



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
------------------------	-----------------

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
------------------	---

Insulation

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

Outer Shield

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 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 Frequency

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 = $0.2856 * \text{Freq}(\text{MHz})^0.5065$
-----------------------------------	--

Temperature Range

Non-UL Temp Rating:	75°C
Operating Temperature 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
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 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
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, LSOH, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	Yes
---------------	-----

Related Part Numbers

Variants

Item #	Color	Put-Up 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.
--------	---

History

Update and Revision:	Revision Number: 0.382 Revision Date: 04-29-2024
----------------------	--

© 2024 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.