



BKSG2-MINI Datasheet

DS-BKSG2-MINI-E03 V1.2

2026/5/19

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1. Module Overview

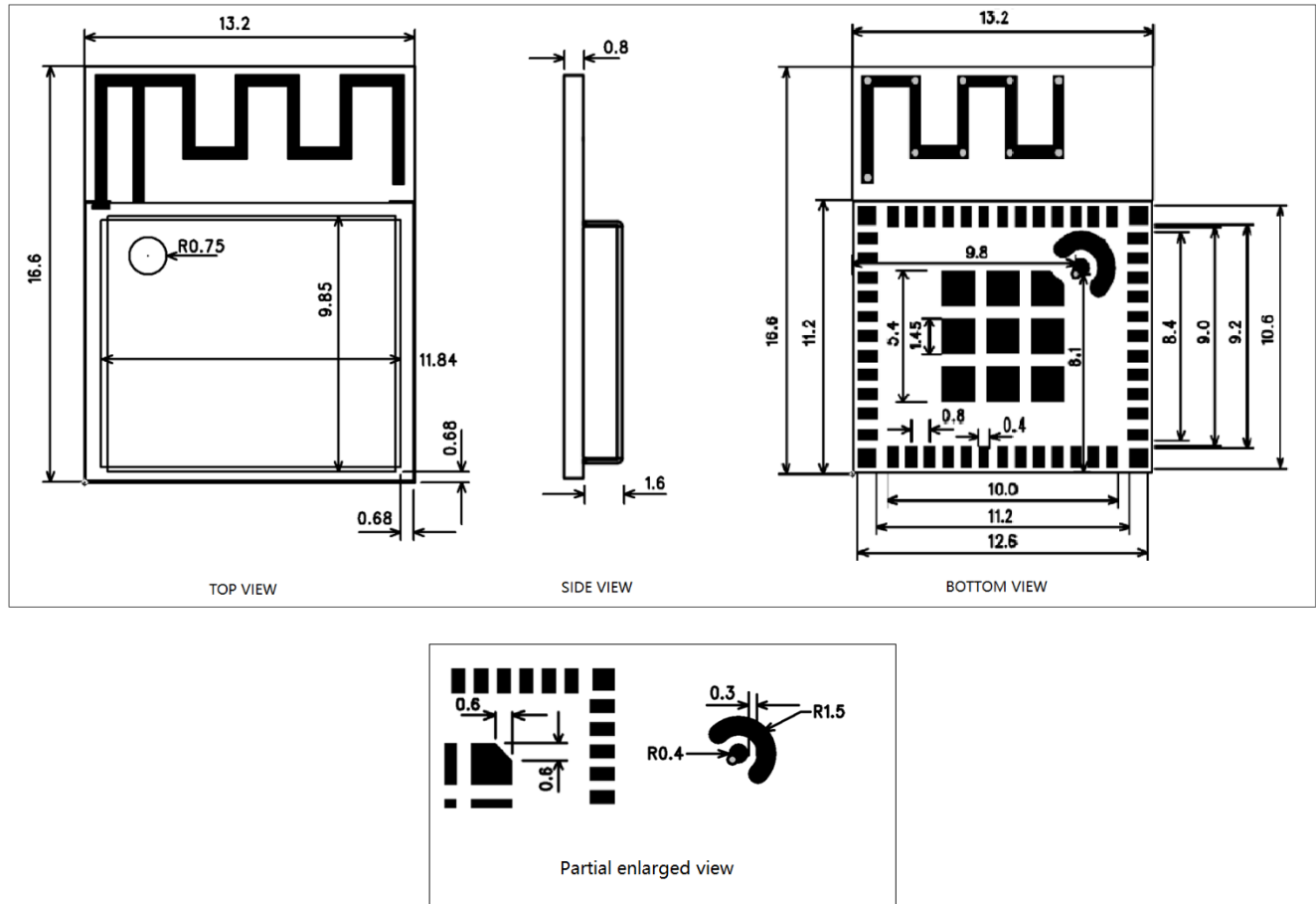
The BKSG2-MINI is a low-power, high-performance Wi-Fi + Bluetooth LE module. It consists of the BK7236N SoC and peripheral resistors and capacitors, crystal oscillators, buck inductors, and onboard PCB antenna. It is a 1x1 single-band 2.4 GHz Wi-Fi 6 and Bluetooth 5.2 combo solution. The module also has a simple and easy-to-use interface targeted for lighting applications. A variety of products can be developed based on this module.

The BK7236N integrates a 32-bit Armv8-M STAR-MC1 MCU that operates at 160 MHz by default. It also incorporates 4 MB flash and 512 KB RAM.

2. Module Outline

2.1 Module Dimensions

Figure 2-1 Module Dimensions (Unit: mm)

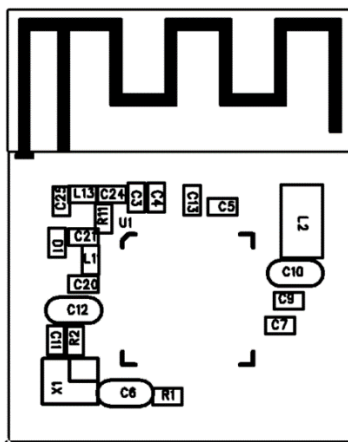


The module dimensions are as below:

- Length: 16.6 mm
- Width: 13.2 mm
- Board thickness: 0.8 mm
- Maximum overall thickness: 3.2 mm

2.2 Module Outline With Designators

Figure 2-2 Module Outline with Designators (Top View)



2.3 Module Laser Marking

The laser marking on the module shielding cover includes a QR code and also the following information shown in Table 2-1.

