

Transceiver Modules TCM 310, TCM 310C, and TCM 310U

TCM 310 enables the realization of gateways for the EnOcean 868 MHz, 315 MHz, and 902 MHz radio systems. It provides a bi-directional radio interface at one end and a bi-directional serial interface at the other end. Radio messages are sent transparently through the serial interface in both directions from and to an externally connected host processor or host PC. In addition control commands can be sent from the host, e.g. to configure the repeater functionality or to manage the Smart Ack functions. TCM 310 can act as postmaster for up to 15 bi-directional sensors using Smart Ack technology.

Features

- Smart Ack controller functionality
- Transparent radio channel
- Programmable repeater functionality (1 / 2 Level)
- ESP3 support (EnOcean Serial Protocol V3)
- Not API programmable!



Product variants

- TCM 310/310C/TCM310U: SMD mountable module for use with external antenna (868/315/902MHz)

Type

TCM 310
TCM 310C
TCM 310U

Ordering Code

S3003-K310
S3033-K310
S3053-K310

Features overview

Antenna	External whip or 50Ω antenna mountable
Frequency	315.0 MHz (TCM 310C) / 868.3 MHz (TCM 310) / 902.875 (TCM 310U)
Radio Standard	EnOcean 868 MHz/315 MHz: ISO/IEC 14543-3-10
Data rate/Modulation type	125 kbps / ASK(868 MHz, 315 MHz), FSK (902MHz)
Receiver Sensitivity (at 25°C)	typ. -96 dBm (868MHz), -98 dBm (315MHz, 902MHz)
Conducted Output Power	typ. 3 dBm (868MHz, 315MHz), typ. 1 dBm (902MHz)
Power Supply	2.85...3.5V
Serial Interface	UART
Current Consumption	Receive mode: 33 mA Transmit mode: 24 mA
Dimensions of PCB	22x19x3 mm
Operating temperature	0 to +65°C
Radio Regulations	R&TTE EN 300 220 (TCM 310) FCC CFR-47 Part 15 (TCM 310C, TCM 310U)