

## A. Features

- ▶ Operating frequency range from 2408 to 2468 MHz
- ▶ Maximum data rate 4 Mbps (GFSK)
- ▶ Support 3-wire or 4-wire SPI.
- ▶ Modulation scheme : FSK/GFSK
- ▶ Power supply range: 3 ~ 3.6V
- ▶ Transmission range: 250 m (Line of sight)
- ▶ Outline: 26.16x 18.36 x 3.75 mm
- ▶ Host equipment power supply: DC 9V or 5V

## B. Applications

- ▶ Digital Baby Monitor
- ▶ Wireless Video Door phone
- ▶ Security Camera

Date: 2014/4/24

## C: Specification

Parameter	Min.	Typ.	Max.	Unit
Electrical Section				
Supply Voltage	3	3.3	3.6	V
Supply current in TX mode		TBD		mA
Supply current in RX mode		TBD		mA
Crystal		16M		Hz
RF Section				
Modulation Mode	FSK/GFSK			
Operating Frequency(Note1)	2400	~	2483.5	MHz
Data Rate		4M		bps
Transmitter Section				
Transmission Power		+17		dBm
Power control range	0~19			dB
Receiver Section				
Sensitivity	-85	-88		dBm
Operation				
Operating Temperature	-20	~	+70	℃
Storage Temperature	-40	~	+85	℃

Note: 1. 2.4GHz ISM Band

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## D: Pin Assignment

No.	Marks	Function
1	VCC	Power Supply
2	CKO	A7130 CKO pin output
3	GPIO2	A7130 GPIO2/4-wire SPI data out
4	GPIO1	A7130 GPIO1/4-wire SPI data out
5	SDA	SPI Data I/O
6	SCK	SPI Clock
7	SCS	SPI Chip select
8	TX_SW	RF front end TX switch
9	RX_SW	RF front end RX switch
10	GND	Ground

## **RF Front End Control:**

TX_SW	RX_SW	Operating Conditions
0	0	Chip is Shut-down
0	1	Rx Active
1	X	Tx Active

Note:  
 "1" denotes high voltage state (>1.2V)  
 "0" denotes low voltage stage(<0.3V)at Control Pins  
 "X" denotes the don't care state

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## **Federal Communication Commission Interference 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.

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 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.

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

This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

## **Radiation Exposure Statement:**

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

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**This device is intended only for OEM integrators under the following conditions:**

- 1) The antenna must be installed such that 20 cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna.
- 3) Module approval valid only when the module is installed in the tested host or compatible series of host

As long as 3 conditions above are met, further transmitter test will not be required. However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed

**IMPORTANT NOTE:** In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

### End Product Labeling

This transmitter module is authorized only for use in device where the antenna may be installed such that 20 cm may be maintained between the antenna and users. The final end product must be labeled in a visible area with the following: “Contains FCC ID: **X4YSTRYKT**”. The grantee's FCC ID can be used only when all FCC compliance requirements are met.



### Manual Information To the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user's manual of the end product which integrates this module.

The end user manual shall include all required regulatory information/warning as show in this manual.