

LP-ATRX496053ai31C 4.9~6.06 GHz 0.5W Outdoor 2x2 MIMO HT-OFDM PtP/PtmP Ethernet Backhaul with 26dBi Integrated Antenna, 53dBm EIRP, 14 software selectable channel BW and 48VDC or AC 100-264V adapter with 48VDC PoE.

LPATRX496053ai31C_SS_ENB01W

Features

- PTP/ PTMP Ethernet backhaul.
- 4.920~6.060 GHz Operating Frequency.
- MIMO HT-OFDM Modulation.
- Integrated 26dBi panel antenna Interfaces.
- ± 2 ppm Frequency Stability for Mobility & NLOS.
- Fast Data Switching Technology.
- 14 Channel BW (2.5/3/3.5/4/5/6/7/8/10/15/20/30/40/52 MHz).
- Up to 268 Mbps Real TCP Throughput.
- GPS Coordinates and Internet map database.
- 5.2 bits/s/Hz amazing spectral efficiency.
- Built-in NMS.
- IP-68 Water & Dust Resistant.
- IEC61000-4-5 Surge Protection.
- Outstanding MTBF.



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4.9~6.06 GHz 0.5W Outdoor 2x2 MIMO
HT-OFDM PtP/PtmP Ethernet Backhaul
with 26dBi Integrated Antenna, 53dBm EIRP,
14 software selectable channel BW and 48VDC
or AC 100-264V adapter with 48VDC PoE.

Atrex-MIMO PTP/PTMP Series offers customers a great solution for PtP/PtmP/ Hot zone applications by integrated 2 x 2 MIMO HT-OFDM technology from LanPro.

There are 14 channel BW options that can be selected easily by software (2.5/3/3.5/4/5/6/7/8/10/15/20/30/40/52MHz). This feature provides the flexibility of deployment channel plan in crowded city areas or high capacity backhaul throughput up to 268 Mbps.

With MIMO HT-OFDM (High Throughput OFDM) technology, this radio is a high capacity PTP / PTMP backhaul for 5GHz ISM band wireless deployment. It utilizes coordinate and built-in NMS with internet map database to show the environment and status of the link. Customers can easily figure out the linking situation of the deployed radios.

A Product Highlights

Effective spectrum utility/variable capacities with 14 channel Bandwidths

This radio has 14 channel BWs (2.5/3/3.5/4/5/6/7/8/10/15/20/30/40/52 MHz) for optional, which is adjustable via software. This function provides flexibilities of channel plan in crowded urban environment and variable capacities for different applications.

MIMO HT-OFDM technology provides amazing spectral efficiency

Up to 5.2 bits/s/Hz amazing spectral efficiency for all channel BW provided by the MIMO HT-OFDM technology. Work with the variable channel BW options, these two combination features provides great benefits for both crowded urban area and rural area with less interference.

