TCR509: IRIG Time Code Receiver

IRIG Time Code Receiver TCR509 capable of receiving time syncronisation information in IRIG-A/B or AFNOR format

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This product is no longer available and may have been replaced by a newer product.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

- 2 RS-232 interfaces
- Status LED
- DCF77-simulation
- Reception of time code formats IRIG-A/B or AFNOR NFS 87-500

Description

The board TCR509 has been designed for the reception of the IRIG code formats A133 and B123, as well as the translation of these received IRIG codes into a serial telegram and a pulse telegram as broadcasted by the German time code transmitter DCF77. TCR509 can perform a re-calculation of UTC from IRIG time. A buffered real time clock keeps time and date after power down. The receiver's automatic gain control (AGC) allows the reception of IRIG signals within an amplitude range from 600mV to 8V (peak to peak). The board is equipped with a flash memory and a bootstrap loader which allows to update the systems firmware via serial port. A LED display which shows time and date is available on request.

Characteristics

Input signal	IRIG-A/B Signal. The potential free input is terminated in 600 Ohms, optional available 50 Ohms.
Accuracy free run	$\pm 1 \cdot 10^{-6}$ if the decoder has been synchronous for min. 1h
Pulse Outputs	Pulse per sec. (PPS) at TTL level, positive and negative going edge, pulse length 200ms. Four configurable TTL level outputs and four configurable potential free current loop outputs that can issue either PPS or a DCF-Mark simulation.
Precision of timebase	+/-5us referred to reference marker in synchronous mode
Interface	two independent RS232 ports COM0 and COM1 (COM1 RS485 optionally).
Serial Time String Output	Baudrates: 2400, 4800, 9600, 19200, Framing: 7E2 or 8N1 Modes: Telegram per second or on request. Telegram: 32-Bytes ASCII with time and date information
Dimensions of the front panel	4HP/3U (20mm x 128mm)
Electrical Connectors	64-pin rear VG edge connector DIN 41612 SMB male connector
Power Consumption	ca. 1W
Backup Battery Type	When main power supply fails, hardware clock runs free on quartz basis, life time of lithium battery min. 10 years
Operating Voltage	+5 V DC
Current Draw	ca. 200mA
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

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/tcr509.pdf