

VULCAN SERIES Product Family Description

Long distance High capacity Point to Point Backhaul

2.3 GHz to 6.06 GHz Outdoor TDMA Subscriber with External Antenna.

VULCANa_PFD_ENB01W

Features

- Time Division Multiple Access technology.
- Long distance Backhaul.
- Variable frequencies.
- 2.3, 2.4, 4.9 and 5 GHz.
- IP-68 rating for dust and water resistance.
- Over voltage protection as per IEC61000-4-5.
- Excellent MTBF.

Applications

- High capacity backhaul in long distances up to 50 Km.
- 5/10/20/40MHz adjustable channel bandwidth.
- Cost effective alternative to wired network environment.
- Redundant link between buildings.
- Dedicated ISP connections for high-reliability subscribers.
- Enterprises or Institutions LAN and PBX extension for high-reliability subscribers.
- IP-68 Enclosure rating for harsh environments.



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The VULCAN Series by LanPro is an ideal solution for high capacity point-to-point backhaul for 2.3 to 6.06 GHz bands wireless deployment for long distances of up to 50 Km.

The support of various licensed bands frequencies from 2.3GHz~6.06GHz, provides the customer more options besides the crowded ISM band. The use of an external antenna lets the user select the appropriate antenna for the application. If a Parabolica antenna is used, path gain and link distance can be increased.

5/10/20/40 MHz adjustable channel bandwidth provides flexibility of deployment to channel plan and high capacity backhaul – truly total accumulated throughput (uplink + downlink) up to 40Mbps with 40MHz channel BW.

It utilizes OFDM – TDMA technology which allowing the balanced uplink / downlink tunnels in a single channel with least collision and highest efficiency. The Ethernet products are primarily designed to provide standard Ethernet interface in a wireless link between distant sites

The VULCAN Series of radios have powerful security management because they use a proprietary protocol and support WEP, WPA2 (AES-128bits) encryption, MAC address filter at the same time. All these functions make the network much more secure and reliable.

A Product Highlights

• **Effective spectrum utility / variable capacities**

The VULCAN series has 4 levels of channel bandwidth (5/10/20/40 MHz) options, they are adjustable via software. This function provides flexibility to channel plans and variable capacities for different applications.

• **Low EIRP for long system and high capacity transmission**

The VULCAN series improves the throughput performance up to 50~70% more than the standard Wi-Fi products, this means that the system has the same performance with lower EIRP (smaller antenna) compared to other standard Wi-Fi products.

• **Proprietary Security**

The VULCAN series uses a proprietary protocol, it cannot connect to other standard Wi-Fi products. It also provides WEP and WPA2 (AES-128bits) and MAC access control to build the highest security mechanism to prevent malicious attacks from the Internet.

• **High output power TDMA Technology**

The high output power TDMA technology offers a better efficiency, making the Vulcan Series a cost-effective solution for long distance Backhaul market.

• **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 audible antenna alignment model for aligning the antenna by using the headphone of your mp3 player, quite easy and simple.

• **Robust Construction**

Prepared for harsh environments, the IP-68 rating ensures.

B Specifications

RADIO			
Model No.	LP-V2424-30a		
Frequency Range	2402-2482MHz		
OUTPUT Amplifier POWER / RX SENSITIVITY (Packet Error rate :10%) Internal antenna versions			
64QAM (54Mbps)	24(±1.5) / -78(dBm)		
16QAM (36Mbps)	22(±1.5) / -85(dBm)		
QPSK (18Mbps)	26(±1.5) / -88(dBm)		
BPSK (6Mbps)	26(±1.5) / -93(dBm)		
CCK(DSSS)	30(±1.5) / -93(dBm)		
Output power	30dBm (1 W)		
Model No.	LP-V2424-34a	LP-V4958-23a	LP-V5160-23a
Frequency Range	2402-2482MHz	4920-5875MHz	5150-6060MHz
OUTPUT Amplifier POWER / RX SENSITIVITY (Packet Error rate :10%) Internal antenna versions			
64QAM (54Mbps)	30(±1.5) / -80(dBm)	18(±1.5) / -75 (dBm)	18 (±1.5) / -75 (dBm)
16QAM (36Mbps)	30(±1.5) / -87(dBm)	22(±1.5) / -86 (dBm)	22(±1.5) / -82 (dBm)
QPSK (18Mbps)	31(±1.5) / -91(dBm)	23(±1.5) / -86 (dBm)	23(±1.5) / -86 (dBm)
BPSK (6Mbps)	32(±1.5) / -95(dBm)	23(±1.5) / -90 (dBm)	23(±1.5) / -90 (dBm)
CCK(DSSS)	34(±1.5) / -95(dBm)	N/A	N/A
Output Power	34dBm (2 W)	23dBm	23dBm

Modulation	OFDM		
Duplex	TDD (TDMA)		
Channel Bandwidth	5 / 10 / 20 / 40 MHz		
Frequency Stability	±10 ppm		
INTERFACES			
RF	N-Jack		
Ethernet	IEEE 802.3(10 Base-T) / IEEE 802.3u(100 Base-Tx)		
ADVANCE			
Base Station Scanning	RSSI		
ANTENNA			
Frequencies	2.420 GHz to 6.060 GHz		
Impedance	50 Ohm		
Antenna Alignment	Audible Antenna Alignment beeper (Optional)		
MANAGEABILITY			
Management and setup	Web-based configuration		
Network Architecture	PTP		
Operating System	Windows 98 / 2000 / NT / XP		
SNMP agents	MIB II		
Protocol	TCP/IP, IPX/SPX, NetBEUI		
SECURITY			
Data Encryption	WEP / WPA2 (AES 128bits)		
Authorization	MAC Address Access Filter		
Other Security	Proprietary Protocol		
ENVIRONMENT			
Operating Temperature	-30~55 °C		
Storage Temperature	-30~70°C		
Humidity	95% non-condensing		
IP Enclosure Rating	IP-68		
POWER SUPPLY			
AC 100-264V 50-60Hz, DC 24 V or 48V(Optional for Telecom Grade)			
PHYSICAL			
Model name	LP-V4958-23a / LP-V5160-23a	LP-V2424-30a	LP-V2424-34a
Weight	1.8 Kg	2.2 Kg	2.4 Kg
Dimensions	Typical 259 (L) * 250 (W) * 75 (H) ; mm		
WARRANTY			
Time	1 Year		

C How to order

LP-V242430a	2402-2482 MHz Vulcan Series Outdoor TDMA Subscriber with External Antenna Power 30dBm, IP-68 rated.
LP-V242434a	2402-2482 MHz Vulcan Series Outdoor TDMA Subscriber with External Antenna Power 34dBm, IP-68 rated.
LP-V495823a	4920-5875 MHz Vulcan Series Outdoor TDMA Subscriber with External Antenna Power 23dBm, IP-68 rated.
LP-V516023a	5150-6060 MHz Vulcan Series Outdoor TDMA Subscriber with External Antenna Power 23dBm, IP-68 rated.
LP-V495823a3	4920-5875 MHz Vulcan Series Outdoor TDMA Subscriber with external antenna, 23 dBm power, IP-68 rated, power input DC 48V.