

## Product Description and Operation Overview

### General Overview

#### **The Base Station** (used with FCC ID: QDU-MCRD-BASE-2R5)



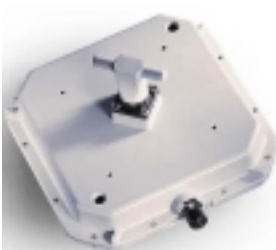
The BASE STATION (BST) IF Unit functions as both a receive and transmit device. The BST is a lightweight, robust ODU (outdoor unit) and is typically mounted on a structure or radio tower. The BST provides the interface to the Internet, Router, or other media types. The BST is combined with a transceiver unit to generate the pico cell base station.

#### **The CPE Modem** (used with FCC ID: QDU-MCRD-CPE-2R5)



The Customer Premise Equipment (CPE) Modem IF Unit functions as the endpoint users interface to the Internet or other media types. The CPE is an easily configurable subscriber Modem unit. That provides a 10BASET connection type for multiple applications such as Data, Voice, or Video. The CPE is partnered with a Power supply that operates at 110vdc or 220vdc. The CPE modem is connected via coaxial cable to the transceiver unit mounted outdoors.

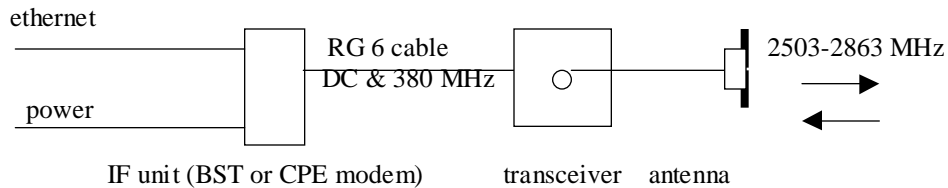
#### **The Transceiver Unit**



The Transceiver unit functions as the RF interface for both the BASE STATION and the CPE Modem endpoints. The Transceiver can be configured with various antenna gain combinations and models and is powered by the CPE Modem.

The transceiver (radio unit) can be configured as either customer premises equipment (CPE) or as a base station unit. The radios are identical, except for antenna types used. The BST and subscriber CPE modem are different, but the IF output signals are the same and the transceiver used with them is identical.

**Fig.1**



A description of the theory of operation and product configuration is found in an attachment to this application and report.

## **SPECIFICATIONS**

### **TRANSCEIVER**

Frequency range:	2503 - 2683 MHz
Channelization:	4 MHz channels, 1 MHz spacings
Power output:	20 - 24 dBm, +/- 1.1 dBm, software configurable
Modulation type:	FSK

### **IF Unit**

Frequency range:	380 MHz IF
Power Output, RF:	4 dBm nominal, 5 dBm for maximum output power

Data transfer rate, air link: Up to 4 Mbps