Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



1505S3 Coax - RG-59/U Type





Description:

20 AWG solid .032" bare copper conductors, gas-injected foam HDPE insulation, Duofoil® (100% coverage) plus a tinned copper braid shield (95% coverage), individual PVC jackets.

Usage (Overall)

Suitable Applications:

RGB, VGA, SVGA, XGA, SXGA, UXGA, HDTV, LCD, Plasma, Digital Signage, Component Video, Video Mult, Animation, Special Effects, Suitable for use in Risers

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
3	20	Solid	BC - Bare Copper	.032

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.145

Inner Shield

Inner Shield Material:

I	Layer #	Inner Shield Trade Name	Туре	Inner Shield Material	Coverage (%)
	1	Duofoil®	Tape	Aluminum Foil-Polyester Tape-Aluminum Foil	100
ı	2		Braid	TC - Tinned Copper	95

Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PVC - Polyvinyl Chloride	.235

Inner Jacket Color Code Chart:

Number	Color
1	Red
2	Green
3	Blue

Outer Jacket

Outer Jacket Material:

Outer Jacket Material Unjacketed

Overall Cabling

Overall Cabling Fillers:	Bonded Spline
Overall Nominal Diameter:	0.502 in.

Mechanical Characteristics (Overall)

,	
Operating Temperature Range:	-35°C To +75°C
UL Temperature Rating:	60°C
Non-UL Temperature Rating:	75°C

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



1505S3 Coax - RG-59/U Type

97 lbs/1000 ft.	
216 lbs.	
6.500 in.	
-	

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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	
Suitability		
Suitability - Indoor:	Yes	
Suitability - Outdoor:	Yes	
Plenum/Non-Plenum		

No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75	

Plenum (Y/N):

Nom. Inductance:



Nom. Capacitance Conductor to Shield:



Nominal Velocity of Propagation:



Nominal Delay:



Nom. Conductor DC Resistance:



Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/100	0 ft)
3.8	

Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION



1505S3 Coax - RG-59/U Type

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1	0.3
3.6	0.6
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

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	475	20
475	525	15
525	850	20
850	4500	15

Sweep Test

Sweep Testing: Sweep tested 5 MHz to 4.5 GHz.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1505S3 0001000	1,000 FT	104.000 LB	NONE	С	BONDED FILLER COMPOSITE
1505\$3 000500	500 FT	55.500 LB	NONE	С	BONDED FILLER COMPOSITE

Notes:

C = CRATE REEL PUT-UP.

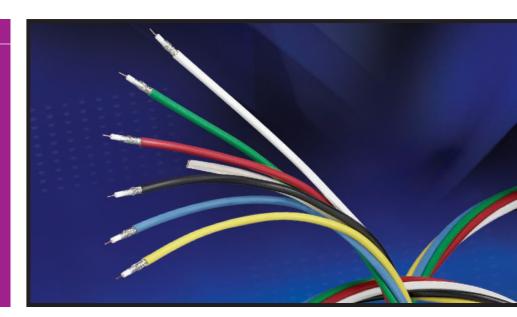


New Product Bulletin

NP 258

Brilliance® Banana Peel Precision Video Snake Cables

New Banana Peel Composite cable constructions now feature three of Belden's most popular SDI/HD coaxes: 1855A,1505A and 1694A. This gives you outstanding digital video performance using multiple coaxes in a single pull.



Belden Brilliance
Banana Peel Precision
Video Snake Cable Line
Expands to Include a
1694A Composite
Construction

Belden recently introduced Banana Peel versions of its highly popular 1855A and 1505A cables, and now includes a Banana Peel construction of the industry's standard: 1694A

These digital video cables are ideal for use in the most demanding applications, including serial digital video, component video, unbalance mode analog or digital audio (AES/EBU), computer CAD/CAM, high-end computer graphics and animation, and live studio, field and mobile television broadcasting.

The new cables can also be used for high-resolution monitors and projection imaging in corporate boardrooms, command and control centers, auditoriums, teleconferencing centers, home theaters, performance venues, post-production facilities and houses of worship.

