

### HIGH LOSS 50Ω COAXIAL CABLE

TIN-PLATED COPPER CONDUCTOR & SHIELD



Certain avionics systems — TCAS, TCAD<sup>®</sup>, IHAS, for example — specify a range of antenna cable insertion loss rather than a maximum loss. The loss minimum may be difficult to achieve in shorter cable lengths without coiling extra length of cable or inserting attenuators. Either situation adds weight and cost. This cable addresses these problems.

S46191 is a 50Ω coaxial cable, dimensionally equivalent to M17/128-RG400, but whose loss is greater by approximately 8 dB per 100 feet at 1.0 GHz. RG400 is typically 15 dB; S46191 is approximately 23 dB. In addition, S46191 will provide at least 30% weight savings over RG400.

An FEP jacket protects the cable against abrasion and environmental effects while maintaining flexibility for ease of installation.

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.

### APPLICATION DATA

	TCAS II (ARINC 735)	TCAD <sup>®</sup>	IHAS
Loss Range:	2.0 - 3.0 dB	2.5 - 3.5 dB	1.0 - 3.0 dB
Length Range:			
S46191	8 - 11 ft.	11 - 14 ft.	4.5 - 11 ft.
RG400	13.5 - 18.5 ft.	16.5 - 22 ft.	6.5 - 18.5 ft.

### PHYSICAL DATA

Conductor	20 AWG Stranded TC
Temperature	-55° C to +150° C
Outer Diameter (in.)	0.195
Minimum Bend Radius (in.)	1.0
Weight (lbs / 100ft)	2.7

### ELECTRICAL DATA

Impedance (ohms)	50
Capacitance (pF/ft)	28.4
Velocity of Propagation (%)	70
Shielding Effectiveness (dB)	-75
Time Delay (ns/ft)	1.45
Attenuation (dB/100 ft) Nom/Max.	@ 400 MHz 13.6 / 14.9
	@ 1.0 GHz 24.6 / 27.0
	@ 1.6 GHz 35.0 / 38.5
	@ 2.3 GHz 45.2 / 49.7

All values nominal unless otherwise noted

See connector information on the next sheet



**MOST CABLES ARE IN STOCK AND AVAILABLE FOR QUICK DELIVERY  
PLEASE CONTACT CUSTOMER SERVICE FOR DETAILS @ 262-246-0500**



**CONNECTORS FOR PIC P/N S46191***Also fit PIC P/N S44191, S44193, RG142 and RG400*

<b>CONTACTS</b>	<b>PIC P/N</b>
<b>ARINC</b>	
404 Size 1	190119
600 Size 1	190101
600 Modified Size 1	190102
600 Size 5	110123
<b>RF CONNECTORS</b>	
BNC Straight Plug	190112
BNC 90° Plug	190113
BNC InLine Jack	190127
BNC Bulkhead Jack	110193
C Straight Plug	190106
C 90° Plug	190107
HN Straight Plug	190104
HN 90° Plug	190105
N Straight Plug	190110
N 90° Plug	190111
N Bulkhead Jack	110087
SMA Straight Plug	110198
SMA 90° Plug	110207
TNC Straight Plug	190108
TNC 90° Plug	190109
TNC 75° Plug	190131
TNC Bulkhead Jack	190121
TNC InLine Jack	190123

*DIE SETS AVAILABLE ON LOAN OR FOR PURCHASE FROM PIC**REFER TO CONNECTOR DRAWING FOR TOOLING*