# **Detailed Specifications & Technical Data**



## 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.

hysical Characteristics (Over	all)	
Conductor AWG:		
# Coax AWG Stranding Conductor	Material Dia. (in.)	
3 20 Solid BC - Bare Co	opper .032	
Total Number of Conductors:	3	
nsulation		
Insulation Material:		
Insulation Material	Dia. (in.)	
Gas-injected FHDPE - Foam High Den	sity Polyethylene .145	
nner Shield Inner Shield Material:		
Layer # Inner Shield Trade Name Ty	pe Inner Shield Material	Coverage (%)
	pe Aluminum Foil-Polyester Tape-Aluminum Foi	
2 Br	aid TC - Tinned Copper	95
Number Color         1       Red         2       Green         3       Blue         Duter Jacket         Outer Jacket Material:         Outer Jacket Material         PVC - Polyvinyl Chloride         Overall Cable         Overall Nominal Diameter:	0.631 in.	
lechanical Characteristics (O	verall)	
Operating Temperature Range:	-35°C To +75°C	
UL Temperature Rating:	60°C	
Non-UL Temperature Rating:	75°C	
Bulk Cable Weight:	171 lbs/1000 ft.	
Max. Recommended Pulling Ten	sion: 216 lbs.	

# **Detailed Specifications & Technical Data**

ENGLISH MEASUREMENT VERSION



## 7794A Coax - RG-59/U

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 Directive 2002/95/EC (RoHS):       Yes         EU Dorective 2002/95/EC (RoHS):       Yes         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         RG Type:       59/U         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       Yes         Suitability       Suitability - Outdoor:         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         No       No         Impedance (Ohm)       75         Iom. Characteristic Impedance:       Impedance (pfrft)         10.407       Capacitance Conductor to Shield:         Capacitance (pfrft)       16.2         Iominal Velocity of Propagation:       VP (%6)         Iominal Delay:       Use	· · / · · · · · · · · · · · · · · · · ·	CMR	
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         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         Iame Test       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       Ves         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Ienum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         ectrical Characteristics (Overall)       om. Inductance:         impedance (Ohm)       75         0om. Inductance:       Capacitance (pF/ft)         0.107       ominal Velocity of Propagation:         VP (%)       83	EC/C(UL) Specification:		
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         tame Test       UL Flame Test:         UL Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       Ves         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Itability - Outdoor:       Yes         lenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         ectrical Characteristics (Overall)         om. Characteristic Impedance:         Impedance (ohm)         75         om. Lnductance:         Inductance (pFift)         16.2         ominal Velocity of Propagation:         VP (%)         83			
EU Directive 2002/95/EC (RoHS):       Yes         EU RoHS Compliance Date (mm/dd/yyyy):       01/01/2004         EU Directive 2003/11/EC (BFR):       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         Itame Test       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       Ves         Suitability       Indoor:         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         ectrical Characteristics (Overall)         Iom. Characteristic Impedance:         Impedance (0hm)         75         Iom. Inductance:         Inductance (µH/fi)         0.107         Iom. Capacitance Conductor to Shield:         Capacitance (pF/ft)         16.2         Iominal Velocity of Propagation:         VP (%)         83			
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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:       59/U         Flame Test       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       FT4         Suitability       Suitability - Indoor:         Suitability - Outdoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Iom. Characteristics (Overall)         Iom. Inductance:       Impedance (Ohm)         10.107       Capacitance (opF/ft)         16.2       Iominal Velocity of Propagation:         VP (%) 83       Sa			
CA Prop 65 (CJ for Wire & Cable):       Yes         MII Order #39 (China RoHS):       Yes         RG Type:       59/U         Flame Test       UL 1666 Vertical Shaft         UL Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       UL 1666 Vertical Shaft         Suitability       Suitability - Indoor:         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Iom. Characteristics (Overall)         Iom. Characteristic Impedance:         Impedance (Ohm)         75         Iom. Inductance:         Inductance (µH/ft)         0.107         Iom. Capacitance Conductor to Shield:         Capacitance (pF/ft)         16.2         Iominal Velocity of Propagation:			
