

PRODUCT SPECIFICATION

N280M-PUX2

Wi-Fi 2x2 11b/g/n/ac/ax dual band+ BT 5.4

Combo Module

Version:v1.1

Customer: _____

Customer P/N: _____

Signature: _____

Date: _____

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Guangdong Province, China

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N280M-PUX2 Module Datasheet

Ordering Information	Part NO.	Description
	FGN280MPU2-00	AIC8800M80X2P,wifi6,802.11a/b/g/n/ac/ax+BT5.4,2T2R,22X 30mm,PCIE+USB



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1. General Description

1.1 Introduction

N280M-PUX2 provides a highly integrated solution for wireless applications, integrating dual-stream WiFi6 and Bluetooth 5.4.

1.2 Description

Model Name	N280M-PUX2
Product Description	Support Wi-Fi /BT functionalities
Dimension	L x W x H: 30 x 22 x 2.2mm
Wi-Fi Interface	PCIE
OS supported	Android /Linux/ Windows
Operating temperature	-20°C to 80°C
Storage temperature	-40°C to 85°C

2. Features

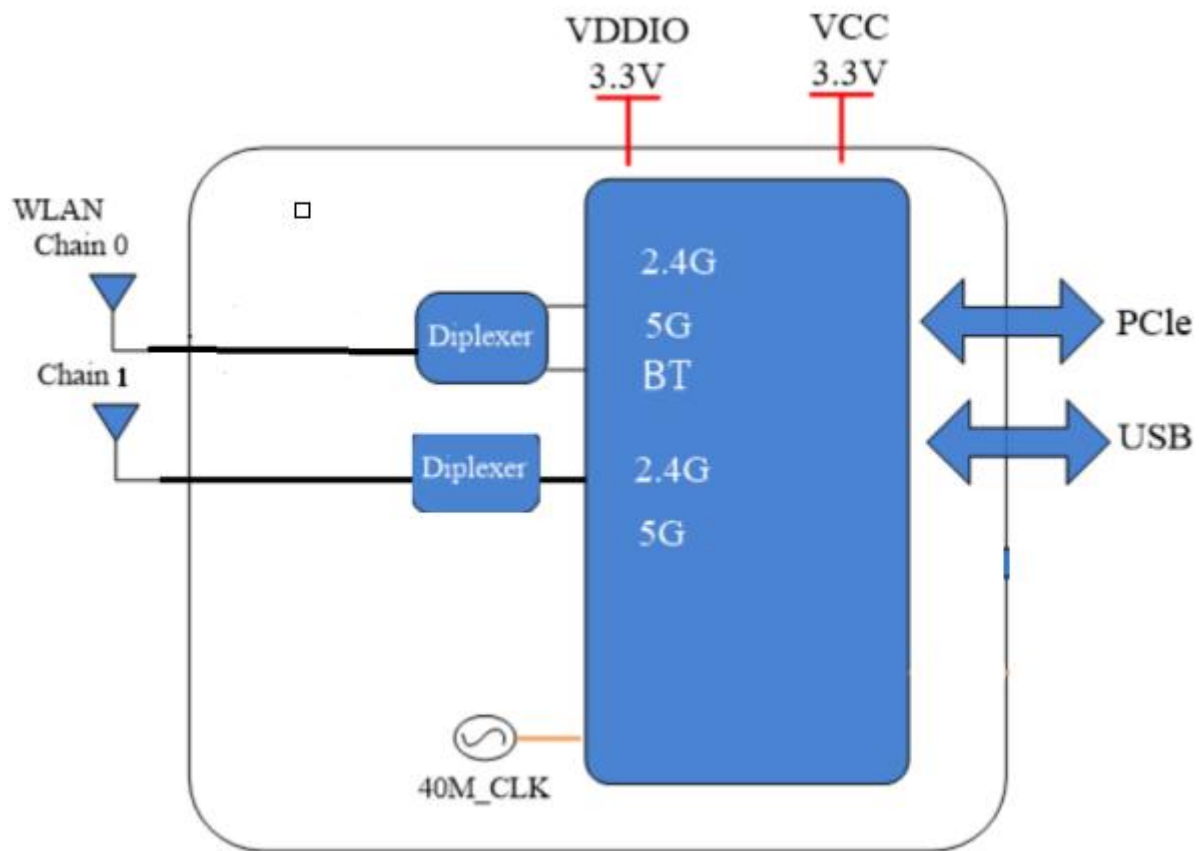
General

- CMOS single - chip fully - integrated RF, Modem and MAC
- Support 2.4GHz/5GHz Wi-Fi6
- Physical data rates up to 1201.0Mbps with 20/40/80MHz bandwidth
- Support 2 spatial stream transmission and high performance reception
- Support 2 Rx maximum rejection combining receiver for all modes
- Support STA, AP, Wi-Fi Direct modes concurrently
- Support STBC
- Support beamforming as beamformee up to 4x2
- Support Wi-Fi6 TWT
- Support Two NAV, Buffer Report, Spatial reuse, Multi-BSSID, intra-PPDU power save
- Support LDPC
- Support downlink MU-MIMO, OFDMA
- Support uplink MU-MIMO, OFDMA
- Support ER, DCM, Mid-amble, UORA
- Support WEP/WPA/WPA2/WPA3-SAE Personal, MFP

