



Product: [7810R](#)

RF 400 Wireless Coax, RG8, 10 AWG Solid BC, Foil + TC Braid, CMR/CMG PVC Jacket

Product Description
RG-8 type, 10 AWG solid .108" bare copper-covered aluminum conductor, gas-injected foam HDPE insulation, Duobond® II, tinned copper braid shield (95% coverage), CMR/CMG PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor				
AWG	Stranding	Material	Nominal Diameter	No. of Coax
10	Solid	BCCA - Bare Copper Covered Aluminum	0.108 in	1
Conductor Count:		1		
Insulation				
Material		Nominal Diameter		
PE - Polyethylene (Foam)		0.285 in		
Table Notes:		Gas Injected		

Outer Shield Material				
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	
Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.403 in

Electrical Characteristics

Conductor DCR		
Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
1.34 Ohm/1000ft	2 Ohm/1000ft	2 Ohm/1000ft

Capacitance	
Nom. Capacitance Conductor to Shield	
23 pF/ft	

Inductance	
Nominal Inductance	
0.06 µH/ft	

Impedance	
Nominal Characteristic Impedance	
50 Nominal, (51.0 +/- 2.0) Ohms Ohm	

High Frequency (Nominal/Typical)	
Frequency [MHz]	Nom. Insertion Loss

30 MHz	0.7 dB/100ft
50 MHz	0.9 dB/100ft
150 MHz	1.5 dB/100ft
220 MHz	1.8 dB/100ft
450 MHz	2.7 dB/100ft
900 MHz	3.8 dB/100ft
1500 MHz	5.1 dB/100ft
1800 MHz	5.6 dB/100ft
2000 MHz	6 dB/100ft
2500 MHz	6.7 dB/100ft
3000 MHz	7.5 dB/100ft
3500 MHz	8.2 dB/100ft
4500 MHz	9.5 dB/100ft
5800 MHz	11.1 dB/100ft
6000 MHz	11.4 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.17 ns/ft	86%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
30 MHz	0.7 dB/100ft
50 MHz	0.93 dB/100ft
150 MHz	1.58 dB/100ft
220 MHz	1.94 dB/100ft
450 MHz	2.83 dB/100ft
900 MHz	4.06 dB/100ft
1500 MHz	5.32 dB/100ft
1800 MHz	5.98 dB/100ft
2000 MHz	6.35 dB/100ft
2500 MHz	7.08 dB/100ft
3000 MHz	7.97 dB/100ft
3500 MHz	8.8 dB/100ft
4500 MHz	10.23 dB/100ft
5800 MHz	12 dB/100ft
6000 MHz	12.23 dB/100ft

Power Rating

Frequency [MHz]	Max. Power Rating [W]
30 MHz	3,427 W
50 MHz	2,588 W
150 MHz	1,428 W
220 MHz	1,195 W
450 MHz	817 W
900 MHz	575 W
1,500 MHz	437 W
2,000 MHz	375 W
2,500 MHz	334 W
3,500 MHz	282 W
4,500 MHz	247 W
6,000 MHz	213 W
4,500 MHz	247 W
5,800 MHz	217 W
6,000 MHz	213 W

Voltage

Non-UL Voltage Rating
300 V RMS

VSWR

Frequency [MHz]

5-6000 MHz

Temperature Range

UL Temp Rating:	60°C
Operating Temp Range:	-40°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	86 lbs/1000ft
Max. Pull Tension:	150 lbs
Min Bend Radius/Minor Axis:	4 in

Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMG
CPR Euroclass:	Eca
RG Type:	8/U Type
Series Type:	RF 400

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Riser
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
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
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Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
IEC Flammability:	IEC 60332-1-2

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC
7810R 010500	Black	Reel	500 ft	612825189824
7810R 0101000	Black	Reel	1,000 ft	612825189817

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Impedance: 51.0 +/- 2.0 Ohms
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History

Update and Revision:	Revision Number: 0.305 Revision Date: 09-30-2020
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