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1-800-Belden1



### General Description:

Miniature, 23 AWG solid .023" bare copper conductors, solid copper, 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	23	Solid	BC - Bare Copper	0.5842

Total Number of Conductors: 3

#### Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	2.5908

#### 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	4.0386

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: 11.176 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:	126.497 Kg/Km
Max. Recommended Pulling Tension:	480.406 N
Min. Bend Radius/Minor Axis:	114.300 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:	Mini

### 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
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)
75.000

### Nom. Inductance:

Inductance (μH/m)
0.347786

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)
54.1365

### Nominal Velocity of Propagation:

VP (%)
83

### Nominal Delay:

Delay (ns/m)
4.06844

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)
65.9481

### Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/km)
24.9356

### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1	1.3124
3.6	2.6248

10	3.9372
71.5	10.1711
135	12.4678
270	17.7174
360	20.3422
540	25.2637
720	29.8571
750	31.1695
1000	34.4505
1500	42.653
2500	55.4489
3000	60.6985

**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	850	23
851	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
7787A B591000	305 MT	42.638 KG	BLACK, MATTE	C	3 #23 PE/GIFHDPE SH PVC PVC
7787A B59500	152 MT	21.546 KG	BLACK, MATTE	C	3 #23 PE/GIFHDPE SH PVC 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.

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## 7787A Coax - Bundled Miniature