

## WTR050 Recording Chip

V1.01

2016-09-22

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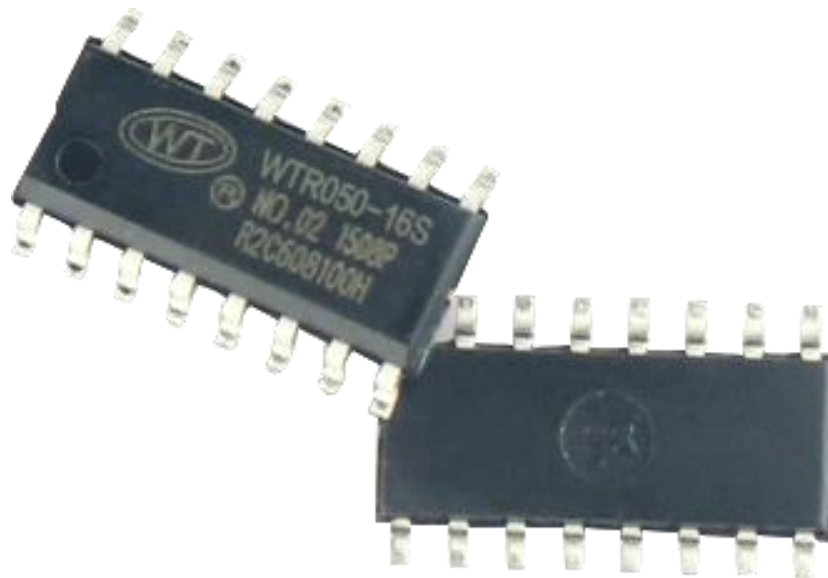
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## WTR050 Recording Chip V1.01

WTR050 is a voice recording chip, long recording distance, good sound quality, can directly drive 8ohm/0.5W speaker, loud voice. Through key control, can long press to record, short press to record, loop playback, level keeps loop playback.





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## 1. Features

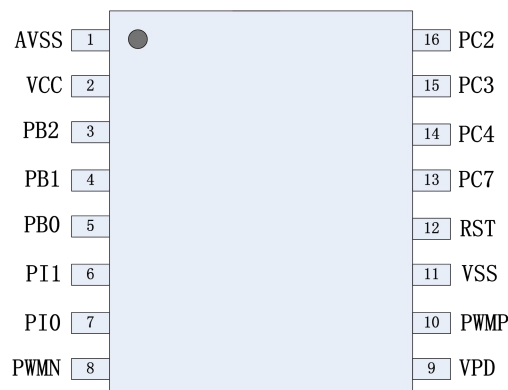
- Working voltage : 2.8V ~ 5.2V.
- Automatically into sleep mode when not working.
- Support 4Mbit~64M SPI Flash.
- Long press to record and non-recyclable playback, short press to play and loop playback.
- Amplifier directly driving 0.5 W/8ohm speaker.
- Recording and playing prompt, can connect LED display.
- Sample rate 8KHz~16KHz, selected by external level of chip.
- Single chip recording, recording duration up to 50s.

## 2. Function customization

If the current features of chip cannot meet your needs, we can customize some functions for you. Following are some common custom functions.

1. Increase recording fragments and key functions, such as increasing 5 fragments recording, “next” key etc..
2. Change the default control mode, for example, when power on, start to play the recorded files on a loop.

## 3. Pin description



**WTR050-16S**



No.	IO port	Function description
1	AVSS	Power ground
2	VCC	2.8~5.2V power supply
3	PB2	Key interface, high level active
4	PB1	Key interface, high level active
5	PB0	Key interface, high level active
6	PI1	For selecting sample rate
7	PI0	For selecting sample rate
8	PWMN	Speaker negative terminal
9	VPD	Programming pin
10	PWMP	Speaker positive terminal
11	VSS	Power ground
12	RST	Reset, high level active
13	PC7	Busy signal output, light on when recording, flashing once when playing
14	PC5	Key interface, high level active
15	PC4	MIC terminal, refer to the circuit description
16	PC3	MIC terminal, refer to the circuit description

Note: key is high level active.

#### 4. Electric parameters

Name	Range value	Unit
VDD~GND power voltage	2.8~+5..2	V
Recording current	8.3	mA
Playing current	112.7	mA
Standby current	6	uA
Working temperature	-40 ~ +70	°C

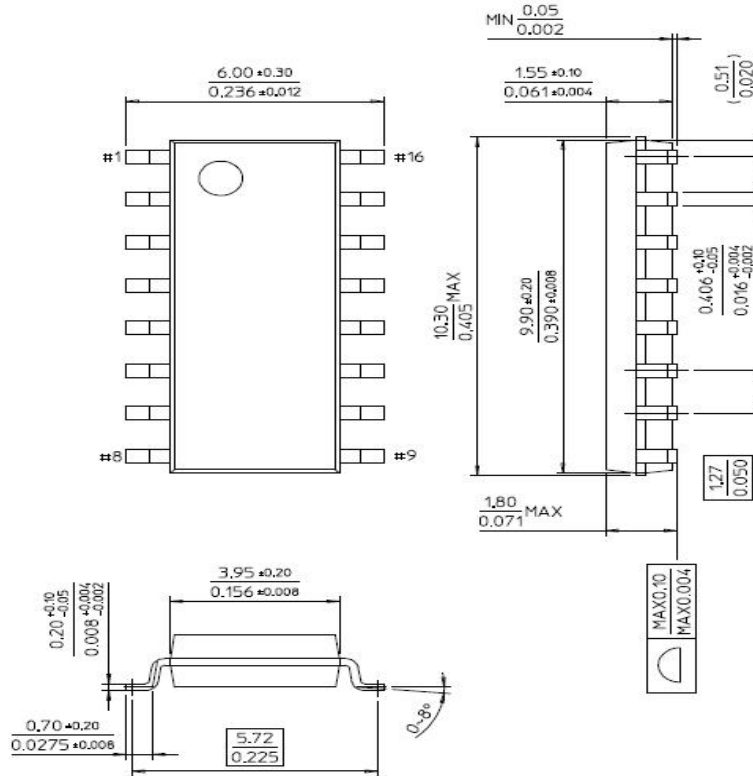
#### 5. Key control function

IO port	Function
PB2	Long press to play, release the key to stop playing.(level keeps non recyclable)
PB1	Short press to loop playback, stop playing when power off.
PB0	Long press to record, release it to stop recording.



## 8. Chip package

Unit: mm



## 9. History version record

Version	Date	Description
V1.00	2016.08.02	Original version
V1.01	2016.09.22	Add schematic diagram and electric parameters