S3860M-S

Functional description:

S3860M - S is a high level of integration, low cost, low power consumption of bluetooth stereo audio module. In line with the Bluetooth 2.0 specification.

1.Support A2DP V1.2, AVRCP V1.4, HSP1.2 HFP1.5 profiles. Block integrated EEPROM, configurable working mode and parameters

2.The internal MIC bias supply

3.The internal MIC amplifier

4.UART support telephone number indicating (mobile end support this function)

5.Stereo audio output can direct drive 40 mw @ 32 Ω speeker without the need for a condenser

6.Integration on electric reset and programmable low voltage monitoring function

7.Six key presses, including key switch machine, matching key, volume, volume reduction, a song, the next song

8.Two light is used to indicate a different job

9.Prompt when it is call, such as mobile phone side support can play the phone ring

10.Short press ONKEY switch machine can answer or hang up the phone, long press can decline a call with super long press can play mobile phone connection,

11.Short press 2 times to redial the last time to electricity

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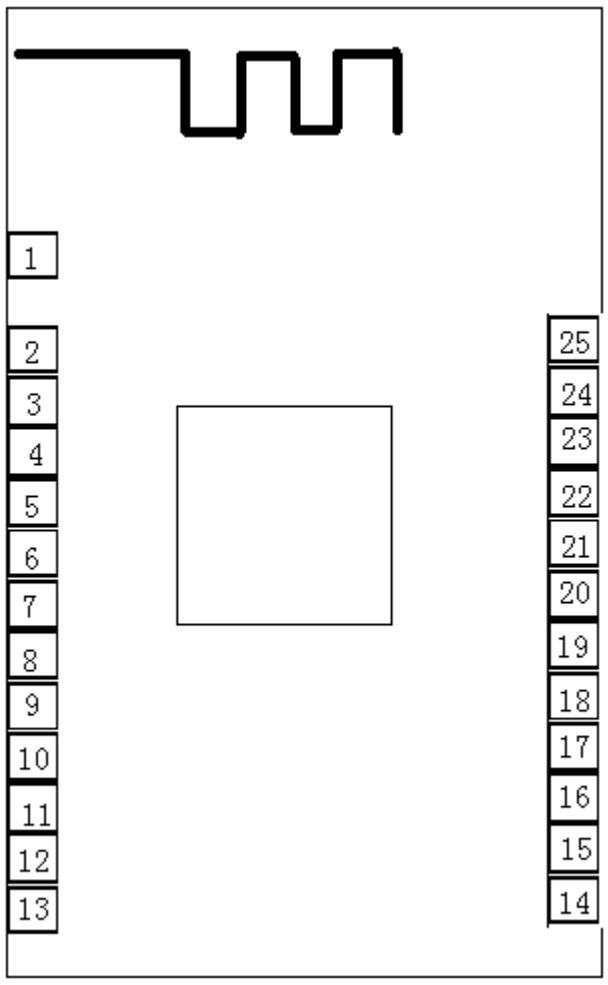
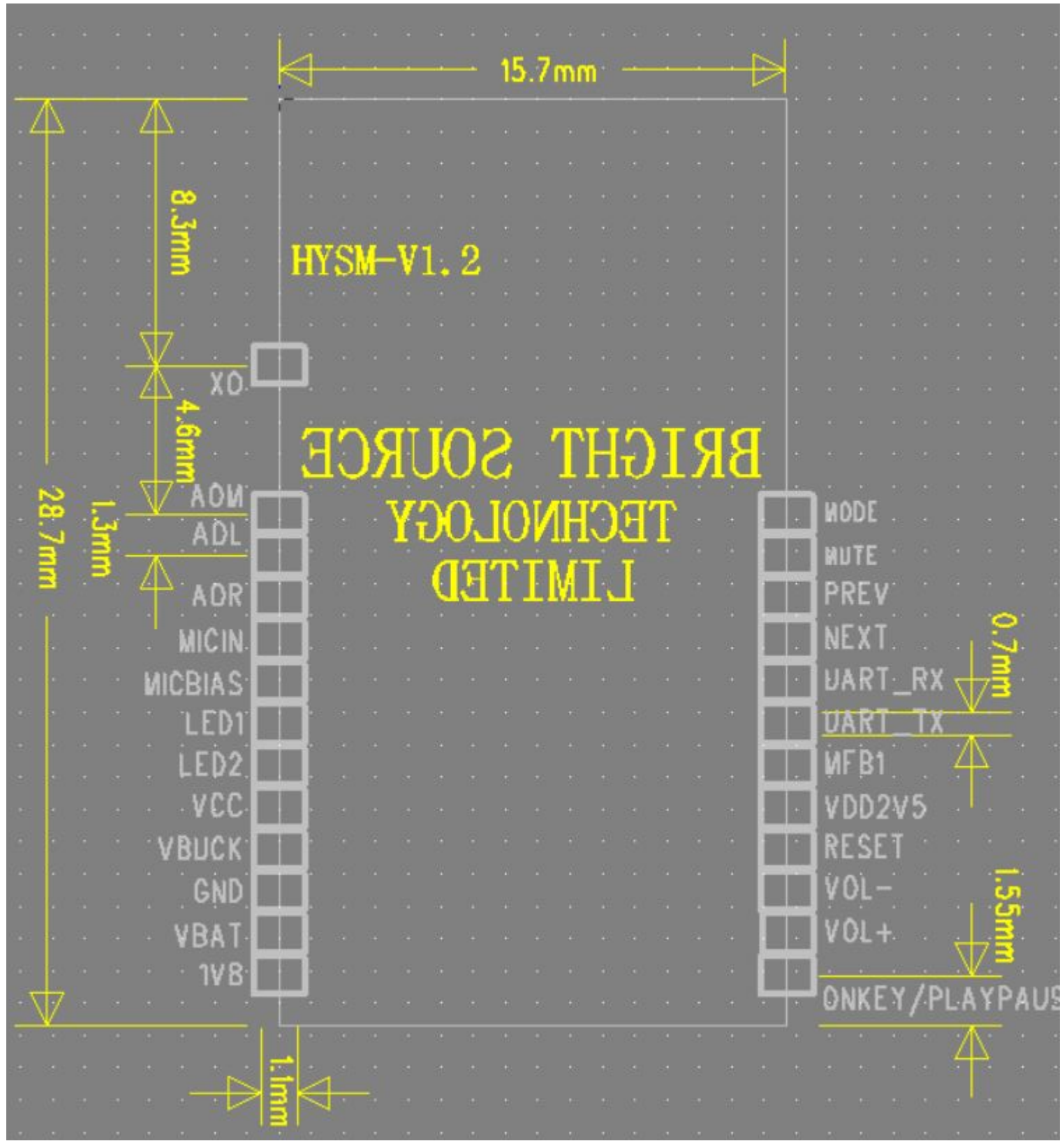
12.Play/pause when separate IO port output H or L level to control the PA, made in the LAYOUT without dealing with good There will be no noise.

