

12-5002

CHELTON

Multiband Tuneable Blade Antenna

Key features:

- **Multi-Band Tuneable**
- **Compatible with RT-5000 Radio**
- **Height 241mm (9.5 inches)**
- **Gain \geq -14dBi at 30MHz**

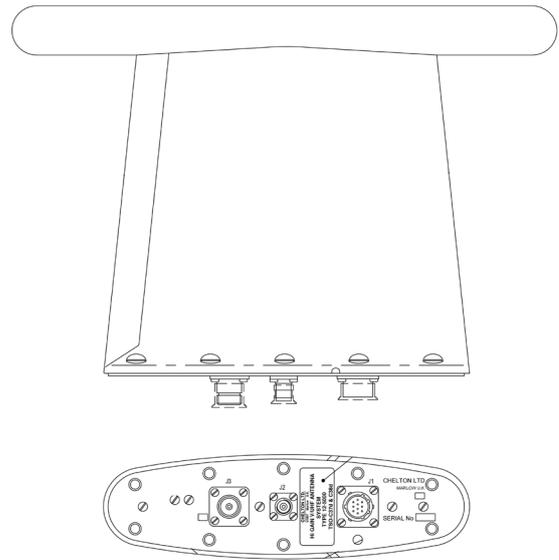
The 12-5002 Antenna is a Multiband Tuneable Antenna designed to provide communications over the frequency band 29.7 MHz to 960 MHz and intended for operation in general subsonic airborne applications.

The antenna comprises three separate radiating elements: The VHF function from 29.7 MHz to 174 MHz is fulfilled by a tuneable structure wherein a network of inductive elements are switched in combination by PIN diode switches to tune the antenna to the frequency selected by the radio. The tuning information is provided by the appropriate logic control unit.

The UHF function 225 MHz to 400 MHz is fulfilled by a passive element. The feed to this is combined with the VHF function via a simple L-C network to allow connection via a single RF connector.

A separate radiating structure provides the 400 MHz to 960 MHz capability via a second RF connector.

The antenna system and Type 7-1351 LCU is a replacement for Antenna Type 12-190-9 and LCU Type 7-19PIN9 providing improved harmonic performance.



ELECTRICAL

Impedance	50 Ω
VSWR	< 2.5:1)
Gain	> -14 dBi at 30 MHz rising to > -6 dBi at 88 MHz > 0 dBi average 108 MHz to 174 MHz > 0 dBi average 225 MHz to 960 MHz
Polarisation	Vertical
Radiation	Omnidirectional

MECHANICAL

Dimensions (LxWxH)	356 x 70 x 241 mm
Weight	1.22 kg
Connector	N Type 30-400MHz TNC 400-960MHz DC: PTO2 12-10P
Platform(s)	Air

ENVIRONMENTAL

Standard	RTCA DO-160F
Continuous Operating Temperature	- 55°C Min + 70°C Max
Altitude	50000 ft
Vibration	RTCA DO-160F, Section 8, Categories U2 and S, Curves C, F, F1, L, M and Y