

## General Features

- On-board proprietary protocol stack
- Bluetooth Smart
- Bluetooth v4.1 specification compliant
- RSSI monitoring for proximity applications
- UART communication
- 128KB memory; 64KB RAM and 64KB ROM
- Compact form factor: 30mm diameter; 8mm height
- Environmentally friendly, RoHS compliant
- FCC Certified
- Programmable GPIO
- SPI Debug
- On-board 3-axis accelerometer
- Device Firmware Upgrade (DFU) over UART, Contact Viaanix for reference manual

## Operational

- Battery voltage: 2.0V to 3.1V (2.9V typical)
- Temperature range: -20°C to +60°C
- Low-power consumption
- Programmable RF Communication Bit Rate up to 250 bps
- Integrated MCU, Crystal, Programmed 64 bit unique address, Radio Transceiver with Analog Front End, Matching Circuitry, and onboard ceramic antenna
- GPIOs for control and status

## RF/Analog Features

- BLE Transceiver operating in the 2.4 GHz frequency band
- High Receiver Sensitivity: down to -94 dBm
- TX Power: adjustable up to +9 dBm high efficiency PA
- GFSK Modulation
- 100 meter coverage at suburban and 30 meter coverage at urban area

## Description

VX-18-B is a Viaanix BLE Beacon. VX-18-B is a single-mode Bluetooth low energy product for the Bluetooth Smart market. VX-18-B can be used where space is limited. VX-18-B enables ultra low-power connectivity and basic data transfer for applications previously limited by the power consumption, size constraints and complexity of other wireless standards. VX-18-B provides everything required to create a Bluetooth low energy product with RF, baseband, MCU, qualified Bluetooth v4.1 specification stack, 3-axis accelerometer, and customer application running on a single compact board.

## Applications

- Fridge/Freezer temperature monitoring
- Usage through vibration
- Security door open/close
- Asset Tracking

## **FCC STATEMENT :**

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) This device may not cause harmful interference, and
- (2) This device must accept any interference received, including interference that may cause undesired operation.

**Warning:** Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

Reorient or relocate the receiving antenna.

Increase the separation between the equipment and receiver.

Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

Consult the dealer or an experienced radio/TV technician for help.

## **FCC Radiation Exposure Statement:**

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.