

F-3098 use manual

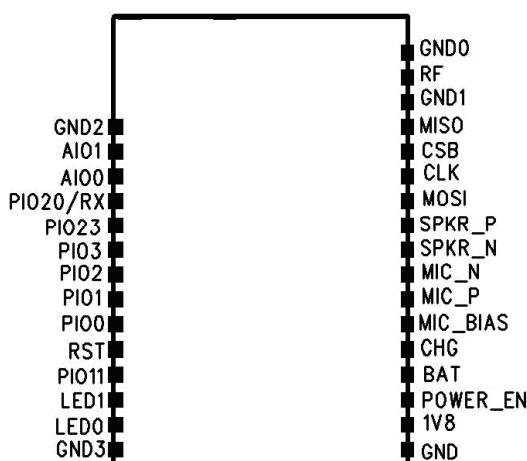
Module Description:

- 1 Significantly enhance the overall the latest CSR BC6 chip, sound quality and RF performance.
- 2 Accord Bluetooth V3.0
- 3 Bluetooth headsets, audio, car low cost solution.
- 4 High-quality audio processing A2DP V1.2.
- 5 The highest the 2db emission power, -91db accept sensitivity.
- 6 module size: L23.5*W15.5*H1.8mm.

Application:

- 1 High sound quality Bluetooth headset.
- 2 Hands free, Bluetooth Car
- 3 High-quality Bluetooth audio

Module size and foot bitmap:



Pin Configurations:

Item	Name	Type	Function
1	GND2	GND	Ground connections
2	AIO1	Bidirectional	Programmable input/output line
3	AIO0	Bidirectional	Programmable input/output line
4	PIO20/RX	Bidirectional with weak internal pull-down	UART data input, active high. PIO[20] is clock for SPI flash interface
5	PIO23	Bidirectional with weak internal pull-up	UART data output, active high. PIO[23] is data output for SPI flash interface
6	PIO3	Bidirectional with	Programmable input/output line PIO[3] is

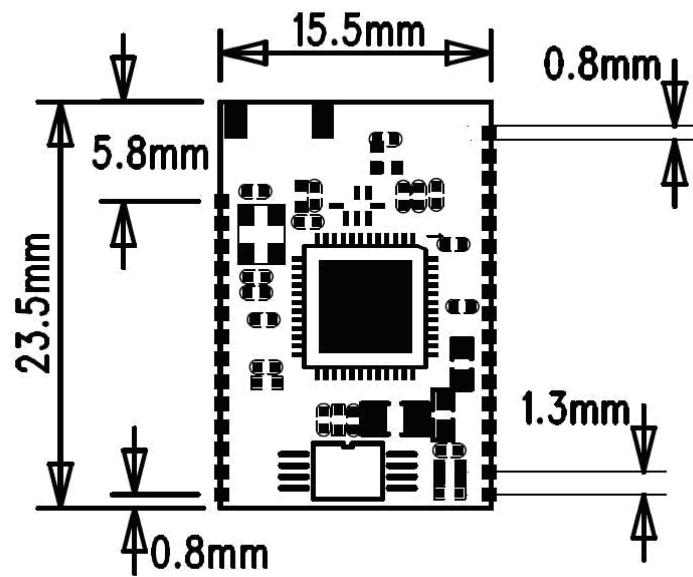
		programmable strength internal pull-up/down	chip select for SPI flash interface
7	PIO2	Bidirectional with programmable strength internal pull-up/down	Programmable input/output line
8	PIO1	Bidirectional with programmable strength internal pull-up/down	Programmable input/output line
9	PIO0	Bidirectional with programmable strength internal pull-up/down	Programmable input/output line
10	RST	Input with weak internal pull-up	Reset if low. Input debounced so must be low for >5ms to cause a reset
11	PIO11	Bidirectional with programmable strength internal pull-up/down	Programmable input/output line. PIO[11] is data input for SPI flash interface
12	LED1	Open drain output	LED driver
13	LED0	Open drain output	LED driver
14	GND3	GND	Ground connections
15	GND	GND	Ground connections
16	1V8	Power	Positive supply for blue core
17	POWER_EN	/	Take high to enable both high-voltage regulator and switch-mode regulator
18	BAT	/	Lithium ion/polymer battery positive terminal. Battery charger output and input to switch-mode regulator
19	CHG	/	Lithium ion/polymer battery charger input
20	MIC_BIAS	Analogue	Microphone bias
21	MIC_P	Analogue	Microphone input, positive
22	MIC_N	Analogue	Microphone input, negative
23	SPKP_N	Analogue	Speaker output, negative
24	SPKP_P	Analogue	Speaker output, positive
25	MOSI	with weak internal pull-down	SPI data input
26	CLK	Bidirectional with weak internal pull-down	SPI clock
27	CSB	Bidirectional with weak internal pull-down	Chip select for SPI, active low
28	MISO	Bidirectional with weak internal pull-down	SPI data output
29	GND1	GND	Ground connections
30	RF	RF	RF

31	GND0	GND	GND
----	------	-----	-----

Restrictions: Integration limited to Battery-operated host devices.

Precautions:

1. Around the antenna can not have metal
2. The box can large area screen
3. In need of power module PAD is placed near the module power supply
4. Public end to noise inhibition, required in the amplifier or master front increased operational amplifier with interference cancellation
5. The main control module, power amplifier, must be grounded, will not allow the existence of island or closed loop, the module grounding point and main control and power amplifier ground position difference shall be not more than 1mV.



Performance parameters:

Model	F-3098
Bluetooth Specification	Bluetooth V3.0
Modulation Type	GFSK, 1Mbps
Supply Voltage	Battery voltage VDD:3.3 supply
Bluetooth support agreement	A2DP
Operating current	<30mA
Motor current	<0.4mA
Temperature Range	-40°C to +80°C
Wireless transmission range	10m
Transmission power	CLASS 2 4dBm
Sensitivity	-91dBm@0.1Mbps
Frequency Range	2.4GHz-2.480GHz
External interfaces	PIO, SPI, Speaker, Microphone
Audio Performance	High acoustic fidelity sound
Audio signal-to-noise ratio	>75dB
Distortion	<0.01%
Module size	23.5X15.5X1.8MM

FCC ID: KKI-F-3098

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

NOTE: This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

Important compliance information for North American users

The F-3098 Module has been granted modular approval for portable applications. Integrators may use the F-3098 Module in their final products without additional FCC certification if they meet the following conditions. Otherwise, additional FCC approvals must be obtained.

1. To comply with FCC regulations limiting both maximum RF output power and human exposure to RF radiation, the maximum antenna gain including cable loss in a mobile-only exposure condition must not exceed 0dBi in the 2.4G band.
2. The F-3098 Module and its antenna must not be co-located or operating in conjunction with any other transmitter or antenna within a host device.
3. A label must be affixed to the outside of the end product into which the F-3098 Module is incorporated, with a statement similar to the following: For F-3098: This device contains FCC ID: KKI-F-3098.
4. A user manual with the end product must clearly indicate the operating requirements and conditions that must be observed to ensure compliance with current FCC RF exposure guidelines.

The end product with an embedded F-3098 Module may also need to pass the FCC Part 15 unintentional emission testing requirements and be properly authorized per FCC Part 15.