

CABLE CONSTRUCTION

1. Fluoropolymer 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, MLS, Mode S and SATCOM installations. It is dimensionally identical to RG400, but has lower loss and improved shielding.

This special coaxial design incorporates a multi-layered shielding technique that combines conventional shields with an inner braid 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.

S44191 can be terminated with standard RG142/RG400 connectors.

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.

PHYSICAL DATA

• Conductor	20 AWG Stranded SPC
• Operating Temperature	-55° to +200°C
• Outer Diameter: in (mm)	0.20 (4.95)
• Minimum Bend Radius: in (mm)	1.00 (25.40)
• Weight: lbs/100 ft (kg/100 m)	4.3 (6.4)

ELECTRICAL DATA

• Impedance: ohms	50	
• Capacitance: pF/ft (m)	29.3 (96.2)	
• Velocity of Propagation: %	69.5	
• Time Delay: ns/ft (m)	1.46 (4.79)	
• RF Shielding Effectiveness: dB/min	-90	
• DC Resistance: ohms/1000 ft (m)	8.6 (28.2)	
• Attenuation: Nom / Max	dB/100 ft	(dB/100 m)
• @400 MHz	7.3 / 8.0	(23.9 / 26.2)
• @1.0 GHz	11.8 / 13.0	(38.7 / 42.7)
• @1.6 GHz	15.2 / 16.8	(49.9 / 55.1)
• @5.0 GHz	28.5 / 31.4	(93.5 / 103.0)
• K Values (nom loss):	K1 = 0.35, K2 = 0.00075	
• Formula for Attenuation:	$(K1 * \sqrt{F(MHz)}) + (K2 * F(MHz))$	

All values nominal unless otherwise noted

PIC P/N **CONNECTOR TYPE**

ARINC

190119	404 Size 1
190101	600 Size 1
190102	600 Modified Size 1
110123	404/600 Size 5

M39012

PIC P/N	CONNECTOR TYPE	PIC P/N	CONNECTOR TYPE
190112	BNC Straight Plug	110576	QMA Straight Plug
190113	BNC 90° Plug	110577	QMA 90° Plug
190127	BNC Inline Jack	110198	SMA Straight Plug
110193	BNC Bulkhead Jack	110207	SMA 90° Plug
190106	C Straight Plug	190125	SMA Inline Jack
190107	C 90° Plug	190108	TNC Straight Plug
190104	HN Straight Plug	190109	TNC 90° Plug
190105	HN 90° Plug	190131	TNC 75° Plug
190110	N Straight Plug	190123	TNC Inline Jack
190111	N 90° Plug	190121	TNC Bulkhead Jack
190124	N Inline Jack		
110087	N Bulkhead Jack		

Also fit PIC P/N S44193, RG142 and RG400

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