

AirRunner CPE 380 Series

Zcomax Technologies, Inc. has released its outdoor CPE Series. It is a weather resistant unit, designed with the wireless ISP in mind. The all-in-one design allows for quick and cost effective deployment of wireless networks without high installation and cable costs. The elimination of cabling also eliminates degradations associated with cable attenuation. The CPE can be mast-mounted or wall-mounted for added flexibility. The unit features a 50 foot Category-5E cable carrying both DC power and Ethernet signals.

The AirRunner CPE series internal router features Network Address Translation (NAT) support, perfect for applications requiring a private LAN configuration. The unit also features internal DHCP client and server, allowing the AirRunner CPE IP resources to be centrally managed. Enhanced Station Bridge mode is provided to connect multiple PCs via a single wireless link without any router.

Designed specifically for Wireless ISPs and IT professionals to provide wireless broadband network services, the AirRunner CPE series delivers outstanding network availability and radio performance.



CPE Series at a Glance

- All-in-one outdoor design
- Built in router
- Removable Ethernet Cable
- External LED Display
- On-board flash firmware allows for rapid field upgrades.
- Mast mounting kit included
- Optional feature set includes AP and Point to multi point modes.
- Windows Utility, Web management and Telnet configuration methods.

Physical Specification:

Dimensions (L x W x H)	40.6cm x 36.2cm x 7.2cm
Gross Shipping Weight	4.05 Kg (9.0 lbs.)

RF Specification:

Frequency Range (GHz)	North America:
	FCC: 2.412 ~ 2.462GHz (CH1 ~ 11)
	TELEC: 2.412~2.4842GHz (CH1 ~ 14)
	ETSI: 2.412 ~ 2.472GHz (CH1 ~ CH 13)
Frequency Drift	<25KHz
Transmitter Output Power CPE-25(x)HP	39dBm (8000mW)
Antenna Impedance	50 ohms
Media Access Protocol	CSMA/CA w/ACK
Modulation	DSS: CCK (11Mbps, 5.5 Mbps) DQPSK (2 mbps) DBPSK (1Mbps)
Receiver Sensitivity	11 / 5.5 Mbps: ≤ -105 dBm / -107dBm
@ PER < 8% for 802.11b	2 / 1 Mbps: ≤ -109 dBm / -110dBm

Electrical Specification:

Supply Voltage	15 Vdc, +/- 5% 1A
Supply Voltage Ripple	120mV (pp) max.
Power-on startup time	<600 ms

LED Display

Power	Indicates CPE powered up successfully
Wireless Activity	Flashing light indicates activity
Link	Confirms a successful wireless link

Ethernet Connector Specification

Connector Type	RJ 45 Jack
Wiring Standard	TIA/EIA 568B

Environmental

Working Temperature	-15 ~ 55°C, 90% relative humidity (non-condensing)
Storage Temperature	-25 ~ 80°C, 90% relative humidity (non-condensing)

Absolute Maximum Rating

Stress above those listed in Absolute Maximum Rating may cause permanent damage to the device. This is a stress only rating and operation of the device at these or any other conditions above those indicated in standard specifications is not implied.

Supply Voltage	15.5V
Storage Temperature	-25 ~ +80°C, 95% relative humidity (non-condensing)
Barometric Pressure	740 hPa ~ 1050 hPa

Security

The AirRunner CPE Series product includes a high performance hardware WEP engine supporting 64-bit and 128-bit WEP. No driver-level coding for WEP operation is required to integrate the module. 64-bit WEP requires a 40-bit key plus a 24-bit initialization vector. 128-bit WEP utilizes a 104-bit key plus a 24-bit initialization vector.

Interoperability

The AirRunner CPE Series product interoperates with any IEEE 802.11b or 802.11 compliant devices.

Warranty

The CPE 380 series is supplied with a 12 month warranty

Performance – Distance Comparison Chart

Fade Margin is the allocation of received power above the minimum, needed to establish a connection. We recommend a 20dB fade margin above the calculated “theoretical Value” to account for Atmospheric, Environmental and other intangibles that will attenuate the signal. Below are two charts one with a 15dB fade margin calculated into the distance and the other a 20dB fade margin calculated into its distance.

Distance based on a 15dB Fade Margin

Transmitter	Receiver				
	CPE-25(x)V	CPE-25(x)H	CPE-25(x)HP	CPE-38(x)H	CPE-38(x)HP
CPE-38(x)HP	9.25M / 14.9Km	16.75M / 27 Km	16.75M / 27 Km	23.5M / 38Km	23.5M / 38Km

Distance based on a 20dB Fade Margin

Transmitter	Receiver				
	CPE-25(x)V	CPE-25(x)H	CPE-25(x)HP	CPE-38(x)H	CPE-38(x)HP
CPE-38(x)HP	5M / 8Km	9.25M / 14.9Km	9.25M / 14.9Km	13M / 21 Km	13M / 21 Km

Ordering Information

Part Number: CPE-38[P]HP

[P] Package:	CPE-382 = AP, PXP, Station
	CPE-380 = Station