Altum™ N200 *DATASHEET*

2.4 & 5 GHz
PtP & PtmP | License-Free | All-Outdoor
DUAL BAND CONCURRENT WI-FI (INTERNATIONAL MODEL)

PART OF
Altum™ Series

TRANGO SYSTEMS

Altum™ N200 Overview

Altum N200 is high performance ruggedized all outdoor, long range, wireless radio system offering expanded 5 GHz spectrum operation. Aggregate capacity up to 200 Mbps is achieved through the use of 64QAM and 40 MHz 2x2 MIMO channels. Altum N200 operates in Point-to-Point (PtP) or Point-to-MultiPoint (PtmP) mode and supports omni, sector, integral panel, and dish antennas.

Other key features include PoE on either of the 2 Gigabit Ethernet ports, hardware based AES128 Encryption, and high transmit power/receive sensitivity. The flexibility of the Altum N200 allows it to be used in many wireless applications, including WISP, Security/Video Surveillance, Enterprise, and more.

Altum N200 operates in 5.15-5.25 GHz, 5.4-5.725 GHz, 5.725-5.85 GHz and 5.86-6.1 GHz bands. All Altum N200 radios have an integral 2.4 GHz WiFi MIMO radio for Hotspot applications.

System Features

- 200 Mbps Layer 2 throughput
- Up to 30 Miles (48 Kilometers)
- 2x2 MIMO operation up to 64QAM
- Up to +26 dBm transmit power
- Integral 2.4 GHz WiFi radio
- 2 Traffic ports: WAN, LAN with PoE (24Vdc)
- AES128 WPA2 PSK data encryption
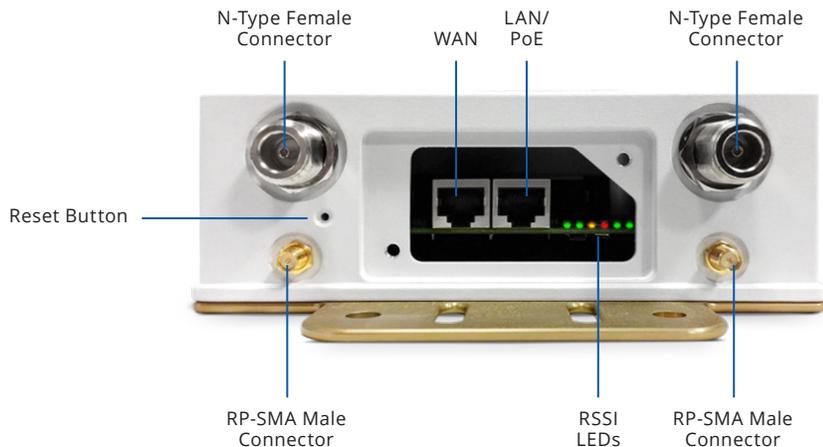- Rugged cast aluminum enclosure

Software Features

- Web interface (HTTP, HTTPS)
- Peer MAC authentication in PtP mode
- Spectrum/AP survey
- Automatic channel selection
- Auto and Fixed ACK timeout
- NTP client or server
- SNMPv2c or v3
- Web based firmware update
- DDNS (Dynamic DNS)
- Static IP/DHCP client or server/PPPoE
- MAC address filtering
- Real time graphing of traffic, RSSI and signal quality
- VLAN management
- QoS traffic shaping
- Ping watchdog timer
- 802.11b/g/n operation
- STP (Spanning Tree Protocol)
- Up to 127 PtmP stations (40 Recommended)

Hardware Features

- 200 Mbps Layer 2 throughput
- User selectable PtP and PtmP modes
- 2x2 MIMO operation up to 64QAM
- Up to +26 dBm transmit power
- 2 Traffic ports: WAN, LAN with PoE (24Vdc)
- AES128 WPA2 PSK data encryption
- Selectable spectrum bandwidth support: 20 and 40 MHz channel widths
- Rugged die cast aluminum construction
- IP65 weather protection
- RSSI Alignment LEDs

