

## 1694F Coax - Low Loss Serial Digital Coax



For more Information  
please call

1-800-Belden1



### Description:

19 AWG stranded (7x27) bare copper conductor, gas-injected foam HDPE insulation, double tinned copper braid shield (99% coverage), PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

AWG:

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

#### 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	93
2	Braid	TC - Tinned Copper	93

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cabling

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 (Install)/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

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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

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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:**

<b>Voltage</b>
300 V RMS

**Max. Operating Voltage - Non-UL:**

<b>Voltage</b>
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 GIFHLDPE DBLB FRPVC
1694F G7V1000	305 MT	24.494 KG	RED, MATTE	C	QLTHLDFHLDPE DBLB FRPVC
1694F G7W1000	305 MT	24.494 KG	GREEN, MATTE	C	#19 GIFHLDPE DBLB FRPVC
1694F G7X1000	305 MT	24.494 KG	BLUE, MATTE	C	#19 GIFHLDPE DBLB FRPVC
1694F G7Y1000	305 MT	24.494 KG	WHITE, MATTE	C	#19 GIFHLDPE DBLB FRPVC
1694F G8L1000	305 MT	24.494 KG	ORANGE, MATTE	C	#19 GIFHLDPE DBLB FRPVC
1694F G8M1000	305 MT	24.494 KG	YELLOW, MATTE	C	#19 GIFHLDPE DBLB FRPVC
1694F Z4B1000	305 MT	24.494 KG	VIO Z4B	C	#19 GIFHLDPE DBLB FRPVC

**Notes:**  
C = CRATE REEL PUT-UP.

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