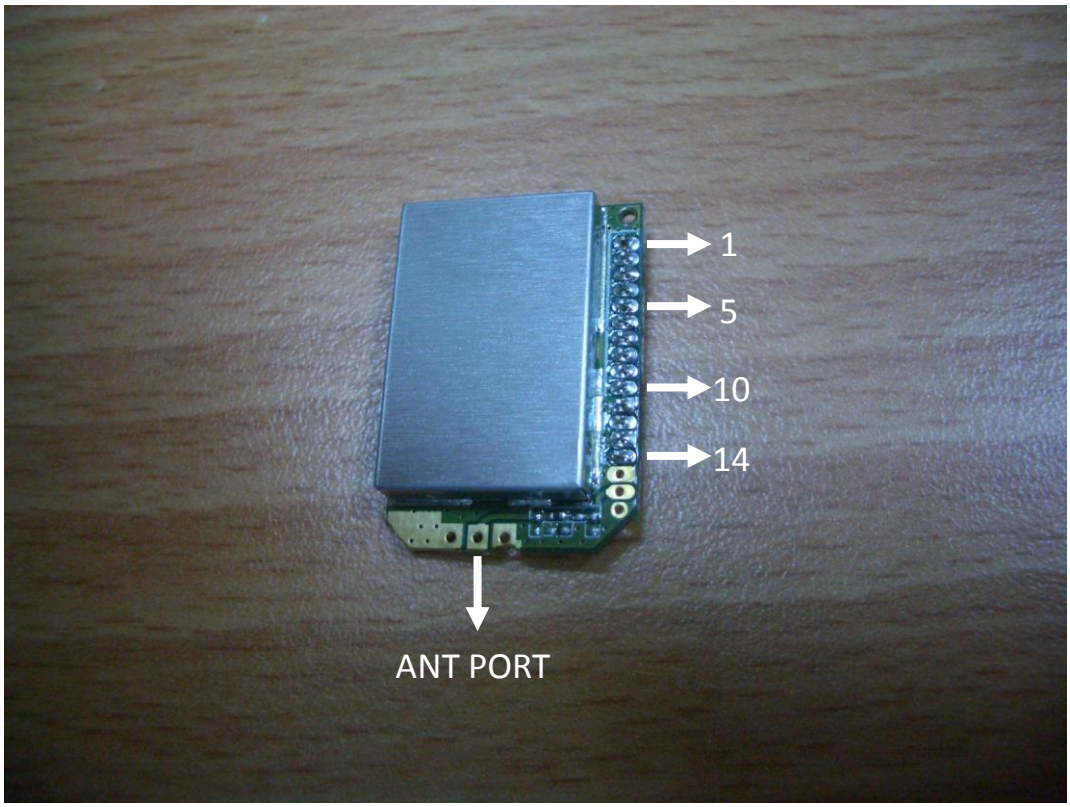
K71216P 2.4GHz GFSK Transceiver module Manual

1. Introduction

K71216P is a 2.4GHz ISM band transceiver.

