



深圳市芯中芯科技有限公司

地址：深圳市宝安区沙井东环工业区 A3 栋

电话：0755-29179480/1 FAX: 0755-84736169

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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:

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

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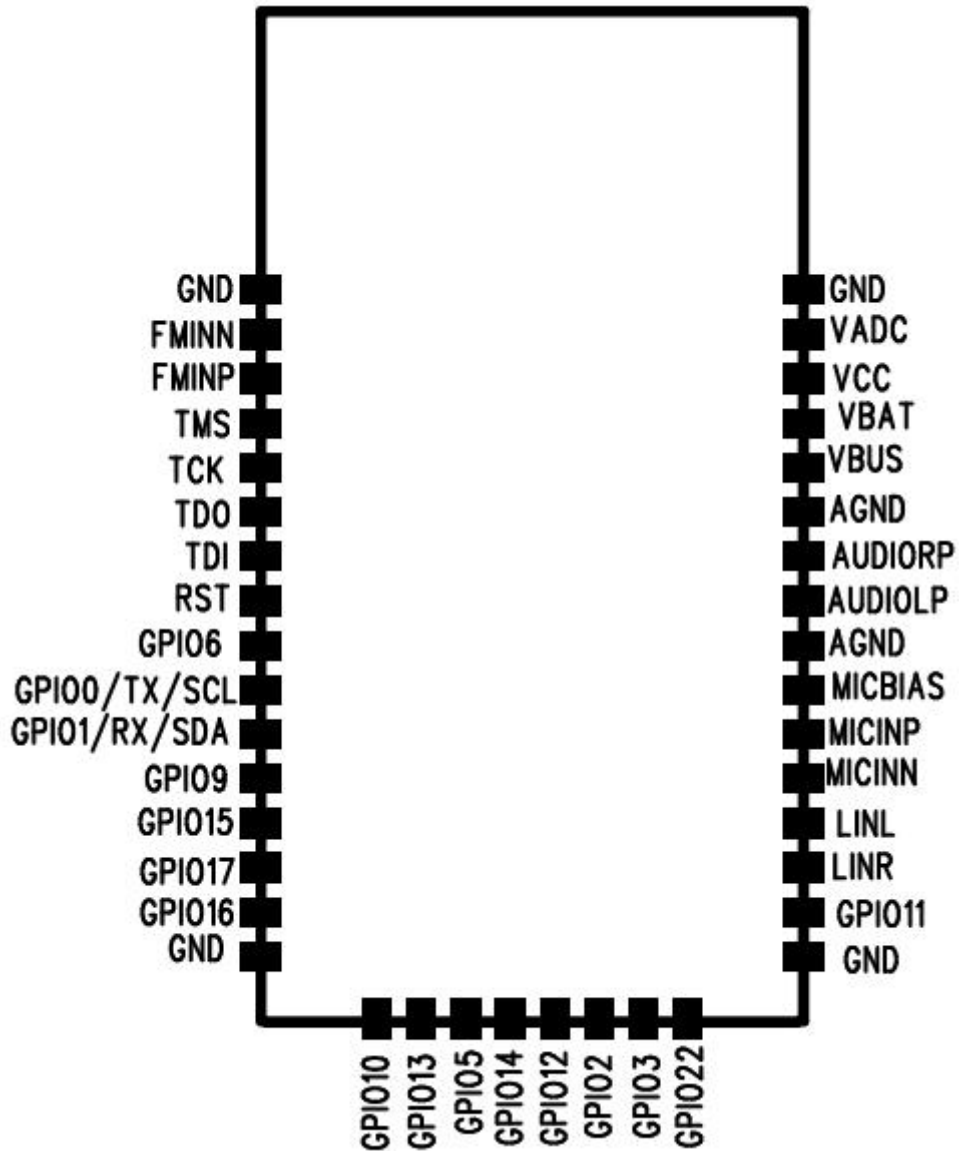
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The definition of pin :



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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 |

