

## 2.4 GHz IEEE 802.15.4 Transceiver TCM 515Z

**TCM 515Z enables the realization of transparent transceiver gateways and for EnOcean systems communicating based on the 2.4 GHz IEEE 802.15.4 radio standard.**



TCM 515Z provides a transparent radio link between EnOcean 2.4 GHz devices and an external host connected via the standardized ESP3 interface (EnOcean Serial Protocol V3).

TCM 515Z receives and transmits radio telegrams based on a whip antenna connected to the host PCB.

TCM 515Z forwards received 2.4 GHz IEEE 802.15.4 radio telegrams to an externally connected host processor or host PC via the ESP3 interface.

IEEE 802.15.4 messages received from an external host via the ESP3 interface will be transmitted by TCM 515Z as 2.4 GHz radio telegrams.

The ESP3 interface of TCM 515Z provides the option to select a higher ESP3 interface speed (460.800 Bit per second).

TCM 515Z is implemented as 31 pin reflow-solderable module in an optimized form factor to enable size constrained applications.

TYPE  
**TCM 515Z**

ORDERING CODE  
**S3073-K515**

### Features overview

<b>Antenna</b>	External 50 Ohm or whip antenna (connected at host board)
<b>Supported Radio Frequency Range</b>	Radio channel 11 ... 26 according to IEEE 802.15.4 standard
<b>Default Radio Channel</b>	IEEE 802.15.4 radio channel 11
<b>Receiver Sensitivity (at 25°C) <sup>(1)</sup></b>	Minimum: -92dBm / Typical: -95 dBm
<b>Transmit Power (at 25°C)</b>	Minimum: 0dBm / Typical: +2 dBm
<b>Power Supply</b>	3.3 V +- 10%
<b>Serial Host Interface</b>	UART according to ESP3 Standard with Turbo Mode Option
<b>Current Consumption (typ, at 25°C)</b>	Transmit: 20mA, Receive: 15 mA
<b>Module Dimensions</b>	19.0 x 14.7 x 3.0 mm (each dimension +-0.3 mm)
<b>Operating Temperature</b>	-25°C ... 85°C
<b>Radio Regulation</b>	RED (Europe), FCC (US), ISED (Canada)

Note (1): RX sensitivity based on the combination of 3 subtelegrams