

Transmitter Module PTM 33x / PTM 33xC / PTM330U

The radio transmitter module family PTM 330 from EnOcean enables the implementation of wireless sensors and switches without batteries.

Functional Principle

When an energy pulse is supplied (e.g. by the motion energy harvester ECO 200 from EnOcean) an RF telegram is transmitted including a unique 32-bit module ID, the polarity of the energy pulse, and the operating status of 4 digital inputs. The RPS telegram content can be configured if other content is needed.

PTM 330 can be connected to ECO 200 via a contact spring. There are two meander structures on the PCB which allow usage of a rubber pad to set the level of two digital inputs.

Alternatively PTM 330 can be mounted as an SMD component onto a host PCB. In this case energy supply pins and digital input pins are accessible via contact pads.

There are three frequency variants – PTM 33x in 868 MHz, PTM 33xC in 315 MHz and PTM 330U using 902.875MHz.



| Type | Ordering Code |
|----------|---------------|
| PTM 330 | S3001-A330 |
| PTM 332 | S3001-A332 |
| PTM 330C | S3031-A330 |
| PTM 332C | S3031-A332 |
| PTM 330U | S3051-A330 |

There are two packaging variants for PTM 330:

- PTM 332/332C: Tape & reel for SMD mounting (no pre-installed antenna)
- PTM 330/330C/330U: Card board box (pre-installed whip antenna)

Features overview

| | |
|------------------------------------|--|
| Power supply | ECO 200 or equivalent energy pulse |
| Antenna | pre-installed whip antenna PTM 330/330C/330U external 50 Ohm or whip antenna PTM 332/332C |
| Frequency | 868.3 MHz (PTM 33x) / 315.0 MHz (PTM 33xC) / 902.875 MHz (PTM 330U) |
| Transmission power | typ. 3 dBm (PTM 33x, PTM 33xC) / 1dBm (PTM 33xU) at antenna base |
| Data rate / Modulation type | 125 kbps / ASK(315MHz, 868MHz), FSK(902MHz) |
| Telegram type | RPS of type 2 (allows interpretation of operating two buttons simultaneously) |
| Digital inputs | 4 |
| Transmission range | up to 200 m free field, up to 30 m indoor |
| Module dimensions | 26.2 x 21.15 x 3.5 mm |
| Operating temperature | -25 up to +65 °C |