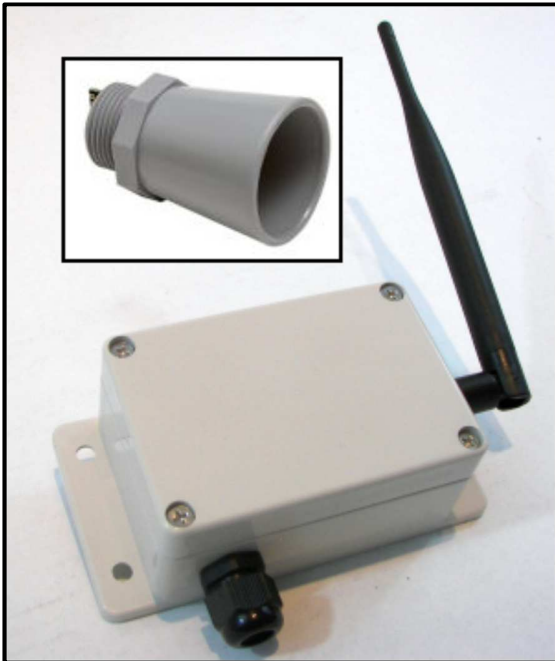




Series: WULT-24-420

## Non-contact Ultrasonic Level Transmitter/Wireless System



### FEATURES & BENEFITS

- Wireless Bridge Between Level Sensor & Instrument
- Non-contact Ultrasonic Sensor with Narrow Beam Pattern
- Up To 1 Mile Line-of-site Transmit/Receive Distance
- Sensors Available with Two Different Distance Ranges
- Can Be 12-24V DC, Hardwired, Battery or Solar Powered
- Receiver Provides 4-20mA or 1-5V DC Analog Output
- License Free Point-to-point Radio Operation

### APPLACATIONS

- Bin, Tank or Pool Level Monitoring, Irrigation Systems
- Process Control & Instrumentation
- Snow Level Measurement

### DESCRIPTION

Series WULT-24-420 Continuous Ultrasonic Level Sensor with Wireless Transmitter/Receiver Set provides a wireless bridge between the included non-contact ultrasonic level sensor and any analog input process monitoring or control Instrument. Measurements from the level sensor connected to the transmitting unit are sent via a license free radio signal to a receiver unit up to 1 mile (Line-of-site) away. The receiving unit provides an accurate analog current or voltage output that corresponds the level being measured by the sensor. The sensor transmitter can be powered by a 12-24V DC supply, 12V DC battery or powered by optional solar kit.

SAMPLE APPLICATION: ULTRASONIC LEVEL SENSOR SENDING WIRELESS MEASUREMENTS TO REMOTE PLC



## General Specifications

**Radio Frequency:** 2.4Ghz

**Wireless Analog Signal Transmission Resolution:** 10-bit

**RF Output Impedance:** 50 Ohm nominal

**Transmitter/Receiver Code Matching:** Factory set

**Wire Connections:** Terminal Blocks (14 – 24 AWG)

**Transmitter/Receiver Enclosure:** Din-rail Plastic or NEMA 4X

**Antennas:** 7dBi Antenna (Included with system)

**Transmit/Receive RF Distance:**

Up to 600' Line-of-sight (With Included 7dbi Antennas)

Up to 1 Mile Line-of-sight (With Optional 12dbi Antennas)

