



Description:

20 AWG solid .032" bare copper conductor, plenum, foam FEP insulation, Duofoil® + tinned copper braid shield (95% coverage), Flamarrest® jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	20	Solid	BC - Bare Copper	.032

Insulation

Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (in.)
Teflon®	FFEP - Foam Fluorinated Ethylene Propylene	.133

Outer Shield

Outer Shield Material:

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

Outer Jacket

Outer Jacket Material:

Outer Jacket Trade Name	Outer Jacket Material
Flamarrest®	PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter: 0.196 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -20°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 27 lbs/1000 ft.

Max. Recommended Pulling Tension: 52 lbs.

Min. Bend Radius (Install)/Minor Axis: 2 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CMP

CEC/C(UL) Specification: CMP

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): 04/01/2005

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: NFPA 262

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: No

Plenum/Non-Plenum

Plenum (Y/N): Yes

Non-Plenum Number: 1505A

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.097

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

16.1

Nominal Velocity of Propagation:

VP (%)

84

Nominal Delay:

Delay (ns/ft)

1.21

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

10.0

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

3.2

Nom. Attenuation:

Freq. (MHz) Attenuation (dB/100 ft.)

1	.29
3.58	.62
5	.70
7	.82
10	1.05
67.5	2.20
71.5	2.25
100	2.70
135	3.20
143	3.25
180	3.65
270	4.55
360	5.25
540	6.4
720	7.3
750	7.5

1000	9.4
1500	12.8
2250	17.5
3000	21.9

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 Structural Return Loss:

Start Freq. (MHz)	Stop Freq. (MHz)	Min. SRL (dB)
5	850	23
851	3000	21

Sweep Test

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1506A N3U1000	1,000 FT	29.000 LB	GREEN, MIL	C Z	#20 FFEP SH FLMRST
1506A 0011000	1,000 FT	29.000 LB	BROWN	C Z	#20 FFEP SH FLMRST
1506A 0021000	1,000 FT	29.000 LB	RED	C Z	#20 FFEP SH FLMRST
1506A 0031000	1,000 FT	29.000 LB	ORANGE	Z	#20 FFEP SH FLMRST
1506A 0041000	1,000 FT	29.000 LB	YELLOW	Z	#20 FFEP SH FLMRST
1506A 0061000	1,000 FT	29.000 LB	BLUE, LIGHT	C Z	#20 FFEP SH FLMRST
1506A 0071000	1,000 FT	29.000 LB	VIOLET	C Z	#20 FFEP SH FLMRST
1506A 0081000	1,000 FT	29.000 LB	GRAY	Z	#20 FFEP SH FLMRST
1506A 0101000	1,000 FT	29.000 LB	BLACK	C	#20 FFEP SH FLMRST
1506A 010500	500 FT	14.500 LB	BLACK	C Z	#20 FFEP SH FLMRST
1506A 8771000	1,000 FT	29.000 LB	NATURAL	C	#20 FFEP SH FLMRST
1506A 877500	500 FT	14.500 LB	NATURAL	C Z	#20 FFEP SH FLMRST

EEL PUT-UP.
T-UP LENGTH MAY VARY (+ OR -) 10% FOR SPOOLS OR REELS AND(+ OR -) 5% FOR UNREEL CARTONS FROM LENGTH SHOWN.

Precision Video Cable for Analog and Digital

RG-59/U Type



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

20 AWG Solid .032" Bare Copper Conductor • Duofoil® (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

Gas-injected Foam HDPE Insulation • PVC Jacket (Available in 10 colors)*

SDI/HDTV	1505A	NEC:	500 [▲]	152.4	17.0	8.0	20 AWG (solid)	.145	3.68	Duofoil + 95%	.233	5.92	75	83%	16.3	53.5	1	.3	1.0	
Digital Video		CMR	1000	304.8	35.0	16.4			TC Braid								3.6	.6	1.8	
75°C		CEC:	5000 [▼]	1524.0	165.0	74.8	.032"		BC								10	.9	2.9	
		CMG FT4							10.0Ω/M'		3.8Ω/M'							71.5	2.1	6.9
									32.8Ω/km		12.5Ω/km							135	2.7	8.9

For Plenum version of 1505A, see 1506A.
Also available in bundled versions. See 7794A through 7798A.
100% Sweep tested. 5 MHz to 3 GHz.

▲500 ft. put-up available in Black, Red or Blue only.
▼5000 ft. put-up may vary in length by -0 to +10%.
*1000 ft. and 5000 ft. put-ups available in all ten colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray or White.

22 AWG Stranded (7x29) .031" Bare Compacted Copper Conductor* • Tinned Copper/Bare Copper Double Braid Shield (95% Coverage)

Gas-injected Foam HDPE Insulation • PVC Jacket (Matte Black, Red, Green, Blue, Yellow, Orange, White or Purple)

High-Flex	1505F	NEC:	1000	304.8	45.0	20.4	22 AWG (7x29)	.145	3.68	TC Double Braid	.242	6.15	75	80%	17.0	55.7	1	.2	.7
SDI/HDTV		CM							95% Shield								3.6	.5	1.6
Video Patch		CEC:					.031"		BCC Coverage								10	.9	2.9
75°C		CM							12.2Ω/M'		2.4Ω/M'						71.5	2.5	8.2
									40.0Ω/km		7.8Ω/km						135	3.5	11.5

100% Sweep tested. 5 MHz to 3 GHz.

*Compacted conductor combines impedance uniformity of solid conductors and "nick-resistance" of stranded conductor.

20 AWG Solid .032" Bare Copper Conductor • Duofoil (100% Coverage) + Tinned Copper Braid Shield (95% Coverage)

Plenum • Foam FEP Insulation • Flamarest® Jacket (Available in 10 colors)*

SDI/HDTV	1506A	NEC:	500 ^{†*}	152.4	14.5	6.6	20 AWG (solid)	.133	3.38	Duofoil + 95%	.196	4.93	75	84%	16.1	52.8	1	.3	1.0
Digital Video		CMP	1000 ^{†*}	304.8	29.0	13.2			TC Braid								3.6	.6	2.0
75°C		CEC:					.032"		BC								10	1.1	3.4
		CMF FT6							10.0Ω/M'		3.8Ω/M'						71.5	2.3	7.4
									32.8Ω/km		10.5Ω/km						135	3.2	10.5

100% Sweep tested. 5 MHz to 3 GHz.

Suitable for Outdoor and Direct Burial applications.
†500 ft. put-up available in Black or Natural only.
*1000 ft. put-up available in all ten colors: Black, Brown, Red, Orange, Yellow, Green, Blue, Purple, Gray or Natural.

20 AWG Solid .031" Bare Copper Conductor • Tinned Copper/Bare Copper Double Braid Shield (98% Coverage)

Polyethylene Insulation • Gray PVC Jacket

60°C	9231	NEC:	500	152.4	39.0	17.7	20 AWG (solid)	.198	5.03	TC Double Braid	.305	7.75	75	66%	21.0	68.9	1	.3	1.0
VW-1		CMH	1000	304.8	76.0	34.5			98% Shield								3.6	.5	1.6
		CEC:					.031"		BC Coverage								10.0	.8	2.6
		CMH FT1							9.9Ω/M'		1.1Ω/M'						71.5	2.0	6.6
									32.5Ω/km		3.6Ω/km						135	3.5	11.5

100% Sweep tested. 5 MHz to 850 MHz.

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

Final put-up length may vary ±10% for spools or reels, ±5% for Unreel cartons from length shown.