

## ATLAS SERIES Product Family Description

### Broadband Wireless Access Radio Licensed Band Outdoor Solutions with internal antenna

ATLAS\_PFD\_ENC01W

#### Applications

- Long distances P-T-P or P-T-MP Bridge (CPE)
- Monitoring of remote systems
- Sensor data capture in embedded systems
- Home automation & building control
- SCADA (supervisory control & data Acquisition)
- Dedicated ISP connections for high-reliability subscribers
- Enterprises or Institutions LAN and PBX extension



## ATLAS SERIES

### Product Family Description

### Broadband Wireless Access Radio Licensed Band Outdoor Solutions with internal antenna

The ATLAS Series by LanPro is an ideal solution for Broadband wireless access. The support of various frequencies from 400MHz~6GHz, including the licensed band for Wimax or customized frequencies. That flexibility provides the customer more options besides the crowded ISM band. The use of an internal antenna simplifies the deployment work.

The fractional bandwidth control feature (5/10/20MHz adjustable via software) allows more non-overlapping channels in a practical deployment, providing better flexibility in deploying the network.

High output power OFDM/TDD technology supports better performance for near-line of sight deployment, and the unique regatta mode enhances the throughput of the radio up to 25~35%.

Supports WEP 64 / 128 / 152 bits, 802.1x Authentication (EAP), MAC address filtering, disable broadcast the SSID, client isolation and WPA-PSK / WPA(TKIP) / WPA2(AES-128bits) encryption. All these functions make the network much more secure and reliable.

**A Product Highlights**

**• Effective spectrum utility**

The LanPro ATLAS series support fractional bandwidth control. There are 3 channel bandwidths (5, 10 and 20MHz) adjustable via software, that provide better flexibility in deploying the network.

**• Regatta mode increases performance up to 35%**

Unique regatta mode enhances the throughput of the radio up to 25~35%

**• Versatile Quality of Service / Time-Division Multiplexing technique**

TDM tech can avoid packet collision and send packets more efficiently and in a stable manner to improve voice quality and data transmission. Throughput of the radio can be set in fractional (nx64 Kbps).

**• High output power OFDM technology and Integrated antenna design**

Integrated panel antenna with high output power OFDM technology provides best flexibility and lowest price, and at the same time makes the ATLAS series the most cost effective solution in the WLAN outdoor radio market.

**• Security**

WEP 64 / 128 / 152 bits, 802.1x Authentication (EAP), MAC access control, disable broadcast the SSID, client isolation, WPA-PSK, WPA-TKIP encryption and WPA2 (AES-128bits) build the highest security mechanism to prevent malicious attacks from the internet.

**• Antenna Alignment (Audible antenna alignment for optional)**

The site survey function provides the RSSI (signal strength) info to indicate the status of antenna alignment. Customer can order the audible antenna alignment model. Just align the antenna with the sound heard through the headphone of your mp3 player, easy and simple.

**B Specifications**

<b>RADIO</b>					
<b>Model No.</b>				<b>LP-A2324AI</b>	<b>LP-A2729AI</b>
<b>Frequency Range</b>				2302-2482MHz	2700-2900MHz
<b>OUTPUT Amplifier POWER / RX SENSITIVITY (Packet Error rate :10%) Internal antenna versions</b>					
<b>64QAM (54Mbps)</b>				20(±1.5) / -72(dBm)	18(±1.5) / -73 (dBm)
<b>16QAM (36Mbps)</b>				22(±1.5) / -78 (dBm)	21(±1.5) / -81 (dBm)
<b>BPSK (18Mbps)</b>				23(±1.5) / -84(dBm)	25(±1.5) / -88 (dBm)
<b>QPSK (6Mbps)</b>				23(±1.5) / -90(dBm)	25(±1.5) / -92 (dBm)
<b>CCK(DSSS)</b>				23(±1.5) / -90(dBm)	N/A
<b>Antenna Gain</b>				18dBi	18dBi
<b>EIRP</b>				41dBm	43dBm

