



PTSS2003 915 MHz Band Transceiver – Data Sheet

Features

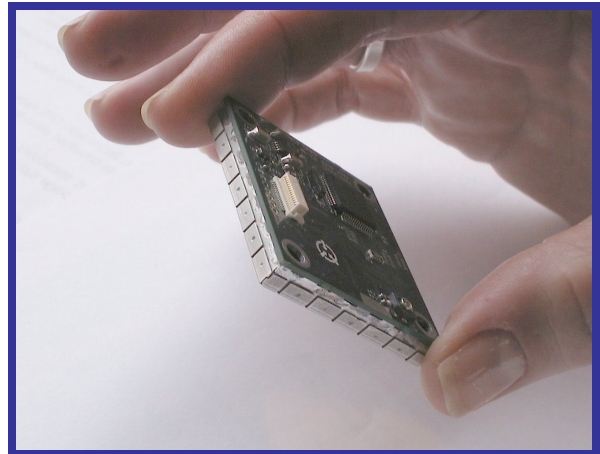
- FCC Modular Certification ID: QLBPTSS2003
- XEMICS XE1202 Transceiver
- Customizable TI MSP430 Microcontroller
- RFMD Power Amplifier
- Asynchronous Serial Interface
- Frequency Hopping Spread Spectrum over 160 Channels Ranging From 902 to 928 MHz
- User Selectable Hop Table (65536 Tables)
- Low Power Consumption
- Shut Down mode, < 10uA
- High receiver sensitivity, -107dBm
- SAW filter for high interference rejection.
- 250 mW Transmit Power
- Small Form Factor (1.7" x 1.5" x .35")
- CRC-16 Error Detection with User Selectable Auto Resend on Error
- User Selectable Data Encryption
- 76,800 bits/sec Data Rate
- 200KHz receive bandwidth

Product Overview

The PTSS2003 is a compact, ready-to-use, FCC-certified Frequency Hopping Spread Spectrum transceiver that operates in the license-free 902 – 928 MHz band. It is ideal for OEM applications that require a wireless data connection, and it can also be easily integrated into existing systems. This versatile module will simplify the task of using wireless to send/receive data, using the latest RFIC technology and a customizable TI MSP430 microcontroller.

Applications

- Remote Sensor Monitoring
- Home Automation
- Remote Keyless Entry
- Remote Control
- Security Devices
- Power Sensitive Wireless Applications



The PTSS2003 is only 1.5" x 1.7" x .35"

The PTSS2003 can work in systems with or without an external processor. When there is no host for the system or for specialized applications, Pegasus can easily customize the microcontroller firmware to meet your needs.

Low operating power requirements and very low power consumption in shut down mode make this the ideal module for applications where long battery life is important.

Specifications are subject to change without notice. This device complies with Part 15 of the FCC rules. Operation is subject to the following conditions. 1) This device may not cause harmful interference, and 2) This device must accept any interference received, including interference that may cause undesired operation.



Electrical Specifications				
	Min	Typical	Max	Units
Power Supply Voltage	2.9	3.3	5.5	Volts
Power Supply Current				
Sleep Mode (27 C)		6	20	uA
Receive Mode		30	60	mA
Transmit Mode		400	500	mA
Serial Host Interface				
'0' Voltage Level	0		0.6	V
'1' Voltage Level	2.4		3.5	V
Host Data Rate	9600		115200	bps
Analog Channels				
Channels		2		channels
Input Range	0		2.5	Volts
Quantization		12		Bits
RF Specifications				
Frequency Range	902		928	MHz
Frequency Stability		20		ppm
Architecture	Frequency Hopping Spread Spectrum			
Channels per hop table	50			channels
Available channels		48000		channels
Packet Length	8		760	bits
Receiver Sensitivity		-107		dBm
Out of Band Rejection		40		dB
Transmitter				
RF Output Power		250		mW
Modulation		2-FSK		
Data Rate		76800		bps
Deviation		±100		KHz

Environmental Conditions	
Operating Temperature	-40 C to + 80 C
Relative Humidity	5% to 95% Non Condensing

Mechanical Dimensions		
Length	1.70 ± 0.01	inch
Width	1.50 ± 0.01	inch
Height	0.35 ± 0.02	inch

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