



Theory of Operation/Technical Description – IC: ID 11019A-092107

Product name: **ATZB-S1-256-3-0-UF**

- RF circuit function:

Depending on end-user design requirements, The ATZB-S1-256-3-0-UF ZigBit can operate as self-contained sensor node or it can be paired with a host processor driving the module over a serial interface.

The product has an ATmega256RFR2 SoC integrated with Low Power 2.4GHz Transceiver. Module has a configurable output power with 20dbm maximum output power.

- RF signal flow:

The TRX IC outputs a differential RF signal- RFP & RFN which is fed to the balun. Single-ended RF output from balun goes through the RF path till the antenna and gets radiated or vice versa during reception.

- Description of Antenna system (Baluns, Multiplexers)

RF output from the balun goes through the tuning elements to the U.FL-R-SMT-1 connector.

- Description of all modulation schemes used in the product:

The modulation scheme used in this product is Offset QPSK.

Thankyou,

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