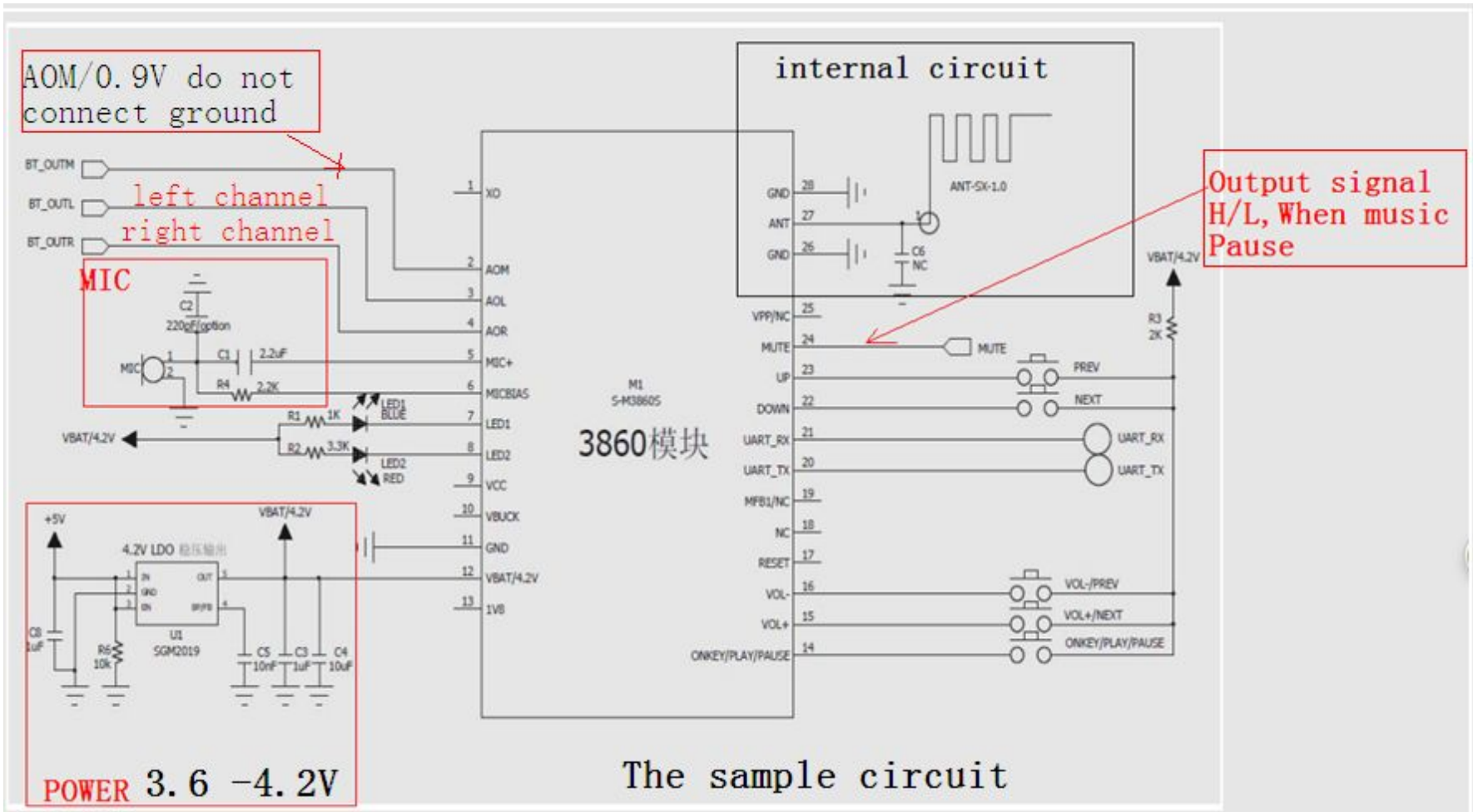


Pin Description

NO	name	class	Description
1	XO	OSC	Oscillator test signal
2	AOM	Audio	Audio output common 0.9 V Cannot be grounded
3	AOL	Audio	Left sound channel audio output
4	AOR	Audio	The right sound channel audio output
5	MIC+	Audio	MIC Input
6	MICBIAS	Power	MIC Bias output
7	LED1	Sink	Light is the control side 1
8	LED2	Sink	Light is the control side 2
9	VCC	NC	Empty feet
10	VBUC	Digital	external reset
11	GND	Power	ground
12	VBAT	Power	The battery power 3.6-4.2V
13	1V8	Power	LDO output 1.8V
14	ONKEY/ PLAY/ pause	Digital	Switch machine keys/play/ pause key signal
15	VOL+	Digital	The volume key signal/ reuse the next song
16	VOL-	Digital	The volume reduction on key signal Reuse in a song
17	RESET	Digital	Compatible with the I2C data signal
18	VDD2V5	Digital	Compatible with the I2C clock signal
19	MFB1	Digital	Matching key signal Boot automatically paired
20	UART_TX	Digital	UART Send a signal
21	UART_RX	Digital	UART Received signal
22	NEXT	Digital	The next song
23	PREV	Digital	In a song
24	MUTE	Digital	Play/pause high or low output
25	VPP/NC	Digital	Programming voltage

CATEGORIES	FEATURE	IMPLEMENTATION
Wireless Specification	Bluetooth	Version 2.0
	Frequency	2.402-2.480GHz
	Max Transmit Power	Class2
		4dBm（at antenna pad）
	Receive Sensitivity	Better than -82dBm
	Range	10meters
	Data Rates	Up to 3Mbps（over the air）
	UART DATA Transfer Rate	115200bps
Host Interface	UART	No flow control support
Audio Interfaces	Microphone	Mono microphone input with bias
Profiles		A2DP V1.2–Sink Only
		AVRCP V1.4 –Controller Only
		HSP V1.2
		HFP V1.5
Supply Voltage	Supply	DC 3.6V – 4.2V
Power Consumption	Current Consumption	Operational - Less than 55 mA (active)
		Idle (sleep) < 10mA
Connections	External Antenna	Connection via SMT pad
Physical	Dimensions	15.7mm x 28.7mm x 2.3mm


