



PRODUCTS SPECIFICATION

Version 1.0

HSF

IEEE 802.11a/b/g/n/ac/ax 2T/2R WiFi Routers

Model Number: WXP42R2101

(RTL8832BR,RTL8197H)

客户认可 Custom Approval Section		
Custom Name		
Department		
Approval		Date:

拟制 DESIGN	审核 CHECK	批准 APPROVAL
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1. General Description

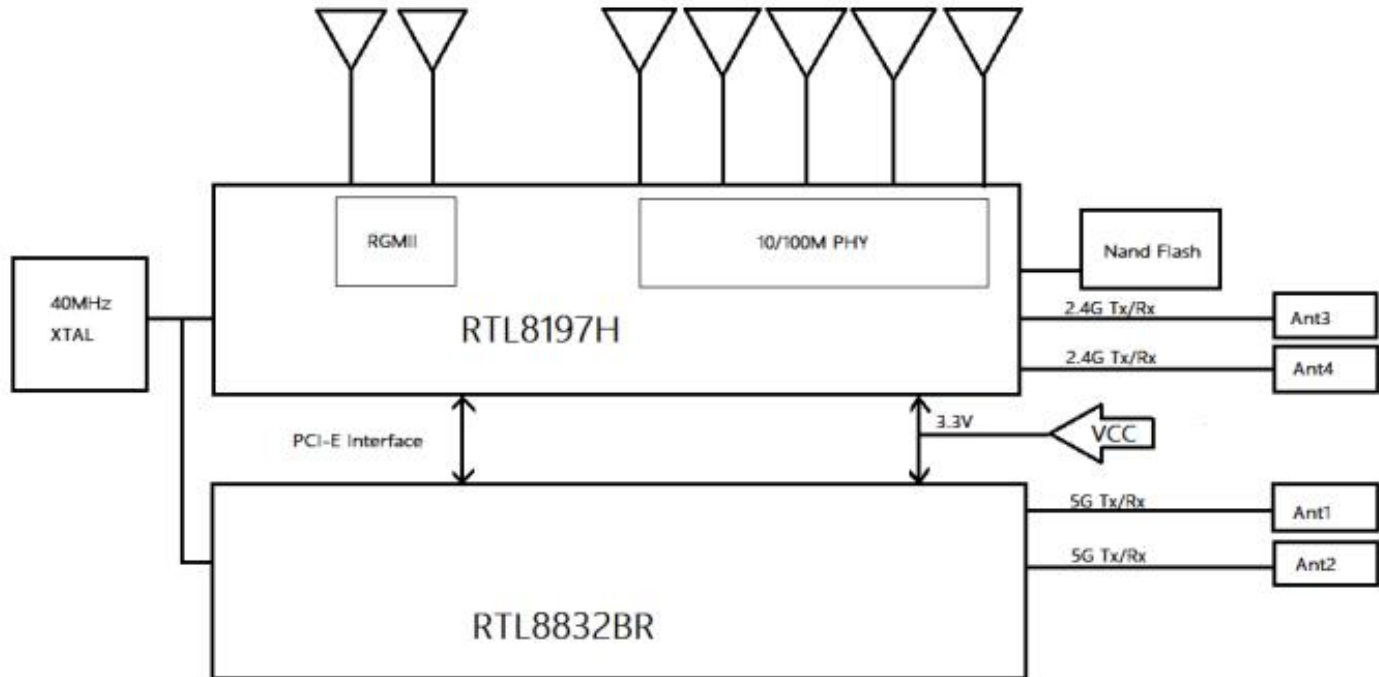
The main IC of the WXP42R2101 uses the RTL8832BR and RTL8197H to support 5G and 2.4G, respectively. It supports the Wi-Fi 6 protocol, complies with the IEEE 802.11ax standard, and supports 80M bandwidth. It has many advantages such as high bandwidth, high efficiency, large coverage, and rich user interface

2. Features

- Designed with RTL8832BR and RTL8197H, dual frequency and stable performance
- Compatible with IEEE 802.11a standard to provide wireless 54Mbps data rate
- Compatible with IEEE 802.11b standard to provide wireless 11Mbps data rate
- Compatible with IEEE 802.11g standard to provide wireless 54Mbps data rate
- Compatible with IEEE 802.11n standard to provide wireless 300Mbps data rate
- Compatible with IEEE 802.11ac standard to provide wireless 866Mbps data rate.
- Compatible with IEEE 802.11ax standard to provide wireless 1200Mbps data rate.
- Support 20/40MHz bandwidth in 2.4GHz and 20/40/80 in 5GHz band.
- Maximum support 1024QAM modulation, support LDPC, STBC;
- IEEE 802.11 d/e/h/i/k/m/r/v/w support.
- Security support for WPA/WPA2/WPA3 personal, WPS2.0, WAPI.
- HSF compliant.