Table 2-1 Module Laser Marking

Marking	Description
BEKEN	Brand name
CE	CE marking
BKSG2-MINI	Model name
FCC ID:2BWNW-BKSG2-MINI	FCC ID
IC: 11051A-BKSG2MINI	IC ID

The picture of module:

2.4 Module PCB Solder Mask

The color of the module PCB solder mask should be white.

2.5 Module PCB Antenna

Gain: -0.7 dBi

Efficiency: 43%

2.6 Schematic

Figure 2-3 shows the schematic of the module.

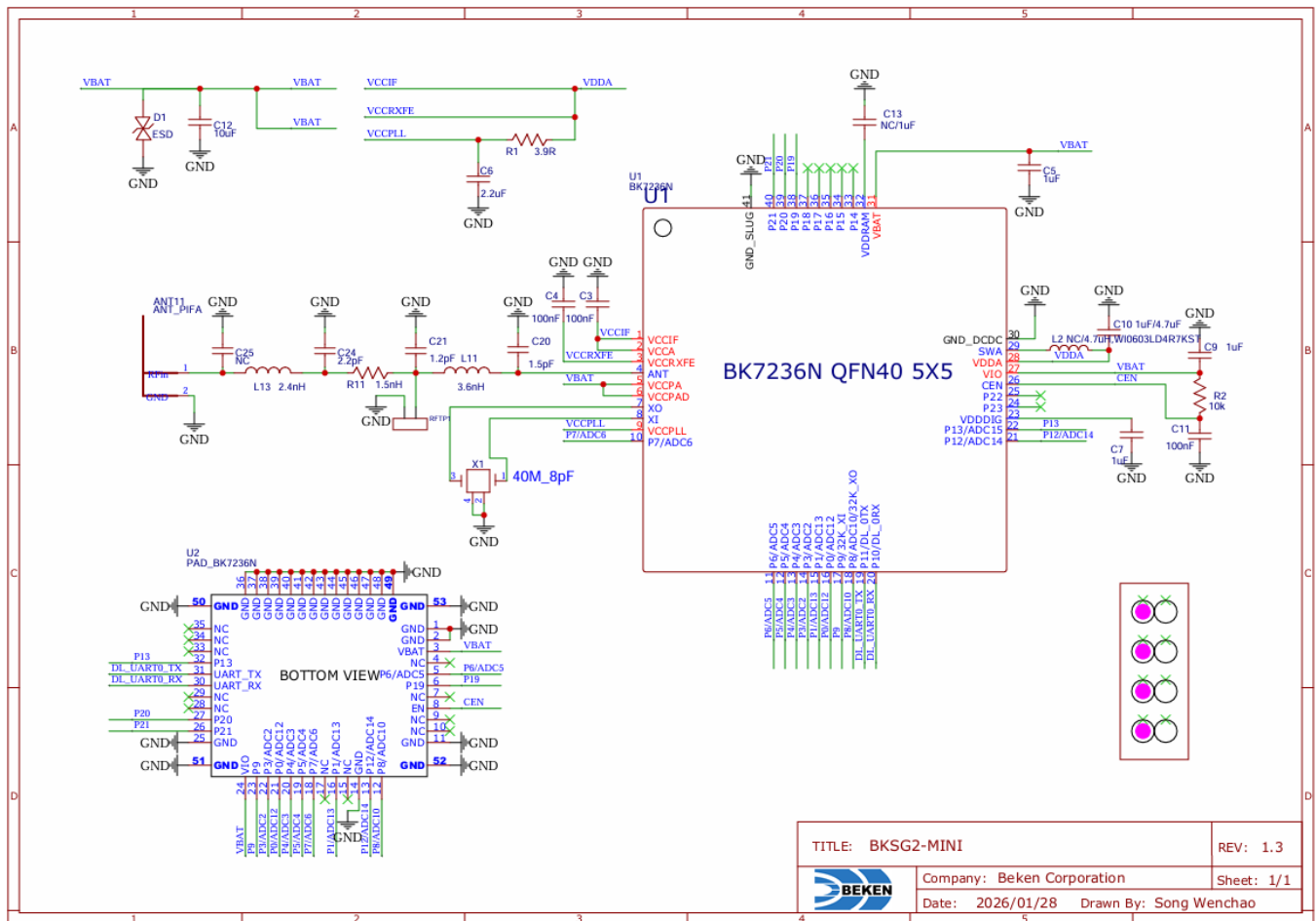


Figure 2-3 BSG2-MINI Schematic

3. Pin Descriptions

Figure 3-1 shows the pin assignments of the module.

