

XM1283 – 433 / 868 / 915 MHz

Transceiver board with low power 8-bit microcontroller

GENERAL DESCRIPTION

The XM1283 is a radio module based on the highly integrated XE1283 combining an ISM-band radio transceiver and a low power microcontroller on one chip. The XM1283 consists of a DP1283 Drop –In Module soldered onto a DP to XM adapter.

The XM1283 transceiver module enables high data rate communication up to 152.3 kbit/s. The module is optimized for low power consumption. In transmit mode maximum output power is +15 dBm without any external power amplifier. Three frequency ranges are available to satisfy either the European (ETSI-300 220-1) or the North American (FCC part 15.231) standards.

XM modules may also be ordered as part of a Starter Kit, which includes a microcontroller interface and a PC-based graphical user interface to enable range testing and more detailed product evaluation.

KEY PRODUCT FEATURES

- Direct digital interface
- Supply voltage down to 2.4V
- Minimum external component count
- Frequency synthesizer step: 500 Hz
- Output power programmable: up to 15 dBm
- High reception sensitivity: down to -113 dBm
- Data rate from 1.2 kbit/s to 153.2 kbit/s
- Low Power consumption
- 8-bits microcontroller, RISC core
- Up to 6 MIPS, 300 uA at 1 MIPS operation
- Up to 22 kByte (8kW) MTP, 512 Byte RAM

ORDERING INFORMATION

Part	Version	Pin-package
XM1283-C433XEM-1	TrueRF™	Board with Antenna
XM1283-C868XEM-1	TrueRF™	Board with Antenna
XM1283-C915XEM-1	TrueRF™	Board with Antenna

APPLICATION CONNECTOR

The XM1283 TrueRF™ can be connected to test equipment or XEMICS' development tools via a 20 pins connector.

Pin #1

"SCK": (Output), Clock of the 3-wire interface

Pin #2

"VDD": Connect to a 3.3V power supply.

Pin #3

"SI": (Output), Data of the 3-wire interface

Pin #4

"GND": Connect to Ground

Pin #5

"SO": (Input), Data of the 3-wire interface

Pin #6

"TX": (Input), Transmitter selection of the antenna switch; not connected by default

Pin #7

NC

Pin #8

"RX": (Input), Receiver selection of the antenna switch; not connected by default

Pin #9

"SWITCH": (Input / Output), RF mode selection / indication

Pin #10

"CLKOUT": (Output), Output clock at 9.75, 4.875, 2.4375 or 1.21875 MHz

Pin #11

NC, grounded

Pin #12

"PB(0)" (Input / Output) port B pin

Pin #13

NC, grounded

Pin #14

"PB(1)" (Input / Output) port B pin

Pin #15

"PB(5)" (Input / Output) port B pin

Pin #16

"PB(2)" (Input / Output) port B pin

Pin #17

"PB(6)" (Input / Output) port B pin

Pin #18

"PB(3)" (Input / Output) port B pin

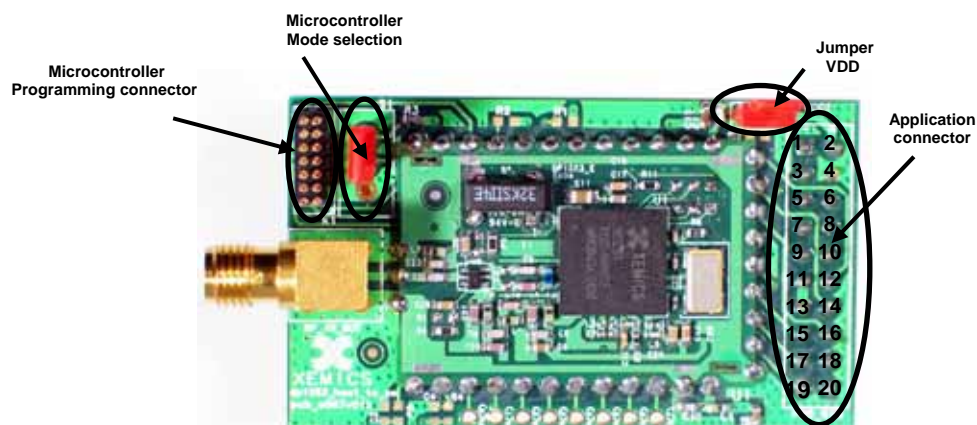
Pin #19

"PB(7)" (Input / Output) port B pin

Pin #20

"PB(4)" (Input / Output) port B pin

The microcontroller can be programmed via the "programming connector" using a XE8000MP.



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