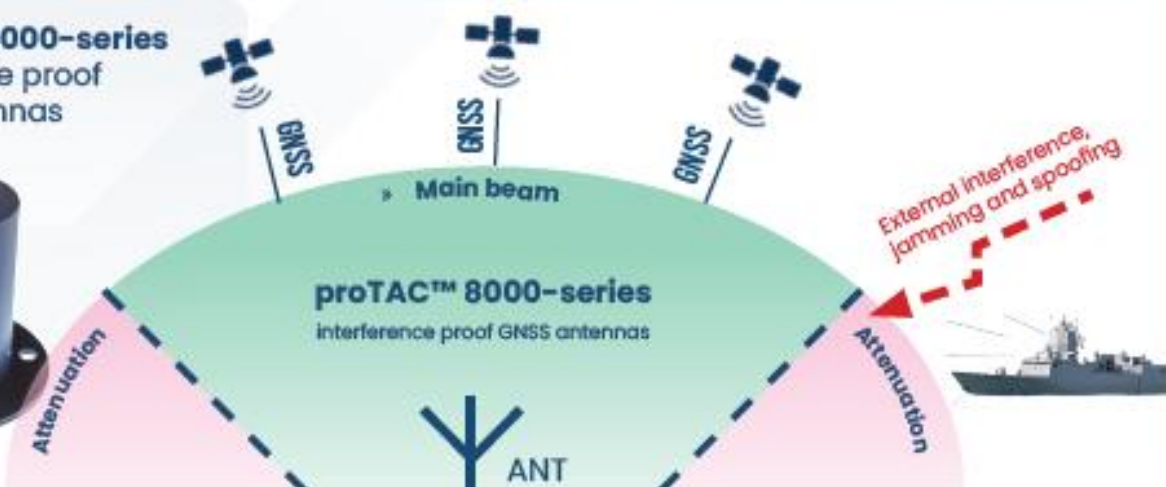


**promarine**

# INTERFERENCE PROOF GNSS SOLUTIONS AGAINST JAMMING AND SPOOFING



**proTAC™ 8000-series**  
interference proof  
GNSS antennas



## STAY CONNECTED

**proTAC™ proGPS™**

**proGPS™ 1000-series**  
active GNSS signal splitters



**proGPS™ 1000-series**  
Strong filtering



**proGPS™ 2000-series** OR **proGPS™ 3000-series**

**proGPS™ 3000-series**  
GNSS monitoring platform



**NMEA**  
Position and  
1 PPS timing

**NMEA**  
Position and  
1 PPS timing

**HDMI + Ethernet**

**External display**  
GNSS situational awareness  
information, visualization  
and warnings

**proGPS™ 2000-series**  
multiband GNSS receivers



Watercat M18#Marine Alutsch



**Interference free communications**

**Trusted at Sea – Proven in Defense**

proTAC 8000-SERIES INTERFERENCE PROOF GNSS ANTENNAS



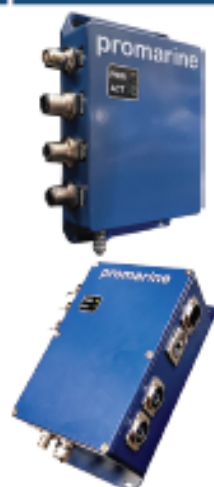
| Electrical Specifications (TA=25°C) |  |   |  |
|-------------------------------------|--|---|--|
| Model                               | proTAC 8001A/8002A   | proTAC 8001B/8002B  | proTAC 8003  |
| GNSS Bands                          | GPS L1<br>GLONASS G1<br>Galileo E1<br>BeiDou B1                                      |   | GPS L1/L2<br>GLONASS G1/G2/G3<br>Galileo E1/E5b<br>BeiDou B1/B2<br>1559 - 1806MHz<br>1189 - 1254MHz  |
| Antenna Gain                        | 28dB typical (+/-2dB)<br>noise figure 1.0dB<br>typical                               | 28dB typical (+/-2dB)<br>noise figure <=1dB<br>typical      | 28dB typical<br>noise figure 2.5dB typical   |
| Out of band rejection               | < 1500MHz: > 40dB<br>< 1525MHz: > 45dB<br>> 1830MHz: > 45dB                          | < 1500MHz: > 40dB<br>< 1540MHz: > 20dB<br>> 1840MHz: > 45dB | < 1100 MHz: > 36dB<br>< 1130 MHz: > 30dB<br>> 1340 MHz: > 51dB<br>< 1450 MHz: > 47dB<br>< 1520 MHz: > 35dB<br>> 1850 MHz: > 30dB<br>> 1800 MHz: > 49dB |
| Connectors                          | N-female (ANT8001A/B) (shield grounded)<br>TNC-female (ANT8002A/B) (shield floating) |   | N-female<br>(shield grounded)  |
| Antenna Type                        | Single band, dual feed, pre-filtered,<br>active GNSS antenna                         |   | Dual band, dual feed, pre-<br>filtered, active GNSS an-<br>tenna   |

proGPS 1120/1130 4-WAY ACTIVE GNSS SIGNAL SPLITTERS



| Electrical Specifications (TA=25°C) |  |  |
|-------------------------------------|--|--|
| Model                               | proGPS 1120  | proGPS 1130  |
| Antenna port (grounded)             | 1575.42 / 1605MHz<br>(pass band 1559-1810MHz)<br>Coax shield connected to case body<br>Antenna power +5VDC 100mA | Lower band 1164-1300MHz<br>Upper band 1559-1810MHz<br>Coax shield connected to case body<br>Antenna power +5VDC 100mA                |
| Receiver ports                      | Upper band 1559-1810MHz<br>Gain: 3dB - 5dB Return loss: -17dB  | Lower band 1164-1300MHz<br>Gain: +1/-1 dB Return loss: -17dB<br>Upper band 1559-1810MHz<br>Gain: +1 / 0 dB<br>Return loss: avg -15dB |
| Galvanic isolation                  | Receiver ports: DC floating Antenna: DC grounded<br>Power supply: DC floating                                    |  |
| Power supply isolation voltage      | 9-36 VDC, 0.2A (max 3W)<br>Supply isolation 500V   |  |
| Port isolation (between outputs)    | >30dB  | >35dB  |
| Connectors                          | N-female   |  |

proGPS 2002 and proGPS 3100 MULTI-BAND GNSS RECEIVERS



| Electrical Specifications (TA=25°C) |  |  |
|-------------------------------------|--|--|
| Model                               | proGPS 2002  | proGPS 3100  |
| GNSS Bands                          | GPS & QZSS L1C/A, L2C, L5; Galileo E1-B/C, E5a, E5b; BeiDou B1, B1C, B2, B2a;<br>NavIC SPS-L5; now with Galileo OSNMA authentication support   |  |
| NMEA output                         | Protocol: NMEA 0183 (RS422)<br>Standard messages: DTM, GGA, GLL, RMC, VTG, ZDA<br>Baud rate: proGPS2002: 4800 (configurable), proGPS3100: 38400 (configurable)   |  |
| Timing signal output                | 1 PPS (RS422)  |  |
| Operating voltage                   | 9-36 VDC, 25 W   |  |
| Active antenna power                | +5 VDC (20 mA)   |  |
| Connectors                          | TNC-female for the antenna<br>MI2 A-coded 8-position connector for NMEA&PPS<br>and 2-position circular male for power<br>(matching female connectors included in the sales pack-<br>age)<br>MI2 A-coded 4-position circular female connector for service | TNC-female for<br>the antenna<br>USB, RJ45 Ethernet,<br>HDMI |