Figure 3-1 Pin Assignments (Bottom Layer, Top View)

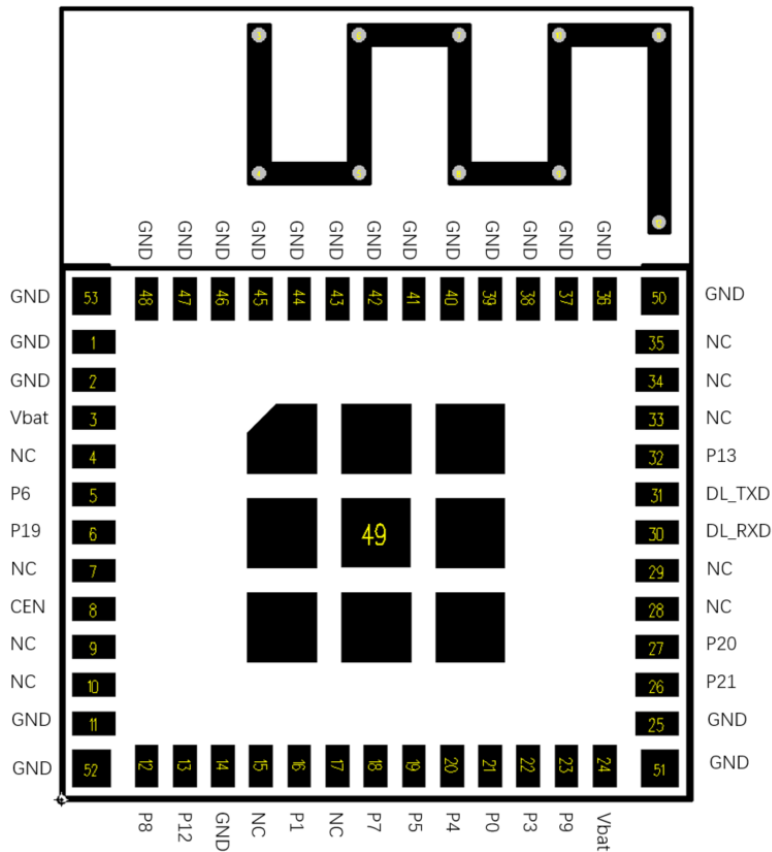


Table 3-1 shows the pin descriptions of the module.

Table 3-1 Pin Descriptions

Pin #	Name	Type	Default State After Power-on	Description
1	GND	P	-	Ground
2	GND	P	-	Ground
3	VBAT	P	-	Chip external power supply input
4	NC	-	-	No connect
5	P6	IO	Digital/Analog	GPIO6, ADC5
6	P19	IO	Digital	GPIO19, PWM1

Pin #	Name	Type	Default State After Power-on	Description
7	NC	-	-	No connect
8	CEN	I	10 kΩ pulled up to VIO	Chip enable, active high
9	NC	-	-	No connect
10	NC	-	-	No connect
11	GND	P	-	Ground
12	P8	IO	Digital/Analog	GPIO8, ADC10
13	P12	IO	Digital/Analog	GPIO12, ADC14
14	GND	P	-	Ground
15	NC	-	-	No connect
16	P1	IO	Digital/Analog	GPIO1, UART1_RX, I2C1_SDA
17	NC	-	-	No connect
18	P7	IO	Digital/Analog	GPIO7, PWM4/ADC6
19	P5	IO	Digital/Analog	GPIO5, PWM0/ADC4
20	P4	IO	Digital/Analog	GPIO4, PWM2/ADC3
21	P0	IO	Digital/Analog	GPIO0, I2C1_SCL/ADC12
22	P3	IO	Digital/Analog	GPIO3, ADC2
23	P9	IO	Digital/Analog	GPIO9
24	VBAT	P	-	Power supply output for I2C led driver chip
25	NC	-	-	No connect
26	P21	IO	Digital	GPIO21, UART2_RX
27	P20	IO	Digital	GPIO20, UART2_TX
28	NC	-	-	No connect
29	NC	-	-	No connect
30	DL_RXD	IO	Digital	GPIO10, DL_UART_RX, UART0_RX
31	DL_TXD	IO	Digital	GPIO11, DL_UART_TX, UART0_TX
32	P13	IO	Digital/Analog	GPIO13, PWM3,ADC15
33	NC	-	-	No connect



Pin #	Name	Type	Default State After Power-on	Description
34	NC	-	-	No connect
35	NC	-	-	No connect
36–48	GND	P	-	Ground
49	PAD	P	-	Ground pad, connected to GND
50–53	GND	-	-	Ground

4. Electrical Characteristics

4.1 Absolute Maximum Ratings

Parameter	Description	Min.	Max.	Unit
V _{BAT}	Power supply input	-0.3	4.5	V
I _{max}	V _{BAT} maximum current	-	400	mA
V _{DIG_A}	Voltage on any digital pin	-0.3	V _{IO} +0.3	V
T _{STR}	Storage temperature range	-55	150	℃

4.2 Recommended Operating Conditions

Parameter	Description	Min.	Typ.	Max.	Unit
T _{OPR}	Operating temperature range (shielding cover temperature)	-40	-	105	℃
V _{BAT}	Power supply input	2.4	3.3	3.6	V
V _{IO}	I/O voltage	2.4	3.3	3.6	V
V _{pp}	Ripple on the V _{BAT}	-	-	200	mV

4.3 Digital I/O Characteristics

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
V _{IH}	High-level input voltage	-	0.7 V _{IO}	-	V _{IO} + 0.3	V
V _{IL}	Low-level input voltage	-	-0.3	-	0.3 V _{IO}	V
V _{OH}	High-level output voltage	-	0.9 V _{IO}	-	-	V
V _{OL}	Low-level output voltage	-	-	-	0.1 V _{IO}	V
I _{OH}	I/O output high drive strength	VOH: 0.8 V _{IO} , GPIO_CAPACITY = 3		40		mA
		VOH: 0.8 V _{IO} , GPIO_CAPACITY =		30		

