Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION



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

Total Number of Conductors:

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

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Plenum (Y/N):	No	
Plenum/Non-Plenum		
Suitability - Indoor:	Yes	
Suitability		
RG Type:	59/U	
MII Order #39 (China RoHS):	Yes	
CA Prop 65 (CJ for Wire & Cable):	Yes	
EU Directive 2003/11/EC (BFR):	Yes	
EU Directive 2002/96/EC (WEEE):	Yes	

Electrical Characteristics (Overall)

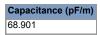
Nom. Characteristic Impedance:

Impedance	(Ohm)
75	

Nom. Inductance:



Nom. Capacitance Conductor to Shield:



Nominal Velocity of Propagation:



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.

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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	305 MT	29.484 KG	RED, MATTE	С	#21H PE DBLB PVC
8281F G7W1000	305 MT	29.484 KG	GREEN, MATTE	С	#21H PE DBLB PVC
8281F G7X1000	305 MT	29.484 KG	BLUE, MATTE	С	#21H PE DBLB PVC
8281F J5C1000	305 MT	29.484 KG	BLACK, VIVID MATTE	С	#21H PE DBLB PVC
8281F J5C500	152 MT	15.876 KG	BLACK, VIVID MATTE		#21H PE DBLB PVC
8281F U901000	305 MT	29.484 KG	GRAY, MATTE	С	#21H PE DBLB PVC

Notes:

C = CRATE REEL PUT-UP.

Revision Number: 2 Revision Date: 04-30-2013

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