

CABLE CONSTRUCTION

1. ETFE Jacket (White) Laser Markable
2. Silver-Plated Copper Braided Shield
3. Foil Inner Shield
4. PTFE Dielectric
5. Stranded Silver-Plated Copper Covered Steel



PIC P/N S31601 Coaxial cable is a 50 Ohm cable equivalent in size as the standard MIL Spec cable RG316 but slightly lower in loss due to the extra inner foil shield. The inner foil shield also achieves -90 dB shielding effectiveness compared to only -50 dB for RG316.

This cable was designed mainly to replace RG316. The cable is manufactured with a white ETFE laser-markable jacket which saves the user considerable time, eliminating the need to label the cable at certain intervals.

The cable dimensions have remained basically the same as RG316, allowing the use of standard COTS (Commercial-Off-The-Shelf) connectors.

This cable is Skydrol resistant, RoHS compliant and meets the FAA Flammability requirement of FAR PART 23 and 25.

PHYSICAL DATA

- Conductor 26 AWG Stranded SPCCS
- Operating Temperature -55° to +200°C
- Outer Diameter: in (mm) 0.10 (2.54)
- Minimum Bend Radius: in (mm) 0.50 (12.70)
- Weight: lbs/100 ft (kg/100 m) 1.0 (1.5)

ELECTRICAL DATA

- Impedance: ohms 50
- Capacitance: pF/ft (m) 32.0 (105.0)
- Velocity of Propagation: % 69.5
- Time Delay: ns/ft (m) 1.45 (4.76)
- RF Shielding Effectiveness: dB/min -90
- DC Resistance: ohms/1000 ft (m) 84.1 (275.9)
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
 - @400 MHz 16.0 / 19.0 (52.5 / 62.3)
 - @1.0 GHz 26.3 / 31.2 (86.3 / 102.4)
 - @1.6 GHz 34.2 / 40.5 (112.2 / 132.9)
 - @3.0 GHz 48.9 / 58.0 (160.4 / 190.3)
- K Values (nom loss): K1 = 0.75, K2 = 0.0026
- Formula for Attenuation: $(K1 * \sqrt{F(MHz)}) + (K2 * F(MHz))$

All values nominal unless otherwise noted