Symbol	Parameter	Conditions	Min.	Typ.	Max.	Unit
		2				
		VOH = 0.8 VIO, GPIO_CAPACITY = 1		18		
		VOH = 0.8 VIO, GPIO_CAPACITY = 0		10		
I _{OL}	I/O output low drive strength	VOH: 0.15 VIO, GPIO_CAPACITY = 3		36		mA
		VOH: 0.15 VIO, GPIO_CAPACITY = 2		29		
		VOH = 0.15 VIO, GPIO_CAPACITY = 1		16		
		VOH = 0.15 VIO, GPIO_CAPACITY = 0		8		
R _{PU}	Weak pull-up resistor	-	-	40	-	kΩ
R _{PD}	Weak pull-down resistor	-	-	44	-	kΩ

4.4 Current Consumption

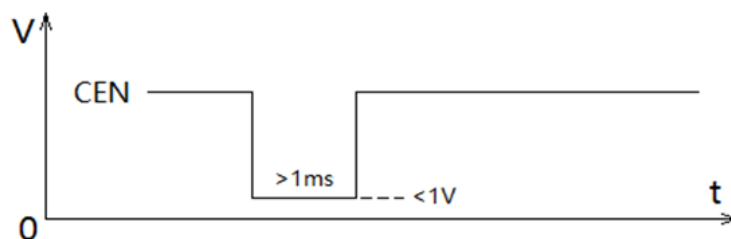
Parameter	Condition	Min.	Typ.	Max.	Unit
Active Mode					
RX current	11b, continuous receive, buck	-	-	-	mA
	11b, continuous receive, LDO	-	37	-	mA
	11b/g/n, 20 MHz, mixed mode, continuous receive, buck	-	-	-	mA
	11n40 MHz, mixed mode, continuous receive, buck	-	-	-	mA
	11b/g/n, 20 MHz, mixed mode, continuous receive, LDO	-	42	-	mA

Parameter	Condition	Min.	Typ.	Max.	Unit
	11n, 40 MHz, mixed mode, continuous receive, LDO	-	46	-	mA
TX current	11b: 1 Mbps DSSS @ 20 dBm (LDO)	-	340	-	mA
	11b: 1 Mbps DSSS @ 20 dBm (BUCK)	-	-	-	mA
	11g: 54 Mbps OFDM @ 18 dBm (LDO)	-	310	-	mA
	11g: 54 Mbps OFDM @ 18 dBm (BUCK)		-		mA
	11n: MCS7, HT20 @ 17 dBm (LDO)	-	290	-	mA
	11n: MCS7, HT20 @ 17 dBm (BUCK)		-		mA
Sleep Mode					
Normal sleep	CPU active(60Mhz), Wi-Fi MAC on, Wi-Fi PHY off, Bluetooth off, multimedia (audio, video) off, encryption off	-	6	-	mA
Low-voltage sleep	CPU halted, Wi-Fi MAC halted, Wi-Fi PHY off, Bluetooth off, encryption off, SMEM3 off, XTALH off, VDDDIG=0.6 V		91		μ A
Deep sleep	Only the AON domain is active.	-	13.7	-	μ A
Shutdown Mode					
Shutdown	CEN low	-	3.2	-	μ A

4.5 CEN Timing

Parameter	Description	Min.	Max.	Unit
T_{CEN_Min}	minimum pull-low time for CEN reset	1	-	ms
V_{CEN_IL}	CEN input low level	-	1	V

Figure 4-1 CEN Signal Waveform Requirements



4.6 Moisture Sensitivity Level

The Module is qualified to moisture sensitivity level MSL3 in accordance with IPC/JEDEC J-STD-020.

4.7 ESD Ratings

Parameter	Description	Test Condition	Value	Unit
ESD HBM	Electrostatic discharge voltage (human body model), per ANSI/ESDA/JEDEC JS-001	ANT pin	±2000	V
		Other pins	±3000	V
ESD CDM	Electrostatic discharge voltage (charge device model), per ANSI/ESDA/JEDEC JS-002	All pins	±500	V

4.8 WLAN RF Receiver Characteristics

Measured with T = 25 °C, VBAT = 3.3 V unless otherwise stated.

Parameter	Condition	Min.	Typ.	Max.	Unit
General					
Frequency range	-	2412	-	2484	MHz
Sensitivity					
Sensitivity - IEEE 802.11b (8% PER for PSDU)	1 Mbps DSSS	-	-98	-	dBm
	11 Mbps DSSS	-	-89	-	dBm
Sensitivity - IEEE 802.11g (10% PER for PSDU)	6 Mbps OFDM	-	-92	-	dBm
	54 Mbps OFDM	-	-76.5	-	dBm
Sensitivity - IEEE 802.11n, 20 MHz (10% PER for PSDU, BCC)	HT20, MCS0	-	-92	-	dBm
	HT20, MCS7	-	-73	-	dBm
Sensitivity - IEEE 802.11n, 40 MHz (10% PER for PSDU, BCC)	HT40, MCS0	-	-87.5	-	dBm
	HT40, MCS7	-	-71.5	-	dBm

