

E-LINTER Loquat md Wi-Fi+ BLE Communication Module ECM6-00&ECM8-00&ECM8-04 Datasheet

V251022-R



Revision History

Date	Author	Version	Description
2025/10/22	zhuqij	V251022R	Initial Version



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1. Introduction

The Loquat-MD is an industrial-grade embedded Wi-Fi + BLE communication module developed and designed by E-LINTER. This module supports the standard IEEE 802.11 b/g/n protocols, allowing users to easily achieve UART to Wi-Fi and Bluetooth data transmission, thereby adding Wi-Fi and Bluetooth capabilities to existing devices.

The module supports Wi-Fi mesh networking, enabling it to form a mesh network with other products from the company that also feature Wi-Fi mesh functionality. This helps expand the coverage of the Wi-Fi network and eliminate dead zones.

The Bluetooth communication of the module can assist users in easily configuring the Wi-Fi network and performing local device maintenance, such as local parameter settings and local firmware upgrades. Additionally, Bluetooth communication SDKs for Android and iOS are available, allowing users to conveniently implement Bluetooth communication in their own applications.



2. Features

- Support standard IEEE 802.11 b/g/n protocols
- Support BLE 5.0
- Supports Wi-Fi mesh networkingⁱ
- Supports multiple encryption methods: WPA, WPA2
- Supports E-Touch functionality (including for Android and iOS devices) and provides an SDK
- Receive/Transmit double buffering
- Support remote upgrades
- Wide operating temperature range: -40°C ~ 85°C

3. Order Information

Table 3-1 Order Information

产品料号	描述
ECM6-0019-1000-00	Wi-Fi + BLE, On-board PCB antenna, e-linter IoT, -40°C ~ +85°C
ECM6-0019-T000-00	Wi-Fi + BLE, On-board PCB antenna, TCP Transparent Transmission, -40°C ~ +85°C
ECM6-0019-T001-00	Wi-Fi + BLE, On-board PCB antenna, MQTT Transparent Transmission, -40°C ~ +85°C
ECM8-0019-1000-00	Wi-Fi + BLE, IPEX 3rd generation connector, e-linter IoT, -40°C ~ +85°C
ECM8-0019-T000-00	Wi-Fi + BLE, IPEX 3rd generation connector, Transparent Transmission, -40°C ~ +85°C
ECM8-0019-T001-00	Wi-Fi + BLE, IPEX 3rd generation connector, MQTT Transparent Transmission, -40°C ~ +85°C
ECM8-0419-1000-00	Wi-Fi + BLE, IPEX 3rd generation connector, e-linter IoT, -40°C ~ +105°C
ECM8-0419-T000-00	Wi-Fi + BLE, IPEX 3rd generation connector, TCP Transparent Transmission, -40°C ~ +105°C
ECM8-0419-T001-00	Wi-Fi + BLE, IPEX 3rd generation connector, MQTT Transparent Transmission, -40°C ~ +105°C
ECM6-001A-1000-00	Wi-Fi mesh + BLE, On-board PCB antenna, e-linter IoT, -40°C ~ +85°C
ECM6-001A-T000-00	Wi-Fi mesh + BLE, On-board PCB antenna, TCP Transparent Transmission, -40°C ~ +85°C
ECM6-001A-T001-00	Wi-Fi mesh + BLE, On-board PCB antenna, MQTT Transparent Transmission, -40°C ~ +85°C
ECM8-001A-1000-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, e-linter IoT, -40°C ~ +85°C
ECM8-001A-T000-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, TCP Transparent Transmission, -40°C ~ +85°C
ECM8-001A-T001-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, MQTT Transparent Transmission, -40°C ~ +85°C
ECM8-041A-1000-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, e-linter IoT, -40°C ~ +105°C
ECM8-041A-T000-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, TCP Transparent Transmission, -40°C ~ +105°C
ECM8-041A-T001-00	Wi-Fi mesh + BLE, IPEX 3rd generation connector, MQTT Transparent Transmission, -40°C ~ +105°C

Note: The product model corresponds to the first 6 digits of the product part number.

4. Coding Rules

4.1. Part Number Coding Rules

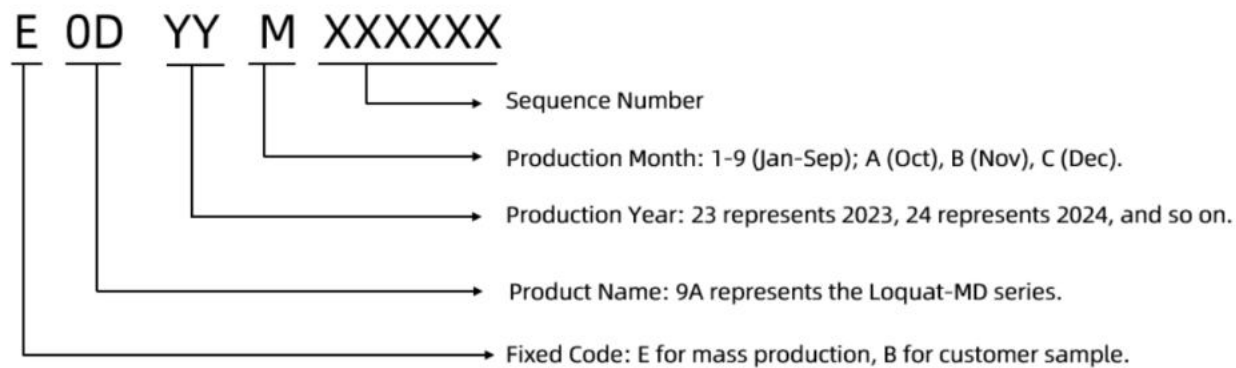


Figure 4-1 Part Number Coding Rules

5. Pin and Size

5.1. Pin Layout

The pin layout of the Loquat-MD communication module is shown in the figure below. The diagram illustrates the position of the pins on the module. The Keepout Zone area is reserved for the PCB antenna, and the specific antenna model is not specified.

