

XetaWave Oil & Gas Industry Overview

Key Differentiators

XetaWave's innovative technology platform offers many unique features including:

Dynamic Modulation When enabled, XetaWave radios can automatically alter power output, channel size, and modulation to optimize link stability and data throughput.

XetaMESH XetaWave's new mesh protocol is designed for dense peer to peer redundant wireless communication networks and is ideal for high speed well pad communication. XetaMESH offers a channel RF data rate of 4.4 Mbps with an aggregate data rate of over 40 Mbps.

XetaEMP XetaWave's new Enhanced Multi-Point mode is a completely revamped protocol designed to provide both fully dynamic timing and transfers while eliminating much of the overhead. This provides dynamic data transfer slots in all directions yielding significant increases in bi-directional aggregate throughput.

MultiSpeed MultiPoint™ Enables both high and low speed remotes to operate on the same network using a single access point.

Multi-Master Sync (MMS) Eliminates self interference in a network with multiple masters.

Founded in 2010, **XetaWave** is a leading provider of the industry's most advanced, high performing, reliable platform of licensed and unlicensed software defined radios across the broadest frequency range for wireless data applications across many industries. All XetaWave radios are 100% designed and manufactured at its headquarters in Louisville, Colorado and undergo the most stringent production testing within the industry - *every* radio is tested (-55°C).



Rugged enclosure. Also available in a plastic enclosure and as a board level product.

Product Offering - Radios

- Multi-Speed: 9.6 kbps - 8.8 Mbps
- Global frequency range: 902-960 MHz Dual Band ISM/MAS, 136-174 MHz, 217-222 MHz, 225-380 MHz, 406-430 MHz & 450-470 MHz, 757-758 & 787-788 MHz, 1.3 GHz, 1.4 GHz, and 2.4 GHz
- Licensed & Unlicensed
- Board level, module, enclosed
- Ethernet and Serial with or without programmable I/O
- 10mW to 10W power output
- Master Station
- Two radios in one small enclosure:
 - * Dual band
 - * Simultaneous Serial & Ethernet
 - * Dual Ethernet
 - * Back-to-back repeaters
 - * Full duplex
- UL Class 1 Div 2 & c-UL approved; ETSI certified
- AES-256 encryption

Additional Products

- XetaEDGE Industrial Edge Computer
- Terminal Server
- I/O Expansion
- XetaPAK Advanced Smart Battery
- Xeta9-INS & XetaX710 — Migration path for legacy networks

XetaEDGE Industrial Edge Computer

XetaEdge is an extremely capable and flexible industrial Edge Computing application device. XetaEdge is Class 1 Div 2 certified and 100% open source allowing quick and simple hosting of many existing or new applications. XetaEdge hosts both the **Autosol eACM** and the **Inductive Automation Ignition Edge** to offer multiple protocols for interacting with exiting devices like flow meters, ROCs, and PLCs while reducing bandwidth needs with the use of the **MQTT** protocol.



XetaEDGE



Key Differentiators, cont.

Seamless Serial Allows Ethernet and serial data to be transmitted within a single network. The ability to integrate serial-only sub networks allows for complete flexibility with network design.

Multi-Master Sync (MMS) eliminates self-interference through the synchronization of serial and Ethernet networks by precisely controlling the transmission timing within a multiple Master network.

Affordable Migration Path for Legacy Networks The Xeta9-INS (for legacy FreeWave radios) and XetaX710 (4710 and 9710 replacement) offer seamless migration paths from legacy ISM technology into next generation, higher performing XetaWave technology.

Terminal Server A Class1 Div 2 certified device that supports the **Data Concentrator** and **PLC** that can serve as a terminal server.

I/O Expander XetaWave I/O is available without a radio (RF module) to provide the most cost effective I/O solution with a Data Concentrator.

XetaWave I/O

XetaWave I/O solutions combine Ethernet and serial high speed, long range communication with integrated I/O functionality. XetaWave I/O is compatible with common instrumentation interfaces, supports Modbus, and seamlessly integrates with XetaWave networks. XetaWave I/O is ideally suited for process control to securely and wirelessly monitor temperature, pressure, level, flow, control pumps, latches, valves, and more.

Data Concentrator

XetaWave radios include a Data Concentrator which reduces network traffic and simplifies SCADA polling. Multiple Modbus TCP, RTU and ASCII devices can be polled by the Data Concentrator and organized in a fully customizable Modbus map. The Data Concentrator includes configurable failure filtering, command skipping, default values, and error flags so the user can get the fastest possible performance without sacrificing data integrity. A MQTT client is also included to minimize the transport media bandwidth.

Wire Replacement

Create a virtual wire from any XetaWave I/O point to any other XetaWave I/O point through XetaWave's Wire Replacement application. It will replicate the signal from the input to the output. Instead of transiting wires where it may not be possible or reliable, XetaWave I/O can replicate those signals across Ethernet or Radio links.

PLC

XetaWave I/O radios include a PLC that enables customers to program custom applications to monitor and manipulate the control of individual I/O signals and Modbus registers. This allows for the implementation of more complex safety shutdown routines, complex data scaling or manipulation at the source, and more on the edge of your network.

Superior Customer Service & Support

XetaWave has designed, built and supported over 1,000,000 radios across multiple industries worldwide.

XetaWave is committed to providing unsurpassed customer service and support from initial inquiry through installation and beyond.

XetaWave leverages its expertise to guide its customers in the optimal network planning and design, conducts path studies, and guarantees reliability and performance.

Additional Information

Please contact us via email at sales@xetawave.com, phone 303-447-2745 and visit our web site at www.xetawave.com.