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### General Description:

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

### Physical Characteristics (Overall)

#### Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (mm)
1	22	7x29	BCC - Bare Compacted Copper	0.7874

Total Number of Conductors: 1

#### Insulation

Insulation Material:

Insulation Material	Dia. (mm)
Gas-injected FHDPE - Foam High Density Polyethylene	3.683

#### Outer Shield

Outer Shield Material:

Layer #	Type	Outer Shield Material	Coverage (%)
1	Braid	TC - Tinned Copper	95.000
2	Braid	TC - Tinned Copper	95.000

#### Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

#### Overall Cable

Overall Nominal Diameter: 6.147 mm

### Mechanical Characteristics (Overall)

Operating Temperature Range:	-35°C To +75°C
UL Temperature Rating:	75°C
Bulk Cable Weight:	61.016 Kg/Km
Max. Recommended Pulling Tension:	391.442 N
Min. Bend Radius/Minor Axis:	63.500 mm

### Applicable Specifications and Agency Compliance (Overall)

#### Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CM
CEC/C(UL) Specification:	CM
EU Directive 2011/65/EU (RoHS II):	Yes
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

Plenum/Non-Plenum

Plenum (Y/N): No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)

75

Nom. Inductance:

Inductance (µH/m)

0.308414

Nom. Capacitance Conductor to Shield:

Capacitance (pF/m)

55.777

Nominal Velocity of Propagation:

VP (%)

80

Nominal Delay:

Delay (ns/m)

4.2653

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/km)

40.0282

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/km)

7.8744

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100m)
1.000	0.656
3.600	1.641
5.000	1.969
6.000	2.198
7.000	2.395
10.000	2.953
12.000	3.215
25.000	4.725
67.500	7.874
71.500	8.203
88.500	9.187
100.000	9.843
135.000	11.484
143.000	11.812
180.000	13.452
270.000	16.733
360.000	19.686
540.000	24.279
720.000	28.545
750.000	29.201
1000.000	34.451
1500.000	43.637
2000.000	51.512
2250.000	55.449
3000.000	66.604
4500.000	92.524

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.

## METRIC MEASUREMENT VERSION

## 1505F Coax - RG-59/U Type

## 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)
5.000	850.000	20.000
851.000	4500.000	15.000

## Sweep Test

## Sweep Testing:

100#37; Sweep tested 5 MHz to 4.5 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 GIFHDLPE DBLB PVC
1505F G7V1000	1,000 FT	45.000 LB	RED, MATTE	C	#21 GIFHDLPE DBLB PVC
1505F G7W1000	1,000 FT	45.000 LB	GREEN, MATTE	C	#21 GIFHDLPE DBLB PVC
1505F G7X1000	1,000 FT	45.000 LB	BLUE, MATTE	C	#21 GIFHDLPE DBLB PVC
1505F G7Y1000	1,000 FT	45.000 LB	WHITE, MATTE	C	#21 GIFHDLPE DBLB PVC
1505F G8L1000	1,000 FT	45.000 LB	ORANGE, MATTE	C	#21 GIFHDLPE DBLB PVC
1505F Z4B1000	1,000 FT	45.000 LB	VIO Z4B		#21 GIFHDLPE DBLB PVC
1505F 0041000	1,000 FT	45.000 LB	YELLOW	C	#21 GIFHDLPE DBLB PVC

## Notes:

C = CRATE REEL PUT-UP.

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