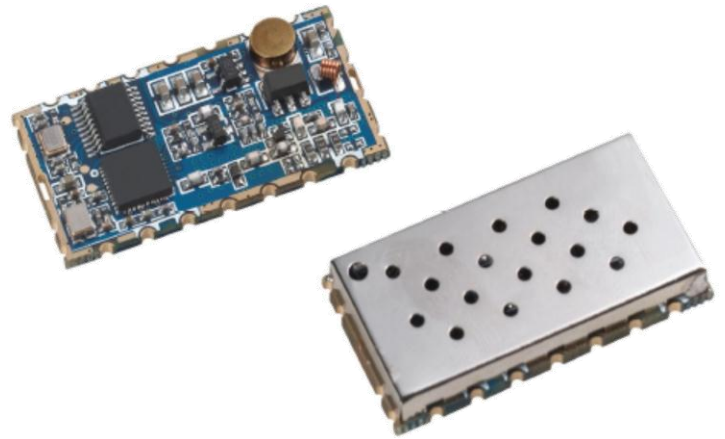


Highly integrated intercom module

Description

LC801 is a highly cost-effective integrated walkie-talkie mode Block, built-in high-speed microcontrollers, high-performance RF transceiver chip, and RF power amplifier, and provide a standard RS232 serial port module Communications, in order to quickly and easily set the relevant parameters of the module and Send and receive functions of the control. Users only need to in this section module external the audio amplifier, microphone, speaker; you can as a small the interphone work. The simplified interface and small size make this section modulus Block can be widely used, and also to quickly and easily embedded into the Handheld devices, in order to improve the performance of end products.



Second, the characteristics

- Full-band 400 ~ 480 MHz
- transmitting and receiving frequency independent
- bandwidth of 12.5 / 25 KHz,
- output power up to 1W
- The open transmission distance of 4-5 km
- high receiver sensitivity:-124dBm
- high integration of small size
- 38-class CTCSS codec
- 8-class Squelch
- 8-level adjustable volume
- high and low power optional (500mW-1W)
- a wide range of working voltage 3.3-5.5V
- 1.5ppmTCXO crystal, stable performance