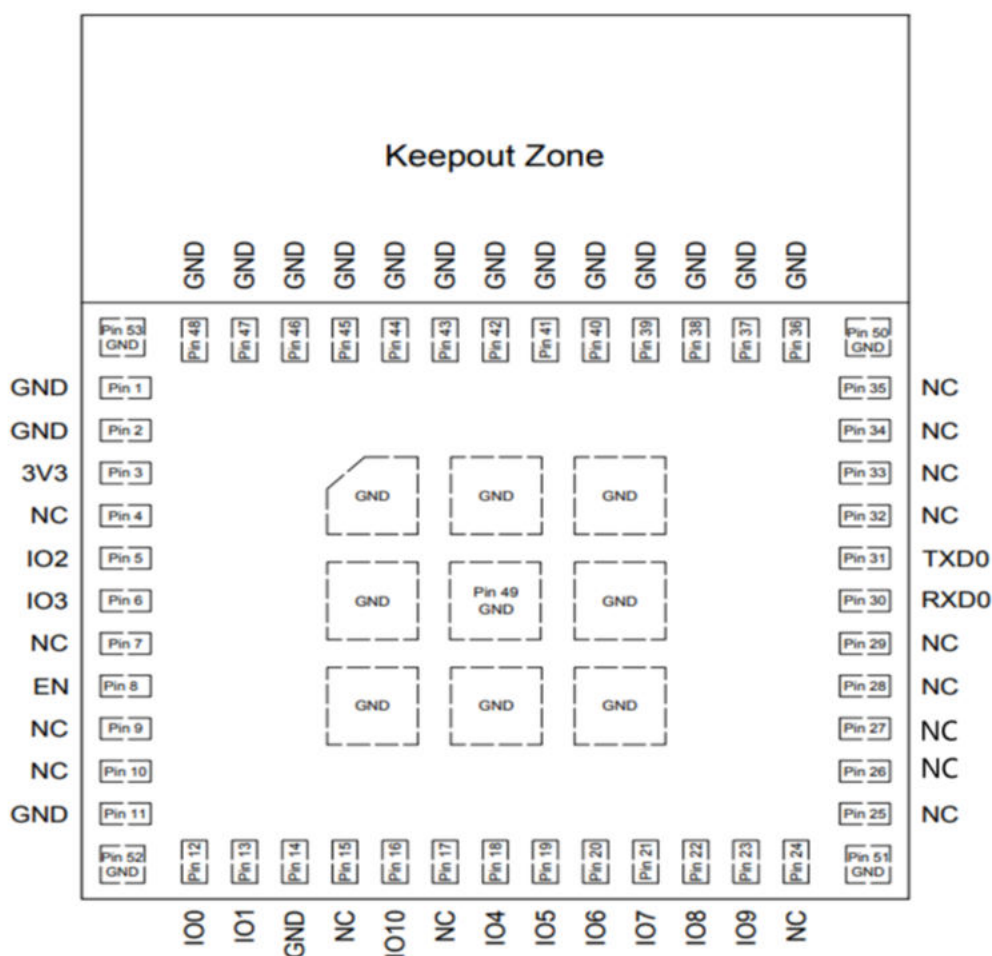


Figure 5-Pin Layout (Top View)

5.2. Pin Definitions

The pin information for the Loquat md communication module is as follows:

Table 5-1 Pin Definitions

Name	No.	Function
3V3	3	Power Supply



EN	8	High level: Enables the chip; Low level: Turns off the chip. Note: Do not leave the EN pin floating.
IO5	19	External Communication UART TX
IO6	20	External Communication UART RX
IO7	21	LED Indicator Pin
IO8	22	4.7K pull-up resistor
IO9	23	Boot Pin: Default high level
GND	1, 2, 11, 14, 36-53	Ground
IO10	16	Pull-down to Ground
IO3	6	LED Indicator Pin(Device Communication): The device communication indicator remains on during normal operation and blinks during communication. The high level activates the indicator.
IO7	21	LED Indicator Pin (Cloud Communication): The cloud communication indicator remains on during normal operation and blinks during communication. The high level activates the indicator.
RXD0	30	Debug UART TX (Used for debugging or wireless certification testing)
TXD0	31	Debug UART RX (Used for debugging or wireless certification testing)

5.3. Mechanical Dimensions

The dimension parameters for the Loquat md are shown in Figure 5-3-1 and Figure 5-3-2, with units in millimeters (mm).

