METRIC MEASUREMENT VERSION



# 7809R Coax - Intermediate Type

For more Information please call

1-800-Belden1



# **General Description:**

Intermediate type, 13 AWG solid .072" bare copper conductor, gas-injected foam HDPE insulation, Duobond® II + tinned copper braid shield (95% coverage), PVC jacket.

# **Physical Characteristics (Overall)**

#### Conductor

#### AWG:

# Coax	AWG	Stranding	<b>Conductor Material</b>	Dia. (mm)
1	13	Solid	BC - Bare Copper	1.8288

Total Number of Conductors:

#### Insulation

#### **Insulation Material:**

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	4.826

#### **Outer Shield**

#### **Outer Shield Material:**

Layer # Outer Shield Trade Name Type		Туре	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 PVC - Polyvinyl Chloride

#### **Overall Cable**

Overall Nominal Diameter: 7.620 mm

# **Mechanical Characteristics (Overall)**

Operating Temperature Range:	-40°C To +75°C
UL Temperature Rating:	60°C
Bulk Cable Weight:	90.780 Kg/Km
Max. Recommended Pulling Tension:	600.507 N
Min. Bend Radius/Minor Axis:	76.200 mm

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

# **Applicable Standards & Environmental Programs**

CEC/C(UL) Specification: CMG	
EU Directive 2011/65/EU (ROHS II): Yes	
EU CE Mark: Yes	
EU Directive 2000/53/EC (ELV): Yes	
EU Directive 2002/95/EC (RoHS): Yes	

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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
Series Type:	RF 300
Flame Test	
UL Flame Test:	UL1666 Vertical Shaft
CSA Flame Test:	FT4
Suitability	
Suitability - Indoor:	Yes
Plenum/Non-Plenum	
Plenum (Y/N):	No

## **Electrical Characteristics (Overall)**

Nom. Characteristic Impedance:



Nom. Inductance:



Nom. Capacitance Conductor to Shield:



**Nominal Velocity of Propagation:** 



**Nominal Delay:** 

**Delay (ns/m)** 3.83877

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km) 6.8901

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km) 7.8744

Maximum VSWR:

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

# Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
5.000	1.476
10.000	1.969
30.000	3.281
50.000	4.265
150.000	7.218
220.000	8.859
450.000	12.796
900.000	18.374
1500.000	23.951
1800.000	26.576
2000.000	28.217

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2500.000	31.826
3000.000	35.435
3500.000	38.716
4500.000	44.294
5800.000	51.840
6000.000	52.496

#### Max. Power Rating:

Freq. (MHz)	Rating (W)
30.000	2161.000
50.000	1658.000
150.000	928.000
220.000	758.000
450.000	522.000
900.000	367.000
1500.000	278.000
1800.000	253.000
2000.000	239.000
2500.000	212.000
3000.000	194.000
3500.000	179.000
4500.000	157.000
5800.000	137.000
6000.000	135.000

#### Max. Operating Voltage - UL:

Voltage 300 V RMS

#### **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
7809R 0101000	1,000 FT	65.000 LB	BLACK	С	RF300 WIRELESS 500HM COAXFRPVC
7809R 010500	500 FT	34.000 LB	BLACK	С	RF300 WIRELESS 50OHM COAXFRPVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Number: 6 Revision Date: 01-06-2014

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