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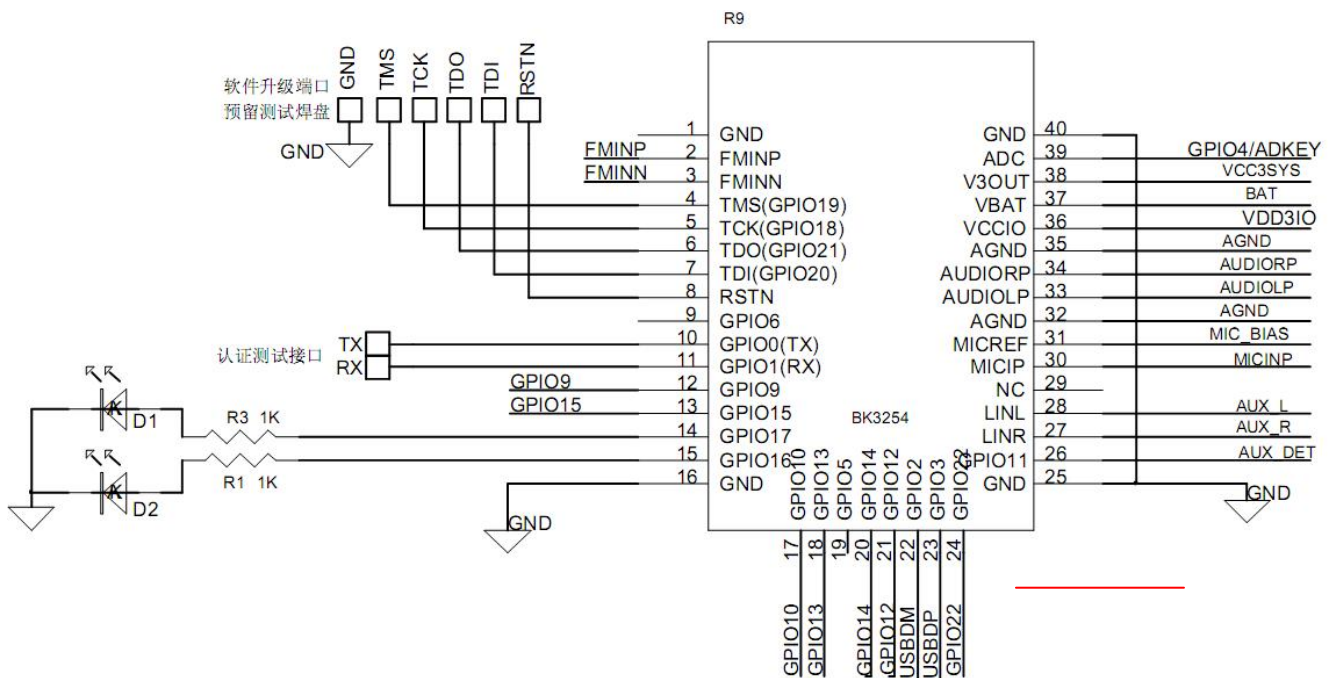
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| | | | |
|----|---------|--------------|-------------------------------------|
| 34 | AUDIORP | Audio output | Right channel audio output positive |
| 35 | AGND | AGND | AGND |
| 36 | VDD3IO | VDD3IO | VDD3IO |
| 37 | VBAT | Power supply | Power supply |
| 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



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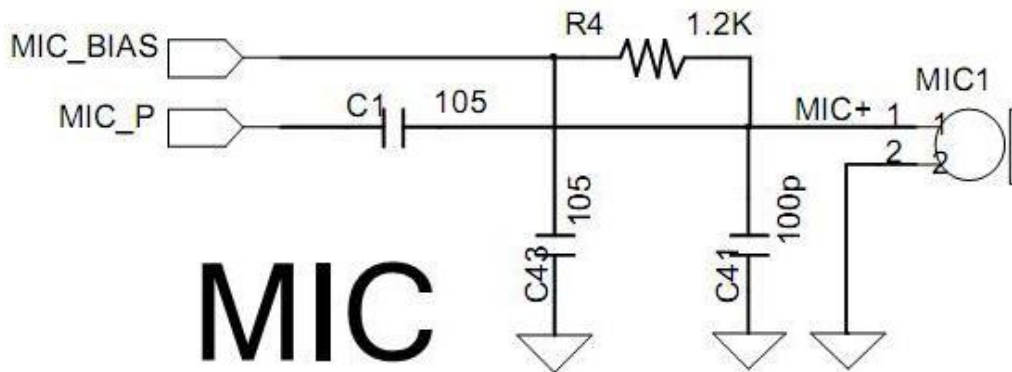


