

Part Number: 1671A

50 Ohm Microwave, RG405, 24 AWG SPCCS Coax, Unjacketed



Product Description

50 Ohm, RG-405/U type, 24 AWG solid .020" silver-plated copper-covered steel conductor, PTFE insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Product Overview

Environmental Space:	Indoor (Not Riser or Plenum)
Suitable Applications:	Microwave

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
24	Solid	SPCCS - Silver Plated Copper Covered Steel	0.02 in	1

Conductor Count:	1
Conductor Size:	24 AWG

Insulation

Material	Material Trade Name	Nominal Diameter
TFE - Tetrafluoroethylene	Teflon®	0.062 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 Outer Shield DCR	Outer Conductor DCR
64.2 Ohm/1000ft	10.2 Ohm/1000ft	10.2 Ohm/1000ft

Capacitance

Nom. Capacitance Conductor to Shield
29.5 pF/ft

Inductance

Nominal Inductance
0.07 µH/ft

Impedance

Nominal Characteristic Impedance

50 Ohm

High Frequency (Nominal/Typical)

Frequency [MHz]	Nom. Insertion Loss
500 MHz	15 dB/100ft
1000 MHz	22.5 dB/100ft
2000 MHz	32.8 dB/100ft
3000 MHz	41.2 dB/100ft
5000 MHz	54.9 dB/100ft
7000 MHz	66.4 dB/100ft
10000 MHz	81.2 dB/100ft
15000 MHz	102 dB/100ft
18000 MHz	113 dB/100ft
20000 MHz	120 dB/100ft

Delay

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

High Freq

Frequency [MHz]	Max. Insertion Loss (Attenuation)
500 MHz	17 dB/100ft
1000 MHz	24.9 dB/100ft
2000 MHz	36.5 dB/100ft
3000 MHz	45.7 dB/100ft
5000 MHz	60.5 dB/100ft
7000 MHz	72.9 dB/100ft
10000 MHz	88.7 dB/100ft
15000 MHz	110.9 dB/100ft
18000 MHz	122.7 dB/100ft
20000 MHz	130 dB/100ft

Screening

Frequency [MHz]
9000 MHz

Power Rating

Frequency [MHz]	Max. Power Rating [W]
500 MHz	180 W
1,000 MHz	119 W
2,000 MHz	79 W
3,000 MHz	62 W
5,000 MHz	46 W
7,000 MHz	37 W
10,000 MHz	30 W
15,000 MHz	24 W
18,000 MHz	21 W
20,000 MHz	20 W

Voltage

Non-UL Voltage Rating	UL Voltage Rating
1500 V RMS	30 V RMS (UL AWM Style 10245)

VSWR

Frequency [MHz]	Max. VSWR
500 MHz	1.1:1
1000 MHz	1.11:1
3000 MHz	1.13:1
7000 MHz	1.17:1
15000 MHz	1.25:1
20000 MHz	1.3:1

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

Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	12 lbs/1000ft
Max Recommended Pulling Tension:	26 lbs
Min Bend Radius During Installation:	0.125 in
Min Bend Radius During Operation:	0.375 in
Min Bend Radius/Installation:	0.125 in
Min Flexing Radius:	0.375 in

Standards

UL AWM Style:	UL Style 10245
RG Type:	405/U Type

Applicable Environmental and Other Programs

EU Directive 2000/53/EC (ELV):	Yes
EU Directive 2003/11/EC (BFR):	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):	2005-01-01
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
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Flammability, LS0H, Toxicity Testing

Other Flammability:	Horizontal Wire
UL voltage rating:	30 V RMS (UL AWM Style 10245)

Plenum/Non-Plenum

Plenum (Y/N):	No
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Part Number

Variants

Item #	Color	Footnote
1671A TIN100	Tin	
1671A TIN1000	Tin	V
1671A TIN50	Tin	
1671A TIN500	Tin	V

Footnote:	V - 250' PUT-UP EXACT LENGTH MAXIMUM OF 3 PIECES, MINIMUM LENGTH 50'. 500' PUT-UP EXACT LENGTH MAXIMUM OF 5 PIECES, MINIMUM LENGTH 50'. 1000' PUT-UP EXACT LENGTH MAXIMUM OF 8 PIECES, MINIMUM LENGTH 50'.
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