BELDEN
SENDING ALL THE RIGHT SIGNALS

Part Number: 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

Product Overview

Environmental Space:	Indoor (Not Riser or Plenum)

Physical Characteristics (Overall)

Conductor

AWG	Stranding	Material	Nominal Diameter	No. of Coax
19	Solid	SPCCS - Silver Plated Copper Covered Steel	0.036 in	1

Conductor Count:	1
Conductor Size:	19 AWG

Insulation

Material	Material Trade Name	Nominal Diameter
TFE - Tetrafluoroethylene	Teflon®	0.116 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
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 Recommended Pulling 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:	UL Style 10245
RG Type:	402/U Type

Applicable Environmental and Other Programs

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
CA Prop 65 (CJ for Wire & Cable):	Yes
MII Order #39 (China RoHS):	Yes

Suitability

Suitability - Indoor:	Yes

Flammability, LS0H, Toxicity Testing

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

Plenum/Non-Plenum

Plenum (Y/N):	No

Part Number

Variants

Item #	Color	UPC	Length	Footnote
1673A TIN100	Tin	612825120384	100 ft	C
1673A TIN250	Tin	612825120391	250 ft	C V
1673A TIN50	Tin	612825120407	50 ft	
1673A TIN500	Tin	612825120414	500 ft	

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.

History

Update and Revision:	Revision Number: 0.291 Revision Date: 07-11-2019

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