Bluetooth Features

- Complies with Bluetooth Core Specification Version 5.4 with provisions for supporting future specifications.
- Supports all the mandatory and optional features of Bluetooth 5.4
- Supports advanced master and slave topologies
- Supports BR/EDR
- Supports BLE (1/2Mbps/LongRange S2/8).
- Bluetooth Class 1 or Class 2 transmitter operation.
- Supports BLE audio.
- Host controller interface (HCI) using a high-speed UART interface.
- Adaptive frequency hopping (AFH) for reducing radio frequency interference.

3. Block Diagram



4. General Specification

4.1 2.4GHz RF Specification

Feature	Description	
WLAN Standard	IEEE 802.11b/g/n/ax, Wi-Fi compliant	
Frequency Range	2.400 GHz ~ 2.4835 GHz (2.4 GHz ISM Band)	
Number of Channels	2.4GHz: Ch1 ~ Ch13, Ch14	
Modulation	DBPSK/DQPSK/CCK(DSSS)、BPSK/QPSK/16QAM/64QAM(OF DM)	
Test Items	Typical Value	EVM
Output Power ¹	802.11b /11Mbps : 18dBm ± 2 dBm	EVM ≤ -10dB
	802.11g /54Mbps : 15dBm ± 2 dBm	EVM ≤ -25dB
	802.11n /MCS7 : 15dBm ± 2 dBm	EVM ≤ -28dB
	802.11ax /MCS11 : 13dBm ± 2 dBm	EVM ≤ -35dB

Spectrum Mask	Meet with IEEE standard		
Freq. Tolerance	$\pm 20\text{ppm}$		
Receive Sensitivity (11b,20MHz) @8% PER	- 11Mbps	@-85dBm	$\leq -76\text{dBm}$
Receive Sensitivity (11g,20MHz) @10% PER	- 54Mbps	@-73dBm	$\leq -68\text{dBm}$
Receive Sensitivity (11n,20MHz) @10% PER	- MCS=7	@-70dBm	$\leq -67\text{dBm}$
Receive Sensitivity (11n,40MHz) @10% PER	- MCS=7	@-68dBm	$\leq -64\text{dBm}$
Receive Sensitivity (11ax,20MHz) @10% PER	- MCS=11	@-61dBm	$\leq -52\text{dBm}$
Receive Sensitivity (11ax,40MHz) @10% PER	- MCS=11	@-57dBm	$\leq -49\text{dBm}$
Maximum Input Level	802.11b : -10 dBm		
	802.11g/n : -20 dBm		

4.2 WI-FI 5GHz Specification

Feature	Description		
WLAN Standard	IEEE 802.11a/n/ac/ax, Wi-Fi compliant		
Frequency Range	5.150 GHz ~ 5.850 GHz (5.0 GHz Band)		
Test Items	Typical Value		EVM
Output Power ¹	802.11a 54Mbps: 15 ± 2 dBm		EVM $\leq -25\text{dB}$
	802.11n MCS7: 15 ± 2 dBm		EVM $\leq -28\text{dB}$
	802.11ac MCS9: 14 ± 2 dBm		EVM $\leq -32\text{dB}$
	802.11ax MCS11 : 12 ± 2 dBm		EVM $\leq -35\text{dB}$
Receive Sensitivity (11a,20MHz) @10% PER	- 54Mbps	PER @ -71 dBm, typical	≤ -68
Receive Sensitivity (11n,20MHz) @10% PER	- MCS=7	PER @ -69 dBm, typical	≤ -67
Receive Sensitivity (11n,40MHz) @10% PER	- MCS=7	PER @ -67 dBm, typical	≤ -64
Receive Sensitivity (11ac,20MHz) @10% PER	- MCS=8	PER @ -66 dBm, typical	≤ -59

Receive Sensitivity (11ac,40MHz) @10% PER	- MCS=9 PER @ -63 dBm, typical	≤-54
Receive Sensitivity (11ac,80MHz) @10% PER	- MCS=9 PER @ -59 dBm, typical	≤-51
Receive Sensitivity (11ax,20MHz) @10% PER	- MCS=11 PER @ -61 dBm, typical	≤-52
Receive Sensitivity (11ax,40MHz) @10% PER	- MCS=11 PER @ -57 dBm, typical	≤-49
Receive Sensitivity (11ax,80MHz) @10% PER	- MCS=11 PER @ -56 dBm, typical	≤-46
Maximum input level	802.11a/n: -30 dBm	
	802.11ac: -30 dBm	
	802.11ax: -30 dBm	

