

# ZXTx-RM

## Zlinx Xtreme Radio Modem

- ✓ IP67 Rated for Outdoor Applications
- ✓ Modbus Compatible
- ✓ Wide Operating Temperature
- ✓ AES Encryption
- ✓ 900 MHz and 2.4 GHz Versions
- ✓ -40 to 74°C Operating Temperature

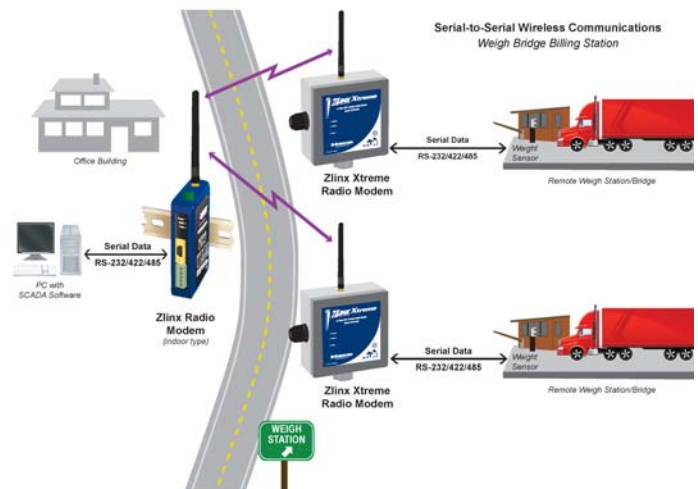


Need to get a digital signal across a highway or river?

Zlinx<sup>®</sup> Xtreme 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 ideal for outdoor applications requiring Serial-to-Serial (RS-232/422/485) connectivity or to connect Zlinx<sup>®</sup> Xtreme Wireless I/O's to a Modbus RTU Master over a wireless network. Point-to-Multi Point connections are also possible.

Zlinx<sup>®</sup> Industrial Wireless products operate in the license-free, Proprietary RF 900 MHz and 2.4 GHz ISM band. 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 have 128 bit AES Encryption.



