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Product Name	DMR Module
Document Description	Product Manuals
Security Level	Public

Shenzhen Haihengtong Technology Co., Ltd

DMR Product Manuals



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Document Modification Record

Revised By	Completion Date	Revision Content	Version No.

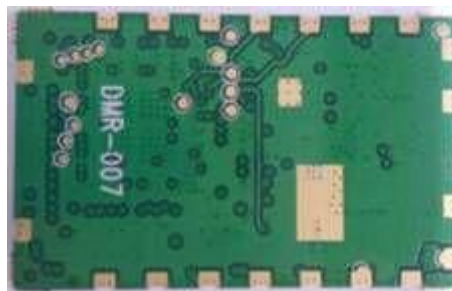


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(Module's Pictures)





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Digital Mobile Radio

DMR Digital Radio

DMR digital intercom module

Use digital intercom module with the DMR standard, support simplex voice, acknowledged/unacknowledged data SMS communication. This module internally installed high-powered RF transceiver chip, RF power amplifier, and DMR digital intercom chip. The external MCU can set the working parameter of the module by the standard asynchronous serial port communication and control the working state of the module. Only an external antenna, a microphone and a voice amplifier are needed for the module to form a complete DMR digital interphone.

1. Application Fields

Miniaturization digital interphone

Digital communication system of mobile phone

2. Characteristics

Frequency Range: 400~470MHz

Frequency Space: 12.5kHz

RF output power: high power 2W, low power 0.5W

Supply Voltage: 4V

High Receiving Sensitivity: -118dBm

Support writing-frequency

Support the DMR protocol and compatible with traditional analog intercom mode

The following businesses are supported under the mode of DMR

Support group calling, individual calling, general calls

Support acknowledged/unacknowledged SMS communication and status short message

Support calling/called detection

Support call alert

Support remote monitoring

Support emergency alarm

Support killing in a long distance/activating

Support voice and SMS application with shoot-through state and relay mode

The following businesses are supported under the mode of analog communication

Support CTCSS/CDCSS tone squelch

Support monitoring

The module board as shown in Figure 1, and its size is 23.9mm×39.5mm×3.8mm. The definition of Pin as shown in table

3. Module Pin Name:

Pin No.	Pin Name	Pin Category	Functional Description
1	SPK_EN	DIO	Speaker output control enable
2	NC		
3	LINE_OUT	AO	Audio output
4	+3.3V	POWER	Module burn $\square$ (external test point or hang in the air)
5	PTT	DI	Module transmitter/receiver control enable. 1 is receiver, 0 is transmitter.
6	PWD	DI	Module makes enable sleep, and 0 is sleeping
7	NC		
8	VBAT	POWER	Power Supply
9	GND	GND	Ground
10	GND	GND	Ground
11	NC		
12	ANT		Connect the antenna
13	ARM-RST	DIO	Module burn $\square$ (external test point or hang in the air)
14	SWDIO	DIO	Module burn $\square$ (external test point or hang in the air)
15	SWCLK	DIO	Module burn $\square$ (external test point or hang in the air)
16	UART_RX	DI	Asynchronous Serial Port (Receive Data $\square$)
17	UART_TX	DO	Asynchronous Serial Port (Send Data $\square$)
18	MIC_IN	AI	Audio output
19	GND	GND	Ground
20	GND	GND	Ground