


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 Temp 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 |
|---------------|----|

Part Number

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: | Commerical non-QPL product |
|--------|----------------------------|

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.404 Revision Date: 12-15-2021 |
|----------------------|--|

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