

## The Bluetooth module F-6888 manual

### 一、 Product overview:

Intelligent wireless audio data transmission products F-6688 Bluetooth module for the independent development of our company, is the high price of stereo wireless transmission scheme of low cost, module uses BEKEN chip to provide the high quality and compatibility for the module, the overall better performance. F-6688 Bluetooth module with free driving mode, customers only need to access the application module products, wireless transmission can quickly realize the music, enjoy wireless musi。 Support the intelligent voice prompt and the function of times; Integrated TF card play function; Integrated mobile U disk broadcast function; Support the internal LINE - IN; Support the internal FM radio.

### 二、 Field of application:

This module is mainly used for music transmission in short distance, can be connected with mobile phone and personal computer, conveniently, the connection between PDA and other digital products, enjoy bluetooth wireless transmission of music.

- ※ Bluetooth audio
- ※ Bluetooth stereo headset
- ※ hands-free phone

The Bluetooth wireless audio transmission

### 三、 Essential qualities:

Bluetooth Profiles

- ※Bluetooth V4.1 specification support
- ※A2DP v1.2
- ※AVRCP v1.4
- ※HFP v1.5
- ※AVCTP v1.3
- ※SPP v1.2
- ※GAVDP v1.2
- ※AVDTP v1.2

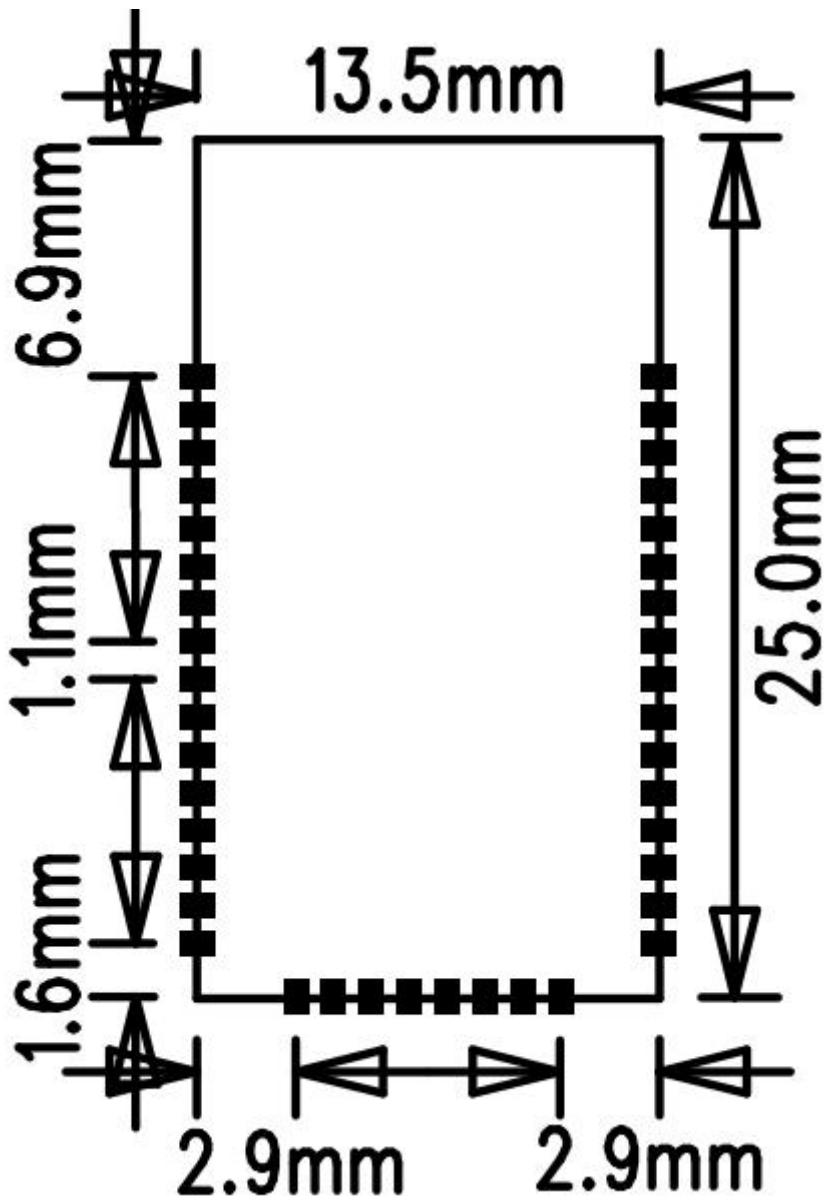
### 四、 Performance parameters:

