

## proTAC 8000 series Tactical Interference Proof Precision GNSS Antennas

*Extremely robust active antennas for GNSS (GPS, Glonass, Galileo...) navigation receivers. They utilize innovative dual quadrature feed technology with up to two stage low noise amplifiers to maximize the rejection of sub-harmonics and L-Band signals.*

### Advantages

(compared to traditional antennas)

- truly circular response over the entire antenna bandwidth
- superior rejection of multipath and cross polarized signals
- maximum filtering against interfering signals
- mechanical design attenuates signals from low elevation (horizon)

### Models

**proTAC 8001** is designed specially for use with proGPS series isolated GNSS signal splitters. Its DC-grounding adds protection towards EMC, static charging and lightning strikes while proGPS series GNSS signal splitters' fully isolated DC feed ensures trouble free use even in aluminum made vessels.

**proTAC 8002** is designed to easily replace existing marine GPS antennas in high interference environments. Its DC-floating design enables the use with any GPS receiver and TNC connector fits to most existing antenna cables.

**A-models** have high quality low noise amplifiers and bandpass filtering in addition to mechanical filtering against low elevation (near horizon) signals like marine VHF, harmonics etc.

**B-models** have in addition to A-model a special two stage low noise amplifier and band bass filtering design in order to further attenuate all unwanted signals and to strengthen its survivability.

**proTAC 8003** is a dual band antenna that supports all of the upper band 1575MHz GNSS positioning signals as well as most important lower band 1225MHz GNSS signals. Its interference proof design is based on the proven proTAC8001 and proTAC8002 series performance. While DC-grounded, it works best with DC-isolated GNSS signal splitters like proGPS series.



*proTAC8001A/B, proTAC8002A/B*



*proTAC8003*

Specifications (T <sub>A</sub> =25°C)			
Model	proTAC 8001A/8002A	proTAC 8001B/8002B	proTAC 8003
<b>GNSS Bands</b>	GPS L1 GLONASS G1 Galileo E1 BeiDou B1		GPS L1/L2 GLONASS G1/G2/G3 Galileo E1/E5b BeiDou B1/B2
<b>Antenna Gain</b>	28dB typical (+/-2dB) noise figure <1.25dB typical	28dB typical (+/-2dB) noise figure <3.5dB typical	26dB typical noise figure 2.5dB typical
<b>Axial Ratio</b>	<1.5dB @zenith typical	<1dB @zenith typical	<2.0dB @zenith
<b>Out of band rejection</b>	< 1500MHz: > 32dB < 1550MHz: > 25dB >1640MHz: > 35dB	< 1550MHz: > 50dB >1640MHz: > 70dB	<1100 MHz: > 36dB <1130 MHz: > 30dB >1340 MHz: > 51dB  <1450 MHz: > 47dB <1520 MHz: > 35dB >1650 MHz: > 30dB >1800 MHz: > 49dB
<b>Connectors</b>	N-female (ANT8001A/B) (shield grounded) TNC-female (ANT8002A/B) (shield floating)		N-female (shield grounded)
<b>Antenna Type</b>	Single band, dual feed, pre-filtered, active GNSS antenna		Dual band, dual feed, pre-filtered, active GNSS antenna
<b>Supply voltage</b>	+3 to +16VDC, 15mA		
<b>ESD protection</b>	15kV		
<b>Mechanical</b>	Radome height: 82mm, width: 91mm Mounting flange width: 140mm		Radome height:116mm width: 91mm Mounting flange width: 140mm
<b>Mounting</b>	140mm flange mount (NATO mount) with 4x 11mm holes DCD 115mm Mounting accessories are available		
<b>Materials</b>	Mounting Flange: passivated and painted aluminum, black Radome: ASA plastic, RAL5000		
<b>Environment</b>	-40 to +85°C IP68		