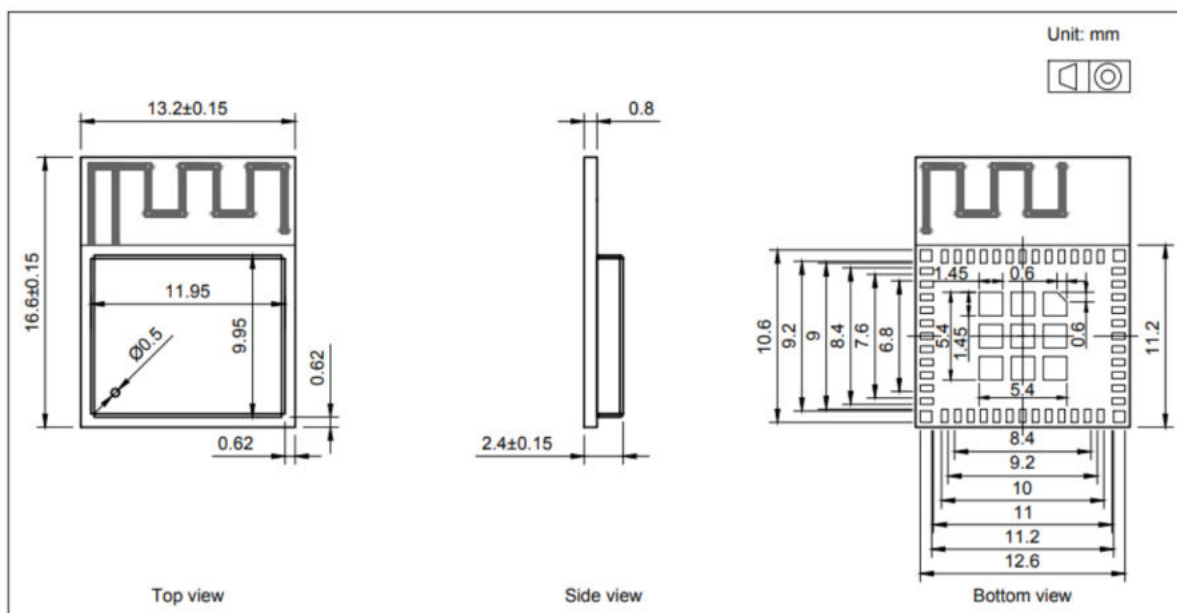


Figure 5-3-1 Dimension Information (Units: mm)

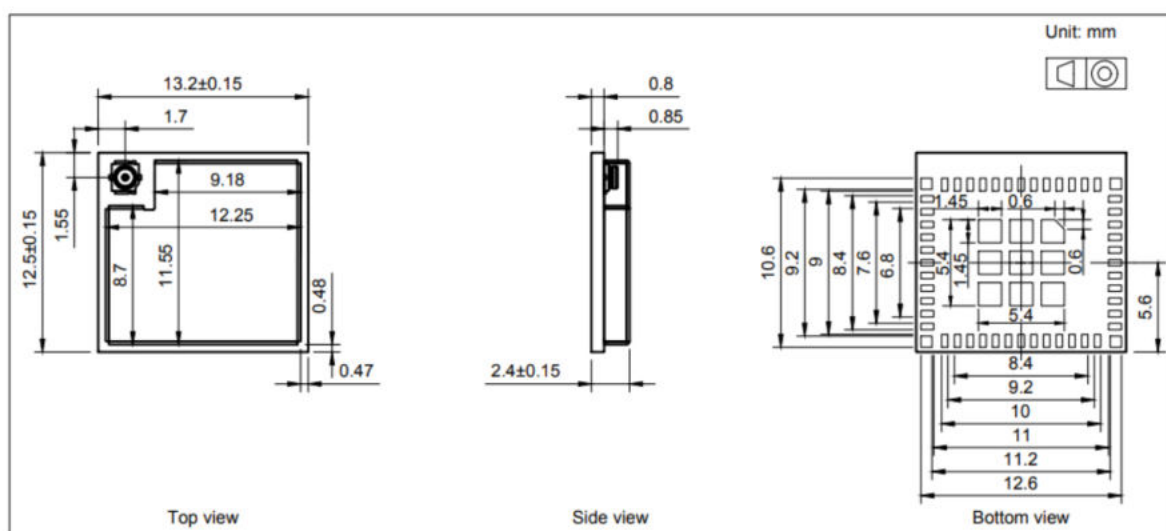


Figure 5-3-2 Dimension Information (Units: mm)

5.4. Antenna Interface

The module uses a third-generation IPEX antenna connector. The dimension information is provided below. When selecting an antenna extension cable, ensure compatibility with the antenna connector.