Parameter	Condition		Min.	Typ.	Max.	Unit
Maximum Receive Level						
Maximum receive level @ 2.4 GHz	11b: 1, 2 Mbps (8% PER, 1024 octets)		-	10	-	dBm
	11b: 5.5, 11 Mbps (8% PER, 1024 octets)		-	10	-	dBm
	11g: 6–54 Mbps (10% PER, 1000 octets)		-	0	-	dBm
	11n: MCS0–7 (10% PER, 4096 octets)		-	0	-	dBm
Adjacent Channel Rejection						
Adjacent channel (±30 MHz) rejection - IEEE 802.11b	1 Mbps DSSS	-74 dBm	-	50	-	dB
(8% PER for 1024 octet PSDU with desired signal level as specified in Condition)	2 Mbps DSSS	-74 dBm	-	45	-	dB
Adjacent channel (±25 MHz) rejection - IEEE 802.11b	5.5 Mbps DSSS	-70 dBm	-	43	-	dB
(8% PER for 1024 octet PSDU with desired signal level as specified in Condition)	11 Mbps DSSS	-70 dBm	-	40	-	dB
Adjacent channel (±25 MHz) rejection - IEEE 802.11g	6 Mbps OFDM	-79 dBm	-	43	-	dB
(10% PER for 1000 octet PSDU with desired signal level as specified in Condition)	54 Mbps OFDM	-62 dBm	-	27	-	dB
Adjacent channel (±25 MHz) rejection - IEEE 802.11n	HT20, MCS0	-79 dBm	-	43	-	dB
(10% PER for 4096 octet PSDU with desired signal level as specified in Condition)	HT20, MCS7	-61 dBm	-	21	-	dB
Spurious Emissions						
Spurious emissions	< 1 GHz		-	-60	-	dBm
	> 1 GHz		-	-50	-	dBm

4.9 WLAN RF Transmitter Characteristics

Measured with T = 25 °C, VBAT = 3.3 V unless otherwise stated.

Parameter	Condition	Min.	Typ.	Max.	Unit
General					
Frequency range	-	2412	-	2484	MHz
TX Power					
TX power - IEEE 802.11b (SEM compliant)	1 Mbps DSSS	-	20	-	dBm
	11 Mbps DSSS	-	20	-	dBm
TX power - IEEE 802.11g (EVM compliant)	6 Mbps OFDM	-	18	-	dBm
	54 Mbps OFDM	-	18	-	dBm
TX power - IEEE 802.11n (EVM compliant)	HT20, MCS0	-	17	-	dBm
	HT20, MCS7	-	17	-	dBm
	HT40, MCS0	-	16	-	dBm
	HT40, MCS7	-	16	-	dBm
TX EVM					
TX EVM - IEEE 802.11b (SEM compliant)	1 Mbps DSSS, @20dBm	-	-15	-	dB
	11 Mbps DSSS, @20dBm	-	-15	-	dB
TX EVM - IEEE 802.11g	6 Mbps OFDM, @18dBm	-	-27	-	dB
	54 Mbps OFDM, @18dBm	-	-27	-	dB
TX EVM - IEEE 802.11n	HT20, MCS0, @17dBm	-	-29	-	dB
	HT20, MCS7, @17dBm	-	-29	-	dB
	HT40, MCS0, @16dBm	-	-29	-	dB
	HT40, MCS7, @16dBm	-	-29	-	dB

Parameter	Condition	Min.	Typ.	Max.	Unit
	HE20, MCS7, @17dBm	-	-30	-	dB
	HE40, MCS0, @16dBm	-	-30	-	dB
	HE40, MCS7, @16dBm	-	-30	-	dB
Spurious Emissions					
Spurious emissions (at maximum output power)	< 1 GHz	-	-50	-	dBm
	> 1 GHz	-	-45	-	dBm

4.10 Bluetooth LE RF Receiver Characteristics

Measured with T = 25 °C, VBAT = 3.3 V unless otherwise stated.

Parameter	Condition	Min.	Typ.	Max.	Unit
General					
Frequency range	-	2402	-	2480	MHz
Bluetooth LE 1 Mbps					
Sensitivity	30.8% PER	-	-97	-	dBm
Maximum input level	30.8% PER	-	0	-	dBm
C/I co-channel	-	-	8	-	dB
C/I 1 MHz adjacent channel	-	-	0	-	dB
C/I -1 MHz adjacent channel	-	-	0	-	dB
C/I 2 MHz adjacent channel	-	-	-26	-	dB
C/I -2 MHz adjacent channel	-	-	-27	-	dB
C/I 3 MHz adjacent channel	-	-	-28	-	dB
C/I -3 MHz adjacent channel	-	-	-29	-	dB
C/I > 3 MHz adjacent channel	-	-	-50	-	dB
C/I < -3 MHz adjacent channel	-	-	-50	-	dB
Out-of-band blocking	30–2000 MHz	-10	-	-	dBm
	2003–2399 MHz	-12	-	-	dBm
	2484–2997 MHz	-12	-	-	dBm

Parameter	Condition	Min.	Typ.	Max.	Unit
	3000 MHz–12.75 GHz	-2	-	-	dBm
Bluetooth LE 125 kbps					
Sensitivity	30.8% PER	-	-102	-	dBm
Maximum input level	30.8% PER	-	0	-	dBm
C/I co-channel	-	-	3	-	dB
C/I 1 MHz adjacent channel	-	-	-15	-	dB
C/I -1 MHz adjacent channel	-	-	-16	-	dB
C/I 2 MHz adjacent channel	-	-	-34	-	dB
C/I -2 MHz adjacent channel	-	-	-40	-	dB
C/I 3 MHz adjacent channel	-	-	-42	-	dB
C/I -3 MHz adjacent channel	-	-	-43	-	dB
C/I > 3 MHz adjacent channel	-	-	-41	-	dB

