



## Description:

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

## Physical Characteristics (Overall)

### Conductor

#### AWG:

# Coax	AWG	Stranding	Conductor Material	Dia. (in.)
1	19	Solid	SPC - Silver Plated Copper	.036

### Insulation

#### Insulation Material:

Insulation Trade Name	Insulation Material	Dia. (in.)
Teflon®	TFE - Tetrafluoroethylene	.116

### Outer Shield

#### Outer Shield Material:

Layer #	Type	Outer Shield Material	Coverage (%)
1	Tape	Copper Foil	100
2	Braid	Tin-Filled Composite	100

### Outer Jacket

#### Outer Jacket Material:

Outer Jacket Material
Unjacketed

### Overall Cabling

Overall Nominal Diameter: 0.138 in.

## Mechanical Characteristics (Overall)

Operating Temperature Range: -70°C To +200°C

UL Temperature Rating: 105°C

Non-UL Temperature Rating: 200°C

Bulk Cable Weight: 20 lbs/1000 ft.

Max. Recommended Pulling Tension: 70 lbs.

Min. Bend Radius (Install)/Minor Axis: 0.250 in.

Min. Bend Radius (Continuous Flexing): 0.750 in.

## Applicable Specifications and Agency Compliance (Overall)

### Applicable Standards & Environmental Programs

AWM Specification: UL Style 10245

EU CE Mark: Yes

EU Directive 2000/53/EC (ELV): Yes

EU Directive 2002/95/EC (RoHS): Yes

EU RoHS Compliance Date (mm/dd/yyyy): 01/01/2005

## 1673B Coax - 50 Ohm Microwave Cable

EU Directive 2002/96/EC (WEEE):	Yes
EU Directive 2003/11/EC (BFR):	Yes
CA Prop 65 (CJ for Wire & Cable):	Yes
MIL Order #39 (China RoHS):	Yes
RG Type:	402/U

### Flame Test

Other Flame Test:	Horizontal Wire
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### Suitability

Suitability - Indoor:	Yes
Suitability - Outdoor:	Yes

### Plenum/Non-Plenum

Plenum (Y/N):	No
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## Electrical Characteristics (Overall)

### Nom. Characteristic Impedance:

Impedance (Ohm)

50

### Nom. Inductance:

Inductance (µH/ft)

0.070

### Nom. Capacitance Conductor to Shield:

Capacitance (pF/ft)

29.5

### Nominal Velocity of Propagation:

VP (%)

69.5

### Nominal Delay:

Delay (ns/ft)

1.46

### Nom. Conductor DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

7.9

### Nominal Outer Shield DC Resistance:

DCR @ 20°C (Ohm/1000 ft)

4.5

### Maximum VSWR:

Description	Freq. (MHz)	Max. VSWR
Ramp Function, End Points	500	1.1
	20000	1.3

### Nom. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
500	8.0
1000	12.0
2000	18.1
3000	22.9
5000	31.0
7000	37.8
10000	46.6
15000	59.1
18000	65.8
20000	70.0

### Max. Attenuation:

Freq. (MHz)	Attenuation (dB/100 ft.)
500	9.5
1000	14.5
3000	26.5
5000	36.0
10000	54.0
20000	84.0

**Nom. Power Rating:**

Freq. (MHz)	Rating (W)
500	600
1000	401
2000	268
3000	211
5000	157
7000	129
10000	105
15000	83
18000	74
20000	70

**Max. Operating Voltage - UL:**

Voltage
30 V RMS

**Max. Operating Voltage - Non-UL:**

Voltage
1900 V RMS

### Misc. Information (Overall)

**Other Description:** Updated Temp Rating and VSWR

### Notes (Overall)

**Notes:** US Patents 4, 694, 122 & 5, 293, 001. Patent held in the U.S., Singapore, Australia, Germany, France, and England. Patent pending in Japan. Teflon® is a registered trademark of E. I. duPont de Nemours and Co. used under license by Belden, Inc.

### Put Ups and Colors:

Item #	Putup	Ship Weight	Color	Notes	Item Desc
1673B TIN100	100 FT	3.100 LB	TIN - COLOR	E	#19 TFE CU FS BRD TINNED COAX
1673B TIN250	250 FT	8.000 LB	TIN - COLOR	E	#19 TFE CU FS BRD TINNED COAX
1673B TIN500	500 FT	14.000 LB	TIN - COLOR	E	#19 TFE CU FS BRD TINNED COAX

**Notes:**

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

# Conformable® Coax Cable

## 50 Ohm Microwave Cables

Description	Part No.	UL NEC/ C(UL) CEC Type	Standard Lengths		Standard Unit Weight		Conductor (stranding) Diameter Nom. DCR	Nominal Core OD		Shielding Materials Nom. DCR	Nominal OD		Nom. Imp. (Ω)	Nom. Vel. of Prop.	Nominal Capacitance		Nominal Attenuation		
			Ft.	m	Lbs.	kg		Inch	mm		Inch	mm			pF/Ft.	pF/m	MHz	dB/100 Ft.	dB/100m

