

OTA Compatibility with Legacy GE MDS X710™ Products

The XetaWave X710 Mode is a standard feature within XetaWave radios which enable them to be utilized as direct drop-in replacements for GE MDS X710™ End Points. Specifically, the XetaWave X710 Mode provides over-the-air compatibility with the following GE MDS products:

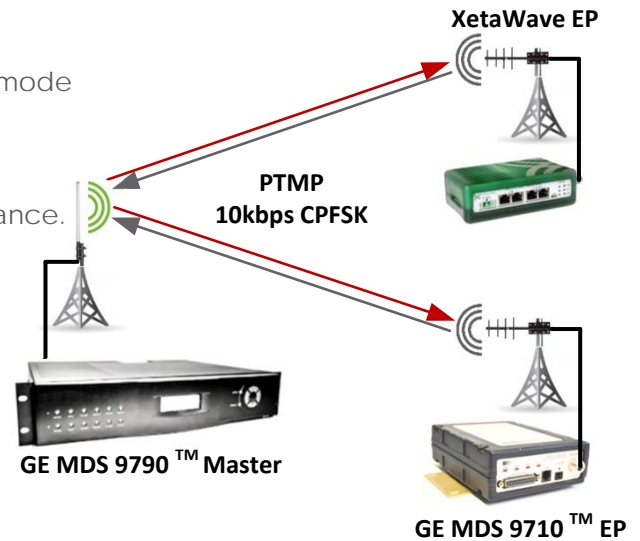
- GE MDS 9790™ Master Station – GE MDS X710™ - A&B modes
- GE MDS SD Series™ Master Stations when operating in MDS X710 mode
- GE MDS SD Series™ when operating in MDS X710 mode

Greater sensitivity enables XetaWave radios to link where legacy GE MDS radios might not or would otherwise have limited performance.

XetaWave radios provide a superior replacement to legacy GE MDS X710™ radios and a far more cost-effective alternative to GE MDS SD Series™ radios operating in legacy X710 mode.

XetaWave radios selectively support both "A" and "B" Modes and are fully Class 1, Division 2 compliant for hazardous locations.

Mounting hardware from legacy GE MDS X710™ radios is compatible with XetaWave radios. XetaWave also offers optional DIN Rail adapters. For replacement of legacy radios and interfacing to existing field equipment, XetaWave eases the integration by providing the RF, serial port and power cable interface adapters required to pull out the GE MDS X710™ radio and plug directly into a XetaWave radio.



XetaWave Technology Differentiators

- **2 x Ethernet Ports:** XetaWave -EL radios include Ethernet interfaces for Web U access.
- **2 x Serial Ports:** XetaWave radios have (2) RS232/422/485 interfaces that provide terminal server support.
- **Text-based Configuration Files:** XetaWave radios are configured via a Web UI accessed from either Ethernet port. Radio configurations can be created, downloaded, edited and uploaded as Text-based Configuration Files.
- **Local Diagnostics:** On-radio diagnostics provide the user with the ability to monitor numerous RF and network oriented diagnostics including RSSI, signal levels, noise levels, voltages, temperature, as well as transmit and receive performance metrics.
- **Increased Transmit Power*:** The Xeta4-EL supports 8W transmit power compared to 5W on the MDS4710™. **Note: Transmit power varies by model.*
- **DLINK™ Support:** XetaWave radios support DLINK™ and are compatible with GE MDS Element Manager™.
- **SNMP Support:** Available when in full XetaWave mode.

XetaWave vs GE MDS™ – Compatibility Status for 900 MHz & 400 MHz

| | GEMDS | XetaWave |
|-------------------|---|--|
| Operational Modes | - Simplex, Half Duplex | Simplex, Half Duplex |
| Modulation | - Digital / CPFSK | Digital / CPFSK |
| Data Rates | - 9710 - 4800 @ 12.5 kHz - 9600 @ 12.5kHz - 19200 @ 25 kHz | Xeta9 - 4800 Contact XetaWave - 9600 @ 12.5 kHz – Complete - 19200 Contact XetaWave |
| | - 4710 - 4800 @ 12.5 kHz - 9600 @ 12.5 kHz - 19200 @ 25 kHz | Xeta4 - 4800 Contact XetaWave - 9600 @ 12.5 kHz – Complete - 19200 Contact XetaWave |

