Zlinx™ Wireless Radio Modems – Industrial, IP30, indoor/outdoor

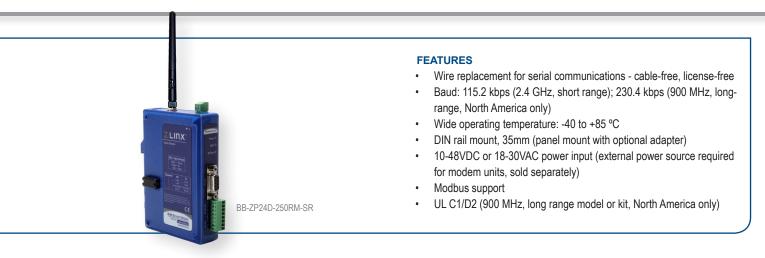**Models: BB-ZP24D-250RM-SR, BB-ZP9D115RMLR-A, BB-RM-LR-KIT, BB-RM-SR-KIT**

B+B SmartWorx
Powered by ADVANTECH
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FEATURES

- Wire replacement for serial communications - cable-free, license-free
- Baud: 115.2 kbps (2.4 GHz, short range); 230.4 kbps (900 MHz, long-range, North America only)
- Wide operating temperature: -40 to +85 ºC
- DIN rail mount, 35mm (panel mount with optional adapter)
- 10-48VDC or 18-30VAC power input (external power source required for modem units, sold separately)
- Modbus support
- UL C1/D2 (900 MHz, long range model or kit, North America only)

BB-ZP24D-250RM-SR

Do you need to get a digital signal across a highway or river or to the other end of a big warehouse? Zlinx industrial serial radio modems can do the job faster, easier and less expensively than stringing cable. Zlinx radio modems connect serial devices over a wireless network with easy plug-and-play set-up that saves installation and maintenance time and cost. Modbus and Profibus compatible – no additional converters required.

NETWORK CONFIGURATION OPTIONS
Serial-to-Serial Connectivity: Two or more serial (RS-232/422/485) devices connected over a wireless network via Zlinx Radio Modems. One radio modem required per serial device (all radio modems must be of same frequency).

Modbus I/O Connectivity: Analog, digital and temperature I/Os (up to 247 base I/O modules, of one frequency type) can be connected wirelessly to a Modbus RTU Master (PLC, SCADA, HMI) via a Zlinx Radio Modem of the same frequency.

INDUSTRIAL-GRADE
Zlinx radio modems are designed to handle the heat, cold and environments of industrial operations and feature a wide operating temperature, dual power, a heavy-duty IP30 DIN mount case, industrial components and circuitry.
UL Class 1/Division 2 rated (900 MHz model).

Model BB-ZP9D115RMLR-A (North America only) supports an indoor maximum range of 91 m (3000 ft) and outdoor maximum range of 22.5 km (14 mi). Includes RPSMA male dipole antenna.

Model BB-ZP924D-250RM-SR supports an indoor maximum range of 91m (3000 ft) and outdoor maximum range of 1.6 km (1 mi).

POWER SOURCE
10 to 48 VDC or 18 to 30 VAC wide range power input options. External power source required:
_Stand-alone radio modems do not include power supply (sold separately).
_Each kit includes (two each): radio modems, power supplies, cables.

ORDERING INFORMATION [1]

MODEL NUMBER	DESCRIPTION
BB-ZP24D-250RM-SR	Zlinx Radio Modem 2.4 GHz, Short Range, RS-232/422/485
BB-ZP9D115RMLR-A [2]	Zlinx Radio Modem 900 MHz, Long Range, RS-232/422/485
BB-RM-LR-KIT [3]	Long Range Starter Kit, 900 MHz, Radio Modem
BB-RM-SR-KIT [2,3]	Short Range Starter Kit, 2.4 GHz, Radio Modem

Note 1: Order one radio modem for each serial device that you want to connect (use same frequency).

Note 2: 900 MHz model for North America only.

Note 3: Kits contain: (2) radio modems, (2) 24VDC 30W power supplies, (2) 1.8 m (6 ft) serial cables

World-wide. Check with your local distributor for availability and options.

