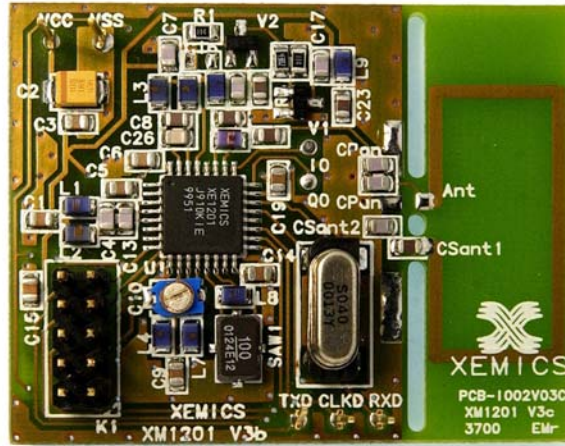




# XEMICS

Product Brief  
XM1201A Module  
UHF Transceiver Board



# XM1201A

## 433.92 MHz UHF Transceiver Board

### Low Cost, On-PCB Loop Antenna

#### Features

The XM1201A is a complete UHF Transceiver Board based on XEMICS' XE1201A Direct Conversion Single Chip Transceiver. The board has been optimized for performance and cost in volume production.

XM1201A includes a power amplifier that delivers 8.5dBm output power at the antenna. It also operates as the antenna switch without loss of sensitivity. It has an on board loop antenna to facilitate its use and further reduce costs. XM1201A comes fully assembled and tested. No extra tuning is required.

Measured performances show communication over 350 meters in free space and 50 meters in buildings, when XM1201A is used on both ends.

#### Ordering Information

Part	Pin-package
XM1201AV3C	Board

#### Applications

- Utility metering
- Building Security systems
- Toys
- Automotive
- Wireless sensing
- Intelligent remote control
- Keyless entry system
- Wireless data link

#### Quick Reference Data

- |                       |                                       |
|-----------------------|---------------------------------------|
| • Supply voltage      | 2.4 to 5.5 V                          |
| • Sensitivity         | -107 dBm                              |
| • Output Power        | 8.5 dBm max.                          |
| • Current consumption | 16.1 mA (Tx mode)<br>6.5 mA (Rx mode) |
| • Modulation          | 2-level FSK                           |
| • Carrier frequency   | 433.92 MHz                            |
| • Size                | 4cm x 5cm                             |

## I/O Lines

The XM1201A can be connected to the main application board, interface board or test equipment with a 10-pin connector, shown in the figure below.

### Pin #1

“TXD” (input): Transmit Data line (activate when the control mode bit A13 in register A is set to '0', see XE1201A datasheet for detailed information).

### Pin #2

“SD” (input): Serial Data line, used to set-up configuration of the XE1201A transceiver IC.

### Pin #3

“CLKD” (output): Clock Data line. This is the clock signal for the received data. It is generated by an on-chip bit synchronizer to provide glitch free data at the output.

### Pin #4

“SC” (input): Serial Clock line, used to set-up configuration of the XE1201A transceiver IC

### Pin #5

“RXD” (output): Received Data Line

### Pin #6

“DE” (input): Data Enable line, used to set-up configuration of the XE1201A transceiver IC

### Pin #7

“GND Line”: Ground

### Pin #8

“EN” (input): Chip enable signal (activate when the control mode bit A13 in register A is set to '0', see XE1201A datasheet for detailed information).

EN	Mode
0	Transceiver disabled
1	Transceiver enabled

### Pin #9

“VDD Line”: Connect to a 3 V power-supply.

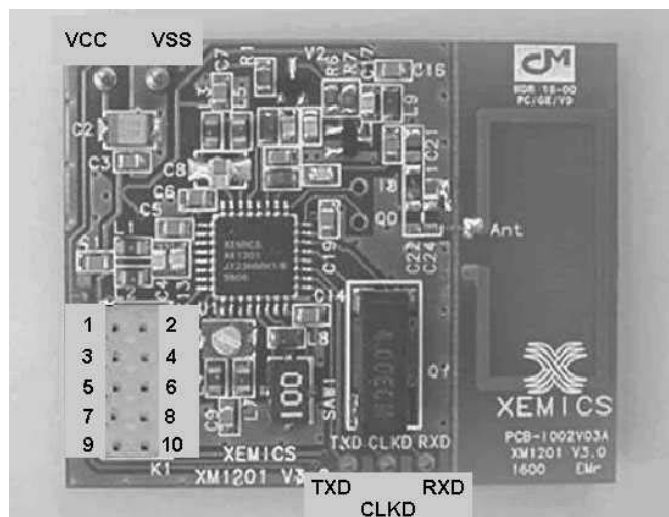
### Pin #10

“RxTx” (input): Receive / Transmit signal (activate when the control mode bit A13 in register A is set to '0', see XE1201A datasheet for detailed information). This signal is used to set up the transceiver in either transmitter or receiver mode.

RXtx	Mode
0	Transmit mode
1	Receive mode

In addition, the module provides easy accessibility, with 3 probe-pads for the RXD, CLKD, and TXD signals.

For convenience, the XM1201A module can be supplied through separate VSS and VCC pins. In this case, the two supply lines of the 10-pin connector should not be used.



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