

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

For more Information  
please call

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
MIL Order #39 (China RoHS):	Yes
RG Type:	59/U

**Suitability**

Suitability - Indoor: Yes

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## 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		#21H PE DBLB PVC



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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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