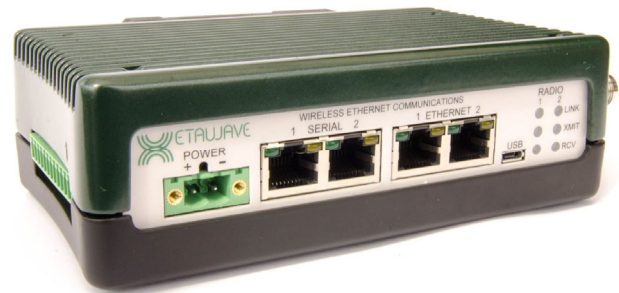


2.4 GHz Ethernet *Software Defined Industrial Radio*

The **Xeta24 Ethernet radio** is an extremely capable and flexible industrial Frequency Hopping Spread Spectrum (FHSS) and Digital Transmission System (DTS) software defined radio. The module utilizes a XetaWave patent pending **Dual Decode Digital Architecture™** that offers significant receiver performance.

The **Xeta24** supports multiple modulation schemes and features that can selectively switch the modulation scheme to achieve optimal data throughput given the available channel size and environmental noise.



The **MultiSpeed MultiPoint™** mode enables Endpoints operating at different over-the-air data transfer rates to communicate with an Access Point over the same network. Simultaneous transmissions within a network using the new **XetaMESH** feature increases the aggregate throughput while supporting peer to peer communications.

Key Features

High Speed Over-the-air data transfer rates from 57 kbps to 4.4 Mbps.

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

Dual Mode Frequency hopping and single channel operations.

Adjustable RF Output RF power output from 10 mW to 1 Watt (+10 to +30 dBm).

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

Network Types Point to Point, Point to Multipoint, CSMA Peer to Peer, and XetaMESH.

MultiSpeed Multipoint Access Point communicates with Endpoints operating at different RF data rates.

XetaMESH Provides peer to peer communications within a point to multipoint network.

Xeta24 Specifications

Transmitter

Frequency Range	2.402 to 2.483 GHz
RF Output Power	0.01 to 1 Watt
Modulation	MSK, 2FSK, BPSK, QPSK, 8PSK, 16PSK, 16QAM, 32QAM
RF Data Rate	57 kbps to 4.4 Mbps
Occupied Bandwidth	76 kHz to 1.2 MHz
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, XetaMESH

Ordering (other variants available)

XETA24-22IMLFA	Metal Enclosed, 2 Ethernet & 2 Serial, Linux
XETA24-22IMLFA-IO	Metal Enclosed, 2 Ethernet & 2 Serial, 8 IO, Linux
XETA24X24- 22IMLFA	Metal Enclosed Dual Radio, 2 Ethernet & 2 Serial, Linux

Receiver

Channel Size	Sensitivity	Data Rate	Modulation	
76 kHz	-110 dBm	57 kbps	MSK	
154 kHz	-107 dBm	114 kbps	MSK	
207 kHz	-106 dBm	153 kbps	MSK	
310 kHz	-103 dBm	229 kbps	MSK	
600 kHz	-98 dBm	530 kbps	BPSK	
	-99 dBm	1.06 Mbps	QPSK	
	-96 dBm	1.59 Mbps	8PSK	
	-91 dBm	2.12 Mbps	16QAM	
	-85 dBm	2.65 Mbps	32QAM	
	1.2 MHz	-100 dBm	884 kbps	BPSK
		-96 dBm	1.76 Mbps	QPSK
		-90 dBm	2.65 Mbps	8PSK
-84 dBm		3.53 Mbps	16PSK	
	-85 dBm	3.53 Mbps	16QAM	
	-80 dBm	4.41 Mbps	32QAM	

Power

Input Voltage	+12 to +32 Vdc
Transmit Current	335 mA @ +12 Vdc
Receive Current	290 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

