

Part Number: 4794R

12 GHz Coax, 4K UHD Precision Video Cable, RG-7 Series, 75 Ohm, 16 AWG Solid, CMR

Product Description

12 GHz, 4K UHD Precision Video Cable, RG-7 Series, 75 Ohm 16 AWG solid 0.051" silver-plated copper conductor, gas-injected foamed high-density polyethylene insulation, Duofoil® bonded to the core + tinned copper braid shield (95% coverage) plus Beldfoil® with shorting fold, PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Outdoor - Aerial
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
16	Solid	SPC - Silver Plated Copper	0.051 in	1

Conductor Count:	1
Conductor Size:	16 AWG

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.225 in

Outer Shield Material

Type	Description	Layer	Material	Material Trade Name	Coverage [%]
Tape		1	Aluminum Foil-Polyester Tape-Aluminum Foil (bonded to dielectric)	Bonded Duofoil® (Bonded to Dielectric)	100 %
Braid		2	TC - Tinned Copper		95 %
Tape	Bonded to jacket	3	Aluminum/Polyester	Bonded Beldfoil® with shorting fold (bonded to jacket)	100 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.320 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
4.0 Ohm/1000ft	1.9 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.0 pF/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	0.26 dB/100ft
3.58 MHz	0.43 dB/100ft
5 MHz	0.50 dB/100ft
6 MHz	0.52 dB/100ft
7 MHz	0.55 dB/100ft
10 MHz	0.63 dB/100ft
12 MHz	0.66 dB/100ft
25 MHz	0.88 dB/100ft
55 MHz	1.21 dB/100ft
67.5 MHz	1.31 dB/100ft
71.5 MHz	1.34 dB/100ft
88.5 MHz	1.47 dB/100ft
100 MHz	1.54 dB/100ft
135 MHz	1.75 dB/100ft
143 MHz	1.79 dB/100ft
180 MHz	1.98 dB/100ft
270 MHz	2.40 dB/100ft
360 MHz	2.76 dB/100ft
540 MHz	3.41 dB/100ft
720 MHz	3.96 dB/100ft
750 MHz	4.05 dB/100ft
1000 MHz	4.70 dB/100ft
1500 MHz	5.83 dB/100ft
2000 MHz	6.80 dB/100ft
2250 MHz	7.25 dB/100ft
3000 MHz	8.48 dB/100ft
4500 MHz	10.66 dB/100ft
6000 MHz	12.47 dB/100ft
12000 MHz	19.45 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.2 ns/ft	85 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination

Temperature Range

Operating Temp Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	56 lbs/1000ft
Max Recommended Pulling Tension:	84 lbs
Min Bend Radius/Minor Axis:	3.2 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca
RG Type:	7/U Type
Series Type:	Series 7

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	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 2000/53/EC (ELV); EU Directive 2002/96/EC (WEEE); EU Directive 2003/11/EC (BFR); EU Directive 2011/65/EU (ROHS II)
EU RoHS Compliance Date (yyyy-mm-dd):	2016-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	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
UL Flammability:	UL1666 Vertical Shaft
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	UPC	Length	Footnote
4794R 0102500	Black	612825379218	2,500 ft	C Z
4794R 0061000	Blue, Light	612825395331	1,000 ft	
4794R N3U1000	Mil Green	612825395324	1,000 ft	
4794R 0031000	Orange	612825395201	1,000 ft	
4794R 0071000	Purple	612825395225	1,000 ft	
4794R 0021000	Red	612825395195	1,000 ft	
4794R 0091000	White		1,000 ft	
4794R 0041000	Yellow	612825395218	1,000 ft	

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	Z - FINAL PUT-UP MAY VARY (= OR -) 10% FOR SPOOLS OR REELS AND (+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

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