



Part Number: 1671J

50 Ohm Microwave, RG405, #24 SPC Coax, PVC Jacket



Product Description

RG-405/U type, 24 AWG solid .020" silver-plated copper-covered steel conductor, TFE Teflon® insulation, copper-tin composite shield (100% coverage), PVC jacket.

Technical Specifications

Product Overview

|                      |                |
|----------------------|----------------|
| Environmental Space: | Indoor/Outdoor |
|----------------------|----------------|

Physical Characteristics (Overall)

| Conductor        |           |  |                  |             |
|------------------|-----------|--|------------------|-------------|
| AWG              | Stranding | Material                                   | Nominal Diameter | No. of Coax |
| 24               | Solid     | SPCCS - Silver Plated Copper Covered Steel | 0.02 in          | 1           |
| Conductor Count: |           | 1  |                  |             |
| AWG Size:        |           | 24   |                  |             |

| Material                  | Material Trade Name | Nominal Diameter |
|---------------------------|---------------------|------------------|
| TFE - Tetrafluoroethylene | Teflon®             | 0.062 in         |

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

| Outer Jacket Material    |                  |
|--------------------------|------------------|
| Material                 | Nominal Diameter |
| PVC - Polyvinyl Chloride | 0.127 in         |

Electrical Characteristics

| Conductor DCR         |                       |                      |                          |                     |
|-----------------------|-----------------------|----------------------|--------------------------|---------------------|
| Nominal Conductor DCR | Nominal Conductor DCR | Conductor Resistance | Nominal Outer Shield DCR | Outer Conductor DCR |
| 64.2 Ohm/1000ft       | 64.2 Ohm/1000ft       |                      | 10.2 Ohm/1000ft          | 10.2 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   | 15 dB/100ft   |
| 1000 MHz  | 22.2 dB/100ft |
| 2000 MHz  | 32.8 dB/100ft |
| 3000 MHz  | 41.2 dB/100ft |
| 5000 MHz  | 54.9 dB/100ft |
| 7000 MHz  | 66.4 dB/100ft |
| 10000 MHz | 81.2 dB/100ft |
| 15000 MHz | 102 dB/100ft  |
| 18000 MHz | 113 dB/100ft  |
| 20000 MHz | 120 dB/100ft  |

Delay

| Nominal Delay | Nominal Velocity of Propagation (VP) [%] |
|---------------|--|
| 1.46 ns/ft    | 69.5 %                                   |

Power Rating

| Frequency [MHz] | Max. Power Rating [W] |
|-----------------|-----------------------|
| 500 MHz         | 180 W                 |
| 1,000 MHz       | 119 W                 |
| 2,000 MHz       | 79 W                  |
| 3,000 MHz       | 62 W                  |
| 5,000 MHz       | 46 W                  |
| 7,000 MHz       | 37 W                  |
| 10,000 MHz      | 30 W                  |
| 15,000 MHz      | 24 W                  |
| 18,000 MHz      | 21 W                  |
| 20,000 MHz      | 20 W                  |

Voltage

| Non-UL Voltage Rating | UL Voltage Rating |
|-----------------------|-------------------|
| 1500 V RMS            | 30 V RMS          |

VSWR

| Frequency [MHz] | Max. VSWR |
|-----------------|-----------|
| 500 MHz         | 1.1:1     |
| 20000 MHz       | 1.3:1     |

Temperature Range

|                       |                 |
|-----------------------|-----------------|
| Non-UL Temp Rating:   | 105°C           |
| UL Temp Rating:       | 105°C           |
| Operating Temp Range: | -40°C To +105°C |

Mechanical Characteristics

|                                      |               |
|--------------------------------------|---------------|
| Bulk Cable Weight:                   | 16 lbs/1000ft |
| Max Recommended Pulling Tension:     | 26 lbs        |
| Min Bend Radius (Overall):           | 1 in          |
| Min Bend Radius During Installation: | 0.125 in      |
| Min Bend Radius/Installation:        | 0.125 in      |
| Min Flexing Radius:                  | 0.375 in      |

Standards

|               |                             |
|---------------|-----------------------------|
| UL AWM Style: | UL Style 10245 (30 V 105°C) |
| RG Type:      | 405/U Type                  |

Applicable Environmental and Other Programs

|                                    |     |
|------------------------------------|-----|
| EU Directive 2000/53/EC (ELV):     | Yes |
| EU Directive 2003/11/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:                           | No                            |
| 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 |
| Suitability - Outdoor: | Yes |

Flammability, LSOH, Toxicity Testing

|                     |                 |
|---------------------|-----------------|
| Other Flammability: | Horizontal Wire |
|---------------------|-----------------|

Part Number

|               |    |
|---------------|----|
| Plenum (Y/N): | No |
|---------------|----|

Variants

| Item #        | Color | Footnote |
|---------------|-------|----------|
| 1671J 010100  | BLACK |          |
| 1671J 0101000 | BLACK | V        |
| 1671J 010500  | BLACK | V        |

|           |  |
|-----------|--|
| 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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