

Firetide 2100 Series

Theory of Operation

The 2100 Series HotClient Customer Premises Equipment (CPE) is comprised of two printed circuit assemblies; a Support Board and a Radio. The boards are connected together via a 2 x 10 pin connector and are mounted inside a plastic enclosure.

The HotClient CPE is powered by via an external AC/DC wall adapter (12V out, 1.5 A rating). The Support Board accepts the 12 VDC input through a 2.1mm barrel connector. The Support Board converts the the 12 VDC into the other supply voltages used by the rest of the Radio Card; 3.3, and 5.0 VDC. The support board also contains two LED's that indicate in the unit is powered and a SW controlled LED that is used to display unit status.

The Radio Card runs from 3.3 and 5.0 volts, which is provided by the Support Board. The output TX stage of the radio is powered from +5.0 VDC and has a supply current of 350 mA. The 2100 series uses a Firetide proprietary radio card design, which incorporates an Atheros Communications chipset. 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 .11a/g. The Hotport Node uses two 5 dBi omni directional antennas or a separate 8 dBi patch antenna. Both antennas attach to the CPE with reverse polarity SMA connectors.

Only proprietary software written and distributed by Firetide Inc. can be installed on the Mesh Node. "Source code" is controlled solely by Firetide Inc and is not distributed to end users.