



FH915

OEM Radio Transceiver



Key Features

- DSP-Modem
- Zero-IF Architecture
- License-Free ISM Band
- Serial Interface up to 115,200 bps
- Extreme Temperature Operation
- Compact Design

FH915 is a universal, license-free OEM modem operating within the Industrial, Scientific, and Medical (ISM) frequency band. It utilizes frequency hopping techniques for reliable data transmissions, together with data scrambling, configurable power levels, low power consumption, sleep modes, repeater mode, and plug-and-play installation for remote terminals. Compact size makes it suitable for integration into a wide range of industrial applications.

FH915 Specifications



Radio Transceiver	Frequency Range	902-928 MHz (USA) 915-928 MHz (Australia) 868-870 MHz (EU) with 25/12.5 kHz CS
	Link Rate (symbols/second)	8000, 16000, 32000, 64000 (USA/Australia) 4800, 9600 (EU)
	Carrier Frequency Stability	±1 ppm
	Modulation	GMSK
	Communication Mode	Half duplex, simplex
Radio Receiver	Receiver Sensitivity for GMSK (BER 1×10^{-4})	-104 dBm for 60kHz (USA, AUS) -110 dBm for 25 kHz CS -112 dBm for 12.5 kHz CS
	Receiver Dynamic Range	-119 to -10 dBm
Radio Transmitter	Output Power	+15 - +30 dBm in 1dB step/50 Ω (USA/Australia) +7 - +27 dBm in 1dB step/50 Ω (EU)
Modem	Interface DSP	UART (serial port)
	Interface Connector	16-lead Connector
	Data Rate of Serial Interface	9600 - 115200 bps
	Data Rate of Radio Interface (USA/Australia)	8000 bps – GMSK 16000 bps – GMSK 32000 bps – GMSK 64000 bps – GMSK
	Data Rate Radio Interface (25 kHz CS)	9600 bps – GMSK
	Data Rate Radio Interface (12.5 kHz CS)	4800 bps – GMSK
	Forward Error Correction (FEC)	Convolution code
	Data Scrambling	Yes
Wired I/O	Main Connector	16-Lead Header Connector, ECS Corp. P/N 9616-D1-01-03
	RF Connector	MMCX RIGHT ANGLE PCB JACK, AMPHENOL P/N 908-24100
Power	Input Voltage	4.0 VDC $\pm$ 5%
	Power Consumption	3 W – transmit with 50% duty cycle (1 W TPO) 1 W – receive mode
Physical	Dimensions	80 mm x 46.5 mm x 7.6/9.5 mm
	Weight	43 g
Environmental	Operating Temperature	-40°C to +60° C
	Storage Temperature	-40°C to +80°C
Compliance	FCC	Part 15.247
	ETSI	EN 300 220-1, EN 301 489-1