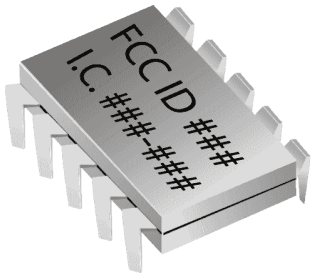
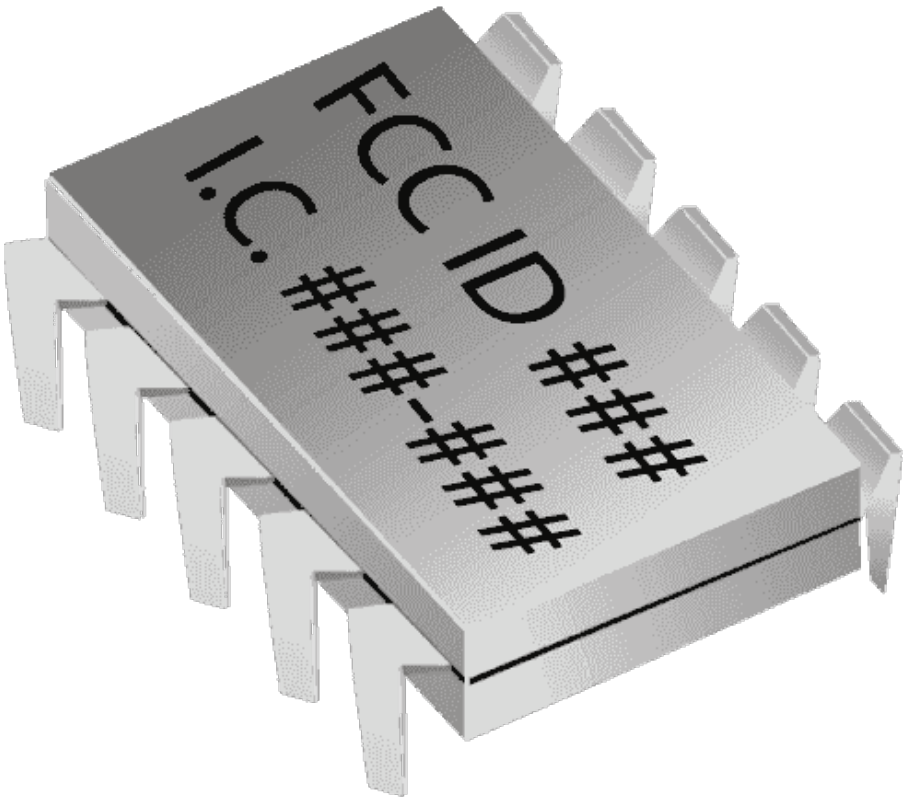


FUNAI WiFi Module U9W35 Instruction Manual

Contents

FUNAI WiFi Module U9W35



Modular Specifications

Supported Standards/ Frequency Band

- WiFi 2.4GHz (IEEE802.11b/g/n) 2412 to 2462MHz
- WiFi 5GHz (IEEE802.11a/n/ac) 5.18 to 5.32GHz, 5.5 to 5.825GHz

Supported/not supported Function

- TPC Function not supported
- USB 2.0
- Wake on WLAN
- DFS client mode

Operating Conditions

- Operating Temperature: 0 to 60degC
- Operating Voltage: DC3.3V +/-5%
- Current Consumption: 1200mA max

Regulation

- FCC 15.203,205,207,209,247(a)(2)/(b)(3)/(d)/(e),407(a)/(a)(5)/(b)/(b)(6)/(e)/(g)
- ISED RS-247 Issue2, RSS-Gen Issue 5 (KDB 99669 D3 2.2)

Note: As for the other FCC rules, such as Part 15 subpart B, which apply to the host products of this module, host products are required to apply for the compliance testing. KDB 99669 D3 2.10)

WiFi Tx/Rx Data Rate

- 802.11b : Up to 11Mbps
- 802.11a/g : Up to 54Mbps
- 802.11n : Up to 300Mbps

WiFi Modulation

- 802.11b : DSSS (DBPSK, DQPSK, CCK)
- 802.11a/g : OFDM (BPSK, QPSK, 16-QAM, 64-QAM)
- 802.11n : OFDM (BPSK, QPSK, 16-QAM, 64-QAM)

WiFi 2.4G Tx Power

- 802.11b : +18.0dBm+2dB
- 802.11g : +17.5dBm+2dB
- 802.11n : +16.0dBm+2dB

WiFi 5G Tx Power

- 802.11a : +15.5dBm+2dB
- 802.11n : +15.0dBm+2dB

CH plan

WiFi 2.4GHz

- IEEE802.11b/g/n-HT20 1-11ch(2412-2462MHz)
- IEEE802.11n-HT40 3–9ch(2422-2452MHz)