Conditions : VBAT=3.3V ; VDDIO=3.3V ; Temp:25°C

1.验证功率需确定配置文件中目标功率是否与本规格一致；

4.3 Bluetooth Specification

Feature	Description
General Specification	
Bluetooth Standard	BDR/EDR(1Mbps/2Mbps/3Mbps)、LE(1Mbps)、LE(2Mbps)
Host Interface	USB
Frequency Band	2400 MHz ~ 2483.5 MHz
Number of Channels	79 channels for classic 、40 channels for BLE
Modulation	GFSK, $\pi/4$ -DQPSK, 8-DPSK
RF Specification	
Output Power , tolerance ± 4 dB	
	CL1(dBm)
BDR Output Power	8
EDR Output Power	8
BLE Output Power	8

Sensitivity, tolerance :/ dB	
Sensitivity @ BER=0.1% for GFSK (1Mbps)	-82
Sensitivity @ BER=0.01% for $\pi/4$ -DQPSK (2Mbps)	-80
Sensitivity @ BER=0.01% for 8DPSK (3Mbps)	-80
Sensitivity @ BER=30.8% for LE (1Mbps)	-90
Sensitivity @ BER=30.8% for LE (2Mbps)	-90
Maximum Input Level	GFSK (1Mbps):-20dBm
	$\pi/4$ -DQPSK (2Mbps) :-20dBm
	8DPSK (3Mbps) :-20dBm

5. ID setting information

WI-FI

Vendor ID	TBD
Product ID	TBD

6. Pin Definition

6.1 Pin Outline

< TOP VIEW >

Pin	Signal	Signal	Pin
74	3.3 V	GND	75
72	3.3 V	RESERVED/REFCLKn1	73
70	UIM_POWER_SRC/GPIO_1/PEWAKE1#	RESERVED/REFCLKp1	71
68	UIM_POWER_SNK/CLKREQ1#	GND	69
66	UIM_SWP/PERST1#	RESERVED/PETn1	67
64	RESERVED	RESERVED/PETp1	65
62	ALERT# (O)(0/1.8 V)	GND	63
60	I2C_CLK (I)(0/1.8 V)	RESERVED/PERn1	61
58	I2C_DATA (I/O)(0/1.8 V)	RESERVED/PERp1	59
56	W_DISABLE1# (I)(0/3.3V)	GND	57
54	W_DISABLE2# (I)(0/3.3V)	PEWAKE0# (I/O)(0/3.3V)	55
52	PERST0# (I)(0/3.3V)	CLKREQ0# (I/O)(0/3.3V)	53
50	SUSCLK(32kHz) (I)(0/3.3V)	GND	51
48	COEX_RXD (I)(0/1.8V)	REFCLKn0	49
46	COEX_TXD (O)(0/1.8V)	REFCLKp0	47
44	COEX3 (I/O)(0/1.8V)	GND	45
42	VENDOR DEFINED	PETn0	43
40	VENDOR DEFINED	PETp0	41
38	VENDOR DEFINED	GND	39
36	UART CTS (I)(0/1.8V)	PERn0	37
34	UART RTS (O)(0/1.8V)	PERp0	35
32	UART RXD (I)(0/1.8V)	GND	33
	ADD-IN CARD KEY E	ADD-IN CARD KEY E	
	ADD-IN CARD KEY E	ADD-IN CARD KEY E	
	ADD-IN CARD KEY E	ADD-IN CARD KEY E	
	ADD-IN CARD KEY E	ADD-IN CARD KEY E	
	ADD-IN CARD KEY E	ADD-IN CARD KEY E	
22	UART TXD (O)(0/1.8V)	SDIO RESET#/Tx_BLANKING (I)(0/1.8V)	23
20	UART WAKE# (O)(0/3.3V)	SDIO WAKE# (O)(0/1.8V)	21
18	GND	SDIO DATA3 (I/O)(0/1.8V)	19
16	LED_2# (O)(OD)	SDIO DATA2 (I/O)(0/1.8V)	17
	ADD-IN CARD KEY A	ADD-IN CARD KEY A	
	ADD-IN CARD KEY A	ADD-IN CARD KEY A	
	ADD-IN CARD KEY A	ADD-IN CARD KEY A	
	ADD-IN CARD KEY A	ADD-IN CARD KEY A	
6	LED_1# (O)(OD)	GND	7
4	3.3 V	USB_D-	5
2	3.3 V	USB_D+	3
		GND	1

6.2 Pin Definition details

NO	Name	Type	Description	Voltage
1	GND	-	Ground	
3	USB_D+	I/O	USB differential line for BT	

