# **Detailed Specifications & Technical Data**

#### **METRIC MEASUREMENT VERSION**



#### 7810A Coax - RG-8 Type

For more Information please call

1-800-Belden1



#### **General 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.

1

#### **Physical Characteristics (Overall)**

#### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	10	Solid	BCCA - Bare Copper Covered Aluminum	2.7432

Total Number of Conductors:

#### Insulation

#### Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	7.239

#### **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 Cable**

Overall Nominal Diameter: 10.236 mm

### **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-40°C To +75°C
Non-UL Temperature Rating:	80°C
Bulk Cable Weight:	104.174 Kg/Km
Max. Recommended Pulling Tension:	667.230 N
Min. Bend Radius/Minor Axis:	101.600 mm

#### **Applicable Specifications and Agency Compliance (Overall)**

#### Applicable Standards & Environmental Programs

EU Directive 2011/65/EU (ROHS II):	Yes
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

Plenum/Non-Plenum

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Plenum (Y/N): No **Electrical Characteristics (Overall)** Nom. Characteristic Impedance: Impedance (Ohm) Nom. Inductance: Inductance (µH/m) 0.19686 Nom. Capacitance Conductor to Shield: Capacitance (pF/m) 75.463 Nominal Velocity of Propagation: Nominal Delay: Delay (ns/m) 3.83877 Nom. Conductor DC Resistance: DCR @ 20°C (Ohm/km) 4.39654 Nominal Outer Shield DC Resistance: DCR @ 20°C (Ohm/km) 6.562 Maximum VSWR: Description Freq. (MHz) Start Freq. (MHz) Stop Freq. (MHz) Max. VSWR 6000 1.25:1 Nom. Attenuation: Freq. (MHz) Attenuation (dB/100m) 50 2.9529 150 4.9215 220 5.9058 450 8.8587 900 12.4678 1500 16.7331 18.3736 1800 2000 19.686 2500 21.9827 3000 24.6075 3500 26.9042 4500 31.1695 5800 36.4191 6000 37.4034 Max. Attenuation: Freq. (MHz) Attenuation (dB/100m) 30 2.2967 50 3.05133 150 5.18398 220 6.36514 450 9.28523 900 13.3209 1500 17.4549

Max. Power Rating:

1800

2000

2500

3000

3500

4500

5800

6000

Freq. (MHz)	Rating (W)
30	3427

19.6204

20.8344

23.2295

26.1496

28.8728

33.5646

39.372

40.1266

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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:



**Sweep Test** 

Sweep Testing: 100% Sweep tested to 6 GHz.

#### Misc. Information (Overall)

#### Notes (Overall)

Notes: Belden® The Wire in Wireless®

#### **Put Ups and Colors:**

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

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 4 Revision Date: 07-19-2013

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