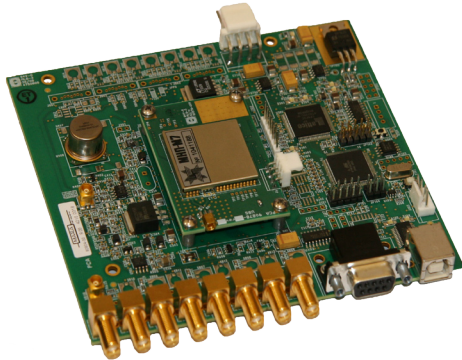


## GPS/GLONASS Receiver

Models: GPR2100GL, GPR2110GL, GPR2120GL, GPR1100GL

GPR2100GL



GPR1100GL



GPR2120GL



### Available Models

- GPR2100GL - OEM board with BNC connectors*
- GPR2110GL - OEM board with SMA connectors*
- GPR2120GL - Enclosed OEM board*
- GPR1100GL - 1RU unit with display and keypad, Ethernet and SNMP*

### Product Features

- *Up to eight 10 MHz Outputs*
- *Up to eight 1pps Outputs*
- *Optional RS232 TOD output for CMMB applications*
- *High performance design, utilizing an ovenized quartz oscillator*
- *Serial port for local console interface*
- *PC GUI control software available for GPR2100GL, GPR2110GL and GPR2120GL*
- *WEB GUI and SNMP control over Ethernet for GPR1100GL*

### Description and Application

Based on a GPS/GLONASS receiver module, the UBS GPS/GLONASS receiver is a compact, cost effective, GPS/GLONASS locked timing reference.

Designed for applications where 10MHz/1pps clock sources are required to synchronize multiple transmission devices, this module provides an accurate high quality signal set. Multiple outputs enable all base station/site equipment to share a single accurate and stable reference source.

Optionally, UBS GPS/GLONASS receivers provide TOD information via a serial RS232 port, compliant with CMMB standard requirements.

UBS GPS/GLONASS receivers are available in three basic models: OEM board (GPR2100GL and 2110GL), enclosed OEM board (GPR2120GL) and 1U unit (GPR1100GL), equipped with LCD display, keypad and Ethernet connection.

The GPS/GLONASS receiver unit includes a GPS/GLONASS receiver, as well as a 10 MHz and 1pps distribution system.

GPR1100GL also includes a controller module, supporting WEB GUI and SNMP interfaces over an Ethernet connection.

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### Product Specifications

<b>General Characteristics</b>	<b>Receiver Architecture</b>	L1 - 1575.42 MHz / GLONASS - L1 frequency range	
	<b>32 parallel channels</b>	GPS C/A code (1.023 MHz chip rate) / GLONASS PT code - WASS / EGNOS Code plus carrier tracking (carrier aided tracking)	
	<b>Tracking Capability</b>	24 simultaneous satellite vehicles	
<b>Performance Characteristics</b>	<b>Acquisition Time (Time To First Fix, TTFF) (Tested at -40°C to +85°C)</b>	< 15 s typical TTFF-hot (with current almanac, position, time and ephemeris) < 40 s typical TTFF-warm (with current almanac, position, time) < 150 s typical TTFF-cold (No stored information)	
	<b>Positioning Accuracy</b>	GPS: < 10m / 20m GLONASS: < 10 m / 20m	
	<b>Timing Accuracy</b>	< 100 ns	
	<b>1 PPS + 10 MHz</b>		
	<b>Holdover Time</b>	≤ 2.5 µsec during 2 hours	
	<b>Antenna</b>	<b>Antenna Requirements</b>	Active antenna module powered by receiver module (80mA max) 10 dB to 50 dB external antenna gain measured at receiver input 5 Vdc antenna power provided via header connector (3 Vdc can be provided on demand) Recommended 5 Vdc antenna: Bullet III GPS antenna - Trimble model no. 57860-10
	<b>Connector</b>	SMA (F), 50 Ω (F-type optional) - models GPR2120GL, GPR1100GL MMCX RF – models GPR2100GL, GPR2110GL	
<b>Serial Communication</b>	<b>Output Messages</b>	MNP Binary Protocol, UBS Proprietary Protocol - Binary protocol	
<b>Electrical Characteristics</b>	<b>Output Signal: 10MHz</b>	10 dBm +/-2.5 dBm, Sinewave Harmonic Level: -30 dBc max Phase Noise: 1 Hz: < -75 dBc/Hz 10 Hz: < -110 dBc/Hz 100 Hz: < -125 dBc/Hz 1 kHz: < -135 dBc/Hz 10 kHz: < -155 dBc/Hz 100 kHz: < -155 dBc/Hz Connector: BNC (F), 50 Ω (SMA optional), up to 8 outputs	
	<b>Output Signal: 1PPS</b>	1PPS, TTL Connector: BNC (F), 50 Ω (SMA optional)	
	<b>Serial TOD (optional):</b>	TOD information on RS232 port - for CMMB applications Connector: DB9 (F)	
	<b>Control Interfaces</b>	1 x RS232 - all models, 1 x RS485 - all models, 1 x USB1.1 - GPR2100GL, GPR2110GL and GPR2120GL only Ethernet 10/100 Base-T on RJ45 - GPR1100GL only	
	<b>Alarm Relay</b>	Dry Contact Alarm Relay available on RS485 connector - GPR1100GL only	
	<b>External Power Supply GPR2100GL, 2110GL, 2120GL</b>	12 Vdc; 50 mVp-p ripple (max); max 600 mA	
	<b>AC Power – Model GPR1100GL</b>	100 - 240 VAC, 50 - 60 Hz; max 60 VA	
	<b>Environmental Characteristics</b>	<b>Operating Temperature</b>	0°C to +55°C (32°F to +131°F)
		<b>Storage Temperature</b>	-40°C to +85°C (-40°F to +185°F)
		<b>Relative Humidity</b>	max. 95%, non-condensing
	<b>Altitude</b>	18,000 m	
<b>Mechanical</b>	<b>Dimensions (W x H x D)</b>	482.6 mm x 44mm x 330.2mm (19" x 1RU x 13") – GPR1100GL 139.7mm x 25.4mm x 139.7mm (5.5" x 1" approximately x 5.5") - GPR2100GL, GPR2110GL 170.18mm x 30.5mm x 149.9mm (6.7" x 1.2" x 5.9") - GPR2120GL	
	<b>Weight</b>	GPR1100GL –3 kg (6 lbs.), GPR2120GL – 0.8kg (1 lb. and 12 oz)	