

HL3215SG-lite/HLW3215-TG05/HLW3215-TG06 is an integrated Wi-Fi & Bluetooth BLE dual-mode module, BK7231M_QFN32-- integrated MCU/WLAN MAC/ Baseband/RF single chip scheme. ARM9 32-bit MCU core, 120MHz main frequency, built-in 256KBRAM.

- Supports 802.11b/G/N Wi-Fi standard.
- Supports 802.11b/ G/N standards, HT-20
- Supports Station, Soft AP, Station+Soft AP
- With 20MHz bandwidth, the maximum transmission rate reaches 72.2Mbps
- Module built-in onboard antenna (for the antenna part, please refer to the antenna specification)
- working voltage: DC 5V,

- Supports BLE 5.2standard,
- Supports 802.11 b/g/n 1x1 protocol
- 802.11b: 1, 2, 5.5, 11
- 802.11g: 6, 9, 12, 18, 24, 36, 48, 54
- 802.11n HT20: MCS0~7
- Supports STA/AP/Direct/Repeaternetwork model
- Supports SGI、 Green-Field Preamble and A-MPDU
- Supports WPA,WPA2,WAPI security regime
- Supports 50 MHz SDIO port
- On - chip 2M FLASH, can be expanded to 4M, support transparent download

2.3

Operational use conditions

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***if your module has professional users use condition limitations, please keep below sentence here

Module has professional users use condition limitations, Host product manufacturer please ensure giving such warning like “Product is limited to professional users use” in your product’s instruction.

2.4

Antenna used

Antenna Type	Brand/ manufacturer	Model No.	Max. Antenna Gain
Integral PCB Antenna	SHEN ZHEN SHI XINZHONGXIN TECHNOLOG.CO,LTD	——	0dBi

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Trace antenna designs information [If use trace antenna, otherwise, this part could be ignored and deleted]

Provide trace boundary limits, thickness, length, width, shape(s), dielectric constant, and impedance, etc, any parameters permitting host manufacturers to design the PCB layout;

Provide Test procedures for design verification and Production

Notice to Host Product Manufacturer

Any deviation(s) from the defined parameters of the antenna trace, as described by this instruction, host product manufacturer must notify us that you wish to change the antenna trace design. In this case, a Class II permissive change application is required to be filed by us, or you (host manufacturer) can take responsibility through the change in FCC ID and IC ID (new application) procedure followed by a Class II permissive change application.

2.6

Notice to Host manufacturer when installing our Module and intend to use Contains FCC ID: 2A9F9HL3215SG and Contains IC: 29823-HL3215SG

If the Module is approved as Limited Module, please follow the guidance as below:

If a modular transmitter is approved as a “limited module,” then the module manufacturer is responsible for approving the host environment that the limited module is used with. The manufacturer of a limited module must describe, both in the filing and in the installation instructions, the alternative means that the limited module manufacturer uses to verify that the host meets the necessary requirements to satisfy the module limiting conditions.

A limited module manufacturer has the flexibility to define its alternative method to address the conditions that limit the initial approval, such as: shielding, minimum signalling amplitude, buffered modulation/data inputs, or power supply regulation. The alternative method could include that the limited module manufacturer reviews detailed test data or host designs prior to giving the host manufacturer approval.

This limited module procedure is also applicable for RF exposure evaluation when it is necessary to demonstrate compliance in a specific host. The module manufacturer must state how control of the product into which the modular transmitter will be installed will be maintained such that full compliance of the product is always ensured. For additional hosts other than the specific host originally granted with a limited module, a Class II permissive change is required on the module grant to register the additional host as a specific host also approved with the module.

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FCC&IC regulatory compliance statement

§15.19 Statement

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.

RSS-Gen Statement

This device contains licence-exempt transmitter(s)/receiver(s) that comply with Innovation, Science and Economic Development Canada's licence-exempt RSS(s). Operation is subject to the following two conditions:

- (1) This device may not cause interference.
- (2) This device must accept any interference, including interference that may cause undesired operation of the device.

L'appareil contient des émetteurs/récepteurs exempts de licence qui sont conformes aux CNR exempts de licence d'Innovation, Sciences et Développement économique Canada. L'exploitation est soumise aux deux conditions suivantes :

- (1) L'appareil ne doit pas produire de brouillage,
- (2) L'utilisateur de l'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

§15.21 Information to user

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

RF Exposure compliance statement

This Module complies with FCC 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 and your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

This equipment complies with IC RSS-102 radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

ce matériel est conforme aux limites de dose d'exposition aux rayonnements, CNR-102 énoncée dans un autre environnement. cette équipement devrait être installé et exploité avec distance minimale de 20 entre le radiateur et votre corps.

Labelling Instruction for Host Product Integrator

Please notice that if the FCC and IC identification number is not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. For FCC, this exterior label should follow “Contains FCC ID: **2A9F9HL3215SG**”. In accordance with FCC KDB guidance 784748 Labeling Guidelines. For IC, this exterior label can use wording “Contains IC: **29823-HL3215SG**”.

§ 15.19 Labelling requirements shall be complied on end user device.

Labelling rules for special device, please refer to §2.925, § 15.19 (a)(5) and relevant KDB publications. For E-label, please refer to §2.935.

Installation Notice to Host Product Manufacturer

The OEM integrator is responsible for ensuring that the end-user has no manual instruction to remove or install module.

The module is limited to installation in mobile application, a separate approval is required for all other operating configurations, including portable configurations with respect to §2.1093 and difference antenna configurations. The device has an integrated trace antenna, host manufacturer can not change antenna.

FCC other Parts, Part 15B Compliance Requirements for Host product manufacturer

This modular transmitter is only FCC authorized for the specific rule parts listed on our grant, host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by the modular transmitter grant of certification.

Host manufacturer in any case shall ensure host product which is installed and operating with the module is in compliant with Part 15B requirements.

Please note that For a Class B or Class A digital device or peripheral, the instructions furnished the user manual of the end-user product shall include statement set out in §15.105 *Information to the user* or such similar statement and place it in a prominent location in the text of host product manual. Original texts as following:

For Class B

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.*

For Class A

Note: This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

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