3. Application Diagrams

3.1 Functional Block Diagram



3.2 General Requirements

3.2.1 IEEE 802.11b Section

	Feature	Detailed Description
3.2.1.1	Standard	IEEE 802.11b
3.2.1.2	Radio and Modulation Schemes	DQPSK , DBPSK and CCK with DSSS
3.2.1.3	Operating Frequency	2400 ~ 2483.5MHz ISM band
3.2.1.4	Channel Numbers	13 channels for Worldwide
3.2.1.5	Data Rate	at most 11Mbps
3.2.1.6	Media Access Protocol	CSMA/CA with ACK
3.2.1.7	Transmitter Output Power at Antenna Connector	- Typical RF Output Power at each RF chain, and at room Temp. 25°C 20±1.5dBm at 11Mbps
3.2.1.8	Sensitivity	- Typical Sensitivity at each RF chain. @Frame (1000-byte PDUs) Error Rate<8% at room Temp 25°C -85dBm for 11Mbps

3.2.2 IEEE 802.11g Section

	Feature	Detailed Description
3.2.2.1	Standard	IEEE 802.11g
3.2.2.2	Radio and Modulation Type	QPSK , BPSK , 16QAM ,64QAM with OFDM
3.2.2.3	Operating Frequency	2400 ~ 2483.5MHz ISM band
3.2.2.4	Channel Numbers	13 channels for Worldwide
3.2.2.5	Data Rate	at most 54Mbps
3.2.2.6	Media Access Protocol	CSMA/CA with ACK
3.2.2.7	Transmitter Output Power at Antenna Connector	- Typical RF Output Power at each RF chain, at room Temp. 25°C 17±1.5dBm at 54Mbps
3.2.2.8	Sensitivity	- Typical Sensitivity at each RF chain. @Frame (1000-byte PDUs) Error Rate<10% at room Temp 25°C -72dBm for 54Mbps

3.2.3 IEEE 802.11a Section

	Feature	Detailed Description
3.2.3.1	Standard	IEEE 802.11a
3.2.3.2	Radio and Modulation Type	QPSK , BPSK , 16QAM ,64QAM with OFDM
3.2.3.3	Operating Frequency	5.15~5.25GHz 5.25~5.35GHz 5.47~5.725GHz 5.725~5.850GHz
3.2.3.4	Data Rate	at most 54Mbps
3.2.3.5	Media Access Protocol	CSMA/CA with ACK
3.2.3.6	Transmitter Output Power at Antenna Connector	- Typical RF Output Power at each RF chain, at room Temp. 25°C 17±2dBm at 54Mbps
3.2.3.7	Receiver Sensitivity at Antenna Connector	- Typical Sensitivity at each RF chain. @Frame (1000-byte PDUs) Error Rate<10% at room Temp 25°C -72dBm for 54Mbps

3.2.4 IEEE 802.11n Section

		Detailed Description
3.2.4.1	Standard	IEEE 802.11n
3.2.4.2	Radio and Modulation Type	BPSK , QPSK , 16QAM ,64QAM with OFDM
3.2.4.3	Operating Frequency	2.4GHz :2400 ~ 2483.5MHz for ISM band 5GHz : 5.15~5.25GHz; 5.25~5.35GHz 5.47~5.725GHz; 5.725~5.850GHz
3.2.4.4	Data Rate	at most 150 Mbps
3.2.4.5	Media Access Protocol	CSMA/CA with ACK

