


Product: [1674B](#) 

50 Ohm Microwave, 29 AWG, SPC, Unjacketed



Product Description

50 Ohm, 29 AWG solid .011" silver-plated copper conductor, PTFE insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Product Overview

Suitable Applications:	Microwave
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
29	Solid	SC - Silvered Copper	0.011 in	1

Conductor Count:	1
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Insulation

Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.034 in

Outer Shield Material

Type	Layer	Material	Coverage [%]
Tape	1	Bare Copper (BC)	100%
Braid	2	Tinned Copper (TC + Tin Filled)	100%

Outer Jacket Material

Material
No Jacket

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
81.2 Ohm/1000ft	8 Ohm/1000ft	8 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
29.5 pF/ft

Inductance

Nominal Inductance
0.07 μ H/ft

Impedance

Nominal Characteristic Impedance
50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
500 MHz	25 dB/100ft
1000 MHz	36.7 dB/100ft
2000 MHz	53.8 dB/100ft
3000 MHz	67.3 dB/100ft
5000 MHz	89.2 dB/100ft
7000 MHz	107.5 dB/100ft
10000 MHz	130.9 dB/100ft
15000 MHz	163.8 dB/100ft
18000 MHz	181.1 dB/100ft
20000 MHz	192 dB/100ft

Delay

Nominal Delay	Nominal Velocity of Propagation (VP) [%]
1.46 ns/ft	70%

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
500 MHz	26 dB/100ft
1000 MHz	38.5 dB/100ft
3000 MHz	71.7 dB/100ft
5000 MHz	95.8 dB/100ft
10000 MHz	141.8 dB/100ft
15000 MHz	178.4 dB/100ft
20000 MHz	210 dB/100ft

Power Rating

Frequency [MHz]	Max. Power Rating [W]
500 MHz	45 W
1,000 MHz	31 W
2,000 MHz	22 W
3,000 MHz	18 W
5,000 MHz	13 W
7,000 MHz	11 W
10,000 MHz	9.3 W
15,000 MHz	7.6 W
18,000 MHz	6.9 W
20,000 MHz	6.5 W

Voltage

Non-UL Voltage Rating
1000 V RMS

VSWR

Frequency [MHz]	Max. VSWR
500 MHz	1.16:1
1000 MHz	1.20:1
3000 MHz	1.24:1
7000 MHz	1.27:1
15000 MHz	1.41:1
20000 MHz	1.50:1
18000 MHz	1.50:1
20000 MHz	1.50:1

Electrical Characteristics Notes: VSWR limit is a continuous sloping line from 500 MHz to 20 GHz

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	3.75 lbs/1000ft
Max. Pull Tension:	20 lbs

Min Bend Radius (Overall):	0.5 in
Min Bend Radius During Installation:	0.125 in
Min Bend Radius During Operation:	.375 in
Min Flexing Radius:	0.375 in

Standards

Military Compliance:	Commercial, non-QPL product (M17/151 type)
Qualified Products List (QPL):	No

Applicable Environmental and Other Programs

Environmental Space:	Indoor/Outdoor
EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/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):	2005-01-01
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Aerial:	No
Suitability - Burial:	No
Suitability - Hazardous Locations:	No
Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Putup Type	Length	UPC
1674B TIN500	Tin	Reel	500 ft	612825120520

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

Product Notes

Notes:	Commercial non-QPL product, yellow dielectric material
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History

Update and Revision:	Revision Number: 0.350 Revision Date: 09-30-2020
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