

# CWDP23-B6A

## 2.4GHZ RF TRANSCEIVER MODULE

### PRODUCT BRIEF



#### FEATURES

- Tiny Form Factor
- 2400~2483.5MHz ISM Band
- GFSK Modulation
- Low Current Consumption
- Low Sleep Current
- Programmable Data Rate
- Programmable Transmit Power
- High Receive Sensitivity
- Fast Settling Time Synthesizer for Frequency Hopping System
- Support Low Cost Crystal Oscillators
- Low BOM cost
- Easy to Use
- Wide Operating Temperature Range

#### GENERAL DESCRIPTION

*CWDP23-B6A is a cost effective, high performance 2.4GHz ISM band RF transceiver module which is designed based on Panchip XN297 GFSK transceiver IC. The module features a fully programmable frequency synthesizer by SPI. The maximum air data rate is 2Mbps.*

*The CWDP23-B6A targets wireless consumer applications especially for remote toy or wireless speaker and earphone. The CWDP23-B6A can be widely applied in various wireless connections, it's compliant with the specifications regulated and required by FCC and CE.*

#### APPLICATIONS

- Wireless PC Peripherals
- Proprietary 2.4GHz Systems
- Wireless Keyboards and Mice
- Wireless Control
- Wireless Sensing Network
- Wireless Gamepads
- Wireless Data Access and Collection
- Wireless Speaker and Earphone

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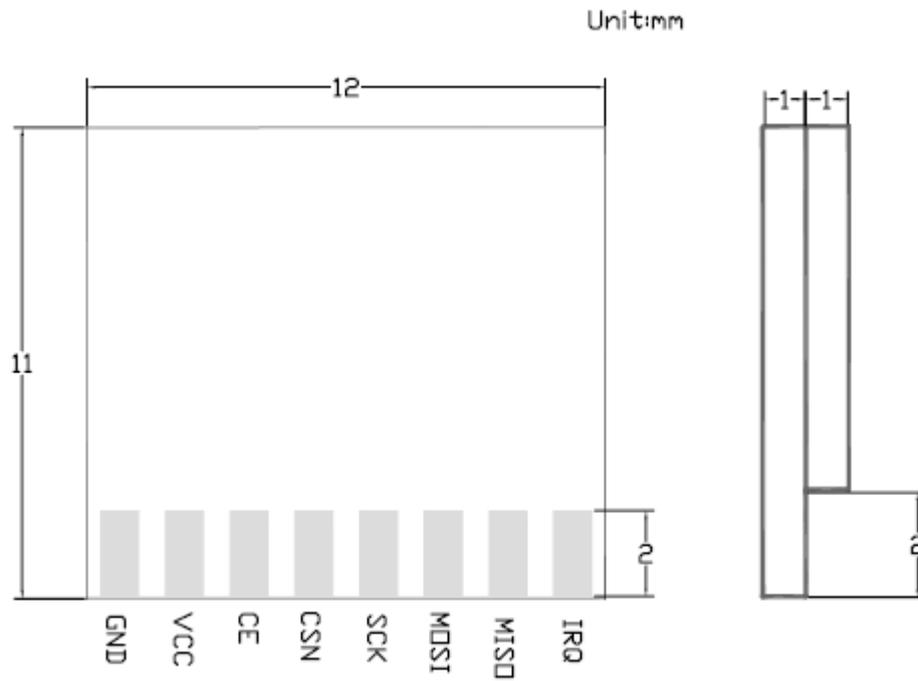
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**TECHNICAL SPECIFICATIONS**

<b>Item</b>	<b>Parameters</b>	<b>Min</b>	<b>Typ</b>	<b>Max</b>	<b>Unit</b>	<b>Condition</b>
<b>1</b>	<b>Operating Condition</b>					
1.1	Supply Voltage	1.9		3.6	V	
1.2	Operating Temperature	-20		+70	°C	
<b>2</b>	<b>Normal Condition</b>					
2.1	Power Down Current			3	uA	
2.2	Standby Current			50	uA	
<b>3</b>	<b>Normal RF Condition</b>					
3.1	Operating Frequency	2402		2483.5	MHz	
3.2	Air Data Rate	250		2000	Kbps	
<b>4</b>	<b>Transmitter</b>					
4.1	Output Power	-40	0	2	dBm	
4.2	Modulation 20dB Bandwidth (2Mbps)		2.5		MHz	
4.3	Current at -25dBm Output Power		12		mA	
4.4	Current at 0dBm Output Power		17		mA	
<b>5</b>	<b>Receiver</b>					
5.1	Current (1Mbps)		17		mA	
5.2	1E-3 BER Sensitivity (2Mbps)		-85		dBm	

**DIMENSIONS AND PIN ASSIGNMENT**



Pin No.	Symbol	Function Description	Remark
1	GND	Ground	
2	VCC	Supply Voltage	
3	CE	Chip Enable Activates RX or TX Mode	
4	CSN	SPI Chip Select, Active Low	
5	SCK	SPI Clock	
6	MOSI	SPI Slave Data Input	
7	MISO	SPI Slave Data Output with Tri-state Option	
8	IRQ	Maskable Interrupt Pin, Active Low	

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