

Product: [1673A](#) 

50 Ohm Microwave, RG402, 19 AWG SPCCS, Unjacketed



Product Description

50 Ohm, RG-402/U type, 19 AWG solid .036" silver-plated copper-covered steel conductor, TFE Teflon® insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
19	Solid	SCCS - Silvered Copper Covered Steel	0.036 in	1

Conductor Count: 1

Insulation

Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.116 in

Outer Shield Material

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

Outer Jacket Material

Material
No Jacket

Electrical Characteristics

Conductor DCR

Nominal Conductor DCR	Nominal Outer Shield DCR	Outer Conductor DCR
20.5 Ohm/1000ft	4.5 Ohm/1000ft	4.5 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	8 dB/100ft

1000 MHz	12 dB/100ft
2000 MHz	18.1 dB/100ft
3000 MHz	22.9 dB/100ft
5000 MHz	31 dB/100ft
7000 MHz	37.8 dB/100ft
10000 MHz	46.6 dB/100ft
15000 MHz	59.1 dB/100ft
18000 MHz	65.8 dB/100ft
20000 MHz	70 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	9.5 dB/100ft
1000 MHz	14.5 dB/100ft
3000 MHz	26.5 dB/100ft
5000 MHz	36 dB/100ft
10000 MHz	54 dB/100ft
20000 MHz	84 dB/100ft

Power Rating

Frequency [MHz]	Max. Power Rating [W]	Nominal Power Rating [W]
500 MHz	600 W	600 W
1,000 MHz	401 W	401 W
2,000 MHz	268 W	268 W
3,000 MHz	211 W	211 W
5,000 MHz	157 W	157 W
7,000 MHz	129 W	129 W
10,000 MHz	105 W	105 W
15,000 MHz	83 W	83 W
18,000 MHz	74 W	74 W
20,000 MHz	70 W	70 W

Voltage

Non-UL Voltage Rating	UL Voltage Rating
1900 V RMS	30 V RMS

VSWR

Element	Max. VSWR
Ramp Function, End Points	1.1:1
	1.3:1

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:	26 lbs/1000ft
Max. Pull Tension:	70 lbs
Min Bend Radius During Installation:	0.25 in
Min Bend Radius During Operation:	0.75 in
Min Flexing Radius:	0.75 in

Standards

UL AWM Style Compliance:	UL Style 10245
RG Type:	402/U Type

Applicable Environmental and Other Programs

Environmental Space:	Indoor (Not Riser or Plenum)
EU Directive 2000/53/EC (ELV):	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
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes
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Flammability, LS0H, Toxicity Testing

UL 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	Putup Type	Length	UPC
1673A TIN50	Tin	Reel	50 ft	612825120407
1673A TIN100	Tin	Reel	100 ft	612825120384
1673A TIN250	Tin	Reel	250 ft	612825120391
1673A TIN500	Tin	Reel	500 ft	612825120414

Footnote:	C - CRATE REEL PUT-UP.
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'.

Product Notes

Notes:	Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.
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History

Update and Revision:	Revision Number: 0.302 Revision Date: 04-28-2020
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