

ZigBee / 802.15.4 2.4 GHz Stamp Module

Applications

For home and commercial buildings, industry and utilities

Smart Energy and Building Automation

Clock and sensors
Lighting systems
Security systems
Thermostat systems

Utilities

Automatic meter reading
Smart energy home area networks
Street light monitoring
Data loggers
Traffic light controls



ZM201 is a low cost, small form factor module that provide a reliable, wireless data communication over Zigbee PRO/ 802.15.4 networks.

ZM201 is a stamp module which offers both U.FI RF connector and chip antenna.

UZport is a USB to ZigBee converter, which combines ZM201 with a USB dongle.

ZM series is compliant with ZigBee PRO protocol. It supports different network topologies: point-to-point / point-to-multipoint star network topologies, and self-organizing / self-healing mesh networks topologies. It offers network scalability and is ideal for the rapidly growing energy management systems, building automation, lighting control, automated meter reading and security system.

All PNI's ZigBee Module uses the Renesas Electronics' 16-bits microcontroller (uPD78F1146) and UBEC's UZ2400 2.4GHz 802.15.4 RF chip. The ZM series provides plenty of peripheral such as GPIO, ADC, clock, counter, and PWM for control and sensor network application. ZM's parameters can be configured through an user friendly wizard, a management utility, and AT command.

Features

- Zigbee/802.15.4 compatible RFmodule
- 2.4~3.6V Operation
- Industrial temperature (-40C to 85C)
- RF Receiver Sensitivity: -95dBm
- RF TX power available in 0dBm
- 8 GPIO.
- 8 channel 10bits ADC.
- Watchdog timer.
- Hardware security engine (AES-128)
- 2 channel timer/counter/PWM IO.
- Real time counter provide flexible sleeping cycle from monthly, weekly, down to a few seconds.
- UART, SPI, IIC interface to communicate with the module.
- Support AT-command and management utility
- Support transparent and API format communication mode.

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ZM201



UZport



Pin out of ZM

pin	Name	Direction	Description
1	VDD	-	Power Supply
2	P61/SDA0	I/O	Serial data input/output
3	P60/SCL0	I/O	Serial clock input/output
4	P40/TOOL0	I/O	Data input/output for tool
5	FLMD0	-	Flash programming mode
6	RESET	Input	Module Reset
7	P41/TOOL1	Output	Clock output for tool
8	P140/PCLBUZ0/INTP6	I/O	Programmable clock/buzzer output, or External interrupt input
9	P120/INTP0/EXLVI/DTR	Input	External interrupt input or External low-voltage detector or Data-Terminal-Ready Control
10	VDD	-	Power Supply
11	P21/ANI1/CTS	Input	Analog input 1 or Clear-to-Send Flow Control
12	P22/ANI2	Input	Analog input 2
13	P25/ANI5/RTS	I/O	Analog input 5 or Request-to-Send Flow Control
14	P23/ANI3	Input	Analog input 3
15	P20/ANI0	Input	Analog input 0
16	P26/ANI6	Input	Analog input 6
17	P24/ANI4	Input	Analog input 4
18	P12/SO00/TxD0	Output	UART0 Data Out
19	GND	-	Ground
20	P11/SI00/RxD0	I/O	UART0 Data In
21	P15/RTC DIV/RTCC L	Output	Real-time counter clock, 32 kHz output or 32 kHz divided frequency output
22	P14/RxD3	Input	UART3 Data In
23	P13/TxD3	Output	UART3 Data Out
24	P10/SCK00	I/O	Serial clock input/output
25	P27/ANI7	Input	Analog input 7
26	P05/TI05/TO05	I/O	Timer input or Output
27	P06/TI06/TO06	I/O	Timer input or Output
28	GND	-	Ground

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