5	USB_D-	I/O		
7	GND	-	Ground	
9~15	KEY-A		No connect	
17	NC	-	No connect	
19	NC	-	No connect	
21	NC	-	No connect	
23	NC	-	No connect	
25~31	KEY-E		No connect	
33	GND	-	Ground	
35	PCIE_RX_P	I	PCIE RX differential signals	
37	PCIE_RX_N	I		
39	GND	-	Ground	
41	PCIE_TX_P	O	PCIE TX differential signals	
43	PCIE_TX_N	O		
45	GND	-	Ground	
47	PCIE_CLK_P	I	PCIE clock differential input signal	
49	PCIE_CLK_N	I		
51	GND		Ground	
53	PCIE_REQ_N	O	PCIE reference clock request signal, open drain, active low	VIO
55	PCIE_WAKE_N	O	PCIE wake up host, open drain, active low	VIO
57	GND	-	Ground	
59	NC	-	NC	
61	NC	-	NC	
63	GND	-	Ground	
65	NC	-	NC	
67	NC	-	NC	
69	GND	-	Ground	
71	RESERVED	-	NC or GPIOA1 Reserved	3.3V
73	RESERVED	-	NC or GPIOA2 Reserved	3.3V
75	GND	-	Ground	

Bottom side

NO	Name	Type	Description	Voltage
2	3_3V	P	Power supply	3.3V

4	3_3V	P	Power supply	3.3V
6	LED_WL	O	WLAN LED signal,GPIOA3	3.3V
8~14	KEY-A	-	NC	
16	LED2_BT#	O	LED2_BT#	3.3V
18	GND	-	Ground	
20	NC	-	NC	
22	BT_UART_TX	O	BT UART OUT	
24~30	KEY-E	-	NC	
32	BT_UART_RX	I	BT UART IN	
34	BT_UART_RTS	I	BT UART RTS	
36	BT_UART_CTS	O	BT UART CTS	
38	NC	-	NC	
40	NC	-	NC	
42	NC	-	NC	
44	NC	-	NC	
46	NC	-	NC	
48	NC	-	NC	
50	NC	-	NC	
52	PCIE_PERST_N	I	PCIe reset signal, active low	3.3V
54	BT_DIS	-	Bluetooth enable signal, pull low to disable BT function, default high.	
56	WL_DIS	I	WLAN enable signal, pull low to disable BT function, default high.	3.3V
58	NC	-	NC	
60	NC	-	NC	
62	NC	-	NC	
64	NC	-	NC	
66	NC	-	NC	
68	NC	-	NC	
70	NC	-	NC	
72	VIO_3V3	I	IO power input	3.3V
74	VIO_3V3	I	IO power input	3.3V

P:POWER I:INPUT O:OUTPUT PD: PULL-DOWN

7. Electrical Specifications

7.1 Power Supply DC Characteristics

The digital IO supports VDD33 or VDD18 application.

	MIN	TYP	MAX	Unit
Operating Temperature	-20	25	80	deg.C
VDDIO	3	3.3	3.6	V

7.2 Power Consumption

2.4G	Test condition: VBAT=3.3V / VDDIO=3.3V	
	Current @ TX	Current @ RX
	Maximum(mA)	Maximum(mA)
11b@20dbm	134	95
11g@17dbm	108	101
HT20-mcs7@16dbm	121	100
HE40-mcs11@15dbm	111	100

5G	Test condition: VBAT=3.3V / VDDIO=3.3V	
	Current @ TX	Current @ RX
	Maximum(mA)	Maximum(mA)
54M@17dbm	125	100
MCS7 HT40@17dbm	151	101
MCS9 VHT40@16dbm	138	99
MCS11 HE40@14dbm	130	100

MCS11 HE80@14dbm

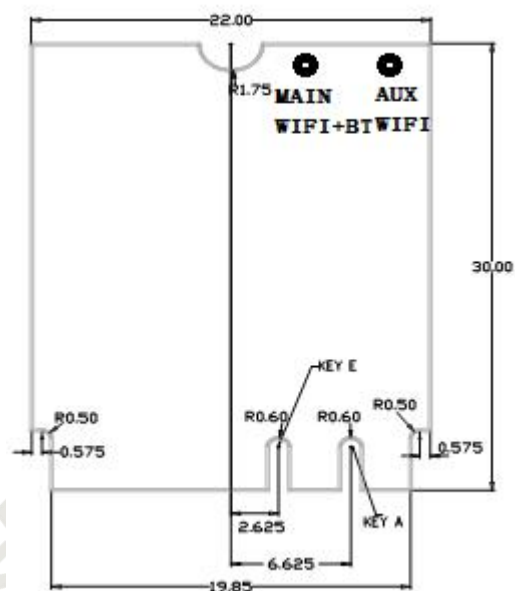
141

101

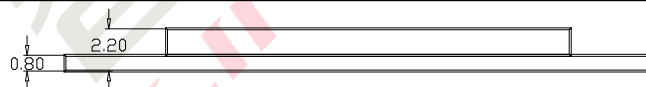
8. Size reference

8.1 Module Picture

L x W :30 x 22 (±0.2) mm



H: 2.20(±0.2) mm



Weight

2.4(±0.2)g

8.2 Marking Description



Note:

QR code content: 112233445566; FGN280MPU2-00

Fn Link trademark logo

2. Model: N280M-PUX2

3. QR code: The encoding rule is "WiFi MAC address; Finished product part number

For example: 112233445566; FGN280MPU2-00 (MAC address subject to actual)

----BT MAC+1 on top of WIFI MAC (WIFI address needs to skip 1 and cannot be duplicated with BT address), this content is not displayed in the QR code.