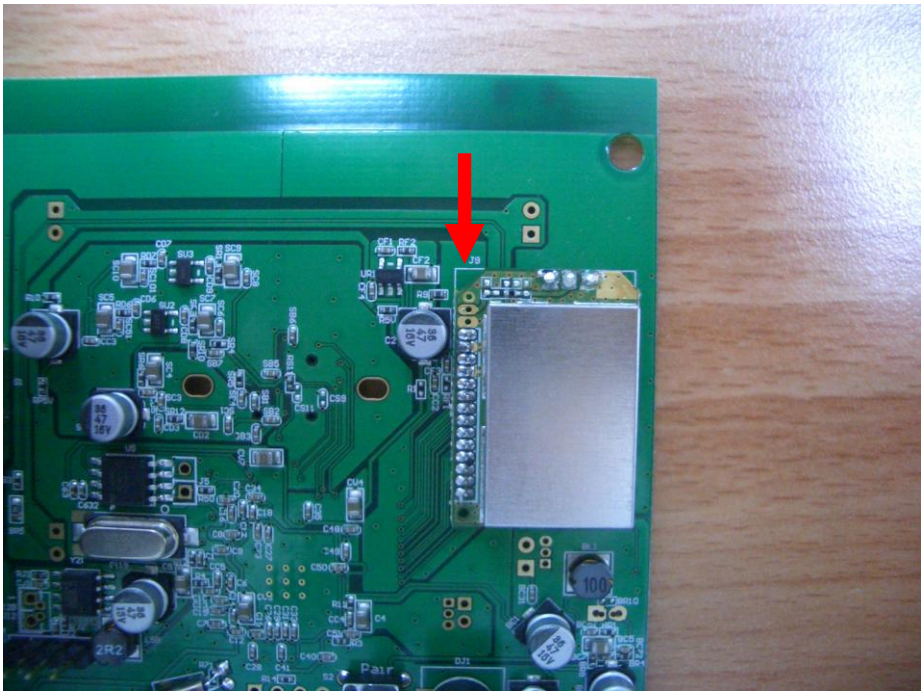
It provides one type of digital modulation GFSK, and on-air data rate support 3Mbps. The proprietary low MAC feature coupled with high-speed multimedia processor enables a very high quality wireless multimedia application and a great interference immunity capability.

2. Pin Assignment



Pin #	Pin Name	Comment
1	BB_CLK	Clock output
2	MS1	Transceiver operation mode selection input
3	MS0	Transceiver operation mode selection input
4	TRXD	Input: TX data input Output: RX data output
5	CD_TXEN	TX mode: Modulation enable Rx mode: Carrier detector
6	SPI_OUT	SPI data output
7	SPI_IN	SPI data input
8	SPI_CLK	SPI clock
9	SPI_CS	SPI chip select
10	VCC	DC 3.3V(module voltage input)
11	GND	GND
12	TX_SEL	PA on/off control, Tx/Rx switch control
13	GND	GND
14	RX_SEL	LNA on/off control, Tx/Rx switch control

3. Installation



Putting the module on the carrier board with socket.

4. SPI Digital Interface

All configurations of K71216P are defined by the values of register map.

The register map can be accessed via SPI digital interface coupled with external MCU.

All configuration values need to be properly set into four types of register maps.

5. SPI format

Address Byte(8 bits)								Data words(16 bits)															
R/W	Address						Reserved		Data														
7	6	5	4	3	2	1	0	15	14	13	12	11	10	9	8	7	6	5	4	3	2	1	

Address bytes:

Bit 7: R/W bit

[1]: 將data words寫入至控制暫存器。

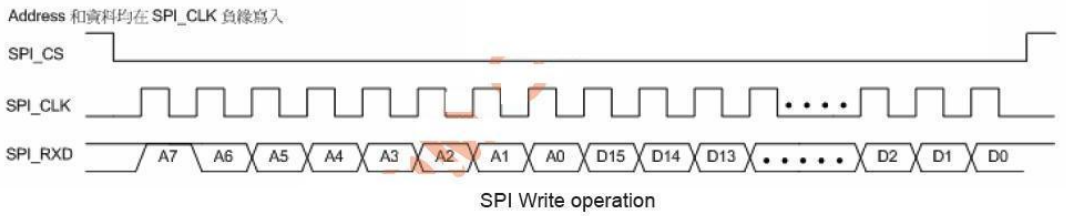
[0]: 從控制暫存器讀出data words。

Bit [6:2]: 控制暫存器位址

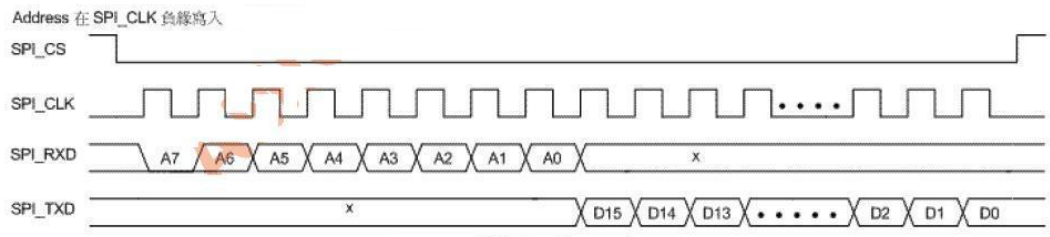
Bit[1:0]: 保留位元

Data words:

