



Product: [1671B](#)

50 Ohm Microwave, RG405 Commercial non-QPL Product, 24 AWG SPC Coax, Unjacketed

Product Description

50 Ohm, RG-405/U type , 24 AWG solid .020" 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
24	Solid	SC - Silvered Copper	0.02 in	1

Conductor Count:	1
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Insulation

Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.062 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	Outer Conductor DCR
25.7 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	70%

High Frequency

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

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
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Temperature Range

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

Mechanical Characteristics

Bulk Cable Weight:	11 lbs/1000ft
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Maximum Recommended Pulling Tension:	26 lbs
Minimum Bend Radius During Installation:	0.125 in
Minimum Bend Radius During Operation:	.375 in
Min Flexing Radius:	0.375 in

Standards

RG Type:	405
Qualified Products List:	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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Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
1671B TIN500	Tin	Reel	500 ft	612825120308
Footnote:		E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'.		

Product Notes

Notes:	Commercial non-QPL product
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History

Update and Revision:	Revision Number: 0.424 Revision Date: 02-03-2025
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