4. V/N 00 (Two spaces between V/N and 00, 00 is the suffix of the finished product part number, aligned to the right with the QR code)

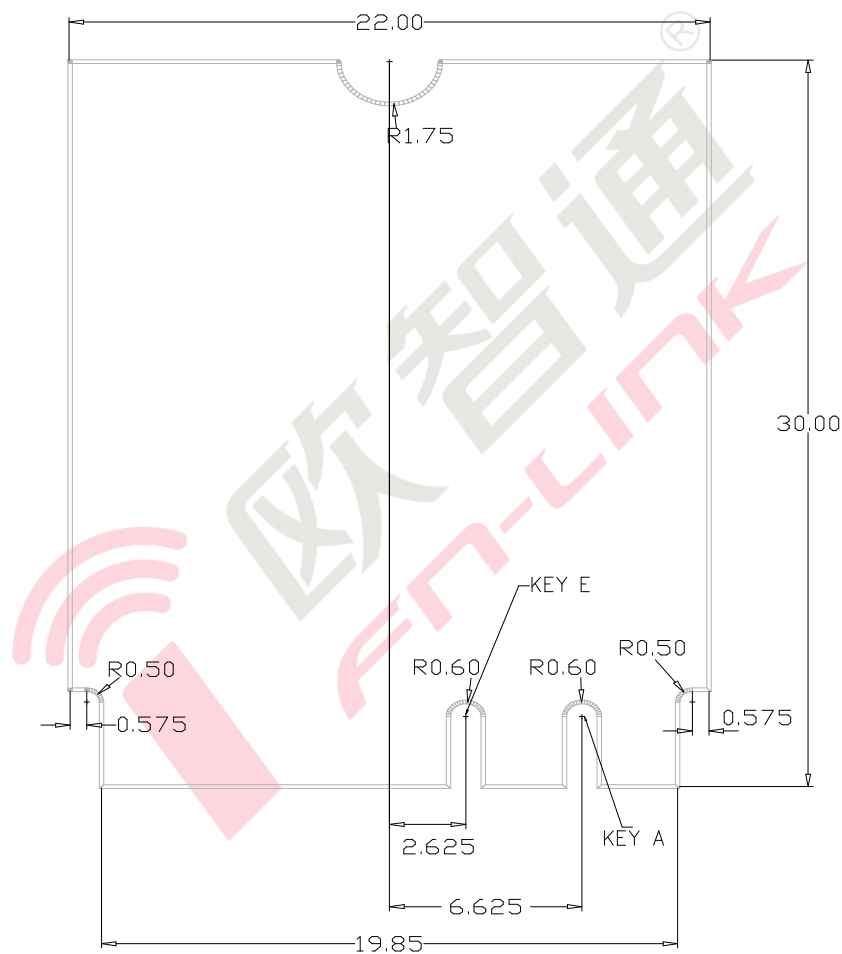
5. Place the shielding cover laser engraved silk screen in the center.

Nameplate:



module	N280M-PUX2
Brand name	<i>FN-LINK</i>
FCC ID	2AATL-N280M-PUX2
IC ID	12425A-N280MPUX2

