



## CASTHERMCOAX™

### Style RG178 FEP

-55°C to +200°C, 50 Ohms



#### Construction

**Type:** coaxial cable

**Core:** Silver Plated Copper Coated Steel (SPCCS)

**Dielectric:** FEP

**Shielding:** silver-plated copper braid

**Sheath:** FEP

#### Production

**Standard:** nominal diameter 1.83 mm

**Options:** Please consult us for any special requirements

#### Application

**Aerospace and Defense:** radio frequency communications, data transmission, wireless communication in extreme conditions

#### General characteristics

**Operating environment:** protection from electromagnetic interference

**Chemical behavior:** excellent resistance to chemical environments

**Humidity:** excellent resistance to humidity

#### Thermal characteristics

**Operating temperature:** -55°C to +200 °C

#### Electrical characteristics

**Operating Voltage:** 750V

**Impedance:** 50 Ohms

#### Approvals – Standards

**Aeronautic and defense:** MIL-DTL-17

| Conductor structure |                       |      | Conductor Diameter |      | Dielectric Diameter |      | Outer Shield Diameter |      | Final O.D. |      |
|---------------------|-----------------------|------|--------------------|------|---------------------|------|-----------------------|------|------------|------|
| # Strands           | Diam. Of Strands (mm) |      | (in)               | (mm) | (in)                | (mm) | (in)                  | (mm) | (in)       | (mm) |
|                     | (in)                  | (mm) |                    |      |                     |      |                       |      |            |      |
| 7                   | 0.004                 | 0.1  | 0.012              | 0.3  | 0.035               | 0.88 | 0.051                 | 1.3  | 0.072      | 1.83 |

| DATA TRANSMISSION CHARACTERISTICS |              |
|-----------------------------------|--------------|
| Impedance                         | 50Ω          |
| Capacitance max                   | 96.45 pF / m |
| Use frequency max                 | 3 GHz        |
| Velocity of propagation           | 69.5%        |
| Operating voltage                 | 750V         |

| SIGNAL ATTENUATION |                     |               |
|--------------------|---------------------|---------------|
| Frequency<br>(MHz) | Nominal attenuation |               |
|                    | (dB / 100 m)        | (dB / 100 ft) |
| 100                | 45.3                | 13.8          |
| 400                | 91.2                | 27.8          |
| 1000               | 146                 | 44.5          |
| 3000               | 265                 | 80.8          |



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