ACCESSORIES - sold separately

BB-MDR-20-24 – 24W, 24VDC, 1A, DIN Power Supply, Slim Case
BB-ZP9D-ANT1 – 900 MHz Spare Antenna
BB-ZP24D-ANT1 – 2.4 GHz Spare Antenna
BB-ZP9D-DIN1 – Replacement DIN Clip Kit
BB-DRPM25 – Panel Mount Adapter

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Zlinx™ Wireless Radio Modems
– Industrial, IP30, indoor/outdoor

Models: BB-ZP24D-250RM-SR, BB-ZP9D115RMLR-A, BB-RM-LR-KIT, BB-RM-SR-KIT

BB-ZP9D115RMLR-A
(North America only)

SPECIFICATIONS

MODEL NUMBER:	BB-ZP24D-250RM-SR	BB-ZP9D115RMLR-A *(North America only)*	
RF PROPERTIES			
Standard	IEEE 802.15.4	Proprietary Radio	
Range (with included antenna)	Up to 91 m (3000 ft) indoor, or 1.6 km (1.0 mi) outdoor	Up to 91 m (3000 ft) indoor, Up to 22.5 km (14 mi) outdoor	
Frequency	2.4 GHz	900 MHz	
Transmit Power	10 mW (max)	1W (selectable)	
SOFTWARE			
O/S Support	Windows XP, 7, 8, 8.1, 10		
Features	RSSI signal range test modem emulation		
INCLUDED OMNI ANTENNA			
dBi	2.1 dBi	3 dBi	
Antenna Connector	External Reverse Polarity SMA male jack connector, omni directional (included with product)		
SERIAL PROPERTIES			
Baud	1200, 2400, 4800, 9600, 19200, 38400, 57600, 115200	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
RS-232	DB9F DCE or Terminal Block (TX, RX, GND available on Terminal Block		
RS-422	Removable terminal block, 2- or 4-wire: TX+, TX-, RX+, RX-, GND, 120 Ohms, Dip Switch selectable		
RS-485	Removable terminal block, 2- or 4-wire: TX+, TX-, RX+, RX-, GND, bit-wise, 120 Ohms, Dip Switch selectable		
Wireless Link Failure Output	Removable terminal block, source (PNP) transistor output, 40mA		
POWER			
Power Source	External, required (not included with radio modem units; included in kits)		
Power Supply	10-48 VDC, 18-30 VAC, removable terminal block		
Power Consumption	2.0W, maximum	5.0W, maximum	
DIMENSIONS			
Enclosure	3.1W x 8.4D x 11.4H cm (1.2W x 3. 3D x 4.7H in)		
ENVIRONMENTAL			
Operating Temperature	-40 to +85 ℃		
Storage Temperature	-40 to +85 ℃		
Operating Humidity	10 to 90% non-condensing		
ENCLOSURE RATING			
Rating	IP30		
Mounting	DIN rail mount, 35mm		
LED Status	Power, Signal Strength, Wireless Data		
MEANTIME BETWEEN FAILURE (MTBF) - MIL 217F			
MTFB	BB-ZP24D-250RM-SR: 1108125 hours BB-ZP9D115RMLR-A: 1137313 hours		
REGULATORY, APPROVALS, DIRECTIVES, STANDARDS			
CE (2.4 GHz models only, BB-ZP24D-250RM-SR and BB-RM-SR-KIT) FCC Part 15 GFR Title 47 – Digital Apparatus (Federal Communications Commission) ICES-003 Class B – Digital Apparatus (Industry Canada)			
CE (Models BB-ZP24D-250RM-SR, BB-RM-SR-KIT only)	ETSI EN 301 489-1 v1.9.2 ETSI EN 301 489-1 v2.2.1 Applied in accordance with the specific requirements of EMC and Radio Spectrum Matters: Broadband Data Systems EN 55032 Class B – Electromagnetic Compatibility of Multimedia Equipment – emission requirements EN 61000-6-3 + A1 – Generic Emission Standard for Residential, Commercial and Light-industrial Environments EN 61000-6-2 – Generic Immunity Standard for (heavy) Industrial Environments **SAFETY:** EN 60950-1 +A11 +A1 +A12 +A2 - Information Technology Equipment - Safety - Part 1: General Requirements EN 62479 – RF Exposure Limits **ENVIRONMENTAL:** IEC 60068-2-6 – Vibration, 10-500 Hz, 4G, 3 axes IEC-60068-2-27 – Shock, 50G peak, 3 axes IEC-60068-2-32 – Drop, 10 total drops from 1 meter, from sides, edges and corner		
UL	UL508 (E222870) (all models) UL Class 1/Division 2 (E245458) *(Model# BB-ZP9D115RMLR-A only)*		