Operating Description

This document describes the features of the wireless tap NWTAP-100 as well as how it can be installed to provide the most effective service to end users.

The NWTAP-100 is an outdoor hardened wireless lan access point solution which uses an internal cable modem as the backbone interface and AC line power from the feeder cable for power. The wireless LAN tap-off is an all-in-one unit which consists of a cable modem, WiFi access point, power supply unit, antenna and tap-off in an outdoor-hardened housing.

It provides a low cost and easy to install WiFi access hotspot to homes and businesses by simply removing the old tap and installing the wireless tap.

The internal cable modem is DOCSIS 2.0 compliant based on the Broadcom BCM3349. It is fully interoperable with all CMTS models available in the market today.

The internal WiFi is based on the 802.11g standard which is backwards compatible to the 802.11b. The wireless chipset is based on the Broadcom BCM4318

Characteristic	***Description***
Compatibility	IEEE Std 802.11b and IEEE Draft Std 802.11g for wireless LAN
Network Operating System	Microsoft® Windows® Networking
Host Operating System	Microsoft Windows XP
Medium Access Protocol	CSMA/CA (collision avoidance) with acknowledgment (ACK)
Data rate (Mbps)	IEEE Draft Std 802.11g: 1, 2, 5.5, 6, 11, 12, 18, 24, 36, 48, 54 IEEE Std 802.11b: 1, 2, 5.5, 11
NOTE—The ***Company*** **54g WLAN** solution uses an automatic transmit rate select mechanism	

Characteristic	***Description***
Frequency Band	2.4 GHz (IEEE 802.11b, IEEE Draft Std 802.11g)
Modulation Technique	Direct sequence spread spectrum (DSSS) • CCK for high and medium transmit rate • DQPSK for standard transmit rate • DBPSK for low transmit rate Orthogonal frequency division multiplexing (OFDM) • 52 subcarriers with BPSK, QPSK, 16-QAM or 64-QAM • Forward error correction convolutional coding rate: 1/2, 2/3, 3/4
Spreading	11-chip Barker sequence
Bit Error Rate (BER)	Better than 10(–5) ppm
Nominal Output Power	IEEE Std 802.11b: 19 dBm; IEEE Draft Std 802.11g: 15 dBm