**RG-402/U Type • 19 AWG Solid .036" Silver-plated Copper-covered Steel Conductor • Copper-Tin Composite Shield (100% Coverage)**

TFE Teflon® Insulation • Unjacketed																			
UL AWM	1673A*	—	50	15.2	3.3	1.5	19 AWG	.116	2.95	CT	.138	3.51	50	69.5%	29.5	96.8	500	8.0	26.2
Style 10245 (30V 105°C)			100	30.5	3.9	1.8	(solid)			Composite							1000	12.0	39.4
			250†	76.2	8.0	3.6	.036"			100% Shield							2000	18.1	59.4
			500	152.4	15.0	6.8	SPCCS			Coverage							3000	22.9	75.1
							20.5Ω/M'			4.5Ω/M'							5000	31.0	101.7
							67.3Ω/km			14.8Ω/km							7000	37.8	124.0
																	10000	46.6	152.9
																	15000	59.1	193.9
																	18000	65.8	215.9
																	20000	70.0	229.7



**TFE Teflon Insulation • Black PVC Jacket**

UL AWM	1673J*	—	100	30.5	5.1	2.3	19 AWG	.116	2.95	CT	.178	4.52	50	69.5%	29.5	96.8	500	8.0	26.2
Style 10245 (30V 105°C)			500†	152.4	17.5	8.0	(solid)			Composite							1000	12.0	39.4
							.036"			100% Shield							2000	18.1	59.4
							SPCCS			Coverage							3000	22.9	75.1
							20.5Ω/M'			4.5Ω/M'							5000	31.0	101.7
							67.3Ω/km			14.8Ω/km							7000	37.8	124.0
																	10000	46.6	152.9
																	15000	59.1	193.9
																	18000	65.8	215.9
																	20000	70.0	229.7



**RG-402/U Type • 19 AWG Solid .036" Silver-plated Copper Conductor • Copper-Tin Composite Shield (100% Coverage)**

TFE Teflon Insulation • Unjacketed																			
UL AWM	1673B*	—	100††	30.5	3.9	1.8	19 AWG	.116	2.95	CT	.138	3.51	50	69.5%	29.5	96.8	500	8.0	26.2
Style 10245 (30V 105°C)			250††	76.2	8.0	3.6	(solid)			Composite							1000	12.0	39.4
			500††	152.4	14.5	6.6	.036"			100% Shield							2000	18.1	59.4
							SPC			Coverage							3000	22.9	75.1
							7.9Ω/M'			4.5Ω/M'							5000	31.0	101.7
							25.9Ω/km			14.8Ω/km							7000	37.8	124.0
																	10000	46.6	152.9
																	15000	59.1	193.9
																	18000	65.8	215.9
																	20000	70.0	229.7



**RG-401/U Type • 14 AWG Solid .065" Silver-plated Copper Conductor • Copper-Tin Composite Shield (100% Coverage)**

TFE Teflon Insulation • Unjacketed																			
UL AWM	1675A*	—	50†	15.2	4.1	1.8	14 AWG	.210	5.33	CT	.246	6.25	50	69.5%	29.6	97.1	400	3.8	12.5
Style 10245 (30V 105°C)			100††	30.5	8.1	3.7	(solid)			Composite							500	4.4	14.4
			250††	76.2	20.3	9.2	.065"			100% Shield							1000	6.8	22.3
			500††	152.4	40.5	18.4	SPC			Coverage							2000	10.4	34.1
							2.5Ω/M'			8.0Ω/M'							3000	13.4	44.0
							8.2Ω/km			26.2Ω/km							5000	18.5	60.7
																	7000	22.8	74.8
																	10000	28.4	93.2
																	15000	36.6	120.1
																	18000	41.0	134.5



CT = Copper-Tin • DCR = DC Resistance • SPCCS = Silver-plated Copper-covered Steel • SPC = Silver-plated Copper • TFE = Tetra Fluoroethylene

\* Protected by one or more of U.S. Patent Nos. 4,694,122 and 5,292,001. Patent held in the U.S., Singapore, Australia, Germany, France and England. Patent pending in Japan.

† 250 ft. put-up: Exact 3 pieces (maximum), 50 feet minimum length

500 ft. put-up: Exact 5 pieces (maximum), 50 feet minimum length

1000 ft. put-up: Exact 8 pieces (maximum), 50 feet minimum length

†† May contain more than one piece, minimum length of any one piece is 25 ft.

Teflon is a DuPont trademark.