Parameter	Condition	Min.	Typ.	Max.	Unit
C/I < -3 MHz adjacent channel	-	-	-42	-	dB
Bluetooth LE 500 kbps					
Sensitivity	30.8% PER	-	-99	-	dBm
Maximum input level	30.8% PER	-	0	-	dBm
C/I co-channel	-	-	5	-	dB
C/I 1 MHz adjacent channel	-	-	-2	-	dB
C/I -1 MHz adjacent channel	-	-	-3	-	dB
C/I 2 MHz adjacent channel	-	-	-30	-	dB
C/I -2 MHz adjacent channel	-	-	-31	-	dB
C/I 3 MHz adjacent channel	-	-	-31	-	dB
C/I -3 MHz adjacent channel	-	-	-40	-	dB
C/I > 3 MHz adjacent channel	-	-	-36	-	dB
C/I < -3 MHz adjacent channel	-	-	-36	-	dB

4.11 Bluetooth LE RF Transmitter Characteristics

Measured with T = 25 °C, VBAT = 3.3 V unless otherwise stated.

Parameter	Condition	Min.	Typ.	Max.	Unit
General					
Frequency range	-	2402	-	2480	MHz
TX power	-	-20	6	15	dBm
Bluetooth LE 1 Mbps					
In-band emissions	±2 MHz offset	-	-	-47	dBm
	±3 MHz offset	-	-	-49	dBm
	> ±3 MHz offset	-	-	-50	dBm
Modulation characteristics	Δf_{1avg}	-	-	245	kHz
	Δf_{2max}	-	-	235	kHz
	$\Delta f_{2avg}/\Delta f_{1avg}$	-	-	0.93	-

Parameter	Condition	Min.	Typ.	Max.	Unit
Carrier frequency offset and drift	Max $ f_n _{n=0, 1, 2, 3 \dots k}$	-	3	-	kHz
	Max $ f_0 - f_n _{n=2, 3, 4 \dots k}$	-	2.5	-	kHz
	$ f_1 - f_0 $	-	2	-	kHz
	Max $ f_n - f_{n-5} _{n=6, 7, 8 \dots k}$	-	2.5	-	kHz/50 μ s

Bluetooth LE 125 kbps						
In-band emissions	± 2 MHz offset	-	-	-47	-	dBm
	± 3 MHz offset	-	-	-49	-	dBm
	$> \pm 3$ MHz offset	-	-	-50	-	dBm
Modulation characteristics	Δf_{avg}	-	-	245	-	kHz
	Δf_{max}	-	-	246	-	kHz
Carrier frequency offset and drift	Max $ f_n _{n=0, 1, 2, 3 \dots k}$	-	-	1.5	-	kHz
	Max $ f_0 - f_n _{n=1, 2, 3 \dots k}$	-	-	1.5	-	kHz
	$ f_0 - f_3 $	-	-	1.5	-	kHz
	$ f_n - f_{n-3} _{n=7, 8, 9 \dots k}$	-	-	1.5	-	kHz/48 μ s

Parameter		Condition	Min.	Typ.	Max.	Unit
Bluetooth LE 500 kbps						
In-band emissions	± 2 MHz offset	-	-	-47	-	dBm
	± 3 MHz offset	-	-	-49	-	dBm
	$> \pm 3$ MHz offset	-	-	-50	-	dBm

4.12 AUX ADC Characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Conversion clock	-	-	-	13	MHz
Conversion time	-1*11(	-	16	-	Cycle
V _{REF}	Internal	-	1.2	-	V
Input voltage range	-	0	-	V _{BAT}	V
Input impedance	-	10	-	-	M Ω
Input capacitance (Cs)	-	-	1	-	pF
DNL	-	-1	-	3	LSB
INL	-	-5	-	5	LSB
Precision	Internal (> 500 mV)	-	-	1	%
	Internal (400–500 mV)	-	2	4	%
	Internal (300–400 mV)	-	3	6	%
	Internal (200–300 mV)	-	-	8	%
	Internal (100–200 mV)	-	-	20	%
	Internal (50–100 mV)	-	-	40	%
	Internal (<50 mV)	-	-	100	%

4.13 I2C Characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Clock	-	-	-	400	kHz
Pull-up resistor	-	1.5	4.7	10	k Ω

Parameter	Condition	Min.	Typ.	Max.	Unit
Capacitive load drive strength (enhanced drive mode)	Ceramic capacitor added to ground	20	-	-	nF

4.14 PWM Characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Frequency	-	-	-	8	MHz
Recommended pull-down resistor	-	-	51	-	K Ω

4.15 NTC Characteristics

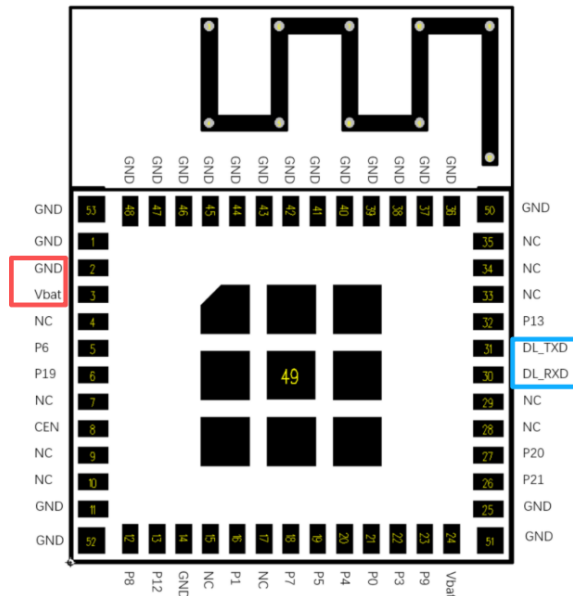
The SOC of BKSG2-MINI includes a temperature sensor (NTC) which, after calibration, can provide chip temperature detection with an accuracy better than $\pm 5^{\circ}\text{C}$.