## Level Sensor Specifications

**Sensor Frequency:** 42kHz

**Sensor Connection:** 3 Wire Leads

**Sensor Read Rate:** 6.66Hz

**Measurement Distance/Beam Pattern:** See charts

**Mounting:** 3/4"-14 NPT Thread

**Cable Length:** 12', 3-wire shielded integral cable

**Operating Temperature:** -40 to 149 °F (-40 to 65 °C)

## Wireless Transmitter Specifications

**Input Signal:** ULSXL Ultrasonic Level Sensor

**Operating Power:** Can be Hardwired, Battery or Solar

**Operating Temperature:** -10 to 130 °F (-23 to 54 °C)

**Hardwired** - 12 to 24V DC @ 250mA

**Battery** – 12V Battery (See Manual for Battery Life Estimates)

**Optional Solar** – Includes Panel, Battery, Charge Controller

**RF Power Output:** 63mW

**RF Data Rate:** 250 Kbps

## Wireless Receiver Specifications

**Operating Power:** 12-24V DC @ 350mA

**Operating Temperature:** -10 to 130 °F (-23 to 54 °C)

**Receive Sensitivity:** -100 dBm

**RF Input Impedance:** 50 Ohm nominal

**Analog Output:** 4-20mA, 1-5VDC (Field Selectable)

## Wireless Regulatory Approvals

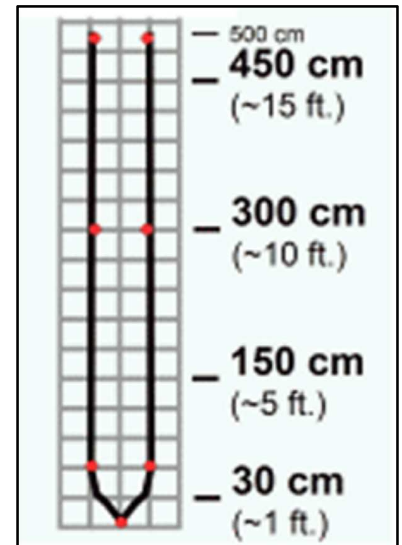
**Regulatory:** FCC Part 95 (No license required)

**FCC(USA):** OUR-XBEEPRO, **IC (Canada):** 4214A-XBEEPRO

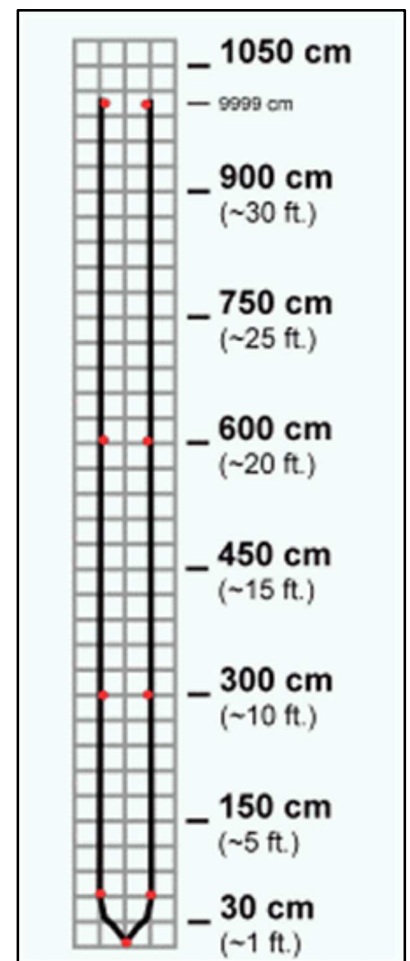


3/4"-14 NPT Thread Sensor Mounting Nut Included

Series: **WULT-24-420**



16' (500cm) Beam Pattern

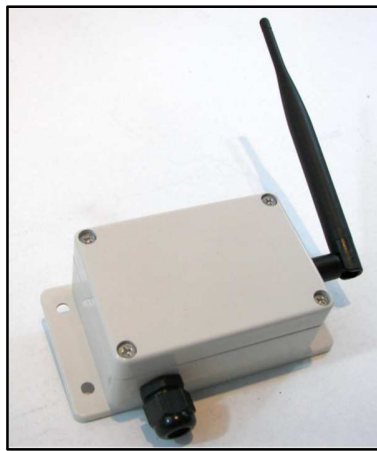


32' (1000cm) Beam Pattern

# Series: WULT-24-420



Din-rail Transmitter/Receiver



NEMA 4X Transmitter/Receiver



Solar Kit Includes Panel, Battery, Charger, Enclosure



Includes 9' Antenna Remote Mount Kit

## Available Models

Model Number	Description/Measurement Distance
WULT-24-420-500CM	16' (500cm) Distance Ultrasonic Level Sensor with NEMA 4X Wireless Analog Transmitter/Receiver Set
WULT-24-420-1000CM	32' (1000cm) Distance Ultrasonic Level Sensor with NEMA 4X Wireless Analog Transmitter/Receiver Set
WULT-DR-24-420-500CM	16' (500cm) Distance Ultrasonic Level Sensor with Din-rail Wireless Analog Transmitter/Receiver Set
WULT-DR-24-420-1000CM	32' (1000cm) Distance Ultrasonic Level Sensor with Din-rail Wireless Analog Transmitter/Receiver Set

## Available Options

Model Number	Description
AT24-12DBI-YD-RP-SMA	12dBi Yagi Antenna
WLTX-24-SPK	Solar Power Kit (for one side)



Optional Antenna Model: AT24-12DBI-YD-RP-SMA

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Note: Continued product improvements make specifications subject to change without notice.  
 Check www.imagineinstruments.com for the latest product information and updates

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