

# ZXTx-IO-xxxx

## Zlinx Xtreme Wireless IO

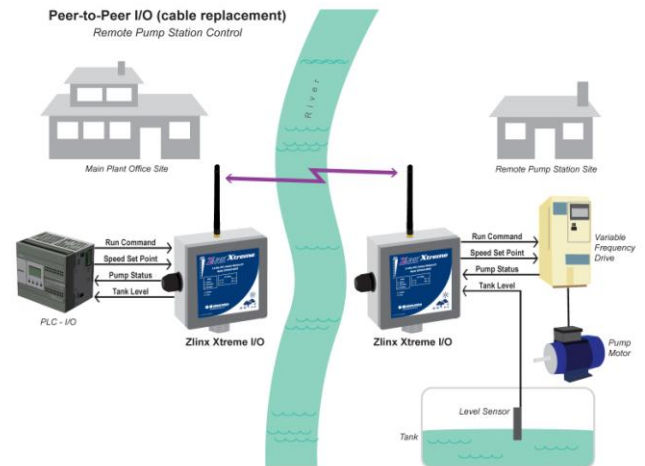
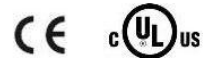
- ✓ IP67 Rated for Outdoor Applications
- ✓ Modbus Compatible
- ✓ Wide Operating Temperature
- ✓ AES Encryption
- ✓ 900 MHz and 2.4 GHz Versions
- ✓ -40 to 74°C Operating Temperature

Need to monitor remote assets via discrete analog and digital sensors? Need to control remote control equipment from your central SCADA/PLC? Is the remote equipment outdoor? Zlinx Xtreme I/Os can do the job faster, easier and less expensive than stringing cable. These compact and rugged units are ideal for outdoor applications in extreme weather conditions for connecting remote I/Os to local I/Os wirelessly (via Peer-to-Peer Mode) and to connect remote I/Os in multiple locations to a central PLC or SCADA or HMI system via a Serial Radio Modem (Via Modbus mode).

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.



