



Product: [1673B](#)



50 Ohm Microwave, RG402 Commercial Non-QPL Product, 19 AWG SPC Coax, Unjacketed

Product Description

50 Ohm, RG-402/U type commercial non-QPL product, 19 AWG solid .036" silver-plated copper conductor, PTFE insulation, copper-tin composite shield (100% coverage), unjacketed.

Technical Specifications

Product Overview

Suitable Applications:	Microwave
------------------------	-----------

Physical Characteristics (Overall)

Conductor

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

Conductor Count:	1
------------------	---

Insulation

Material	Material Trade Name	Nominal Diameter
PTFE - Polytetrafluoroethylene	Teflon®	0.116 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
7.9 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	70%

High Frequency

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
1900 V RMS

VSWR

Element	Frequency [MHz]	Max. VSWR
Ramp Function, End Points	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
Operating Temperature Range:	-70°C To +200°C

Mechanical Characteristics

Bulk Cable Weight:	25 lbs/1000ft
Max. Pull Tension:	70 lbs
Min. Bend Radius During Installation:	0.125 in

Min. Bend Radius During Operation:	.375 in
Min Flexing Radius:	0.75 in

Standards

RG Type:	402
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
---------------	----

Related Part Numbers

Variants

Item #	Color	Put-Up Type	Length	UPC
1673B TIN100	Tin	Reel	100 ft	612825120421
1673B TIN250	Tin	Reel	250 ft	612825120438
1673B TIN500	Tin	Reel	500 ft	612825120445

Footnote: E - MAY CONTAIN MORE THAN 1 PIECE. MINIMUM LENGTH OF ANY ONE PIECE IS 25'.

Product Notes

Notes:	Commercial non-QPL product
--------	----------------------------

History

Update and Revision:	Revision Number: 0.432 Revision Date: 11-09-2022
----------------------	--

© 2023 Belden, Inc

All Rights Reserved.

Although Belden makes every reasonable effort to ensure their accuracy at the time of this publication, information and specifications described here in are subject to error or omission and to change without notice, and the listing of such information and specifications does not ensure product availability.

Belden provides the information and specifications herein on an "ASIS" basis, with no representations or warranties, whether express, statutory or implied. In no event will Belden be liable for any damages (including consequential, indirect, incidental, special, punitive, or exemplary damages) whatsoever, even if Belden has been advised of the possibility of such damages, whether in an action under contract, negligence or any other theory, arising out of or in connection with the use, or inability to use, the information or specifications described herein.

All sales of Belden products are subject to Belden's standard terms and conditions of sale.

Belden believes this product to be in compliance with all applicable environmental programs as listed in the data sheet. The information provided is correct to the best of Belden's knowledge, information and belief at the date of its publication. This information is designed only as a general guide for the safe handling, storage, and any other operation of the product itself or the one that it becomes a part of. The Product Disclosure is not to be considered a warranty or quality specification. Regulatory information is for guidance purposes only. Product users are responsible for determining the applicability of legislation and regulations based on their individual usage of the product.