B Specifications

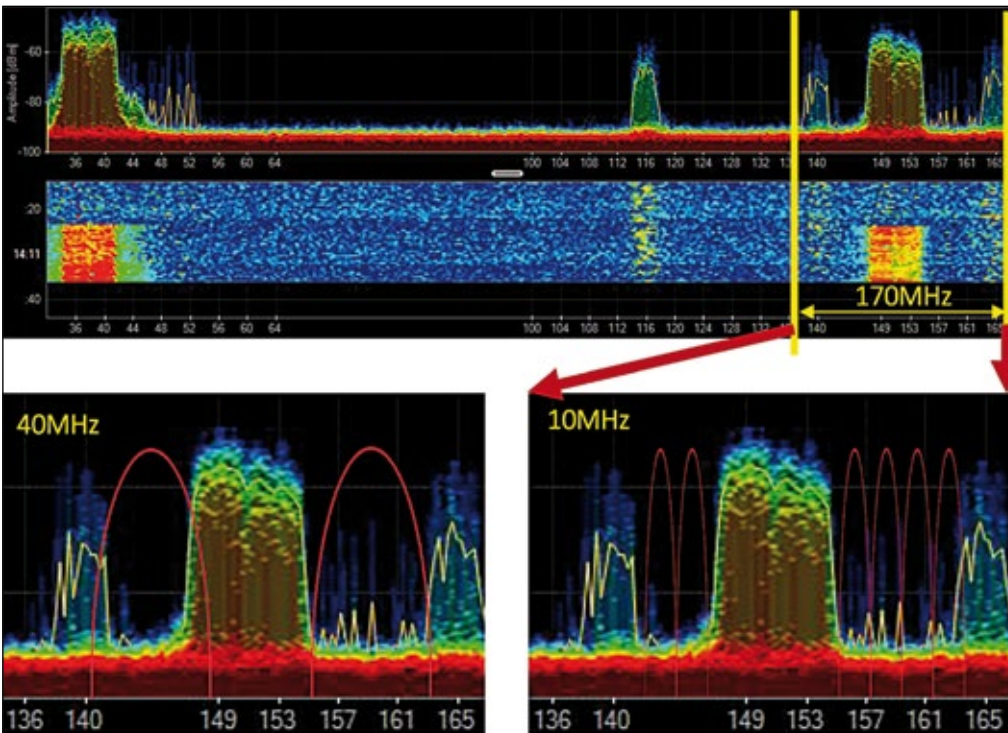
Radio								
Frequency Range	4.920 ~ 6.075 GHz Optional							
Channel Bandwidth	2.5/3/3.5/4/5/6/7/8/10/15/20/30/40/52 MHz							
EIRP	53 dBm							
Frequency Stability	±2 ppm							
Modulation	MIMO HT-OFDM							
MCS Index	MIMO-OFDM / HT20				MIMO-OFDM / HT40			
	Data Rate (Mbps)		Tx Output Power (dBm)	Rx Sensitivity (BER 1E10-6)	Data Rate (Mbps)		Tx Output Power (dBm)	Rx Sensitivity (BER 1E10-6)
	GI=800ns	GI=400ns			GI=800ns	GI=400ns		
MCS8	6.5/13	N/A	27(±1.5)	-94/-92 dBm	13.5/27	15/30	27(±1.5)	-92/-90 dBm
MCS9	13/26	N/A	26(±1.5)	-92/-90 dBm	27/54	30/60	26(±1.5)	-89/-87 dBm
MCS10	19.5/39	N/A	26(±1.5)	-90/-87 dBm	40.5/81	45/90	26(±1.5)	-87/-83 dBm
MCS11	26/52	N/A	25(±1.5)	-87/-84 dBm	54/108	60/120	25(±1.5)	-84/-81 dBm
MCS12	39/78	N/A	24(±1.5)	-84/-81 dBm	81/162	90/180	24(±1.5)	-81/-79 dBm
MCS13	52/104	N/A	23(±1.5)	-80/-77 dBm	108/216	120/240	23(±1.5)	-78/-75 dBm
MCS14	58.5/117	N/A	23(±1.5)	-78/-75 dBm	121/242	135/270	23(±1.5)	-76/-73 dBm
MCS15	65/130	N/A	23(±1.5)	-76/-73 dBm	135/270	150/300	23(±1.5)	-74/-72 dBm
Interfaces								
10/100/1000 Base-T RJ-45 port with M25 Cable Gland								
Manageability								
Management and setup	Web-based (Chrome/IE 9.0 or later).							
SNMP agents	MIB II.							
Protocol	TCP/IP, IPX/SPX, NetBEUI.							
Network Architecture	PTP (1+0/2+0) PTMP.							
Antenna Alignment	WEB GUI Local / Remote Information.							
Built-in NMS	Live linking status of the network by GPS coordinates and internet map database.							
Security								
Data Encryption	WPA-PSK / WPA2-PSK							
Advanced security	MAC access control / Disable SSID / Proprietary protocol							

Environment	
Operating Temperature	30~60 °C
Storage Temperature	30~60 °C
Humidity	95% non-condensing
Power Supply and Consumption	
Power Supply: AC 100-264V, 50-60Hz convert to DC 48V Adapter (Max. 45Watts) with 48VDC POE Option: 3. Power Consumption: 10Watts (typical) / 12 Watts (Max.) @ DC 48V.	
Physical	
Dimensions	259 (L) × 250 (W) × 75 (H) mm
Weight	1.8 Kg
Warranty	
One (1) Year against manufacture or parts defects.	

Specifications

True Value of narrow bandwidth with high spectral efficiency
1.- More effective non-overlapping channels for flexible channel Plan.
2.- More total assumption capacity due to more effective narrow band channels in limited clear band without interferences.

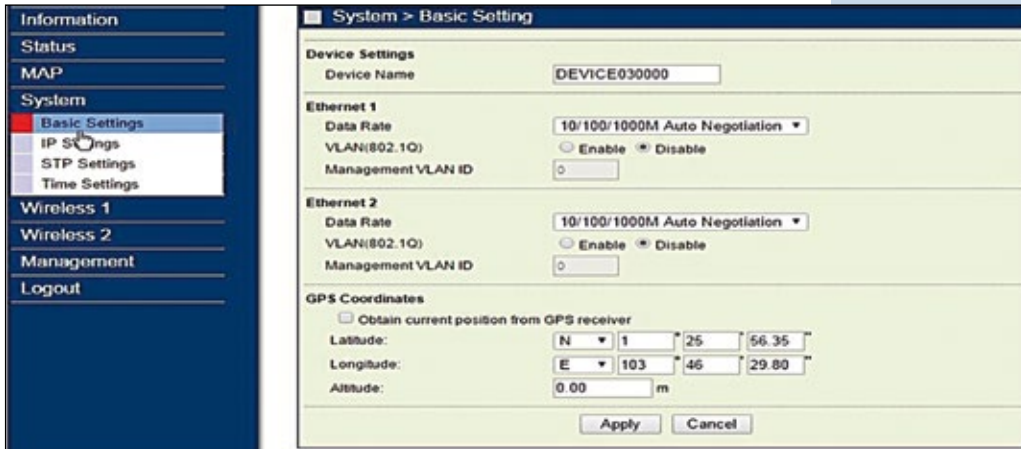
EXAMPLE: IN A 170MHZ AVAILABLE RANGE WITH OTHER INTERFERENCE SOURCE.