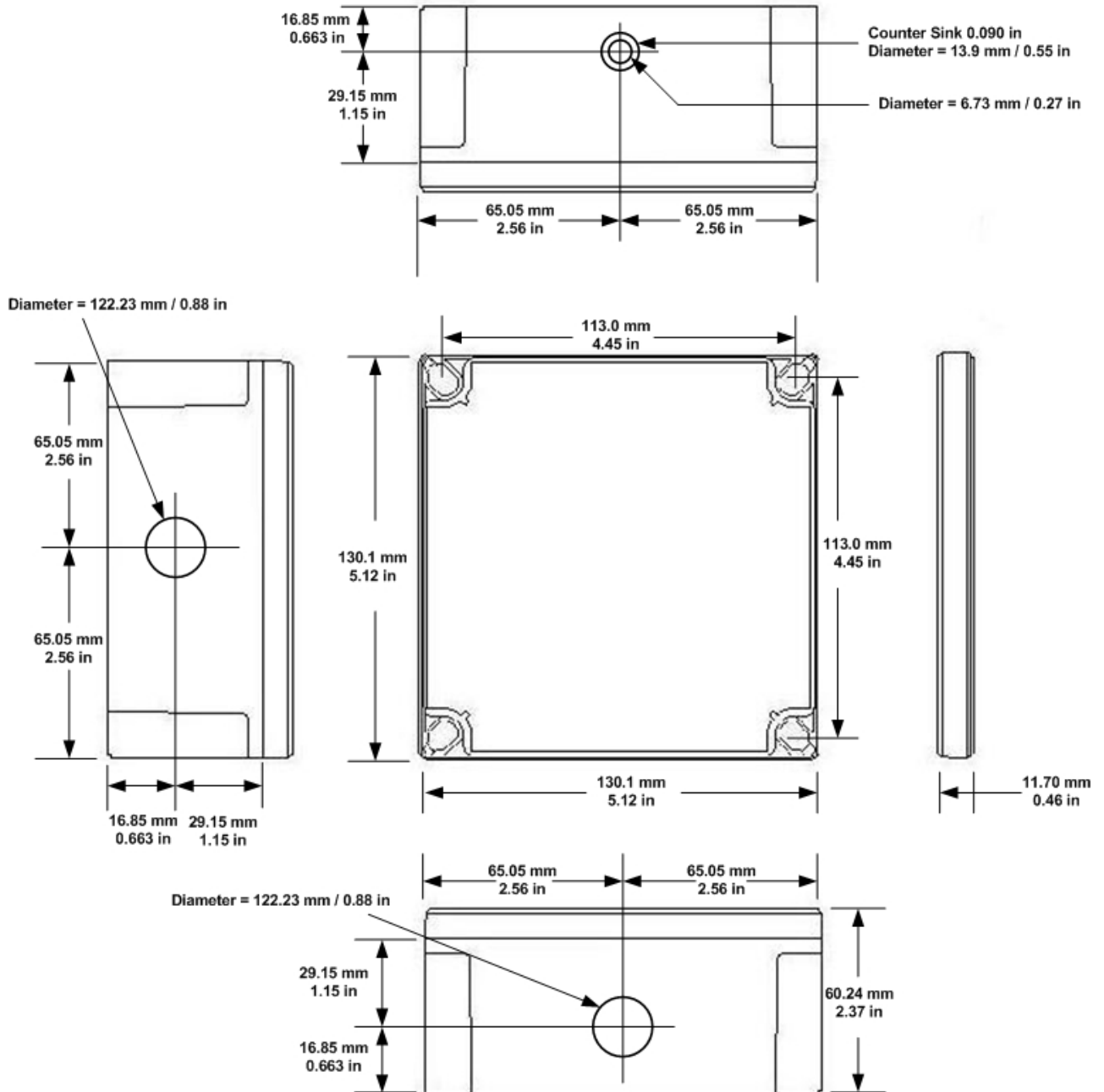
### Ordering Information

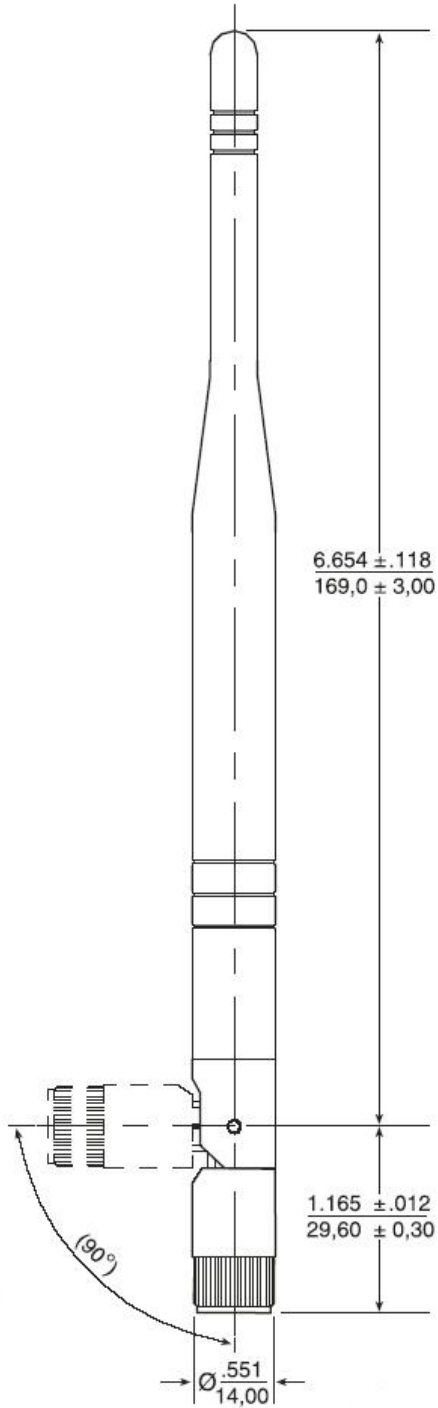
Model Number	Description
ZXT9-RM	ZLINX XTREME 900 MHZ RADIO MODEM
ZXT24-RM	ZLINX XTREME 2.4 GHZ RADIO MODEM
Accessories	
Power Supply	
CLG-60-24	IP67 Power Supply, Panel Mount, 24V DC 60 W
Spare Antenna	
ZXT9-ANT	900 MHz Spare Antenna
ZZ24D-ANT1	2.4 GHz Spare Antenna
A full range of antennas and accessories is available. Visit <a href="http://www.bb-electronics.com">www.bb-electronics.com</a>	

