

## **Everex WR-23XX User Guide**

### **Introduction:**

Everex WR-23XX is a 10dBm, IEEE 802.15.4 compliant, mesh networking capable transceiver module operating in 2.4Ghz unlicensed ISM frequency. It is designed to be used in, but not limited to, building control, industrial control, residential and commercial automation, HVAC, energy management and wireless sensor network applications. It can be easily integrated into devices, such as thermostat, sensors, electric/water/gas meters, home appliances, which require wireless connectivity. WR-23XX can be configured as an end point device transceiver or as a pan coordinator which coordinates data traffic among end point devices. The transceiver module supports either an internal PCB antenna or an external dipole antenna.

### **Features:**

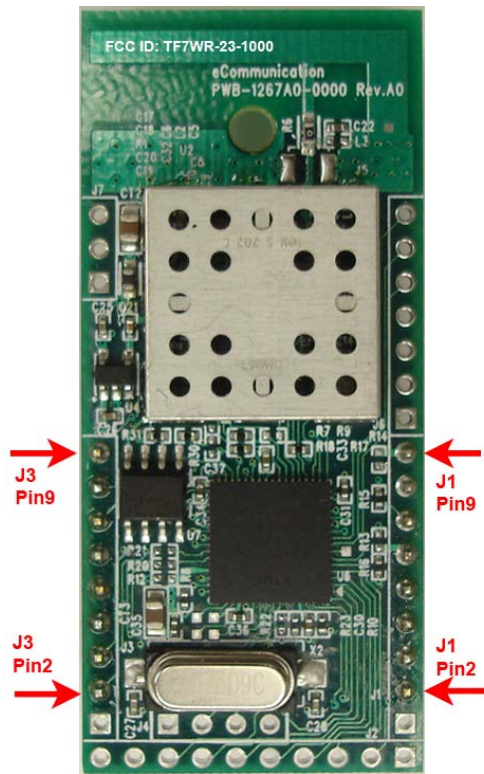
- IEEE 802.15.4 transceiver
- 2.405Ghz – 2.475Ghz unlicensed ISM band
- 10dBm output power
- 250kbit/second data rate
- 3.3V input supply voltage
- Option with internal PCB antenna or external dipole antenna
- Simple 2 wire (RXD/TXD) communication with host
- Mesh networking
- 1.00” x 2.25”

### **Applications:**

- Building Control
- Industrial Control
- Residential and Commercial Automation
- HVAC
- Energy Management
- Wireless Sensor Networks

### **Pin Assignment:**

- J1 pin 7 – RXD (Input to WR-23XX)
- J1 pin 8 – TXD (Output from WR-23XX)
- J3 pin 4 – GND (Power)
- J3 pin 6 – 3.3V (Power)



### **FCC Compliance Statement (Part 15.19)**

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.
- 2) This device must accept any interference received, including interference that may cause undesired operation.

### **FCC Interference Statement (Part15.105(b))**

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 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 on 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.

### **OEM Responsibility to the FCC Rules and Regulations**

The Everex radio module has been certified per FCC Part 15 rules for integration into products without further testing or certification. To fulfill the FCC certification requirements the OEM of the Everex radio module must ensure that the information provided on the Everex RF label is placed on the outside of the final product.

The Everex radio module is labeled with its own FCC ID Number. If the FCC ID is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following:

“Contains Transmitter Module FCC ID: TF7WR-23-1000”

or

“Contains FCC ID: TF7WR-23-1000”

The OEM of the Everex radio module must only use the approved antenna, which has been certified with this module.

The OEM of the Everex radio module must test their final product configuration to comply with Unintentional Radiator Limits before declaring FCC compliance per Part 15 of the FCC rules.

### **Warning (Part 15.21)**

Changes or modifications not expressly approved by Everex could void the user’s authority to operate the equipment.

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