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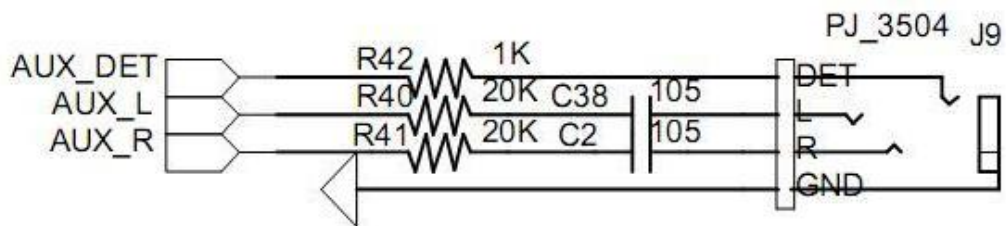
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MIC



line in

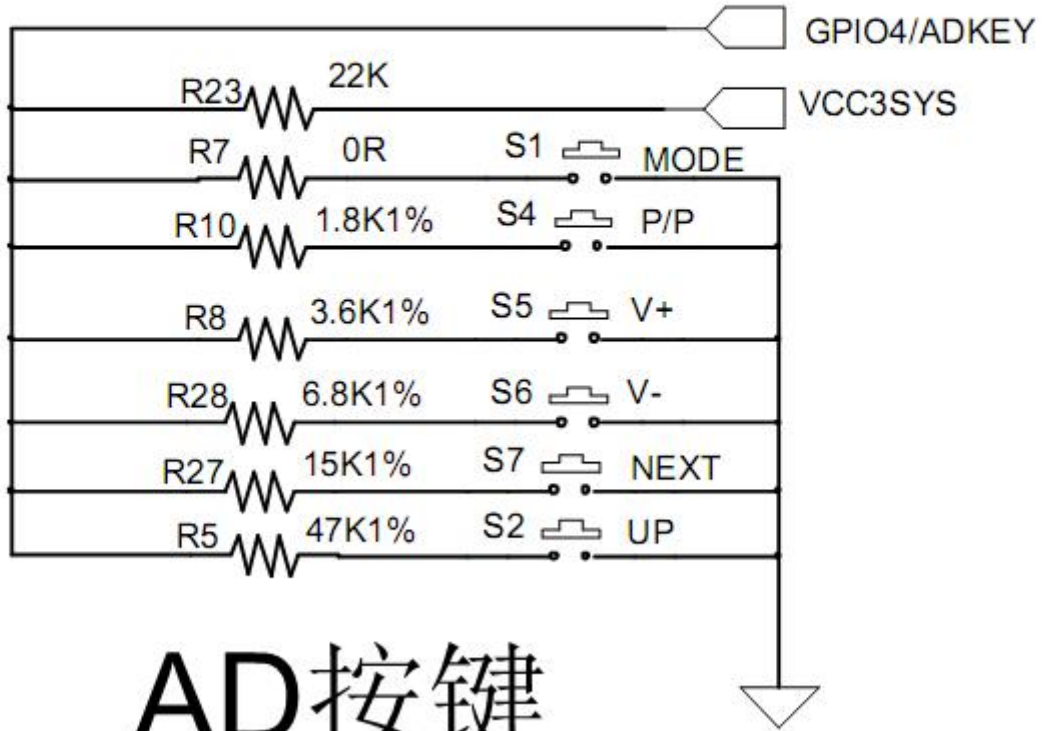


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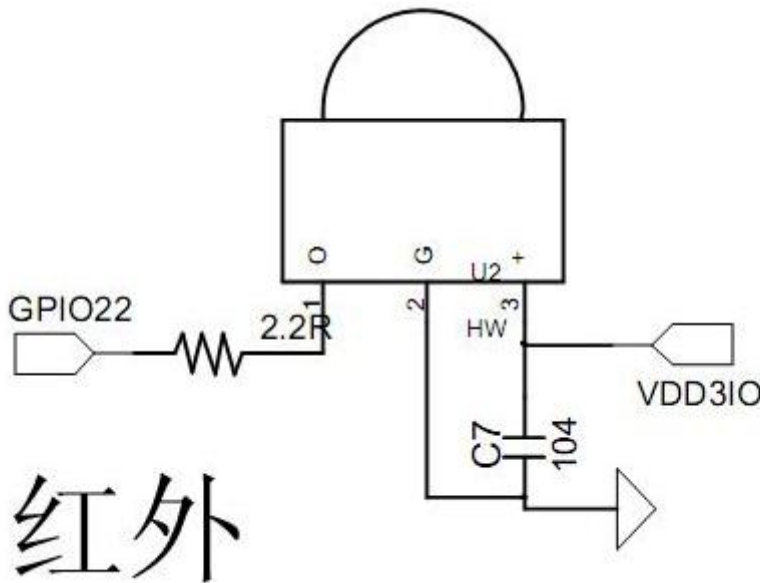
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AD按键



