



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	SPCCS - Silver Plated Copper Covered Steel	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
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Temperature Range

Operating Temp Range:	-20°C To +75°C
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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, LSOH, Toxicity Testing

C(UL) Flammability:	FT4
UL Flammability:	UL1666 Vertical Shaft
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Footnote
4794R 0102500	Black	C Z
4794R 0061000	Blue, Light	
4794R N3U1000	Mil Green	
4794R 0031000	Orange	
4794R 0071000	Purple	
4794R 0021000	Red	
4794R 0091000	White	
4794R 0041000	Yellow	

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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