ZyAIR™ ANTENNA

Extend Your ZyAIR

Wireless network antennas typically perform best in open environments with the least amount of obstructions possible. Performance may be significantly impaired if antennas are mounted near metal surfaces, concrete walls, or other high-density materials. To meet the challenge of these and other severe environments, ZyXEL offers performance-enhancing antennas for its ZyAIR family of wireless modems.

ZyAIR's extended reach antennas allow users to get the best wireless performance out of the most difficult environments. With ZyAIR antennas, customers will enjoy greater reach and better transmission quality for their wireless networks.

The ZyAIR family includes multiple antenna options to satisfy a wide range of wireless connectivity needs. The antenna family includes:

ZyAIR EXT-104

Indoor 4dBi Omnidirectional Ceiling Antenna

ZyAIR EXT-105

Indoor 5dBi Omnidirectional Desktop Antenna

ZyAIR EXT-106

Indoor 6dBi Directional Patch Antenna

ZyXEL
TOTAL INTERNET ACCESS SOLUTION

ZyAIR Antenna

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Higher Performance Antennas for Multiple Applica

Integrated wireless products such as the ZyAIR B-1000 Access Point, B-2000 Gateway and B-300 PCI Card offer detachable factory antennas which can be replaced with higher performance ZyAIR antennas. Other products, such as ZyXEL's Prestige 650HW and the ZyWALL 10W are wireless-ready, which means that they gain wireless functionality through the insertion of a wireless PC card. For improved antenna performance with wireless-ready devices, ZyXEL offers the ZyAIR B-101 PC card. The B-101 has a MMCX connector which can attach to an external ZyAIR antenna by using a standard MMCX to SMA connector cable. If the user's work area is obstructed, the external antenna can be raised to improve reception and link quality. Installation instructions for both types of devices are shown below.

I. To Replace Detachable Antennas from Integrated Wireless Devices

(eg. The ZyAIR B-1000, ZyAIR B-2000 and ZyAIR B-300)

Sometimes the work environment requires more powerful antennas than those supplied by the factory. If wireless coverage or reach distance is less than satisfactory, high gain or directional antennas can be installed to provide better performance for all wireless applications.

Installation Steps

1. Detach the factory antennas from the SMA connectors on the wireless device.
2. Screw the performance-enhancing antennas into the SMA connectors.
3. Place the antenna in the desired position.

Step 1 *Detach the factory antennas from the SMA connectors on the wireless device.*

Step 2 *Screw the performance-enhancing antennas into the SMA connectors.*

Step 3 *Place the antenna in the desired position.*

ZyAIR B-101 Specification

ZyAIR B-101 ***Wireless LAN PC card with Detachable Antenna***

Feature

- Wire-free access to networked resources from anywhere.
- Detachable antenna design allows user to change to high gain antenna for different applications.
- Delivers data rates up to 11Mbps.
- Uses 2.4GHz frequency band, which complies with worldwide requirements.
- Ensures great security by providing the Wired Equivalent Privacy (WEP) defined in the IEEE 802.11b standard.
- Supports most popular operating systems: Windows 98/ME/2000/XP.

II. To Enhance Antenna Performance of Laptop Computers and Other Wireless-Ready Devices

(e.g. ZyXEL Prestige 650HW and the ZyWALL 10W)

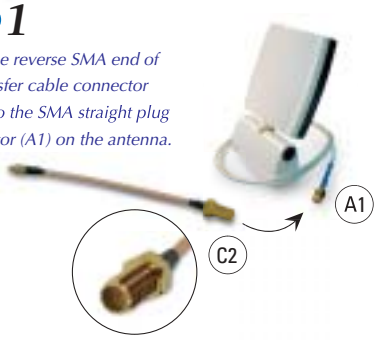
Laptop computers and other wireless-ready devices with standard PC card (PCMCIA) slots gain wireless functionality when PC cards are inserted. Unfortunately, many of these devices can't be placed clear of obstructions because they need to be connected to a nearby power supply or simply because moving the device is not feasible. For these scenarios, external antennas with long cables can be used to extend the signals. Even when there are no obstructions, the application may simply require a more powerful directional antenna than is found with a typical PC card.

ZyXEL's ZyAIR B-101 wireless LAN PC card offers users the convenience of a PC Card solution, and the versatility to accept more powerful antennas. The ZyAIR B-101 features a detachable antenna which can be replaced with a more powerful ZyAIR antenna.

