



Part Number: 7731A

Serial Digital Coax, RG11, #14 Solid BC, Foil + 95% TC braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, RG11 14 AWG solid bare copper conductor, foam HDPE core, Duofoil, +95% tinned copper braid, PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Outdoor - Aerial
Suitable Applications:	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	BC - Bare Copper	0.064 in	1

Conductor Count:	1
Conductor Size:	14 AWG

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.28 in

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.4 in

Electrical Characteristics

Conductor DCR

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

Capacitance

Nom. Capacitance Conductor to Shield
16 pF/ft

Inductance

Nominal Inductance
0.097 µH/ft

Impedance

Nominal Characteristic Impedance
75 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)

5-1600 MHz	23 dB
1600-4500 MHz	21 dB
4500-6000 MHz	15 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.16 dB/100ft
3.58 MHz	0.29 dB/100ft
5 MHz	0.34 dB/100ft
7 MHz	0.39 dB/100ft
10 MHz	0.46 dB/100ft
67.5 MHz	1.05 dB/100ft
71.5 MHz	1.09 dB/100ft
88.5 MHz	1.21 dB/100ft
100 MHz	1.28 dB/100ft
135 MHz	1.47 dB/100ft
143 MHz	1.51 dB/100ft
180 MHz	1.69 dB/100ft
270 MHz	1.97 dB/100ft
360 MHz	2.31 dB/100ft
540 MHz	2.87 dB/100ft
720 MHz	3.40 dB/100ft
750 MHz	3.45 dB/100ft
1000 MHz	3.60 dB/100ft
1000 MHz	4.12 dB/100ft
1500 MHz	5.10 dB/100ft
2000 MHz	6.04 dB/100ft
2250 MHz	6.43 dB/100ft
3000 MHz	7.63 dB/100ft
4500 MHz	9.56 dB/100ft
6000 MHz	11.53 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.21 ns/ft	85 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	TDR Impedance: 75 +/- 3 Ohms
Other Electrical Characteristic 2:	Return Loss: Fixed bridge and termination

Temperature Range

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

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
CPR Euroclass:	Eca
RG Type:	11/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
MII Order #39 (China RoHS):	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
Plenum Number:	7732A

Part Number

Variants

Item #	Color	Footnote
7731A.001220	Black	
7731A.00152	Black	
7731A.002000	Black	
7731A.00305	Black	
7731A 0101000	Black	C
7731A 0104000	Black	C
7731A 010500	Black	C
7731A.031220	Blue	
7731A.03152	Blue	
7731A.03305	Blue	
7731A 0061000	Blue, Light	
7731A 0064000	Blue, Light	C
7731A 0011000	Brown	
7731A 0014000	Brown	C
7731A 0081000	Gray	
7731A 0084000	Gray	C
7731A.081220	Gray, Slate	
7731A.08305	Gray, Slate	
7731A.021220	Green	
7731A.02305	Green	
7731A N3U1000	Green, Mill	C
7731A N3U4000	Green, Mill	C
7731A 0031000	Orange	
7731A 0034000	Orange	C
7731A.061220	Orange, RAL 2003	
7731A.06305	Orange, RAL 2003	
7731A.051220	Purple	
7731A.05305	Purple	
7731A 0021000	Red	C
7731A 0024000	Red	C
7731A.011220	Red, RAL 3000	

7731A.01152	Red, RAL 3000	
7731A.01305	Red, RAL 3000	
7731A 0071000	Violet	C
7731A 0074000	Violet	C
7731A.071220	White	
7731A.07305	White	
7731A 0091000	White	
7731A 0094000	White	C
7731A 0041000	Yellow	
7731A 0044000	Yellow	C
7731A.041220	Yellow, RAL 1021	
7731A.04305	Yellow, RAL 1021	

Footnote:	C - CRATE REEL PUT-UP.
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