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3.2.4.6	Transmitter Output Power at Antenna Connector	Typical RF Output Power at each RF chain, and at room Temp. 25°C	
		2.4GHz Band/HT20 16±1.5dBm at MCS7	2.4GHz Band/HT40 16±1.5dBm at MCS7
		5GHz Band/HT20 16±2dBm at MCS7	5GHz Band/HT40 16±2dBm at MCS7
3.2.4.7	Receiver Sensitivity at Antenna Connector	Typical Sensitivity at each RF chain. @ Frame (1000-byte PDUs) Error Rate=10% and at room Temp. 25°C	
		2.4GHz Band/HT20 -68dBm at MCS7	2.4GHz Band/HT40 -65dBm at MCS7
		5GHz Band/HT20 -68dBm at MCS7	5GHz Band/HT40 -65dBm at MCS7

3.2.5 IEEE 802.11ac Section

	Feature	Detailed Description	
3.2.5.1	Standard	IEEE 802.11ac	
3.2.5.2	Radio and Modulation Type	QPSK , BPSK , 16QAM ,64QAM,256QAM with OFDM	
3.2.5.3	Operating Frequency	2.4GHz :2400 ~ 2483.5MHz for ISM band 5GHz : 5.15~5.25GHz; 5.25~5.35GHz 5.47~5.725GHz; 5.725~5.850GHz	
3.2.5.4	Data Rate	at most 433 Mbps	
3.2.5.5	Media Access Protocol	CSMA/CA with ACK	
3.2.5.6	Transmitter Output Power at Antenna Connector	Typical RF Output Power at each RF chain, at room Temp. 25°C	
		5GHz Band / VHT20 15±2dBm at MCS8	5GHz Band / VHT40 15±2dBm at MCS9
		5GHz Band / VHT80 15±2dBm at MCS9	
3.2.5.7	Receiver Sensitivity at Antenna Connector	Typical Sensitivity at each RF chain. @Frame(1000-byte PDUs)Error Rate<10% at room Temp 25°C	
		5GHz Band / VHT20 -64dBm at MCS8	5GHz Band / VHT40 -58dBm at MCS9
		5GHz Band / VHT80 -55dBm at MCS9	

3.2.6 IEEE 802.11ax Section

	Feature	Detailed Description	
3.2.6.1	Standard	IEEE 802.11ax	
3.2.6.2	Radio and Modulation Type	QPSK , BPSK , 16QAM ,64QAM,256QAM,1024QAM with OFDM	
3.2.6.3	Operating Frequency	2.4GHz: 2400 ~ 2483.5MHz ISM band 5GHz : 5.15~5.25GHz; 5.25~5.35GHz; 5.47~5.725GHz; 5.725~5.850GHz;	



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3.2.6.4	Data Rate	• at most 600 Mbps	
3.2.6.5	Media Access Protocol	• CSMA/CA with ACK	
3.2.6.6	Transmitter Output Power at Antenna Connector	• Typical RF Output Power at each RF chain, at room Temp. 25°C	
		5GHz Band / HE20 • 14±2dBm at MCS11	5GHz Band / HE40 • 14±2dBm at MCS11
		5GHz Band / HE80 • 14±2dBm at MCS11	
3.2.6.7	Receiver Sensitivity at Antenna Connector	Typical Sensitivity at each RF chain. @Frame(1000-byte PDUs)Error Rate<10% at room Temp 25°C	
		5GHz Band / HE20 • -57dBm at MCS11	5GHz Band / HE40 • -55dBm at MCS11
		5GHz Band / HE80 • -53dBm at MCS11	

4. Electrical and Thermal Characteristics

4.1 General Section

	Feature	Detailed Description
4.1.1	Antenna Type	• IPEX
4.1.2	Operating Voltage	• 3.3V±5%
4.1.3	Interface	• USB2.0, Uart, RGMII, 10/100MPHY

4.2 Environment Requirements:

Parameter	Minimum	Typical	Maximum	Units
Storage Temperature	-40	-	+70	°C
Ambient Operating Temperature	0	25	45	°C
Junction Temperature	0	-	125	°C