1855A, 1505A and 1694A Banana Peel constructions are available in bundles of 3, 5 and 6. All cables are pre-timed to ensure a delay difference of less than 5.0ns/100 feet between coaxes, allowing for "cut-and-connect" installation with no TDR or Vectorscope timing required. The result is a dramatic reduction in installation time, expense and complexity. Further reductions in the cables' installation time/complexity are offered by means of their unique Banana Peel construction.

Banana Peel Means Labor Savings, Easy Identification

Banana Peel Precision Video Snake cables will decrease your labor costs because the overall jacket has been eliminated. Without the outer jacket, a whole step in the termination process has been eliminated, plus the individual cable components are all instantly identifiable (the individual cables are color-coded and the print legends are immediately visible). To terminate the cables just peel the individual cables off the center spline and terminate. With no overall jacket the composite has a smaller OD, especially considering the OD of similarly bundled cables. The cable's bend radius also is improved, making it possible to use a smaller size conduit.

Exceptional Return Loss Characteristics, Sweep Tested to 4.5 GHz

To ensure best-in-class Return Loss performance, these cables are 100% sweep tested to 4.5 GHz. Belden is the only cable manufacturer that has extended its testing to 4.5 GHz, assuring broadcasters and leading-edge broadcast equipment manufacturers of high performance and reliability as they migrate from the existing 1080i (interlaced) HD format to the emerging 1080p (progressive) format.



Banana Peel® Precision Video Coax Snake Cable

Description	Part		" No. Of		Standard Standard Lengths Unit Weight			(stranding) C		Shielding Materials	Nominal OD		Nom.	Nom. Vel.	Nominal Capacitance		Nominal Attenuation	
	No.	CEC Type		Ft.	m	Lbs	kg.	Diameter Nom. DCR	Inch	Nom. DCR	Inch	mm	1 10 1	pF/Ft.	pF/m	MHz	dB/ 100ft.	dB/ 100m

Miniature 23 AWG Solid .023" Bare Copper • Duofoil® + 95% Tinned Copper Braid Shield (100% coverage) 1855A Versions

Gas-injected	Foam I	HDPE	Insul	ation • Indiv	idua	lly color	cod	ed P	VC Jack	ets* • Bun	dled • Center Spline Bir	ıder		
SDI/HDTV (A)	1855S3	NEC:	3	500 152.4 29.5	13.4	23 AWG	.102	2.59	Duofoil	Single:	75 83% 16.3 53.5	1	.4	1.3
Digital Video	,	CMR		1000 304.8 57.0	25.9	(solid)			+95% TC	.159 4.03	0 P-1d Mt 0-t-1 40.70	3.6	.8	2.6
75°C		CEC:				.023"			Braid	Overall:	See Belden Master Catalog pg. 19.78 for maximum digital transmission	10	1.2	3.9
The state of the s		CMG				BC			7.6Ω/M′	.343 8.7	distance values. Refer to 1855A.	71.5	3.1	10.2
	—	FT4				20.1Ω/M'			$24.9\Omega/km$			135	3.8	12.5
						65.9W/km					_ 100% Sweep tested. 5MHz to 4.5 GHz.	270	5.4	17.7
P	, 1855S5	NEC:	5	500 152.4 51.5	23.4		.102	2.59		Single:	U.S. Patent 7,049,523.	360	6.2	20.3
		CMR		1000 304.8 102.0	46.3	same			same	.159 4.03		540	7.7	25.3
		CEC:				as			as	Overall:		720	9.5	31.2
		CMG				above			above	.429 10.9		750	9.6	31.5
		FT4									_	1000	10.5	34.5
	1855S6	NEC:	6	500 152.4 64.0	29.0		.102	2.59		Single:		1500	13.0	42.7
		CMR		1000 304.8 121.0	55.0	same			same	.159 4.03		2250	16.0	52.5
		CEC:				as			as	Overall:		3000	18.5	60.7
		CMG				above			above	.477 12.1		4500	22.8	74.8
		FT4												