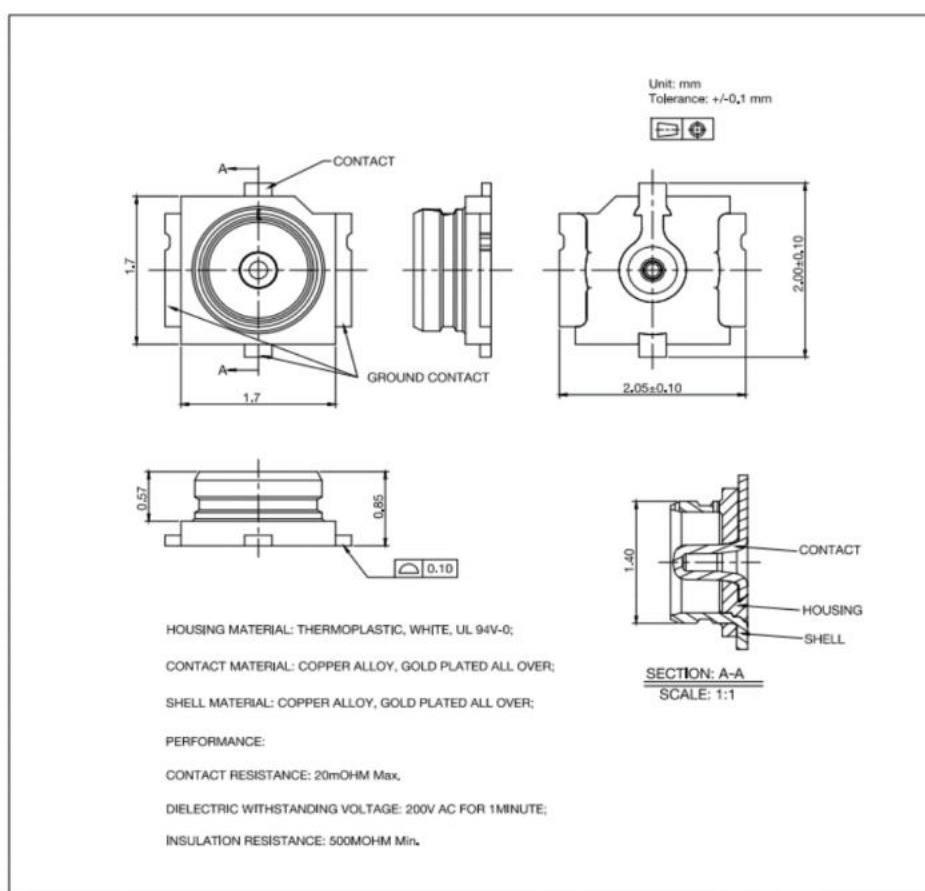


Figure 5-4 Antenna Interface (Units: mm)

6. Electrical Characteristics

6.1. Absolute Maximum Ratings

Note: Exceeding the absolute maximum ratings may cause permanent damage to the module. Prolonged exposure to these maximum limits may affect the module's reliability.

Table 6-1 Absolute Maximum Ratings

Symbol	Parameter	Min	Max	Units
VDD33	Power Pin Voltage	-0.3	3.6	V
T _{STORE}	Storage Temperature	-45	105	°C

6.2. Recommended Operating Conditions

To ensure optimal performance, operate the product under the following recommended conditions:

Table 6-2 Recommended Operating Conditions

Symbol	Parameter	Min	Max	Units
VDD33	Power Pin Voltage	3.0	3.6	V
I _{VDD}	External Power Supply Current	0.5	—	A
T _A	Ambient Temperature	-40	85	°C
Humidity	Humidity	—	85	%RH

6.3. DC Electrical Characteristics

Table 6-3 DC Electrical Characteristics (3.3 V, 25 °C)

Symbol	Parameter	Min	Max	Units
C _{IN}	Pin Capacitance	—	—	pF
V _{IH}	High-Level Input Voltage	$0.75 \times VDD^1$	$VDD + 0.3$	V
V _{IL}	Low-Level Input Voltage	-0.3	$0.25 \times VDD$	V
I _{IH}	High-Level Input Current	—	50	nA
I _{IL}	Low-Level Input Current	—	50	nA
V _{OH} ²	High-Level Output Voltage	$0.8 \times VDD$	—	V
V _{OL} ³	Low-Level Output Voltage	—	$0.1 \times VDD$	V
I _{OH}	High-Level Sourcing Current (VDD1 = 3.3 V, V _{OH} ≥ 2.64 V, PAD_DRIVER = 3)	—	—	mA

1 VDD is the I/O power supply

2 V_{OH} is measured under high-impedance load conditions

3 V_{OL} is measured under high-impedance load conditions

I_{OL}	Low-Level Sinking Current ($V_{DD1} = 3.3\text{ V}$, $V_{OL} = 0.495\text{ V}$, $PAD_DRIVER = 3$)	–	–	mA
R_{PU}	Pull-up Resistance	–	–	k Ω
R_{PD}	Pull-down Resistance	–	–	k Ω
V_{IH_nRST}	Chip Reset Release Voltage	$0.75 \times V_{DD}$	$V_{DD} + 0.3$	V
V_{IL_nRST}	Chip Reset Voltage	-0.3	$0.25 \times V_{DD}$	V

6.4. Timing Requirements

After the module is powered on, the power supply requires a brief stabilization period. Then the EN pin must be pulled high to activate the module. For details on the EN, power-on, and enable timing, refer to Figure 6-4 and Table 6-4:

