The **Xeta9 Topcon** radio is an extremely capable and flexible industrial Single Channel Frequency Hopping Spread Spectrum (FHSS) software defined RTK radio covering the unlicensed 900 MHz frequency band that is an alternative drop-in replacement for the obsolete Topcon **RE-S1** radio.

The **Xeta9 Topcon** radio utilizes a XetaWave patented Dual Decode Digital ArchitectureTM that offers significant receiver performance. The **Xeta9 Topcon** radio can be used as a receiver, standalone repeater, or as an external radio for any Topcon base station.

Key Features

Compatibility Over-the-air drop-in replacement for the Topcon RE-S1 radio.

Interfaces All the interfaces are physically and electrically the same as the Topcon RE-S1 radio.

Role Types User programmable to operate as a transmitter, receiver, or repeater.

Adjustable RF Output Power output up to 1 Watt (+30 dBm).

Configuration The radio can be configured using the Topcon Receiver Utility (TRU), the Modem TPS software, or its own built-in menus.

Signaling Mode Frequency hopping spread spectrum operations.

Bands 902 to 928 MHz ISM and adjustable to comply with various countries.

Xeta9 Topcon Specifications

Power

Transmit	275 mA @ +12 Vdc
Receive	90 mA @ +12 Vdc

Environmental/Physical

Op. Temperature	-40ºC to +75ºC
Humidity	95% @ +40ºC non-condensing
Dimensions	5.71" x 4.33" x 1.38"
Weight	400 grams

Interfaces

Power	5-pin ODU | +7.5 to +14 Vdc
Data/Control	7-pin ODU | RS232
Control	7-pin ODU | RS232
RF	TNC & TNC-RP | 50 Ohms

Transmitter

	ISM FHSS
Frequency Range	902 to 928 MHz
Output Power	10 to 1000 mW (10 to 30 dBm)
Modulation	FSK
Rates (FH915)	9600, 12000, 17000, 24000, 51000
Rates (FH915 Ext)	3600, 4800, 6600, 9600, 19200
Channel Bandwidth	100 kHz
Frequency Stability	1.0 ppm

Receiver

Modulation	Sensitivity
FSK	-97 dBm or better

Functionality

Compatibility	Topcon RE-S1
Operating Modes	FH915, FH915 Ext
Roles	Transmitter, Receiver, Repeater
Error Correction	FEC(15.7), majority decoding
Channel	10, user selectable
Hopping Channels	128
Radio Link Rates	9600, 12000, 17000, 24000, 51000 bps, user selectable for FH915 3600, 4800, 6600, 9600, 19200 bps, user selectable for FH915 Ext
Serial Data Rates	600 to 921600 bps, user selectable
Configuration	Built-in menus, Topcon Receiver Utility Software, Modem TPS Software

Ordering

XETA9-RE-S1	Enclosed, 2 Serial, Reverse Polarity TNC
XETA9-RE-S2	Enclosed, 2 Serial, Standard TNC

Specifications subject to change without notice.   2.2025