



Part Number: 1505F

Serial Digital Coax, RG59, Flexible 22 AWG Stranded BC, Double TC Braid, CM PVC Jacket

Product Description

Low Loss Serial Digital Coax, RG-59/U Type, CM-Rated, 22 AWG stranded bare compacted copper conductor, foam HDPE core, double 95% tinned copper braid, flexible PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor (Not Riser or Plenum)

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
22	7x29	BCC - Bare Compacted Copper	0.032 in	1
Condu	ctor Count:	·	1	
Conductor Size:		22 AWG		

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.145 in

Outer Shield Material

Туре	Layer	Material	Coverage [%]
Braid	1	TC - Tinned Copper	95 %
Braid	2	TC - Tinned Copper	95 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.242 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
12.2 Ohm/1000ft	2.4 Ohm/1000ft	2.4 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield	
17 pF/ft	ĺ

Inductance

Nominal Inductance

0.094 µH/ft

Impedance

Nominal Characteristic Impedance 75 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5 - 850 MHz	20 dB
850 - 6000 MHz	15 dB

High Frequency (Nominal/Typical)

1 MHz 0.2 dB/100ft 3.6 MHz 0.5 dB/100ft 5 MHz 0.6 dB/100ft 6 MHz 0.67 dB/100ft 7 MHz 0.73 dB/100ft 10 MHz 0.9 dB/100ft 10 MHz 0.9 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 25 MHz 2.4 dB/100ft 67.5 MHz 2.5 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 135 MHz 3.6 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6.1 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.4 dB/100ft 1000 MHz 10.4 dB/100ft 1000 MHz 10.7 dB/100ft 250 MHz	Frequency [MHz]	Nom. Insertion Loss
5 MHz 0.6 dB/100ft 6 MHz 0.67 dB/100ft 7 MHz 0.73 dB/100ft 10 MHz 0.9 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 25 MHz 1.44 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 5.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1000 MHz 13.6 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.7 dB/100ft 2000 MHz 17.3 dB/100ft 2250 MHz	1 MHz	0.2 dB/100ft
6 MHz 0.67 dB/100ft 7 MHz 0.73 dB/100ft 10 MHz 0.9 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 25 MHz 1.44 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 570 MHz 9.1 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2000 MHz 10.1 dB/100ft 2000 MHz 17.3 dB/100ft 2000 MHz	3.6 MHz	0.5 dB/100ft
7 MHz 0.73 dB/100ft 10 MHz 0.9 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 25 MHz 1.44 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 135 MHz 3.6 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 14.1 dB/100ft 2250 MHz 17.3 dB/100ft 2000 MHz 20.7 dB/100ft 250 MHz 20.7 dB/100ft 250 MHz <td>5 MHz</td> <td>0.6 dB/100ft</td>	5 MHz	0.6 dB/100ft
10 MHz 0.9 dB/100ft 12 MHz 0.98 dB/100ft 12 MHz 0.98 dB/100ft 25 MHz 1.44 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 135 MHz 3.6 dB/100ft 136 MHz 5.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.4 dB/100ft 1000 MHz 13.6 dB/100ft 1000 MHz 10.4 dB/100ft 1000 MHz 10.4 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft 3000 M	6 MHz	0.67 dB/100ft
12 MHz 0.98 dB/100ft 25 MHz 1.44 dB/100ft 25 MHz 2.2 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.6 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 360 MHz 8.9 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 10.4 dB/100ft 1000 MHz 10.4 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 26.7 dB/100ft	7 MHz	0.73 dB/100ft
25 MHz 1.44 dB/100ft 55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.4 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 2250 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft	10 MHz	0.9 dB/100ft
55 MHz 2.2 dB/100ft 67.5 MHz 2.4 dB/100ft 67.5 MHz 2.5 dB/100ft 71.5 MHz 2.8 dB/100ft 88.5 MHz 3 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.6 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 2250 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft	12 MHz	0.98 dB/100ft
67.5 MHz 2.4 dB/100ft 71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 26.7 dB/100ft	25 MHz	1.44 dB/100ft
71.5 MHz 2.5 dB/100ft 88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 135 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft	55 MHz	2.2 dB/100ft
88.5 MHz 2.8 dB/100ft 100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 143 MHz 3.6 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft	67.5 MHz	2.4 dB/100ft
100 MHz 3 dB/100ft 135 MHz 3.5 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 360 MHz 6 dB/100ft 360 MHz 7.5 dB/100ft 360 MHz 8.9 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 3000 MHz 20.7 dB/100ft	71.5 MHz	2.5 dB/100ft
135 MHz 3.5 dB/100ft 143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 360 MHz 6 dB/100ft 360 MHz 8.9 dB/100ft 720 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	88.5 MHz	2.8 dB/100ft
143 MHz 3.6 dB/100ft 180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 360 MHz 7.5 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	100 MHz	3 dB/100ft
180 MHz 4.1 dB/100ft 270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1000 MHz 13.6 dB/100ft 2000 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	135 MHz	3.5 dB/100ft
270 MHz 5.1 dB/100ft 360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 720 MHz 9.1 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	143 MHz	3.6 dB/100ft
360 MHz 6 dB/100ft 540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	180 MHz	4.1 dB/100ft
540 MHz 7.5 dB/100ft 720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	270 MHz	5.1 dB/100ft
720 MHz 8.9 dB/100ft 750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	360 MHz	6 dB/100ft
750 MHz 9.1 dB/100ft 1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	540 MHz	7.5 dB/100ft
1000 MHz 10.8 dB/100ft 1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	720 MHz	8.9 dB/100ft
1500 MHz 13.6 dB/100ft 2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	750 MHz	9.1 dB/100ft
2000 MHz 16.1 dB/100ft 2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	1000 MHz	10.8 dB/100ft
2250 MHz 17.3 dB/100ft 3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	1500 MHz	13.6 dB/100ft
3000 MHz 20.7 dB/100ft 4500 MHz 26.7 dB/100ft	2000 MHz	16.1 dB/100ft
4500 MHz 26.7 dB/100ft	2250 MHz	17.3 dB/100ft
	3000 MHz	20.7 dB/100ft
6000 MHz 32.2 dB/100ft	4500 MHz	26.7 dB/100ft
	6000 MHz	32.2 dB/100ft

Delay

 Nominal Delay
 Nominal Velocity of Propagation (VP) [%]

 1.3 ns/ft
 80 %

Voltage

UL Voltage Rating 300 V RMS

Temperature Range

Non-UL Temp Rating:	75°C
UL Temp Rating:	60°C
Operating Temp Range:	-35°C To +75°C

Mechanical Characteristics

Bulk Cable Weight:	42 lbs/1000ft
Max Recommended Pulling Tension:	73 lbs
Min Bend Radius/Minor Axis:	2.5 in

Standards

NEC/(UL) Specification:	СМ
CEC/C(UL) Specification:	СМ
RG Type:	59/U Type

Applicable Environmental and Other Programs

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 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 UL Loading
UL voltage rating:	300 V RMS

Yes

No

Plenum/Non-Plenum

Plenum (Y/N):

Part Number

Variants Item # Color Footnote 1505F B591000 Black, Matte С 1505F G7X1000 Blue, Matte С 1505F G7W1000 Green, Matte С 1505F G8L1000 Orange, Matte C 1505F G7V1000 Red, Matte С 1505F Z4B1000 Violet Z4B 1505F G7Y1000 White, Matte С 1505F 0041000 Yellow С C - CRATE REEL PUT-UP. Footnote:

© 2019 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 regulators based on their individual usage of the product.