Hunan Fn Link Technology WIFI BT Module User Manual

Contents

HUNAN

Hunan Fn Link Technology WIFI BT Module

Federal Communications Commission (FCC) Declaration of Conformity

FCC Caution: Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. This device complies with Part 15 of the FCC Rules. (15.247) 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. This device and its antenna(s) must not be co-located
or operating in conjunction with any other antenna or transmitter.

15.105 Information to the user. (b) For a Class B digital device or peripheral, the instructions furnished the user shall include the following or similar statement, placed in a prominent location in the text of the manual:

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.

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

Radiation Exposure Statement: This equipment complies with FCC radiation expo-sure limits set forth for an uncontrolled environment. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter. The availability of some specific channels and/or operational frequency bands is country dependent and firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

The final end product must be labeled in a visible area with the following: "Contains Transmitter Module FCC ID: 2AATL-K255B-SR" This radio module must not be installed to co-locate and operating simultaneously with other

radios in host system, additional testing and equipment authorization may be required to operating simultaneously with other radio.
This Module have RF shielding and is tested and approved , additional evaluation may be required for any system integrated this radio module. FPC Antenna Type, with the maximum 2dBi indicated.

Integration Instructions for host product manufacturers

The following items are submitted in support of application for Modular Transmitter FCC ID as noted above as required by the FCC KDB 996369 D03 OEM Manual v01.
These items are provided as integration instructions for host product manufacturers (e.g., OEM instruction manual) to use when integrating a module in a host product.

Any requirements that are not applicable to the Module are as indicated below.

Summary of requirements and Checklist. Refer to the KDB for description of the complete requirements;

KDB Ref Sect	**Requirements of KDB 996369 D03**	**Explanation from Grantee**
2.2	**List of applicable FCC rules** List the FCC rules that are applicable to the modular transmitter. These are the rules that specifically establish the bands of operation, the power, spurious emissions, and operating fundamental frequencies. DO NOT list compliance to unintentional-radiator rules (Part 15 Subpart B) since that is not a condition of a module grant that is extended to a host manufacturer. See also Section 2.10 below concerning the need to notify host manufacturers that further testing is required.	This module meets the requirements of FCC Part 15C(15.247) & 15E(15.407) .

2.3	**Summarize the specific operational use conditions** Describe use conditions that are applicable to the modular transmitter, incl uding for example any limits on antennas, etc. For example, if po int-to-point antennas are used that require reduction in power or compensation for cable loss, then this information must be in the instructions. If the use condition limitations extend to professiona l users, then instructions must state that this information also ext ends to the host manufacturer's instruction manual. In addition, certain information may also be needed, such as peak gain per f requency band and minimum gain, specifically for master devices in 5 GHz DFS bands.	This Module have RF shielding and is tested and approved, ad ditional evaluation may be requi red for any system integrated th is radio module. FPC Antenna T ype, with the maximum 2dBi ind icated.
2.4	**Limited module procedures** If a modular transmitter is approved as a "limited module," then t he module manufacturer is responsible for approving the host en vironment that the limited module is used with. The manufacturer of a limited module must describe, both in the filing and in the ins tallation instructions, the alternative means that the limited module manufacturer uses to verify that the host meets the nece ssary requirements to satisfy the module limiting conditions. A limited module manufacturer has the flexibility to define its alte rnative method to address the conditions that limit the initial appr oval, such as: shielding, minimum signaling amplitude, buffered modulation/data inputs, or power supply	This module is a limited module. This module does not have an a ntenna, the use of FPC antenna is restricted, and the maximum antenna gain does not exceed 2 dBi

	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 modu le 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 a dditional 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.	

2.5	**Trace antenna designs** For a modular transmitter with trace antenna designs, see the g uidance in Question 11 of KDB Publication 996369 D02 FAQ – Modules for Micro-Strip Antennas and traces. The integration inf ormation shall include for the TCB review the integration instructi ons for the following aspects: layout of trace design, parts list (B OM), antenna, connectors, and isolation requirements. a) I ormation that includes permitted variances (e.g., trace boun dary limits, thickness, length, width, shape(s), dielectric constant, and impedance as applicable for each type of antenna); b) ch design shall be considered a different type (e.g., antenna length in multiple(s) of frequency, the wavelength, and antenna shape (traces in phase) can affect antenna gain and must be co nsidered); c) The parameters shall be provided in a manner permitting hos t manufacturers to design the printed circuit (PC) board layout; d) propriate parts by manufacturer and specifications; e) est procedures for design verification; and f) Production test procedures for ensuring compliance. The module grantee shall provide a notice that any deviation(s) f rom the defined parameters of the antenna trace, as described b y the instructions, require that the host product manufacturer mu st notify the module grantee that they wish to change the antenn a trace design. In this case, a Class II permissive change application is required to be filed by the grantee, or the host man ufacturer can take responsibility through the change in FCC ID (new application) procedure followed by a Class II permissive ch ange application.	This module does not use Trace antenna designs.

