Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

8700 Coax - Miniature

Description:

Minature, 28 AWG solid .013" tinned copper conductor, polypropylene insulation, bare copper braid shield (90% coverage), PVC jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	28	Solid	TC - Tinned Copper	.013

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
PP - Polypropylene	.023

Outer Shield

Outer Shield Material:

Type	Outer Shield Material	Coverage (%)
Braid	BC - Bare Copper	90

Outer Jacket

Outer Jacket Material:

Outer Jacket Material
PVC - Polyvinyl Chloride

Overall Cabling

Overall Nominal Diameter:	0.054 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-30°C To +105°C
Non-UL Temperature Rating:	105°C
Bulk Cable Weight:	3 lbs/1000 ft.
Max. Recommended Pulling Tension:	7 lbs.
Min. Bend Radius (Install)/Minor Axis:	0.600 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

NEC/(UL) Specification:	CMH
CEC/C(UL) Specification:	CMH FT1
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

Flame Test

UL Flame Test:	UL1685 UL Loading

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
32

Nom. Inductance:

Inductance (µH/ft)
.049

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
55.2

Nominal Velocity of Propagation:

VP (%)
66

Nominal Delay:

Delay (ns/ft)
1.54

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
66.9

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
28.7

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
1	2.5
10	7.7
50	17.2
100	24.5
200	34.8
400	50.0
700	66.0
900	75.0
1000	79.0

Max. Operating Voltage - UL:

Voltage
300 V RMS

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
8700 010250	250 FT	0.750 LB	BLACK		32 OHM MINIATURE COAX

Special Audio, Communication and Instrumentation Cable

Miniature Instrumentation and Low Triboelectric Noise Coax

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
Miniature • 28 AWG Solid .013″ Tinned Copper Conductor • Bare Copper Braid Shield (90% Coverage)																			
Polypropylene Insulation • Black PVC Jacket																			
105°C VW-1	**8700**	NEC: CMH CEC: CMH FT1	250	76.2	.8	.3	28 AWG (solid) .013″ TC 66.9Ω/M′ 219.5Ω/km	.023	.58	BC Braid 90% Shield Coverage 28.7Ω/M′ 94.2Ω/km	.054	1.37	32	66%	55.2	181.1	1 10 50 100 200 400 700 900 1000	2.5 7.7 17.2 24.5 34.8 50.0 66.0 75.0 79.0	8.2 25.3 56.4 80.4 114.2 164.4 216.5 246.1 259.2
Low Noise • RG-174/U Type • 26 AWG Stranded (7x34) .019″ Bare Copper-covered Steel Conductor • TC Braid Shield (90% Coverage)																			
Polyethylene Insulation • Conductive Layer • Black PVC Jacket																			
60°C	**9239**	—	100 500 1000	30.5 152.4 304.8	1.0 4.5 8.0	.5 2.0 3.6	26 AWG (7x34) .019″ BCCS 97.0Ω/M′ 318.3Ω/km	.044	1.12	TC Braid 90% Shield Coverage 14.0Ω/M′ 45.9Ω/km	.101	2.57	50	62%	38	125	—	—	—
5mV peak-to-peak max. Not recommended for RF use.																			
Low Noise • RG-59/U Type • 22 AWG Solid .025″ Bare Copper-covered Steel Conductor • Bare Copper Braid Shield (93% Coverage)																			
Polyethylene Insulation • Conductive Layer • Black PVC Jacket																			
75°C VW-1	**9224**	—	U-500 1000	U-152.4 304.8	19.5 39.0	8.9 17.7	22 AWG (solid) .025″ BCCS 54.0Ω/M′ 177.0Ω/km	.146	3.71	BC Braid 93% Shield Coverage 2.5Ω/M′ 8.2Ω/km	.242	6.15	75	65%	22	72	—	—	—
5mV peak-to-peak max. Not recommended for RF use.																			
Low Noise • RG-58/U Type • 22 AWG Stranded (7x30) .030″ TC Conductor • Duobond® II + TC Braid Shield (95% Coverage)																			
Polyethylene Insulation • Conductive Layer • Black PVC Jacket																			
80°C VW-1	**9223**	—	100 500 1000	30.5 152.4 304.8	3.4 12.0 24.0	1.5 5.4 10.9	22 AWG (7x30) .030″ TC 10.8Ω/M′ 35.4Ω/km	.112	2.85	Duobond II* + 95% TC Braid 100% Shield Coverage 4.1Ω/M′ 13.5Ω/km	.195	4.95	50	56%	37	122	—	—	—
8mV peak-to-peak max. Not recommended for RF use.																			

BC = Bare Copper • BCCS = Bare Copper-covered Steel • DCR = DC Resistance • TC = Tinned Copper

*Duobond II = Bonded Duofoil® (100% coverage) + aluminum braid (67% coverage).