



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.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	10	Solid	BCCA - Bare Copper Covered Aluminum	.108

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.285

Outer Shield

Outer Shield Material:

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

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PE - Polyethylene

Overall Cabling

Overall Nominal Diameter: 0.403 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -40°C To +75°C

Non-UL Temperature Rating: 80°C

Bulk Cable Weight: 77 lbs/1000 ft.

Max. Recommended Pulling Tension: 150 lbs.

Min. Bend Radius (Install)/Minor Axis: 4 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU CE Mark: No

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2004

EU Directive 2002/96/EC (WEEE): Yes

EU Directive 2003/11/EC (BFR): Yes

CA Prop 65 (CJ for Wire & Cable): Yes

MII Order #39 (China RoHS):	Yes
RG Type:	8/U
Series Type:	RF 400

Suitability

Suitability - Outdoor:	Yes
Suitability - Aerial:	Yes - When supported by a messenger
Suitability - Burial:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
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Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

50

Nom. Inductance:

Inductance (µH/ft)

0.060

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

23.0

Nominal Velocity of Propagation:

VP (%)

86

Nominal Delay:

Delay (ns/ft)

1.17

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

1.34

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2

Maximum VSWR:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Max. VSWR
		5	6000	1.25:1

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
30	0.7
50	0.9
150	1.5
220	1.8
450	2.7
900	3.8
1500	5.1
1800	5.6
2000	6.0
2500	6.7
3000	7.5
3500	8.2
4500	9.5
5800	11.1
6000	11.4

Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
30	0.70
50	0.93
150	1.58
220	1.94
450	2.83
900	4.06
1500	5.32
1800	5.98
2000	6.35
2500	7.08
3000	7.97
3500	8.80
4500	10.23
5800	12.00
6000	12.23

Max. Power Rating:

Freq. (MHz)	Rating (W)
30	3427
50	2588
150	1428
220	1195
450	817
900	575
1500	437
1800	399
2000	375
2500	334
3000	305
3500	282
4500	247
5800	217
6000	213

Max. Operating Voltage - Non-UL:

Voltage
300 V RMS

Sweep Test

Sweep Testing: 100% Sweep tested to 6 GHz.

Misc. Information (Overall)

Other Description: BAG 10-04-04: Correct Shield DCR

Notes (Overall)

Notes: Belden® The Wire in Wireless®

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7810A 0101000	1,000 FT	79.000 LB	BLACK	C	RF400 WIRELESS 50 OHM COAX PE
7810A 010500	500 FT	39.000 LB	BLACK	C	RF400 WIRELESS 50 OHM COAX PE

Notes:
C = CRATE REEL PUT-UP.

Low Loss 50 Ohm Wireless RF Transmission Cable

RG-8 Type

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

RG-8 Type • 10 AWG Solid .108" Bare Copper-covered Aluminum Conductor • Duobond® II (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

Gas-injected Foam HDPE Insulation • Black Polyethylene Jacket

RF400 80°C	7810A	—	500	152.4	42.5	19.3	10 AWG (solid) .108" BCCA 1.34Ω/M' 4.4Ω/km	.285	7.24	Duobond II* + 95% TC Braid 2.0Ω/M' 9.2Ω/km	.403	10.23	50	86%	23.0	75.5	30	.7	2.1
			1000	304.8	86.0	39.0											50	.9	2.8
																	150	1.5	4.9
																	220	1.8	6.0
																	450	2.7	8.8
																	900	3.8	12.6
																	1500	5.1	16.6
																	1800	5.6	18.5
																	2000	6.0	19.6
																	2500	6.7	22.0
																	3000	7.5	24.4
																	4500	9.5	31.1
5800	11.1	36.4																	
6000	11.4	37.3																	

100% Sweep tested. 6 GHz. Max. VSWR 1.25:1.
Belden® The Wire in Wireless.

Mates with 9913 and Land Mobile Radio type connectors.**
Suitable for Outdoor and Direct Burial applications.


Gas-injected Foam HDPE Insulation • Black PVC Jacket

RF400 80°C	7810R*	NEC:	500	152.4	47.0	21.3	10 AWG (solid) .108" BCCA 1.34Ω/M' 4.4Ω/km	.285	7.24	Duobond II* + 95% TC Braid 2.0Ω/M' 9.2Ω/km	.403	10.23	50	86%	23.0	75.5	30	.7	2.1
		CMR:	1000	304.8	79.0	35.8											50	.9	2.8
																	150	1.5	4.9
																	220	1.8	6.0
																	450	2.7	8.8
																	900	3.8	12.6
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																	2500	6.7	22.0
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																	4500	9.5	31.1
5800	11.1	36.4																	
6000	11.4	37.3																	

100% Sweep tested. 6 GHz. Max. VSWR 1.25:1.
Belden® The Wire in Wireless.

Mates with 9913 and Land Mobile Radio type connectors.**
Suitable for Outdoor applications.

Gas-injected Foam HDPE Insulation • Flooded Water-resistant Black Polyethylene Jacket

RF400 80°C	7810WB	—	500	152.4	39.5	17.9	10 AWG (solid) .108" BCCA 1.34Ω/M' 4.4Ω/km	.285	7.24	Duobond II* + 95% TC Braid 2.0Ω/M' 9.2Ω/km	.403	10.23	50	86%	23.0	75.5	30	.7	2.1
			1000	304.8	80.0	36.3											50	.9	2.8
																	150	1.5	4.9
																	220	1.8	6.0
																	450	2.7	8.8
																	900	3.8	12.6
																	1500	5.1	16.6
																	1800	5.6	18.5
																	2000	6.0	19.6
																	2500	6.7	22.0
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100% Sweep tested. 6 GHz. Max. VSWR 1.25:1.
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Suitable for Outdoor and Direct Burial applications.

BCCA = Bare Copper-covered Aluminum • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

*Duobond II = Bonded Duofoil® (100% coverage) + aluminum braid (67% coverage).