

## Technical Description

The brief circuit description is listed as below:

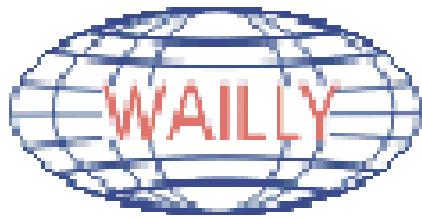
- 1) U1 acts as a MCU (EM78P372NSO20).
- 2) U3 acts as a 2.4G Module (WT24DK2015A).
- 3) U2 acts as a Voice IC (SNC36060).
- 4) U5 acts as a Motor Drive IC (AM2837).
- 3) Y1 acts as a Crystals for U3.

**Antenna Type:** Internal antenna

**Antenna Gain:** 0dBi

**Nominal rated field strength:** 91.4 dB $\mu$ V/m at 3m

**Maximum allowed field strength of production tolerance:** +/- 2dB



# WAILLY TECHNOLOGY LTD.

## WT24DK2015

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## WT24DK2015 Specification

### 1. General Description

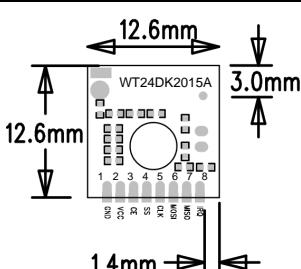
The WT24DK2015A is a 2.4GHz ISM band RF transceiver module consists of SSV7241 transceiver, 16MHz crystal in a small board size.

In normal applications, WT24DK2015A module is connected to a low cost microcontroller. This module has high transmission data rate, low current consumption and simple control interface is easy to apply to the wireless products.

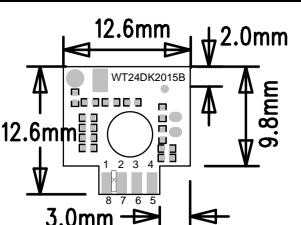
### 2. Features

- 2.4 GHz ISM band operation
- 250kbps, 1Mbps, and 2Mbps air rate
- Continuous TX mode, no re-lock between packets required\*
- Programmable status monitor: dedicated RX/FIFO monitor mode\*
- 1.9 to 3.6V supply range
- Automatic packet processing
- Advanced RSSI recording mode\*
- Up to 6 data pipes for 1 RX to multiple TXs

WT24DK2015 series including three kinds of models:

models	WT24DK2015A
appearance	
characteristics	Stamp hole & DIP crystal oscillator

Pin Assignment	
1	GND
2	VCC
3	CE
4	SS
5	CLK
6	MOSI
7	MISO
8	IRQ

models	WT24DK2015B
appearance	
characteristics	Gold finger & DIP crystal oscillator

Pin Assignment	
1	CE
2	SS
3	CLK
4	MISO
5	VCC
6	GND
7	IRQ
8	MOSI



models	WT24DK2015C	Pin Assignment																
appearance																		
characteristics	Stamp hole & SMD crystal oscillator																	
		<table border="1"><tr><td>1</td><td>GND</td></tr><tr><td>2</td><td>VCC</td></tr><tr><td>3</td><td>CE</td></tr><tr><td>4</td><td>SS</td></tr><tr><td>5</td><td>CLK</td></tr><tr><td>6</td><td>MOSI</td></tr><tr><td>7</td><td>MISO</td></tr><tr><td>8</td><td>IRQ</td></tr></table>	1	GND	2	VCC	3	CE	4	SS	5	CLK	6	MOSI	7	MISO	8	IRQ
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8	IRQ																	

#### Note:

If it is on the PCB, PCB need blank where module crystals foot enough location, Because the crystal oscillator welding feet have outstanding.

### 3. Electrical Characteristics

	MIN	TYP	MAX	单位
VDD	-0.3		3.6	V
VDD_IO Supply Voltage	-0.3		5.25	V
Operating Temp.	-20		85	°C
Storage Temp.	-40		125	°C
VDD Supply voltages	1.9		3.6	V
Power-down Current		9		uA
Standby Current		47		uA
Operating Frequency Range	2400		2484	MHz
TX DC current, 0 dBm output power		20.5		mA
RX DC current consumption		26.6		mA

### 4. Applications

- Wireless PC peripherals
- Wireless keyboards and mice
- Wireless gamepads
- Wireless audio
- VOIP & wireless headsets
- Remote controls
- Home automation
- Toys
- Consumer electronics
- Personal health and entertainment products