Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

1694F Coax - Low Loss Serial Digital Coax

For more Information
please call

1-800-Belden1

General Description:

19 AWG stranded (7x27) bare copper conductor, gas-injected foam HDPE insulation, double tinned copper braid shield (95% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	19	7x27	BC - Bare Copper	1.016

Total Number of Conductors:	1

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	4.572

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:	7.010 mm

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	74.410 Kg/Km
Max. Recommended Pulling Tension:	364.752 N
Min. Bend Radius/Minor Axis:	69.850 mm

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU CE Mark:	Yes
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
MII Order #39 (China RoHS):	Yes
RG Type:	6/U

Flame Test

UL Flame Test:	UL1666 Vertical Shaft

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only
Suitability - Aerial:	Yes - Black only, when supported by a messenger wire

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1695A

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.347786

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
53.1522

Nominal Velocity of Propagation:

VP (%)
81

Nominal Delay:

Delay (ns/m)
4.10125

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
27.8885

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)
5.5777

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1.000	0.787
3.580	1.476
5.000	1.772
6.000	1.805
7.000	2.034
10.000	2.362
12.000	2.723
25.000	3.872
67.500	6.234
71.500	6.562
88.500	7.218
100.000	7.874
135.000	9.187

143.000	9.515
180.000	10.827
270.000	13.124
360.000	15.421
540.000	19.358
720.000	22.639
750.000	22.967
1000.000	26.904
1500.000	34.122
2000.000	40.356
2250.000	43.309
3000.000	51.184
4500.000	64.964

Max. Operating Voltage - UL:

Voltage
300 V RMS

Max. Operating Voltage - Non-UL:

Voltage
300 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. 75 +/- 1.5 Ohms

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 Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
5	850	20
850	4500	15

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 4.5 GHz.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1694F B591000	305 MT	24.494 KG	BLACK, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G7V1000	305 MT	24.494 KG	RED, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G7W1000	305 MT	24.494 KG	GREEN, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G7X1000	305 MT	24.494 KG	BLUE, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G7Y1000	305 MT	24.494 KG	WHITE, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G8L1000	305 MT	24.494 KG	ORANGE, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F G8M1000	305 MT	24.494 KG	YELLOW, MATTE	C	#19 GIFHDLDPE DBLB FRPVC
1694F Z4B1000	305 MT	24.494 KG	VIO Z4B	C	#19 GIFHDLDPE DBLB FRPVC

Notes:
C = CRATE REEL PUT-UP.

Test Reports

a) UL
i) UL Test Reports are available on-line through the UL Client Document Access web portal.
ii) UL Inspection Reports are also available through the UL Client Document Access web portal.
b) CSA
i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

Revision Number: 11 Revision Date: 09-19-2012

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Belden believes this product to be in compliance with EU RoHS (Directive 2002/95/EC, 27-Jan-2003). Material manufactured prior to the compliance date may be in stock at Belden facilities and in our Distributor’s inventory. The information provided in this Product Disclosure, and the identification of materials listed as reportable or restricted within the Product Disclosure, is correct to the best of Belden’s knowledge, information, and belief at the date of its publication. The information provided in this Product Disclosure 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. This 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.
Belden declares this product to be in compliance with EU LVD (Low Voltage Directive 73/23/EEC), as amended by directive 93/68/EEC.