

WTR050 Recording Chip

V1.01

2016-09-22

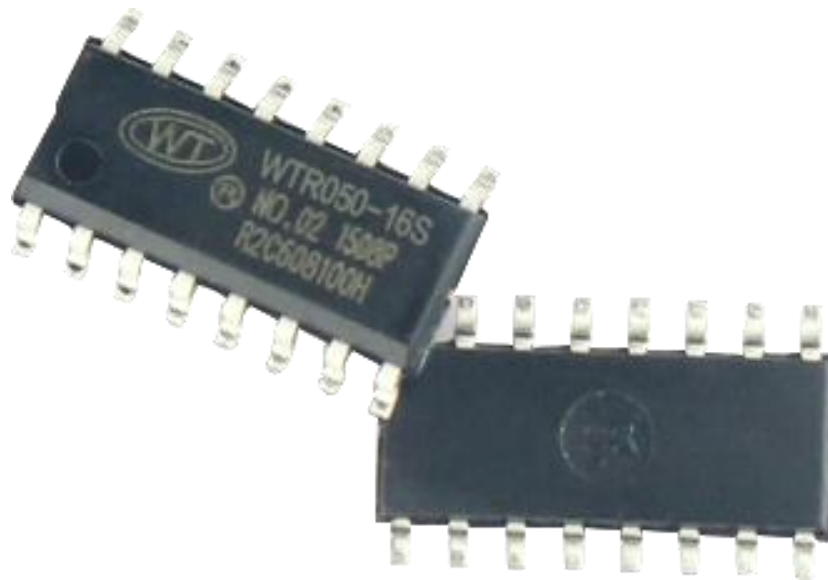
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WTR050 Recording Chip V1.01

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

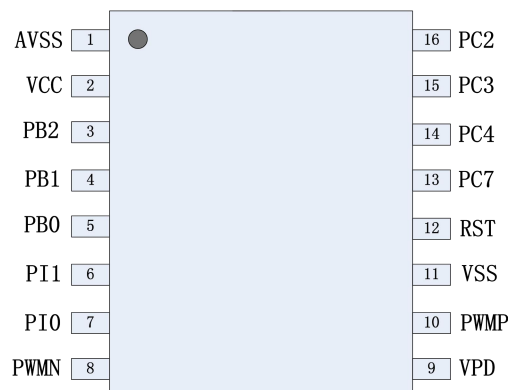
- Working voltage : 2.8V ~ 5.2V.
- Automatically into sleep mode when not working.
- Support 4Mbit~64M SPI Flash.
- Long press to record and non-recyclable playback, short press to play and loop playback.
- Amplifier directly driving 0.5 W/8ohm speaker.
- Recording and playing prompt, can connect LED 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. |

