Detailed Specifications & Technical Data

METRIC MEASUREMENT VERSION

7794A Coax - RG-59/U

For more Information please call

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.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
3	20	Solid	BC - Bare Copper	0.8128

Total Number of Conductors: 3

Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	3.683

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. (mm)
PVC - Polyvinyl Chloride	5.969

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 Cable

Overall Nominal Diameter:	16.027 mm

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:	254.482 Kg/Km
Max. Recommended Pulling Tension:	960.811 N
Min. Bend Radius/Minor Axis:	165.100 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
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
CSA Flame Test:	FT4

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/m)
0.351067

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
53.1522

Nominal Velocity of Propagation:

VP (%)
83

Nominal Delay:

Delay (ns/m)
4.00282

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
32.81

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km)
12.4678

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1	0.9843
3.6	1.9686

10	2.9529
71.5	6.8901
135	8.8587
270	12.4678
360	14.4364
540	18.0455
720	20.9984
750	21.3265
1000	24.9356
1500	30.8414
2500	40.6844
3000	45.2778

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.

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	305 MT	84.822 KG	BLACK, MATTE	C	3 #20 PE/GIFHDPE SH FRPVC PVC
7794A B59500	152 MT	42.865 KG	BLACK, MATTE	C	3 #20 PE/GIFHDPE SH FRPVC PVC

Notes:
C = CRATE REEL PUT-UP.

Test Reports

a) UL
i) UL Test Reports are available on-line through the UL Client Document Access web portal.
ii) UL Inspection Reports are also available through the UL Client Document Access web portal.

b) CSA
i) CSA "Descriptive Report and Test Results" documents are available on the CSA Gateway Portal.
ii) CSA Inspection Reports are maintained on the CSA issued 'flash drive' at each manufacturing location.

* other test data may be available if requested at time of order.

Revision Number: 2 Revision Date: 09-26-2012