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1-800-Belden1



General 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.

Usage (Overall)

Suitable Applications: SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080p, SDI/HDTV Digital Video, High Definition (HD), Standard Definition (SDI)

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
10	20	Solid	BC - Bare Copper	.032

Total Number of Conductors: 10

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	0.233

Inner Jacket Color Code Chart:

Number	Color
1	Red
2	Green
3	Blue
4	White
5	Yellow
6	Brown
7	Orange
8	Gray
9	Purple
10	Black

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cable

Overall Nominal Diameter: 1.166 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: 555 lbs/1000 ft.

Max. Recommended Pulling Tension: 720 lbs.

Min. Bend Radius/Minor Axis:	11.750 in.
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Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG
EU Directive 2011/65/EU (ROHS II):	Yes
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 - Black only.
Suitability - Burial:	No

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.)
1.000	0.300
3.600	0.600
10.000	0.900
71.500	2.100
135.000	2.700
270.000	3.800
360.000	4.400
540.000	5.500
720.000	6.400

Detailed Specifications & Technical Data



ENGLISH MEASUREMENT VERSION

7798A Coax - RG-59/U

750.000	6.500
1000.000	7.600
1500.000	9.400
2500.000	12.400
3000.000	13.800
4500.000	18.000
6000.000	21.100

Max. Operating Voltage - UL:

Voltage
300 V RMS

Other Electrical Characteristic 1:

Return Loss: 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
4500.000	6000.000	15.000

Sweep Test

Sweep Testing:

Sweep tested 5 MHz to 6 GHz.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
7798A B591000	1,000 FT	625.000 LB	BLACK, MATTE	C	10 #20 PE/GIFHDPE SH FRPVC PVC
7798A B59500	500 FT	317.500 LB	BLACK, MATTE	C	10 #20 PE/GIFHDPE SH FRPVC PVC

Notes:

C = CRATE REEL PUT-UP.

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