<b>Model</b>	<b>F-6888 V1.1</b>
<b>Bluetooth</b>	Bluetooth V4.1
<b>Supply voltage</b>	DC3.3-4.2V
<b>Supported Bluetooth agreement</b>	HFPV1.5, A2DPV1.2,AVRCPV1.4, GAVDP v1.2, AVDTP v1.2, SPP v1.2, AVCTP v1.3
<b>Working current</b>	≤45mA
<b>Standby current</b>	<500uA
<b>Temperature range</b>	-40°C to +80°C
<b>Wireless working range:</b>	More than 10 meters
<b>Transmission Power :</b>	CLASS2, 4dbm
<b>Sensitivity:</b>	-80dBm<0.1%BER
<b>Frequency Range:</b>	2.402GHz-2.480GHz
<b>Output port:</b>	I2C, SPI and UART interface
<b>Audio Performance</b>	SBC decode
<b>S/N Rate:</b>	≥75dB

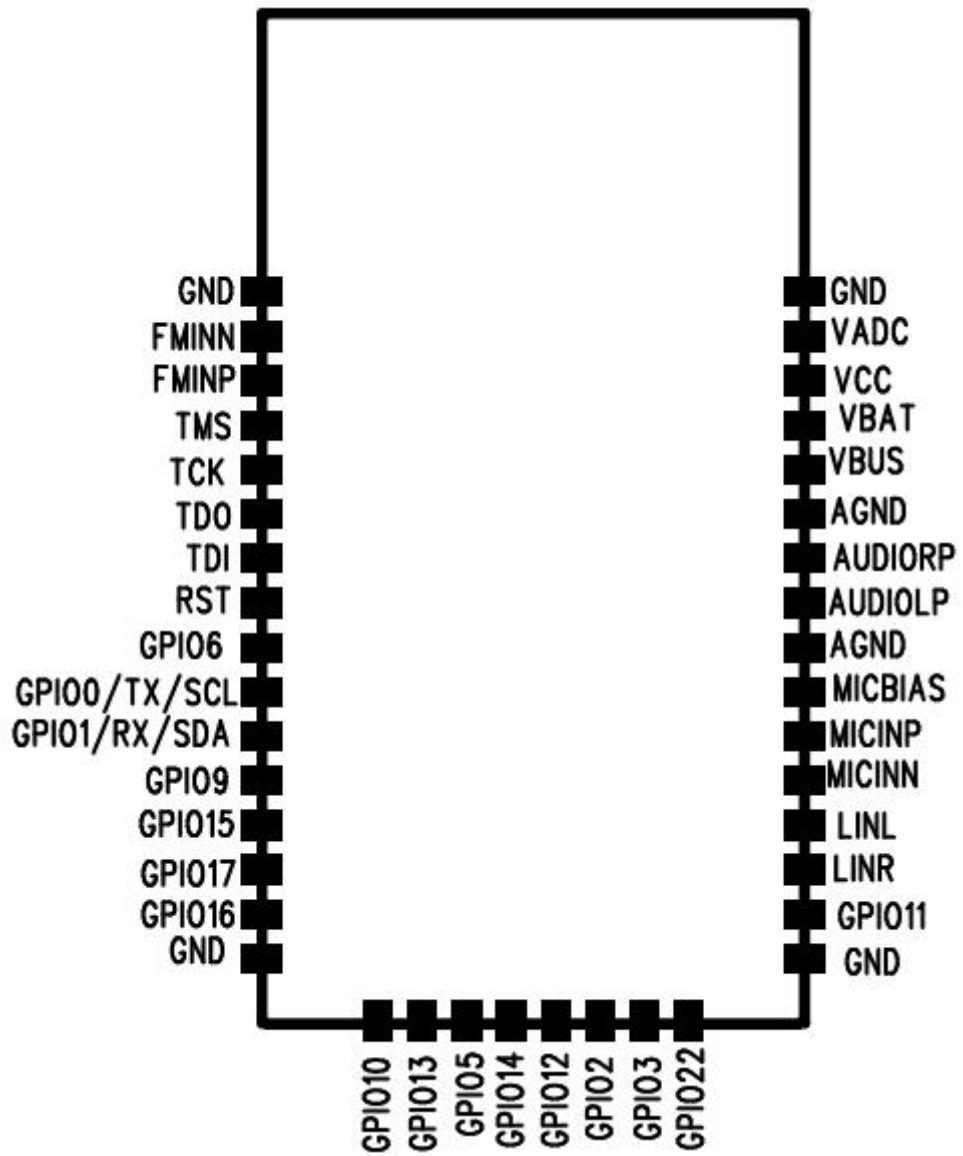
The size of the modern

25X13.5X1.8MM

The size of the modern :



The definition of pin :



**Pin function :**

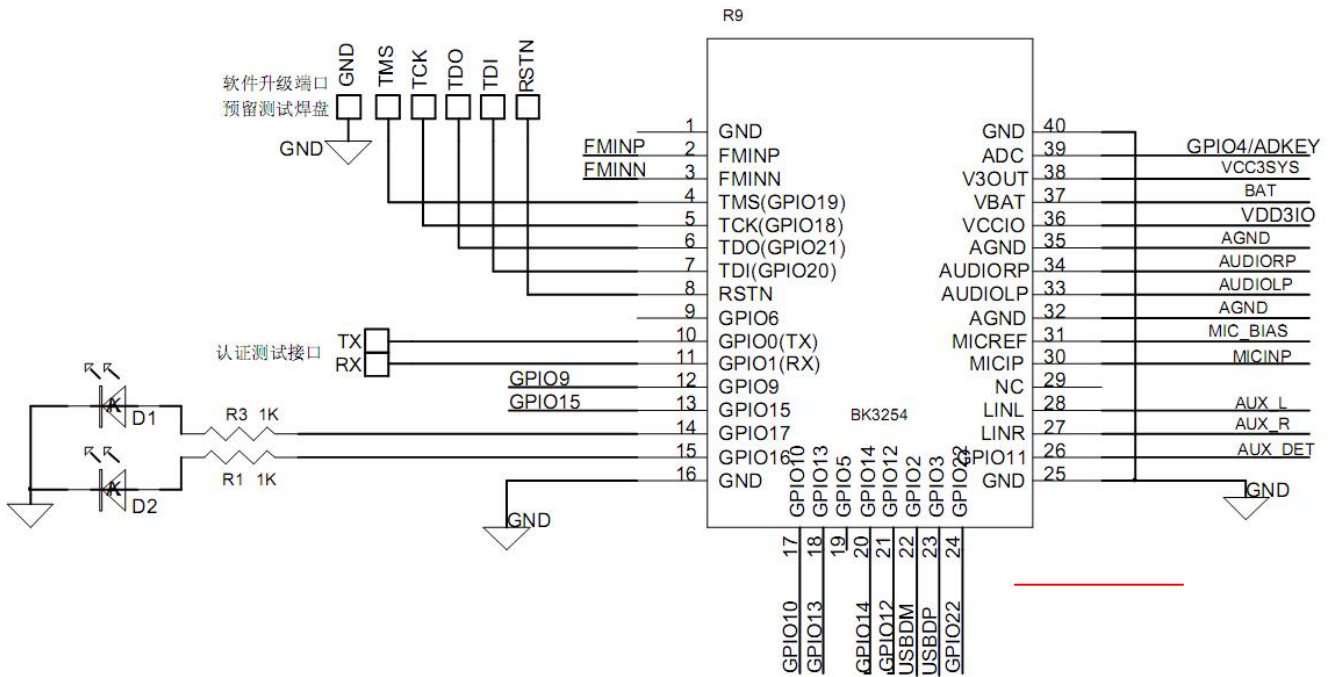
Pin	Symb	I/O	Description
1	GND	GND	RF_GND
2	FMINN	FMINN	FMINN
3	FMINP	FMINP	FMINP