Installation Steps

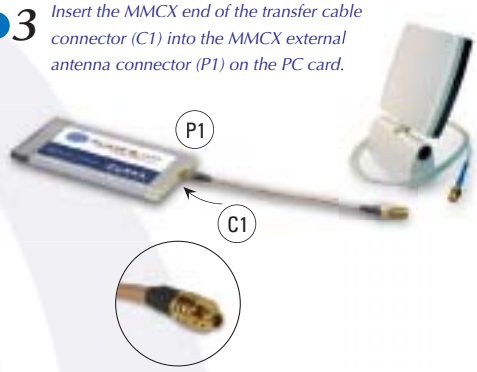
1. Insert the reverse SMA end of the transfer cable connector (C2) into the SMA straight plug connector (A1) on the antenna.
2. Detach the factory default antenna from the B-101.
3. Insert the MMCX end of the transfer cable connector (C1) into the MMCX external antenna connector (P1) on the PC card.
4. Insert the PC card into the wireless ready slot of the PC or wireless device.
5. Place the antenna in the desired position.

Step 1 *Insert the reverse SMA end of the transfer cable connector (C2) into the SMA straight plug connector (A1) on the antenna.*



Step 2 *Detach the factory default antenna from the B-101.*

Step 3 *Insert the MMCX end of the transfer cable connector (C1) into the MMCX external antenna connector (P1) on the PC card.*



Step 4 *Insert the PC card into the wireless ready slot of the PC or wireless device.*

Step 5 *Place the antenna in the desired position.*

Notice

Allow the antenna cable to bend naturally. It is recommended that you place the antenna no more than one meter from the PC card to avoid excessive strain on the cable and connector.

Specification

- IEEE 802.11b WLAN Standard
- Detachable Patch Antenna
- Data Rate: 11Mbps / 5.5Mbps / 2Mbps / 1Mbps
- Output Power: 15 dBm (typical)
- Device Drivers: Support Windows 98/ME/2000/XP
- Coverage area:
  Indoor: 50M @ 11Mbps/80M @ 5.5Mbps or lower
  Outdoor: 200M @ 11Mbps/300M @ 5.5Mbps or lower

Accessory

MMCX to SMA converter cable

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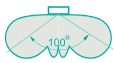
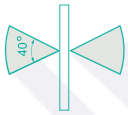
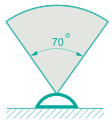
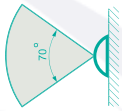
ZyAIR Antenna

Extend Your ZyAIR

Antenna Specifications

Model name	ZyAIR EXT-104	ZyAIR EXT-105	ZyAIR EXT-106
			
Description	Indoor 4dBi Omnidirectional Ceiling Antenna	Indoor 5dBi Omnidirectional Desktop Antenna	Indoor 6dBi Directional Patch Antenna
Application	Indoor	Indoor	Indoor
Beamwidth	Horizontal: 360˚ Vertical: 58˚ ~ 75˚	Horizontal: 360˚ Vertical: 40˚	Horizontal: 80˚ Vertical: 80˚
Patterns	Overlook  Horizontal coverage  Vertical coverage	Overlook  Horizontal coverage  Vertical coverage	Overlook  Horizontal coverage  Vertical coverage
Frequency Range	1.7GHz ~ 2.7GHz	2.4GHz ~ 2.5GHz	2.4GHz ~ 2.5GHz
Gain	4 dBi	5 dBi	6 dBi
VSWR	2.0 Max	2.0 Max	1.5 Max
Connector	SMA Straight Plug/Reverse	SMA Straight Plug/Reverse	SMA Straight Plug/Reverse
Cable Length	2m	1m	1.5m
Dimensions	132 x 42mm	236mm(L)	118 x 86 x 76mm
Weight	100g	158g	110g
Benefit	Improve Coverage	Improve Coverage	Focus Coverage
Improve Link Quality	Improve Link Quality	Improve Link Quality	
	Ceiling mounted	Flexible Deployment	Wall mounted

ZyXEL
TOTAL INTERNET ACCESS SOLUTION

ZyNOS FC CE

Corporate Headquarters
ZyXEL Communications Co.
Tel: +886-3-578-3942
Fax: +886-3-578-2439
Email: sales@zyxel.com.tw
http://www.zyxel.com
http://www.zyxel.com.tw

North America
ZyXEL Communications Inc.
Tel: +1-714-632-0882
Fax: +1-714-632-0858
Email: sales@zyxel.com
http://www.zyxel.com

Germany
ZyXEL Deutschland GmbH.
Tel: +49 2405 6909 0
Fax: +49 2405 6909 99
Email: sales@zyxel.de
http://www.zyxel.de

Denmark
ZyXEL Communications A/S
Tel: +45 39 55 07 00
Fax: +45 39 55 07 07
Email: sales@zyxel.dk
http://www.zyxel.dk

Norway
ZyXEL Communications A/S
Tel: +47 22 80 61 80
Fax: +47 22 80 61 81
Email: sales@zyxel.no
http://www.zyxel.no

Sweden
ZyXEL Communications A/S
Tel: +46 (0) 31 744 3810
Fax: +46 (0) 31 744 3811
Email: sales@zyxel.se
http://www.zyxel.se

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