Bit[15:0]: 資料位元

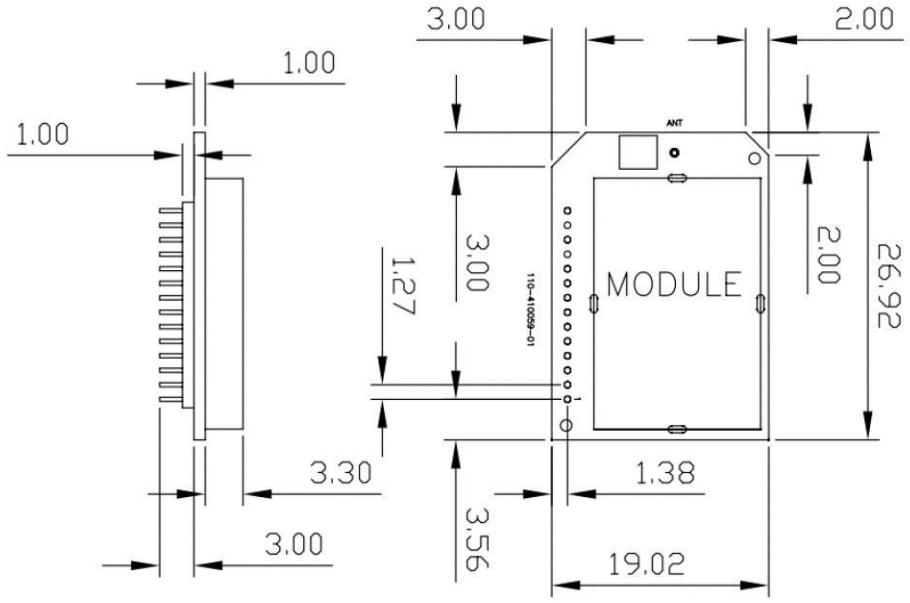


SPI Write operation



SPI Read operation

6. Dimension



NOTICE : The changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

IMPORTANT NOTE: To comply with the FCC RF exposure compliance requirements, No change to the antenna or the device is permitted. Any change to the antenna or the device could result in the device exceeding the RF exposure requirements and void user's authority to operate the device.

FCC ID Label Graph:

FCC ID : TJI-K71216P

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

NOTE: If the product is too small to make so many text labels, only need to indicate the FCC ID number on the label, but the above text will be printed in the manual or packaging box.

FCC Compliance Statement This device complies with Part 15 of the FCC Rules.
Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) This device must accept any interference received, including interference that may cause undesired operation.

FCC Changes Warning
Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Labeling While the FCC user ID is placed on the master device circuit board, compliant labeling shall also be placed on the end product housing exterior.

FCC Antenna usage Antennas are required to be permanently attached or of non-standard connection method to prevent the end user from altering the installation's performance. The installer shall be responsible for ensuring that the proper antenna is employed so that the transmit power limits are not exceeded. Non-approved antennas should not be used. This device has been designed to operate with the antennas listed below. Antennas not included in this list are strictly prohibited for use with this device.

FCC Modular approval configuration control
Control of the end product into which the module will be installed must be maintained such that full compliance of the end product is always ensured. The modular transmitter must comply with any specific rule or operating requirements applicable to the transmitter and the manufacturer must provide adequate instructions along with the module to explain any such requirements. It is the responsibility of the OEM or module level customer to install the master device in accordance with the guidelines of this manual. In order to maintain compliance with FCC regulations, the module installer must adhere to the guidelines listed in the installation section of this manual