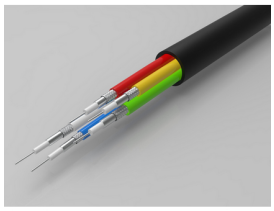

Product: 4794RX5

12 GHz 5 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 5 Coax 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 inner and outer jackets

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
16	Solid	SC - Silvered Copper	0.051 in	5

Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.225 in

Table Notes:	Gas Injected

Inner Shield

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	2	Tinned Copper (TC)		95%
Tape	3	Bi-Laminate (Alum+Poly)	Beldfoil®	100%

Inner Jacket

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.320 in

Outer Jacket

Material	Nominal Diameter
PVC - Polyvinyl Chloride	1.068 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	2.47 dB/100ft
360 MHz	2.86 dB/100ft
540 MHz	3.53 dB/100ft
720 MHz	4.09 dB/100ft
750 MHz	4.18 dB/100ft
1000 MHz	4.85 dB/100ft
1500 MHz	5.99 dB/100ft
2000 MHz	6.96 dB/100ft
2250 MHz	7.42 dB/100ft
3000 MHz	8.66 dB/100ft
4500 MHz	10.99 dB/100ft
6000 MHz	12.98 dB/100ft
12000 MHz	19.94 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.21 ns/ft	84%

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination

Temperature Range

Operating Temperature Range:	-20°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	438 lbs
Max. Pull Tension:	420 lbs
Min Bend Radius (Overall):	10.7 in
Min Bend Radius (Each Coax):	3.2 in

Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMG
Series Type:	7

Applicable Environmental and Other Programs

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 2000/53/EC (ELV); EU Directive 2002/96/EC (WEEE); EU Directive 2003/11/EC (BFR); EU Directive 2011/65/EU (ROHS II)
EU CE Mark:	Yes
EU REACH SVHC Compliance (yyyy-mm-dd):	2019-04-01

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

UL Flammability:	UL1666 Vertical Shaft

Plenum/Non-Plenum

Plenum (Y/N):	No

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
4794RX5 B59CUT	Black, Matte	Reel		
4794RX5 B59500	Black, Matte	Reel	500 ft	612825443230

History

Update and Revision:	Revision Number: 0.113 Revision Date: 11-27-2023

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