**XETAWAVE**
CUSTOM RF SOLUTIONS

Today's electric utility has significant challenges when selecting a path forward for what has become an ever changing "smart grid." At the core of this evolution are the communications which serve as the network of intelligence transporting data in all directions to enable advanced applications that are increasingly available. This environment demands radios that are high speed, long range, wireless networking devices that focus intently on providing a "future proof" network that can be leveraged for many years to come. This allows the customer to support a wide variety of bandwidth intensive applications (including Ethernet to the feeder and more) that will surely be required in the future.

## Applications

Below is a list of applications for XetaWave radios within Electric Utilities:

- AMI Backhaul
- Grid Sensors
- Distributed Energy
- Distribution Automation
- Substation Automation
- SCADA
- Smart Switches
- Reclosers
- Volt Optimization
- Protection Relays
- Video



**Xeta9-E**
*902-960 MHz*
*Dual Band ISM/MAS*
*Ethernet 4.4 Mbps*
*Board level version available*

XetaWave simplifies and reduces the cost of implementation and ongoing management of a wireless communication network by offering a software defined radio that can be configured to meet a diverse range of applications.

XetaWave's flagship product, the Xeta9-E (902-960 MHz), is a software defined Ethernet radio which offers 3X – 20X the bandwidth for your current SCADA and M2M applications and is the industry's first FCC approved dual band ISM/MAS Licensed & Unlicensed 900MHz (902-960 MHz) in the same SKU. Thus, two radios for the price of one with unsurpassed performance.

In addition to the Xeta9-E, XetaWave offers a global frequency platform of radios to meet the application needs of its worldwide customers across a wide variety of industries including electric utility, oil and gas, water and wastewater, precision agriculture, the military, and others.

## Product Offering

- Multi-Speed:  9.6 kbps - 8.8 Mbps
- Global frequency range:
  902-960 MHz Dual Band ISM/MAS, 136-174 MHz, 217-222 MHz, 406-430 & 450-470 MHz, 757-758MHz / 787-788 MHz, 1.3 GHz, 1.4 GHz & 2.4 GHz
- Licensed & Unlicensed
- Dual-band/frequency/path
- Board level, module, enclosed
- Ethernet and Serial IO
- 10mW to 10W power output

- Dual Radio 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 available; FIPS 140-2 validation in progress
- Most stringent production testing in the industry (-55°C)



Master Station



**Xeta9m**
*Board Level OEM Module*

## Key Differentiators

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

**Dynamic Modulation** Automatically optimizes parameters across three axes – power output, channel size, and modulation. XetaWave radios selectively switch modulation schemes to ensure required throughput given available channel size and noise.

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

**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)** network synchronization for serial and Ethernet networks precisely controls the transmission timing within a multiple master network to eliminate self-interference.

**TransNET & 4710/9710 Interoperability** The Xeta4-SE and Xeta9-SE radios are drop-in replacement that operates as a slave radio within a network of 4710 and 9710 repeaters and master stations. They can be installed with no interruption to your network and can be upgraded to higher speeds and Ethernet capability through a simple software update.

XetaWave radios can be also be installed ("plug and play") to co-exist alongside legacy **FreeWave** radios on the *same* network through XetaWave's advanced **Intelligent Network Synchronizer (INS)** technology. The INS enables existing FreeWave antennas and towers to be shared thereby leveraging existing investment in infrastructure while also offering the option to upgrade over-the-air to an Ethernet enabled radio that offers 5-15x better performance.

**Superior Customer Service & Support**

The team at XetaWave designed, built and supported over 1,000,000 radios across multiple industries worldwide. XetaWave is committed to providing unsurpassed customer service and support from an 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. All XetaWave radios are 100% designed, manufactured, and tested at its headquarters in Louisville, Colorado and have a 3 year warranty.

**Additional Information**

Please contact us at 303.447.2745 and visit our web site at www.xetawave.com.

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