Applications

- Point-to-Point (PtP) Wireless Ethernet Bridge
- PtP with integral 2.4 GHz WiFi Hotspot
- Point-to-MultiPoint (PtmP)
- Campus connectivity
- Security and surveillance cameras

N-Type Female Connector — WAN — LAN/PoE — N-Type Female Connector

Reset Button

RP-SMA Male Connector — RSSI LEDs — RP-SMA Male Connector

System Specifications

Operating Frequency	
Operating Frequency	5.15-5.35, 5.47-5.725, 5.725-5.85, 5.86-6.1 GHz
Output Power	Up to +26 dBm (2 Streams)

Physical / Electrical / Environmental Information	
Dimensions (Height x Width x Length)	9.25 x 6.6 x 2.25 in. / 23.5 x 16.7 x 5.7 cm
Weight	2 lbs / 0.9 kg
Enclosure	Die Cast Aluminum Alloy, Powder Coated, NPT 3/4" Conduit Interface
Network Interface	2x 10/100/1000 BaseT (LAN+WAN) Auto MDI/MDIX
RF Connections	2x RP-SMA (5 GHz), 2x N-Female (2.4 GHz)
LEDs	RSSI (4), Link (1), Ethernet (1)
Max Power Consumption	12 Watts
Power Supply	24Vdc, 800mA Gigabit PoE Adapter (100-240Vac)
Power Method	PoE with LAN or WAN Port
Operating Temperature	-40° to 149° F / -40° to +65° C
Operating Humidity	5° to 95° Non-condensing
Mounting	Pole or Wall Mount
Max Range	Up to 30 Miles / 48 Kilometers (A+N mode)

Compliance	
Wireless Approvals	CE
RoHS Compliance	Yes

Regions	Models	External Omni Antenna	External Sector Panel Antenna (Dual-Pol)		External Parabolic Dish Antenna (Dual-Pol)	
		2.4 GHz 9 dBi	5.x GHz 90° 19 dBi	5.x GHz 120° 16 dBi	5.x GHz 30 dBi	5.x GHz 34 dBi
International	N200-EXT-OE	Optional	Optional	Optional	Optional	Optional

Radio Specifications

Modulation	Bandwidth (MHz)	Max Throughput (Mbps)	Rx Sensitivity (dBm)	Latency (ms)
64QAM (MCS7)	40	240	-74	1
64QAM (MCS7)	20	115	-77	1
BPSK (MCS0)	40	25	-92	1
BPSK (MCS0)	20	12.5	-94	1

Transmit Power by Modulation and Channel Bandwidth

Modulation	40 MHz	20 MHz
BPSK 1/2 (MCS0)	24.5 dBm	26 dBm
QPSK 1/2 (MCS1)	24 dBm	25 dBm
QPSK 3/4 (MCS2)	23 dBm	24 dBm
16QAM 1/2 (MCS3)	22 dBm	23 dBm
16QAM 3/4 (MCS4)	21 dBm	22 dBm
64QAM 2/3 (MCS5)	20 dBm	21 dBm
64QAM 3/4 (MCS6)	19 dBm	20 dBm
64QAM 5/6 (MCS7)	16 dBm	17 dBm

Note: Power is two streams total.

Receive Sensitivity by Modulation and Channel Bandwidth

Modulation	40 MHz	20 MHz
BPSK 1/2 (MCS0)	-92 dBm	-96 dBm
QPSK 1/2 (MCS1)	-90 dBm	-94 dBm
QPSK 3/4 (MCS2)	-87 dBm	-92 dBm
16QAM 1/2 (MCS3)	-84 dBm	-87 dBm
16QAM 3/4 (MCS4)	-82 dBm	-84 dBm
64QAM 2/3 (MCS5)	-78 dBm	-80 dBm
64QAM 3/4 (MCS6)	-76 dBm	-79 dBm
64QAM 5/6 (MCS7)	-74 dBm	-77 dBm

Note: Power is two streams total. For OE models EIRP can be limited for CE compliance.

N200-EXT
Mounted View