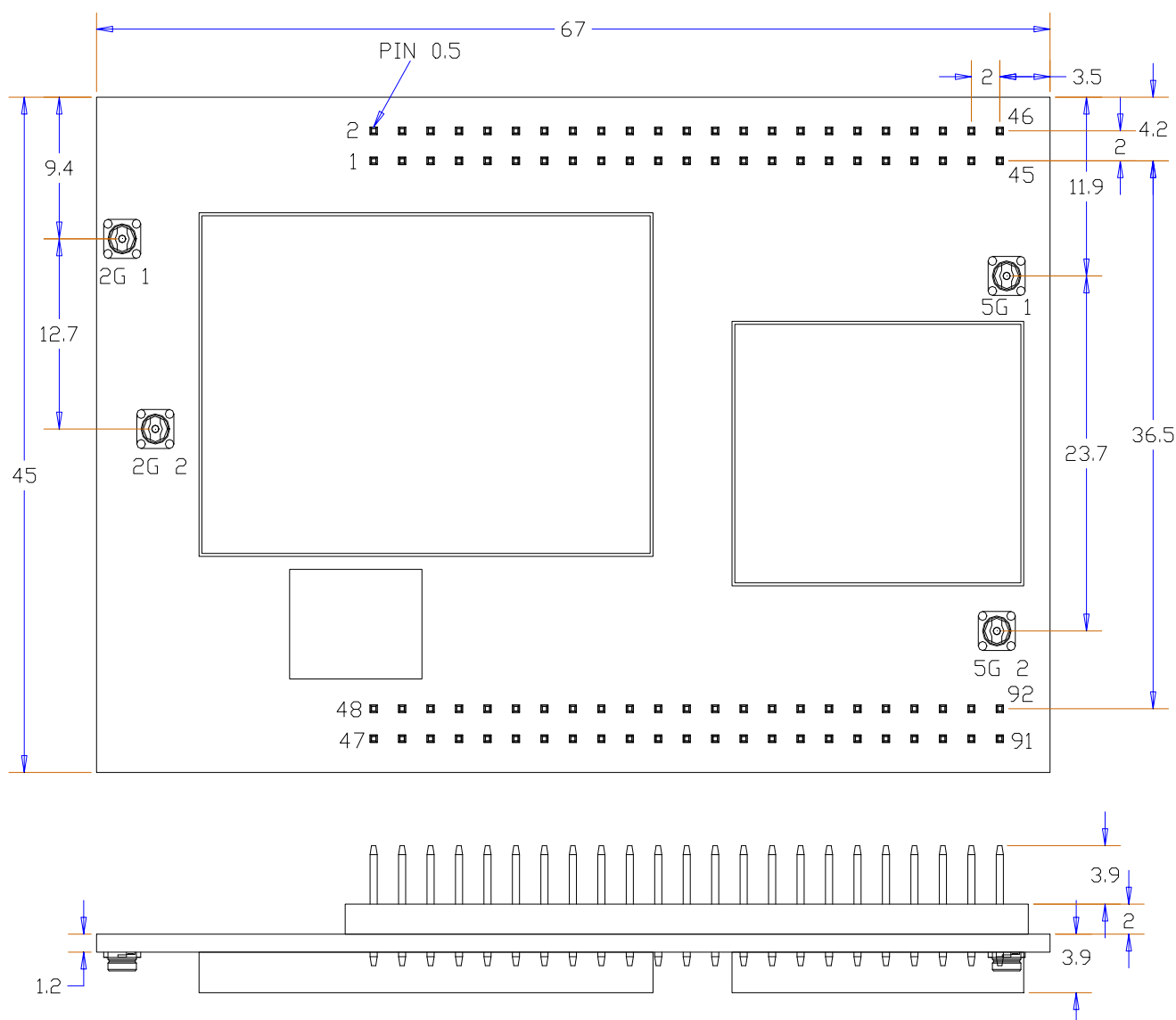
4.3 Mechanical Requirements

	Feature	Detailed Description
4.3.1	Length	• 67mm
4.3.2	Width	• 45mm
4.3.3	Height	• 11mm
4.3.4	Weight	• 17.3g

4.4 Recommended operating voltage

	Min.	Typ.	Max.	Unit
VCCIN	3.135	3.3	3.465	V

4.5 Mechanical Dimensions(unit:mm)



尺寸误差范围:

DIM(MM)	Tolerance(MM)
0-5	±0.15
5-10	±0.20
10-50	±0.30

4.6 Pin Definitions

Pin	Symbol	Description	Pin	Symbol	Description
1	P0_RXD2_E	RGMII signal	47	NC	NC
2	P0_RXD3_E	RGMII signal	48	NC	NC
3	P0_RXD0_E	RGMII signal	49	NC	NC
4	P0_RXD1_E	RGMII signal	50	NC	NC



