Bluetooth transmitter and receiver integrated module

BK3266SR manual

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1. BK3266SR

Figure 1.1 BK3266SR Promotional image

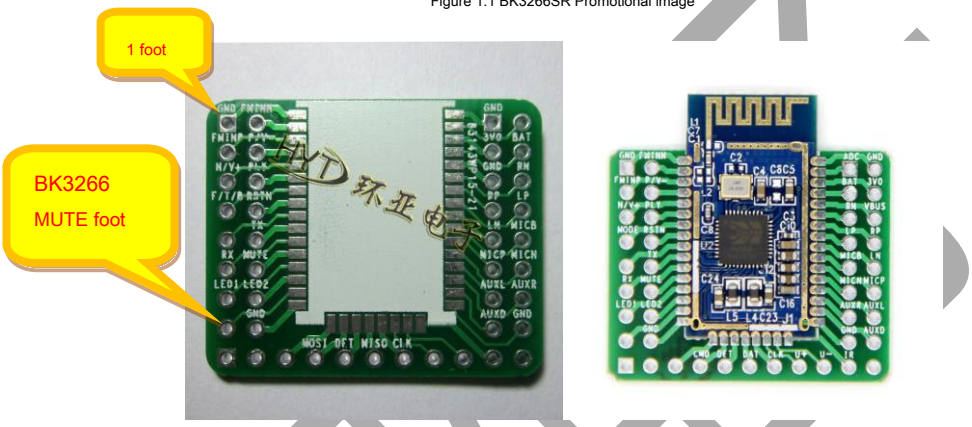

Figure 1.2 BK3266SR Adapter board (2.4x3.1cm)

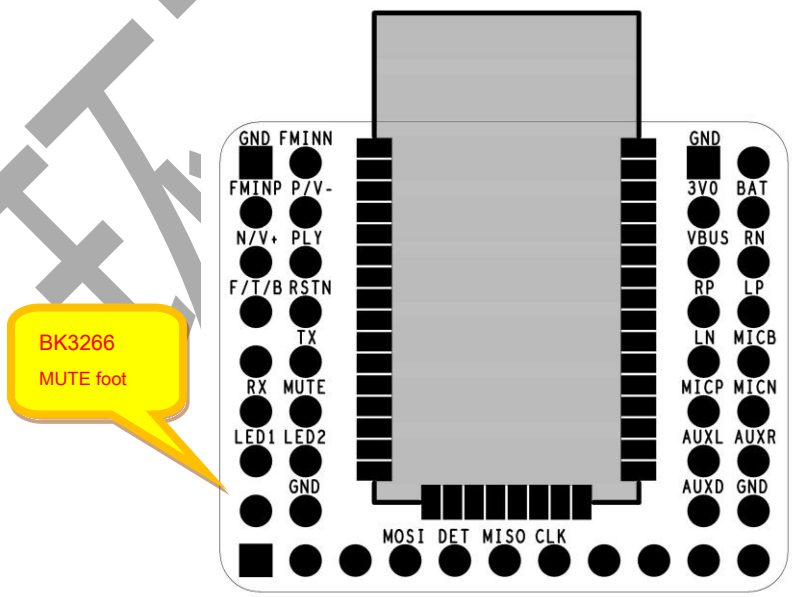

Figure 1.3 BK3266SR Pin definition

1.1 Module introduction

This module master uses Beken (Broadcom) BK3266 The chip provides high-quality sound quality and compatibility for the module,
The overall performance is better. The Bluetooth module adopts a driver-free mode, and customers only need to connect the module to the application product, and they can quickly
Realize the wireless transmission of music, enjoy the fun of wireless music, Support buttons and AT Serial command control. Support wisdom
Neutral voice prompt, support " MODE "Key switch machine. Can be stored 6 Paired devices, the module will automatically connect back to the most
After pairing the device. in case 6 When two paired devices are turned on at the same time, the last paired device is automatically connected .

stand by AT Modify Bluetooth name , 16 Within characters, see AT Instructions.

