



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 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
14	Solid	SPC - Silver Plated Copper	0.064 in	1

Conductor Size:	14 AWG
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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

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

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, 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
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Part Number

Variants

Item #	Color
4731R 0101000	Black
4731R 0105000	Black
4731R 0061000	Blue, Light
4731R N3U1000	Mil Green
4731R 0031000	Orange
4731R 0071000	Purple
4731R 0021000	Red

Product Notes

Notes:	Print legend includes sequential footage marks.
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