15.7mm
8.3mm
HYSM-V1.2
XO
4.6mm
AOM
ADL
1.3mm
ADR
MICIN
MICBIAS
LED1
LED2
VCC
VBUCK
GND
VBAT
1V8
28.7mm
1.1mm
BRIGHT SOURCE
TECHNOLOGY
LIMITED
MODE
MUTE
PREV
NEXT
UART_RX
UART_TX
MFB1
VDD2V5
RESET
VOL-
VOL+
0.7mm
1.55mm



Matters needing attention:

1.Due to the module output ability is limited,Please don't take big load(Can't directly connect the audio output directly to high-power speaker).Otherwise the burned circuit

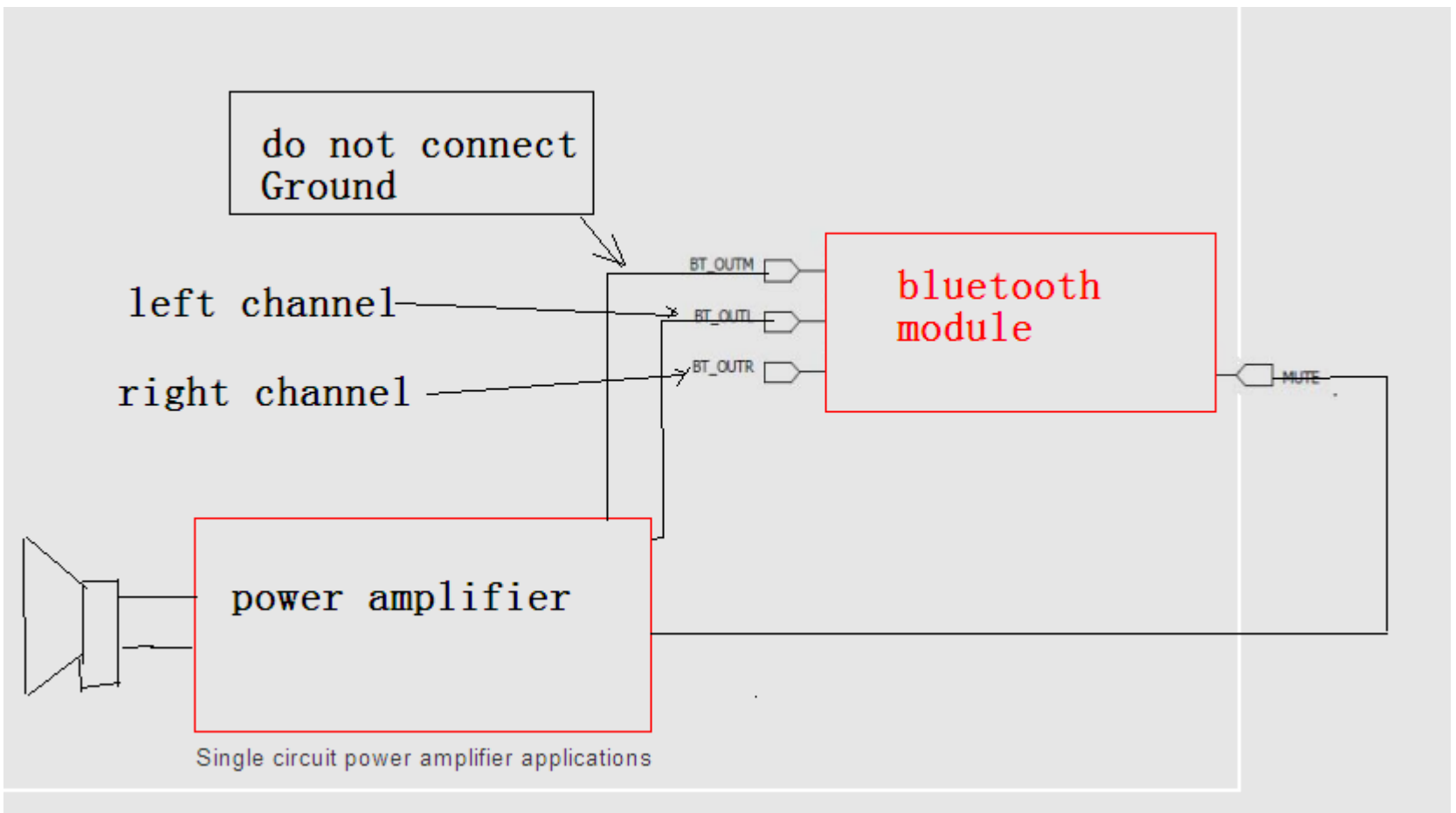
2.The best way is the connection between the output of a operation amplifier circuit. Ensure good output. The example is below:

3.Below circuit　the ground between each module are must to be together.

