



Product: [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

Suitable Applications:	SMPTE 2081-1 6 Gb/s UHDTV, SMPTE 424M 3 Gb/s HD-SDI 1080P
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Physical Characteristics (Overall)

Conductor

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

Conductor Count:	1
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Insulation

Material	Nominal Diameter
PE - Polyethylene (Foam)	0.102 in

Table Notes:	Gas Injected
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Outer Shield Material

Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Duofoil®	100%
Braid	2	Tinned Copper (TC)		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. Pull Tension:	33 lbs
Min Bend Radius/Minor Axis:	1.6 in

Standards

NEC/(UL) Compliance:	CMR
CEC/C(UL) Compliance:	CMG
CPR Euroclass:	Eca

RG Type:	Mini 59/U Type
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Applicable Environmental and Other Programs

Environmental Space:	Indoor - Riser
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
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, LSOH, Toxicity Testing

UL Flammability:	UL1666 Vertical Shaft
CSA Flammability:	FT4
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
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Variants

Item #	Color	Putup Type	Length	UPC
1855A 010500	Black	Reel	500 ft	612825356950
1855A 0101000	Black	Reel	1,000 ft	612825358503
1855A 010N1000	Black	Reel w/Small Barrel	1,000 ft	
1855A 010Z1000	Black	ReelTuff Box	1,000 ft	612825434993
1855A 0105000	Black	Reel	5,000 ft	612825436126
1855A 0061000	Blue, Light	Reel	1,000 ft	612825358459
1855A 006N1000	Blue, Light	Reel w/Small Barrel	1,000 ft	
1855A 006Z1000	Blue, Light	ReelTuff Box	1,000 ft	612825434955
1855A 0065000	Blue, Light	Reel	5,000 ft	612825436072
1855A 0011000	Brown	Reel	1,000 ft	612825356851
1855A 001N1000	Brown	Reel w/Small Barrel	1,000 ft	
1855A 0015000	Brown	Reel	5,000 ft	612825436027
1855A 0081000	Gray	Reel	1,000 ft	612825358510
1855A 008N1000	Gray	Reel w/Small Barrel	1,000 ft	
1855A 0085000	Gray	Reel	5,000 ft	612825436096
1855A N3U1000	Green, Mil	Reel	1,000 ft	612825358480
1855A N3UN1000	Green, Mil	Reel w/Small Barrel	1,000 ft	
1855A N3UZ1000	Green, Mil	ReelTuff Box	1,000 ft	612825435006
1855A N3U5000	Green, Mil	Reel	5,000 ft	612825436133
1855A 0031000	Orange	Reel	1,000 ft	612825356844
1855A 003N1000	Orange	Reel w/Small Barrel	1,000 ft	
1855A 003Z1000	Orange	ReelTuff Box	1,000 ft	612825434931
1855A 0035000	Orange	Reel	5,000 ft	612825436041
1855A 0021000	Red	Reel	1,000 ft	612825358473
1855A 002N1000	Red	Reel w/Small Barrel	1,000 ft	

1855A 002Z1000	Red	ReelTuff Box	1,000 ft	612825434917
1855A 0025000	Red	Reel	5,000 ft	612825436034
1855A 0071000	Violet	Reel	1,000 ft	612825356837
1855A 007N1000	Violet	Reel w/Small Barrel	1,000 ft	
1855A 007Z1000	Violet	ReelTuff Box	1,000 ft	612825434962
1855A 0075000	Violet	Reel	5,000 ft	612825436089
1855A 0091000	White	Reel	1,000 ft	612825358497
1855A 009N1000	White	Reel w/Small Barrel	1,000 ft	
1855A 009Z1000	White	ReelTuff Box	1,000 ft	612825434986
1855A 0095000	White	Reel	5,000 ft	612825436102
1855A 0041000	Yellow	Reel	1,000 ft	612825358466
1855A 004N1000	Yellow	Reel w/Small Barrel	1,000 ft	
1855A 004Z1000	Yellow	ReelTuff Box	1,000 ft	612825434948
1855A 0045000	Yellow	Reel	5,000 ft	612825436065

Footnote:	C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Print legend includes sequential footage marks.
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History

Update and Revision:	Revision Number: 0.297 Revision Date: 04-28-2020
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