TCG510: Time Code Generator (Eurocard)

IRIG or AFNOR time code generator with various outputs

Important Note

This product is no longer available and may have been replaced by a newer product. We will, of course, continue to provide support for units that have already been purchased and are still in use. Please contact our [1]Sales Department for further details.

This product has been discontinued and has been replaced with: [2]

Key Features

- Unmodulated outputs with TTL, RS232 and RS422 level
- Status LED
- Time information coded in IRIG-A/B or AFNOR format
- Controled by GPS161/GPS163/GPS167 or PZF509
- High accurate sinewave carrier for modulated output
- Optional onboard diplexer with 4 outputs

Description

The board TCG510 has been designed for the generation of IRIG and AFNOR standard time codes. Particularly it is intended for operation with the Meinberg GPS receivers GPS161, GPS163 and GPS167 as well as the DCF77 correlation receiver PZF509. Apart from the digitally generated amplitude-modulated code, TCG510 also provides the unmodulated DC level shift code. The modulated sine wave carrier and the board's internal time pattern are derived from the radio clock's disciplined oscillator. For special applications, the board can be equipped with a freewheeling oscillator (OCXO or TCXO). Signals required for operation are a synchronous pulse per second signal (PPS), a serial time string at RS232 level, and a 10MHz reference clock as mentioned above.

Characteristics

Status Indicators	Synchronous state of time code generator indicated by LED
Input signal	Pulse per second, active high (TTL level) serial time string (RS232)
Frequency inputs	10MHz oscillator clock (TTL level)
PWM Time Code Output	TTL into 50 ohm (active low and active high) RS232 (active low and active high) RS422 Open drain transistor output
AM Time Code Output	AM sine wave signal: IRIG: 3Vpp (MARK), 1Vpp (SPACE) into 50 ohm AFNOR: 2.17Vss (MARK), 0.688Vss (SPACE) into 50 ohm
Supported Timecode Formats	A002: 1000pps, DCLS signal, no carrier, BCD time of year A132: 1000pps, AM sine wave signal, 10 kHz carrier, BCD time of year A003: 1000pps, DCLS signal, no carrier, BCD time of year, SBS time of day A133: 1000pps, AM sine wave signal, 10kHz carrier, BCD time of year, SBS time of day B002: 100pps, DCLS signal, no carrier, BCD time of year B122: 100pps, AM sine wave signal, 1 kHz carrier, BCD time of year B003: 100pps, DCLS signal, no carrier, BCD time of year, SBS time of day B123: 100pps, AM sine wave signal, 1kHz carrier, BCD time of year, SBS time of day IEEE1344: Code according to IEEE1344-1995, 100pps, AM sine wave signal, 1kHz carrier, BCD time of year, SBS time of day, IEEE1344 expansion for date, time zone, daylight saving and leap second in Control Funktions Segment AFNOR: Code according to NFS-87500, 100pps, AM sine wave signal, 1kHz carrier, BCD time of year, complete date, SBS time of day
Dimensions of the front panel	4HP/3U (20mm x 128mm)
Electrical Connectors	64 pin rear VG edge connector DIN 41612 BNC connector for the sine wave output available in the frontpanel

Operating Voltage	+5 V DC
Current Draw	ca. 300mA
Board type	Eurocard
Board Dimensions	160 mm x 100 mm, 1,5 mm Epoxy
Supported Temperature	Operational: 0 - 50 °C (32 - 122 °F) Storage: -20 - 70 °C (-4 - 158 °F)
Supported Humidity	Max. 85 % (non-condensing) at 40 °C
Options	Diplexer for modulated signal, four outputs
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: [3]Download (PDF)

Links:

[1] mailto:sales@meinberg.de
[2] https://www.meinbergglobal.com/english/products/TCR180.htm
[3] https://www.meinbergglobal.com/download/docs/manuals/english/tcg510.pdf