



Part Number: 4731R

12 GHz Coax, 4K UHD Precision Video Cable, RG-11/U Type, 75 Ohm, 14 AWG Solid, CMR

Product Description

RG-11/U Coax, 14 AWG solid .064" silver-plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to core + tinned copper braid shield (95% coverage) + bonded to jacket, PVC jacket.

Technical Specifications

Product Overview

Environmental Space:	Outdoor - Aerial
Suitable Applications:	SMPTE 2082-1 12 Gb/s UHD TV, SMPTE 2081-1 6 Gb/s UHD TV, SMPTE 424M 3 Gb/s HD-SDI 1080p

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
14	Solid	SPC - Silver Plated Copper	0.064 in	1

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	.280 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 %
Tape	3	Aluminum/Polyester	Bonded Beldfoil® with shorting fold (bonded to jacket)	100 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.400 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
2.5 Ohm/1000ft	1.5 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
15.5 pF/ft

Inductance

Nominal Inductance
0.097 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	0.16 dB/100ft
3.58 MHz	0.30 dB/100ft
5 MHz	0.34 dB/100ft
6 MHz	0.37 dB/100ft
7 MHz	0.39 dB/100ft
10 MHz	0.45 dB/100ft
12 MHz	0.49 dB/100ft
25 MHz	0.67 dB/100ft
55 MHz	0.95 dB/100ft
67.5 MHz	1.04 dB/100ft
71.5 MHz	1.07 dB/100ft
88.5 MHz	1.17 dB/100ft
100 MHz	1.24 dB/100ft
135 MHz	1.41 dB/100ft
143 MHz	1.45 dB/100ft
180 MHz	1.61 dB/100ft
270 MHz	1.96 dB/100ft
360 MHz	2.27 dB/100ft
540 MHz	2.81 dB/100ft
720 MHz	3.27 dB/100ft
750 MHz	3.34 dB/100ft
1000 MHz	3.89 dB/100ft
1500 MHz	4.83 dB/100ft
2000 MHz	5.65 dB/100ft
2250 MHz	6.02 dB/100ft
3000 MHz	7.07 dB/100ft
4500 MHz	8.81 dB/100ft
6000 MHz	10.45 dB/100ft
12000 MHz	16.39 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:	-30°C To +75°C
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Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	87 lbs/1000ft
Max Recommended Pulling Tension:	145 lbs
Min Bend Radius/Minor Axis:	4 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
RG Type:	11/U Type

Series Type:	Series 11
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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 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

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	UPC	Length
4731R 0101000	Black	612825396963	1,000 ft
4731R 0105000	Black	612825396970	5,000 ft
4731R 0104000	Black	612825436720	4,000 ft
4731R 0061000	Blue, Light	612825396949	1,000 ft
4731R N3U1000	Mil Green	612825396918	1,000 ft
4731R 0031000	Orange	612825396932	1,000 ft
4731R 0071000	Purple	612825396956	1,000 ft
4731R 0021000	Red	612825396925	1,000 ft

Product Notes

Notes:	Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.219 Revision Date: 08-22-2019
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