



7810A

Part Number: 7810A

RG-8 Type

Product Description

RG-8 type, 10 AWG solid .108" bare copper-covered aluminum conductor, gas-injected foam HDPE insulation, Duobond® II & #43; tinned copper braid shield (95% coverage), polyethylene jacket.

Product Specifications

Conductor

Total Number of Conductors:

1

Technical Specifications

APAC Standard

Mil Order #39 (China RoHS):

Yes

Bend Radius

Min Bend Radius/Minor Axis:

4 in

CCB-Part Number

Notes:

Belden® The Wire in Wireless®

CCB-Sub-Part Number

Plenum (Y/N):

No

Connectors

Suggested Connectors:

Mates with 9913 and Land Mobile Radio type connectors.

Contact Information

PHONE_NUM:	1-800-Belden1
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EMEA Standard

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
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Environmental Characteristics

Operating Temp Range:	-40°C To +75°C
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EU Directive

EU CE Mark:	No
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EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
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General Electrical Parameters

Sweep Testing:	100% Sweep tested to 6 GHz.
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North American Standard

CA Prop 65 (CJ for Wire & Cable):	Yes
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RG Type:	8/U
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Series Type:	RF 400
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Temperature Range

Non-UL Temp Rating:	80°C
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Use

Max Recommended Pulling Tension:	150 lbs
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Impedance:

Nominal Characteristic Impedance

50 Ohm

Inductance:

Nominal Inductance

0.06 μ H/ft

Conductor DCR:

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

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
1,800 MHz	399 W
2,000 MHz	375 W
2,500 MHz	334 W
3,000 MHz	305 W
3,500 MHz	282 W
4,500 MHz	247 W
5,800 MHz	217 W
6,000 MHz	213 W

Delay:

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

Voltage:

Non-UL Voltage Rating
300V RMS

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

VSWR:

Frequency [MHz]	Max. VSWR
	1.25:1
5 MHz	
6000 MHz	

Capacitance:

Nominal Capacitance Conductor to Shield
23 pF/ft

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

Insulation:

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.285 in

Outerjacket 1:

Material	Nominal Diameter
PE - Polyethylene	0.403 in

Conductor:

AWG	Stranding	Material	Nominal Diameter	No. of Coax
10	Solid	BCCA - Bare Copper Covered Aluminum	0.108 in	1

Outershield 1:

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

Product Variants

Part Number	Color	Put-Up Type	Length
7810A 0101000	BLACK	Reel	1000 ft
7810A 010500	BLACK	Reel	500 ft

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