

ZXTx-RM

Zlinx Xtreme Radio Modem

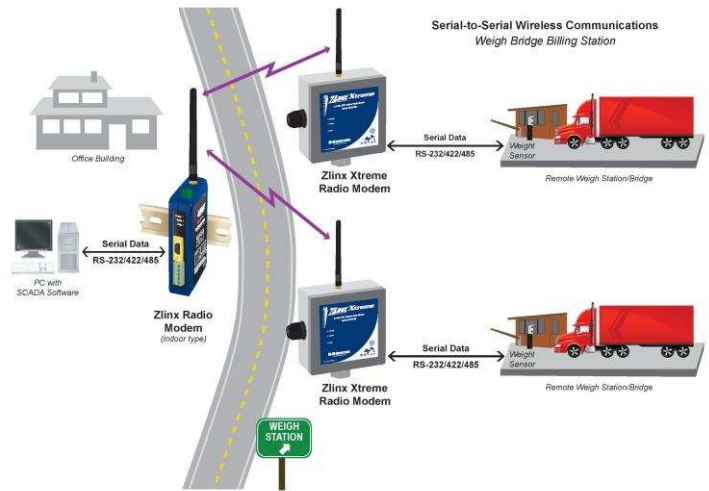
- ✓ IP67 Rated for Outdoor Applications
- ✓ Modbus Compatible
- ✓ Wide Operating Temperature
- ✓ AES Encryption
- ✓ 900 MHz and 2.4 GHz Versions
- ✓ -40 to 74 °C Operating Temperature
- ✓ Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment



Need to get a digital signal across a highway or river? Zlinx[®] 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[®] 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 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 www.bb-electronics.com



www.bb-elec.com orders@bb-elec.com support@bb-elec.com

International Office: 707 Dayton Road PO Box 1040 Ottawa, IL 61350 USA 815-433-5100 Fax 433-5104
European Office: Westlink Commercial Park Oranmore Co. Galway Ireland +353 91 792444 Fax +353 91 792445

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 ZXT24-RM 10 mW, 16 mW, 25 mW, 30 mW 63 mW – Software Selectable	Signals (4-Wire)	Data A(-), Data B(+), GND
Receiver Sensitivity	-100 dBm	Signals (2-Wire)	Automatic Bit Wise
Over the Air Data Rate	ZXT9-RM 9.6 or 115.2 kbps Software Selectable	SD Control	120Ω Ohm DIP Switch Selectable
Outdoor Range	ZXT24-RM 250 kbps	Termination	MODBUS RTU
	ZXT9-RM Supplied Antenna 14 mi (23 km) High Gain Antenna 40 mi (64 km)	Industrial Bus	
	ZXT24-RM Supplied Antenna 1.5 mi (2.4 km) High Gain Antenna 10 mi (16 km)		
Range estimates based on unobstructed line of sight.	optimal RF conditions and an		
Transmission Method			
	ZXT9-RM FHSS		
Modulation	ZXT24-RM DSSS		
Channel Capacity	ZXT9-RM 10 hop sequences share 50 Frequencies		
Network Topologies	ZXT24-RM 12 Direct Sequence Channels 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 – 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)		
Modem Antenna Con.	RPSMA Male		

Serial Properties	
Data Rate	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

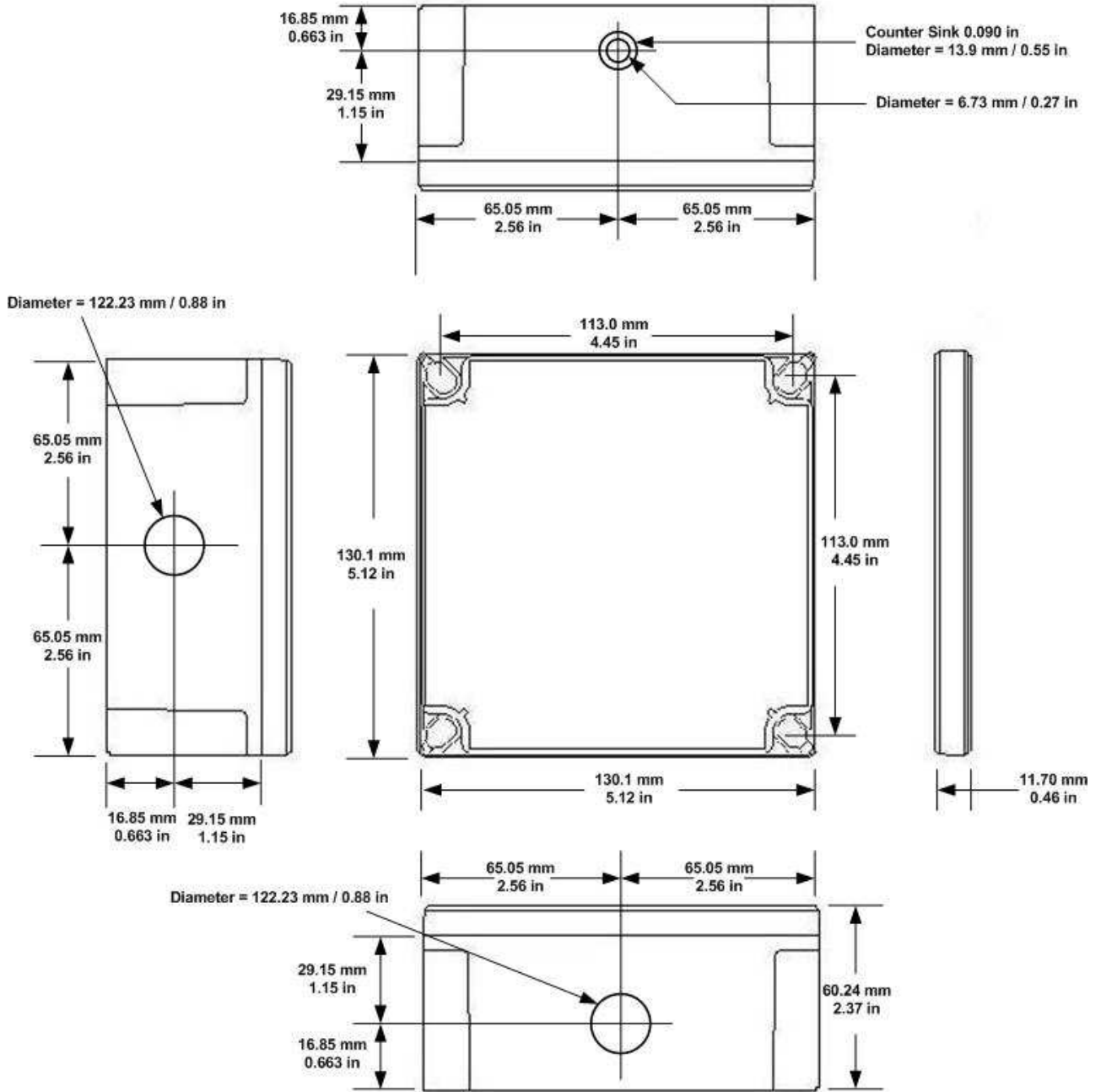
Power	
Power Connector	Terminal Block
Input Voltage	10 to 30 VDC
Power Use	ZXT9-RM 1.7 W (typical), 5.8 W (maximum) ZXT24-RM 1.2 W (typical), 3.5 W (maximum)

