# ZebraNet®
# Print Server Family



## Advanced Connectivity for Advanced Printers

How do you make Zebra® bar code printers even better? Add ZebraNet print servers, which deliver enhanced connectivity solutions to meet the needs of evolving network environments.

## Zebra Everywhere and Anywhere

Need location–independent printing minus the hassle and cost of recabling? Use the 802.11b/g compliant ZebraNet Internal Wireless Plus and ZebraNet Wireless Plus, with advanced authentication and encryption protocols, to enjoy ultimate mobility with reliable network and data security. Or—attach your printers to an external, 802.11g ZebraNet PS4000™ wireless print server.

For flexible connectivity options, get ZebraNet 10/100 Print Server for 10Base-T, 100Base-TX, and fast Ethernet 10/100 auto-switching networks, or the ZebraNet PrintServer II for cost–effective Ethernet connectivity to 10Base-T and Novell IPX/SPX networks.
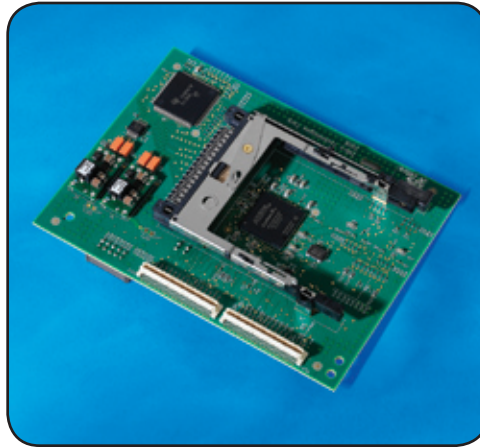
## High-Speed Printing and Networking

Rely on Zebra to meet your high-speed printing and networking needs. All ZPL®-based Zebra printers enabled with ZebraNet print servers offer optimal integration for today's network environment with easy setup and configuration via Zebra advanced printer management tools.

Zebra now offers you a choice in print server products to make the world's best printers even better:

- Flexible 10/100 Ethernet connectivity for high-performance and industrial-strength printers
- Secure wireless network connectivity for location-independent printer operations anytime, anywhere
- The new PS4000 makes any desktop or tabletop printer wireless, enabling a cart-based mobile solution
- 10Base-T Ethernet connectivity for value-priced, compact desktop printers
- Effortless installation and centralized connectivity and control via Zebra advanced printer management

# ZebraNet Print Server Family

## ZebraNet Internal Wireless Plus and Wireless Plus





ZebraNet Internal Wireless Plus and ZebraNet Wireless Plus offer a high level of wireless security for *Xi*III*Plus*™, 105*SL*™, S4M™, ZM400™/ZM600™, and *PAX*4 printers for flexible re-configuration of printers as business needs require. Compatible with Zebra's wireless mobile printers, the ZebraNet Internal Wireless Plus has an internal, theft-resistant radio that doesn't require you to buy a separate card. Tethered antenna with magnetic mount can optimize reception by enabling the user to position the antenna in a manner to improve signal quality.

### Operating Characteristics

**Wireless Network Connection**
- Wireless network compatibility—IEEE 802.11b/g
- Data Rates Supported—1, 2, 5.5, 11, and 54 Mb per second
- Wireless Medium DSSS (Direct Sequence Spread Spectrum)
- Frequency Band—2.4 to 2.4897 GHz

**Radio Cards (Wireless Plus)**
See page 4 for selected Cisco® and Motorola® radio card models.

**Security**
Refer to radio card securities supported on page 4.

**User Interface**
- Link Status Indicator—real-time display of the printers network status.
- Wireless Signal Indicators

### Additional Tools Support

Configuration via ZebraNet™ Bridge Enterprise remote printer management software and Telnet

### Other Features

**Power**
Power provided by the printer

**Environment**
Operates to the environmental specifications of the printer.

**Agency Approvals**
Safety: UL 1950; IEC 950; CSA 950-95; EN 60950: 1995 CE: CISPR 22 (-B); CE Compliance; EN 55024:1998; EN 61000-3-2, -3-3 FCC: (Class B – *Xi*III only); FCC (Class A – *Xi*II); Canadian Doc. (Class A)

