

# Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

**BELDEN**  
SENDING ALL THE RIGHT SIGNALS

**7809A 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), polyethylene jacket.

## Physical Characteristics (Overall)

### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	13	Solid	BC - Bare Copper	.072

Total Number of Conductors:

1

### Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.190

### Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Dufoil®	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:

0.300 in.

## Mechanical Characteristics (Overall)

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

Non-UL Temperature Rating: 80°C

Bulk Cable Weight: 54 lbs/1000 ft.

Max. Recommended Pulling Tension: 135 lbs.

Min. Bend Radius/Minor Axis: 3 in.

## 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

Series Type: RF 300

### Suitability

#### Plenum/Non-Plenum

Plenum (Y/N): No

## Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
50

Nom. Inductance:

Inductance ( $\mu$ H/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)
2.1

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
2.4

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.)
5.000	0.450
10.000	0.600
30.000	1.000
50.000	1.300
150.000	2.200
220.000	2.700
450.000	3.900
900.000	5.600
1500.000	7.300
1800.000	8.100
2000.000	8.600
2500.000	9.700
3000.000	10.800
3500.000	11.800
4500.000	13.500
5800.000	15.800
6000.000	16.000

Nom. Power Rating:

Freq. (MHz)	Rating (W)
30	2161
50	1658
150	928
220	758
450	522
900	367
1500	278
1800	253
2000	239
2500	212
3000	194
3500	179
4500	157
5800	137
6000	135

Max. Power Rating:

Freq. (MHz)	Rating (W)

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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 - Non-UL:

Voltage
300 V RMS

### Sweep Test

Sweep Testing: 100%; Sweep tested to 6 GHz.

### Misc. Information (Overall)

### Notes (Overall)

Notes: 100% Sweep Tested. 6 GHz. Belden® The Wire in Wireless®

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7809A 0101000	1,000 FT	58.000 LB	BLACK	C	RF300 WIRELESS 50 OHM COAX PE
7809A 010500	500 FT	30.500 LB	BLACK	C	RF300 WIRELESS 50 OHM COAX PE

#### Notes:

C = CRATE REEL PUT-UP.

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