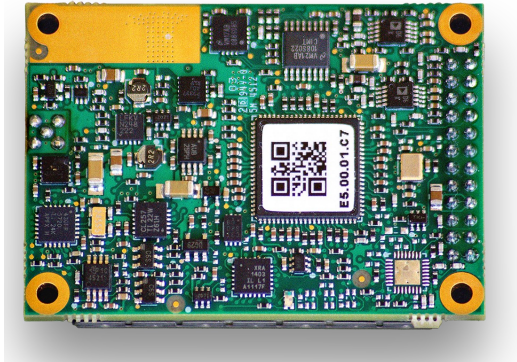




Xeta13

1.3 GHz Serial Software Defined Industrial Radio



The **Xeta13 OEM Module** 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 **Xeta13** 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. To eliminate self-interference, transmission timing

Key Features

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

Selective Modulation Multiple MSK, PSK, and QAM modulations.

5 Watt Output Adjustable RF power output from 100 mW to 5 Watts (+20 dBm to +37 dBm).

Dual Mode Frequency hopping and

single channel operations.

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

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

Interchangeable Xeta3, Xeta9, Xeta13,

Xeta13 Specifications

Transmitter

Frequency Range	1.35 to 1.39 GHz
RF Output Power	100 mW to 5 Watts
Modulation	MSK, BPSK, QPSK, 8-PSK, 16-PSK, 16QAM, 32QAM
RF Data Rate	57 kbps to 4.4 Mbps
Occupied Bandwidth	110 kHz to 1.2 MHz
Frequency Stability	1.0 ppm

Receiver

Channel Size	Sensitivity	Data Rate	Modulation
76 kHz	-111 dBm	57 kbps	MSK
154 kHz	-108 dBm	114 kbps	MSK
207 kHz	-107 dBm	153 kbps	MSK
310 kHz	-103 dBm	229 kbps	MSK
600 kHz	-99 dBm	530 kbps	BPSK
	-91 dBm	1.59 Mbps	8PSK
	-87 dBm	2.12 Mbps	16QAM
900 kHz	-98 dBm	663 kbps	2FSK
1.2 MHz	-101 dBm	884 kbps	BPSK
	-98 dBm	1.76 Mbps	QPSK
	-87 dBm	3.53 Mbps	16QAM
	-84 dBm	4.41 Mbps	32QAM
RF Selectivity	50 dB		
ACR	70 dB @ 100 kHz		

Ordering

XETA13-00ONNUA	Board level OEM, TTL serial, 12 Vdc input
XETA13-00ONNUA-232	Board level OEM, RS232 serial, 15-30 Vdc input

Specifications subject to change without notice.

4.2019

Data Transmission

Data Interface	Serial TTL or RS232
Data Connector	24-pin Header
Data Interface Rate	Up to 2 Mbps (TTL) Up to 921.6 kbps (RS232)
Data Encryption	256-bit AES
Error Detection	32-bit CRC, Retransmit on error
RF Connector	MMCX
RF Impedance	50 Ohms

Power

Input Voltage	+12 Vdc (TTL)
	+15-30 Vdc (RS232)
Transmit Current	< 2.3 A @ 12 Vdc
Receive Current	< 70 mA @ 12 Vdc
Idle Current	< 3mA @ 12 Vdc

Environmental / Physical

Operating Temperature	-40°C to +75°C
Humidity	95% @ +40°C non-condensing
Shock & Vibration	MIL-STD-810G
Safety	UL Class 1 Div 2
Dimensions	2.0" x 1.4" x 0.37" (L x W x H)
Weight	24 grams



XETAWAVE
CUSTOM RF SOLUTIONS