20 AWG Solid .032" Bare Copper • Duofoil®+ 95% Tinned Copper Braid Shield (100% coverage) 1505A Versions

Gas-inject	ted F	oam H	IDPE	Insula	ation • Ir	divi	duali	y color	code	d PV	C Jacke	ts* • Bund	ed • Center Spline Bin	der		
SDI/HDTV		1505S3	NEC:	3	500 152.4	55.0	25.0	20 AWG	.145	3.68	Duofoil	Single:	75 83% 16.3 53.5	1	.3	1.0
Digital Video			CMR		1000 304.8	104.0	47.0	(solid)			+95% TC	.235 5.97	0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0	3.6	.6	2.0
75°C			CEC:					.032"			Braid	Overall:	See Belden Master Catalog pg. 19.78 for maximum digital transmission	10	.9	3.0
	\$		CMG					BC			$3.8\Omega/M'$.502 12.8	distance values. Refer to 1505A.	71.5	2.1	6.9
			FT4					10.1Ω/M'			$12.5\Omega/km$			135	2.7	8.9
		•						32.8W/km					100% Sweep tested. 5MHz to 4.5 GHz.	270	3.8	12.5
	C.	1505S5	NEC:	5	500 152.4	95.0	43.0		.145	3.68		Single:	U.S. Patent 7,049,523.	360	4.4	14.4
			CMR		1000 304.8	185.0	84.0	same			same	.235 5.97		540	5.5	18.0
			CEC:					as			as	Overall:		720	6.4	21.0
			CMG					above			above	.629 16.0		750	6.5	21.3
			FT4											1000	7.6	24.9
		1505S6	NEC:	6	500 152.4	117.0	53.0		.145	3.68		Single:		1500	9.3	30.5
			CMR		1000 304.8	250.0	114.0	same			same	.235 5.97		2250	11.6	38.1
			CEC:					as			as	Overall:		3000	13.4	44.0
			CMG					above			above	.790 20.0		4500	16.4	58.8
			FT4													

18 AWG Solid .040" Bare Copper • Duofoil®+ 95% Tinned Copper Braid Shield (100% coverage) **1694A Versions**

Gas-injected	Foam	HDPE	Insul	ation	• Inc	ivit	duall	y color	code	d PV	C Jacke	ts* •	Bunc	dled •	Cente	r Splin	e Bin	der		
SDI/HDTV	1694	S3 NEC	: 3	500 1	52.4	75.0	34.0	18 AWG	.180	4.57	Duofoil	Sing	gle:	75	82%	16.2	53.5	1	0.24	0.8
Digital Video	ner	CMF	2	1000 3	04.8 1	45.0	66.0	(solid)			+95% TC	.274	7.0	Coo Pr	elden Maste	r Catalog pa	10.70	3.6	0.45	1.5
75℃		CEC						.040"			Braid	Ove	rall:		ximum digit			10	.72	2.4
The state of the s		CMG	ì					BC			$3.8\Omega/M'$.590	15.0		ce values. R			71.5	1.60	5.3
		FT4						$6.4\Omega/M'$			$12.5\Omega/km$							135	2.10	6.9
								$21.0\Omega/km$						100%	Sweep teste	ed. 5MHz to	4.5 GHz.	270	2.97	9.7
	1694	S5 NEC	: 5	500 1	52.4 1	31.0	59.0		.180	4.57		Sing	gle:	U.S. Pa	tent 7,049,	523.		360	3.43	11.3
	ner	CMF	}	1000 3	04.8 2	77.0	126.0	same			same	.274	7.0					540	4.25	13.9
		CEC						as			as	Ove	rall:					720	4.95	16.2
		CMG	ì					above			above	.740	18.8					750	5.00	16.4
		FT4												_				1000	5.89	19.3
	1694	S6 NEC	: 6	500 1	52.4 1	85.0	84.0		.180	4.57		Sing	gle:					1500	7.33	24.1
	ner	CMF	}	1000 3	04.8 3	0.88	176.0	same			same	.274	7.0					2250	9.14	30.0
		CEC						as			as	Ove	rall:					3000	10.67	35.0
		CMG	ì					above			above	.822	20.9					4500	13.29	43.6
		FT4																		

 $BC = Bare\ Copper\ \bullet\ HDPE = High-density\ Polythylene\ \bullet\ TC = Tinned\ Copper\ ^*Color\ coded\ in\ Red,\ Green,\ Blue,\ Yellow,\ Black\ and\ White$

2