



Meinberg Radio Clocks

Lange Wand 9
31812 Bad Pyrmont, Germany
Phone: +49 (5281) 9309-0
Fax: +49 (5281) 9309-30
<https://www.meinbergglobal.com>
info@meinberg.de

GEN170TGP: DCF77 Code Generator in desktop case

The GEN170TGP generates a DCF77 compatible signal with programmable date and time information. So it is possible to check the correct funktion of a radio clock or decoding software at a specific time. GEN170TGP is a set of equipment composed of a GEN170, a power supply and the additional DCF77 simulator [1][SIM77P](#), all installed in a metal desktop case and ready to operate. A DCF77 radio clock can be connected directly via the rear panel antenna output connector. The interfaces and signals provided by GEN170 and SIM77 are accessible via connectors in the rear panel of the case.

Key Features

- AM and PM
- Leap Second Capability
- Daylight Saving Capability
- TCXO Reference Frequency

Description

The time code generator GEN170 has been designed to generate all signals required to control or simulate a DCF77 compatible long wave transmitter or provide the reference time for an NTP server:

- * 77.5 kHz carrier frequency
- * Second marks to modulate the carrier's amplitude
- * PRN sequence and PRN window to modulate the carrier's phase
- * Pulse-per-Second (PPS) output

Additionally, an IRIG or AFNOR time code signal is generated, and a serial time string can be transmitted which includes the generated absolute date and time.

Internal date and time is always based on UTC (Universal Time, Coordinated; formerly GMT, Greenwich Mean Time). A configurable time offset can be applied to the UTC time base to compute a local standard time. Beginning and end of a period of daylight saving time can either be computed year by year based on a simple, configurable algorithm, or can be configured for the current year. GEN170 generates the proper changeover announcement flags as required by the DCF77 coding scheme.

Additionally, a date for insertion of a leap second can be configured. GEN170 automatically generates the coding sequences to announce the leap second as required for DCF77 and NTP, and also inserts the leap second correctly.

Characteristics

Electrical Connectors	2 x BNC female connector (antenna output twofold, optional fourfold) 25pin DSUB connector (RS232 interface) power cord receptacle (230V)
Operating Voltage	230V/50Hz
Form Factor	Metal desktop case Schroff Propac, front panel: 3U/42HP protection rating: IP20
Physical Dimensions	257mm x 157mm x 316mm (width x height x depth)
Warranty	Three-year warranty
RoHS Status of Product	This product is fully RoHS-compliant.
WEEE Status of Product	This product is handled as a B2B (Business to Business) category product. To ensure that the product is disposed of in a WEEE-compliant fashion, it can be returned to the manufacturer. Any transportation expenses for returning this product (at end-of-life) must be covered by the end user, while Meinberg will bear the costs for the waste disposal itself.

Manual

The English manual is available as a PDF file: [2][Download \(PDF\)](#)

Links:

[1] <https://www.meinbergglobal.com/english/products/>

[2] <https://www.meinbergglobal.com/download/docs/manuals/english/gen170tgp.pdf>