

User Manual

Product Name: 2.4G Wireless module

Wireless module TYD-2496B-1-RF

OEM/Integrators Installations User Manual

Note: The module is limited to OEM installation ONLY; The OEM integrator is responsible for ensuring that the end-user has no manual instructions to remove or install module)

The module is limited to installation in mobile or fixed application

The separate approval is required for all other operating configuration, including portable configuration with respect to Part 2.1093 and different antenna configuration

Thank you select our product

READ AND SAVE THESE INSTRUCTIONS FOR FUTURE REFERENCEFOR

Contact us

Shenzhen TaiYuan star technology Co., LTD.

Baoan shajing industrial 2 shun jie industrial park of mountain king

Shenzhen, China.

1、General Description

TYD-2496B-1-RF **2.4G Wireless module** low power consumption ,Widely used in
wireless mouse ,Smart Home and so on.

2、Characteristics

Working voltage 0.4V~+3.6V

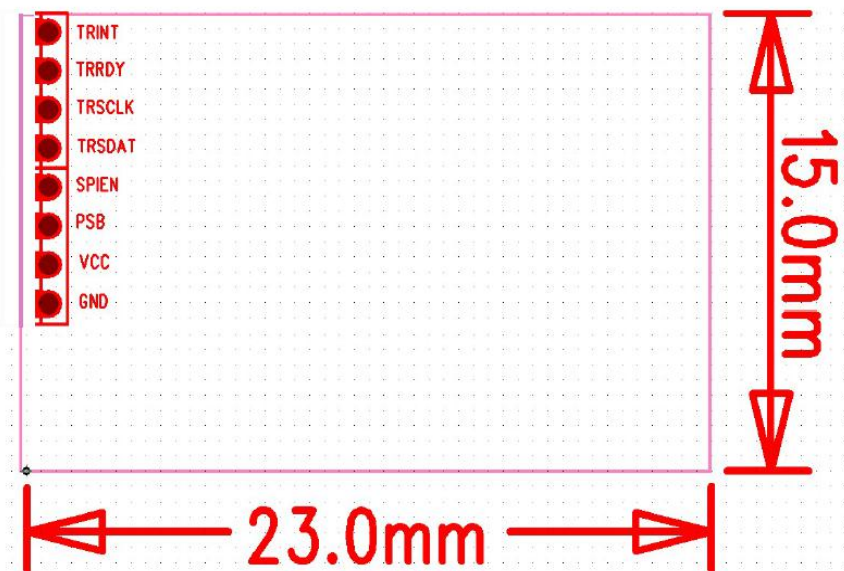
Storage Temperature -40℃~+85℃

DC characteristics

Items	Description	MIN	TYP	MAX	単位 Unit
VCC	Supply Voltage	1.9		3.6	V
VIL	Test condition: VCC=3.3V Digital pin	0.4		0.8	V
VIH		0.7VCC		VCC+0.4	V
VOL				0.4	V
VOH		VCC-0.4			V
Current consumption	Power-down mode		400 nA		nA
	Power-saving mode		1		uA
	Stand-by mode		32		uA

	TX mode	0dBm		13		mA
		-5dBm		10.5		mA
		-10dBm		9		mA
		-20dBm		8.2		mA
	RX mode	-250kbps		18		mA
		-1Mbps		19		mA
Frequency deviation				± 160		KHZ
Data Rate	Burst mode		>0		1000	kbps
	Direct mode		250		1000	kbps
Channel spacing				1		MHz
Transmir output power				0		dBm
Receiver Sensitivity	0.1%BER@250kbps			-93		dBm
	0.1%BER@1Mbps			-85		dBm

3、Pin Assignment



4、Pin Description

TRINT	0	Assert when transmitting or receiving is accomplished
TRRDY	I	Assert to set the ARF2496K to Active Mode
TRCLK	I/O	SPI/FIFO Digial input at Burst Mode and digital output at Direct Mode. Clock signal of the SPI/FIFO interface
TRSDAT	I/O	SPI/FIFO Data signal of the SPI/FIFO interface
SPIEN	I	SPI Enable signal of the SPI interface
PSB	I	Assert to enable Power-Saving Mode or Power-Down Mode
VCC	Power	1.9V~3.6V Power supply (1.9V~3.6V)
GND	Power	Ground

5、Antenna Type : PIFA

FCC Warning:

If the FCC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. This exterior label can use wording such as the following:

“Contains Transmitter Module FCC ID:2AI4Y-TYD2496B1RF ”

when the module is installed inside another device, the user manual of this device must contain below warning statements;

1. 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.

(2) This device must accept any interference received, including interference that may cause undesired operation.

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

FCC 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.

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

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

-Reorient or relocate the receiving antenna.

-Increase the separation between the equipment and receiver.

-Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.

-Consult the dealer or an experienced radio/TV technician for help.

That separate approval is required for all other operating configurations, including portable configurations with respect to Part 2.1093 and different antenna configurations.

This product is mounted inside of the end product only by professional installers OEM. They use this module with changing the power and control signal setting by software of end product within the scope of this application. End user can not change this setting.

The equipment complies with RF exposure limits. This module is limited to installation in mobile or fixed applications. The antenna used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with the FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator and any part of your body.