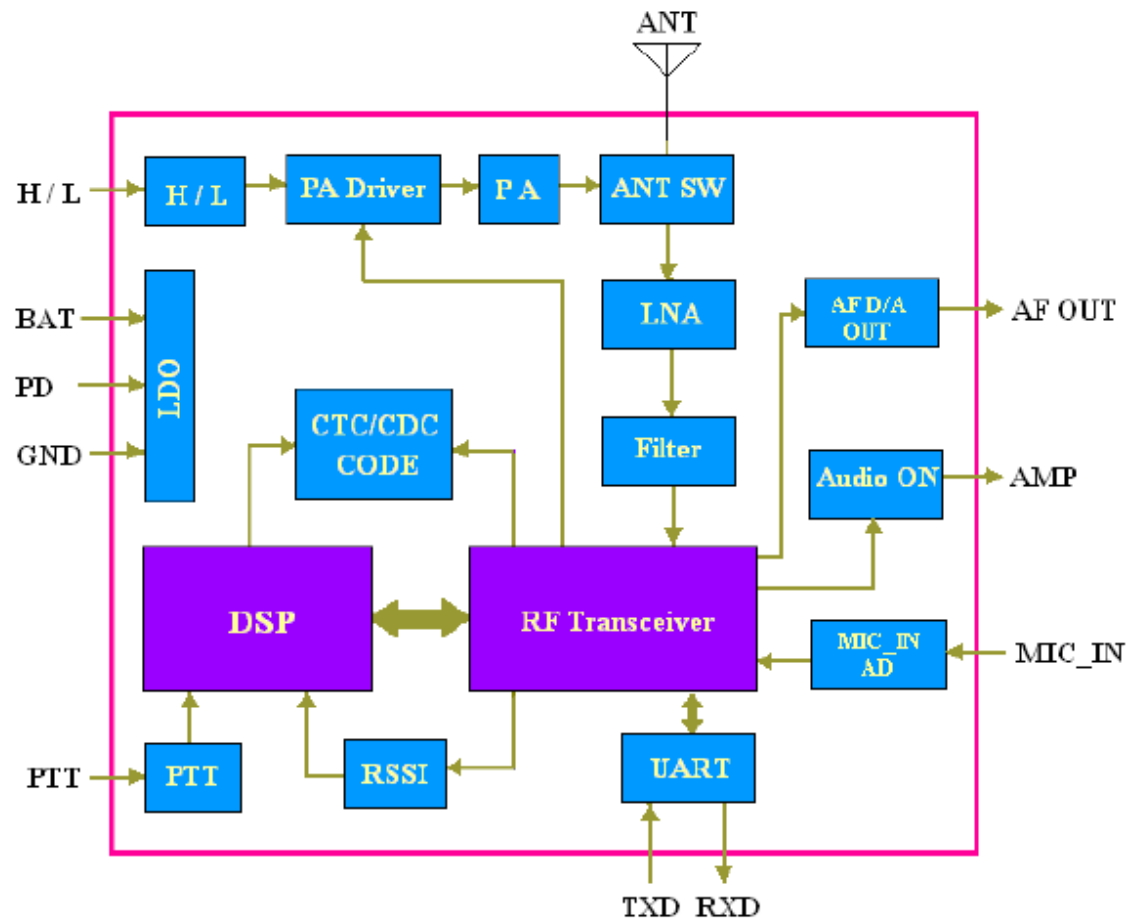
Third, the application

- Small walkie-talkie
- ignore the intercom system
- building of residential security systems
- Outdoor sports products
- Audio monitoring system

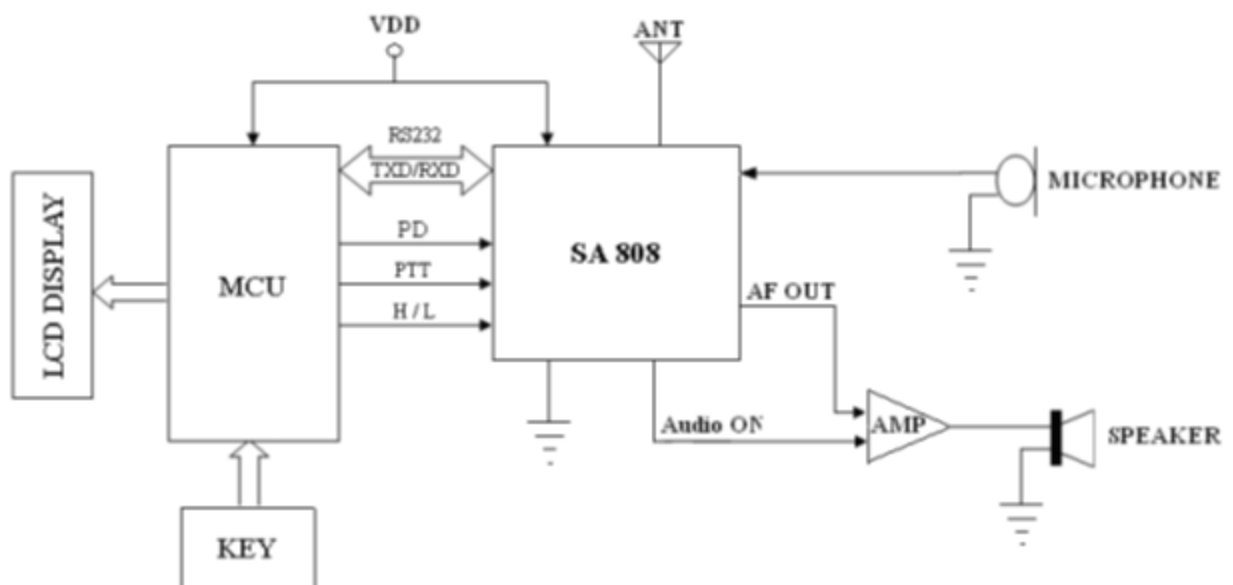
Fourth, the performance parameters

Parameter	Test conditions	Min	Typical	Max	Unit
Operating voltage range		3.3	4.2	5.5	V
Operating Temperature Range		-30	25	85	°C
Current consumption					
Sleep current			≤ 1		uA
Receive current			60		mA
Transmit current (high power)			650		mA
Transmit current (Low power)			450		mA
Transmitter RF parameters					
Operating frequency range		400		480	MHZ
Transmit power (high power)	@VCC=4.0V	28	29.5	31	dBm
Transmit power (low power)		25	26.5	27	dBm
Modulation sensitivity	@1.5Khz/2.5KHz Frequency Offset		10		mV
Audio modulation distortion	@1.5Khz/2.5KHz Frequency Offset		2	5	%
Signal to Noise Ratio	@1.5Khz/2.5KHz Frequency Offset	38	40	45	dB
Adjacent channel power	@12.5K offset		-60dBc		dBm
CTCSS Frequency Modulation		0.35	0.5	0.75	KHz
Received RF parameters					
Receiver sensitivity	13dB output voice channel		-124		dBm
Received SNR	@1.5KHZ frequency deviation	45	50		dB
Audio output amplitude			700		mV
Audio output impedance			200		OHM

