

## Wireless Transceiver Module for LED Controllers

### TCM 330 / TCM 330U

TCM 330 and TCM 330U are wireless transceivers with integrated firmware dedicated to LED controller applications.

The integrated firmware supports daylight harvesting scenarios, occupancy control and manual dimming with input from self-powered wireless switches and sensors.

TCM 330 and TCM 330U provide a comprehensive solution for LED lighting control based on input from switches, occupancy sensors, light sensors, central gateways and demand response controllers.

TCM 330 and TCM 330U provide the following external interfaces:

- n PWM output (for 0-10V interface)
- n External relay control with zero cross detection functionality
- n 2 digital outputs for LEDs and 2 digital inputs for buttons
- n I2C connection to external parameter memory (external EEPROM)



LED controllers based on TCM 330 and TCM 330U can act as programmable repeater to extend the wireless communication range.

TCM 330 and TCM 330U also integrate remote commissioning functionality which can be used for wireless configuration with a suitable remote commissioning tool such as Navigan™.

TCM 330 and TCM 330U firmware can be extended with customer specific functionality using the Dolphin API.

TYPE	ORDERING CODE
TCM 330	S3003-K330
TCM 330U	S3053-K330

### Features overview

Power supply	3.0 ... 3.3 V
Operating current	Receive mode: typ. 33 mA Transmit mode: typ. 24 mA
Antenna	TCM 330: External antenna (maximum 0 dBi gain) TCM 330U: Modular approval for ¼ wave whip, helical, and chip antenna
Frequency / Radio standard	TCM 330: EnOcean 868.3 MHz TCM 330U: EnOcean 902.875 MHz
Receiver sensitivity (at 25°C)	TCM 330: typ. -96 dBm TCM 330U: typ. -98 dBm
Conducted output power	TCM 330: typ. 1 dBm
Radio regulations	R&TTE (Europe), FCC CFR-47 Part 15 (US), IC (Canada)
Control outputs	Relay control and PWM
User interface	2 digital inputs (LRN, DIM), 2 digital outputs for LEDs
Supported EEPs	Occupancy sensors A5-07-01, A5-07-02, A5-07-03 Light sensors A5-06-02, A5-06-03 Rocker switch F6-02-02 Central controller A5-38-08 Demand response A5-37-01 Status message D2-40-00
Dimensions	22 x 19 x 3 mm
Operating temperature	-25°C up to +85°C