4	TMS(GPIO19)	Digital I/O	JTAG pin
5	TCK(GPIO18)	Digital I/O	JTAG pin
6	TDO(GPIO21)	Digital I/O	JTAG pin
7	TDI(GPIO20)	Digital I/O	JTAG pin
8	RSTN	Digital I/O	JTAG pin / Reset pin-low active
9	GPIO6	Digital I/O	GPIO6
10	GPIO0(TX)	Digital I/O	UART TX
11	GPIO1(RX)	Digital I/O	UART RX
12	GPIO9	Digital I/O	GPIO9
13	GPIO15	Digital I/O	GPIO15
14	GPIO17	Digital I/O	GPIO17
15	GPIO16	Digital I/O	GPIO16
16	GND	GND	Ground connect battery negative
17	GPIO10	Digital I/O	GPIO10
18	GPIO13	Digital I/O	GPIO13
19	GPIO5	Digital I/O	GPIO5
20	GPIO14	Digital I/O	GPIO14
21	GPIO12	Digital I/O	GPIO12
22	GPIO2	Digital I/O	GPIO2
23	GPIO3	Digital I/O	GPIO3
24	GPIO22	Digital I/O	GPIO22
25	GND	GND	GND
26	GPIO11	Digital I/O	GPIO11
27	LINR	AUX_INPUT	LINR
28	LINL	AUX_INPUT	LINL
29	NC	NC	NC
30	MICINP	MIC+	MICP
31	VMIC	VMIC	VMIC
32	AGND	AGND	AGND
33	AUDIOLP	Audio output	Left channel audio output positive

