

## CABLE CONSTRUCTION

1. FEP Jacket (Clear)
2. Silver-Plated Copper Shield
3. Aluminum / Polyimide Shield
4. Silver-Plated Copper Flat Strip Braid
5. PTFE Dielectric
6. Silver-Plated Copper Conductor



This cable is particularly suitable for GPS, TCAS, Mode-S, MLS and SATCOM installations. It is lower loss, more flexible and less than half the weight of RG214 and less than one third the weight of RG393.

This special coaxial design incorporates a multi-layered shielding technique that combines conventional shields with an inner shield woven of flat strips of silver plated copper. This "unitized" shield reduces attenuation at frequencies over 1 GHz when compared to round wire braids in standard coaxial cables. Additionally, the cable VSWR is lower because the braids can be applied more uniformly. The attenuation and VSWR variation due to aging and flexure is substantially less.

It is Skydrol resistant, RoHS compliant and meets the FAA flammability requirements of FAR Part 23 and 25, Appendix F; complies with MIL-C-17 as applicable.

Note: This product is also available with an orange FEP jacket under product number S34141.

## PHYSICAL DATA

• Conductor	14 AWG Stranded SPC
• Operating Temperature	-55° to +200°C
• Outer Diameter: in (mm)	0.27 (6.86)
• Minimum Bend Radius: in (mm)	1.40 (35.56)
• Weight: lbs/100 ft (kg/100 m)	6.5 (9.7)

## ELECTRICAL DATA

• Impedance: ohms	50	
• Capacitance: pF/ft (m)	25.0 (82.0)	
• Velocity of Propagation: %	80.5	
• Time Delay: ns/ft (m)	1.26 (4.13)	
• RF Shielding Effectiveness: dB/min	-90	
• DC Resistance: ohms/1000 ft (m)	2.9 (9.5)	
• Attenuation: Nom / Max	dB/100 ft	(dB/100 m)
• @400 MHz	4.2 / 4.7	(13.8 / 14.4)
• @1.0 GHz	6.7 / 7.4	(22.0 / 24.3)
• @1.6 GHz	8.6 / 9.5	(28.2 / 31.2)
• @5.0 GHz	15.5 / 17.1	(50.9 / 56.1)
• K Values (nom loss):	K1 = 0.207, K2 = 0.0001785	
• Formula for Attenuation:	$(K1 * \sqrt{F(MHz)}) + (K2 * F(MHz))$	

*All values nominal unless otherwise noted*

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

**ARINC**

<b>190319</b>	<b>404 Size 1</b>
<b>190301</b>	<b>600 Size 1</b>
<b>190302</b>	<b>600 Modified Size 1</b>
<b>190303</b>	<b>404/600 Size 5</b>
<b>190329</b>	<b>Size 8 Socket</b>

**M39029 for MIL-C-38999 Connector**

<b>190338</b>	<b>Size 8 Pin</b>
<b>190339</b>	<b>Size 8 Socket</b>

**M39012**

<b>PIC P/N</b>	<b>CONNECTOR TYPE</b>	<b>PIC P/N</b>	<b>CONNECTOR TYPE</b>
<b>190312</b>	<b>BNC Straight Plug</b>	<b>190314</b>	<b>SMA Straight Plug</b>
<b>190313</b>	<b>BNC 90° Plug</b>	<b>190315</b>	<b>SMA 90° Plug</b>
<b>190327</b>	<b>BNC Inline Jack</b>	<b>190325</b>	<b>SMA Inline Jack</b>
<b>190306</b>	<b>C Straight Plug</b>	<b>190308</b>	<b>TNC Straight Plug</b>
<b>190307</b>	<b>C 90° Plug</b>	<b>190309</b>	<b>TNC 90° Plug</b>
<b>190304</b>	<b>HN Straight Plug</b>	<b>190331</b>	<b>TNC 75° Plug</b>
<b>190305</b>	<b>HN 90° Plug</b>	<b>190323</b>	<b>TNC Inline Jack</b>
<b>190310</b>	<b>N Straight Plug</b>	<b>190321</b>	<b>TNC Bulkhead Jack</b>
<b>190311</b>	<b>N 90° Plug</b>		
<b>190324</b>	<b>N Inline Jack</b>		
<b>190322</b>	<b>N Bulkhead Jack</b>		

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