红外

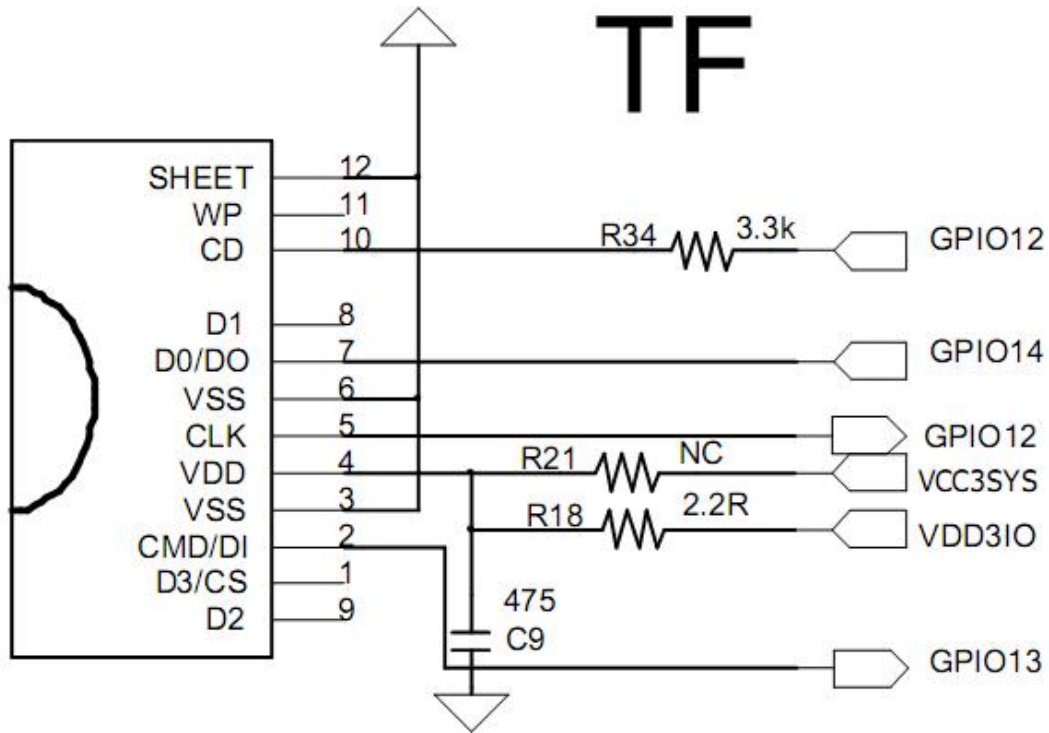


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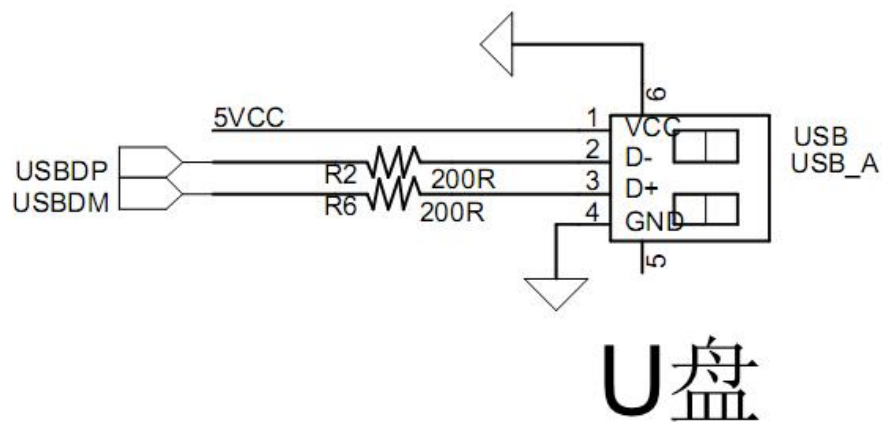
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Support 32G TF/SD card
Doc .System support FAT16/FAT32/EXFAT
Songs Support MP3 (8-320Kbps) /WAV (44-48k)