4.The model supply voltage is 3.6 -4.2V.

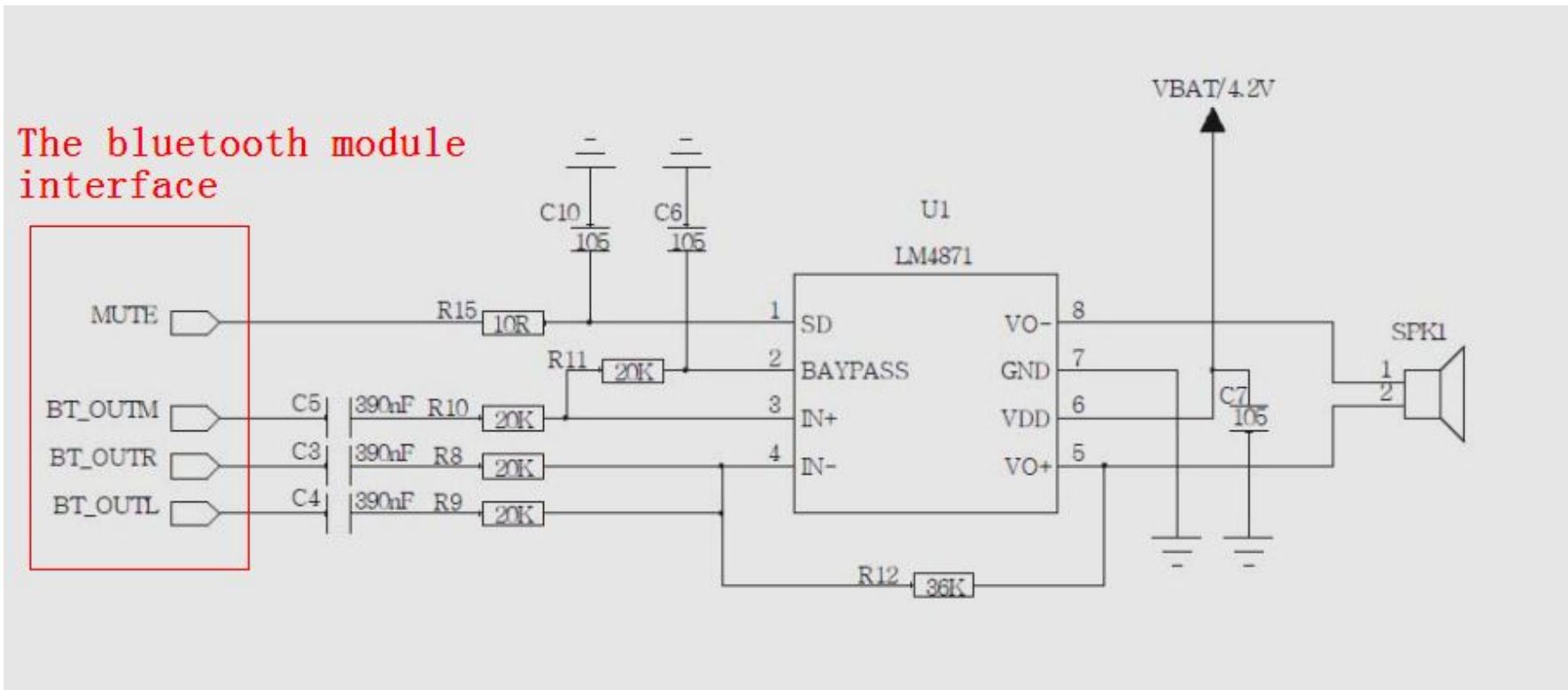
单功率放大器应用电路

Single circuit power amplifier applications