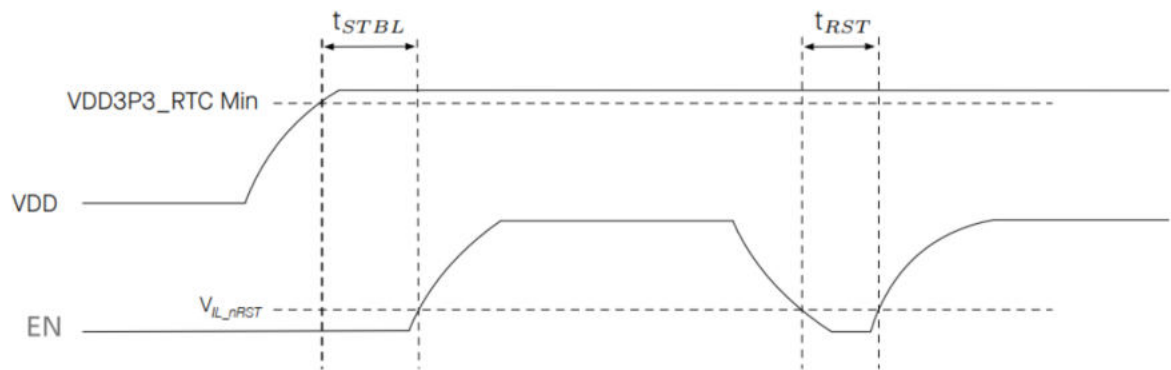


Figure 6-4 Power-On and Reset Timing Parameter Diagram

Table 6-4 Power-On and Reset Timing Parameter Description

Parameter	Description	Minimum Value (μ s)
t_{STBLI}	Time required for the 3.3V system power to stabilize before pulling EN pin high to activate the module	50
t_{RST}	Time duration for which EN stays below V_{IL_Nrst} to reset the module (refer to Table 6-3 for specific value)	50



6.5. Wi-Fi Characteristics

Table 6-5-1 Wi-Fi RF Specification

Parameter	Condition	Unit
Frequency range	--	2412 - 2484 MHz
Wi-Fi protocol	--	IEEE 802.11 b/g/n
Data rate	20 MHz	11b: 1, 2, 5.5 and 11 Mbps 11g: 6, 9, 12, 18, 24, 36, 48, 54 Mbps 11n: MCS0 - 7, 72.2Mbps(Max)
	40 MHz	11n: MCS0 - 7, 150Mbps(Max)
Antenna	--	Build-in antenna

Table 7-2-2 Wi-Fi Transmitter Characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Transmit power	802.11b, 1Mbps	--	21.0	--	dBm
	802.11b, 11Mbps	--	21.0	--	dBm
	802.11g, 6Mbps	--	21.0	--	dBm
	802.11g, 54Mbps	--	19.0	--	dBm
	802.11n, HT20, MCS0	--	20.0	--	dBm
	802.11n, HT20, MCS7	--	18.5	--	dBm
	802.11n, HT40, MCS0	--	20.0	--	dBm
	802.11n, HT40, MCS7	--	18.5	--	dBm

Table 7-2-3 Wi-Fi receiver characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Receive sensitivity	802.11b, 1Mbps	--	-98.4	--	dBm
	802.11b, 11 Mbps	--	-88.6	--	dBm
	802.11g, 6 Mbps	--	-93.8	--	dBm
	802.11g, 54 Mbps	--	-76.6	--	dBm
	802.11n, HT20, MCS0	--	-93.6	--	dBm
	802.11n, HT20, MCS7	--	-74.8	--	dBm
	802.11n, HT40, MCS0	--	-90.0	--	dBm
	802.11n, HT40, MCS7	--	-71.4	--	dBm



6.6. BLE characteristics

Table 6-6-1 BLE receiver characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
Sensitivity	@30.8% PER 1M	--	-96	--	dBm
	@30.8% PER 2M	--	-93	--	dBm
	@30.8% PER 125K	--	-104	--	dBm
	@30.8% PER 500K	--	-99	--	dBm
Maximum received signal	@30.8% PER 1M	--	10	--	dBm
	@30.8% PER 2M	--	0	--	dBm
	@30.8% PER 125K	--	10	--	dBm
	@30.8% PER 500K	--	10	--	dBm

Table 7-3-2 BLE transmitter characteristics

Parameter	Condition	Min.	Typ.	Max.	Unit
RF transmit power	--	--	0	--	dBm
Gain control step	--	--	3	--	dBm
RF power control range	--	-27	--	18	dBm

