Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

1857A Coax - RG-59/U Type

Description:

22 AWG stranded (19x34) .031" bare copper conductor, foam polyethylene insulation, bare copper braid shields (95% coverage), Belflex® jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	22	19x34	BC - Bare Copper	.031

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
FPE - Foam Polyethylene	.143

Inner Shield

Inner Shield Material:

Type	Inner Shield Material	Coverage (%)
Braid	BC - Bare Copper	95

Inner Jacket

Inner Jacket Material:

Inner Jacket Material	Nom. Dia. (in.)
PE - Polyethylene	.216

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	BC - Bare Copper	94.7

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Belflex®	PVC Blend - Polyvinyl Chloride Blend

Overall Cabling

Overall Nominal Diameter:	0.360 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-35°C To +75°C
Non-UL Temperature Rating:	75°C
Bulk Cable Weight:	75 lbs/1000 ft.
Max. Recommended Pulling Tension:	124 lbs.
Min. Bend Radius (Install)/Minor Axis:	2 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

EU CE Mark:	No

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

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes - Black for permanent installations. All colors for field deployable use.

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
75

Nom. Inductance:

Inductance (µH/ft)
0.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
17.0

Nominal Velocity of Propagation:

VP (%)
79

Nominal Delay:

Delay (ns/ft)
1.29

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
14.0

Nom. Inner Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
2.5

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
1.6

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1	0.3
3.6	0.5
10	0.8
71.5	2.2
135	3.1
270	4.5
360	5.4
540	6.8
720	8.1
750	8.4

1000	10.1
1500	13.3
2250	17.6
3000	21.4

Max. Operating Voltage - Non-UL:

Voltage
300 V RMS

Minimum Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	850	21
851	3000	15

Sweep Test

Sweep Testing: 100% Sweep tested 5 MHz to 3 GHz.

Notes (Overall)

Notes: For use in field deployable applications where high flexibility, wide temperature range, and durability are required. Permanently indent printed for field identification.

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1857A B591000	1,000 FT	86.000 LB	BLACK, MATTE	C	#22 FLDPE VLDPE PVC TRIAX
1857A B59500	500 FT	42.500 LB	BLACK, MATTE	C	#22 FLDPE VLDPE PVC TRIAX
1857A 0021000	1,000 FT	86.000 LB	RED	C	#22 FLDPE VLDPE PVC TRIAX
1857A 0041000	1,000 FT	86.000 LB	YELLOW	C	#22 FLDPE VLDPE PVC TRIAX
1857A 004500	500 FT	42.500 LB	YELLOW		#22 FLDPE VLDPE PVC TRIAX
1857A 0061000	1,000 FT	86.000 LB	BLUE, LIGHT	C	#22 FLDPE VLDPE PVC TRIAX
1857A 0071000	1,000 FT	86.000 LB	VIOLET	C	#22 FLDPE VLDPE PVC TRIAX

Notes:
C = CRATE REEL PUT-UP.

Video Triax Cable

RG-59/U Type

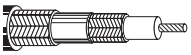
BRILLIANCE®

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/ 100 Ft.	dB/ 100m

22 AWG Stranded (19x34) .031″ Bare Copper Conductor • Double Bare Copper Braid Shield (95% Coverage)

Foam Polyethylene Insulation • Belflex® Jacket (Red, Yellow, Green, Blue, Purple or Black. Polyethylene Insulation between Braids)

High-Flex 75°C	**1857A**	—	500 1000	152.4 304.8	42.5 86.0	19.3 39.1	22 AWG (19x34) .031″ BC 14.0Ω/M′ 45.9Ω/km	.143	3.63	(2) BC Braids 95% Coverage Inner: 2.5Ω/M′ 8.2Ω/km Outer: 1.6Ω/M′ 5.3Ω/km	.360	9.14	75	79%	17.0	55.8	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2250 3000	.3 .5 .8 2.2 3.1 4.5 5.4 6.8 8.1 8.4 10.1 13.3 17.6 21.4	1.0 1.6 2.6 7.2 10.2 14.8 17.7 22.3 26.6 27.6 33.1 43.6 57.7 70.2



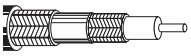
100% Sweep tested. 5 MHz to 850 MHz.