1.2 Application field

This module is mainly used for short-distance music transmission, which can be conveniently used with laptops, mobile phones, PDA Other digital products
The Bluetooth device of the product is connected to realize the wireless transmission of music.

1) Stereo Bluetooth speakers;
2) Stereo Bluetooth headset;
3) Stereo transmission
4) Bluetooth call;
5) Bluetooth control and multimedia equipment.

1.3 **Basic characteristics**

1) Bluetooth v5.0 + EDR ;
2) A2DP v1.2 ;
3) AVRCP v1.5 ;
4) HFP v1.7 ;
5) AVDTP v1.2 ;
6) AVCTP v1.4 ;

1.4 **Performance parameter**

model	BK3266SR
Bluetooth specifications	Bluetooth V5.0
Supply voltage	DC3.3-4.2V
Support Bluetooth protocol	HFPV1.7 , A2DPV1.2 , AVRCPV1.5 , AVCTPV1.2 , AVDTPV1.2
Working current	≤ 20mA
stand-by current	<500uA
temperature range	-40ºC ~ +80ºC
Wireless transmission range	> 10 Meter
Transmission power	Class2 , 4dbm
Sensitivity	-81dBm<0.1%BER
Frequency Range	2.402GHz~2.480GHz
External Interface	Serial port (TTL Level), and PC Connection requires level conversion, such as CH340G , USB turn TTL
Audio performance	SBC decoding
Audio signal to noise ratio	≥ 75dB
Module size	25x13.5x2mm
Adapter board size	24x29mm

