

Product: [84142](#) 



50 Ohm Coax, RG142, 19 AWG Solid SCCCS, Double SCC Braid, FEP Jacket, CMP

Product Description

RG-142/U, 19 AWG solid .037" silver-coated copper-covered steel conductor, plenum, TFE insulation, double silver-coated copper braid shields (95% coverage), FEP jacket, commercial non-QPL product.

Technical Specifications

Product Overview

Environmental Space:	Indoor - Plenum
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
19	Solid	SCCCS - Silver Coated Copper Covered Steel	0.037 in	1

Conductor Count:	1
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Insulation

Material	Material Trade Name	Nominal Diameter
TFE - Tetrafluoroethylene	Teflon®	0.116 in

Outer Shield Material

Type	Layer	Material	Coverage [%]
Braid	1	SPC - Silver Plated Copper	95 %
Braid	2	SPC - Silver Plated Copper	95 %

Outer Jacket Material

Material	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	0.195 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
19.3 Ohm/1000ft	2.3 Ohm/1000ft	2.3 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
29 pF/ft

Inductance

Nominal Inductance
0.067 µH/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
10 MHz	1.1 dB/100ft
50 MHz	2.6 dB/100ft
100 MHz	3.8 dB/100ft
200 MHz	5.4 dB/100ft
400 MHz	7.9 dB/100ft
700 MHz	10.7 dB/100ft
900 MHz	12.3 dB/100ft
1000 MHz	13.1 dB/100ft
2000 MHz	19.3 dB/100ft
3000 MHz	24.2 dB/100ft
5000 MHz	32.6 dB/100ft
8000 MHz	43.2 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.46 ns/ft	69.5 %

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
50 MHz	3 dB/100ft
100 MHz	4.4 dB/100ft
400 MHz	9.3 dB/100ft
1000 MHz	15.3 dB/100ft
3000 MHz	29.3 dB/100ft
8000 MHz	57.8 dB/100ft

Power Rating

Frequency [MHz]	Max. Power Rating [W]
50 MHz	3,500 W
100 MHz	2,400 W
400 MHz	1,100 W
1,000 MHz	650 W
3,000 MHz	330 W
8,000 MHz	180 W

Voltage

UL Voltage Rating	Voltage Rating [V]
150 V RMS	1400 V RMS (Mil Spec)

VSWR

Frequency [MHz]	Max. VSWR
1 MHz - 8000 MHz	per M17/60-RG142

Temperature Range

UL Temp Rating:	200°C
Operating Temp Range:	-70°C To +200°C

Mechanical Characteristics

Bulk Cable Weight:	42 lbs/1000ft
Max Recommended Pulling Tension:	146 lbs
Min Bend Radius/Minor Axis:	2 in

Standards

NEC/(UL) Specification:	CMP
CEC/C(UL) Specification:	CMP
RG Type:	142/U Type
Military Specification:	Commercial, non-QPL product (M17/60-RG142)
QPL (Qualified Parts List):	Mp

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/96/EC (BFR):	Yes
EU Directive 2011/65/EU (ROHS II):	Yes
EU Directive 2012/19/EU (WEEE):	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	Yes - When supported by messenger wire
Suitability - Burial:	Yes
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes
Suitability - Sunlight Resistance:	No

Flammability, LSOH, Toxicity Testing

CSA Flammability:	FT6
UL voltage rating:	150 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	Yes
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Part Number

Variants

Item #	Color	UPC	Length	Footnote
84142 001100	Brown	612825206446	100 ft	
84142 0011000	Brown	612825206453	1,000 ft	C E
84142 001500	Brown	612825206460	500 ft	C E

Footnote:	C - CRATE REEL PUT-UP.
Footnote:	E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'.

History

Update and Revision:	Revision Number: 0.281 Revision Date: 08-22-2019
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