5. Module Burning and Test Mode

5.1 Firmware Download

The BK7236-MINI module supports firmware download via UART. Within 5 ms after the chip is powered on, the downloader sends a handshake command to complete the interaction and then the firmware can be downloaded. The specific operation method is as follows:

1. Connect the GND, DL_RXD, DL_TXD signal lines of the module to the download tool, and do not supply power to VBAT for the time being.



2. Open the PC download tool, select the serial port and firmware path, and start burning (the tool also supports script calls).



3. Supply power to VBAT to start firmware burning.

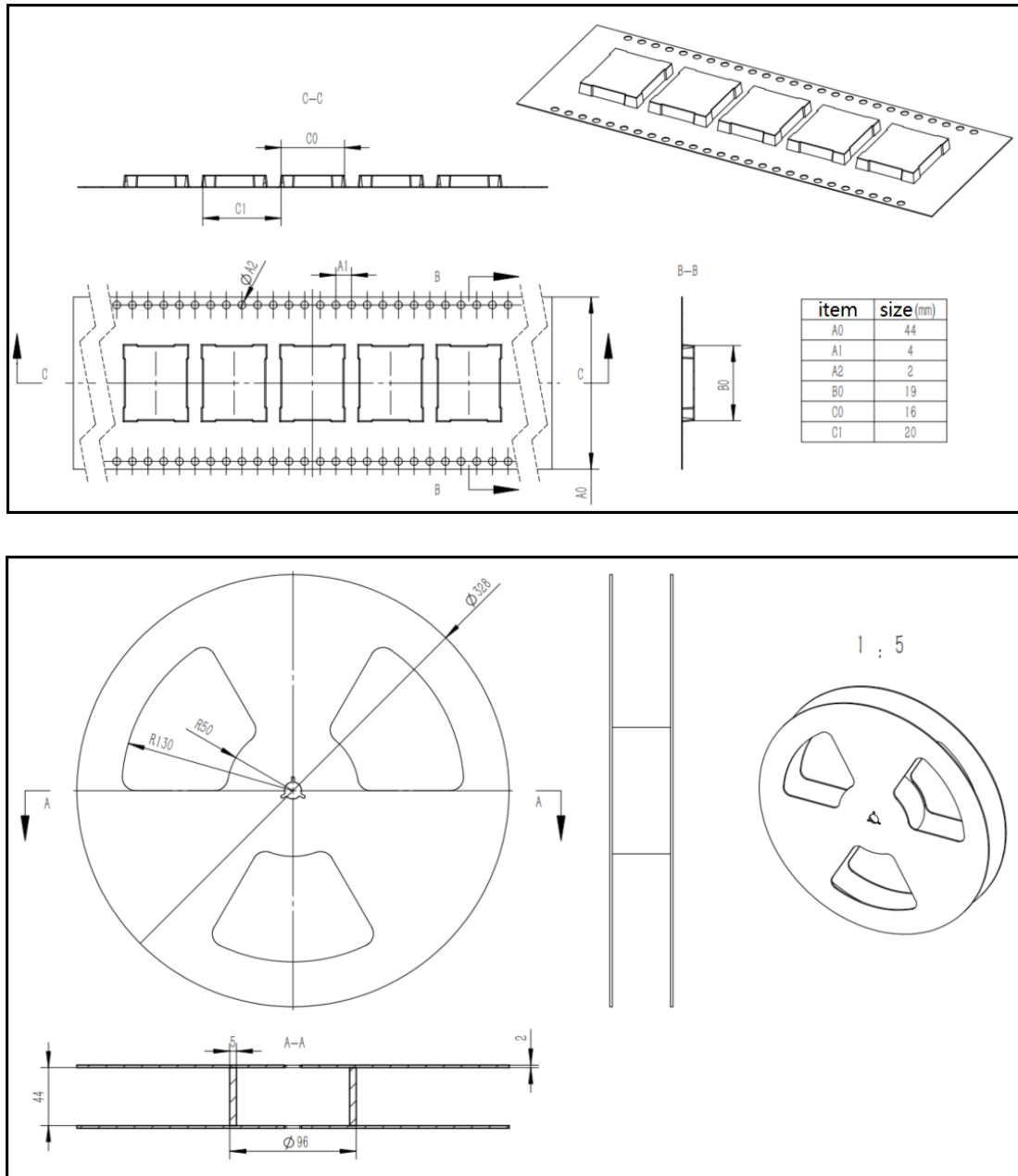
5.2 Enter Test Mode

During the power-on initialization phase, the module will determine whether the DL_TXD pin is pulled low externally (usually connected to GND through a 1 K Ω resistor). If it is not pulled low, the firmware will start running normally. If it is pulled low, the program enters the test mode (ATE mode), and non-signaling tests and other operations can be performed.

6. Package information and ordering number

6.1 Package information

The packaging type of the module is tape reel, the reel width is 48mm, and the diameter is 13 inches with 650 modules per reel. One packaging box contains 5 reels.