1.5 **Module size**

Pad size: 1.6x0.8mm

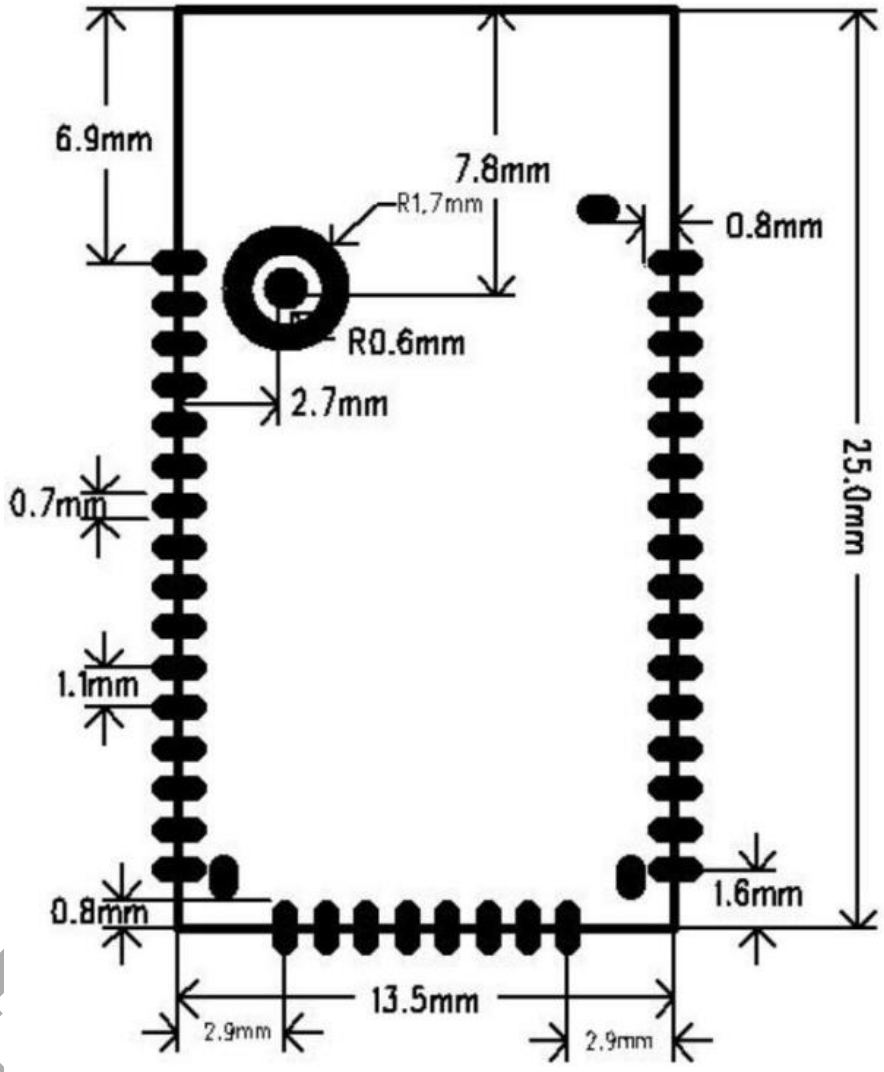

Figure 1.4 BK3266SR Dimensions

1.6 **IO definition**

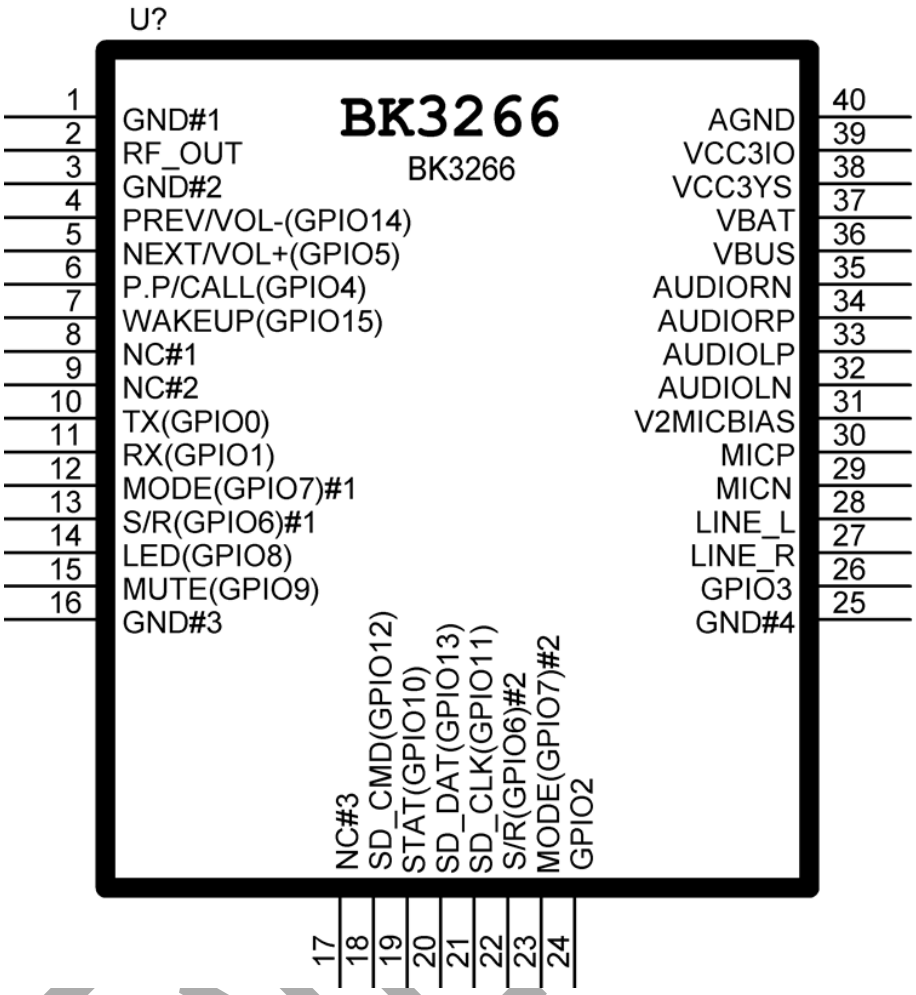

Figure 1.5 BK3266SR Pin definition

IO Numbering	IO name	IO description
1	GND	Power ground
2	RF	Unused
3	GND	Power ground
4	PREV/VOL-(GPIO14)	Click the previous song/long press the volume down
5	NEXT/VOL+(GPIO5)	Click next song/long press volume up
6	PP/CALL(GPIO4)	Play/Pause/Hang up/Call back/Re-pair
7	WAKEUP(GPIO15)	Press 6S Turn off, short press to turn on Power on by default
8	NC	Empty feet
9	NC	Empty feet
10	TX(GPIO0)	Serial port TX (TTL Level 3.3V)
11	RX(GPIO1)	Serial port RX (TTL Level 3.3V)
12	MODE(GPIO7)	When connected, short press to disconnect When not connected, short press to connect to the last paired device
13	S/R(GPIO6)	Power-on mode launch mode Short press transmit/receive mode switch
14	LED (GPIO8)	Status Indicator
15	MUTE(GPIO9)	Control power amplifier enable pin High sound output 3.3V , No sound output is low 0V
16	GND	Power ground
17	NC	Empty feet
18	SD_CMD(GPIO12)	Unused
19	STAT(GPIO10)	Bluetooth connection is successful and output high level Bluetooth disconnection output low level
20	SD_SDO(GPIO13)	Unused
twenty one	SD_CLK(GPIO11)	Unused
twenty two	S/R(GPIO6)	Equivalent IO Numbering 13
twenty three	MODE(GPIO7)	Equivalent IO Numbering 12
twenty four	GPIO2	Unused
25	GND	Power ground
26	GPIO3	Unused
27	AUX_R	Transmitter function right channel input
28	AUX_L	Transmitter function left channel input
29	MICN	MIC Input negative
30	MICP	MIC Input positive
31	VMIC	MIC Bias voltage
32	AUDIOLN	Audio left channel differential output negative terminal
33	AUDIOLP	Audio left channel differential output positive terminal
34	AUDIORP	Audio right channel differential output positive terminal