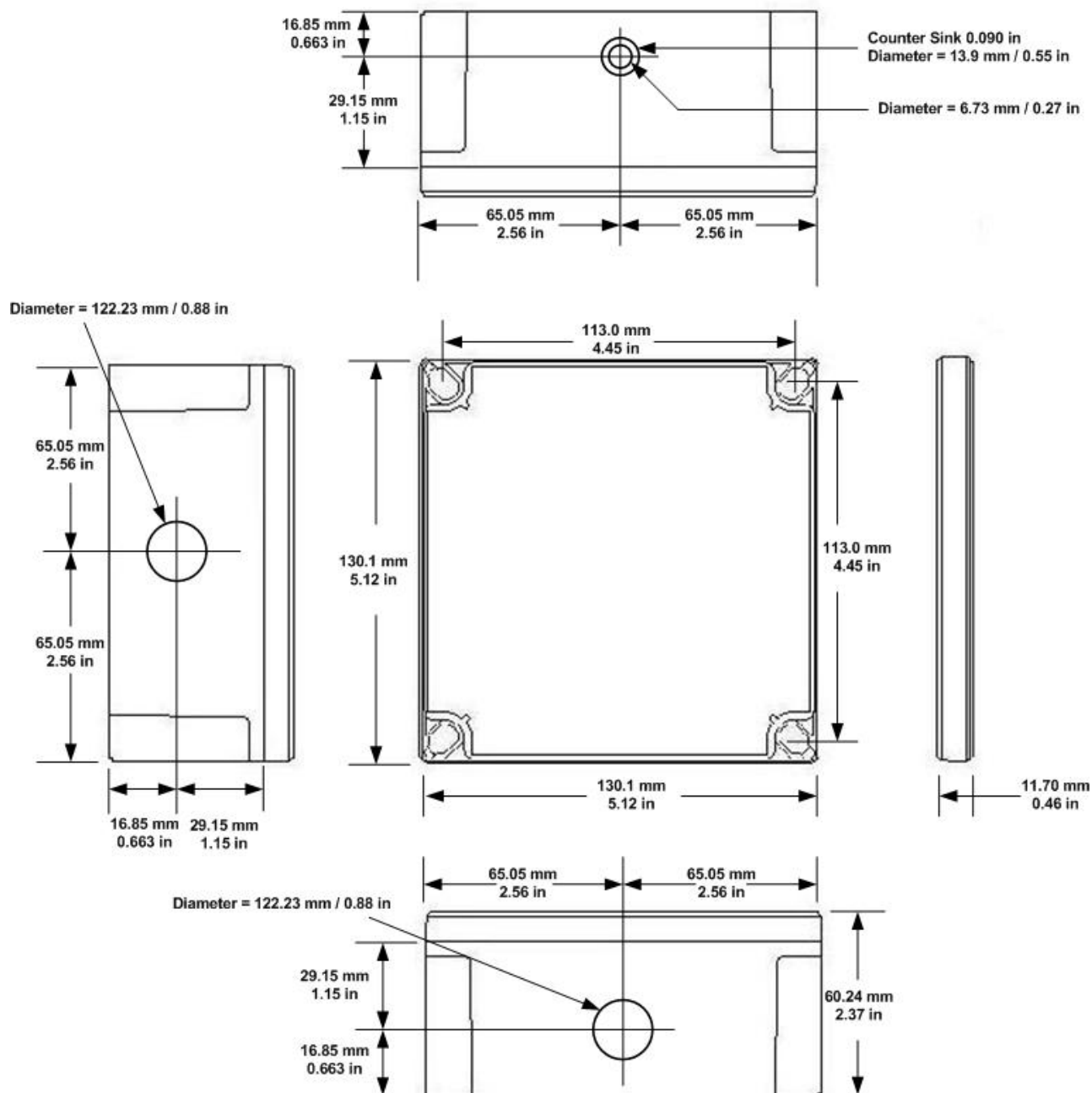
### Ordering Information

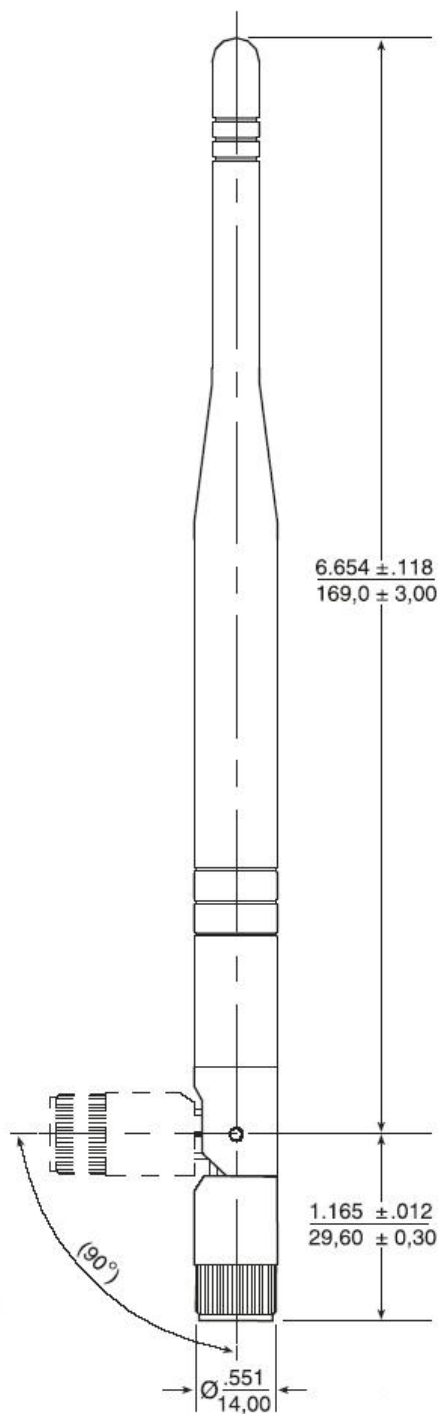
Model Number	Description
ZXT9-IO-222R2	ZLINX XTREME 900 MHZ IO 2 AI, 2A O, 2 DI, 2 DO
ZXT24-RM	ZLINX XTREME 2.4 GHZ IO 2 AI, 2A O, 2 DI, 2 DO
Power Supply	Accessories
CLG-60-24	IP67 Power Supply, Panel Mount, 24V DC 60 W
Spare Antenna	
ZXT9-ANT	900 MHz Spare Antenna
ZZ24D-ANT1	2.4 GHz Spare Antenna
A full range of antennas and accessories is available. Visit <a href="http://www.bb-electronics.com">www.bb-electronics.com</a>	

