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1-800-Belden1



### General Description:

22 AWG stranded (7x29) .031" bare compacted copper conductor, polyethylene insulation, tinned copper/bare copper double braid shield (95% coverage), PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	22	7x29	BCC - Bare Compacted Copper	.031

Total Number of Conductors: 1

#### Insulation

Insulation Material:

Insulation Material	Dia. (in.)
PE - Polyethylene	.193

#### Outer Shield

Outer Shield Material:

Layer #	Type	Outer Shield Material	Coverage (%)
1	Braid	TC - Tinned Copper	95.000
2	Braid	TC - Tinned Copper	95.000

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cable

Overall Nominal Diameter: 0.304 in.

### Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +60°C

Non-UL Temperature Rating: 60°C

Bulk Cable Weight: 63 lbs/1000 ft.

Max. Recommended Pulling Tension: 108 lbs.

Min. Bend Radius/Minor Axis: 3 in.

Min. Flexing Radius: 4.500 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

RG Type: 59/U

#### Suitability

Suitability - Indoor: Yes

**Plenum/Non-Plenum**

Plenum (Y/N): No

**Electrical Characteristics (Overall)**

**Nom. Characteristic Impedance:**

Impedance (Ohm)

75

**Nom. Inductance:**

Inductance (µH/ft)

0.118

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/ft)

21

**Nominal Velocity of Propagation:**

VP (%)

66

**Nominal Delay:**

Delay (ns/ft)

1.54

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

12.2

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/1000 ft)

1.7

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100 ft.)
1	.3
3.6	.5
10.0	.9
71.5	2.5
135	3.6
270	5.1
360	6.0
540	7.4
720	8.7
750	8.9
1000	10.5

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

Voltage

2900 V RMS

**Other Electrical Characteristic 1:**

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 using a 75 Ohm fixed bridge and termination.

**Other Electrical Characteristic 2:**

Return Loss tested in accordance with ASTM D-4566 paragraph 45.3, using a 75 Ohm fixed bridge and termination.

**Minimum Structural Return Loss:**

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	216	27
217	830	23

**Sweep Test**

Sweep Testing: 100% sweep tested. 5 MHz to 850 MHz.

**Notes (Overall)**

**Notes:** Compacted copper combines the Impedance uniformity of solid conductors and the "nick-resistance" of stranded conductors.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8281F G7V1000	1,000 FT	65.000 LB	RED, MATTE	C	#21H PE DBLB PVC
8281F G7W1000	1,000 FT	65.000 LB	GREEN, MATTE	C	#21H PE DBLB PVC
8281F G7X1000	1,000 FT	65.000 LB	BLUE, MATTE	C	#21H PE DBLB PVC
8281F J5C1000	1,000 FT	65.000 LB	BLACK, VIVID MATTE	C	#21H PE DBLB PVC
8281F J5C500	500 FT	35.000 LB	BLACK, VIVID MATTE	C	#21H PE DBLB PVC

## ENGLISH MEASUREMENT VERSION

### 8281F Coax - Double Braided RG-59/U Type

8281F U901000	1,000 FT	65.000 LB	GRAY, MATTE	C	#21H PE DBLB PVC
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**Notes:**

C = CRATE REEL PUT-UP.

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