



Meinberg Radio Clocks

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GPS170BGT: GPS Satellite Receiver in rack mount enclosure

GPS clock appliance in rack mount enclosure for customized time and frequency synchronization systems.

Key Features

- 2 time trigger inputs
- LC-display, 4 x 16 characters
- 2 RS232 interfaces
- Integrated [1] [satellite receiver GPS170](#)
- Frequency synthesizer
- [2] [Antenna-converter unit](#)
(included)

Description

The GPS170 satellite clock in 19" enclosure is the base for all our GPS synchronized systems for 3U and more. The GPS170BGT consists of a power supply (input voltage determined by the customer, outputs as needed) and the GPS reference clock and can be customized with different modules and output drivers to fulfill your needs.

For example the following outputs are possible:

IRIG Time Code

IRIG, IEEE1344, AFNOR NFS 87-500

- * DC Level Shift (DCLS) or modulated (AM)
- * via BNC, DSUB(RS422), DFK or Fiber Optic (DCLS)

Pulses

- * pulse per second(PPS), pulse per minute (PPM), DCF modulation marks (DCF_MARK), pulse per hour (PPH), free programmable pulses
- * as TTL, RS232, via Optokoppler, or Relays (PhotoMos)
- * via DSUB, BNC, DFK

Frequencies

fixed frequencies, frequency synthesizer from 1Hz-10MHz, E1, T1 (telcom frequencies)

* as sine wave, sine wave with low phase noise or square pulse frequency

* via BNC or Twinax

Serial Interfaces

* RS232, RS422, current loop (20mA)

* via DSUB9, DSUB25, Fiber Optic ST

Network Interfaces

* NTP, PTP (IEEE 1588), X-Port for configuration and control (SNMP)

* via RJ-45, Fiber Optic ST, Fiber Optic SC

Please tell us the number, format and connector of your desired configuration and we will make you an appropriate offer.

Characteristics

Type of receiver	6 channel GPS C/A-code receiver
Type of antenna	Remote powered [3] GPS antenna/converter unit , up to 300m distance to antenna with RG58 and up to 700m distance with RG213 cable
Display	LC-display, 4 x 16 characters
Interface	Two independent serial RS232-interfaces, menu configurable
Data format of interfaces	Baud rate: 300, 600, 1200, 2400, 4800, 9600, 19200 Baud Data format: 7N2, 7E1, 7E2, 8E1, 8N1, 8N2 Time telegram: [4] Meinberg Standard-Telegram , SAT, Uni Erlangen (NTP), SPA, Sysplex, RACAL, NMEA0183 (RMC,GGA,ZDA), Meinberg GPS, COMPUTIME, ION oder [5] Capture-Telegramm
Physical dimensions	485mm x 132mm x 290mm
Time-Trigger inputs	Resolution: 100 nsec, triggered by falling TTL slope Time of trigger event readable via RS232-interface
Alarm output	Synchronous state of the module, relay output (changeover contact)

Antenna connector	type-N connector
Form Factor	Rackmount 3U chassis for standard 19" racks
Ambient temperature	0 ... 50°C / 32 ... 122°F
Humidity	Max. 85%
Scope of supply	GPS antenna/converter unit and 20 m Cable RG58
Options	Additional output signals generated by [6] GPS170
RoHS-Status of the product	This product is fully RoHS compliant
WEEE status of the product	This product is handled as a B2B category product. In order to secure a WEEE compliant waste disposal it has to be returned to the manufacturer. Any transportation expenses for returning this product (at its end of life) have to be incurred by the end user, whereas Meinberg will bear the costs for the waste disposal itself.

Manual

The english manual is available as a PDF file: [7][Download \(PDF\)](#)

Links:

- [1] <http://www.meinberg.de/english/products/3u-gps-clock-ic-display.htm>
- [2] <http://www.meinberg.de/english/products/gps-antenna-converter.htm>
- [3] <http://www.meinbergglobal.com/english/products/gps-antenna-converter.htm>
- [4] <http://www.meinberg.de/english/specs/timestr.htm>
- [5] <http://www.meinberg.de/english/specs/capstr.htm>
- [6] <http://www.meinberg.de/english/products/3u-gps-clock-ic-display.htm>
- [7] <http://www.meinberg.de/download/docs/manuals/english/gps170bgt.pdf>