



Description:

RG-8X type, 15 AWG solid .057" 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	Conductor Material	Dia. (in.)
1	15	Solid	BC - Bare Copper	.057

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.150

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
PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter: 0.240 in.

Mechanical Characteristics (Overall)

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

Bulk Cable Weight: 40 lbs/1000 ft.

Max. Recommended Pulling Tension: 74 lbs.

Min. Bend Radius (Install)/Minor Axis: 2.400 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMR

CEC/C(UL) Specification: CMG

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/X

Flame Test

UL Flame Test: UL1666 Vertical Shaft

CSA Flame Test: FT4

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes

Suitability - Aerial: Yes - When supported by a messenger

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

50

Nom. Inductance:

Inductance (µH/ft)

.060

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

23.0

Nominal Velocity of Propagation:

VP (%)

86

Nominal Delay:

Delay (ns/ft)

1.18

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

3.2

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.8

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	1.3
50	1.6
150	2.8
220	3.4
450	4.9
900	7.0
1500	9.1
1800	10.1
2000	10.7
2500	12.0
3000	13.4
3500	14.6

4500	16.7
5800	19.5
6000	19.8

Max. Power Rating:

Freq. (MHz)	Rating (W)
30	1526
50	1186
150	673
220	556
450	382
900	286
1500	205
1800	187
2000	177
2500	156
3000	143
3500	132
4500	116
5800	102
6000	100

Max. Operating Voltage - UL:

Voltage
300 V RMS

Sweep Test

Sweep Testing: 100% Sweep tested to 6 GHz.

Misc. Information (Overall)

Other Description: 10-05-04 BAG: Corrected Shield DCR

Notes (Overall)

Notes: Belden® The Wire in Wireless®

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7808R 0101000	1,000 FT	44.000 LB	BLACK	C	RF240 WIRELESS 50OHM COAXFRPVC
7808R 010500	500 FT	21.500 LB	BLACK	C	RF240 WIRELESS 50OHM COAXFRPVC

Notes:
C = CRATE REEL PUT-UP.


Low Loss 50 Ohm Wireless RF Transmission Cable

RG-8X 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-8X Type • 15 AWG Solid .057" Bare Copper Conductor • Duobond® II (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)


Gas-injected Foam HDPE Insulation • Black Polyethylene Jacket

RF240 80°C	7808A	—	500	152.4	18.0	8.2	15 AWG (solid) .057" BC 3.2Ω/M' 10.5Ω/km	.150	3.81	Duobond II* + 95% TC Braid 2.8Ω/M' 9.2Ω/km	.240	6.10	50	86%	23.0	75.5	30	1.3	4.1
			1000	304.8	39.0	17.7											50	1.6	5.3
																			
100% Sweep tested. 6 GHz. Max. VSWR 1.25:1. Belden® The Wire in Wireless.																			
Mates with standard RG-8X connectors.** Suitable for Outdoor and Direct Burial applications.																			
2000 10.7 35.0 2500 12.0 39.5 3000 13.4 43.9 4500 16.7 54.7 5800 19.5 64.0 6000 19.8 65.0																			

Gas-injected Foam HDPE Insulation • Black PVC Jacket

RF240 80°C	7808R	NEC:	500	152.4	20.0	9.1	15 AWG (solid) .057" BC 3.2Ω/M' 10.5Ω/km	.150	3.81	Duobond II* + 95% TC Braid 2.8Ω/M' 9.2Ω/km	.240	6.10	50	86%	23.0	75.5	30	1.3	4.1
		CMR:	1000	304.8	44.0	20.0											50	1.6	5.3
																			
100% Sweep tested. 6 GHz. Max. VSWR 1.25:1. Belden® The Wire in Wireless.																			
Mates with standard RG-8X connectors.** Suitable for Outdoor and Direct Burial applications.																			
150 2.8 9.3 220 3.4 11.1 450 4.9 16.1 900 7.0 22.9 1500 9.1 30.0 1800 10.1 33.2 2000 10.7 35.0 2500 12.0 39.5 3000 13.4 43.9 4500 16.7 54.7 5800 19.5 64.0 6000 19.8 65.0																			

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

RF240 80°C	7808WB	—	500	152.4	18.0	8.2	15 AWG (solid) .057" BC 3.2Ω/M' 10.5Ω/km	.150	3.81	Duobond II* + 95% TC Braid 2.8Ω/M' 9.2Ω/km	.240	6.10	50	86%	23.0	75.5	30	1.3	4.1
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BC = Bare Copper • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

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