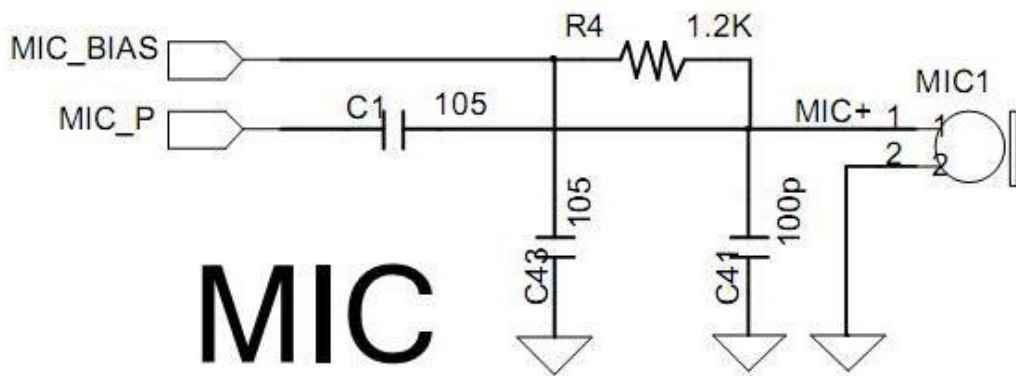
34	AUDIORP	Audio output	Right channel audio output positive
35	AGND	AGND	AGND
36	VDD3IO	VDD3IO	VDD3IO
37	VBAT	Power supply	Power supply
38	VCC	Power	VCC
39	ADC	Power	GPIO4
40	GND	GND	GND

**Warnings for the circuit connection**

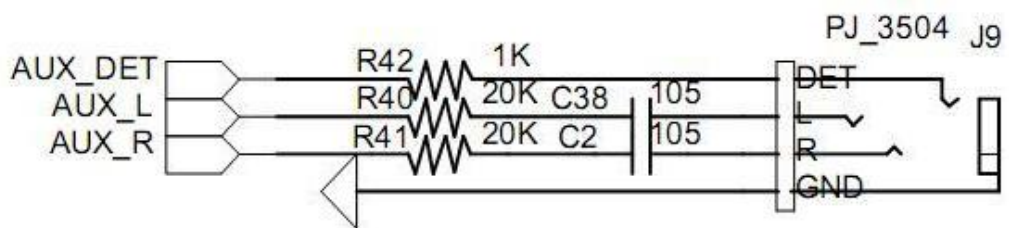
When use the F-6888 module, please pay attention on the interference source such as power amplifier, Booster circuit which may affect the module. To avoid the power consumption loop of the module circuit with the big power circuit to come the series connection loop to make the SNR of the whole unit up.