6.2 Ordering number

The order number of the module is: BKBG2 -MINI-V1.1

7. Certification

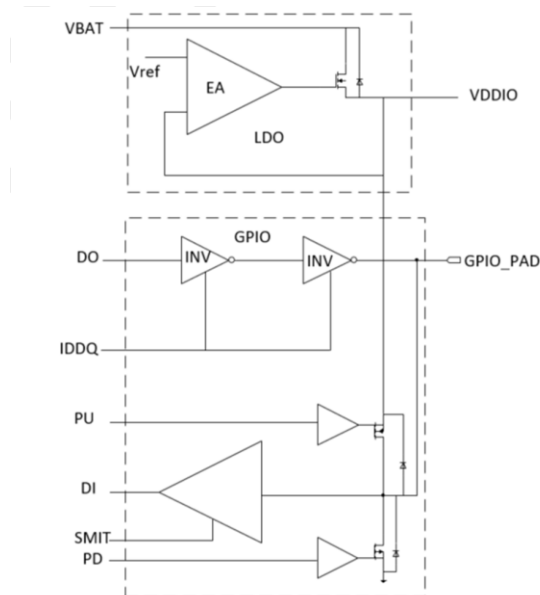
The module has passed the following certifications:

- FCC
- WFA
- BQB

Notes:

- Due to the optimization of chip and module design, module parameters may change. Please pay attention to the update of the module datasheet.
- During certification, the transmit power is appropriately adjusted due to the specific application and certification requirements.
- Test conditions for RF transceiver performance: supply voltage = 3.3 V, ambient temperature = 25 °C.
- All GPIOs of the BK7236S have protection diodes for VDDIO and GND, and the structure is shown in the figure below. When the module does not supply power to Vbat, if the GPIO has a high level with strong drive strength, the chip will be in a powered operation state. The specific operation is related to the drive strength of the high level on the GPIO. In order to prevent abnormal operation of the chip, when Vbat is not powered, the voltage applied to the GPIO is limited to 1.8 V and the drive strength is limited to 2 mA (Equivalent to connecting a 1K resistor in series).

Figure 7-1 Structure of GPIO Protection Diode



7.1 Revision History

Version	Date	Description
1.0	2026/1/5	Initial release
1.1	2026/5/11	Added the connection from module PIN21 to chip PIN16.
1.2	2026/5/19	Add a description of the pin's alternate function. NTC function and accuracy.

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This module is intended for OEM integrators only. Per FCC KDB 996369 D03 OEM Manual v01 guidance, the following conditions must be strictly followed when using this certified module:

KDB 996369 D03 OEM Manual v01 rule sections:

2.2 List of applicable FCC rules This module has been tested for compliance to FCC part15.247

2.3 Summarize the specific operational use conditions

The module is tested for standalone mobile RF exposure use condition. Any other usage conditions such as co-location with other transmitter(s) or being used in a portable condition will need a separate reassessment through a class II permissive change application or new certification.

2.4 Single module procedures The EUT was tested inside a specific platform (model: SmartCore 100)and Single modular approval for this specific platform.

2.5 Antenna : PCB Antenna;
Antenna designs Not applicable

2.6 RF exposure considerations This equipment complies with FCC mobile radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20cm between the radiator & your body. If the module is installed in a portable host, a separate SAR evaluation is required to confirm compliance with relevant FCC portable RF exposure rules.

2.7 Antennas

The following antennas have been certified for use with this module; antennas of the same type with equal or lower gain may also be used with this module. The antenna must be installed such that 20 cm can be maintained between the antenna and users. Antenna Type Antenna : PCB Antenna;

2.8 Label and compliance information

The final end product must be labeled in a visible area with the following: “Contains FCC ID: 2BWNW-BKSG2-MINI”. The grantee'sFCC ID can be used only when all FCC compliance requirements are met.

2.9 Information on test modes and additional testing requirements

This transmitter is tested in a standalone mobile RF exposure condition and any co-located or simultaneous transmission with other transmitter(s) or portable use will require a separate class II permissive change re-evaluation or new certification.

2.10 Additional testing, Part 15 Subpart B disclaimer

This transmitter module is tested as a subsystem and its certification does not cover the FCC Part 15 Subpart B (unintentional radiator) rule requirement applicable to the final host. The final host will still need to be reassessed for compliance to this portion of rule requirements if applicable.

FCC Warning

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.

NOTE 1: Any changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. End users must follow the specific operating instructions for satisfying RF exposure compliance.

This module certified that complies with RF exposure requirement under mobile or fixed condition, this module is to be installed only in mobile or fixed applications.

A mobile device is defined as a transmitting device designed to be used in other than fixed locations and to generally be used in such a way that a separation distance of at least 20 centimeters is normally maintained between the transmitter's radiating structure(s) and the body of the user or nearby persons. Transmitting devices designed to be used by consumers or workers that can be easily re-located, such as wireless devices associated with a personal computer, are considered to be mobile devices if they meet the 20 centimeter separation requirement.

A fixed device is defined as a device is physically secured at one location and is not able to be easily moved to another location.

Note 2: Any modifications made to the module will void the Grant of Certification, this module is limited to OEM installation only and must not be sold to end-users, end-user has no manual instructions to remove or install the device, only software or operating procedure shall be placed in the end-user operating manual of final products.

Note 3: Additional testing and certification may be necessary when multiple modules are used.

Note 4: The module may be operated only with the antenna with which it is authorized. Any antenna that is of the same type and of equal or less directional gain as an antenna that is authorized with the intentional radiator may be marketed with, and used with, that intentional radiator.