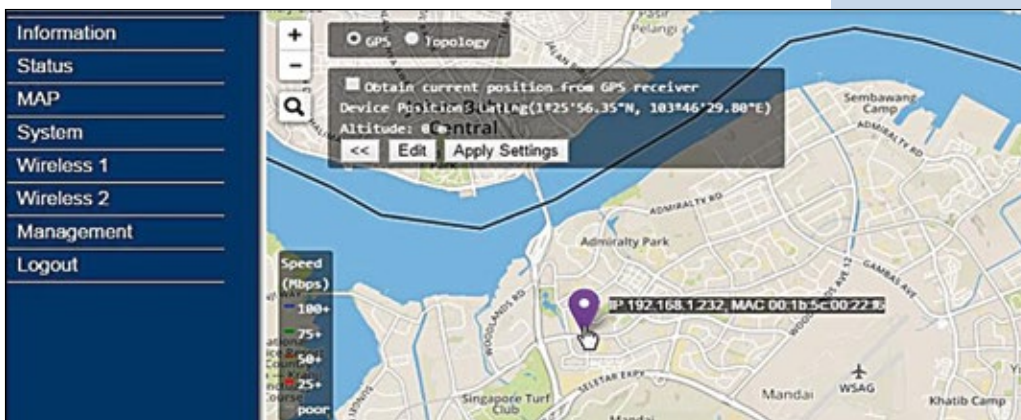
40 MHz channel BW:
1 x effective channel without interference only, total throughput <300Mbps.
10 MHz channel BW:
6 x effective channels without interferences, each channel offers 50Mbps TCP throughput. Total throughput about 300Mbps.
2.5 MHz channel BW:
24 x effective channels without interferences, each channel offers 12Mbps TCP throughput. Total throughput about 300Mbps. Example: In a 170MHz available range with other interference source.

CHANNEL BW & TCP THROUGHPUT LIST TABLE															
Channel BW (MHz)	2.5	3	3.5	4	5	6	7	8	10	15	20	30	40	52	
Real TCP Throughput (Mbps)	12	14	17	20	25	30	35	40	51	77	104	158	215	268	
Application area	Valuable Spectrum					Crowded Urban					Rural				

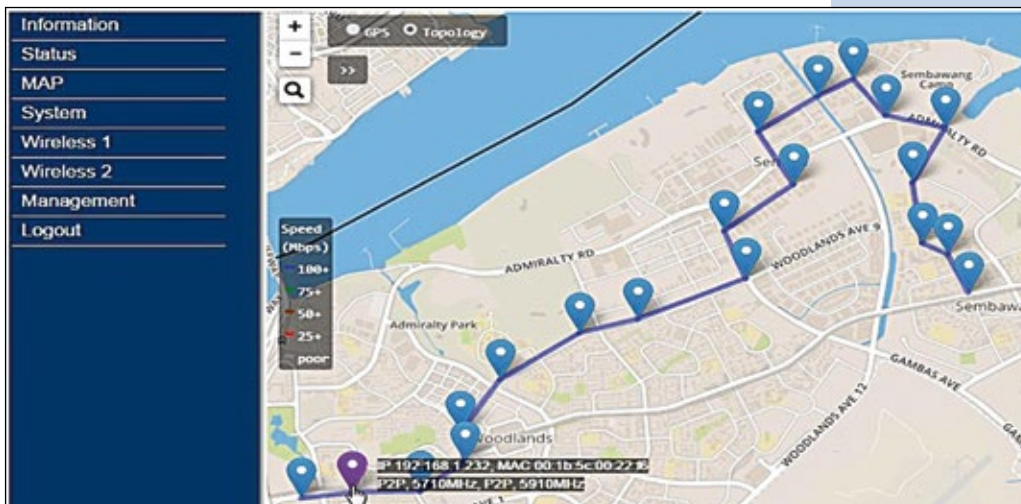
Built-in NMS function --- GPS Coordinates Input Setting Page



Local Site info -- Device name / MAC address



Remote Site info - IP address / MAC / Operation Mode / RSSI / Data Rate / Distance



D How to Order

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LanPro is continuously improving its products and reserves the right to change specifications and availability without prior notice.