Detailed Specifications & Technical Data

ENGLISH MEASUREMENT VERSION

9913F7 Coax - RG-8/U Type

Description:

RG-8/U type, 10 AWG stranded (7x19) .108" bare copper conductor, gas-injected foam HDPE insulation, Duobond II ® + tinned copper braid shield (95% coverage), Belflex® jacket.

Physical Characteristics (Overall)

Conductor

AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	10	7x19	BC - Bare Copper	.108

Insulation

Insulation Material:

Insulation Material	Dia. (in.)
Gas-injected FHDPE - Foam High Density Polyethylene	.285

Outer Shield

Outer Shield Material:

Layer #	Outer Shield Trade Name	Type	Outer Shield Material	Coverage (%)
1	Bonded Duofoil®	Tape	Bonded 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
Belflex®	PVC Blend - Polyvinyl Chloride Blend

Overall Cabling

Overall Nominal Diameter:	0.405 in.

Mechanical Characteristics (Overall)

Operating Temperature Range:	-40°C To +80°C
Non-UL Temperature Rating:	80°C
Bulk Cable Weight:	94 lbs/1000 ft.
Max. Recommended Pulling Tension:	210 lbs.
Min. Bend Radius (Install)/Minor Axis:	3 in.

Applicable Specifications and Agency Compliance (Overall)

Applicable Standards & Environmental Programs

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
RG Type:	8/U

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Aerial:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No

Electrical Characteristics (Overall)

Nom. Characteristic Impedance:

Impedance (Ohm)
52

Nom. Inductance:

Inductance (µH/ft)
.059

Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)
22.5

Nominal Velocity of Propagation:

VP (%)
85

Nominal Delay:

Delay (ns/ft)
1.2

Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
1.1

Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)
1.8

Maximum VSWR:

Description	Freq. (MHz)	Start Freq. (MHz)	Stop Freq. (MHz)	Max. VSWR
		5	2250	1.43:1

Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
10	.6
50	1.1
100	1.5
200	2.0
400	3.0
700	4.0
900	4.7
1000	5.0
2000	7.5
2250	8.0
3000	9.8
4000	12.1

Nom. Power Rating:

Freq. (MHz)	Rating (W)
5	3217
10	2681
50	1463

100	1073
200	805
400	575
700	424
900	366
1000	350
1500	278
1800	252
2000	237
2500	210
3000	188
4000	157

Max. Operating Voltage - Non-UL:

Voltage
300 V RMS

Other Electrical Characteristic 1: Actual Impedance specification is 51.5 +/- 2 ohms.

Misc. Information (Overall)

Other Description: BAG 10/12/04: Adjusted the Attenuation; BAG 11-01-04: Adjusted the DCR and Strand AWG

Notes (Overall)

Notes: Low Loss, High Flex

Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
9913F7 B59100	100 FT	12.500 LB	BLACK, MATTE	C	#10 FHDPE SH PVC
9913F7 B591000	1,000 FT	104.000 LB	BLACK, MATTE	C	#10 FHDPE SH PVC
9913F7 B59250	250 FT	27.750 LB	BLACK, MATTE	C	#10 FHDPE SH PVC
9913F7 B59500	500 FT	52.500 LB	BLACK, MATTE	C	#10 FHDPE SH PVC

Notes:
C = CRATE REEL PUT-UP.