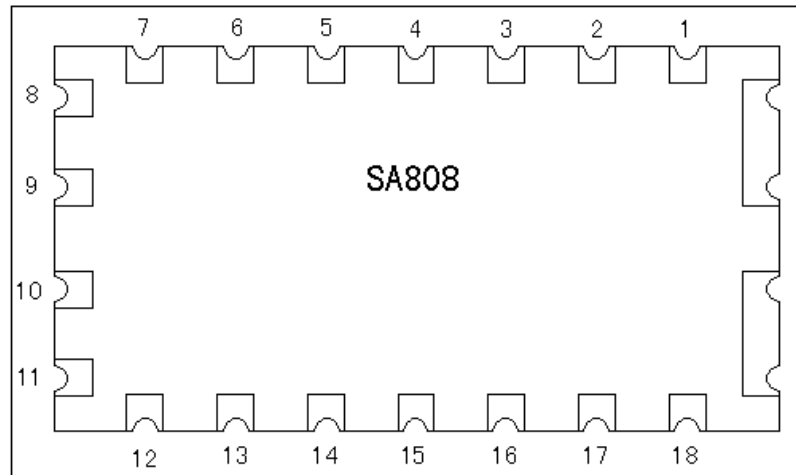
5, the internal block diagram



Six, the typical application circuit

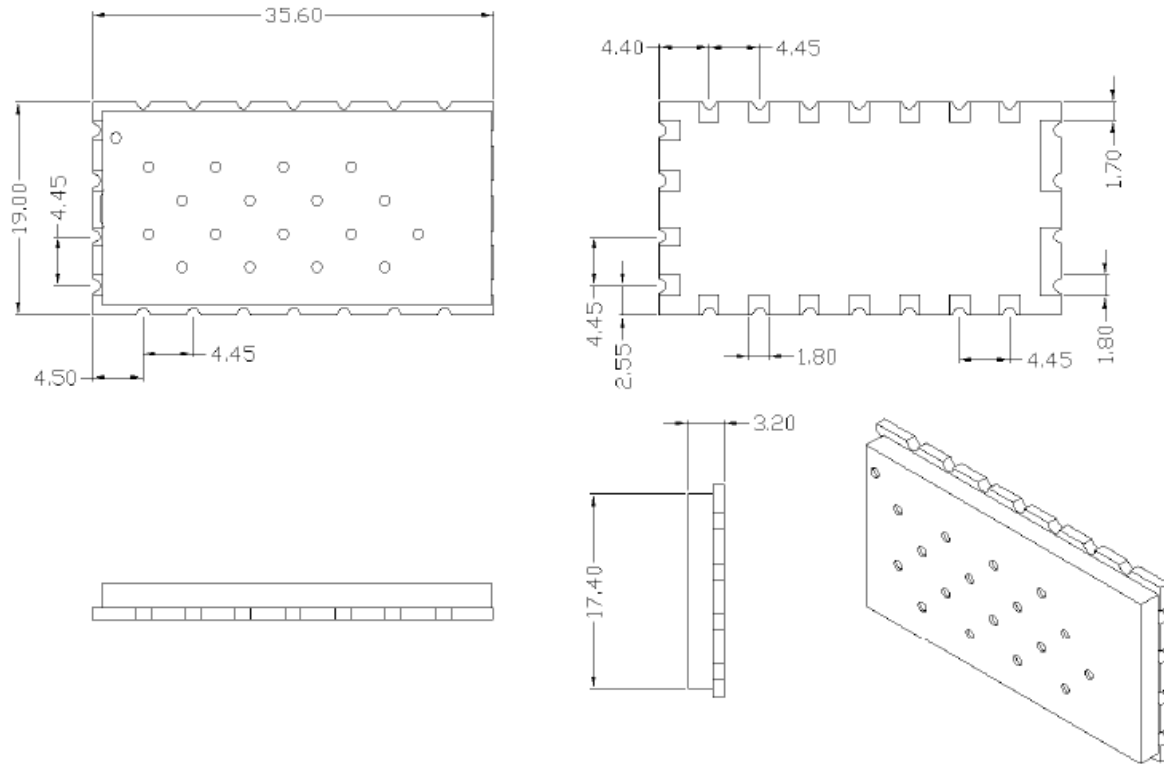


Seven pin assignments



Pin number	Pin Definitions	Description
1	Audio ON	Audio amplifier control, active low
2	NC	Empty Pin, No Connection
3	AF_OUT	
4	NC	Empty Pin, No Connection
5	PTT	Transmit / receive control pin, "0" for the launch; received "1" as the default receive mode
6	PD	Module hibernation enable, "0" or floating to sleep; "1" for normal work
7	H/L	High and low RF power control; ground for low-power, floating high-power.
8	VBAT	Supply Voltage
9	GND	Ground
10	GND	Ground
11	NC	Empty Pin, No Connection
12	ANT	RF input / output pin (connected 50 ohm antenna)
13, 14, 15	NC	Empty Pin, No Connection
16	RXD	Serial port to receive data
17	TXD	Serial port to receive data
18	MIC IN	Microphone input

Eight, the mechanical dimensions

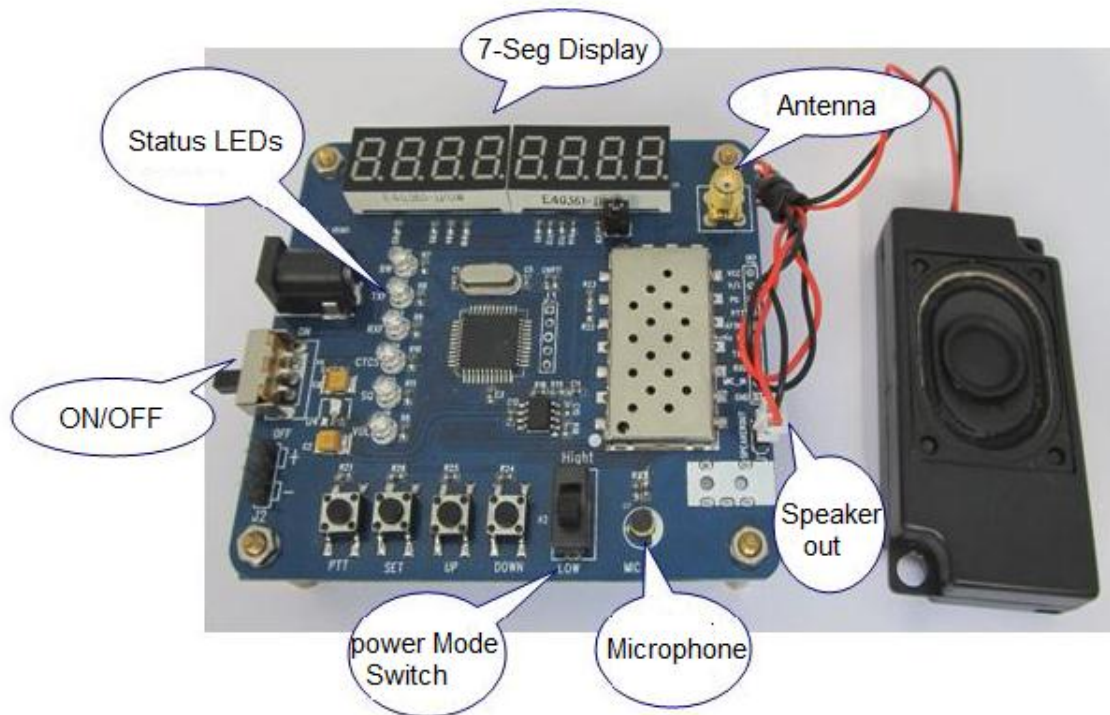


9, the communication protocol

LC801 module provides a standard RS232 serial port for the user module to communicate. Module communication instruction Concise, and can be easily and quickly modified to set the parameters of the module, communication instruction instructions see LC801 module programming manual.

Appendix:

The module comes standard with DEMO version for customers to debug procedures, testing functionality and distance. As shown below:



User through the key Can set the following parameters:

- 1 Transmission frequency: 400 ~ 480 MHz
- 2) Receiving frequency: 400 ~ 480 MHz
- 3) The channel bandwidth: 12.5 KHz/ 25KHz
- 4) Mute: 0 ~ 38
- 5) Squelch: 0 to 8
- 6) Volume: 1 ~ 8

➤ **Button operation:**

- 1) The SET button

Button to enter setting mode, such as setting the last parameter, the keys out of the setting mode.

- 2) The UP / Down keys

in the setup mode, the button to modify the appropriate setting of parameters.

- 3) PTT button

Press and hold this button to make a call.

- 4) High / Low push set

Module high and low power selector switch.

Note: with internal FLASH and power-down of all the settings of the parameters can be saved.