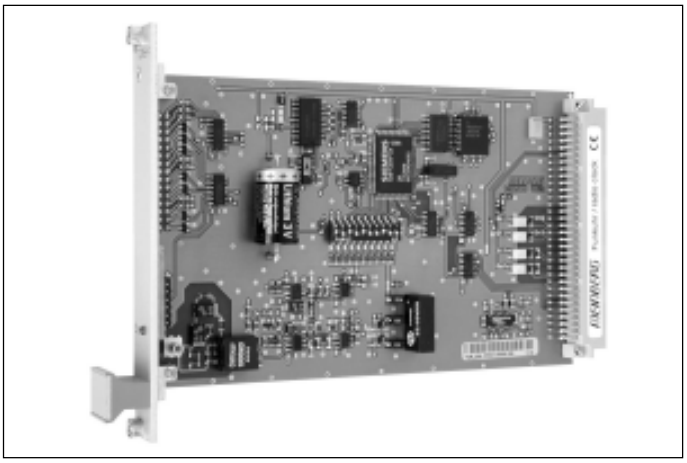
TCR509 IRIG A/B Receiver



- **Reception of time code formats IRIG-A/B or AFNOR NFS 87-500**
- **DCF-Simulation**
- **two asynchronous serial ports**
- **Status LED**

Function: The board TCR509 was 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 transmitted by the german time code station 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 receivers 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.

Inputs: IRIG-A/B Signal. The potential free input is terminated in 50 Ohms, also available 600 Ohms.

IRIG-Codes: IRIG-A133 and B-123, AFNOR NFS 87-500 with special firmware, other codes on request

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.

Serial Ports: two independent RS232 ports COM0 and COM1 (COM1 RS485 optionally).
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

Accuracy of timebase: +/-5us referred to reference marker in synchronous mode

XTAL Accuracy: 10^{-6} if the decoder has been synchronous for min. 1h

Backup battery: In case of supply voltage failure the on-board RTC keeps the time based on XTAL for about 10 years. RTC is supplied by a lithium battery.

Power Requirements: +5V, @200mA if option LED-Display is installed

Connectors: 64 pin rear VG edge connector DIN 41612
Subminiature Coax HF-Connector (SMB)

Physical Dimension: Eurocard 100mm x 160mm, 1.5mm Epoxy

Front Panel: 4HP/3U (20mm wide x 128,4mm high)

Ambient Temperature: 0 ... 50°C

Humidity: 85% max.