**Application circuit**

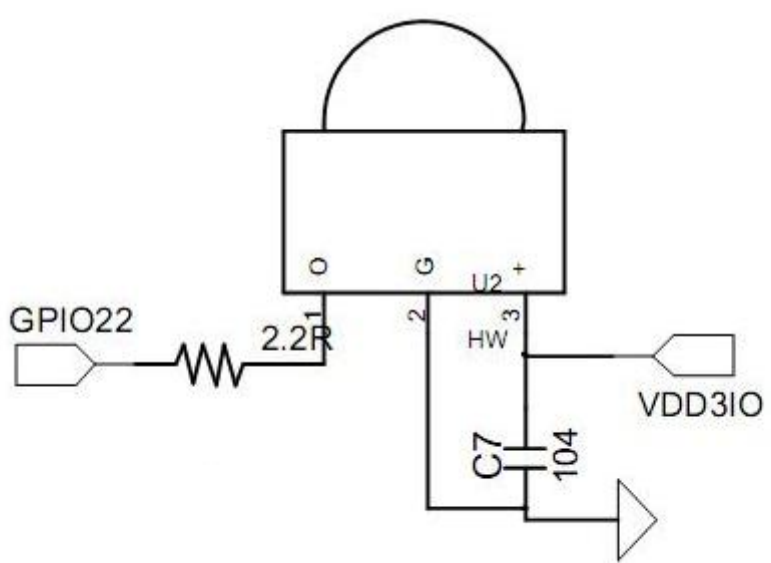
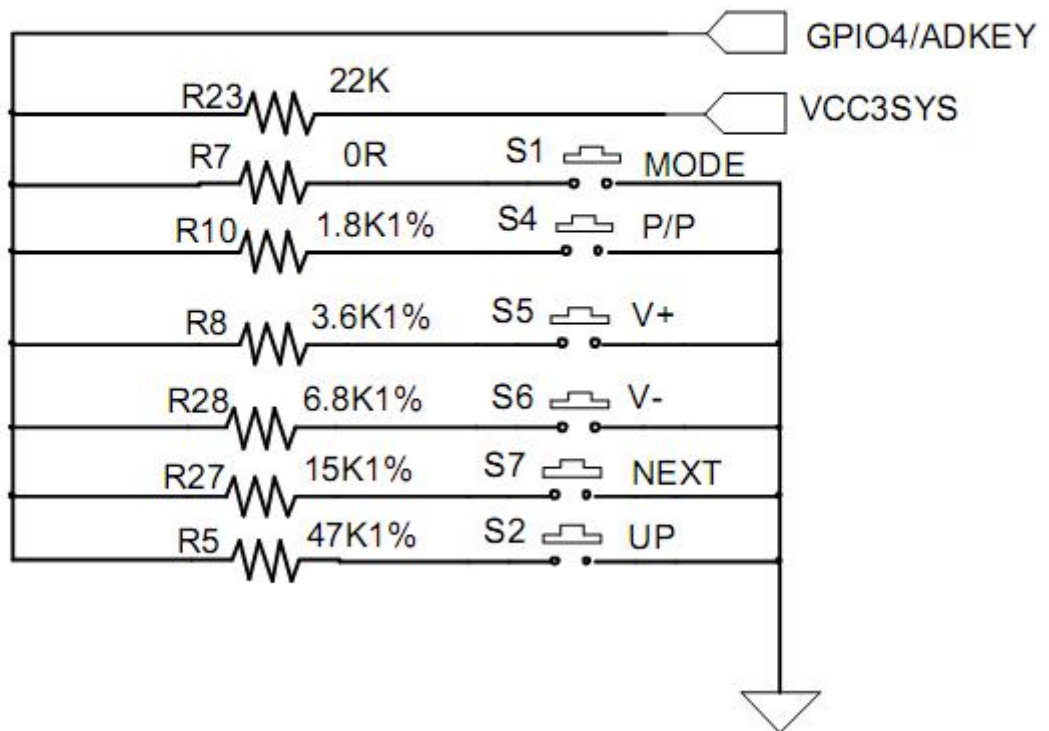


