

GNSS receiver with integrated antenna

proGPS™ 2001 is a concurrent GNSS receiver with exceptional performance, which has been achieved by using only the top of the class components.

proGPS 2001 is a high performance, 72-channels concurrent GNSS receiver with advanced jamming and spoofing detection. It's highly configurable, so it should be usable with most of the imaginable systems and other devices. It has very low power consumption levels.

GNSS receiver is included inside an promarine's proTAC family active GNSS antenna. proGPS 2001 has one 5-pin MIL-C connector, from which data and power is provided to/from the device.

proGPS™ receivers also support reception of SBAS broadcast signals. These systems supplement GNSS data with additional regional or wide area GPS augmentation data. Supported SBAS types are GAGAN, WAAS, EGNOS and MSAS.

proGPS2001 Highlights

- Concurrent reception of up to 3 GNSS (GPS, Galileo, GLONASS, BeiDou)
- Industry leading -167 dBm navigation sensitivity
- Security and integrity protection
- Supports all satellite augmentation systems
- Advanced jamming and spoofing detection



Table 1. Technical specification

Receiver type	72-channels concurrent GNSS receiver	LNA gain	28dB typical (+/-2dB) noise figure 1dB typical
Supported channels	GPS L1C/A SBAS L1C/A QZSS L1C/A GLONASS L1OF BeiDou B1 Galileo E1B/C	Out of band rejection	< 1500 MHz: > 32 dB < 1550 MHz: > 25 dB > 1640 MHz: > 35 dB
Time to first fix	Cold start: 26 – 29 s Hot start: 1s	Power supply range	+12 – +24 VDC
Sensitivity	Tracking: -164 - -162 dBm Reacquisition: -159 dBm Cold start: -147 dBm Hot start: -156 dBm	Size	radome height: 108 mm radome width 91 mm flange width: 140 mm
Navigation update rate	5 Hz (Default GPS/GLONASS) 10 Hz (Option GPS only)	Materials	mounting flange: anodized/painted aluminum radome: ASA plastic RAL5000
Interface	UART (Default 4800 baud, 8N1)	Weight	~590g
Communication protocol	NMEA 0183 (Default is version 4.0)	Environment	-40° - +80° IP67