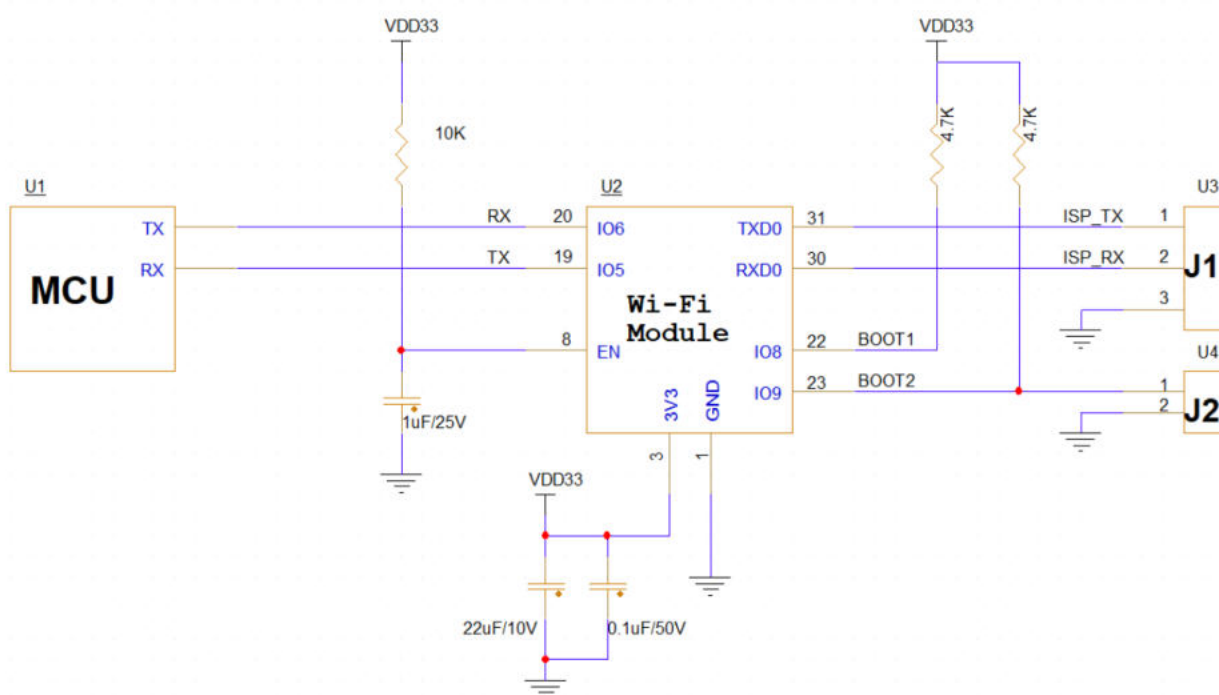


Figure 7-2 Reference Design

7.2. Layout Design

Since the EEMH-PT01-00 uses a PCB antenna, the layout should minimize any impact the baseboard might have on the performance of the module's antenna. It is recommended to place the module as close to the edge of the baseboard as possible. If conditions feasible, the PCB antenna area should extend beyond the baseboard edge, with the antenna feed point as close to the board edge as possible.

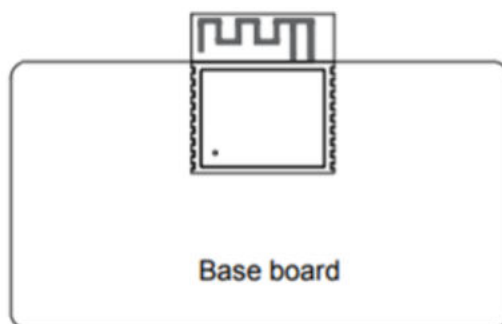


Figure 7-2 Module Placement on Baseboard (EEMH-PT01-00)

If this layout approach cannot be used due to design constraints, an alternative is to ensure at least 15 mm of clearance around the module's PCB antenna area. No copper, signal traces, or components should be placed in this region, as shown in Figure 7-3:

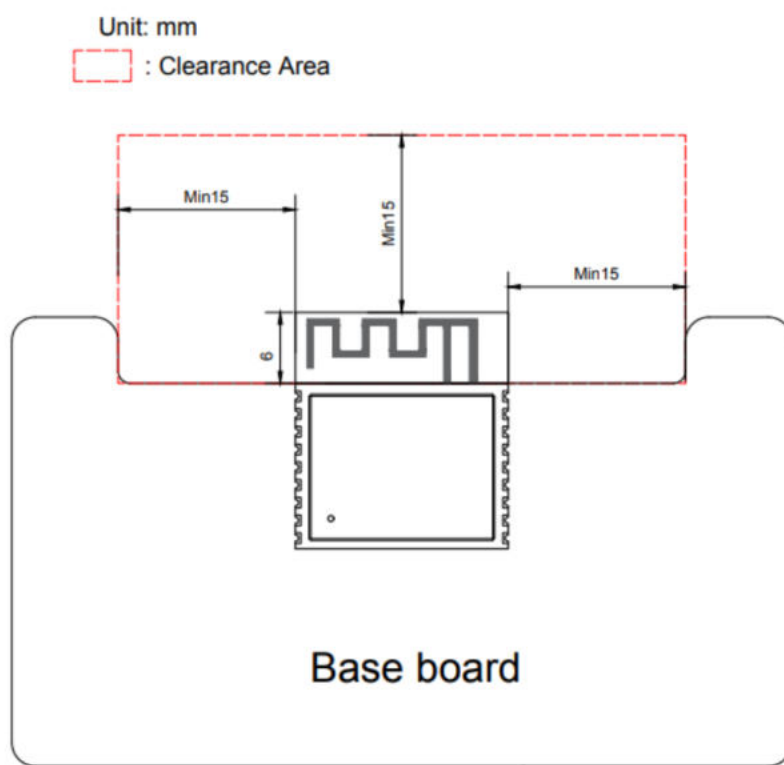


Figure 7-3 PCB Antenna Keep-Out Zone (EEMH-PT01-00)