**ZebraNet Internal Wireless Plus Availability**
ZebraNet Internal Wireless Plus print server is not available in all countries. Contact your Zebra representative for availability.
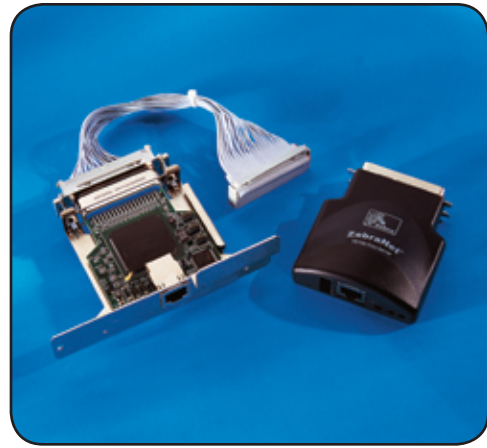
**Warranty**
One year


ZebraNet Internal Wireless Plus installed on a Zebra *Xi*III*Plus* printer


ZebraNet Internal Wireless Plus optional tethered antenna

## ZebraNet 10/100 Print Server



ZebraNet 10/100 Print Server is available in an internal or external version that provides a complete wired solution for 10Base-T, 100Base-TX, and fast Ethernet 10/100 auto-switching networks. When paired with the industrial-strength Zebra *Xi*III*Plus*, 105*SL*, S4M, Z4Mplus™/Z6Mplus™ and ZM400/ZM600 printers with enhanced ECP parallel support, it offers greater data transmission speeds for faster throughput.

### Operating Characteristics
- Ethernet 10Base-T and 100Base-TX UTP RJ45 connection
- Auto senses full- and half-duplex communications

**Printer Connection**
Bi-directional, IEEE- 1284 Centronics® parallel port (Compatibility, Nibble, and ECP)

**User Interface**
- Test button: diagnostic test and configuration printing
- Activity indicators: bi-color display of operational status;
- bi-color display of speed and network activity

**Electrical**
- Maximum 750mA at 5.25VDC
- Nominal 475mA at 5VDC
- Power provided by the printer (Centronics pin 18, 5VDC at 475mA)

### Other Features

**Physical Characteristics**
- Width: 2.8" / 71.12 mm
- Length: 3.2" / 81.28 mm
- Height: 1.2" / 30.48 mm
- Weight: 2.7 oz / 77 g

**Environment**
- Operating Temperature: 32° F/0° C to 104° F/40° C
- Storage Temperature: -40° F/-40° C to 140° F/60° C
- Operating Humidity: 25 to 85% non-condensing
- Storage Humidity: 5 to 85% non-condensing

**Agency Approvals**
CISPR 22 Class B; Canadian Doc.; FCC Class B; EN55024; AS/NZS3548

**Warranty**
One year

## ZebraNet PrintServer II



ZebraNet PrintServer II is ideal for desktop printers on a 10Base-T or Novell® IPX/SPX network and offers easy remote management for ZPL-based printers via Zebra printer management. This external print server conveniently connects to the printer's parallel port and obtains power directly from the printer—external power supplies not required!

### Operating Characteristics
• Auto senses IEEE- 802.3, Ethernet II, IEEE- 802.2, and IEEE 802.2/SNAP frame formats
• Ethernet 10Base-T UTP RJ45 connection

**Printer Connection**
Bi-directional, IEEE- 1284 Centronics parallel port (Compatibility, Nibble, and ECP)

**User Interface**
• Test button: diagnostic test and configuration printing
• Activity indicators: bi-color display of operational status

