



Part Number: 4694R

12 GHz Coax, 4K UHD Precision Video Coax, RG-6/U Type, 75 Ohm, 18 AWG Solid, CMR

Product Description

12 GHz Coax, 4K UHD Precision Video Cable, RG-6/U Type, 75 Ohm, 18 AWG solid .040" silver plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to core + tinned copper braid shield (95% coverage), CMR, PVC jacket.

Technical Specifications

Product Overview

Environmental Space:	Indoor - Riser
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
18	Solid	SPC - Silver Plated Copper	0.040 in	1

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.180 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester/Aluminum	Bonded Duofoil® (Bonded to Dielectric)	100 %
Braid	2	TC - Tinned Copper		95 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.274 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
6.4 Ohm/1000ft	2.8 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
15.9 pF/ft

Inductance

Nominal Inductance
0.106 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	0.23 dB/100ft
3.58 MHz	0.44 dB/100ft
5 MHz	0.51 dB/100ft
6 MHz	0.56 dB/100ft
7 MHz	0.59 dB/100ft
10 MHz	0.70 dB/100ft
12 MHz	0.75 dB/100ft
25 MHz	1.04 dB/100ft
55 MHz	1.45 dB/100ft
67.5 MHz	1.58 dB/100ft
71.5 MHz	1.62 dB/100ft
88.5 MHz	1.78 dB/100ft
100 MHz	1.89 dB/100ft
135 MHz	2.10 dB/100ft
143 MHz	2.16 dB/100ft
180 MHz	2.44 dB/100ft
270 MHz	2.97 dB/100ft
360 MHz	3.45 dB/100ft
540 MHz	4.30 dB/100ft
720 MHz	5.00 dB/100ft
750 MHz	5.10 dB/100ft
1000 MHz	5.90 dB/100ft
1500 MHz	7.30 dB/100ft
2000 MHz	8.50 dB/100ft
2250 MHz	9.10 dB/100ft
3000 MHz	10.6 dB/100ft
4500 MHz	13.2 dB/100ft
6000 MHz	15.5 dB/100ft
12000 MHz	23.0 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.20 ns/ft	84.5 %

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:	-30°C To +75°C
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Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	41 lbs/1000ft
Max Recommended Pulling Tension:	69 lbs
Min Bend Radius/Minor Axis:	2.75 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
RG Type:	6/U Type

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 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

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	UPC	Length
4694R 0101000	Black	612825396772	1,000 ft
4694R 0105000	Black	612825396826	5,000 ft
4694R 01010000	Black	612825436805	10,000 ft
4694R 0061000	Blue, Light	612825396758	1,000 ft
4694R 00610000	Blue, Light	612825436768	10,000 ft
4694R 0065000	Blue, Light	612825436690	5,000 ft
4694R N3U1000	Mil Green	612825396727	1,000 ft
4694R N3U10000	Mil Green	612825436812	10,000 ft
4694R N3U5000	Mil Green	612825437604	5,000 ft
4694R 0031000	Orange	612825396741	1,000 ft
4694R 00310000	Orange	612825436744	10,000 ft
4694R 0035000	Orange	612825436676	5,000 ft
4694R 0071000	Purple	612825396765	1,000 ft
4694R 00710000	Purple	612825436775	10,000 ft
4694R 0075000	Purple	612825436706	5,000 ft
4694R 0021000	Red	612825396734	1,000 ft
4694R 00210000	Red	612825436737	10,000 ft
4694R 0025000	Red	612825436669	5,000 ft
4694R 0091000	White	612825413264	1,000 ft
4694R 0095000	White	612825436713	5,000 ft
4694R 00910000	White	612825436782	10,000 ft
4694R 0041000	Yellow	612825408208	1,000 ft
4694R 00410000	Yellow	612825436751	10,000 ft
4694R 0045000	Yellow	612825436683	5,000 ft

Product Notes

Notes:	Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.221 Revision Date: 08-22-2019
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