8. Specifications

Table 8-1 Specifications

P/N	ECM6-0019-1000-00	ECM6-0019-T000-00	ECM6-0019-T001-00	ECM8-0019-1000-00	ECM8-0019-T000-00	ECM8-0019-T001-00	ECM8-0419-1000-00	ECM8-0419-T000-00	ECM8-0419-T001-00
Electrical Specifications									
Power Supply Voltage	DC 3.0 - 3.6V; Typ. 3.3V								
Current Consumption	Min. 0.2A; Max. 1A@3.3V								
Networking Parameters									
Networking Protocol	\								
Number of Network Nodes	\								
Number of Adjacent Nodes	\								
Network Layers	\								
Wi-Fi Parameters									
Operating Frequency	2412 ~ 2484 MHz								
Network Standard	802.11b/g/n 2.4GHZ								
Security Mode	WPA/WPA2/WPA2-Enterprise								



Antenna Interface	On-board PCB Antenna			IPEX 3rd Generation Connector					
Protocol Parameters									
Uplink Protocol	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmission	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmission	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmission
Bluetooth Parameters									
Version	BLE 5.0								
Data Rate	125Kbps、500Kbps、1Mbps、2Mbps								
UART Parameters									
Logic Level	TTL								
Communication Parameters	9600bps 8/N/1 (默认)								
Mechanical Parameters									
Dimensions	13.2 x 16.6 x 2.4 mm			13.6 x 12.5 x 2.4 mm					
Weight	约 0.7g								
Environmental Parameters									
Operating Temperature Range	-40 ~ 85℃						-40 ~ 105℃		
Storage Temperature Range	-45 ~ 105℃								



P/N	ECM6-001A-1000-00	ECM6-001A-T000-00	ECM6-001A-T001-00	ECM8-001A-1000-00	ECM8-001A-T000-00	ECM8-001A-T001-00	ECM8-041A-1000-00	ECM8-041A-T000-00	ECM8-041A-T001-00
Electrical Specifications									
Power Supply Voltage	DC 3.0 - 3.6V; Typ. 3.3V								
Current Consumption	Min. 0.2A; Max. 1A@3.3V								
Networking Parameters									
Networking Protocol	Wi-Fi mesh								
Number of Network Nodes	Max.50								
Number of Adjacent Nodes	Max.100m								
Network Layers	Max.6								
Wi-Fi Parameters									
Operating Frequency	2412 ~ 2484 MHz								
Network Standard	802.11b/g/n 2.4GHZ								
Security Mode	WPA/WPA2/WPA2-Enterprise								



Antenna Interface	On-board PCB Antenna			IPEX 3rd Generation Connector					
Protocol Parameters									
Uplink Protocol	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmissio	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmissio	e-linter IoT	TCP Transparent Transmission	MQTT Transparent Transmissio
Bluetooth Parameters									
Version	BLE 5.0								
Data Rate	125Kbps、500Kbps、1Mbps、2Mbps								
UART Parameters									
Logic Level	TTL								
Communication Parameters	9600bps 8/N/1 (默认)								
Mechanical Parameters									
Dimensions	13.2 x 16.6 x 2.4 mm			13.6 x 12.5 x 2.4 mm					
Weight	约 0.7g								
Environmental Parameters									
Operating Temperature Range	-40 ~ 85°C						-40 ~ 105°C		
Storage Temperature Range	-45 ~ 105°C								



9. Packaging

9.1. Packaging

Shipment is provided in tape-and-reel packaging. Each reel contains 650 modules. The tape is sealed in a vacuum anti-static bag, as shown in Figure 9-1-1:



Figure 9-1-1 Vacuum Anti-Static Bag Packaging

Each reel is placed inside an inner carton box, as shown in Figure 9-1-2:



Figure 9-1-2 Inner Carton Packaging

Each master carton contains 5 reels, totaling 3250 modules. The approximate weight is 7.5kg. Outer carton dimensions: 390.0 × 390.0 × 370.0 mm, as shown in Figure 9-1-3:

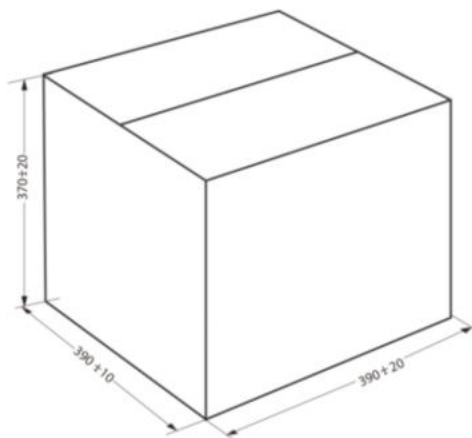


Figure 9-1-3 Outer Carton Dimensions: 390 × 390 × 370 mm

9.2. Outer Carton Label

The outermost shipping carton carries a label including: Customer Name, Order Number, Product Name, Customer P/N (Part Number), Product P/N(Part Number), Quantity per Carton, Carton Number, and Production Date. Carton number is displayed in a numerator/denominator format—for example, "2/5" indicates that this is carton 2 of a total of 5. Label content is subject to the actual shipment; the following is for reference only, as shown in Figure 9-2:



Figure 9-2 Outer carton label diagram



10. Declaration of conformity

This product complies with the radio interference requirements of the European community. Hereby, Chengdu E-LINTER Information Technology Co., Ltd. declares that the product is in compliance with the essential requirements and other relevant provisions of RE Directive 2014/53/EU. You can find the Declaration of Conformity on www.e-linter.com.