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5	P0_RXC_E	RGMII signal	51	GND	GND
6	P0_RXCTL_E	RGMII signal	52	GND	GND
7	GND	GND	53	SCK	SCK signal
8	GND	GND	54	DEFAULT	HW reset signal(internal pulled high by 3.3V)
9	P0_TXCTL	RGMII signal	55	UART0_RX	debug UART0 input signal
10	P0_RGTXC	RGMII signal	56	UART0_TX	debug UART0 output signal
11	P0_TXD1	RGMII signal	57	GND	GND
12	P0_TXD0	RGMII signal	58	GND	GND
13	P0_TXD3	RGMII signal	59	SYSTEM_LED	SYSTEM LED signal
14	P0_TXD2	RGMII signal	60	SDA	SDA signal
15	GND	GND	61	GND	GND
16	GND	GND	62	PHYRSTB	PHYRSTB
17	RXIP_P4_E	10/100M PHY signal	63	GND	GND
18	RXIN_P4_E	10/100M PHY signal	64	GND	GND
19	TXON_P4_E	10/100M PHY signal	65	USBDP_1	HOST USB2.0 signal line
20	TXOP_P4_E	10/100M PHY signal	66	USBDN_1	HOST USB2.0 signal line
21	GND	GND	67	GND	GND
22	GND	GND	68	GND	GND
23	RXIP_P3_E	10/100M PHY signal	69	GND	GND
24	RXIN_P3_E	10/100M PHY signal	70	GND	GND
25	TXOP_P3_E	10/100M PHY signal	71	VDD33	3.3V main power supply
26	TXON_P3_E	10/100M PHY signal	72	VDD33	3.3V main power supply
27	GND	GND	73	VDD33	3.3V main power supply
28	GND	GND	74	VDD33	3.3V main power supply
29	RXIP_P2_E	10/100M PHY signal	75	GND	GND
30	RXIN_P2_E	10/100M PHY signal	76	GND	GND
31	TXOP_P2_E	10/100M PHY signal	77	GND	GND
32	TXON_P2_E	10/100M PHY signal	78	GND	GND
33	GND	GND	79	GND	GND
34	GND	GND	80	GND	GND
35	RXIP_P1_E	10/100M PHY signal	81	GND	GND
36	RXIN_P1_E	10/100M PHY signal	82	GND	GND
37	TXOP_P1_E	10/100M PHY signal	83	GND	GND
38	TXON_P1_E	10/100M PHY signal	84	GND	GND
39	GND	GND	85	GND	GND
40	GND	GND	86	GND	GND
41	RXIP_P0_E	10/100M PHY signal	87	GND	GND
42	RXIN_P0_E	10/100M PHY signal	88	GND	GND
43	TXOP_P0_E	10/100M PHY signal	89	GND	GND
44	TXON_P0_E	10/100M PHY signal	90	GND	GND
45	GND	GND	91	GND	GND
46	GND	GND	92	GND	GND



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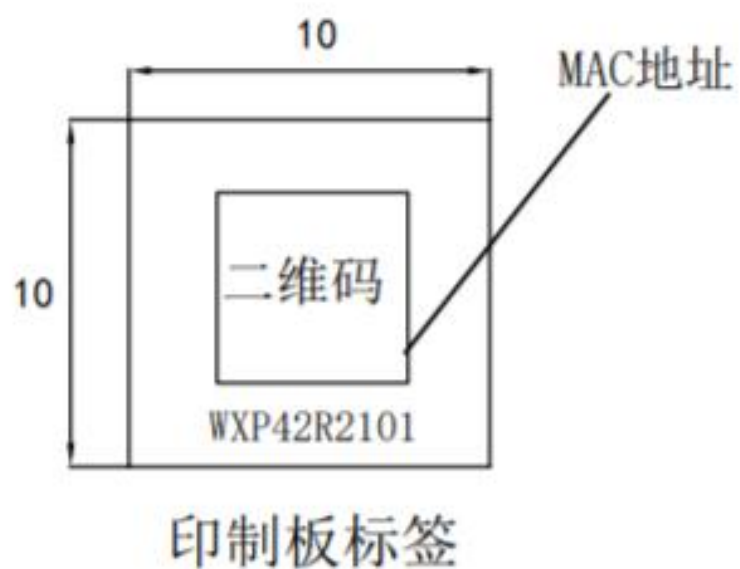
Appendix 1 : Important material information

