

Product: [1675A](#) 

50 Ohm Microwave, RG401, 14 AWG SPC, Unjacketed



Product Description

50 Ohm, RG-401/U type, 14 AWG solid .065" silver-plated copper conductor, PTFE insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Physical Characteristics (Overall)

Conductor				
AWG	Stranding	Material	Nominal Diameter	No. of Coax
14	Solid	SCCS - Silvered Copper Covered Steel	0.065 in	1
Conductor Count:		1		

Insulation		
Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.21 in

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

Outer Jacket

Material
No Jacket

Electrical Characteristics

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

Capacitance	
Nom. Capacitance Conductor to Shield	
29.6 pF/ft	

Inductance	
Nominal Inductance	
0.07 µH/ft	

Impedance	
Nominal Characteristic Impedance	
50 Ohm	

High Frequency (Nominal/Typical)	
Frequency [MHz]	Nom. Insertion Loss
400 MHz	3.8 dB/100ft
500 MHz	4.4 dB/100ft

1000 MHz	6.8 dB/100ft
2000 MHz	10.4 dB/100ft
3000 MHz	13.4 dB/100ft
5000 MHz	18.5 dB/100ft
7000 MHz	22.8 dB/100ft
10000 MHz	28.4 dB/100ft
15000 MHz	36.6 dB/100ft
18000 MHz	41.0 dB/100ft

Delay

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

Power Rating

Frequency [MHz]	Max. Power Rating [W]	Nominal Power Rating [W]
400 MHz	1,900 W	1,900 W
500 MHz	1,665 W	1,665 W
1,000 MHz	1,105 W	1,105 W
2,000 MHz	733 W	733 W
3,000 MHz	577 W	577 W
5,000 MHz	427 W	427 W
7,000 MHz	350 W	350 W
10,000 MHz	283 W	283 W
15,000 MHz	223 W	223 W
18,000 MHz	200 W	200 W

Voltage

Non-UL Voltage Rating
2900 V RMS

VSWR

Element	Frequency [MHz]	Max. VSWR
Ramp Function, End Points	400 MHz	1.10:1
	1000 MHz	1.11:1
	3000 MHz	1.14:1
	7000 MHz	1.21:1
	10000 MHz	1.25:1
	18000 MHz	1.38:1

Electrical Characteristics Notes:	VSWR limit is a continuous sloping line from 500 MHz to 18 GHz
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Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	81 lbs/1000ft
Max. Pull Tension:	122 lbs
Min. Bend Radius During Installation:	0.375 in
Min Bend Radius During Operation:	1.125 in
Min Flexing Radius:	1.125 in

Standards

RG Type:	401
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 2):	Yes
EU Directive 2012/19/EU (WEEE):	Yes

EU Directive Compliance:	EU Directive 2003/11/EC (BFR)
EU CE Mark:	No
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	Put-Up Type	Length	UPC
1675A TIN100	Tin	Reel	100 ft	612825120537
1675A TIN500	Tin	Reel	500 ft	612825120544

Footnote:	E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'. C - CRATE REEL PUT-UP.
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Product Notes

Notes:	Commercial non-QPL product
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History

Update and Revision:	Revision Number: 0.391 Revision Date: 09-10-2021
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