

Zlinx® Xtreme IP67 Outdoor Rated Wireless Industrial Radio Modem

Models ZXT9-RM, ZXT24-RM

B+B SMARTWORX

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ZXT24-RM

PRODUCT FEATURES

- Wire replacement for serial communications - cable-free, license-free
- Baud rate: 250 kbps, SW selectable (2.4 GHz, short range); 9.6 or 115.2 kbps (900 MHz, long-range, North America only)
- Wide operating temperature range: -40 to +74 °C
- Heavy-duty, industrial grade, DIN rail mount (panel mount with optional adapter)
- Wide range power input: 10 - 30 VDC
- IP67, UL C1/D2, NEMA TS2, CE (2.4 GHz only)
- Range up to 64 km (40 mi), line-of-sight & antenna dependent, 900 MHz)
- Signal Strength Indicator (SSI), AES encryption, Modbus compatible

Do you need to get a digital signal across a highway or river? Zlinx® Xtreme Radio Modems can do it faster, easier, and less expensively than stringing cable. Easy plug-and-play set-up saves installation and maintenance time. These compact and rugged IP67 units are ideal for outdoor applications requiring Serial-to-Serial (RS-232/422/485) connectivity or to connect Zlinx® Xtreme Wireless I/O's to a Modbus RTU Master over a wireless network. Point-to-Multi Point connections are also possible.

Zlinx® Industrial Wireless products operate in license-free, Proprietary RF 2.4 GHz and 900 MHz (North America only) ISM bands. Select the 900 MHz version for longer distances. For further flexibility, the output power is software selectable.

The 900 MHz units offer 256-bit AES encryption. The 2.4 GHz units have 128-bit AES encryption.

ORDERING INFORMATION

MODEL NUMBER	DESCRIPTION
BB-ZXT9-RM *	Zlinx Xtreme IP67 900 MHz Radio Modem, Long Range, RS- 232/422/485
BB-ZXT24-RM	Zlinx Xtreme IP67 2.4 GHz Radio Modem, Short Range, RS-232/422/485

* 900 MHz for North America only.
Check with your local distributor for availability and options.
Check wireless regulations/standards in your geographic area.

ACCESSORIES - sold separately

BB-CLG-60-24	24VDC, 60W IP67 Power Supply, Panel Mount
BB-ZXT9-ANT	900 MHz Spare Antenna
BB-ZZ24D-ANT1	2.4 GHz Spare Antenna
BB-ZXTMT	Zlinx Xtreme Conduit Kit

All product specifications are subject to change without notice.

ZXTx-RM_1018ds

Zlinx® Xtreme IP67 Outdoor Rated Wireless Industrial Radio Modem

Models ZXT9-RM, ZXT24-RM

ZXT9-RM
(North America only)



SPECIFICATIONS

RF PROPERTIES	
Physical Standard	802.15.4
FREQUENCY	
ZXT9-RM	900 MHz ISM (902 to 928 MHz)
ZXT24-RM	2.4 GHz ISM (2.4 to 2.5 GHz)
TRANSMIT POWER	
ZXT9-RM (North America only)	1 mW, 10 mW, 100 mW, 500 mW 1 W (software selectable)
ZXT24-RM	10 mW
Receiver Sensitivity	-100 dBm
OVER THE AIR DATA RATE	
ZXT9-RM	9.6 or 115.2 kbps
ZXT24-RM	Software selectable 250 kbps
OUTDOOR RANGE	
ZXT9-RM	Supplied Antenna: 23 km (14 mi) High Gain Antenna, optional: 64 km (40 mi)
ZXT24-RM	Supplied Antenna: 2.4 km (1.5 mi) High Gain Antenna, optional: 16 km (10 mi)
Range estimates based on optimal RF conditions and an unobstructed line of sight.	
TRANSMISSION METHOD	
ZXT9-RM	FHSS
ZXT24-RM	DSSS
Modulation	FSK
CHANNEL CAPACITY	
ZXT9-RM	10 Hop Sequences Share 50 Frequencies
ZXT24-RM	12 Direct Sequence Channels
Network Topologies	Peer-to-Peer, Point-to-Point, Point-to-Multi Point
ENCRYPTION	
ZXT9-RM	256-bit AES
ZXT24-RM	128-bit AES
SUPPLIED ANTENNA	
ZXT9-RM	Impedance – 50 Ω Connector – RPSMA Female VSWR – 2.0 max. (in-band) Gain – 3 dBi Polarization – Vertical Length – 198 mm (7.8 in)
ZXT24-RM	Impedance - 50Ω Connector – RPSMA Female VSWR – 2.0 maximum (in-band) Gain – 2.1 dBi Polarization – Vertical Length – 113 mm (4.38 in)
Modem Antenna Connector	RPSMA Male
SOFTWARE	
OS Support	Windows XP, 7, 8, 8.1, 10
Features	RSSI Signal Range Test

SERIAL PROPERTIES	
Data Rates	
ZXT9-RM	1.2 to 230.4 kbps
ZXT24-RM	1.2 to 115.2 kbps
Data Bits	8
Parity	None, Even, Odd, Mark, Space
Stop Bits	1 or 2
Flow Control	None or Software
RS-232	Connector: Terminal Block Signals: TD, RD, RTS, CTS, GND
RS-422	Connector: Terminal Block Signals: TDA(-) TDB(+) RDA(-) RDB(+) GND
RS-485 (2 or 4-wire)	Connector: Terminal Block Signals (4-wire): TDA(-), TDB(+), RDA(-), RDB(+), GND Signals (2-wire): Data A(-), Data B(+), GND
SD Control	Automatic Bit Wise
Termination	120Ω Ohm DIP Switch Selectable
Industrial Bus	Modbus RTU
POWER	
Power Connector	Terminal Block
Input Voltage	10 to 30 VDC
Power Use	ZXT9-RM: 1.7 W (typical), 5.8 W (maximum) ZXT24-RM: 1.2 W (typical), 3.5 W (maximum)
ENVIRONMENT	
Dimensions	13.01 x 13.01 x 6.02 cm (5.12 x 5.12 x 2.37 in)
Operating Temperature	-40 to +74 °C (-40 to +165 °F)
Storage Temperature	-40 to +85 °C (-40 to +185 °F)
Operating Humidity	0 to 95% (non-condensing)
Enclosure Rating	IP67
Use	Indoor and Outdoor
CONTROLS AND INDICATORS	
Signal Strength Indicators	8 Green RSSI LEDs
Power	Green LED
Receive Data	Green LED
Transmit Data	Green LED
Programming Port	USB
Reset	Push-button
MEANTIME BEFORE FAILURE (MTBF) MIL 271F	
MTBF	BB-ZXT9-RM: 1646998 hours BB-ZXT24-RM: 1444273 hours
APPROVALS, CERTIFICATIONS, STANDARDS	
UL	UL, cUL, Class 1 Division 2 Groups A, B, C, D File E245458
CE	EN55032 – Class A (Model ZXT24-RM only) EN61000-6-1 – Heavy Industrial
FCC	Class A FCC ID – ZXT9-RM – OUR-9XTEND FCC ID – ZXT24-RM – OUR-XBEEPRO
NEMA TS2	