

Part Number: 83265



50 Ohm Coax, RG178, 30 AWG Stranded SCCCS, SPC Braid, FEP Jacket, Commercial Non-QPL Product.

Product Description

RG-178/U, 30 AWG stranded (7x38) .012" silver-plated copper-covered steel conductor, TFE insulation, silver-plated copper braid shield (95% coverage), FEP jacket, commercial non-QPL product.

Technical Specifications

Product Overview

Environmental Space:	Outdoor - Aerial
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
30	Stranded	SCCCS - Silver Coated Copper Covered Steel	0.012 in	1

Conductor Count:	1
Conductor Size:	30 AWG

Insulation

Material	Material Trade Name	Nominal Diameter
TFE - Tetrafluoroethylene	Teflon®	0.033 in

Outer Shield Material

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

Outer Jacket Material

Material	Nominal Diameter
FEP - Fluorinated Ethylene Propylene	0.071 in

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
244 Ohm/1000ft	14.6 Ohm/1000ft	14.6 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
29 pF/ft

Shielding:	Braid(s)
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Inductance

Nominal Inductance
0.072 µH/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
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1 MHz	2.6 dB/100ft
10 MHz	5.6 dB/100ft
50 MHz	10.5 dB/100ft
100 MHz	14 dB/100ft
200 MHz	19 dB/100ft
400 MHz	28 dB/100ft
700 MHz	37 dB/100ft
900 MHz	42.5 dB/100ft
1000 MHz	46 dB/100ft

Delay

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

Power Rating

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

Voltage

Description	Voltage Rating [V]
750V RMS	750 V RMS (Mil Spec)

VSWR

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

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	5 lbs/1000ft
Max Recommended Pulling Tension:	12 lbs
Min Bend Radius/Minor Axis:	1 in

Standards

RG Type:	178/U Type
Military Specification:	Commercial, non-QPL product (M17/93-RG178)
QPL (Qualified Parts List):	No
RG / Series Type:	178/U Type
Other Specification:	UL Style 1637

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 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	Yes
EU RoHS Compliance Date (yyyy-mm-dd):	2005-04-01
CA Prop 65 (CJ for Wire & Cable):	Yes
Mil Order #39 (China RoHS):	Yes

Suitability

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

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Footnote
83265 009100	White	E
83265 0091000	White	E
83265 009500	White	E

Footnote:	E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'.
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