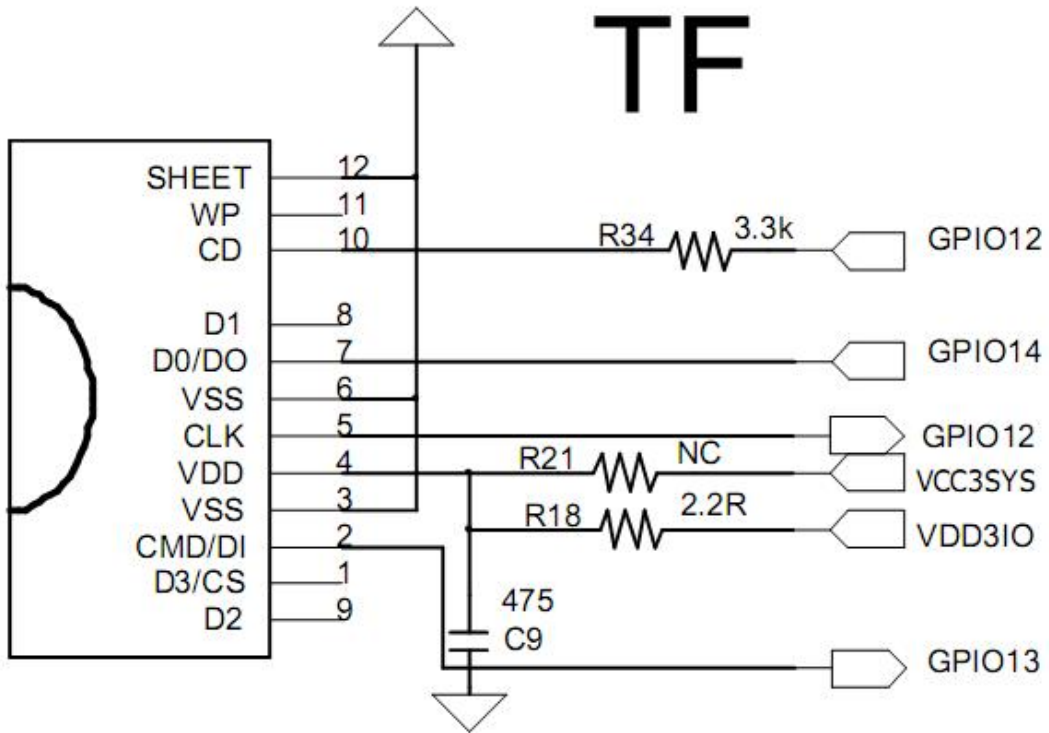


**MIC**

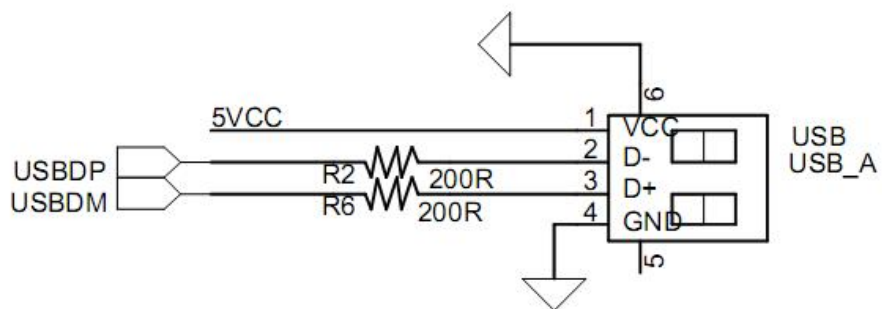


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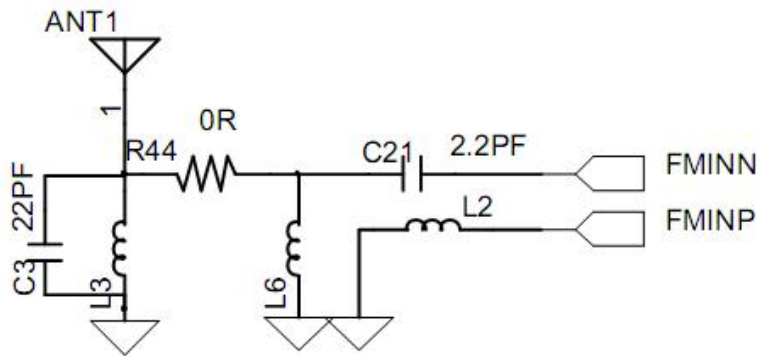




