

# Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

## 1694A Coax - Low Loss Serial Digital Coax

For more Information  
please call

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### 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. (in.)
1	18	Solid	BC - Bare Copper	.040

Total Number of Conductors: 1

#### Insulation

##### Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.180

#### 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 Cable

Overall Nominal Diameter: 0.274 in.

### Mechanical Characteristics (Overall)

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

UL Temperature Rating: 75°C

Bulk Cable Weight: 41 lbs/1000 ft.

Max. Recommended Pulling Tension: 69 lbs.

Min. Bend Radius/Minor Axis: 2.750 in.

### 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

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EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MIL Order #39 (China RoHS):	Yes
RG Type:	6/U

### Flame Test

UL Flame Test:	UL1666 Vertical Shaft
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### 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/ft)
0.106

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
16.2

### Nominal Velocity of Propagation:

VP (%)
82

### Nominal Delay:

Delay (ns/ft)
1.24

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
6.4

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
2.8

### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1.000	0.240
3.580	0.440
5.000	0.520
6.000	0.570
7.000	0.610
10.000	0.710
12.000	0.780
25.000	1.080
67.500	1.650
71.500	1.690
88.500	1.860
100.000	1.950
135.000	2.240

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143.000	2.300
180.000	2.570
270.000	3.170
360.000	3.690
540.000	4.600
720.000	5.380
750.000	5.500
1000.000	6.420
1500.000	7.990
2000.000	9.370
2250.000	10.010
3000.000	11.780
4500.000	14.920

### Max. Operating Voltage - 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)
5.000	1600.000	23.000
1600.000	4500.000	21.000

### Sweep Test

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

### Misc. Information (Overall)

### 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	1,000 FT	45.000 LB	GREEN, MIL	C	#18 PE/GIFHDPE SH FR PVC
1694A N3U5000	5,000 FT	225.000 LB	GREEN, MIL	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0011000	1,000 FT	45.000 LB	BROWN	C	#18 PE/GIFHDPE SH FR PVC
1694A 0015000	5,000 FT	225.000 LB	BROWN	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0021000	1,000 FT	45.000 LB	RED	C	#18 PE/GIFHDPE SH FR PVC
1694A 0025000	5,000 FT	225.000 LB	RED	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0031000	1,000 FT	45.000 LB	ORANGE	C	#18 PE/GIFHDPE SH FR PVC
1694A 0041000	1,000 FT	45.000 LB	YELLOW	C	#18 PE/GIFHDPE SH FR PVC
1694A 0061000	1,000 FT	45.000 LB	BLUE, LIGHT	C	#18 PE/GIFHDPE SH FR PVC
1694A 0065000	5,000 FT	225.000 LB	BLUE, LIGHT	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0071000	1,000 FT	45.000 LB	VIOLET	C	#18 PE/GIFHDPE SH FR PVC
1694A 0075000	5,000 FT	225.000 LB	VIOLET	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0081000	1,000 FT	45.000 LB	GRAY	C	#18 PE/GIFHDPE SH FR PVC
1694A 0085000	5,000 FT	225.000 LB	GRAY	C N	#18 PE/GIFHDPE SH FR PVC
1694A 0091000	1,000 FT	45.000 LB	WHITE	C	#18 PE/GIFHDPE SH FR PVC
1694A 0101000	1,000 FT	45.000 LB	BLACK	C	#18 PE/GIFHDPE SH FR PVC
1694A 010500	500 FT	22.500 LB	BLACK	C	#18 PE/GIFHDPE SH FR PVC
1694A 0105000	5,000 FT	225.000 LB	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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