NetPoint Pro n2CM

The NetPoint Pro n2CM is an Omni-directional multi-radio, which offers superior range and capacity by combining Netronics MIMO beam forming and the latest 802.11n Wi-Fi standard.

Combining 802.11n and MIMO beam forming, NetPoint Pro n2CM delivers the most powerful Wi-Fi solution for outdoor deployments. By enhancing the beam forming to support multiple streams in MIMO configurations, NetPoint Pro n2CM overcomes the technology limitations and extends the 802.11n range and capacity in noisy, urban environments.

Netronics Beam Forming (NBF) technology focuses communications to and from each client in a narrow beam. This advanced technology delivers 2 to 4 times the range and capacity, to any standard-based Wi-Fi client, in comparison to standard Wi-Fi access points. The beam forming technology combined with NetPoint Pro n2CM specialized channel filters deliver 90% effective noise mitigation in harsh, outdoor environments.

NetPoint Pro n2CM is the ideal solution for cellular operators deploying large scale 3G data offload and Wi-Fi access applications in dense urban conditions. NetPoint Pro n2CM is designed for mounting on cellular towers, roof-tops and poles. With multi-block interference mitigation including patented 3G, WiMAX & Wi-Fi channel filters, the NetPoint Pro n2CM access point can be collocated with 3G BTS without performance degradation either for the AP or the 3G BST.

Product Highlights

- 802.11n Beam forming delivering unparalleled Wi-Fi coverage & capacity

- Superior 802.11 b/g/n accessed powered by NBF adaptive beam forming smart antenna technology

- Dedicated 802.11a radio for high-performance reliable mesh networking

- Field-proven 3G offload solution that delivers business value

- Co-location of Wi-Fi & 3G cells leveraging existing infrastructure assets

- Fast, easy & affordable deployment of a high-quality network

- Seamless integration into the cellular operators' network

- Flexible mesh architecture reducing initial expenditure

- Maximum performance and interference mitigation

- Superior coverage and performance

Product Specifications

Radio

Wireless Network Standards	IEEE 802.11a/b/g/n					
Radio Interfaces	Access: 802.11b/g/n, Mesh: 802.11a/n					
Frequency bands	2.412-2.472, 5.47-5.725, 5.725-5.825 GHz					
Smart Antennas technology	NBF* smart antenna beam forming					

Antennas — Detachable omni-directional

2.4 GHz		5.8 GHz	
Horizontal	360°	Horizontal	360°
Vertical	20°	Vertical	15°
Gain	7.4 dBi	Gain	10 dBi

Tx Power (typical EIRP)

Max EIRP	2.4 GHz	5 GHz
	42 dBm	30 dBm

Rx Sensitivity (FCC)

802.11b

1 Mbps	2 Mbps	5.5 Mbps	11 Mbps
-102 dBm	-99 dBm	-95 dBm	-94 dBm

802.11g

6 Mbps	9 Mbps	12 Mbps	18 Mbps	24Mbps	36 Mbps	48 Mbps	54 Mbps
-94 dBm	-94 dBm	-94 dBm	-92 dBm	-90 dBm	-84 dBm	-81 dBm	-80 dBm

802.11n @2.4 GHz

MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11	MCS 12	MCS 13	MCS 14	MCS 15
-94 dBm	-93 dBm	-91 dBm	-89 dBm	-85 dBm	-82 dBm	-76 dBm	-73 dBm	-93 dBm	-92 dBm	-89 dBm	-86 dBm	-83 dBm	-78 dBm	-77 dBm	-74 dBm

802.11a

6 Mbps	9 Mbps	12 Mbps	18 Mbps	24Mbps	36 Mbps	48 Mbps	54 Mbps
-93 dBm	-93 dBm	-92 dBm	-91 dBm	-88 dBm	-82 dBm	-80 dBm	-79 dBm

802.11n @5 GHz

MCS 0	MCS 1	MCS 2	MCS 3	MCS 4	MCS 5	MCS 6	MCS 7	MCS 8	MCS 9	MCS 10	MCS 11	MCS 12	MCS 13	MCS 14	MCS 15
-93 dBm	-92 dBm	-90 dBm	-88 dBm	-84 dBm	-81 dBm	-75 dBm	-72 dBm	-93 dBm	-91 dBm	-88 dBm	-87 dBm	-82 dBm	-77 dBm	-76 dBm	-73 dBm

Modulation

802.11 b	DSSS (DBPSK , DQPSK, CCK)
802.11 a/g/n	OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

Networking

Wireless	Self healing, Self assembling Mesh
	WDS CPE support
	Multiple ESSIDs' & BSSIDs'
Authentication & Security	802.11i
	WPA/WPA2 (WPA-PSK, WPA-EAP)
	WEP 64/128 bit encryption
	MAC filtering
	802.1x
	AES mesh encryption

QOS	Statistical traffic classification
	802.11q VLAN
	WME
IP Protocol	Layer 2, 3 support
	DHCP Client

Management	Private, standard MIBs
	Local CLI via serial port
	SNMP v2 (NMS) (configuration, statistics and alarms)
	Web interface
	Telnet/SSH CLI
Remote SW upgrade	FTP, TFTP, Web

Hardware

Interfaces	Self Healing, self assembling Mesh
	IP67 Weatherproof RJ-45 Serial port
Power input	48 VDC
Power consumption	38 W

Dimensions (W x D x H)	33 x 24.5 x 7 cm
	13 x 9.6 x 2.8 in
Weight	4.95 kg, 10.9 lbs
Installation	Generic mount for pole and wall installations

Operating Temperature	-40° to 55 °C, -40° to 131 °F
Storage Temperature	-40° to 60 °C, -40° to 140 °F
Operating relative humidity	15% - 100% (non-condensing)
Non-operating relative humidity	5% - 95% (non-condensing)

Standards

EMC Standards	US: FCC Part 15.107 and 15.109
	Europe: EN 301.489-1 and -17
EMI and Susceptibility (Class B)	US: FCC Part 15.107 and 15.109
	Europe: EN 301.489-1 and -17

Safety	US, Canada: UL 1950
	US, Canada: UL 60950-1
	Europe: EN 60950-1

Environmental	Wind: >165 mph
	Up to 100 mph sustaining,
	Up to 165 mph gusts)
	Europe: EN 300.019-2-4 class 4.1 and EN 300.019-2-2 class 2.3

*About NBF (Netronics Beam Forming)

NBF Smart Antenna Technology lies at the core of the NetPoint Pro n2CM Performance. NetPoint Pro innovatively leverages state-of-the-art beam forming RF technology to deliver unmatched subscriber access combined with the best performance, coverage, and interference mitigation, resulting in more than twice the range, capacity and coverage.

Netronics

Netronics-networks.com