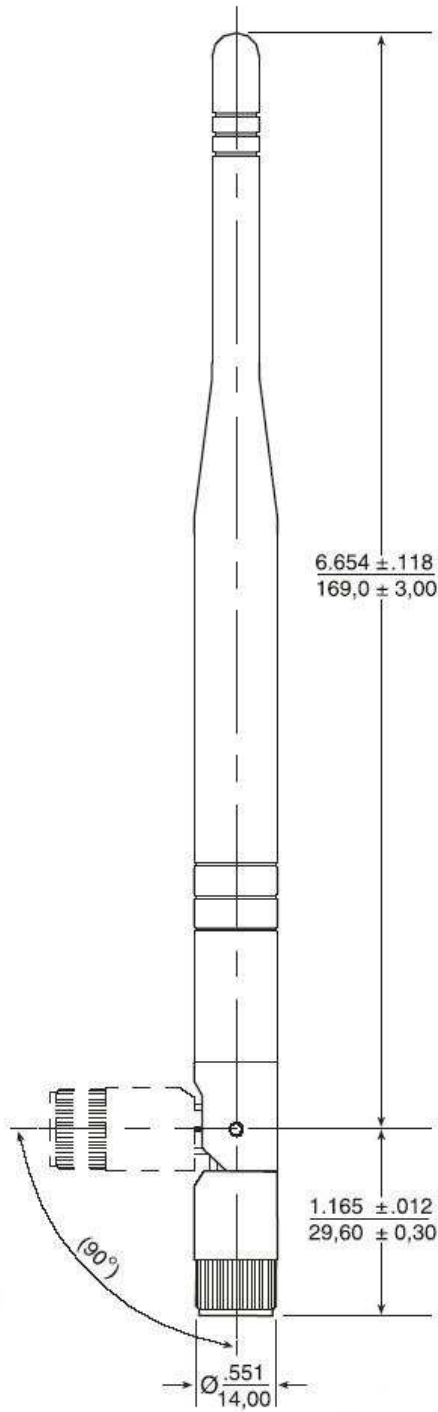
Environment	
Dimensions	5.12x5.12x2.37 in /130.1x130.1x60.2 mm
Operating Temp	-40 to 74 °C (-40 to 165 °F)
Storage Temp	-40 to 85 °C (-40 to 185 °F)
Op Humidity	0 to 95% (Non-Condensing)
Enclosure Rating	IP67
Use	Indoor and Outdoor
NEMA TS1 & TS2	Complies with NEMA TS1 & TS2 Environmental requirements for Traffic Control Equipment

Certifications	
CE	EN55022: 2006 – Class A EN61000-6-1: 2006 – Heavy Industrial EN61000-4-2:2006 – ESD EN61000-4-3:2006 – EFT EN61000-4-6:2005 – Cond. Immunity Class A
FCC	FCC ID – ZXT9-RM – OUR-9XTEND FCC ID – ZXT24-RM – OUR-XBEEPRO

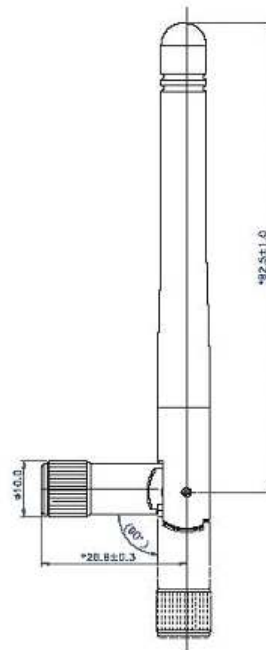
Controls and Indicators	
Signal Strength	8 Green RSSI LED's indicate signal strength
Power	Green LED
Receive Data	Green LED
Transmit Data	Green LED
Programming Port	USB
Reset	Push Button

Dimensional Diagram





ZXT9-RM Antenna



ZXT24-RM Antenna