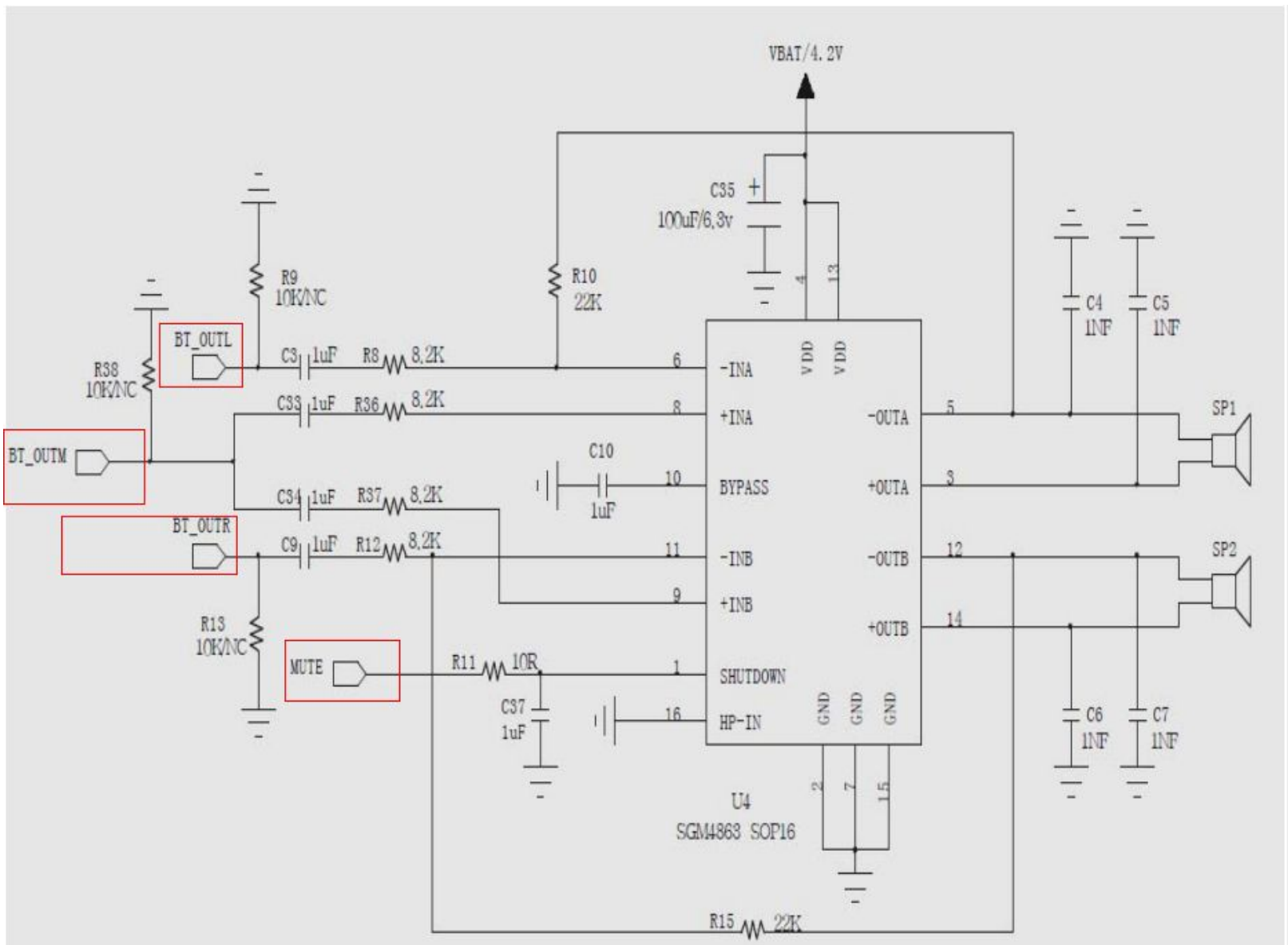
Single circuit power amplifier applications

power amplifier circuit:



双功率放大应用电路

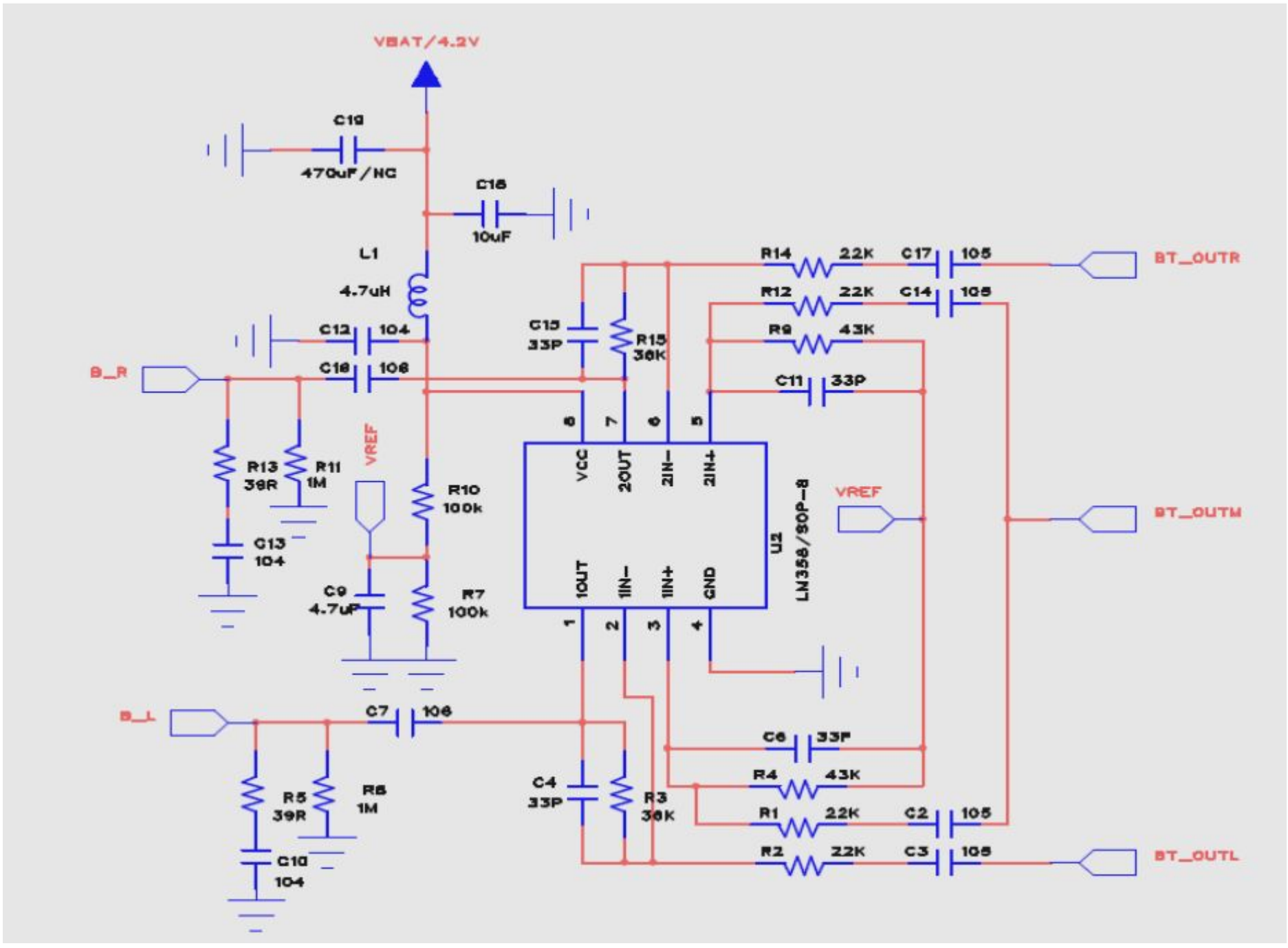
Double circuit power amplifier applications



Bluetooth interface

功率放大应用

Power amplifier applications



ALREADY KNOW THE PROBLEM:

1, Some mobile phone player because do not have gradually into the fade out function.have a POP sound ,when songs played pause.

2, Because of the bluetooth bolt testing for non real-time operation, close the speaker phone disconnected with a delay.

3, Automatic back to the united mutex function and automatic shutdown function, realization of automatic back coupling function, can't open the automatic shutdown.

4, When the machine matching list there have paired device and open the back coupling function automatically, automatic back linkage as possible with the phone

Matching action collision led to occasional matching failure phenomenon.

5, There was a short dangling electric moment on the audio output, speakers will let out a whoop of current sound.

6, Because there is no reply to eliminate hardware circuit, make a hands-free applications mainly depends on the structure design to avoid the echo.

7, Some domestic mobile phone, in the process of the connection can only be matched but unable to connect, because mobile phone software to detect a hands-free

Can be connected, need to open the bluetooth hands-free function.

8, In the process of PCB LAYOUT, the module on the 11 pin (GND), 12 pin (VBAT / 4.2 V), 20 pins (UART - TX)

21 Pin (UART - RX), to test points out, the four pin for PCBA software modification.