**Electrical**
Power provided by the printer (Centronics pin 18, 5VDC at 200mA)

### Additional System Support
• Novell NetWare®: Netware 3 and 4 (NDS and Bindery)
• Simultaneous support for NetWare NDS and NDPS; Novell Generic Gateway and HP® Printer Gateway; Dedicated Print Server and remote Print Server modes. Up to eight file servers and 32 queues; Print Protocols and Methods: IPX: NDS, SPX, Pserver, SPX Direct Print

### Other Features

**Physical Characteristics**
• Width: 2.5" / 63.5 mm
• Length: 3.6" / 91.4 mm
• Height: .8" / 20.3 mm
• Weight: 2.5 oz / 71 g

**Environment**
• Operating Temperature: 32° F/0° C to 104° F/40° C
• Storage Temperature: -40° F/-40° C to 140° F/60° C
• Operating Humidity: 25 to 85% non-condensing
• Storage Humidity: 5 to 85% non-condensing

**Agency Approvals**
CISPR 22 Class B; Canadian Doc.; FCC Class B; EN55024; AS/NZS3548

**Warranty**
One year

## ZebraNet PS4000



ZebraNet PS4000 takes Zebra desktop, tabletop, or RFID printers—and even USB 2.0-enabled laser or inkjet printers—and turns them into a mobile solution wherever you need to go wireless.

With secure 802.11g wireless connectivity for up to four USB devices, the new ZebraNet PS4000 wireless print server eliminates the hassle of installing wires around a retail or warehouse operation.

### Operating Characteristics

**Connectivity**
• IEEE 802.11g (CF format)
• Four USB ports
• 10-pin RS232 communications port for setup

**Security**
802.11i/ WPA2, EAP-TLS, EAP-TTLS, IEEE 802.1X Authentication schemes, WPA-PSK, WPA-LEAP, WPA-PEAP, WPA-EAP/FAST, VPN, and more!

**User Interface**
• 6 LED indicators for printer status.
• Optional LCD for monitoring network and battery status.

**Memory**
8 MB RAM and 4 MB Flash

**Power**
• AC adapter
• Server Input Range: 10V nominal to 24V nominal
• Wide DC input voltage allows various powered carts or LA-24 battery pack compatibility

### Other Features

**Environment**
• Vibration resistant for cart- based environments
• Operating Temperature: 32° F/0° C to 104° F/40° C
• Storage Temperature: 14° F/0° C to 104° F/40° C
• Operating and Storage Humidity: 20% to 80%, non-condensing.

**Agency Approvals**
United States (FCC), Industry Canada (IC), Australia/New Zealand (C-Tick), Mexico (NOM/NYCE), EU/EFTA (CE)

**Warranty**
One year

## ZebraLink™ Solutions

**Software**
• ZebraDesigner™ Pro
• ZebraDesigner for XML
• ZebraNet™ Bridge Enterprise
• ZebraNet Utilities v 7.0
• Zebra Universal Driver

**Networking**
• ZebraNet Internal Wireless Plus
• ZebraNet Wireless Plus
• ZebraNet 10/100 Print Server
• ZebraNet PrintServer II
• ZebraNet PS4000 Wireless Print Server

**Firmware**
• ZPL® and ZPL II®
• Web View
• Alert

## Standard Features

• Logical Printer Support
• SMTP
• POP3
• Zebra MIB Support

## System

• Microsoft® Windows® 95/98/Me/NT/2000/XP
    – Client mode for peer-to-peer printing via TCP/IP
    – Print Protocols and Methods (all simultaneously active): TCP/IP: LPR/LPD, FTP, IPP v1.0**, Raw printer port (port 9100)
• UNIX®, Linux®, Novell®, and Other Systems Supporting TCP/IP
    – Print Protocols and Methods (all simultaneously active): TCP/IP: LPR/LPD, FTP, IPP v1.0**, Raw printer port (port 9100)

** IPP v1.0 is only available with some print servers

## Administration Protocols

• TCP/IP: ARP, RARP
• TCP/IP and UDP: DHCP, BOOTP, SNMP v1.0
• HTML v3.2
• HTTP v1.0
• Telnet

*Specifications subject to change without notice.

