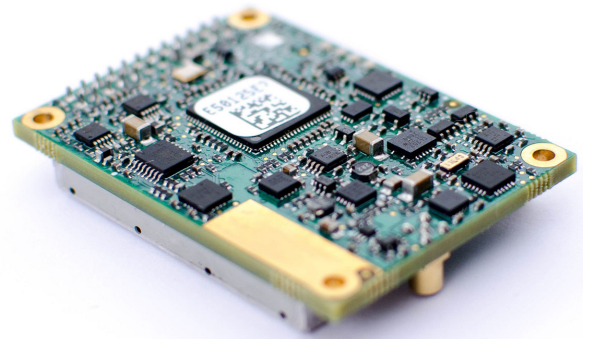


# Xeta3 OEM Module

## *330-390 MHz Serial Software Defined Radio*

The **Xeta3 OEM Module** is an extremely capable and flexible industrial grade software defined radio. The module utilizes a XetaWave patented **Dual Decode Digital Architecture™** that offers excellent receiver performance.

The **Xeta3** 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. 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 960 kbps.

**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 XetaEMP.

**Adjustable RF Output** 50 mW to 5 Watts (+17 to +37 dBm) RF output.

**Multi-Speed TDMA** Offers multiple logical data channels with different speeds within a single radio.

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

# Xeta3 OEM Module Specifications

## Transmitter

Frequency Range	330 to 390 MHz
RF Output Power	0.05 to 5 Watts
Modulation	MSK, QPSK, 8PSK,, 16QAM, 32QAM, 64QAM
RF Data Rate	10 kbps to 960 kbps
Occupied Bandwidth	6.25 kHz to 200 kHz
Frequency Stability	1.0 ppm

## Receiver (subset)

Channel Size	Sensitivity	Data Rate	Modulation
12.5 kHz	-113 dBm	10 kbps	MSK
	-109 dBm	23 kbps	QPSK
	-104 dBm	34 kbps	8PSK
	-100 dBm	45 kbps	16QAM
	-94 dBm	57 kbps	32QAM
	-91 dBm	70 kbps	64QAM
25 kHz	-115 dBm	19 kbps	MSK
	-91 dBm	87 kbps	32QAM
50 kHz	-105dBm	71 kbps	QPSK
	-86 dBm	210 kbps	64QAM
100 kHz	-97 dBm	240 kbps	8PSK
	-87 dBm	400 kbps	32QAM
200 kHz	-105 dBm	153 kbps	MSK
	-94 dBm	480 kbps	8PSK
	-87 dBm	800 kbps	32QAM
	-83 dBm	960 kbps	64QAM

## Ordering

XETA3-TORA	Board level OEM, TTL interface
XETA3-TORA-TDMA	Board level OEM, TTL interface, TDMA

## Data Transmission

Data Interface	Serial TTL
Data Connector	24-pin Samtec Header
Data Interface Rate	Up to 2 Mbps (TTL)
Error Detection	32-bit CRC, Retransmit on error
Error Correction	Golay, Small Block, Reed-Solomon
RF Connector	MMCX / 50 Ohms

## Power

Input Voltage	+12 Vdc
Transmit Current	< 3.0 A @ +12Vdc
Receive Current	< 175 mA @ +12 Vdc
Idle Current	< 75 mA @ +12 Vdc

## Environmental / Physical

Operating Temperature	-40°C to +75°C
Humidity	95% @ +40°C non-condensing
Safety	UL Class 1 Div 2
Dimensions	2.0" x 2.0" x 0.37" (L x W x H)
Weight	30 grams

