

2PCS/Lot 5KM Long Distance 1W 30dBm RF Audio Transmitter Module 134-174MHz VHF Band Walkie Talky

Item specifics

Talk Range:5km on the open area
Is_Display:No
Storage Channel:16
Frequency Range:134~174MHz
Maximum Range:3km-5km
Type:Two Way Radio
Walkie Talkie Type:Portable
Frequency Range: :400~480MHz OR 134~174MHz
bandwidth selection :12.5/25KHz
Output Power :1W
Distance in open aera :3~5Km
High Sensitivity::-124dBm
High / low output power selection :500mW-1W
Application 1:Small size walkie-talkie
Application 2:Pocket / handheld device
Application 3:Security system
Application 4:Audio tracking and control system

Order List

2pcs 134-174MHz Walkie Talkie Module
2pcs Rubber antenna Antennas
2pcs USB bridge board
2pcs Pin line
2pcs Rotary switch
2pcs Connect cable

If you need UHF(400-480MHz) frequency, please leave a message to confirm when you place order, otherwise we will send VHF (134-174MHz)

product details

it is an all-in-one professional walkie-talkie module in small size. It is very easy to use with powerful function. This module has full function of a professional walkie-talkie and can talk with any analog walkie-talkie in the market. With the small size, it can be easily embedded into instrument, portable and handheld device. it works well in the hot/cold environment with the KDS 1PPM TCXO. The features of excellent antenna match network, good RF amplifier, high RF sensitivity allow its communication easily to achieve over 3Km in open area.

Rotary switch for channel selection, EEPROM, Audio Amplifier, RF Amplifier, PTT key, Antenna socket are all included in such a small size module. Besides, all parameters (CTCSS, CDCSS, SQ, Predefined channels etc) can be easily modified either by PC software or command using UART interface. With the embedded audio volume turning circuit, user can only solder a variable resistor on Pin16, Pin17 to adjust the volume steplessly.

Features:

1ppm TCXO
Embedded EEPROM, data saved even power off
High / low output power selection (500mW-1W)
8 SQ* 166 CDCSS, 38 CTCSS
High Integrated with ultra small size
High Sensitivity: -124dBm
3~5Km distance in open aera
1W Output Power* 12.5/25KHz bandwidth selection
Solely TX and RX frequency
Frequency range: 134 -- 174MHz

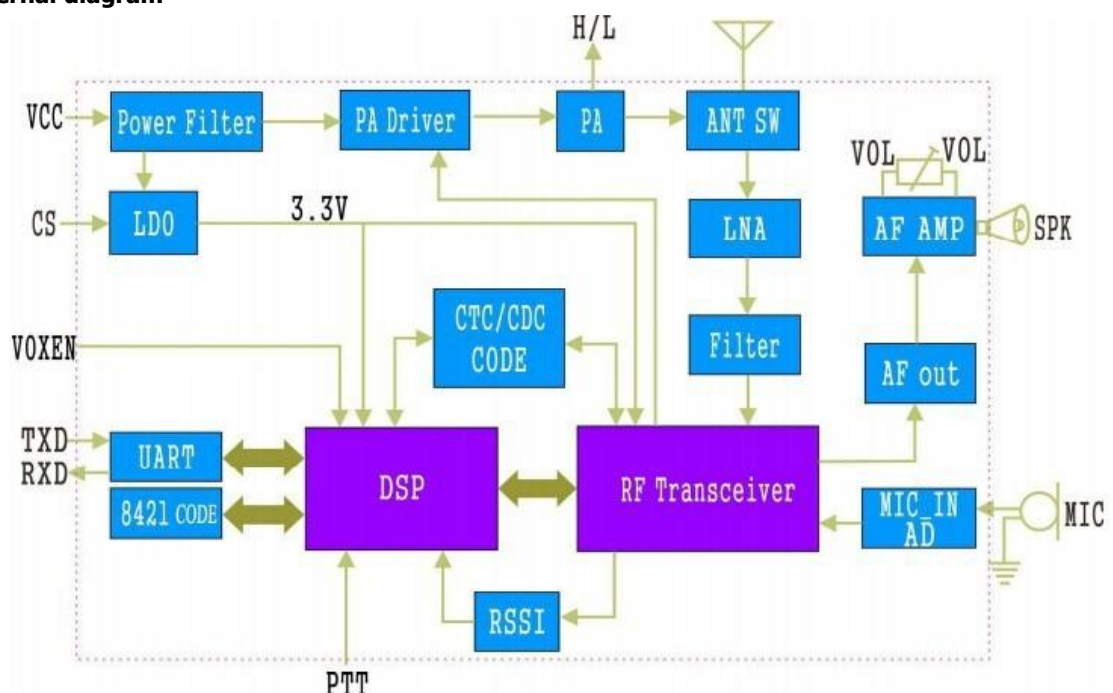
Application:

Audio tracking and control system
Outdoor sport product
Instrument
Security system
Pocket / handheld device
Small size walkie-talkie

Specification:

Parameter	Test condition	Min.	Typ	Max.	Unit
Operating voltage range	--	3.3	4.2	5.5	V
Operating temperature range	--	-30	25	70	°C
Power consumption					
Sleeping Current	--	--	≤3		uA
RX current	--	--	60		mA
TX current (high output power)	--	--	650	750	mA
TX current (low output power)	--	--	450	550	mA
TX frequency parameter					
Operating frequency range	SA828-U	400	--	480	MHz
	SA828-V	134	--	174	MHz
TX current (high output power)	@VCC=4.0V	28	29.5	31	dBm
TX current (low output power)		25	26.5	27	dBm
Audio distortion	@1.5Khz/2.5KHZ Frequency deviation	--	2	5	%
Adjacent Channel Ratio	@12.5K offset	--	-60dBc		dBm
RX frequency parameter					
RX sensitivity	13 dBm output audio SNR	--	-124	--	dBm
RX SNR	@1.5 KHZ Frequency deviation	45	50	--	dB
Audio output power	--	--	2	--	W
Audio output impedance	--	--	8	--	OHm

Internal diagram



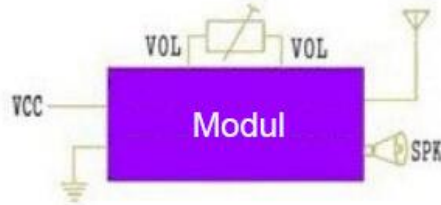
SHENZHEN Lejing INDUSTRY DEVELOPMENT CO.LTD

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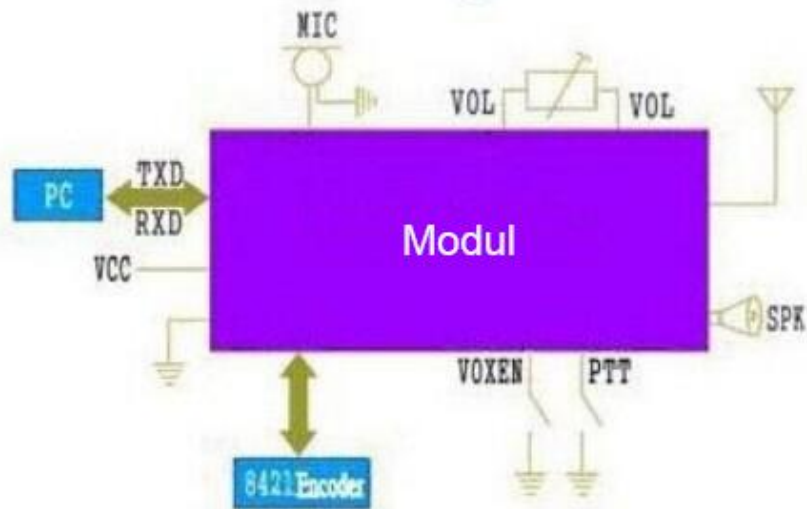
Typical application schematic