	名称	厂家	使用状态
1	集成电路	瑞昱	在用
2	印制板	国频/宝信/富智祥/凌航达	在用
3	贴片电容	村田/华新科/太诱	在用
4	贴片电感	村田/华新科/风华	在用
5	贴片电阻	国巨, 大毅, 华新科, 旺詮	在用
6	功率电感	奇力新、佳邦、风华	在用
7	贴片晶振	长兴/晶宝时频/晶威特/东晶	在用
8	贴片滤波器	华新科/佳利/ACX	在用
9	DC-DC	RYCHIP, TMI, Fitipower	在用
10	贴片磁珠	顺络	在用
11	贴片LED	比优光电	在用
12	Flash	华邦	在用
13	排针	红都/新富尔	在用

Appendix 2 : Module picture



Appendix 3 : Label figure



Requirement per KDB996369 D03

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.³

Explanation: This module meets the requirements of FCC part 15C(15.247).

2.3 Summarize the specific operational use conditions

Describe use conditions that are applicable to the modular transmitter, including for example any limits on antennas, etc. For example, if point-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 professional users, then instructions must state that this information also extends to the host manufacturer's instruction manual. In addition, certain information may also be needed, such as peak gain per frequency band and minimum gain, specifically for master devices in 5 GHz DFS bands.

Explanation: The EUT has a Dipole Antenna, The antenna is the unique connector with a wire antenna.

2.4 Limited module procedures

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 signaling 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.

Explanation: The module is not a limited module.

2.5 Trace antenna designs

For a modular transmitter with trace antenna designs, see the guidance in Question 11 of KDB Publication 996369 D02 FAQ – Modules for Micro-Strip Antennas and traces. The integration information shall include for the TCB review the integration instructions for the following aspects:

layout of trace design, parts list (BOM), antenna, connectors, and isolation requirements.

- a) Information that includes permitted variances (e.g., trace boundary limits, thickness, length, width, shape(s), dielectric constant, and impedance as applicable for each type of antenna);
- b) Each 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 considered);
- c) The parameters shall be provided in a manner permitting host manufacturers to design the printed circuit (PC) board layout;
- d) Appropriate parts by manufacturer and specifications;
- e) Test procedures for design verification; and
- f) Production test procedures for ensuring compliance.

The module grantee shall provide a notice that any deviation(s) from the defined parameters of the antenna trace, as described by the instructions, require that the host product manufacturer must notify the module grantee that they wish to change the antenna trace design. In this case, a Class II permissive change application is required to be filed by the grantee, or the host manufacturer can take responsibility through the change in FCC ID (new application) procedure followed by a Class II permissive change application.

Explanation: The antenna of this product is not a printed antenna, It's an Dipole Antenna

2.6 RF exposure considerations

It is essential for module grantees to clearly and explicitly state the RF exposure conditions that permit a host product manufacturer to use the module. Two types of instructions are required for RF exposure information: (1) to the host product manufacturer, to define the application conditions (mobile, portable – xx cm from a person's body); and (2) additional text needed for the host product manufacturer to provide to end users in their end-product manuals. If RF exposure statements and use conditions are not provided, then the host product manufacturer is required to take responsibility of the module through a change in FCC ID (new application).

Explanation: This module complies with FCC RF radiation exposure limits set forth for an uncontrolled environment, This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body." This module is designed to comply with the FCC statement, FCC ID is:

2BN5S-2503K

2.7 Antennas

A list of antennas included in the application for certification must 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 host product manufacturer. The antenna list shall also identify the antenna types (monopole, PIFA, dipole, etc. (note that for example an “omni-directional antenna” is not considered to be a specific “antenna type”)).

For situations where the host product manufacturer is responsible for an external connector, for example with an RF pin and antenna trace design, the integration instructions shall inform the installer that unique antenna connector must be used on the Part 15 authorized transmitters used in the host product. The module manufacturers shall provide a list of acceptable unique connectors.

Explanation: The EUT has an Dipole Antenna and uses a unique antenna connector

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 stating “Contains FCC ID” with their finished product. See Guidelines for Labeling and User Information for RF Devices – KDB Publication 784748.

Explanation: The host system using this module, should have label in a visible area indicated the following texts: “Contains FCC ID: 2BN5S-2503K”

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.

Explanation: Top band can increase the utility of our modular transmitters by providing instructions that simulates or characterizes a connection by enabling a transmitter.

