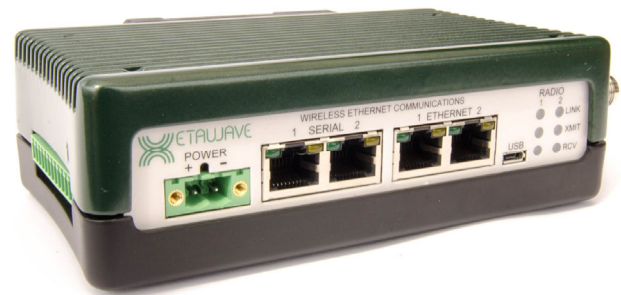


The **Xeta1.4 Ethernet radio** is an extremely capable and flexible industrial software defined radio. The **Xeta1.4** Ethernet radio is offered with an option to include 8 programmable inputs and outputs. The **Xeta14** is based on the XetaWave patent pending **Dual Decode Digital Architecture™** that offers significant receiver performance.

The **Xeta14** supports multiple modulation schemes and features that can selectively switch to achieve optimal data throughput given the available channel size and environmental noise.



**MultiSpeed MultiPoint™** mode enables End Points operating at different over-the-air data transfer rates to communicate with an Access Point over the same network. The new **Enhanced MultiPoint, XetaEMP**, mode provides an increase in throughput and decreased latency over our standard modes and against competitive products.

## Key Features

**High Speed** Over-the-air data transfer rates from 10 kbps to 210 kbps and increased throughput with the **XetaEMP** mode.

**Selective Modulation** Multiple MSK, PSK, and QAM modulations.

**Dual Mode** Duplex and single channel operations.

**Network Types** Point to Point, Point to MultiPoint, CSMA peer to peer, and Enhanced MultiPoint.

**Adjustable RF Output** 10 mW to 610 mW (+10 to +27.8 dBm) RF output.

**Secure** Over-the-air data encryption using 128-bit and 256-bit AES.

**MultiSpeed Multipoint** Access Points communicate with Endpoints operating at different RF Data Rates.

**XetaEMP** Additional new protocol with increased throughput and decreased latency.

# Xeta14 Specifications

## Transmitter

Frequency Range	1.427 to 1.432 GHz
RF Output Power	10 to 610 mWatts
Modulation	MSK, BPSK, QPSK, 8PSK, 16QAM 32QAM
RF Data Rate	10 kbps to 210 kbps
Occupied Bandwidth	2.5, 25, & 50 kHz
Frequency Stability	1.0 ppm

## Data Transmission

Data Interface	Ethernet & RS232/422/485 Serial
Data Connector	RJ45 (4)
Data Interface Rate	10/100 Mbps (Ethernet) Up to 230.4 kbps (Serial)
Data Encryption	128 & 256-bit AES
Error Handling	CRC, FEC, Retransmit on error
Error Correction	Goley, Small Block, Reed-Solomon
RF Connector	TNC / 50 Ohms

## Networking

Protocols	TCP, UDP, ARP, DHCP, NTP, FTP, ICMP, HTTP, & HTTPS
Management	Web GUI, SNMP v1, v2, & v3
Serial	TCP/UDP Server, TCP Client,
VLAN	802.1q VLANs and trunks
Features	IP Routing, Net Filter, NAT, Port Forwarding, Modbus TCP/RTU Bridging, Data Concentrator, PLC, Wire Replacement, XetaEMP

## Ordering (other variants available)

XETA14-22MMLFA	Metal Enclosed, 2 Ethernet & 2 Serial, Linux
XETA14-22MMLFA-IO	Metal Enclosed, 2 Ethernet & 2 Serial, 8 IO, Linux

## Receiver

Channel Size	Sensitivity	Data Rate	Modulation
12.5 kHz	-115 dBm	10 kbps	MSK
	-103 dBm	23 kbps	QPSK
	-97 dBm	34 kbps	8PSK
25 kHz	-89 dBm	57 kbps	32QAM
	-112 dBm	19 kbps	MSK
	-106 dBm	36 kbps	QPSK
50 kHz	-100 dBm	52 kbps	8PSK
	-86 dBm	105 kbps	64QAM
	-109 dBm	39 kbps	MSK
	-102 dBm	71 kbps	QPSK
	-97 dBm	101 kbps	8PSK
	-90 dBm	175 kbps	32QAM
	-84 dBm	210 kbps	64QAM

## Power

Input Voltage	+12 to +32 Vdc
Transmit Current	2.6 A @ +12 Vdc
Receive Current	300 mA @ +12 Vdc
Power Connector	2-pin Phoenix

## Environmental / Physical

Op. Temperature	-40°C to +75°C
Humidity	95% @ +40°C non-condensing
Safety	UL Class 1 Div 2
Dimensions	6.62" x 3.45" x 1.83" (L x W x H)
Weight	700 grams

