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Product
Transponder Antenna's

Revision
None

Title
Installation

Description
Transponder antennas are installed on the underside on the fuselage to better receive and transmit to the Radar ground stations.

The exact location of the antenna should give the best all around view of the horizon (i.e. clear of fins, undercarriage legs, exhausts, etc).

Careful consideration should be given to the type and length of the coaxial cable. The transponder output at the antenna must be >125W. The table below gives details of the maximum cable length of a T2000SFL transponder (200W output).

Cable	Bending Radius	Loss @ 1Ghz dB/m	Max Length	TX Power	RX Sensitivity
RG58/C/U (Mil Spec)	50mm (2")	0.76dB/m 0.21dB/ft	2.0m 7ft	142W	-70dBm
RG213/A/U (Mil Spec)	125mm (5")	0.26dB/m 0.08dB/ft	5.75m 19ft	142W	-70dBm
RG223/U (Mil Spec)	100mm (4")	0.47dB/m 0.14dB/ft	3.2m 10ft	142W	-70dBm
RG400 (Mil Spec)	50mm (2")	0.60dB/m 0.18dB/ft	2.5m 8ft	142W	-70dBm
Belden 8262	50mm (2")	0.68dB/m 0.21dB/ft	2.2m 7ft	142W	-70dBm
URM-43	50mm (2")	0.47dB/m 0.14dB/ft	3.2m 10ft	142W	-70dBm

Where the antenna is to be installed in a composite or wooden airframe, a ground plane must be installed. The Antenna must be mounted vertically, and have good electrical contact with the ground plane.