Support 32G TF/SD card  
 Doc .System support FAT16/FAT32/EXFAT  
 Songs Support MP3 (8-320Kbps) /WAV (44-48k)





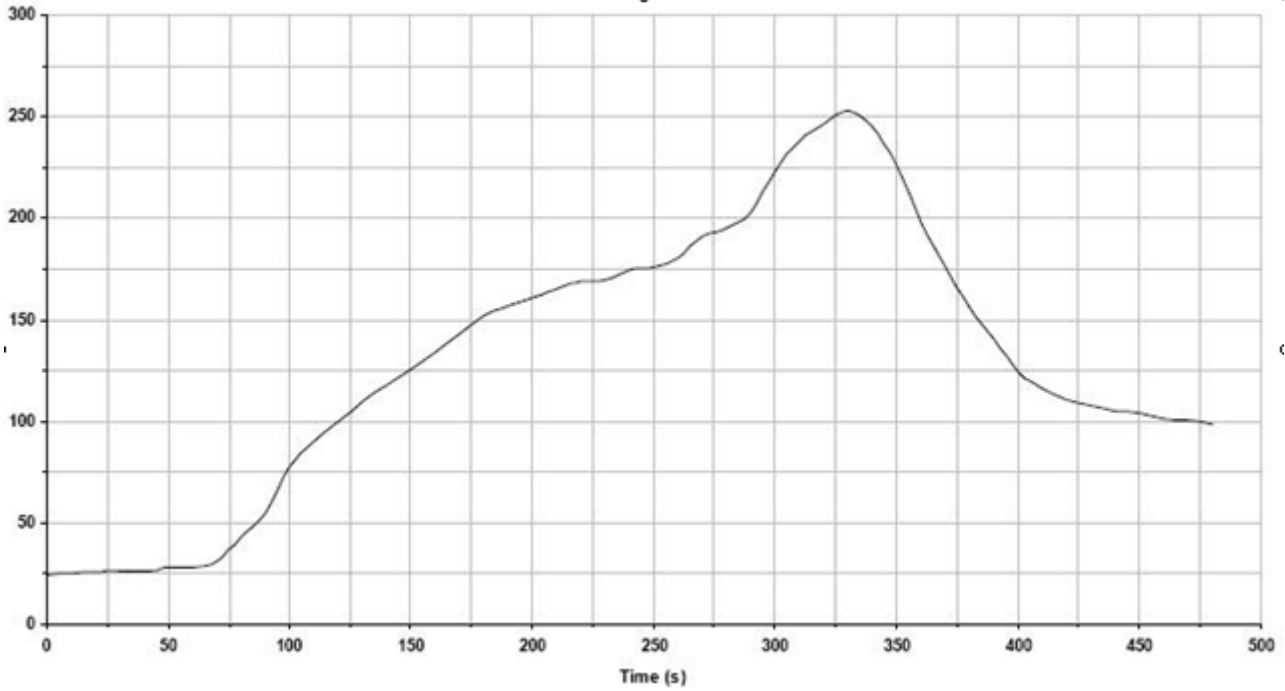


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**Attentions:**

1. AUX\_DET Pins much be connected with 1K resistance
2. The IO of SD card need to be used the assigned

### Recommend backflow temperature



Key features of the profile:

- Initial Ramp=1-2.5°C/sec to 175°C equilibrium
- Equilibrium time=60 to 80 seconds
- Ramp to Maximum temperature (250°C) = 3°C/sec Max
- Time above liquidus temperature (217°C): 45 - 90 seconds
- Device absolute maximum reflow temperature: 250°C

