




Product: [83265](#) 

Mil-Spec Coax, 50 Ohm, RG-178, 30 AWG Str SCCS, 95% SC Braid, FEP Jkt, Commercial Non-QPL

Product Description

Mil-Spec Coax, 50 Ohm, RG-178, 30 AWG (7x38) Silvered Copper Covered Steel Conductor, PTFE Insulation, 95% Silvered Copper Braid Shield, FEP Jacket, Commercial, non-QPL

Technical Specifications

Product Overview

| | |
|------------------------|----------------------------------|
| Suitable Applications: | Aerospace wireless communication |
|------------------------|----------------------------------|

Construction Details

| | |
|----------|-----|
| RG Type: | 178 |
|----------|-----|

Conductor

| Size | Stranding | Nom. Diameter | Material |
|--------|-----------|---------------|--------------------------------------|
| 30 AWG | 7x38 | 0.012 in | SCCS - Silvered Copper Covered Steel |

Insulation

| Material | Nom. Insulation Diameter | Color Code |
|--------------------------------|--------------------------|------------|
| PTFE - Polytetrafluoroethylene | 0.033 in (0.84 mm) | White |

Outer Shield

| Layer | Outer Shield Type | Material | Coverage |
|-------|-------------------|----------------------|----------|
| 1 | Braid | Silvered Copper (SC) | 95% |

Outer Jacket

| Material | Nom. Diameter |
|--------------------------------------|-------------------|
| FEP - Fluorinated Ethylene Propylene | 0.071 in (1.8 mm) |

| | |
|-----------------------------------|-------------------|
| Overall Cable Diameter (Nominal): | 0.071 in (1.8 mm) |
|-----------------------------------|-------------------|

Electrical Characteristics

VSWR

| Frequency | Max. VSWR |
|-------------------|------------------|
| 50 MHz - 1000 MHz | per M17/93-RG178 |

Attenuation

| Frequency | Nom. Attenuation |
|-----------|------------------|
| 1 MHz | 2.6 dB/100ft |
| 10 MHz | 5.6 dB/100ft |
| 50 MHz | 10.5 dB/100ft |
| 100 MHz | 14.0 dB/100ft |
| 200 MHz | 19.0 dB/100ft |
| 400 MHz | 28.0 dB/100ft |
| 700 MHz | 37.0 dB/100ft |
| 900 MHz | 42.5 dB/100ft |
| 1000 MHz | 46.0 dB/100ft |

Power Rating

| Frequency | Max. Power Rating |
|-----------|-------------------|
| 50 MHz | 380 W |
| 100 MHz | 253 W |
| 200 MHz | 170 W |
| 400 MHz | 113 W |
| 700 MHz | 81 W |
| 900 MHz | 70 W |
| 1,000 MHz | 66 W |

Electricals

| Nom. Conductor DCR | Nom. Outer Shield DCR | Nom. Capacitance Cond-to-Shield | Nom. Characteristic Impedance | Nom. Velocity of Prop. |
|-----------------------------|-------------------------------|---------------------------------|-------------------------------|------------------------|
| 232 Ohm/1000ft (761 Ohm/km) | 14.6 Ohm/1000ft (47.9 Ohm/km) | 29 pF/ft (95 pF/m) | 50 Ohm | 70% |

Voltage

| UL Voltage Rating | Voltage Rating |
|--------------------|------------------|
| 30 V (UL AWM 1637) | 750 V (Mil-Spec) |

Mechanical Characteristics

Temperature

| UL Temperature | Operating |
|--------------------|-----------------|
| 90°C (UL AWM 1637) | -70°C to +200°C |

Bend Radius

| Installation Min. |
|-------------------|
| 1 in (25 mm) |

| | |
|--------------------|-----------------|
| Max. Pull Tension: | 12 lbs (5.4 kg) |
| Bulk Cable Weight: | 5 lbs/1000ft |

Standards and Compliance

| | |
|--------------------------------|--|
| Environmental Suitability: | Indoor/Outdoor, Indoor, Outdoor, Aerial - When supported by messenger wire |
| Sustainability: | CA Prop 65 |
| AWM Compliance: | AWM 1637 |
| Military Compliance: | Commercial, non-QPL product (M17/93-RG178) |
| European Directive Compliance: | EU CE Mark, EU Directive 2015/863/EU (RoHS 2 amendment), REACH, EU Directive 2011/65/EU (RoHS 2), EU Directive 2012/19/EU (WEEE) |
| APAC Compliance: | China RoHS II (GB/T 26572-2011) |

History

| | |
|----------------------|--|
| Update and Revision: | Revision Number: 0.503 Revision Date: 04-29-2024 |
|----------------------|--|

Part Numbers

Variants

| Item # | Color | Putup Type | Length | UPC | Footnote |
|---------------|-------|------------|----------|--------------|----------|
| 83265 009100 | White | Reel | 100 ft | 612825203698 | E |
| 83265 009500 | White | Reel | 500 ft | 612825203711 | E |
| 83265 0091000 | White | Reel | 1,000 ft | 612825203704 | E |

Mouser Electronics

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