



Product: [83265](#)

Mil-Spec Coax, 50 Ohm, RG-178, 30 AWG Str SCCS, 95% SC Braid, FEP Jkt, Commercial Non-QPL

Product Description

Mil-Spec Coax, 50 Ohm, RG-178, 30 AWG (7x38) Silvered Copper Covered Steel Conductor, PTFE Insulation, 95% Silvered Copper Braid Shield, FEP Jacket, Commercial, non-QPL

Technical Specifications

Product Overview

Suitable Applications:	Aerospace wireless communication
------------------------	----------------------------------

Construction Details

RG Type:	178
----------	-----

Conductor

Size	Stranding	Nom. Diameter	Material
30 AWG	7x38	0.012 in	SCCS - Silvered Copper Covered Steel

Insulation

Material	Nom. Insulation Diameter	Color Code
PTFE - Polytetrafluoroethylene	0.033 in (0.84 mm)	White

Outer Shield

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

Outer Jacket

Material	Nom. Diameter
FEP - Fluorinated Ethylene Propylene	0.071 in (1.8 mm)

Overall Cable Diameter (Nominal):	0.071 in (1.8 mm)
-----------------------------------	-------------------

Electrical Characteristics

VSWR

Frequency	Max. VSWR
50 MHz - 1000 MHz	per M17/93-RG178

Attenuation

Frequency	Nom. Attenuation
1 MHz	2.6 dB/100ft
10 MHz	5.6 dB/100ft
50 MHz	10.5 dB/100ft
100 MHz	14.0 dB/100ft
200 MHz	19.0 dB/100ft
400 MHz	28.0 dB/100ft
700 MHz	37.0 dB/100ft
900 MHz	42.5 dB/100ft
1000 MHz	46.0 dB/100ft

Power Rating

Frequency	Max. Power Rating
50 MHz	380 W
100 MHz	253 W
200 MHz	170 W
400 MHz	113 W
700 MHz	81 W
900 MHz	70 W
1,000 MHz	66 W

Electricals

Nom. Conductor DCR	Nom. Outer Shield DCR	Nom. Capacitance Cond-to-Shield	Nom. Characteristic Impedance	Nom. Velocity of Prop.
232 Ohm/1000ft (761 Ohm/km)	14.6 Ohm/1000ft (47.9 Ohm/km)	29 pF/ft (95 pF/m)	50 Ohm	70%

Voltage

UL Voltage Rating	Voltage Rating
30 V (UL AWM 1637)	750 V (Mil-Spec)

Mechanical Characteristics

Temperature

UL Temperature	Operating
90°C (UL AWM 1637)	-70°C to +200°C

Bend Radius

Installation Min.
1 in (25 mm)

Max. Pull Tension:	12 lbs (5.4 kg)
Bulk Cable Weight:	5 lbs/1000ft

Standards and Compliance

Environmental Suitability:	Indoor/Outdoor, Indoor, Outdoor, Aerial - When supported by messenger wire
Sustainability:	CA Prop 65
AWM Compliance:	AWM 1637
Military Compliance:	Commercial, non-QPL product (M17/93-RG178)
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: 0.502 Revision Date: 11-27-2023
----------------------	--

Part Numbers

Variants

Item #	Color	Putup Type	Length	UPC	Footnote
83265 009100	White	Reel	100 ft	612825203698	E
83265 009500	White	Reel	500 ft	612825203711	E
83265 0091000	White	Reel	1,000 ft	612825203704	E