



## Description:

RG-174 type, 25 AWG solid .018" bare copper conductor, solid polyethylene insulation, Beldfoil® + tinned copper braid shield (90% coverage), PVC jacket.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	25	Solid	BC - Bare Copper	.018

### Insulation

#### Insulation Material:

Insulation Material	Dia. (in.)
PE - Polyethylene	.061

### Outer Shield

#### Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Beldfoil®	Tape	Aluminum Foil-Polyester Tape	100
2		Braid	TC - Tinned Copper	90

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

### Overall Cabling

Overall Nominal Diameter: 0.110 in.

## Mechanical Characteristics (Overall)

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

Non-UL Temperature Rating: 80°C

Bulk Cable Weight: 9 lbs/1000 ft.

Max. Recommended Pulling Tension: 16 lbs.

Min. Bend Radius (Install)/Minor Axis: 0.250 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:	174/U
Series Type:	RF 100

### Suitability

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

### 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)

.077

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

31.2

### Nominal Velocity of Propagation:

VP (%)

66

### Nominal Delay:

Delay (ns/ft)

1.54

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

32.0

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

9.1

### 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	3.8
50	4.9
150	8.6
220	10.4
450	15.2
900	22.0
1500	28.7
1800	31.7
2000	33.4
2500	37.8
3000	42.0
3500	45.4
4500	52.3
5800	60.9
6000	62.0

### Nom. Power Rating:

Start Freq. (MHz) Rating (W)

30	216
50	154
150	74
220	57
450	34
900	21
1500	14
1800	13
2000	12
2500	10
3000	9
3500	8
4500	7
5800	5
6000	5

**Max. Operating Voltage - Non-UL:**

Voltage
1100 V RMS

**Notes (Overall)**

**Notes:** 100% Sweep tested. 6 GHz. Max. Belden® The Wire in Wireless®.

**Put Ups and Colors:**


Item #	Putup	Ship Weight	Color	Notes	Item Desc
7805 010100	100 FT	1.700 LB	BLACK	E	RF100 WIRELESS 50 OHM COAX PVC
7805 0101000	1,000 FT	10.000 LB	BLACK		RF100 WIRELESS 50 OHM COAX PVC
7805 010500	500 FT	5.500 LB	BLACK		RF100 WIRELESS 50 OHM COAX PVC

**Notes:**


E = MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'

# Low Loss 50 Ohm Wireless RF Transmission Cable

RG-174 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
<b>RG-174 Type • 25 AWG Solid .018" Bare Copper Conductor • Beldfoil® (100% Coverage) + Tinned Copper Braid Shield (90% Coverage)</b>																			
<b>Solid Polyethylene Insulation • Black PVC Jacket</b>																			
<b>RF100A</b> 80°C 	<b>7805</b>	—	100†	30.5	1.8	.8	25 AWG	.061	1.55	Beldfoil + 90% TC Braid 9.1Ω/M' 29.9Ω/km	.110	2.79	50	66%	31.2	102.4	30	3.8	12.4
			500	152.4	5.5	2.5	(solid)	50	4.9								16.1		
			1000	304.8	10.0	4.5	.018"	150	8.6								28.2		
							BC	220	10.4								34.2		
							3.2Ω/M'	450	15.2								49.9		
							10.5Ω/km	900	22.0								72.3		
								1500	28.7								94.3		
								1800	31.7								104.0		
								2000	33.4								109.7		
								2500	37.8								124.2		
					3000	42.0	137.8												
					4500	52.3	171.5												
					5800	60.9	199.8												
					6000	62.0	203.3												
100% Sweep tested. 6 GHz. Max. VSWR 1.25:1 Belden® The Wire in Wireless.																			
Mates with standard RG-174 connectors. Suitable for Aerial applications when supported by a Messenger wire.																			

**RG-174 Type • 24.5 AWG Solid .020" Bare Copper Conductor • Beldfoil + Tinned Copper Braid Shield (93% Coverage)**

<b>Foam HDPE Insulation • Gray PVC Jacket</b>																			
<b>RF100LL</b> 80°C 	<b>7805R</b>	NEC:	100†	30.5	1.8	.8	24.5 AWG	.060	1.52	Beldfoil + 93% TC Braid 9.3Ω/M' 30.5Ω/km	.110	2.79	50	73.5%	26.2	86.0	30	3.5	11.5
		CMR:	500	152.4	5.5	2.5	(solid)	50	4.6								15.0		
		CEC:	1000	304.8	10.0	4.5	.020"	150	8.0								26.1		
						BC	220	9.6	31.6										
						27.3Ω/M'	450	14.0	46.1										
						94.2Ω/km	900	20.2	66.4										
							1500	26.6	87.3										
							1800	29.5	96.7										
							2000	31.2	102.3										
							2500	35.4	116.3										
					3000	39.4	129.2												
					4500	50.0	164.2												
					5800	59.0	193.6												
					6000	60.6	198.7												
100% Sweep tested. 6 GHz. Max. VSWR 1.25:1 Belden® The Wire in Wireless.																			
Mates with standard RG-174 connectors.																			

BC = Bare Copper • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

†May contain more than one piece. Min. length of any one piece is 25 ft.