



Part Number: 4855R

12 GHz Coax, 4K UHD Precision Video Cable, RG-59 Mini, 75 Ohm, 23 AWG Solid, CMR

Product Description

12 GHz Coax, 4K UHD Precision Video Cable, RG-59 Mini, 75 Ohm, 23 AWG solid .023" silver plated copper conductor, gas-injected foam HDPE insulation, Duofoil® bonded to the core + tinned copper braid shield (95% coverage), 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
23	Solid	SPC - Silver Plated Copper	0.023 in	1

Conductor Size:	23 AWG
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Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.102 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	0.159 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
19.7 Ohm/1000ft	3.9 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.3 pF/ft

Inductance

Nominal Inductance
0.107 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	0.39 dB/100ft
3.58 MHz	0.78 dB/100ft
5 MHz	0.92 dB/100ft
6 MHz	1 dB/100ft
7 MHz	1.08 dB/100ft
10 MHz	1.2 dB/100ft
12 MHz	1.3 dB/100ft
25 MHz	1.8 dB/100ft
55 MHz	2.6 dB/100ft
67.5 MHz	2.83 dB/100ft
71.5 MHz	2.93 dB/100ft
88.5 MHz	3.22 dB/100ft
100 MHz	3.39 dB/100ft
135 MHz	3.84 dB/100ft
143 MHz	4.00 dB/100ft
180 MHz	4.41 dB/100ft
270 MHz	5.44 dB/100ft
360 MHz	6.34 dB/100ft
540 MHz	7.85 dB/100ft
720 MHz	9.09 dB/100ft
750 MHz	9.28 dB/100ft
1000 MHz	10.8 dB/100ft
1500 MHz	13.2 dB/100ft
2000 MHz	15.3 dB/100ft
2250 MHz	16.3 dB/100ft
3000 MHz	19.0 dB/100ft
4500 MHz	23.6 dB/100ft
6000 MHz	27.7 dB/100ft
12000 MHz	41.2 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82 %

Voltage**UL Voltage Rating**

300 V RMS

Electrical Characteristics Notes:	Return Loss: Fixed bridge and termination
Other Electrical Characteristic 2:	Percent test

Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	17 lbs/1000ft
Max Recommended Pulling Tension:	40 lbs
Min Bend Radius/Minor Axis:	1.6 in

Standards

NEC/(UL) Specification:	CMR
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CEC/C(UL) Specification:	CMG
CPR Euroclass:	Eca
RG Type:	Mini 59/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, LS0H, 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	Footnote
4855R 0101000	Black	
4855R 0105000	Black	C Z
4855R 0061000	Blue, Light	
4855R N3U1000	Mil Green	
4855R 0031000	Orange	
4855R 0071000	Purple	
4855R 0021000	Red	
4855R 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.

Product Notes

Notes:	Print legend includes sequential footage marks.
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