



**Product:** [7731RW](#)

Serial Digital Coax, RG11, #14 Solid BC, Duofoil® + 95% TC braid, Water Blocking Grease, CPE Jacket, 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, water blocking grease, CPE jacket

## Technical Specifications

### Physical Characteristics (Overall)

#### Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
14	Solid	BC - Bare Copper	0.064 in	1

#### Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.280 in

Table Notes: Gas Injected

#### Outer Shield

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Tri-Laminate (Alum+Poly+Alum)	Duofoil®	100%
Braid	2	Tinned Copper (TC)		95%

#### Outer Jacket

Material	Nominal Diameter
CPE - Chlorinated Polyethylene	0.401 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
16 pF/ft

#### Inductance

Nominal Inductance
0.097 $\mu$ H/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

Bulk Cable Weight:	85 lbs/1000ft
Max. Pull Tension:	145 lbs
Min. Bend Radius/Minor Axis:	4 in

#### Standards

NEC/(UL) Compliance:	CMR
RG Type:	11

#### Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (RoHS 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	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:	UL 1666 Vertical Shaft
UL voltage rating:	300 V RMS

## Plenum/Non-Plenum

Plenum (Y/N):	No
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## Related Part Numbers

### Variants

Item #	Color	Put-Up Type	Length	UPC
7731RW 0101000	Black	Reel	1,000 ft	612825408697
7731RW 0104000	Black	Reel	4,000 ft	612825188759

## Product Notes

Notes:	Water blocking grease between braid and jacket. Print legend includes sequential footage marks.
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## History

Update and Revision:	Revision Number: 0.139 Revision Date: 12-15-2021
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