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 modular transmitter grant of certification. If the grantee markets their product as being Part 15 Subpart B compliant (when it also contains unintentional-radiator digital circuitry), then the grantee shall provide a notice stating that the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed.

Explanation: The module without unintentional-radiator digital circuitry, so the module does not require an evaluation by FCC Part 15 Subpart B. The host should be evaluated by the FCC Subpart B.

FCC 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.

Warning: 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.

FCC Radiation Exposure Statement:

This equipment complies with FCC 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.

The OEM must certify the final end product to comply with unintentional radiators (FCC Sections 15.107 and 15.109) before declaring compliance of the final product to Part 15 of the FCC rules and regulations. Integration into devices that are directly or indirectly connected to AC lines must add with Class II Permissive Change.

The OEM must comply with the FCC labeling requirements. If the module's label is not visible when installed, then an additional permanent label must be applied on the outside of the finished product which states: "Contains transmitter module FCC ID: 2BN5S-2503M". Additionally, the following statement should be included on the label and in the final product's user manual:

"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 interferences, and
- (2) this device must accept any interference received, including interference that may cause undesired operation."

The module is limited to installation in mobile or fixed applications. Separate approval is required for all other operating configurations, including portable configuration with respect to Part 2.1093 and different antenna configurations.

A module or modules can only be used without additional authorizations if they have been tested and granted under the same intended end - use operational conditions, including simultaneous transmission operations.

When they have not been tested and granted in this manner, additional testing and/or FCC application filing may be required. The most straightforward approach to address additional testing conditions is to have the grantee responsible for the certification of at least one of the modules submit a permissive change application.

When having a module grantee file a permissive change is not practical or feasible, the following guidance provides some additional options for host manufacturers. Integrations using modules where additional testing and/or FCC application filing(s) may be required are: (A) a module used in devices requiring additional RF exposure compliance information (e.g., MPE evaluation or SAR testing); (B) limited and/or split modules not meeting all of the module requirements; and (C) simultaneous transmissions for independent collocated transmitters not previously granted together.

This Module is full modular approval, it is limited to OEM installation ONLY.

Integration into devices that are directly or indirectly connected to AC lines must add with Class II Permissive Change. (OEM) Integrator has to assure compliance of the entire end product include the integrated Module. Additional measurements (15B) and/or equipment authorizations (e.g. Verification) may need to be addressed depending on co-location or simultaneous transmission issues if applicable. (OEM) Integrator is reminded to assure that these installation instructions will not be made available to the end user

IC labeling requirement for the final end product:

The final end product must be labeled in a visible area with the following “Contains IC: 33667-2503K”

The Host Marketing Name (HMN) must be indicated at any location on the exterior of the host product or product packaging or product literature, which shall be available with the host product or online.

This radio transmitter [IC:33667-2503K] has been approved by Innovation, Science and Economic Development Canada to operate with the antenna types listed below, with the maximum permissible gain indicated. Antenna types not included in this list that have a gain greater than the maximum gain indicated for any type listed are strictly prohibited for use with this device.

Frequency range	Manufacturer	Peak gain	Impedance	Antenna type
2402~2480MHz	Dongguan RF Electronic Technology Co., Ltd	3.95dbi	50 Ω	Dipole Antenna
2412~2462MHz	Dongguan RF Electronic Technology Co., Ltd	3.95dbi	50 Ω	Dipole Antenna
5150-5250MHz	Dongguan RF Electronic Technology Co., Ltd	3.46dbi	50 Ω	Dipole Antenna
5250-5350MHz	Dongguan RF Electronic Technology Co., Ltd	3.46dbi	50 Ω	Dipole Antenna
5470-5725MHz	Dongguan RF Electronic Technology Co., Ltd	4.27dbi	50 Ω	Dipole Antenna
5725-5850 MHz	Dongguan RF Electronic Technology Co., Ltd	3.93dbi	50 Ω	Dipole Antenna

This device complies with CAN ICES-3 (B)/NMB-3(B)

This device complies with Industry Canada licence-exempt RSS standard(s). Operation is subject to the following two conditions:

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

Cet appareil est conforme à la norme CAN ICES-3 (B)/NMB-3 (B)

Le présent appareil est conforme aux CNR d'Industrie Canada applicables aux appareils radio exempts de licence. L'exploitation est autorisée aux deux conditions suivantes:

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