B&B ELECTRONICS

PRODUCT INFORMATION

**Model: ZP24D-250RM-SR, ZP24D-192RM-MR**
**ZP24D-96RM-MR, ZP9D-192RM-MR**
**ZP9D-115RM-LR, ZP9D-96RM-LR**

# *Zlinx Wireless Radio Modems*

**Industrial grade radio modems – easy to install and maintain, up to 40 mile range**

## *Description*

Need to get a digital signal across a highway or river? Or just to the other end of your big warehouse? Zlinx radio modems can do the job faster, easier, and less expensively than stringing cable. Easy plug-and-play set-up saves installation and maintenance time. These compact and rugged units are compatible with Modbus and Profibus so no additional converters are required.

Despite their low prices, these are not wimpy consumer or office products. Select the power level you need to punch through whatever distance and interference situations you encounter. Zlinx radio modems are built to handle the heat, cold, and environments of industrial operations.

## *Features*

- RS-232/422/485, Serial communications
- Modbus compatible – no additional converters needed
- Ranges to 40 miles (64 km)
- Heavy duty DIN mount industrial grade case and components
- Frequency: ISM band, 902 to 928 MHz or 2.400 to 2.4385 GHz
- Modulation: FSK – Frequency Shift Keying
- Signal strength indicator aids trouble shooting
- 3 dBi for 900 MHz; 2.1 dBi for 2.4 MHz RPSMA male dipole
- Wide temperature range -40º to 85º C
- Versatile power: 10 to 48 VDC or 18 to 30 VAC
- 256-bit encryption (Model ZP9D-115RM-LR)
- Software for Win 98, ME, 2K, and XP included for ease of configuration

## *Benefits*

- DIN rail mount – saves panel or cabinet space.
- Constant signal strength feedback – during installation and troubleshooting later.
- Rugged circuitry, wide temperature – for indoor and outside applications.
- Handles most industrial control power configurations and power supplies.
- Immediate integration into cUL, CSA approved panels.

## Specifications

| | ZP24D-250RM-SR | ZP-9D-192RM-MR<br>ZP9D-96RM-MR | ZP24D-192RM-MR<br>ZP24D-96RM-MR | ZP9D-115RM-LR |
|---|---|---|---|---|
| **RF Properties** | | | | |
| Standard | IEEE 802.15.4 | Proprietary Radio | Proprietary Radio | Proprietary Radio |
| Range(with included antenna) | up to 300 feet indoor or 1 mile outdoor | up to 1500 feet indoor or 7 mile outdoor | up to 600 feet indoor or 3 mile outdoor | up to 3000 feet indoor or 14 miles outdoor |
| Frequency | 2.4 GHz | 900 MHz | 2.4 GHz | 900 MHz |
| Transmit Power | 100mW | 100mW(900MHz) | 50mW(2.4GHz) | 1W |
| **Software** | | | | |
| Support | Win 98, ME 2K, XP | | | |
| Features | AT Command<br>Terminal emulation<br>RSSI signal range test<br>Modem emulation | | | |
| **Included Omni Antenna** | 2.1 dBi | 3 dBi | 2.1 dBi | 3 dBi |
| **Antenna Connector** | External Reverse Polarity SMA male jack connector, omni directional (included with product) | | | |
| **Serial Settings** | | | | |
| Baud | 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200 | 1200, 2400, 4800, 9600, 19200, 38400, 57600 | 1200, 2400, 4800, 9600, 19200, 38400, 57600 | 1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200, 230400 |
| Data bit; Parity; Stop bit | 8 only; none only; 1 only | 7, 8; None, even, odd, mark, space; 1, 2 | 7, 8; None, even,odd, mark, space; 1, 2 | 7, 8; None, even, odd, mark, space; 1, 2 |
| **RS-232** | DB9F DCE or Terminal Block (TX, RX, GND available on Terminal Block | | | |
| **RS-422** | Removeable terminal block, 2 or 4 wire - TX+, TX-, RX+, RX-, GND, 120 Ohm Dipswitch selectable | | | |
| **RS-485** | Removeable terminal block, 2 or 4 wire - TX+, TX-, RX+, RX-, GND, Bit wise, 120 Ohm Dipswitch selectable | | | |
| **Wireless link failure** | Removeable terminal block, Open collector, dry contact, 40mA | | | |
| **Power Supply** | 10-48 VDC, 18-30 VAC, Removeable terminal block | | | |
| Power Consumption | 2.0 W max | 1.5W max | 1.5W max | 5.0W max |
| **Dimensions** | 1.2W x 3.3D x 4.7H | | | |
| **Environmental** | | | | |
| Operating Temperature | -40 to 85ºC | | | |
| Storage Temperature | -40 to 85ºC | | | |
| Operating Humidity | 10 to 90% non-condensing | | | |
| **Enclosure Rating** | | | | |
| Rating | IP30 | | | |
| Mounting | DIN rail mount, 35mm | | | |
| **LED Status** | Power, Signal Strength, Wireless Data | | | |
| **Certifications** | | | | |
| FCC | FCC Part 15 Class B | | | |
| CE | CISPR (EN55022) Class B<br>EN61000-6-1 Generic Standards for Residential, Commercial, & Light Industrial<br>EN61000-4-2-ESD, EN61000-4-3 RFI, EN61000-4-4 EFT, EN61000-4-5 Surge, EN61000-4-6 CI, EN61000-4-8 Power Frequency Magnetic, EN61000-4-11 Voltage Dips & Interruptions | | | |
| UL | UL, cUL | UL, cUL | UL, cUL | UL, cUL, Class 1 Div 2 |
| **RoHS directive (lead free)** | Yes | | | |



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**Special Instructions for Installation and Operation in a Class 1 Div 2 Environment**

When this device is operated in a Class 1 Div 2 environment, the following PRECAUTIONS and WARNINGS must be observed:

1. Power, input and output (I/O) wiring must be in accordance with Class 1 Division 2 wiring methods [Article 501.10(B) of the National Electrical Code, NFPA 70] and in accordance with the authority having jurisdiction.

2. WARNING – EXPLOSION HAZARD – SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS 1, DIVISION 2.

3. WARNING – EXPLOSION HAZARD – WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES.

4. WARNING – EXPLOSION HAZARD – DO NOT DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NON-HAZARDOUS.





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