Xeta4 and Xeta9 radios should **not** be used to replace GE MDS X710 radios **if**:

- The legacy system significantly utilizes Sleep modes; XetaWave radios utilize an idle mode rather than a sleep mode and consume approximately 5X the power of GE MDS radios (in sleep mode) @ 85mA vs 15mA. Operationally, XetaWave radios consume similar amounts of power to GE MDS X710 radios, significantly less in transmit modes and slightly more in receive modes.
- The legacy system uses 25 kHz channel. *These can be developed if required, please contact XetaWave.*
- The legacy system uses 4800/19200 RF data rates. *These can be developed if required, please contact XetaWave.*
- The legacy system uses Analog or Bell 202 modes. *Support for Analog and Bell 202 compatible modes is available, but has not been fully tested at the time of this data sheet revision.*

XetaWave vs GE MDS™ – Technical Specifications

| | GE MDS | XetaWave |
|------------------------|---|---|
| Maximum Transmit Power | - 4710: 5W 9710: 5W | Xeta4: 8W Xeta9: 4W |
| Duty Cycle | - Continuous | Continuous |
| Output Impedance | - 50 Ohm | 50 Ohm |
| Selectivity | - > 70 dB | > 70 dB |
| Sensitivity @ BER | - -110 dBm typical @ 1×10^{-6} | -115 dBm typical @ 1×10^{-4} |
| Interfaces | - DB25 female, RJ11 female, N-Type | Serial RJ45 female, Ethernet RJ45 female, TNC <i>XetaWave offers all adapters as an option; TNC-N, DB25-RJ45</i> |
| Management | - Insite (discontinued), Netview | Underlying D-Link diagnostics supported OTA |
| Configuration | - Radio Config SW | XetaConfig SW Tools, Configuration File Support |
| On Radio Diagnostic | - Command Line | RF Statistics, RF Ping* <i>* Full XetaWave mode only.</i> |
| Temperature | - -30 to +60C | -40 to +85C |
| DC Input Power | - 10.5 to 16 VDC | 10V to 32 VDC |
| Tx Power Consumption | - 2A typical @ 5W | 335mA @ 1W, 495mA @ 4W (Xeta9) |
| Rx Power Consumption | - <125mA | 290mA @ 1W, 380mA @ 4W (Xeta9) |
| Sleep Mode | - 15mA nominal | 85 mA – Idle |

Available Versions

Xeta4 400 MHz

Xeta4-SE Low cost, serial only radio in metal enclosure, full power, MAS only, 4710 A/B and XetaWave compatibility.

Xeta4-EL (Linux) Enclosed radio with 2 Ethernet ports + 2 Serial ports, 9710 A/B and XetaWave compatibility.

Xeta9 900 MHz

Xeta9-SE Low cost, serial only radio in metal enclosure, full power, MAS only, 9710 A/B and XetaWave compatibility.

Xeta4-EL (Linux) Enclosed radio with 2 Ethernet ports + 2 Serial ports, 9710 A/B and XetaWave compatibility.

Xeta1 100 MHz

Xeta1-SE Low cost, serial only radio in metal enclosure, full power, MAS only, 1710 A/B and XetaWave compatibility.

Xeta1-EL (Linux) Enclosed radio with 2 Ethernet ports + 2 Serial ports, 1710 A/B and XetaWave compatibility.

Xeta2 200 MHz

Xeta2-SE Low cost, serial only radio in metal enclosure, full power, MAS only, 2710 A/B and XetaWave compatibility.

Xeta2-EL (Linux) Enclosed radio with 2 Ethernet ports + 2 Serial ports, 2710 A/B and XetaWave compatibility.

Please refer to the full product data sheets on the XetaWave web site at www.xetawave.com for detailed specifications.

Additional Information

For more information or to schedule a demo, please contact us at **303.447.2745** or sales@xetawave.com



XetaWave is the ideal partner for the deployment of wireless technologies that are proven and lead the industry in performance, functionality and reliability.

XetaWave provides an industry leading 3 year warranty on its products.

All XetaWave radios are 100% designed, manufactured, and tested at its headquarters in Louisville, Colorado, USA.