**Specifications**

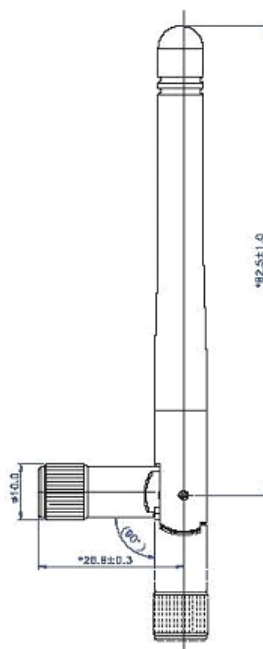
RF Properties		Digital Inputs	
Physical Standard	802.15.4	Voltage Range	0 to 48 VDC
Frequency		Configuration	PNP (default) / NPN (selectable)
ZXT9-IO-xxxx	900 MHz ISM (902-928 MHz)	Low Voltage (0)	1 VDC Maximum
ZXT24-IO-xxxx	2.4 GHz ISM (2.4 to 2.5 GHz)	High Voltage (1)	Greater than 1 VDC
Transmit Power		Pull Up/Down	38 $\mu$ A
ZXT9-IO-xxxx	1 mW, 10 mW, 100 mW, 500 mW	Current	
ZXT24-IO-xxxx	1 W – Software Selectable	Frequency Input	2 DIs per module software selectable as counters with 0 to 20 KHz range
ZXT24-IO-xxxx	10 mW, 16 mW, 25 mW, 30 mW		
ZXT24-IO-xxxx	63 mW – Software Selectable		
Receiver Sensitivity	-100 dBm	Digital Outputs (Relay)	
Over the Air Data Rate		Number of Relays	2
ZXT9-IO-xxxx	9.6 or 115.2 kbps	Type	C (Normally Open and Normally Closed)
ZXT24-IO-xxxx	Software Selectable	Output Connection	3 Terminals Per Relay (Common, NO, NC)
ZXT24-IO-xxxx	250 kbps	Com. Connection	3.5 mm Terminal Block
Outdoor Range		Ratings	250 VAC @ 4 A, 30 VDC @ 4 A
ZXT9-IO-xxxx	Supplied Antenna 14 mi (23 km)		
ZXT24-IO-xxxx	High Gain Antenna 40 mi (64 km)		
ZXT24-IO-xxxx	Supplied Antenna 1.5 mi (2.4 km)		
ZXT24-IO-xxxx	High Gain Antenna 10 mi (16 km)		
Range estimates based on unobstructed line of sight.		Analog Inputs / Outputs	
Transmission Method		Ranges	0 to 5 VDC, 0 to 10 VDC, 0 to 20 mA
ZXT9-IO-xxxx	FHSS	Resolution	4 to 20 mA
ZXT24-IO-xxxx	DSSS	Resolution	16 bit (Inputs), 12 Bit (Outputs)
Modulation	FSK	AI Load Resistance	100 M $\Omega$ - configured for Voltage
Channel Capacity		250 $\Omega$ - configured for Current	
ZXT9-IO-xxxx	10 hop sequences share 50 Frequencies	AO Output Current	1 mA maximum configured for Voltage
ZXT24-IO-xxxx	12 Direct Sequence Channels	AO Source Load	450 $\Omega$ maximum configured for current
Network Topologies	I/O to I/O: One-to-one (Peer-to-Peer mode)	Input Protection	Over voltage to 2x max input voltage
Radio Modem to I/O: One-to-many (Modbus I/O mode)			
Encryption		Power	
ZXT9-IO-xxxx	256 bit AES	Power Connector	Terminal Block
ZXT24-IO-xxxx	128 bit AES	Input Voltage	10 to 30 VDC
Supplied Antenna		Power Use	
ZXT9-IO-xxxx	Impedance – 50 $\Omega$	ZXT9-IO-xxxx	6.8 W (maximum)
ZXT24-IO-xxxx	Connector – RPSMA Female	ZXT24-IO-xxxx	4.5 W (maximum)
ZXT24-IO-xxxx	VSWR – 2.0 Max (in-band)		
ZXT24-IO-xxxx	Gain – 3 dBi		
ZXT24-IO-xxxx	Polarization – Vertical		
ZXT24-IO-xxxx	Length – 7.8 in (198 mm)		
ZXT24-IO-xxxx	Impedance - 50 $\Omega$		
ZXT24-IO-xxxx	Connector – RPSMA Female		
ZXT24-IO-xxxx	VSWR – 2.0 Max (in-band)		
ZXT24-IO-xxxx	Gain – 2.1 dBi		
ZXT24-IO-xxxx	Polarization – Vertical		
ZXT24-IO-xxxx	Length – 4.38 in (113 mm)		
Antenna Connection	RPSMA Male		
		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
		Certifications	
		CE	EN55022: 2006 – Class A
			EN61000-6-1: 2006 – Heavy Industrial
			EN61000-4-2:2008 – ESD
			EN61000-4-3:2006 – EFT
			EN61000-4-6:2005 – Cond. Immunity
		FCC	Class A
			FCC ID – ZXT9-RM – OUR-9XTEND
			FCC ID – ZXT24-RM – OUR-XBEEPRO
		UL	C1D2, File – E245458
		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-IO Antenna



ZXT24-IO Antenna

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