

Part Number: 1674A

50 Ohm Microwave, M17/151, #29, SPCCS, Unjacketed



Product Description

M17/151 type, 29 AWG solid .011" silver-plated copper-covered steel conductor, TFE Teflon® insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Product Overview

Environmental Space:	Indoor/Outdoor
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Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
29	Solid	SPCCS - Silver Plated Copper Covered Steel	0.011 in	1

Conductor Count:	1
Conductor Size:	29 AWG

Insulation

Material	Material Trade Name	Nominal Diameter
TFE - Tetrafluoroethylene	Teflon®	0.034 in

Outer Shield Material

Type	Layer	Material	Coverage [%]
Tape	1	Copper Foil	100 %
Braid	2	Tin-Filled Composite	100 %

Outer Jacket Material

Material
Unjacketed

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Conductor DCR Conductor Resistance	Nominal Outer Shield DCR	Outer Conductor DCR
205 Ohm/1000ft	205 Ohm/1000ft	8 Ohm/1000ft	8 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
29.5 pF/ft

Shielding:	Foil + Braid(s)
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Inductance

Nominal Inductance
0.07 µH/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	69.5 %

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	UL Voltage Rating
1000 V RMS	30 V RMS

VSWR

Frequency [MHz]	Max. VSWR
500 MHz	1.16:1
1000 MHz	1.17:1
5000 MHz	1.24:1
10000 MHz	1.33:1
15000 MHz	1.41:1
20000 MHz	1.50:1
18000 MHz	1.50:1
20000 MHz	1.50:1

Temperature Range

Non-UL Temp Rating:	200°C
UL Temp Rating:	105°C
Operating Temp Range:	-70°C To +200°C

Mechanical Characteristics

Bulk Cable Weight:	3 lbs/1000ft
Max Recommended Pulling Tension:	20 lbs
Min Bend Radius (Overall):	0.5 in
Min Bend Radius During Installation:	0.125 in
Min Bend Radius/Installation:	0.125 in
Min Flexing Radius:	0.375 in

Standards

UL AWM Style:	UL Style 10245 (30 V 105°C)
RG Type:	N/A

RG / Series Type:	N/A
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Applicable Environmental and Other Programs

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 2015/863/EU:	Yes
EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
EU RoHS Compliance Date (yyyy-mm-dd):	2005-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

Flammability, LSOH, Toxicity Testing

Other Flammability:	Horizontal Wire
UL voltage rating:	30 V RMS

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color
1674A TIN100	Tin
1674A TIN1000	Tin
1674A TIN50	Tin
1674A TIN500	Tin

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