

OTGPS1U



OTGPS1U is a time and frequency reference generator (10 MHz and 1 PPS) in a compact 1U Rack form factor.

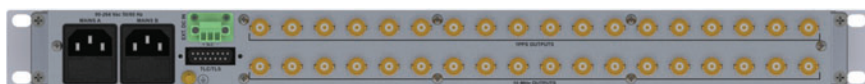
(up to 30 minutes of optimal functioning if power supply temporarily fails), and clever switch logic processing.

OTGPS1 has been designed to bring the maximum level of flexibility and reliability to the end-user broadcaster, featuring 2 redundant and hot swappable power supply units, 2 redundant and high precision GPS / GLONASS receivers with batteries

OTGPS1U brings fast GPS or GLONASS locking and very high precision and stability specifications, and allows broadcasters to save space and additional units by providing up to 18 independent output couplers (10 MHz and 1 PPS).

MAIN FEATURES

- Compact 1U 19" Rack chassis
- Double redundant GPS / GLONASS receiver modules with fast signal acquisition, and back-up batteries
- Extended hold over with proprietary algorithms
- 18 separate 10 MHz outputs and 18 separate 1 PPS outputs
- Hot swappable and redundant power supply units (AC+AC, AC+DC, or DC+DC)
- Web interface and SNMP management
- Remote control and GPIO



OTGPS1U back panel

SPECIFICATIONS

FREQUENCY REFERENCE

Output signals	10 MHz sine wave
Output level	+8 dBm, ±2 dB
Number of outputs	18 independent
Output impedance	50 Ohm
Output connectors	BNC (f)
Noise figure 100 Hz	-140 dBc/Hz, typical
Noise figure 10 kHz	-150 dBc/Hz, typical
Stability	1e-12 daily average with disciplined OCXO
Initialization time	< 4 minutes

TIME REFERENCE

Output signals	1 PPS, 5 V p.p. TTL, 100 µs
Number of outputs	18 independent
Output impedance	50 Ohm
Output connectors	BNC (f)
PPS accuracy	< 50 nsec
Holdover stability	± 5 µsec after 5 hours of GPS / GLONASS signal absence (optional 1 µs after 24 hours)

GPS / GLONASS CHARACTERISTICS

Receiver	L1 1575,42 MHz (GPS) or L1 1602,00 MHz band (GLONASS)
Tracking	Correlation on 50 channels
Antenna connectors	N (f), 50 Ohm
First fix time	< 32 sec. with satellite signals > -130 dBm

REDUNDANCY

2° GPS / GLONASS module	Yes (Optional)
2° Power supply module	Yes (Optional)
Commutation function	Automatic

ELECTRICAL

Network	Single Phase 90-240 V- 50/60 Hz, IEC320 C14 Plug
Battery	18 - 75 Vdc rear connector Phoenix contact
Backup battery	3,7V 1020 mA (maintains functioning the GPS/GLONASS modules in case of absence of power supply for approx 30 minutes, avoiding the restart of the disciplining procedure due to short power supply interruptions)

ENVIRONMENTAL

Operating temperature range:	-5°C ÷ 40°C
Max. relative humidity:	90% non condensing
Max. operating altitude:	2500 m. a.s.l. (>2500 m. optional)

MECHANICAL

Chassis:	19" 1U Rack
Width:	482 mm
Height:	44 mm
Depth:	300 mm without connector

CONTROLS

RS-232 on Connector DB15 (f)
 SNMP on Ethernet 10/100
 Web based GUI Ethernet 10/100
 2 relay contacts NO,NC,COM
 2 coupled photo inputs

Specifications are subject to change without notice.

ORDERING INFO

DESCRIPTION	Model
Reference generator locked to GPS / GLONASS signal, 18 x 10 MHz out + 18 x 1 PPS out	OTGPS1U
OPTIONS	
Redundant GPS / GLONASS receiver plug-in board with auto change-over	Opt. G2
Redundant power supply, hot-swappable unit	Opt. A
DC IN option	Opt. V
26 dB LNA GPS / GLONASS antenna including mounting kit and 25 mt. coaxial cable	Opt. KA



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