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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. (mm)
1	22	7x29	BCC - Bare Compacted Copper	0.7874

Total Number of Conductors: 1

#### Insulation

Insulation Material:

Insulation Material	Dia. (mm)
PE - Polyethylene	4.9022

#### 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: 7.722 mm

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-20°C To +60°C
Non-UL Temperature Rating:	60°C
Bulk Cable Weight:	93.757 Kg/Km
Max. Recommended Pulling Tension:	480.406 N
Min. Bend Radius/Minor Axis:	76.200 mm
Min. Flexing Radius:	11.430 cm

### 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/m)

0.387158

**Nom. Capacitance Conductor to Shield:**

Capacitance (pF/m)

68.901

**Nominal Velocity of Propagation:**

VP (%)

66

**Nominal Delay:**

Delay (ns/m)

5.05274

**Nom. Conductor DC Resistance:**

DCR @ 20°C (Ohm/km)

40.0282

**Nominal Outer Shield DC Resistance:**

DCR @ 20°C (Ohm/km)

5.5777

**Nom. Attenuation:**

Freq. (MHz)	Attenuation (dB/100m)
1	0.9843
3.6	1.6405
10.0	2.9529
71.5	8.2025
135	11.8116
270	16.7331
360	19.686
540	24.2794
720	28.5447
750	29.2009
1000	34.4505

**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

## METRIC 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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