CWDP105GS

2.4GHz RF Transceiver module

Product brief

General Description

CWDP105GS is a cost effective, high performance 2.4GHz ISM band RF transceiver module which is designed based on Amiccom's A7105 (FSK/GFSK) transceiver IC. The module features a fully programmable frequency synthesizer by SPI. The maximum air data rate is 500Kbps.

The CWDP105GS targets wireless consumer applications especially for wireless toy and game controller. The CWDP105GS can be widely applied in various wireless connections, it's compliant with the specifications regulated and required by FCC and CE.

Features

- *Small Form Factor*
- *2400~2483.5MHz ISM Band*
- *FSK/GFSK Modulation*
- *Low Current Consumption*
- *1uA Ultra Low Sleep Current*
- *Programmable Data Rate*
- *Programmable Transmit Power*
- *High Receive Sensitivity*
- *Fast Settling Time (130us) Synthesizer for Frequency Hopping System*
- *Support Low Cost Crystal Oscillators*
- *Easy to Use*
- *Wide Operating Temperature Range*

Applications

- *Proprietary 2.4GHz Systems*
- *Wireless Keyboards and Mice*
- *Remote Toys*
- *Wireless Sensing Network*
- *Wireless Gamepads*
- *Wireless Data Access and Collection*
- *Wireless Metering and Building Automation*

COOLWAVE CONFIDENTIAL

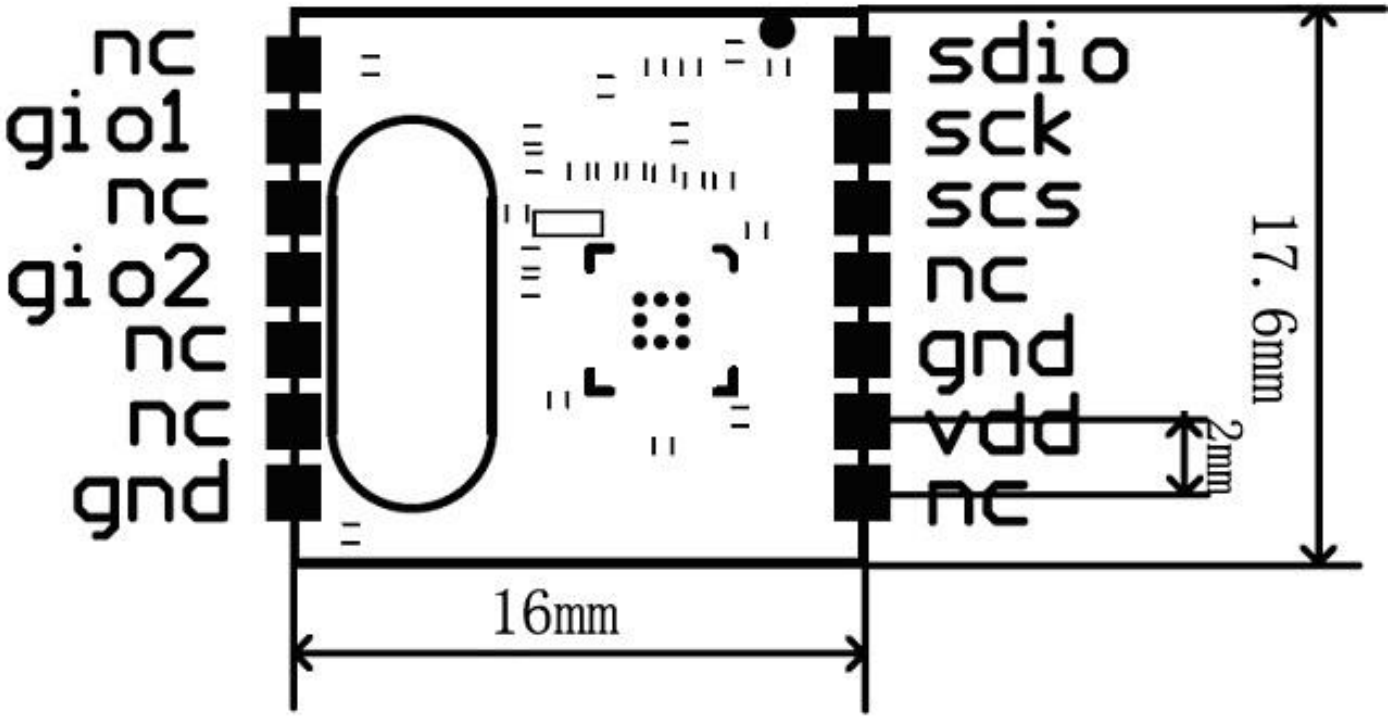
TEL: +86-755-88004853
WEB: www.coolwaveasia.com
E-MAIL: coolwave@coolwaveasia.com

TECHNICAL SPECIFICATIONS

Item	Specification	Remark
Supply Voltage	1.9 ~ 3.6 V	
Current Consumption	1uA@Sleep mode 1.8mA@ Standby mode 9mA@PLL mode 16mA@Rx mode 19mA@Tx mode (Pout = 0dBm)	Typical
Frequency	2400 – 2483.5MHz	ISM band
Transmit Output Power	0dBm@room temperature	Typical
Data Rate	250Kbps	Typical
Rx Sensitivity	-94dBm (typical)@250Kbps	BER ≤ 1E-3
Modulation	FSK/GFSK	
Transmission Distance	10meters	BER ≤ 1E-3
Dimension	17.6mm(L) x 16mm(W) x 5mm(H) antenna excluded	
Operating Temperature	-20 ~ 70°C	

COOLWAVE CONFIDENTIAL

Dimensions and Pin Assignment



Pin	Symbol	Functional Description
1	nc	Not Connected
2	gio1	General Purpose I/O 1
3	nc	Not Connected
4	gio2	General Purpose I/O 2
5	nc	Not Connected
6	nc	Not Connected
7	gnd	Ground
8	nc	Not Connected
9	vdd	Supply Voltage
10	gnd	Ground
11	nc	Not Connected
12	scs	SPI Chip Selection
13	sck	SPI Clock
14	sdio	SPI Data I/O

COOLWAY

COOLWAVE CONFIDENTIAL

COPYRIGHT 2016 by COOLWAVE COMMUNICATION CO., LTD.

The information appearing in this Data Sheet is believed to be accurate at the time of publication. However, Coolwave assumes no responsibility arising from the use of the specifications described. The applications mentioned herein are used solely for the purpose of illustration and Coolwave makes no warranty or representation that such applications will be suitable without further modification, nor recommends the use of its products for application that may present a risk to human life due to malfunction or otherwise. Coolwave's products are not authorized for use as critical components in life support devices or systems. Coolwave reserves the right to alter its products without prior notification. For the most up-to-date information, please visit our website at www.coolwaveasia.com