2.6	**RF exposure considerations** It is essential for module grantees to clearly and explicitly state t he RF exposure conditions that permit a host product manufactu rer to use the module. Two types of instructions are required for RF exposure information: (1) to the host	This equipment complies with F CC radiation exposure limits set forth for an uncontrolled environ ment. This equipment should be

	product manufacturer, to define the application conditions (mobil e, portable – xx cm from a person's body); and (2) additional text needed for the host product manufacturer to provide to end user s in their end-product manuals. If RF exposure statements and u se conditions are not provided, then the host product manufactur er is required to take responsibility of the module through a chan ge in FCC ID (new application).	installed and operated with mini mum distance 20 cm between t he radiator and your body.

2.7	**Antennas** A list of antennas included in the application for certification mus t be provided in the instructions. For modular transmitters approved as limited modules, all applicable professional installer instructions must be included as part of the information to the ho st product manufacturer. The antenna list shall also identify the a ntenna types (monopole, PIFA, dipole, etc. (note that for exampl e an “omni-directional antenna” is not considered to be a specific “antenna type”)). For situations where the host product manufact urer is responsible for an external connector, for example with a n RF pin and antenna trace design, the integration instructions s hall inform the installer that unique antenna connector must be u sed on the Part 15 authorized transmitters used in the host prod uct. The module manufacturers shall provide a list of acceptable unique connectors.	The module does not have an a ntenna, the following is the ante nna used for evaluation and test ing FPC Antenna Type, with the maximum 2dBi indicated.
2.8	**Label and compliance information** Grantees are responsible for the continued compliance of their modules to the FCC rules. This includes advising host product manufacturers that they need to provide a physical or e-label sta ting “Contains FCC ID” with their finished product. See Guideline s for Labeling and User Information for RF Devices – KDB Public ation 784748.	This module is integrated in the host and needs to be marked wi th “Contains FCC ID:2AATL-K25 5B-SR” in host’s label

2.9	**Information on test modes and additional testing requirements** Additional guidance for testing host products is given in KDB Publication 996369 D04 Module Integration Guide. Test modes should take into consideration different operational conditions for a stand-alone modular transmitter in a host, as well as for multiple simultaneously transmitting modules or other transmitters in a host product. The grantee should provide information on how to configure test modes for host product evaluation for different operational conditions for a stand-alone modular transmitter in a host, versus with multiple, simultaneously transmitting modules or other transmitters in a host. Grantees can increase the utility of their modular transmitters by providing special means, modes, or instructions that simulates or characterizes a connection by enabling a transmitter. This can greatly simplify a host manufacturer's determination that a module as installed in a host complies with FCC requirements.	The module should be installed on a specific type of mainframe to ensure that the mainframe can work at least 20cm away from the human body. If it is installed on the mainframe and the mainframe works less than 20cm away from the human body, an additional class II permissive change is required.
2.10	**Additional testing, Part 15 Subpart B disclaimer** The grantee should include a statement that the modular transmitter is only FCC authorized for the specific rule parts (i.e., FCC transmitter rules) listed on the grant, and that the host product manufacturer is responsible for compliance to any other FCC rules that apply to the host not covered by	The host manufacturer needs an additional Part 15 Subpart B compliance test .

the modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B co mpliant (when it also contains unintentional-radiator digital circuity), then the grantee shall provide a notice stati ng that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter ins talled.

CE Certification Information
EU Regulatory RED Declaration of Conformance
Hereby, we(HUNAN FN-LINK TECHNOLOGY LIMITED) declared that this device is in compliance with the essential requirements and other relevant provisions of the RE Directive 2014/53/EU.

DECLARATION OF CONFORMITY

I hereby declare that the product

WIFI+BT Module, K255B-SR
(Name of product, type or model, batch or serial number)
satisfies all the technical regulations applicable to the product within the scope of Council Directives 2014/53/EU, 2014/35/EU and 2014/30/EU: and declare that the same application
has not been lodged with any other notified body.

ETSI EN 301 489 -1 V2.2.3(2019-11)
ETSI EN 301 489 -3 V2.1.1(2019-03)
ETSI EN 301 489 -17 V3.2.4(2020-09)
ETSI EN 300 328 V2.2.2(2019-07)
ETSI EN 300 440 V2.1.1(2017-03)
ETSI EN 301 893 V2.1.1(2017-05)
IEC EN 62311:2020
EN 50663:2017
IEC 62368-1:2018 RLV
EN 62368-1:2020+A11:2020

(Title(s) of regulations, standards, etc.)
All essential radio test suites have been carried out.

NOTIFIED BODY: MiCOM Labs Inc
Address:
575 Boulder Court, Pleasanton, California 94566
USA
Identification Number: 2280

MANUFACTURER or AUTHORISED REPRESENTATIVE:

Address: HUNAN FN-LINK TECHNOLOGY LIMITED No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, CHINA

This declaration is issued under the sole responsibility of the manufacturer and, if applicable, his authorised representative.

Point of contact:
Name :Wayne Zou, telephone number: +86-13907493195
(Name, telephone and fax number)

Documents / Resources

	Hunan Fn Link Technology WIFI BT Module [pdf] User Manual K255B-SR, K255BSR, 2AATL-K255B-SR, 2AATLK255BSR, WIFI BT Module