

## 1694A Coax - Low Loss Serial Digital Coax

For more Information  
please call

1-800-Belden1



### Description:

RG-6/U Type, 18 AWG solid .040" bare copper conductor, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), PVC jacket.

### Physical Characteristics (Overall)

#### Conductor

##### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	18	Solid	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 #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

#### Outer Jacket

##### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cabling

Overall Nominal Diameter: 6.960 mm

### Mechanical Characteristics (Overall)

Operating Temperature Range: -30°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 59.528 Kg/Km

Max. Recommended Pulling Tension: 306.926 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 (%)

82

### Nominal Delay:

Delay (ns/m)

4.06844

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

20.9984

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

9.1868

### Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100m)

1.000	0.820
3.580	1.050
5.000	1.837
7.000	2.034
10.000	2.395
67.500	5.381
71.500	5.512
88.500	6.070
100.000	6.431
135.000	7.349
143.000	7.546
180.000	8.432
270.000	10.401
360.000	12.107

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540.000	15.093
720.000	17.652
750.000	18.046
1000.000	21.064
1500.000	26.215
2000.000	30.743
2250.000	32.843
3000.000	38.650
4500.000	48.953

### Max. Operating Voltage - 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	1600	23
1600	4500	21

### Sweep Test

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

### Misc. Information (Overall)

**Other Description:** 3-29-05 BAG: Added 4.5GHz Sweep testing. 6-27-05 BAG: Added Attenuation @ 4500 MHz

### Notes (Overall)

**Notes:** Also available in bundled versions. See 7710A through 7713A.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1694A N3U1000	305 MT	20.412 KG	GREEN, MIL	C	#18 PE/GIFHDPE SH FR PVC
1694A N3U5000	1,524 MT	102.059 KG	GREEN, MIL	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0011000	305 MT	20.412 KG	BROWN	C	#18 PE/GIFHDPE SH FR PVC
1694A 0015000	1,524 MT	102.059 KG	BROWN	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0021000	305 MT	20.412 KG	RED	C	#18 PE/GIFHDPE SH FR PVC
1694A 0025000	1,524 MT	102.059 KG	RED	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0031000	305 MT	20.412 KG	ORANGE	C	#18 PE/GIFHDPE SH FR PVC
1694A 0041000	305 MT	20.412 KG	YELLOW	C	#18 PE/GIFHDPE SH FR PVC
1694A 0061000	305 MT	20.412 KG	BLUE, LIGHT	C	#18 PE/GIFHDPE SH FR PVC
1694A 0065000	1,524 MT	102.059 KG	BLUE, LIGHT	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0071000	305 MT	20.412 KG	VIOLET	C	#18 PE/GIFHDPE SH FR PVC
1694A 0075000	1,524 MT	102.059 KG	VIOLET	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0081000	305 MT	20.412 KG	GRAY	C	#18 PE/GIFHDPE SH FR PVC
1694A 0085000	1,524 MT	102.059 KG	GRAY	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0091000	305 MT	20.412 KG	WHITE	C	#18 PE/GIFHDPE SH FR PVC
1694A 0101000	305 MT	20.412 KG	BLACK	C	#18 PE/GIFHDPE SH FR PVC
1694A 010500	152 MT	9.299 KG	BLACK	C	#18 PE/GIFHDPE SH FR PVC
1694A 0105000	1,524 MT	102.059 KG	BLACK	C N	#18 PE/GIFHDPE SH FR PVC

### Notes:

C = CRATE REEL PUT-UP.

N = FINAL PUT-UP LENGTH MAY VARY -0% TO +10% FROM LENGTH SHOWN.

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