35	AUDIORN	Audio right channel differential output negative terminal
36	VBUS	Unused
37	VBAT	power input(3.3V~4.2V)
38	VCC3YS	3V Output
39	VDD3IO	3V Output (" MODE "No voltage output after shutdown)
40	AGND	When single-ended audio output, Must be separately connected to the ground at the end of the power amplifier to remove noise. When differential audio output, it can be left floating

1.7 Precautions

1. In the process of module application, please pay attention to avoid the influence of interference sources such as power amplifier and booster line on the module, and avoid the
   The electric circuit forms a series circuit with the high-power circuit unit to improve the whole machine SNR .
2. Regarding the use environment of wireless Bluetooth, wireless signals including Bluetooth applications are greatly affected by the surrounding environment, such as trees.
   Obstacles such as wood and metal will absorb the wireless signal to a certain extent, so in practical applications, the distance of data transmission
   Li is affected to a certain extent.
3. Because the Bluetooth module must be matched with the existing system and placed in the housing. Because the metal shell is
   There is a shielding effect. Therefore, it is not recommended to install in a metal enclosure.
4. PCB Layout: The antenna part of the Bluetooth module is PCB Antenna, because metal will weaken the function of the antenna, in
   When laying out the module, it is strictly forbidden to lay the ground and wire under the module antenna, if it can be hollowed out.

1.8 AT instruction

1.8.1 Serial port configuration

1. Baud rate 9600 ;
2. 8 Bit data bit
3. No parity bit;
4. A stop bit
5. Hexadecimal format.

1.8.2 Instruction format

See " BK3266 Transmit and receive serial port protocol V1.0.0 "