## Specifications

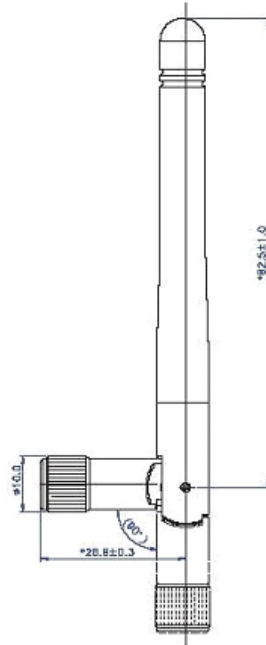
RF Properties		Serial Properties	
Physical Standard	802.15.4	RS-485 (2/4 Wire)	Terminal Block
Frequency	ZXT9-RM 900 MHz ISM (902-928 MHz) ZXT24-RM 2.4 GHz ISM (2.4 to 2.5 GHz)	Connector	TDA(-), TDB(+), RDA(-), RDB(+), GND
Transmit Power	1 mW, 10 mW, 100 mW, 500 mW 1 W – Software Selectable	Signals (4-Wire)	Data A(-), Data B(+), GND
	ZXT24-RM 10 mW, 16 mW, 25 mW, 30 mW 63 mW – Software Selectable	Signals (2-Wire)	Automatic Bit Wise
Receiver Sensitivity	-100 dBm	SD Control	120Ω Ohm DIP Switch Selectable
Over the Air Data Rate	ZXT9-RM 9.6 or 115.2 kbps Software Selectable	Termination	MODBUS RTU
	ZXT24-RM 250 kbps	Industrial Bus	
Outdoor Range		Power	
ZXT9-RM	Supplied Antenna 14 mi (23 km) High Gain Antenna 40 mi (64 km)	Power Connector	Terminal Block
ZXT24-RM	Supplied Antenna 1.5 mi (2.4 km) High Gain Antenna 10 mi (16 km)	Input Voltage	10 to 30 VDC
Range estimates based on optimal RF conditions and an unobstructed line of sight.		Power Use	ZXT9-RM 1.7 W (typical), 5.8 W (maximum) ZXT24-RM 1.2 W (typical), 3.5 W (maximum)
Transmission Method	ZXT9-RM FHSS ZXT24-RM DSSS	Environment	
Modulation	FSK	Dimensions	5.12x5.12x2.37 in /130.1x130.1x60.2 mm
Channel Capacity	ZXT9-RM 10 hop sequences share 50 Frequencies ZXT24-RM 12 Direct Sequence Channels	Operating Temp	-40 to 74°C (-40 to 165°F)
Network Topologies	Peer-to-Peer, Point-to-Point, Point-to-Multi Point	Storage Temp	-40 to 85°C (-40 to 185°F)
Encryption	ZXT9-RM 256 bit AES ZXT24-RM 128 bit AES	Op Humidity	0 to 95% (Non-Condensing)
Supplied Antenna	ZXT9-RM Impedance – 50 Ω Connector – RPSMA Female VSWR – 2.0 Max (in-band) Gain – 3 dBi Polarization – Vertical Length – 7.8 in (198 mm) ZXT24-RM Impedance - 50Ω Connector – RPSMA Female VSWR – 2.0 Max (in-band) Gain – 2.1 dBi Polarization – Vertical Length – 4.38 in (113 mm)	Enclosure Rating	IP67
Modem Antenna Con.	RPSMA Male	Use	Indoor and Outdoor
Serial Properties		Certifications	
Data Rate	ZXT9-RM 1.2 to 230.4 kbps ZXT24-RM 1.2 to 115.2 kbps	CE	EN55022: 2006 – Class A EN61000-6-2:2006 – Heavy Industrial EN61000-4-2:2008 – ESD EN61000-4-3:2006 – Radiated Immunity EN61000-4-4:2004 – EFT EN61000-4-5:Ed2 2005 – Surges EN61000-4-6:2005 – Cond. Immunity
Data Bits	8	FCC	Class A FCC ID – ZXT9-RM – OUR-9XTEND FCC ID – ZXT24-RM – OUR-XBEEPRO
Parity	None, Even, Odd, Mark, Space	Controls and Indicators	
Stop Bits	1 or 2	Signal Strength	8 Green RSSI LED's indicate signal strength
Flow Control	None or Software	Power	Green LED
RS-232	Connector Terminal Block Signals TD, RD, RTS, CTS, GND	Receive Data	Green LED
RS-422	Connector Terminal Block Signals TDA(-) TDB(+) RDA(-) RDB(+) GND	Transmit Data	Green LED
		Programming Port	USB
		Reset	Push Button

### Dimensional Diagram





ZXT9-RM Antenna



ZXT24-RM Antenna