

Gen3 5GHz / 2.4GHz Repeater Specifications

INTERFACE	
Ethernet Interface	Ethernet 10/100 Base-T (RJ-45) (2 interfaces)
Wired LAN protocol	IEEE 802.3 (CSMA/CD)
Wireless Interface	Standard-N Male with 29dBi dish (5.8 GHz) or integrated 18dBi panel (5.25 – 5.85GHz) on primary radio; Standard 9dBi omni directional antenna for 2.4GHz for radio serving customers
Modes	Bridge (layer 2) or Router (layer 3)
Watchdog	OS Hardware, POS Watchdog for remote power cycle

RADIO CHARACTERISTICS	
Frequency Channels	5.25-5.35 GHz; 5.47-5.725 GHz; 5.725-5.85 GHz ; 2.400-2.483.5 GHz
Channel Width	Standard 20MHz for 802.11a mode; variable from 8MHz to 20MHz WIMAX mode. 802.11b/g mode radio supports 22MHz down to 8MHz in WIMAX mode.
Modulation Technique	OFDM (QAM64,QAM16,QPSK,BPSK) CCK(802.11b mode)
Media Access Protocol	802.11 with outdoor rate control and optimized ACK timing

OUTPUT POWER	
Output power	5.25-5.35 GHz (12dBm); 5.47-5.725 GHz (12dBm); 5.725-5.85 GHz (29dBm) ; 2.400-2.483.5 GHz (23dBm)
FCC certification	Class A certification, Part 15.247 ISM, UNII. Radio certified up to 30dBm at 5.8GHz with 29.2dBi dish. 2.4GHz certified up to FCC maximum when combined with 9dBi antenna at 27dBm of output power. 5.5GHz ready when FCC approves certification requirements in 2005.

Receiver Sensitivity	54Mbps (-68dBm) 48Mbps (-71dBm) 36Mbps (-75dBm) 24Mbps (-80dBm) 18Mbps(-82dBm) 12Mbps(85dBm)9Mbps(-88dBm) 6Mbps (-92dBm) (- 93dBm) 1Mbps B mode
TX Power settings	Adjustment in +/- 1dBm increments
Noise Floor	-96dBm ; Noise floor reporting within +/- 1dBm

POWER	
Voltage	27V DC
Interfaces	Optional Power over Ethernet, DPN Power over Serial
Power over Serial	POS watchdog with AC, Fuse and Battery monitoring/reporting

MANAGEMENT	
DPNMP	Proprietary Encrypted 128 Bit with Netmon NMS
Software Upgrades	Automatic over network with MD5 Checksum
Remote Management	Secure Shell or optional web interface

DISTANCE 5GHz	
10 miles	5.8GHz with 18dBi integrated panel (12Mbps)
6 miles	5.3/5.5 GHz with 18dBi integrated panel (10-12Mbps) 5.8 GHz (15Mbps)
3 miles	5.3/5.5/5.8GHz with 18dBi integrated panel (18Mbps)
1 mile	5.3/5.5/5.8GHz with 18dBi integrated panel (20Mbps)

DISTANCE 2.4GHz Omni directional antenna to customer (w/14dBi customer antenna)	
5 miles	Maximum customer distance supported; not recommended; Maximum speed (3Mbps) **
2 miles	LOS requirement (6Mbps) **
1 mile	Near line of sight requirement (10Mbps) **

** CPE encryption tunnel is limited to 3Mbps. Mobile users can achieve up to 10Mbps.