100ft
71.5 MHz	2.26 dB/100ft
88.5 MHz	2.49 dB/100ft
100 MHz	2.63 dB/100ft
135 MHz	3.04 dB/100ft
143 MHz	3.13 dB/100ft
180 MHz	3.50 dB/100ft
270 MHz	4.31 dB/100ft
360 MHz	5.05 dB/100ft
540 MHz	6.33 dB/100ft
720 MHz	7.44 dB/100ft
750 MHz	7.61 dB/100ft
1000 MHz	8.96 dB/100ft
1500 MHz	11.32 dB/100ft
2000 MHz	13.38 dB/100ft
2250 MHz	14.35 dB/100ft
3000 MHz	17.00 dB/100ft
4500 MHz	21.64 dB/100ft
6000 MHz	25.78 dB/100ft
12000 MHz	39.48 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)	2.5 Ohm/1000ft (8.2 Ohm/km)	16.1 pF/ft (52.8 pF/m)	75 Ohm	84%

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination

Mechanical Characteristics

Temperature

UL Temperature	Operating
75°C	-20°C To +75°C

Bend Radius

Stationary Min.	Installation Min.
2 in (51 mm)	2 in (51 mm)

Max. Pull Tension:	55 lbs (25 kg)
Bulk Cable Weight:	29 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor - Plenum, Indoor
Flammability / Reaction to Fire:	NFPA 262, FT6
NEC / UL Compliance:	Article 800, CMP
CEC / C(UL) Compliance:	CMP
European Directive Compliance:	EU CE Mark, 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:	4505R

History

Update and Revision:	Revision Number: 0.238 Revision Date: 04-29-2024

Part Numbers

Variants

Item #	Color	Putup Type	Length

4505P 0101000	Black	Reel	1,000 ft
4505P 0105000	Black	Reel	5,000 ft
4505P 0061000	Blue, Light	Reel	1,000 ft
4505P 0065000	Blue, Light	Reel	5,000 ft
4505P 0081000	Gray	Reel	1,000 ft
4505P 0085000	Gray	Reel	5,000 ft
4505P 8771000	Natural	Reel	1,000 ft
4505P 8775000	Natural	Reel	5,000 ft
4505P 0071000	Purple	Reel	1,000 ft
4505P 0075000	Purple	Reel	5,000 ft
4505P 0021000	Red	Reel	1,000 ft
4505P 0025000	Red	Reel	5,000 ft
4505P 0091000	White	Reel	1,000 ft
4505P 0095000	White	Reel	5,000 ft
4505P 0041000	Yellow	Reel	1,000 ft
4505P 0045000	Yellow	Reel	5,000 ft

© 2025 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.