



## Description:

RG-59/U type, 20 AWG solid .032" bare copper conductors, gas-injected foam HDPE insulation, Duofoil® + tinned copper braid shield (95% coverage), overall PVC jacket.

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
3	20	Solid	BC - Bare Copper	.032

### Insulation

#### Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.145

### Inner Shield

#### Inner Shield Material:

Layer #	Inner Shield Trade Name	Type	Inner Shield Material	Coverage (%)
1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
2		Braid	TC - Tinned Copper	95

### Inner Jacket

#### Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PVC - Polyvinyl Chloride	.235

#### Inner Jacket Color Code Chart:

Number	Color
1	Red
2	Green
3	Blue

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

### Overall Cabling

Overall Nominal Diameter: 0.631 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range:	-35°C To +75°C
UL Temperature Rating:	60°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	169 lbs/1000 ft.
Max. Recommended Pulling Tension:	216 lbs.
Min. Bend Radius (Install)/Minor Axis:	6.500 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
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:	59/U

### Flame Test

UL Flame Test:	UL1666 Vertical Shaft
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### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

75

### Nom. Inductance:

Inductance (μH/ft)

0.107

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.2

### Nominal Velocity of Propagation:

VP (%)

83

### Nominal Delay:

Delay (ns/ft)

1.22

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

10.0

### Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

3.8

### Nom. Attenuation:

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

1	0.3
3.6	0.6
10	0.9

71.5	2.1
135	2.7
270	3.8
360	4.4
540	5.5
720	6.4
750	6.5
1000	7.6
1500	9.4
2500	12.4
3000	13.8

**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.

**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	820	23
820	3000	15

**Sweep Test**

**Sweep Testing:** Sweep tested 5 MHz to 3 GHz.

**Put Ups and Colors:**

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7794A B591000	1,000 FT	187.000 LB	BLACK, MATTE	C	3 #20 PE/GIFHDPE SH FRPVC PVC
7794A B59500	500 FT	94.500 LB	BLACK, MATTE	C	3 #20 PE/GIFHDPE SH FRPVC PVC

**Notes:**

C = CRATE REEL PUT-UP.

# Brilliance VideoFLEX® Snake Cable for Precision Analog and Digital Video

Miniature and RG-59/U Type



Description	Part No.	UL NEC/ C(UL) CEC Type	No. of Cond.	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
				Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

**Miniature • 23 AWG** Solid .023" Bare Copper Conductors • Duofoil® (100% Coverage) + TC Braid Shield (95% Coverage)

<b>Gas-injected Foam HDPE Insulation • Overall Matte Black PVC Jacket</b> (Color Code: See chart below)																				
SDI/HDTV Digital Video 75°C (1855A Bundled)	<b>7787A</b>	NEC: CMR CEC: CMG FT4	3	500 1000	152.4 304.8	47.5 94.0	21.6 42.7	23 AWG (solid) .023" BC 20.1Ω/M' 65.9Ω/km	.102 Coax OD: .159	2.55 4.03	Duofoil + 95% TC Braid 7.6Ω/M' 24.9Ω/km	.432	10.97	75	83%	16.5	54.1	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2500 3000	.4 .8 1.2 3.1 3.8 5.4 6.2 7.7 9.1 9.5 10.5 13.0 16.9 18.5	1.3 2.6 3.9 10.0 12.5 17.7 20.3 25.3 29.8 31.2 34.4 42.6 55.4 60.7
	<b>7788A</b>	NEC: CMR CEC: CMG FT4	4	1000	304.8	110.0	49.9	same as above	.102 Coax OD: .159	2.55 4.03	same as above	.481	12.22					750 1000 1500 2500 3000	9.5 10.5 13.0 16.9 18.5	31.2 34.4 42.6 55.4 60.7
	<b>7789A</b>	NEC: CMR CEC: CMG FT4	5	500 1000	152.4 304.8	73.0 142.0	33.1 64.4	same as above	.102 Coax OD: .159	2.55 4.03	same as above	.539	13.69							
	<b>7790A</b>	NEC: CMR CEC: CMG FT4	6	500 1000	152.4 304.8	88.5 176.0	40.2 79.9	same as above	.102 Coax OD: .159	2.55 4.03	same as above	.597	15.16							
	<b>7791A</b>	NEC: CMR CEC: CMG FT4	10	500 1000	152.4 304.8	155.5 304.0	70.5 137.9	same as above	.102 Coax OD: .159	2.55 4.03	same as above	.796	20.22							
	<b>7792A</b>	NEC: CMR CEC: CMG FT4	12	500 1000	152.4 304.8	178.5 367.0	80.7 166.5	same as above	.102 Coax OD: .159	2.55 4.03	same as above	.825	20.96							

Sweep tested 5 MHz to 3 GHz.

**RG-59/U Type • 23 AWG** Solid .032" Bare Copper Conductors • Duofoil (100% Coverage) + TC Braid Shield (95% Coverage)

<b>Gas-injected Foam HDPE Insulation • Overall Matte Black PVC Jacket</b> (Color Code: See chart below)																				
SDI/HDTV Digital Video 75°C (1505A Bundled)	<b>7794A</b>	NEC: CMR CEC: CMG FT4	3	500 1000	152.4 304.8	94.5 187.0	43.0 84.8	23 AWG (solid) .032" BC 10.0Ω/M' 32.8Ω/km	.145 Coax OD: .235	3.68 5.97	Duofoil + 95% TC Braid 3.8Ω/M' 12.5Ω/km	.631	16.03	75	83%	16.3	53.1	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2500 3000	.3 .6 .9 2.1 2.7 3.8 4.4 5.5 6.4 6.5 7.6 9.3 12.4 13.8	1.0 1.8 2.9 6.9 8.9 12.5 14.4 18.0 21.0 21.3 24.9 30.5 40.7 45.3
	<b>7795A</b>	NEC: CMR CEC: CMG FT4	4	500 1000	152.4 304.8	116.5 237.0	53.0 107.7	same as above	.145 Coax OD: .235	3.68 5.97	same as above	.706	17.93							
	<b>7796A</b>	NEC: CMR CEC: CMG FT4	5	500 1000	152.4 304.8	153.0 299.0	69.4 135.6	same as above	.145 Coax OD: .235	3.68 5.97	same as above	.790	20.07							
	<b>7798A</b>	NEC: CMR CEC: CMG FT4	10	500 1000	152.4 304.8	319.5 625.0	145.2 284.1	same as above	.145 Coax OD: .235	3.68 5.97	same as above	1.166	29.62							

Sweep tested 5 MHz to 3 GHz.

BC = Bare Copper • DCR = DC Resistance • HDPE = High-density Polyethylene • TC = Tinned Copper

**Color Code Chart**

Cond.	Color	Cond.	Color	Cond.	Color
1	Red	5	Yellow	9	Purple
2	Green	6	Brown	10	Black
3	Blue	7	Orange	11	Pink
4	White	8	Gray	12	Tan