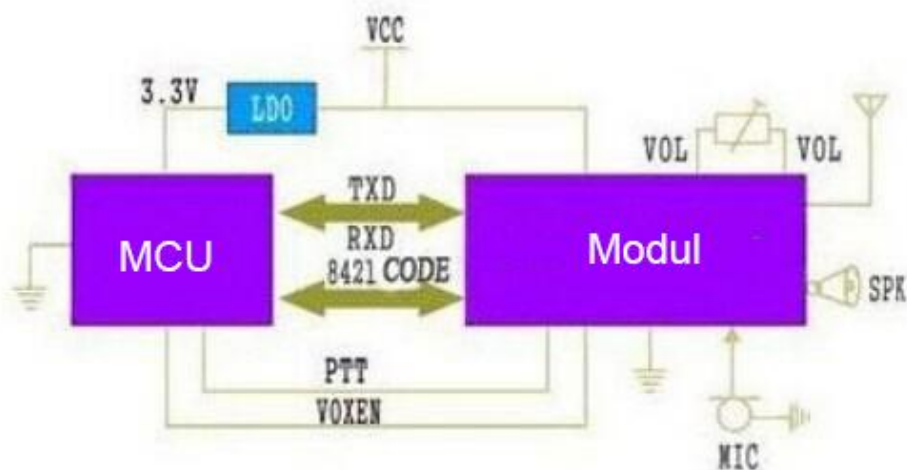
Simple Circuit



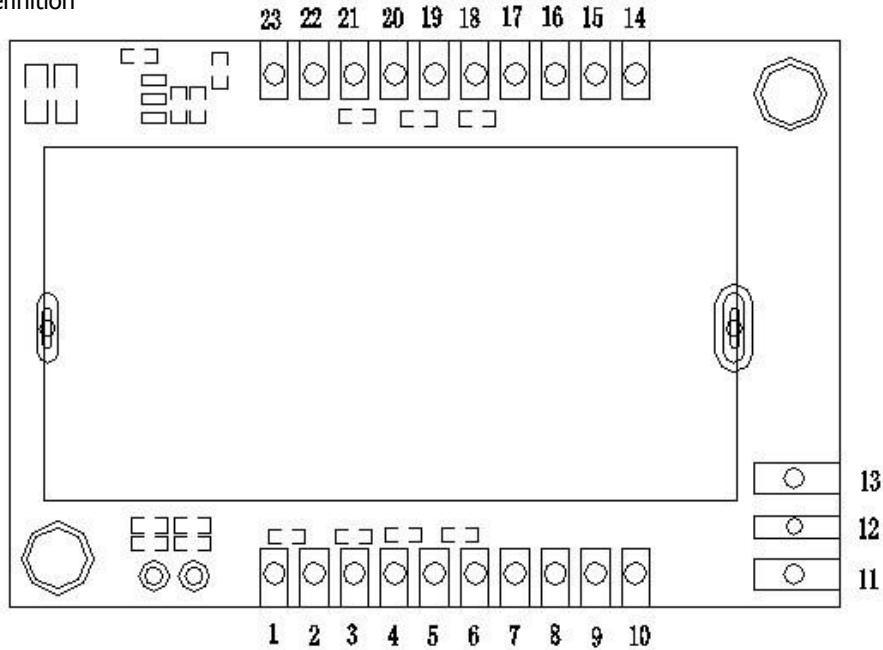
Standard Schematics



Customized schematics



Pin out definition



Pin No.	Pin Name	Description
1	MIC+	External microphone positive
2	MIC-	External microphone cathode
3	VOX EN	VOX enable , 0: enable VOX; leave open or 1 to disable VOX
4	1	8421 Encoder for 16 Frequency channels. When pin is leave open or connected to high voltage level, it stands for digital "1", and "0" for low level or connect to ground, the default frequency value please refer to the below table.
5	2	
6	8	
7	4	
8	H/L	high/low output power control; Leave open for high output power, low level to low output power. (Please kindly note: this pin can NOT be connected to VDD or high level of CMOS output)
9,10,11,13,21	GND	Exposed ground pad
14,15	SPK	8 ohm /2W loudspeaker connection
16,17	VOL	Connect with Resistor to adjust the volume of the speaker, normally using 100K ohm rotary resistor to adjust the volume steplessly.
18	RXD	RXD of the module for UART, connect to TXD outside of the module
19	TXD	TXD of the module for UART, connect to RXD outside of the module
20	PTT	PTT of the walkie-talkie module, leave open or "1" is Rx, "0" is TX..
22	VCC	External and Positive supply 3.3~5V.
23	CS	Leave Open or 1 for normal working, 0 is for sleeping mode

Machanism dimension