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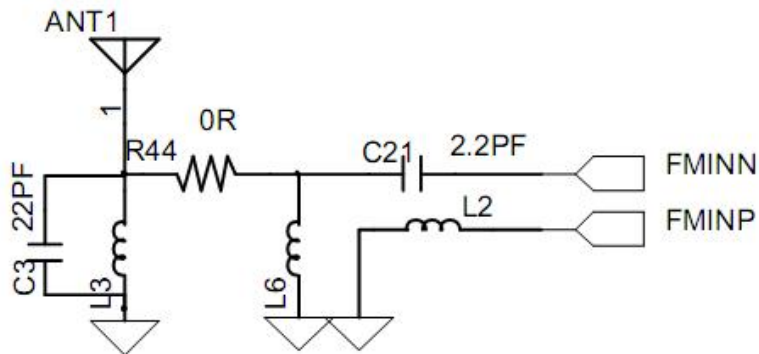


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FM_ANT

Attentions:

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

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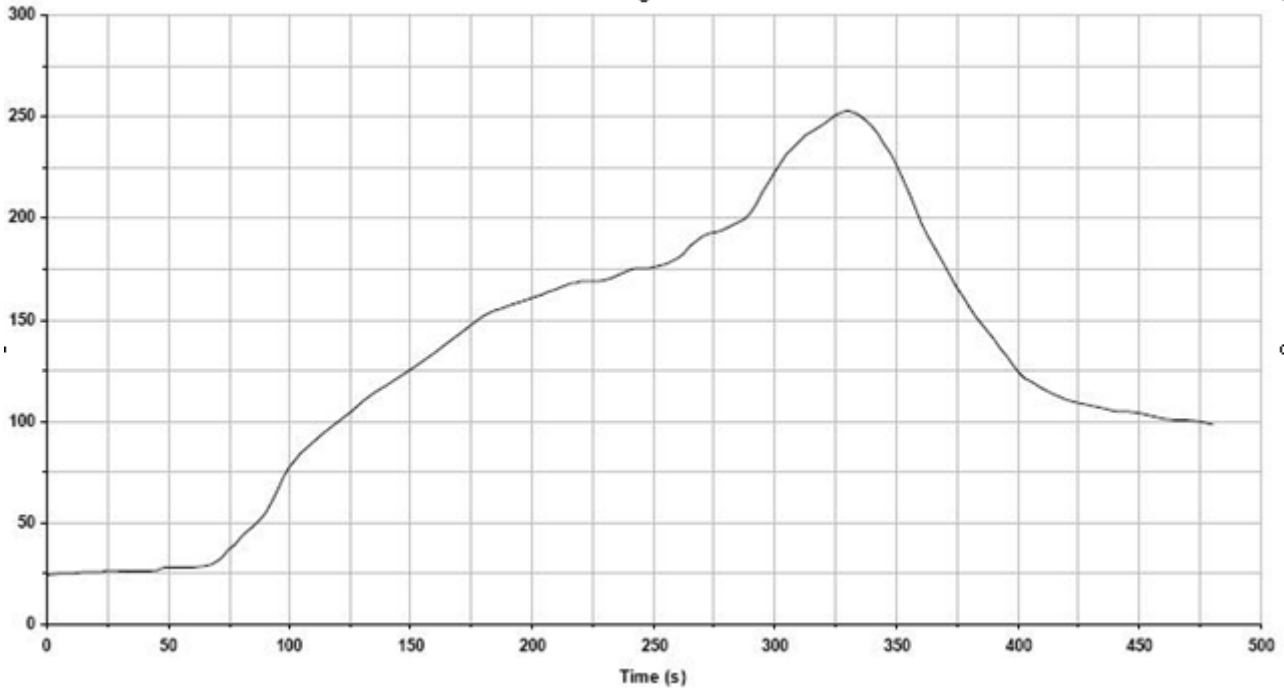
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Recommend backflow temperature



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

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“Este equipamento opera em caráter secundário, isto é, não tem direito a proteção contra interferência prejudicial, mesmo de estações do mesmo tipo, e não pode causar interferência a sistemas operando em caráter primário.”

Quando instalado em outro produto, este (produto final ou hospedeiro) deve incluir o selo completo em seu manual