8.3 Layout Recommendation



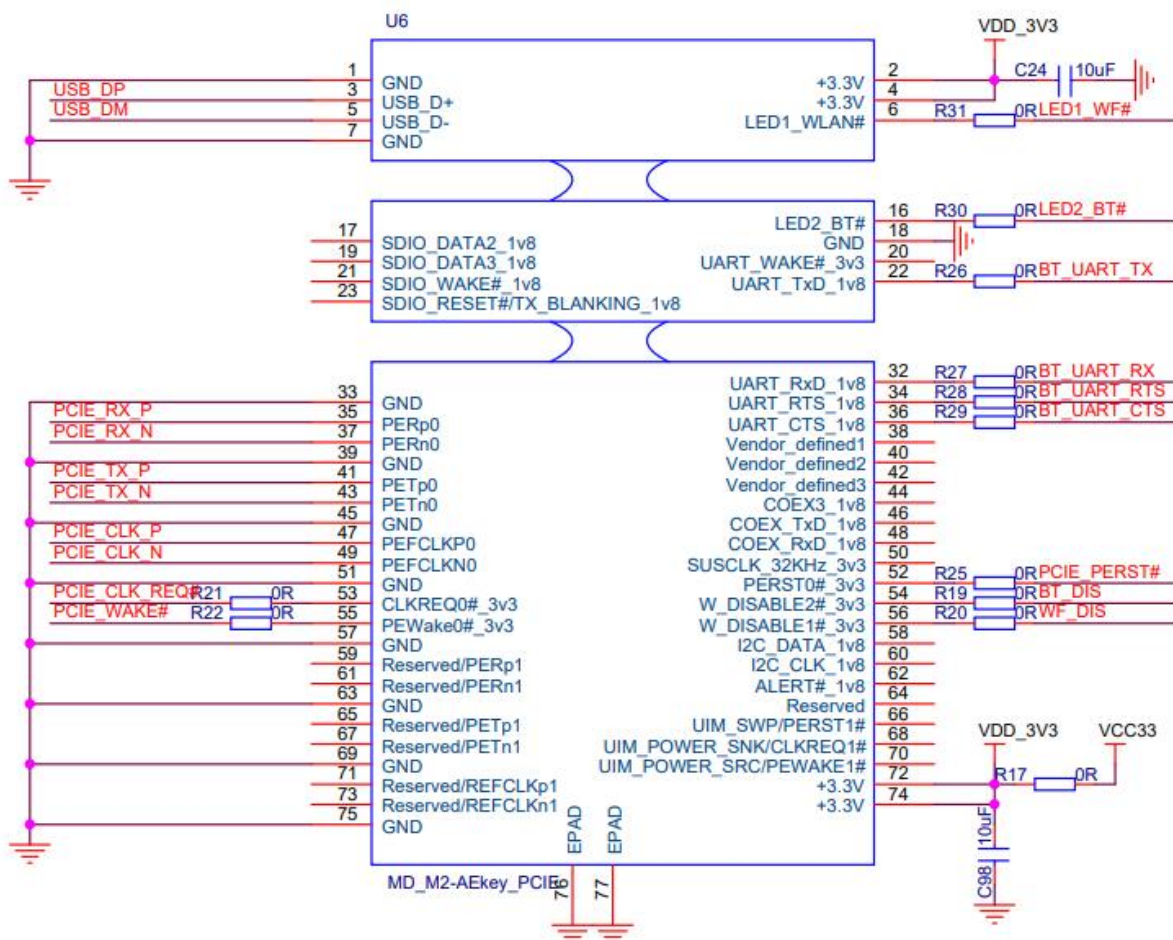
9. The Key Material List

Item	Part Name	Description	Manufacturer
1	Inductor	2016 2.2uH, $\pm 20\%$	Sunlord, Ceaiya, Cenker, Taiyo, inpaq
2	Crystal	2016 40MHz $\pm 10\text{ppm}$	ECEC, TKD, Hosonic, JWT, TXC

3	Chipset	AIC8800M80X2P	AIC
4	PCB	FR4, 4 LAYER, GREEN	XY-PCB,GDKX,Sunlord, SLPCB,Truly
5	shielding	20.93*21.14*1.4mm,T=0.15mmCupronic kel, without insulating layer, without positioning feet.	Sun-tek, JLitong,ZUOYI
6	Antenna connector	4th Generation Antenna Mount	chuangdier, jiawo, qimingshen
7	Diplexer	1608 2400-2500 MHz / 4900-5950 MHz	feiteer,huake,jiali
8	MOS	2N7002K, SOT-23,N-CHANNEL	changdian, shijing

