

ZICM2410P2 Theory of Operation

CEL's MeshConnect™ Extended Range module delivers industry-leading range, high performance, and a rich feature set, all at a surprisingly low cost.

The ZICM2410P2 module is based off of CEL's ZIC2410 transceiver platform. It combines this transceiver IC with an on-board 100mW Power Amplifier, LNA, TX/RX switches and an integrated trace antenna.

The ZIC2410 transceiver is a full single-chip solution that is compliant to the IEEE802.15.4 and ZigBee specifications and is a complete wireless solution for ZigBee applications such as home control and sensor networks. It consists of an RF transceiver with baseband modem, a hardwired MAC and an embedded 8051 microcontroller with internal flash memory for application programs. It also includes several general-purpose I/O pins and many peripheral devices such as a timer and UART. The chip targets very low power and low voltage applications.