# **Detailed Specifications & Technical Data**

**METRIC MEASUREMENT VERSION** 



1505F Coax - RG-59/U Type

For more Information please call

1-800-Belden1



# **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. (mm)
1	22	7x29	BCC - Bare Compacted Copper	0.7874

#### 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 (%)	Dia. (mm)	Description
1	Braid	TC - Tinned Copper	94	4.2418	Layer 1
2	Braid	TC - Tinned Copper	94	4.8006	Layer 2

# **Outer Jacket**

# **Outer Jacket Material:**

Outer Jacket Material
PVC - Polyvinyl Chloride

# **Overall Cabling**

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:	59.528 Kg/Km				
Max. Recommended Pulling Tension:	400.338 N				
Min. Bend Radius (Install)/Minor Axis:	60.960 mm				

# **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

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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:



# Nom. Inductance:



## Nom. Capacitance Conductor to Shield:



## **Nominal Velocity of Propagation:**



# **Nominal Delay:**



# 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

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360.000	19.686
540.000	24.279
720.000	28.545
1000.000	34.451
750.000	29.201
1500.000	43.637
2000.000	51.512
2250.000	55.449
3000.000	66.604

## 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)
5.000	850.000	20.000
851.000	4500.000	15.000

#### Sweep Test

**Sweep Testing:** 

100% 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	305 MT	20.412 KG	BLACK, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F G7V1000	305 MT	20.412 KG	RED, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F G7W1000	305 MT	20.412 KG	GREEN, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F G7X1000	305 MT	20.412 KG	BLUE, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F G7Y1000	305 MT	20.412 KG	WHITE, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F G8L1000	305 MT	20.412 KG	ORANGE, MATTE	С	#21 GIFHDLDPE DBLB PVC
1505F Z4B1000	305 MT	20.412 KG	VIO Z4B		#21 GIFHDLDPE DBLB PVC
1505F 0041000	305 MT	20.412 KG	YELLOW	С	#21 GIFHDLDPE DBLB PVC

#### Notes:

C = CRATE REEL PUT-UP.

Revision Date: 03-03-2009 Revision Number: 8

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