



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: 0.509 Revision Date: 04-29-2024
----------------------	--

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

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.