

Product: 84142

Mil-Spec Coax, 50 Ohm, RG-142, 19 AWG Solid SCCS, Double 95% SC Braid, FEP Jkt, CMP, Commercial Non-QPL

Product Description

Mil-Spec Coax, 50 Ohm, RG-142, 19 AWG Solid Silvered Copper Covered Steel Conductor, PTFE Insulation, Double 95% Silvered Copper Braid Shield, FEP Jacket, CMP, Commercial, non-QPL

Technical Specifications

Product Overview

Suitable Applications:	Aerospace wireless communication

Construction Details

RG Type:	142

Conductor

Size	Stranding	Nom. Diameter	Material
18 AWG	Solid	0.037 in	SCCS - Silvered Copper Covered Steel

Insulation

Material	Nom. Insulation Diameter	Color Code
PTFE - Polytetrafluoroethylene	0.116 in (2.95 mm)	White

Outer Shield

Layer	Outer Shield Type	Material	Coverage
1	Braid	Silvered Copper (SC)	95%
2	Braid	Silvered Copper (SC)	95%

Outer Jacket

Material	Nom. Diameter
FEP - Fluorinated Ethylene Propylene	0.195 in (4.95 mm)

Overall Cable Diameter (Nominal):	0.195 in (4.95 mm)

Electrical Characteristics

VSWR

Frequency	Max. VSWR
1 MHz - 12.4 GHz	per M17/60-RG142

Attenuation

Frequency	Nom. Attenuation
1 MHz	0.3 dB/100ft
10 MHz	1.1 dB/100ft
50 MHz	2.7 dB/100ft
100 MHz	3.9 dB/100ft
200 MHz	5.6 dB/100ft
400 MHz	6.9 dB/100ft
700 MHz	11.0 dB/100ft
900 MHz	12.5 dB/100ft

1000 MHz	13.5 dB/100ft
2000 MHz	19.3 dB/100ft
3000 MHz	24.3 dB/100ft
5000 MHz	32.6 dB/100ft
8000 MHz	43.2 dB/100ft

Power Rating

Frequency	Max. Power Rating
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

Electricals

Nom. Conductor DCR	Nom. Outer Shield DCR	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance	Nom. Velocity of Prop.
19.0 Ohm/1000ft	2.3 Ohm/1000ft (7.5 Ohm/km)	29 pF/ft (95 pF/m)	50 Ohm	70%

Voltage

UL Voltage Rating	Voltage Rating
300 V (CMP)	1400 V (Mil-Spec)

Mechanical Characteristics

Temperature

UL Temperature	Operating
200°C	-70°C to +200°C

Bend Radius

Installation Min.
2 in (51 mm)

Max. Pull Tension:	146 lbs (66.2 kg)
Bulk Cable Weight:	42 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor - Plenum, Indoor, Outdoor, Sunlight Resistance, Aerial - When supported by messenger wire
Sustainability:	CA Prop 65
Flammability / Reaction to Fire:	NFPA 262
NEC / UL Compliance:	CMP
CEC / C(UL) Compliance:	CMP
Military Compliance:	Commercial, non-QPL product (M17/60-RG142)
European Directive Compliance:	EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE)
APAC Compliance:	China RoHS II (GB/T 26572-2011)

History

Update and Revision:	Revision Number: 0.507 Revision Date: 04-13-2023

Part Numbers

Variants

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

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