50 Ohm Transmission and Computer Cable

RG-8/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
RG-8/U Type • 10 AWG Solid .108″ Bare Copper Conductor • Duobond® II + Tinned Copper Braid Shield (90% Coverage)																			
Semi-solid Polyethylene Insulation • Black PVC Jacket																			
Low Loss 80°C	**9913**	—	100	30.5	14.2	6.4	10 AWG (solid) .108″ BC .9Ω/M′ 3.0Ω/km	.286	7.26	Duobond II* + 90% TC Braid 1.8Ω/M′ 5.9Ω/km	.405	10.29	50	84%	24.6	80.7	1	.3	1.0
			250	76.2	31.8	14.4											10	.5	1.7
			500	152.4	57.0	25.9											50	1.0	3.3
			1000	304.8	116.0	52.6											100	1.4	4.6
											For Plenum version of 9913, see 89913.						200	1.8	6.0
																	400	2.6	8.5
																	700	3.6	11.8
																	900	4.1	13.5
																	1000	4.4	14.4
Suitable for Outdoor and Aerial applications.																	4000	9.5	31.1
Plenum • Semi-solid FEP Insulation • Black Fluorocopolymer Jacket																			
150°C	**89913**	NEC: CMP	500†	152.4	63.0	28.6	10 AWG (solid) .108″ BC .9Ω/M′ 3.0Ω/km	.295	7.49	Duobond II* + 90% TC Braid 1.8Ω/M′ 5.9Ω/km	.364	9.25	50	83%	25.0	82.0	1	.1	.3
			1000†	304.8	128.0	58.2											10	.4	1.3
		CEC: CMP FT6															50	1.0	3.3
																	100	1.6	5.2
																	200	2.3	7.5
																	400	3.4	11.1
																	700	5.0	16.4
																	900	6.0	19.7
																	1000	6.9	22.6
																	4000	17.0	55.8
RG-8/U Type • 10 AWG Stranded (7x19) .108″ Bare Copper Conductor • Duobond II + Tinned Copper Braid Shield (95% Coverage)																			
Gas-injected Foam HDPE Insulation • Matte Black Belflex® Jacket																			
Low Loss High-Flex 80°C	**9913F7**	—	100	30.5	12.5	5.7	10 AWG (7x19) .108″ BC 1.1Ω/M′ 3.7Ω/km	.285	7.24	Duobond II* + 95% TC Braid 1.8Ω/M′ 5.9Ω/km	.405	10.29	52	85%	22.5	80.7	1	.4	1.3
			250	76.2	27.8	12.6											10	.6	2.0
			500	152.4	52.5	23.8											50	1.1	3.6
			1000	304.8	104.0	47.2											100	1.5	4.9
																	200	2.0	6.6
																	400	3.0	9.8
																	700	4.0	13.1
																	900	4.7	15.4
																	1000	5.0	16.4
Suitable for Outdoor and Aerial applications.																	4000	12.1	39.7
RG-8/U Type • 10 AWG Solid .103″ Bare Copper Conductor • Duobond II + Tinned Copper Braid Shield (95% Coverage)																			
Gas-injected Foam HDPE Insulation • Black PVC Jacket																			
Low Loss UL AWM Style 1354 (30V 80°C)	**9914**	NEC: CMG	500	152.4	56.0	25.4	10 AWG (solid) .103″ BC 1.8Ω/M′ 3.9Ω/km	.285	7.24	Duobond II* + 95% TC Braid 1.1Ω/M′ 3.6Ω/km	.403	10.24	50	82%	24.8	81.4	1	.4	1.3
			1000	304.8	114.0	51.7											10	.5	1.7
		CEC: CMG FT4															50	1.0	3.3
																	100	1.4	4.6
																	200	1.8	6.0
																	400	2.6	8.5
																	700	3.6	11.8
																	900	4.1	13.5
																	1000	4.4	14.4
Suitable for Outdoor and Aerial applications.																	4000	9.9	32.5
RG-8/U Type • 10 AWG Solid .108″ Bare Copper Conductor • Duofoil® (100% Coverage) + Tinned Copper Braid Shield (90% Coverage)																			
Plenum • Foam FEP Insulation • Black Fluorocopolymer Jacket																			
Low Loss 125°C	**7733A**	NEC: CMP	500	152.4	53.5	24.3	10 AWG (solid) .108″ BC .9Ω/M′ 3.0Ω/km	.280	7.11	Duofoil + 90% TC Braid 1.8Ω/M′ 5.9Ω/km	.355	9.01	50	84%	24.2	79.4	1	.1	.3
			1000	304.8	105.0	47.7											10	.4	1.3
		CEC: CMP FT6															50	1.1	3.6
																	100	1.5	4.9
																	200	2.1	6.9
																	400	3.2	10.5
																	700	4.5	14.8
																	900	5.7	18.7
																	1000	5.9	19.4
Suitable for Outdoor and Aerial applications.																	4000	14.1	46.3

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

*Duobond II = Bonded Duofoil (100% coverage) + aluminum braid (67% coverage).
†Spools are one piece, but length may vary ±10% from length shown.