

Product: [82108](#)

CATV Video, RG59, #20 BCCS, Foil + 95% Braid, CMP



Product Description

Series 59, 20 AWG solid .032" bare copper-covered steel conductor, plenum, foam FEP insulation, Duofoil® (100% coverage); TC braid shield (95% coverage), Flamarrest® jacket.

Technical Specifications

Product Overview

Suitable Applications:	CATV, Broadband
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
20	Solid	BCCS - Bare Copper Covered Steel	0.032 in	1

Conductor Count:	1
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Insulation

Material	Material Trade Name	Nominal Diameter
FEP - Fluorinated Ethylene Propylene (Foam)	Teflon®	0.14 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Bi-Laminate (Alum+Poly)	Duofoil®	100%
Braid	2	Tinned Copper (TC)		95%

Outer Jacket Material

Material	Material Trade Name	Nominal Diameter
PVC - Polyvinyl Chloride	Flamarrest®	0.202 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR
26 Ohm/1000ft	2.6 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.5 pF/ft

Inductance

Nominal Inductance
0.09 µH/ft

Impedance

Nominal Characteristic Impedance
75 Ohm

Return Loss (RL)

Frequency [MHz]	Min. Structural Return Loss (SRL)
10 - 400 MHz	20 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	0.8 dB/100ft
50 MHz	1.8 dB/100ft
100 MHz	2.6 dB/100ft
200 MHz	3.7 dB/100ft
400 MHz	5.4 dB/100ft
700 MHz	7.3 dB/100ft
900 MHz	8.4 dB/100ft
1000 MHz	8.9 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82%

High Freq

Max. Insertion Loss (Attenuation)
0.92 dB/100ft
2.1 dB/100ft
2.9 dB/100ft
4.2 dB/100ft
5.9 dB/100ft
7.9 dB/100ft
9 dB/100ft
9.4 dB/100ft

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes: Max Attenuation 10 MHz and above = $0.2856 * \text{Freq(MHz)}^{0.5065}$

Temperature Range

Non-UL Temp Rating:	75°C
Operating Temp Range:	0°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	32 lbs/1000ft
Max. Pull Tension:	100 lbs
Min Bend Radius/Minor Axis:	2 in

Standards

NEC/(UL) Compliance:	CATVP, CMP
CEC/C(UL) Compliance:	CMP, CXC
RG Type:	59/U Type
Series Type:	59

Applicable Environmental and Other Programs

Environmental Space:	Indoor - Plenum
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	No
Suitability - Sunlight Resistance:	No

Flammability, LS0H, Toxicity Testing

UL Flammability:	NFPA 262
CSA Flammability:	FT4, FT6
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC
82108 8771000	Natural	Reel	1,000 ft	612825196099
82108 877U1000	Natural	UnReel	1,000 ft	612825358022

Footnote: C - CRATE REEL PUT-UP.

Product Notes

Notes:	Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.
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History

Update and Revision:	Revision Number: 0.326 Revision Date: 09-30-2020
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