



Description:

22 AWG stranded (7x29) .031" bare compacted copper conductor, gas-injected foam HDPE insulation, tinned copper/bare copper double braid shield (95% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	22	7x29	BCC - Bare Compacted Copper	.031

Insulation

Insulation Material:

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

Outer Shield

Outer Shield Material:

Layer #	Type	Outer Shield Material	Coverage (%)	Dia. (in.)	Description
1	Braid	TC - Tinned Copper	94	.167	Layer 1
2	Braid	TC - Tinned Copper	94	.189	Layer 2

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter: 0.242 in.

Mechanical Characteristics (Overall)

Operating Temperature Range: -35°C To +75°C

UL Temperature Rating: 75°C

Bulk Cable Weight: 40 lbs/1000 ft.

Max. Recommended Pulling Tension: 90 lbs.

Min. Bend Radius (Install)/Minor Axis: 2.400 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification: CM

CEC/C(UL) Specification: CM

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): 01/01/2005

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: UL1685 UL Loading

Suitability

Suitability - Indoor: Yes

Suitability - Outdoor: Yes - Black Only

Suitability - Aerial: Yes - Black only, when supported by a messenger wire

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/ft)

0.094

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

17.0

Nominal Velocity of Propagation:

VP (%)

80

Nominal Delay:

Delay (ns/ft)

1.3

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

12.2

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

2.4

Nom. Attenuation:

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

1	.2
3.6	.5
5	.6
7	.73
10	.9
67.5	2.4
71.5	2.5
88.5	2.8
100	3.0
135	3.5
143	3.6
180	4.1
270	5.1
360	6.0
540	7.4
720	8.7

750	8.9
1000	10.5
1500	13.3
2000	15.7
2250	16.9
3000	20.3

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:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Min. RL (dB)
		5	3000	15

Sweep Test

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

Notes (Overall)

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

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1505F B591000	1,000 FT	45.000 LB	BLACK, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F G7V1000	1,000 FT	45.000 LB	RED, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F G7W1000	1,000 FT	45.000 LB	GREEN, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F G7X1000	1,000 FT	45.000 LB	BLUE, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F G7Y1000	1,000 FT	45.000 LB	WHITE, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F G8L1000	1,000 FT	45.000 LB	ORANGE, MATTE	C	#21 GIFHDLDPPE DBLB PVC
1505F Z4B1000	1,000 FT	45.000 LB	VIO Z4B		#21 GIFHDLDPPE DBLB PVC
1505F 0041000	1,000 FT	45.000 LB	YELLOW	C	#21 GIFHDLDPPE DBLB PVC

Notes:

C = CRATE REEL PUT-UP.

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	3.8Ω/M'						10	.9	2.9
		CMG FT4								10.0Ω/M'	12.5Ω/km	For Plenum version of 1505A, see 1506A.					71.5	2.1	6.9
										32.8Ω/km		Also available in bundled versions. See 7794A through 7798A.					135	2.7	8.9
											100% Sweep tested. 5 MHz to 3 GHz.					270	3.8	12.5	
																360	4.4	14.4	
																540	5.5	18.0	
																720	6.4	21.0	
																750	6.5	21.3	
																1000	7.6	24.9	
																1500	9.3	30.5	
																2250	11.6	38.0	
																3000	13.4	44.0	

*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							71.5	2.5	8.2
75°C		CM								12.2Ω/M'	2.4Ω/M'						135	3.5	11.5
										40.0Ω/km	7.8Ω/km	100% Sweep tested. 5 MHz to 3 GHz.					270	5.1	16.7
																360	6.0	19.7	
																540	7.4	24.3	
																720	8.7	28.5	
																750	8.9	29.2	
																1000	10.5	34.4	
																1500	13.3	43.6	
																2250	16.9	55.4	
																3000	20.3	66.6	

*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	3.8Ω/M'						71.5	2.3	7.4
		CMF FT6								10.0Ω/M'	10.5Ω/km						135	3.2	10.5
										32.8Ω/km		100% Sweep tested. 5 MHz to 3 GHz.					270	4.6	14.9
																360	5.3	17.2	
																540	6.4	21.0	
																720	7.3	23.9	
																750	7.5	24.6	
																1000	9.4	30.8	
																1500	12.8	42.0	
																2250	17.5	57.4	
																3000	21.9	71.8	

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	100% Sweep tested. 5 MHz to 850 MHz.					135	3.5	11.5
																270	4.3	14.1	
																360	5.0	16.4	
																540	6.2	20.3	
																720	7.2	23.6	
																750	7.4	24.3	
																1000	9.1	29.8	

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.