

# **3500-240X Series**

## **Theory of Operation Principle**

The 3500-240X Series Hotport Mesh Node is comprised of two printed circuit assemblies; a Mother Board and Radio Card. The Motherboard uses the Intel IXP425 as the central processing unit. Memory configuration is 32M bytes of FLASH and 64M bytes SDRAM. The Motherboard is powered by via a AC/DC wall adapter (5V out, 1.2 A rating). The Hotport Node supports up to 4 10/100 Base-TX LAN network interfaces using Admtek 6996L Ethernet switch. The interface to the LAN network is through an RJ45 STP port. The radio card (Type III mini PCI module) plugs into the Motherboard. Communication to/from the Motherboard is made via a 128 pin mini PCI connector. The Radio Card runs from 3.3 volts, which is provided by the Motherboard. The 3500-240X series uses an Ubiquiti Networks SR2 radio card. The SR2 card is a full featured 802.11b/g client card. The Radio operates from 2412 MHz to 2462 MHz according to the IEEE 802.11b/g specification. The data rates supported are 1 Mbit (DBPSK), 2 Mbit (DQPSK), 5.5 Mbit (CCK), and 11 Mbit (CCK) for .11b and 6, 9, 12, 18, 24, 36, and 54 MBit OFDM for .11g. The Hotport Node uses two 5 dBi omni directional diversity antennas.