


Product: [7810A](#) 

RF 400 Wireless Coax, RG8, 10 AWG



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), polyethylene 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
Insulation, Table Note:	
Gas Injected	

Outer Shield Material				
Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Bonded Duofoil®	100 %
Braid	2	TC - Tinned Copper		95 %

Outer Jacket Material	
Material	Nominal Diameter
PE - Polyethylene	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	

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]	Max. VSWR
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5 MHz - 6000 MHz	1.25:1
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### Temperature Range

Non-UL Temp Rating:	80°C
Operating Temp Range:	-40°C To +75°C

### Mechanical Characteristics

Bulk Cable Weight:	70 lbs/1000ft
Max Recommended Pulling Tension:	150 lbs
Min Bend Radius/Minor Axis:	4 in

### Standards

RG Type:	8/U Type
Series Type:	RF 400

### Applicable Environmental and Other Programs

Environmental Space:	Indoor (Not Riser or Plenum)
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:	No
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

### Suitability

Suitability - Indoor:	Yes
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### Plenum/Non-Plenum

Plenum (Y/N):	No
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### Part Number

#### Variants

Item #	Color	Putup Type	Length	UPC
7810A 010500	Black	Reel	500 ft	612825189800
7810A 0101000	Black	Reel	1,000 ft	612825189794

Footnote:	C - CRATE REEL PUT-UP.
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### History

Update and Revision:	Revision Number: 0.300 Revision Date: 04-28-2020
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