

**CABLE CONSTRUCTION**

1. SPCCA Center Conductor
2. PTFE Dielectric
3. SPC Spiral Shield
4. SPCCA Braided Shield
5. ETFE Jacket (White) Laser Markable

This ultra lightweight, low loss, flexible 50 ohm cable provides major weight and loss savings over traditional RG cables. UH25107 features a construction design that can save 60% or more in cable weight. This cable is well-suited for systems that have a low dB loss budget for antenna runs, such as SATCOM and Iridium systems.

UH25107 has a Silver Plated Copper Clad Aluminum center conductor and outer braid. It has a spiral (helical) wrap Silver Plated Copper inner shield, which provides shielding effectiveness (RF leakage) down to -110 dB min, which is the same as a RG405 semi-rigid coaxial cable with a solid copper tube. This shield also conforms to the low loss dielectric for superior uniformity, which results in low signal reflections (VSWR) and low attenuation.

It is Skydrol resistant, RoHS compliant, and has a white laser-markable jacket that meets the FAA FAR 25 burn requirements and exceeds the AIRBUS and BOEING fire requirements.

**PIC**  **RF MATES® ULTRALITE**



**PHYSICAL DATA**

- Conductor 08 AWG Solid SPCCA
- Operating Temperature -65° to +150°C
- Maximum Temperature -65° to +200°C
- Outer Diameter: in (mm) 0.445 (11.30)
- Minimum Bend Radius: in (mm) 2.50 (63.50)
- Weight: lbs/100 ft (kg/100 m) 12 (17.9)

**ELECTRICAL DATA**

- Impedance: ohms 50
- Capacitance: pF/ft (m) 24.0 (78.7)
- Velocity of Propagation: % 82.5
- Time Delay: ns/ft (m) 1.22 (4.00)
- RF Shielding Effectiveness: dB/min -110
- DC Resistance: ohms/1000 ft (m) 1.1 (3.6)
- Attenuation: Nom / Max dB/100 ft (dB/100 m)
  - @400 MHz 1.7 / 1.9 (5.6 / 6.2)
  - @1.0 GHz 2.8 / 3.1 (9.2 / 10.2)
  - @1.6 GHz 3.6 / 4.0 (11.8 / 13.1)
  - @5.0 GHz 7.0 / 7.8 (23.0 / 25.6)
- K Values (nom loss): K1 = 2.52, K2 = 0.28
- Formula for Attenuation:  $(K1 * \sqrt{F(GHz)} + (K2 * F(GHz)))$

*All values nominal unless otherwise noted*

**PIC P/N**                      **CONNECTOR TYPE**

**ARINC**

<b>190401</b>	<b>600 Size 1</b>
<b>190402</b>	<b>600 Modified Size 1</b>

**M39012**

**PIC P/N**                      **CONNECTOR TYPE**

<b>190412</b>	<b>BNC Straight Plug</b>
<b>190413</b>	<b>BNC 90° Plug</b>
<b>190406</b>	<b>C Straight Plug</b>
<b>190407</b>	<b>C 90° Plug</b>
<b>190410</b>	<b>N Straight Plug</b>
<b>190411</b>	<b>N 90° Plug</b>
<b>190424</b>	<b>N Inline Jack</b>
<b>190422</b>	<b>N Bulkhead Jack</b>
<b>190408</b>	<b>TNC Straight Plug</b>
<b>190409</b>	<b>TNC 90° Plug</b>
<b>190423</b>	<b>TNC Inline Jack</b>
<b>190421</b>	<b>TNC Bulkhead Jack</b>

*Die Sets Available On Loan Or For Purchase From PIC  
Refer To Connector Drawing For Tooling  
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