10. Reference Design,

10.1 Reference Design



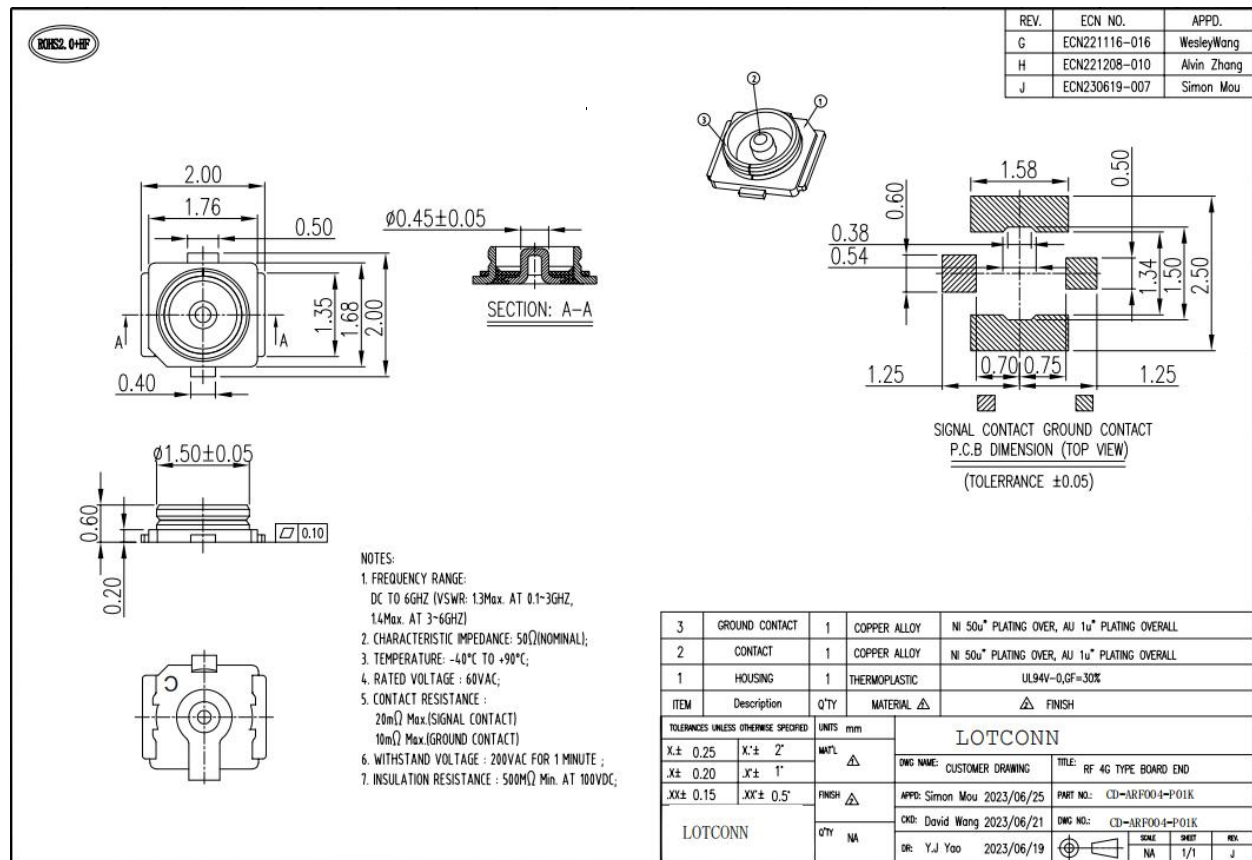
Note:

Module requires independent power supply , supply capacity $\geq 1.5A$ and ripple less than 165mV;

Do not share power with amplifier, infrared device, camera, etc;

BT using usb interface , UART not supported;

10.2 Connector Specification



11. Recommended Reflow Profile

No need

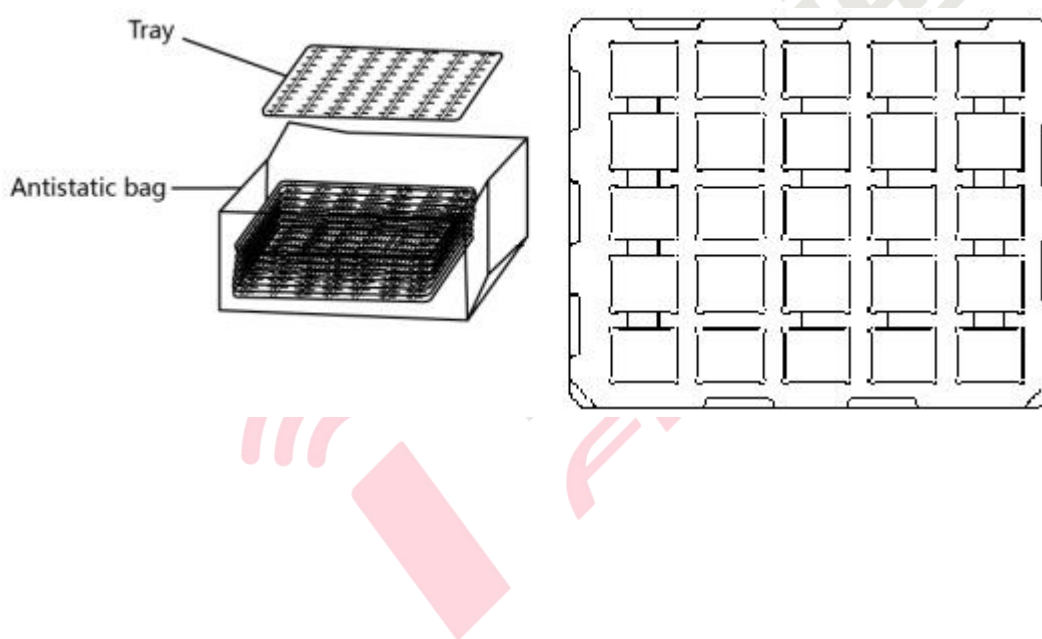
12. RoHS compliance

All hardware components are fully compliant with EU RoHS directive

13. Package

13.1 Packaging Detail

13.2 Tray



14. Moisture sensitivity

The Modules is a Moisture Sensitive Device level 3, in according with standard IPC/JEDEC J-STD-020, take care

all the relatives requirements for using this kind of components.

