

Part Number: 1855A

Serial Digital Coax, Sub-miniature, #23 Solid BC, Foil + 95% TC braid, CMR

Product Description

Low Loss Serial Digital Coax, Riser-CMR, Sub-Miniature 23 AWG solid bare copper conductor, foam HDPE core, Duofoil, +95% tinned copper braid, PVC jacket

Technical Specifications

Product Overview

Environmental Space:	Indoor - Riser
Suitable Applications:	SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080P

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
23	Solid	BC - Bare Copper	0.023 in	1

Conductor Count:	1
Conductor Size:	23 AWG

Insulation

Material	Nominal Diameter
Gas-injected FHDPE - Foam High Density Polyethylene	0.102 in

Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Aluminum/Polyester/Aluminum	Duofoil®	100 %
Braid	2	TC - Tinned Copper		95 %

Outer Jacket Material

Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.159 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Outer Conductor DCR
20.1 Ohm/1000ft	3.7 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
16.3 pF/ft

Inductance

Nominal Inductance
0.107 µH/ft

Impedance

Nominal Characteristic Impedance

75 Ohm

Return Loss (RL)

Frequency [MHz]	Minimum Return (RL)
5 MHz - 1600 MHz	23 dB
1600 MHz - 4500 MHz	21 dB
4500 MHz - 6000 MHz	15 dB

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
1 MHz	0.39 dB/100ft
3.58 MHz	0.78 dB/100ft
5 MHz	0.92 dB/100ft
6 MHz	1.00 dB/100ft
7 MHz	1.08 dB/100ft
10 MHz	1.2 dB/100ft
12 MHz	1.3 dB/100ft
25 MHz	1.8 dB/100ft
67.5 MHz	2.83 dB/100ft
71.5 MHz	2.93 dB/100ft
88.5 MHz	3.22 dB/100ft
100 MHz	3.39 dB/100ft
135 MHz	3.84 dB/100ft
143 MHz	4.00 dB/100ft
180 MHz	4.41 dB/100ft
270 MHz	5.44 dB/100ft
360 MHz	6.34 dB/100ft
540 MHz	7.85 dB/100ft
720 MHz	9.15 dB/100ft
750 MHz	9.31 dB/100ft
1000 MHz	10.89 dB/100ft
1500 MHz	13.38 dB/100ft
2000 MHz	15.64 dB/100ft
2250 MHz	16.68 dB/100ft
3000 MHz	19.65 dB/100ft
4500 MHz	24.35 dB/100ft
6000 MHz	28.97 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82 %

Voltage

UL Voltage Rating
300 V RMS

Electrical Characteristics Notes:	TDR Impedance: 75 +/- 1.5 Ohms
Other Electrical Characteristic 2:	Return Loss: Fixed bridge and termination

Temperature Range

UL Temp Rating:	75°C
Operating Temp Range:	-30°C To +75°C

Mechanical Characteristics

UV Resistance:	Yes
Bulk Cable Weight:	17 lbs/1000ft
Max Recommended Pulling Tension:	33 lbs
Min Bend Radius/Minor Axis:	1.6 in

Standards

NEC/(UL) Specification:	CMR
CEC/C(UL) Specification:	CMG

CPR Euroclass:	Eca
RG Type:	Mini 59/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - Black only, when supported by messenger wire
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black only

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	300 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
Plenum Number:	1855P

Part Number

Related Parts:	1855ABHD3

Variants

Item #	Color	UPC	Length	Footnote
1855A 0101000	Black	612825358503	1,000 ft	C
1855A 010500	Black	612825356950	500 ft	
1855A 010N1000	Black		1,000 ft	
1855A 010N1000	Black		1,000 ft	
1855A.00500	Black		500 ft	
1855A 0061000	Blue, Light	612825358459	1,000 ft	C
1855A 006N1000	Blue, Light		1,000 ft	
1855A 006N1000	Blue, Light		1,000 ft	
1855A 0011000	Brown	612825356851	1,000 ft	C
1855A 001N1000	Brown		1,000 ft	
1855A 001N1000	Brown		1,000 ft	
1855A 0081000	Gray	612825358510	1,000 ft	C
1855A 008N1000	Gray		1,000 ft	
1855A 008N1000	Gray		1,000 ft	
1855A N3U1000	Green, Mil	612825358480	1,000 ft	C
1855A N3UN1000	Green, Mil		1,000 ft	
1855A N3UN1000	Green, Mil		1,000 ft	
1855A 0031000	Orange	612825356844	1,000 ft	C
1855A 003N1000	Orange		1,000 ft	
1855A 003N1000	Orange		1,000 ft	
1855A 0021000	Red	612825358473	1,000 ft	C
1855A 002N1000	Red		1,000 ft	
1855A 002N1000	Red		1,000 ft	
1855A 0071000	Violet	612825356837	1,000 ft	C

1855A 007N1000	Violet		1,000 ft	
1855A 007N1000	Violet		1,000 ft	
1855A 0091000	White	612825358497	1,000 ft	C
1855A 009N1000	White		1,000 ft	
1855A 009N1000	White		1,000 ft	
1855A 0041000	Yellow	612825358466	1,000 ft	C
1855A 004N1000	Yellow		1,000 ft	
1855A 004N1000	Yellow		1,000 ft	

Footnote:	C - CRATE REEL PUT-UP.

Product Notes

Notes:	Print legend includes sequential footage marks.

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