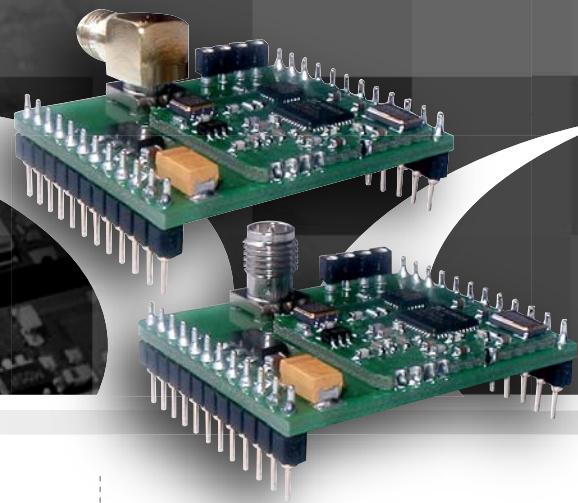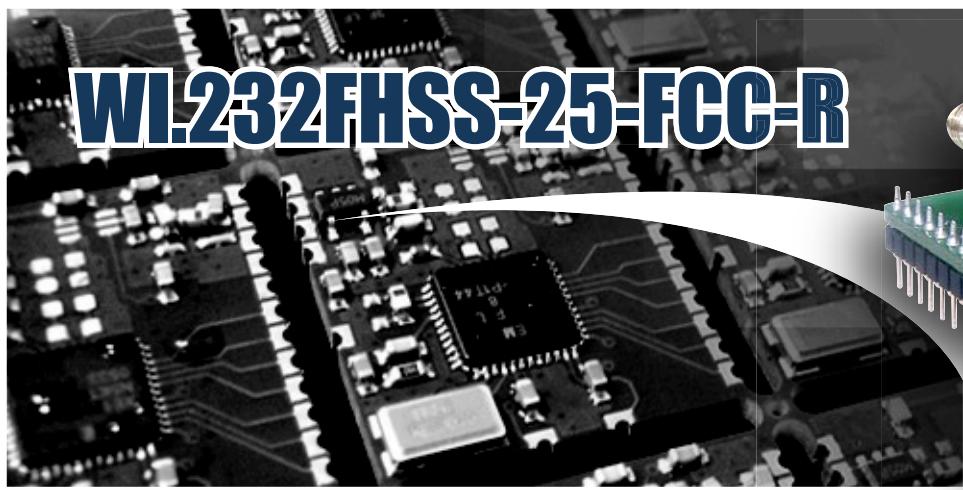# RADIOTRONIX™
life without wires

WI.232FHSS-25-FCC-R

FCC approved Wireless Module
915 MHz, 152.34 kbit/sec.

DESCRIPTION

The Wi.232FHSS-25-FCC features the popular Wi.232FHSS-25 embedded radio module in an FCC modular approved solution. It is designed to greatly simplify implementation of the Wi.232DTS module into a working design without the complications of FCC RF level testing. Radiotronix also offers a range of antennas that were certified for this product.

The Wi.FHSS-25™ module combines a state-of-the art low power wireless transceiver with a powerful multipoint-to-multipoint protocol controller to form a transparent wireless communication solution capable of replacing wires in almost any RS-232/422/485 application. With a 111 dB link budget and very low power operation modes, the Wi.232DTS™ module is excellent for AMR, RFID, Home Automation, and any other application requiring long range (<1500ft. , line of sight) and long battery life.

The module is designed to be totally transparent. No special addressing or formatting of data is required. Data is validated using an internally generated CRC-16 and encoded using a proprietary algorithm. Multiple modules can operate on the same channel because of the built-in carrier-sense-multiple-access (CSMA) protocol.

The transceiver operates in two modes; low power and DTS. In low-power mode, transmitter output power is 0 dBm and the maximum RF data is 76.8 kbit/sec. In DTS mode, the output power is +12 dBm and the maximum RF data rate is 152.34 kbit/sec.

APPLICATIONS

Automated Meter Reading (AMR)
Oil and Gas detection sensing
Robotic and Industrial Controls
Cable replacement
Medical

CERTIFIED ANTENNAS

ANT-915-04A *(Helical straight RPSMA connector)*
ANT-915-02A *(1/4 wave whip RPSMA connector)*
ANT-915-07A *(Helical right angle RPSMA connector)*
ANT-915-06A *(1/2 wave dipole RPSMA connector)*

FEATURES

1. Frequency Hopping Spread Spectrum
2. True UART to Antenna solution
3. FCC Modular approved
4. 152.34 kbit./sec. max RF data rate
5. MAC addressing mode
6. 120 dB link budget
7. Straight and right angle connector options
8. Size 1.5" x 1.25"

SPECIFICATIONS

1. Frequency Band: 902 to 928 MHz
2. DTS Mode
   a. 32 Channels
   b. 94.6 kbps Max RF Data Rate (effective)*
   c. +11 dBm TX Power**
   d. -104 dBm Max RX Sensitivity***
3. LP Mode
   a. 84 Channels
   b. 19.2 kbps Max RF Data Rate (effective)*
   c. -5 dBm TX Power**
   d. -106 dBm Max RX Sensitivity***
4. Power
   a. VDD: 4 V to 15 V
   b. TX IDD- LP Mode: 28 mA
   c. TX IDD- DTS Mode: 57 mA @ +11 dBm
   d. RX IDD: 20 mA**
   e. Sleep/ Standby: 100 μA/ 850 μA
5. Operating temperature:
   -40 degrees C to 85 degrees C
6. FCC prescanned

   *Single packet with overhead
   **50 ohm load, VDD= 3.3 V
   ***measured @ 2400 baud

ORDERING INFORMATION

Wi.232FHSS-25-FCC-ST-R	RPSMA CONNECTOR (straight)
Wi.232FHSS-25-FCC--RA-R	RPSMA CONNECTOR (right angle)

REV. 002

Mouser Electronics

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