Model No.	LP-A3334AI	LP-A3437AI		LP-A4949AI	LP-A5160AI
Frequency Range	3300-3400MHz	3400-3700MHz		4940-4990MHz	5150-6060
<b>OUTPUT Amplifier POWER / RX SENSITIVITY (Packet Error rate :10%) Internal antenna versions</b>					
64QAM (54Mbps)	25(±1.5) / -77 (dBm)	18(±1.5) / -73 (dBm)		17(±1.5) / -72 (dBm)	18 (±1.5) / -72 (dBm)
16QAM (36Mbps)	27(±1.5) / -85 (dBm)	21(±1.5) / -81 (dBm)		19(±1.5) / -78 (dBm)	22(±1.5) / -78 (dBm)
QPSK (18Mbps)	28(±1.5) / -92 (dBm)	25(±1.5) / -88 (dBm)		21(±1.5) / -84 (dBm)	23(±1.5) / -84 (dBm)
BPSK (6Mbps)	28(±1.5) / -96 (dBm)	25(±1.5) / -92 (dBm)		21(±1.5) / -90 (dBm)	23(±1.5) / -90 (dBm)
CCK(DSSS)	28(±1.5) / -96 (dBm)	N/A		N/A	N/A
Antenna Gain	18dBi	18dBi		23dBi	23dBi
EIRP	45dBm	43dBm		44dBm	46dBm
Modulation	OFDM / (DSSS)				
Duplex	TDD				
Channel Bandwidth	5 / 10 / 20 MHz				
Frequency Stability	±10ppm				
<b>INTERFACES</b>					
RF	N-Jack				
Ethernet	IEEE 802.3(10 Base-T) / IEEE 802.3u(100 Base-Tx)				
<b>RSSI (Receive Signal Strength Indication)</b>					
Bridge Mode	Connections Status				
CPE Mode	Site Survey				
Antenna Alignment	Audible Antenna Alignment (beeper)				
<b>MANAGEABILITY</b>					
Management and setup	Web-based configuration				
Operating mode	Peer to Peer (Bridge) / AP / CPE				
Network Architecture	PTP Bridge / PTMP Bridge / Repeater				
Operating System	Windows 98 / 2000 / NT / XP				
SNMP agents	MIB II				
Protocol	TCP/IP, IPX/SPX, NetBEUI				
QOS	Peer to Peer link speed limit/ CPE uplink speed limit				
DHCP support	DHCP Client				
Other Features	VLAN(IEEE 802.1Q)				
<b>SECURITY</b>					
Data Encryption	WEP (64/128/152 bits) / WPA-PSK / WPA-TKIP / WPA2 (AES 128bits)				
Authentication	802.1x Auth.(EAP)				
Authorization	MAC Access Control				
Advanced Security	Disable Broadcast SSID / Wireless Client Security Separation (Layer 2 Isolation)				
<b>ENVIRONMENT</b>					
Operating Temperature	-30~55°C: LP-A2324AI / LP-A2729AI / LP-A3437AI / LP-A4949AI / LP-A5160AI 0~55°C: LP-A3334AI				
Storage Temperature	-30~70°C				
Humidity	95% non-condensing				
<b>POWER</b>					
Power Supply	AC 100-264V, DC 24 V, 50-60Hz				
<b>PHYSICAL</b>					
Dimensions	259 (L) * 250 (W) *75 (H) ; mm				
Weight	1.8Kg: LP-A2324AI / LP-A2729AI / LP-A3437AI / LP-A4949AI / LP-A5160AI 2.5Kg: LP-A3334AI				
<b>WARRANTY</b>					
Validity	2 Years				

**C** How to order

- **LP-A2324ai** 2302MHz - 2482MHz, OFDM Ethernet Radio with EIRP=41dBm, and 12 dBi Integrated Panel Antenna
- **LP-A2527ai** 2550MHz - 2700MHz, OFDM Ethernet Radio with EIRP=49dBm, and 18dBi Integrated Panel Antenna
- **LP-A2729ai** 2700MHz - 2900MHz, OFDM Ethernet Radio with EIRP=43dBm, and 18dBi Integrated Panel Antenna
- **LP-A3334ai** 3300MHz - 3400MHz, OFDM Ethernet Radio with EIRP=45dBm, and 18dBi Integrated Panel Antenna
- **LP-A3437ai** 3400MHz - 3700MHz, OFDM Ethernet Radio with EIRP=43dBm, and 18dBi Integrated Panel Antenna
- **LP-A4949ai** 4940MHz - 4990MHz, OFDM Ethernet Radio with EIRP=44dBm, and 23dBi Integrated Panel Antenna
- **LP-A5160ai** 5150MHz - 6060MHz, OFDM Ethernet Radio with EIRP=46dBm, and 23 dBi Integrated Panel Antenna