RF frequency:

2.4G WIFI: 2412 MHz to 2472 MHz

BLE: 2402 MHz to 2480 MHz

RF power:

2.4G WIFI: 12.71 dBm

BLE: 1.98 dBm

Manufacturer Name: Chengdu E-LINTER Information Technology Co., Ltd.

Address: No. 505, Building 6, Zone D, Tianfu Software Park, No. 599, Century City South Road, CDHT, Chengdu, Sichuan, China



11. 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. (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.

The device has been evaluated to meet general RF exposure requirements. This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.

The Module is designed to comply with the FCC statement. FCC ID is 2BAGJ-ECM6-01. The host system using the Module should have a label indicating it



contains the modular' s FCC ID is 2BAGJ-ECM6-01. This radio module must not 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. The Module and its antenna must not be co-located or operating in conjunction with any other transmitter or antenna within a host device.

The modular must be installed in the host that is assigned by Company name: Chengdu E-LINTER Information Technology Co., Ltd., Model no.: ECM6-01, ECM6-00, ECM8-00, ECM8-01, ECM8-02, ECM8-04. If other host types used would need further evaluation and possible C2PC if they are not significantly similar to the one tested. The Module is designed for a compact PCB design. It should be installed and operated with host or other minimum distance of 20 centimeters between the radiator and your body." 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 3.75dBi in the 2.4G band. The module uses Internal antenna, this antenna is sold with the module.

11.1. Notice to OEM integrator

The end user manual shall include all required regulatory information/warning as shown in this manual. The OEM integrator is responsible for testing their end product for any additional compliance requirements required with this module installed. If the final product contains circuits of other FCC PART 15 Subparts, the final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed. The intended use is generally not for the general public, it is generally for industry/commercial use. The connector is within the transmitter enclosure and can only be accessed by disassembly of the transmitter that is not normally required, the user has no access to the connector. Installation must be controlled. Installation requires special training.

This device complies with Part 15 of the FCC Rules.

This equipment should be installed and operated with a minimum distance of 20 cm between the radiator and your body.



2.4G WIFI / BLE:

The max antenna gain (in dBi): 3.75 dBi

Antenna type: Internal antenna

This module has been assessed against the following FCC rule parts: CFR 47 FCC Part 15 C (15.247. DTS). It is applicable to the modular transmitter.

This radio transmitter Module has been approved by Federal Communications Commission 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.

The concrete contents to check are the following three points.

- 1) Maximum antenna gains are shown in item 2.7 below.
- 2) Should be installed so that the end user cannot modify the antenna
- 3) Feed line should be designed in 50ohm

Fine-tuning of return loss etc. can be performed using a matching network.

The antenna shall not be accessible for modification or change by the end user.

The module complies with FCC Part 15.247 and apply for Single module approval.

Trace antenna designs: applicable.

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.

The device must be professionally installed.

The intended use is generally not for the general public.

It is generally for industry/commercial use.

The connector is within the transmitter enclosure and can only be accessed by disassembly of the transmitter that is not normally required.

The user has no access to the connector.

Installation must be controlled.



Installation requires special training.

This equipment 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 & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The following antennas have been certified for use with this module.

Only antennas of the same type with equal or lower gain may also be used with this module.

Other types of antennas and/or higher gain antennas may require the additional authorization for operation. The installer should use unique antenna connector and 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. The manufacturer of module will inform installer to meet with the FCC part 15.203 in the warning part.

Antenna Specification list below:

2.4G WIFI / BLE:

Antenna type: Internal antenna

The max antenna gain (in dBi): 3.75 dBi

Please notice that if the FCC 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. This exterior label can use wording such as "Contains FCC ID: 2BAGJ-ECM6-01"; any similar wording that expresses the same meaning may be used.

Testing of the host product with all the transmitters installed - referred to as the composite investigation test- is recommended, to verify that the host product meets all the applicable FCC rules. The radio spectrum is to be investigated with all the transmitters in the final host product functioning to determine that no emissions exceed the highest limit permitted for any one individual transmitter as required by Section 2.947(f). The host manufacturer is responsible to ensure that when their product operates as intended it does not have any emissions present that are out of compliance that were not present when the transmitters were tested individually.

If the modular transmitter has been fully tested by the module grantee on the required number of channels, modulation types, and modes, it should not be necessary for the host installer to re-test all the available transmitter modes or settings. It is recommended that the host product manufacturer, installing the modular transmitter, perform some investigative measurements to confirm that the resulting composite system does not exceed the spurious emissions limits or band edge limits (e.g., where a different antenna may be causing additional



emissions).

The testing should check for emissions that may occur due to the intermixing of emissions with the other transmitters, digital circuitry, or due to physical properties of the host product (enclosure). This investigation is especially important when integrating multiple modular transmitters where the certification is based on testing each of them in a stand-alone configuration.

Any company of the host device which install this modular should perform the test of radiated & conducted emission and spurious emission etc. according to FCC Part 15C: 15.247, only if the test result comply with FCC part 15C: 15.247 requirement. Then the host can be sold legally.

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.

ⁱ Designed for devices with integrated Wi-Fi mesh capability.