Moreover, the customer has to take care of the following conditions:

- a) Calculated shelf life in sealed bag: 12 months at <40°C and <90% relative humidity (RH)
- b) Environmental condition during the production: 30°C / 60% RH according to IPC/JEDEC J-STD-033A paragraph 5

- c) The maximum time between the opening of the sealed bag and the reflow process must be 168 hours if condition
- b) “IPC/JEDEC J-STD-033A paragraph 5.2” is respected
- d) Baking is required if conditions b) or c) are not respected
- e) Baking is required if the humidity indicator inside the bag indicates 10% RH or more

Declaration of conformity

This product complies with the radio interference requirements of the European community. Hereby, FN-LINK TECHNOLOGY LIMITED 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 <https://www.fn-link.com/>

RF frequency:

BT: 2402 MHz to 2480 MHz

BLE: 2402 MHz to 2480 MHz

2.4G WIFI: 2412 MHz to 2472 MHz

5G WIFI: 5180 MHz to 5240 MHz

5260 MHz to 5320 MHz

5500 MHz to 5700 MHz

5745 MHz to 5825 MHz

RF power:

BT: 7.76 dBm

BLE: 7.41 dBm

2.4G WIFI: 18.05 dBm

5G WIFI:

5180 MHz to 5240 MHz: 16.57 dBm

5260 MHz to 5320 MHz: 16.17 dBm

5500 MHz to 5700 MHz: 16.60 dBm

5745 MHz to 5825 MHz: 16.48 dBm

Manufacturer Name: FN-LINK TECHNOLOGY LIMITED

Address: No.8, Litong Road, Liuyang Economic & Technical Development Zone, Changsha, Hunan, China 410329

Product Name: WIFI BT module

Trademark: FN-LINK

Model: N280M-PUX2

Importer Information: XXXXXX

The device has been evaluated to meet general RF exposure requirement. 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 2AATL-N280M-PUX2. The host system using Module, should have label indicated it contain modular's FCC ID:

2AATL-N280M-PUX2. This radio module must not installed to collocate 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 assign by Company name: FN-LINK TECHNOLOGY LIMITED, Model no.: N280M-PUX2 if other host types used would need further evaluation and possible C2PC if they are not significantly similar to the one tested The WIFI 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 3.62 dBi in BT, 3.62 dBi in 2.4G WIFI, 3.99 dBi in the 5G WIFI. The module uses FPC antennas, these antennas are sold with the module.

Notice to OEM integrator

The end user manual shall include all required regulatory information/warning as show 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.

2.2

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

2.3

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.

2.4

The module complies with FCC Part 15.247 / Part 15.407 and apply for Single module approval.

2.5

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.

2.6

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.

2.7

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:

BT:

Antenna type: FPC Antenna

The max antenna gain (in dBi):

BR+EDR: 3.62 dBi

BLE: 3.62 dBi

2.4G WIFI:

Antenna type: Copper tube antenna

The max antenna gain (in dBi):

3.62 dBi for antenna 1

3.62 dBi for antenna 2

5G WIFI:

Antenna type: Copper tube antenna

The max antenna gain (in dBi):

3.99 dBi for antenna 1

3.99 dBi for antenna 2

2.8

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: 2AATL-N280M-PUX2 "; any similar wording that expresses the same meaning may be used.

2.9

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.

2.10

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 and 15.209 & 15.207, part 15E: 15.407, part 15B: class B requirement, only if the test result comply with FCC part 15C: 15.247 and 15.209 & 15.207 part 15 E 15.407, 15B class B 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.

FCC Statement

1. 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.

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

ISED 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.

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

L'émetteur/récepteur exempt de licence contenu dans le présent appareil est conforme aux CNR d'Innovation, Sciences et Développement économique 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;
- 2) L'appareil doit accepter tout brouillage radioélectrique subi, même si le brouillage est susceptible d'en compromettre le fonctionnement.

Le dispositif a été évalué pour répondre aux exigences générales d'exposition aux ondes radiofréquences. Cet équipement doit être installé et utilisé avec une distance minimale de 20 cm entre le radiateur et votre corps.

Operations in the 5.15-5.25GHz band are restricted to indoor usage only.

Les opérations dans la bande 5.15-5.25GHz sont limitées à une utilisation à l'intérieur seulement.

The Module is designed to comply with the ISED statement. IC is 20944-BLM8852BP2. The host system using Module, should have label indicated it contain modular's IC: 20944-BLM8852BP2. This radio module must not installed to collocate 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.

This radio transmitter [IC: 12425A-N280MPUX2] 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.

The modular must be installed in the host that assign by Company name: FN-LINK TECHNOLOGY LIMITED, Model no.: N280M-PUX2. If other host types used would need further evaluation and possible C2PC if they are not significantly similar to the one tested The WIFI 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 ISED 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 3.62 dBi in BT, 3.62 dBi in 2.4G WIFI, 3.99 dBi in the 5G WIFI.. The module uses FPC antennas, these antennas are sold with the module.