Suitable for Outdoor applications: Black for permanent installations, All colors for field deployable use.

20 AWG Solid .032″ Bare Copper Conductor • Bare Copper Double Braid Shield (95% Coverage)

Plenum • Foam FEP Insulation • Black FEP Jacket (FEP Insulation between Braids)

200°C	**88232**	NEC: CMP CEC: CMP FT6	500 1000	152.4 304.8	29.0 61.0	13.2 27.7	20 AWG (solid) .032″ BC 10.0Ω/M′ 32.8Ω/km	.140	3.56	(2) BC Braids 95% Coverage Inner: 2.6Ω/M′ 8.5Ω/km Outer: 2.6Ω/M′ 8.5Ω/km	.245	6.22	75	80%	16.9	55.4	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2250 3000	.4 .6 .8 2.2 3.1 4.5 5.3 6.6 7.7 7.9 9.4 12.1 15.6 18.7	1.3 2.0 2.6 7.2 10.2 14.8 17.4 21.7 25.3 25.9 30.8 39.7 51.2 61.4



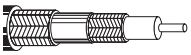
For Non-plenum version see 8232A.

100% Sweep tested. 5 MHz to 3 GHz.

20 AWG Solid .032″ Bare Copper Conductor • Bare Copper Double Braid Shield (80% Coverage)

Gas-injected Foam HDPE Insulation • Black Polyethylene Jacket (Polyethylene Insulation between Braids)

80°C	**8232**	—	500 1000 2000	152.4 304.8 609.6	31.0 60.0 118.0	14.1 27.3 53.6	20 AWG (solid) .032″ BC 10.0Ω/M′ 32.8Ω/km	.145	3.68	(2) BC Braids 80% Coverage Inner: 2.5Ω/M′ 8.2Ω/km Outer: 2.8Ω/M′ 9.2Ω/km	.315	8.00	75	83%	16.2	53.1	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2250 3000	.3 .6 .9 2.1 3.0 4.2 4.8 5.9 7.0 7.1 8.3 10.5 13.4 15.9	1.0 2.0 3.0 6.9 9.8 13.8 15.7 19.4 23.0 23.3 27.2 34.5 44.0 52.2



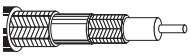
For Plenum version see 88232.

100% Sweep tested. 5 MHz to 3 GHz.

Suitable for Outdoor and Direct Burial applications. Suitable for Aerial applications when supported by a Messenger wire.

Gas-injected Foam HDPE Insulation • Black PVC Jacket (PVC Insulation between Braids)

75°C	**8232A**	NEC: CMR CEC: CMG FT4	1000	304.8	68.0	30.8	20 AWG (solid) .032″ BC 10.0Ω/M′ 32.8Ω/km	.145	3.68	(2) BC Braids 80% Coverage Inner: 2.5Ω/M′ 8.2Ω/km Outer: 2.8Ω/M′ 9.2Ω/km	.315	8.00	75	83%	16.2	53.1	1 3.6 10 71.5 135 270 360 540 720 750 1000 1500 2250 3000	.3 .6 .9 2.1 3.0 4.2 4.8 5.9 7.0 7.1 8.3 10.5 13.4 15.9	1.0 2.0 3.0 6.9 9.8 13.8 15.7 19.4 23.0 23.3 27.2 34.5 44.0 52.2



For Plenum version see 88232.

100% Sweep tested. 5 MHz to 3 GHz.

Suitable for Aerial applications when supported by a Messenger wire and for Outdoor Applications.

BC = Bare Copper • DCR = DC Resistance • FEP = Fluorinated Ethylene Propylene • HDPE = High-density Polyethylene