

Product: [9914](#) 

Low Loss 50 Ohm, RG8, 10 AWG, CMG



Product Description

RG-8/U Type, 10 AWG solid .103" bare copper conductor, gas-injected foam HDPE insulation, Duobond® II, tinned copper braid shield (95% coverage), PVC jacket.

Technical Specifications

Physical Characteristics (Overall)

Conductor				
AWG	Stranding	Material	Nominal Diameter	No. of Coax
10	Solid	BC - Bare Copper	0.103 in	1
Conductor Count:				1
Insulation				
Material		Nominal Diameter		
PE - Polyethylene (Foam)		0.285 in		
Insulation, Table Note:				Gas Injected
Outer Shield Material				
Type	Layer	Material	Material Trade Name	Coverage [%]
Tape	1	Alum / Poly / Alum	Bonded Duofoil®	100 %
Braid	2	TC - Tinned Copper		95 %

Outer Jacket Material	
Material	Nominal Diameter
PVC - Polyvinyl Chloride	0.403 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR	Conductor Resistance	Nominal Outer Shield DCR	Outer Conductor DCR
1.2 Ohm/1000ft	1.2 Ohm/1000ft		1.1 Ohm/1000ft	1.1 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
24.8 pF/ft

Inductance

Nominal Inductance
0.065 µH/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
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5 MHz	0.4 dB/100ft
10 MHz	0.5 dB/100ft
50 MHz	1 dB/100ft
100 MHz	1.4 dB/100ft
200 MHz	1.8 dB/100ft
400 MHz	2.6 dB/100ft
700 MHz	3.6 dB/100ft
900 MHz	4.1 dB/100ft
1000 MHz	4.4 dB/100ft
1500 MHz	5.5 dB/100ft
1800 MHz	6.1 dB/100ft
2000 MHz	6.5 dB/100ft
2500 MHz	7.5 dB/100ft
3000 MHz	8.3 dB/100ft
4000 MHz	9.9 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.24 ns/ft	82 %

Power Rating

Frequency [MHz]	Max. Power Rating [W]
5 MHz	4,021 W
10 MHz	3,217 W
50 MHz	1,609 W
100 MHz	1,149 W
200 MHz	894 W
400 MHz	619 W
700 MHz	447 W
1,000 MHz	366 W
1,500 MHz	293 W
2,000 MHz	248 W
3,000 MHz	194 W
4,000 MHz	163 W
2,500 MHz	215 W
3,000 MHz	194 W
4,000 MHz	163 W

Voltage

Non-UL Voltage Rating	UL Voltage Rating
300 V RMS	30 V RMS

VSWR

Frequency [MHz]	Max. VSWR
5-2250 MHz	1.43:1

Electrical Characteristics Notes:	30 V RMS (UL AWM Style 1354)
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Temperature Range

UL Temp Rating:	80°C
Operating Temp Range:	-40°C To +80°C

Mechanical Characteristics

Bulk Cable Weight:	105 lbs/1000ft
Max Recommended Pulling Tension:	247 lbs
Min Bend Radius/Minor Axis:	4 in

Standards

NEC/(UL) Specification:	CMG
CEC/C(UL) Specification:	CMG
UL AWM Style:	UL Style 1354 (30 V 80°C)
CPR Euroclass:	Eca

RG Type:	8/U Type
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Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2004-01-01
MII Order #39 (China RoHS):	Yes

Suitability

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

Flammability, LS0H, Toxicity Testing

UL Flammability:	UL1685 FT4 Loading
CSA Flammability:	FT4
ISO/IEC Flammability:	IEC 60332-1-2
UL voltage rating:	30 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC/EAN
9914.0030	Black	Reel	30 m	8719605023537
9914.00152	Black	Reel	152 m	8719605023520
9914.00305	Black	Reel	305 m	8719605023544
9914 010500	Black	Reel	500 ft	612825268901
9914 0101000	Black	Reel	1,000 ft	612825261780

Footnote:	C - CRATE REEL PUT-UP.
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History

Update and Revision:	Revision Number: 0.289 Revision Date: 04-28-2020
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