

# 10-3003-1 10-3003-2

# CHELTON

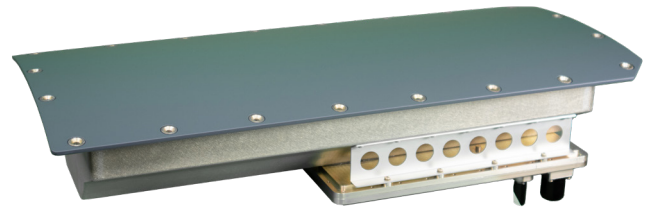
Conformal Tuneable U/VHF Antenna

## Key features:

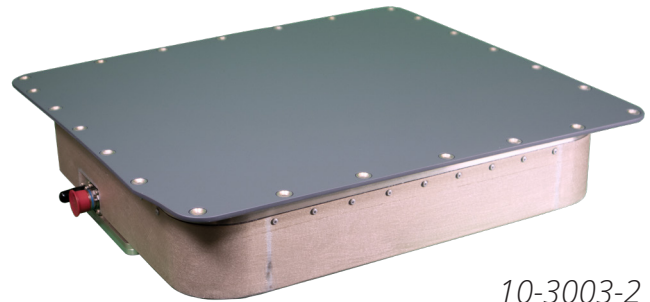
- Fully Conformal
- Lightning protection
- Equivalent performance to 9 inch passive blade (\*10-3003-2)
- Suitable for supersonic applications

Antenna types 10-3003-1 and 10-3003-2 are multiband conformal tuneable antennas designed for fast jets to provide communications in the frequency range from 30 MHz to 400 MHz (with unused frequency gaps in the bands: 88 - 108 MHz and 174 - 225 MHz).

The 7-8001 offers the capability to switch the RF and tuning control information from a pair of U/VHF radios to a pair of 10-3003 antennas, either under manual control via the ASU command interface or automatically on a timed interval. The system is capable of providing an interface to current fast frequency hopping radios and is capable of meeting tuning times with modes such as Havequick II and Saturn.



10-3003-1



10-3003-2

## ELECTRICAL

<b>Impedance</b>	50 Ω
<b>VSWR</b>	30 - 88 MHz < 2.5:1 (return loss > 7.36 dB) 108 - 174 MHz < 2.5:1 (return loss > 7.36 dB) 225 - 400 MHz < 2.5:1 (return loss > 7.36 dB) <i>Loss is through 7-8001 RF switch</i>
<b>Gain</b>	30MHz > -26dBi 400 MHz > +1dBi <i>Gain is volume and aperture size dependent, figures represented here are for 10-3003-2 with approximate aperture of 470mm x 430mm and volume of 20210cm<sup>3</sup></i> <i>Figures quoted include loss through 7-8001 RF switch.</i>
<b>Polarisation</b>	Vertical

## MECHANICAL

<b>Dimensions (LxWxH)</b>	537 x 488 x 131 mm
<b>Weight</b>	6.13 kg
<b>Connector</b>	RF connector TNC Female DC connector D38999/20FC35PN TYPE MIL-DTL-38999M series III

## Standards

<b>Environmental</b>	DO-160
<b>Continuous Operating Temperature</b>	- 62°C Min + 80, 107 °C (int) Max