Note: Not all products are available in all countries. Contact your Zebra representative for availability.

### Compatibility Matrix

| Current Printer Models** | ZebraNet Internal Wireless Plus | ZebraNet Wireless Plus | ZebraNet 10/100 Print Server | ZebraNet PrintServer II | ZebraNet PS4000 Wireless Print Server |
|---|---|---|---|---|---|
| *Xi*™ series | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| *PAX*4™ series | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| 105*SL*™ | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| ZM400™/ZM600™ | 1, 2, 4 | 1, 2, 3 | 1, 2, 3, 4 | 3, 4 | 3 |
| Z4Mplus™/Z6Mplus™ | | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| S4M™ | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 3, 4 | 3 |
| R110*Xi*™ | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| R170*Xi*™ | 1, 2, 4 | 1, 2, 4 | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| R110*PAX*4™ | 1, 2, 4 | | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| R4Mplus™ | | | 1, 2, 3, 4 | 1, 3, 4 | 3 |
| R2844-Z™ | | | | 2, 3, 4 | 3 |
| TLP 2844™ and LP 2844™ | | | | 2, 3 | 3 |
| TLP 2844-Z™ and LP 2844-Z™ | | | | 2, 3, 4 | 3 |
| TLP 2824™ and LP 2824™ | | | | 2, 3 | 3 |
| TLP 3842™ | | | | 2, 3 | 3 |
| TLP 3844-Z™ | | | | 2, 3, 4 | 3 |

1 - Internal, field kit     2 - Internal, factory option     3 - External, field kit     4 - ZebraLink compatible
** Only currently selling products. Go to www.zebra.com or ask your Zebra reseller for more details.

### Securities Supported

| | ZebraNet Internal Wireless Plus | Cisco CB21 | Cisco 350 | Motorola LA-4121 | Motorola LA-4137CF |
|---|---|---|---|---|---|
| **Open** | Yes | Yes | Yes | Yes | Yes |
| **EAP-FAST** | Yes | Yes | Not Supported | Yes | Yes |
| **EAP-TLS** | Yes | Yes | Not Supported | Yes | Yes |
| **EAP-TTLS** | Yes | Yes | Not Supported | Yes | Yes |
| **Kerberos** | Not Supported | Not Supported | Not Supported | Yes | Yes |
| **LEAP** | Yes | Yes | Yes | Yes | Yes |
| **PEAP** | Yes | Yes | Not Supported | Yes | Yes |
| **WEP (40 bit and 128 bit)** | Yes | Yes | Yes | Yes | Yes |
| **WPA - LEAP** | Yes | Yes | Yes | Yes | Yes |
| **WPA - PSK** | Yes | Yes | Yes | Yes | Yes |
| **WPA- EAP-FAST** | Yes | Yes | Yes | Yes | Yes |
| **WPA- EAP-TLS** | Yes | Yes | Yes | Not Supported | Yes |
| **WPA- EAP-TTLS** | Yes | Yes | Yes | Not Supported | Yes |
| **WPA- PEAP** | Yes | Yes | Yes | Yes | Yes |
| **WPA2 - LEAP** | Yes | Yes | Not Supported | Not Supported | Not Supported |
| **WPA2 – PSK** | Yes | Yes | Not Supported | Not Supported | Not Supported |
| **WPA2- EAP-FAST** | Yes | Yes | Not Supported | Not Supported | Not Supported |
| **WPA2- EAP-TLS** | Yes | Yes | Not Supported | Not Supported | Not Supported |
| **WPA2- EAP-TTLS** | Yes | Yes | Not Supported | Not Supported | Not Supported |
| **WPA2- PEAP** | Yes | Yes | Not Supported | Not Supported | Not Supported |

Products/Firmware: V60.15.x, *PAX*4, *Xi*III*Plus*, 105*SL*, V53.15.x, ZM400, ZM600, S4M
* Key rotation for WPA-PSK is supported in firmware version V60.15.6Z and later and in firmware version V53.15.6Z and later.