MII Order #39 (China RoHS):       Yes         RG Type:       59/U         Rame Test       UL 1666 Vertical Shaft         UL Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       FT4         Suitability       Suitability         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Idectrical Characteristics (Overall)         Iom. Characteristic Impedance:         Impedance (Ohm)         75         Iom. Inductance:         Inductance (µH/ft)         0.107         Iom. Capacitance Conductor to Shield:         Capacitance (pF/ft)         16.2         Iominal Velocity of Propagation:         VP (%)         83			
RG Type:         59/U           Flame Test         UL 1666 Vertical Shaft           UL Flame Test:         UL 1666 Vertical Shaft           CSA Flame Test:         FT4           Suitability         Suitability           Suitability - Indoor:         Yes           Suitability - Outdoor:         Yes           Plenum/Non-Plenum         Plenum (Y/N):           Plenum (Y/N):         No           Impedance (Ohm)         75           Iom. Capacitance (uH/ff)         0.107           Iom. Capacitance Conductor to Shield:         Capacitance (pF/ft)           Io.2         Iominal Velocity of Propagation:           VP (%)         83			
UL Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       FT4         Suitability       Suitability - Indoor:         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Impedance (Ohm)       75         Iom. Inductance:       Inductance (µH/ft)         0.107       Onto Capacitance Conductor to Shield:         Capacitance (pF/ft)       16.2         Iominal Velocity of Propagation:       VP (%)         83       State			
UL Flame Test:       UL 1666 Vertical Shaft         CSA Flame Test:       FT4         Suitability       Suitability - Indoor:         Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Impedance (Ohm)       75         Iom. Inductance:       Inductance (µH/ft)         0.107       Iom. Capacitance Conductor to Shield:         Capacitance (pF/ft)       16.2         Iominal Velocity of Propagation:       YP (%)         83       State Sta			
Suitability Suitability - Indoor: Yes Suitability - Outdoor: Yes Plenum/Non-Plenum Plenum (Y/N): No Rectrical 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 Nomial Velocity of Propagation: VP (%) 83		UL1666 Vertical Shaft	
Suitability - Indoor:       Yes         Suitability - Outdoor:       Yes         Plenum/Non-Plenum       Plenum (Y/N):         Plenum (Y/N):       No         Idectrical Characteristics (Overall)       No         Iom. Characteristic Impedance:       Impedance (Ohm)         75       Iom. Inductance:         Inductance (µH/ft)       0.107         Iom. Capacitance Conductor to Shield:       Capacitance (pF/ft)         16.2       Iominal Velocity of Propagation:         VP (%)       83	SA Flame Test:	FT4	
Suitability - Outdoor:       Yes         Plenum/Non-Plenum       No         Plenum (Y/N):       No         ectrical Characteristics (Overall)       No         Iom. Characteristic Impedance:       Impedance (Ohm)         75       Iom. Inductance:         Inductance (µH/ft)       0.107         Iom. Capacitance Conductor to Shield:       Capacitance (pF/ft)         Io.2       Iominal Velocity of Propagation:         VP (%)       83	ability		
Plenum/Non-Plenum Plenum (Y/N): No  ectrical Characteristics (Overall) form. Characteristic Impedance:  Impedance (Ohm) 75 Iom. Inductance: Inductance (µH/ft) 0.107 Iom. Capacitance Conductor to Shield:  Capacitance (pF/ft) 16.2 Iominal Velocity of Propagation:  VP (%) 83	Suitability - Indoor:	Yes	
Plenum (Y/N):       No         Inductance (Ohm)       75         Inductance:       Inductance (µH/ft)         0.107       Inductance conductor to Shield:         Capacitance (pF/ft)       16.2         Itominal Velocity of Propagation:       VP (%)         83       Itomical conductor to Propagation:	Suitability - Outdoor:	Yes	
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Capacitance (pF/ft) 16.2 Iominal Velocity of Propagation: VP (%) 83			
16.2         Iominal Velocity of Propagation:         VP (%)         83	-		
Iominal Velocity of Propagation: VP (%) 83			
VP (%) 83			
lominal Delay:			
Delay (ns/ft) 1.22			
Iom. Conductor DC Resistance:			
DCR @ 20°C (Ohm/1000 ft)			
10.0			
Iom. Inner Shield DC Resistance: DCR @ 20°C (Ohm/1000 ft)	0		
3.8	0 Inner Shield DC Resistance:		

### Freq. (MHz) Attenuation (dB/100 ft.) 1 0.3

1	0.3
3.6	0.6

# **Detailed Specifications & Technical Data**

ENGLISH MEASUREMENT VERSION



#### 7794A Coax - RG-59/U

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:

Voltage

300 V RMS

Impedance tested in accordance with ASTM D-4566 paragraph 43.2, option 2 **Other Electrical Characteristic 1:** 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	С	3 #20 PE/GIFHDPE SH FRPVC PVC
7794A B59500	500 FT	94.500 LB	BLACK, MATTE	С	3 #20 PE/GIFHDPE SH FRPVC PVC

#### Notes:

C = CRATE REEL PUT-UP.

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

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