

Operational Description

The ZGB.357.PA.1.0 module (XFFZGB357PA10) is a ZigBee radio transceiver with integrated microcontroller operating in the 2.4GHz ISM band. The radio operates according to the IEEE 802.15.4 standard and employs DSSS and O-QPSK modulation. The EUT employs onboard shielding and internal ground plane. The antenna is a 50 ohm ceramic chip tuned to match the RF circuit of the radio transceiver.

The ZGB.357.PA.1.0 is provided as a module and is typically mounted to an incorporating products PCB. Mounting is achieved via surface mount, edge connector or SIP connector(s).

The module is typically used in automation applications where it will transmit small packets of command and control information. For example turning a light switch on or off, adjusting a thermostat, reading energy consumption data, etc.

The following PHY radio information is taken from the IEEE 802.15.4 spec section 6.1.1

| PHY (MHz) | Frequency band (MHz) | Spreading parameters | | Data Parameters | | |
|-----------|----------------------|----------------------|------------|-----------------|-------------------------|-------------------|
| | | Chip rate (kchip/s) | Modulation | Bit rate (kb/s) | Symbol rate (ksymbol/s) | Symbols |
| 2450 | 2400-2483.5 | 2000 | O-QPSK | 250 | 62.5 | 16-ary Orthogonal |