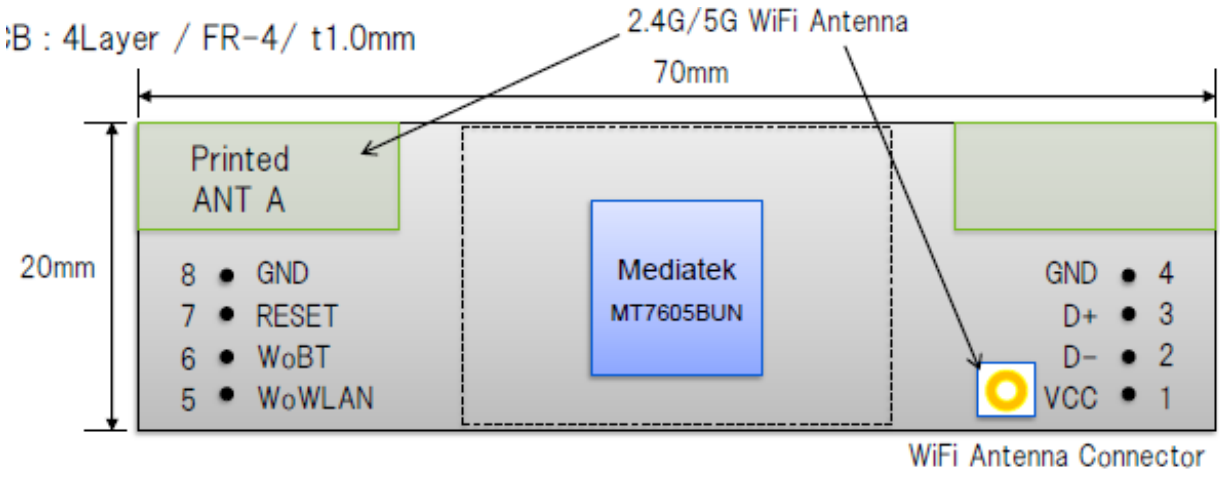
WiFi 5GHz

- IEEE802.11a/n-HT20 36-64ch(5180-5320MHz), 100-165ch(5500-5825MHz)
- IEEE802.11n-HT40: 38-62ch(5190-5310MHz),102-159ch(5510-5795MHz)

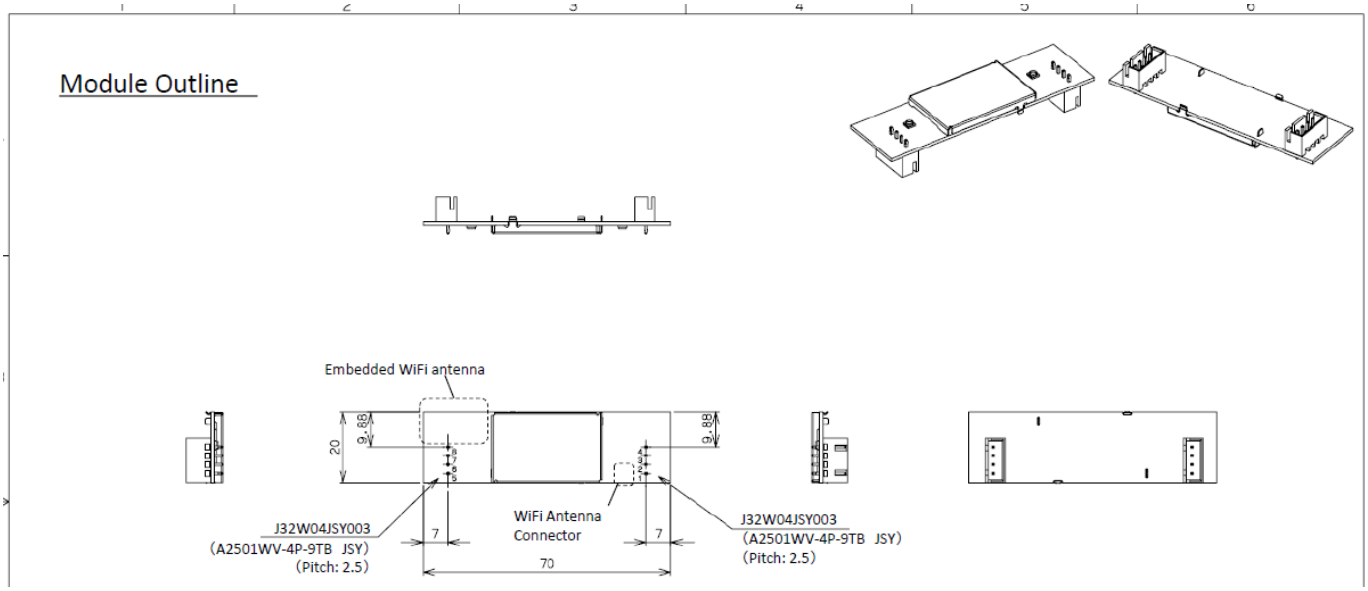
Other

- Tolerance of Transmission Frequency: +/- 20ppm
- Crystal Oscillator: 40MHz fundamental

Module Size / Pin description



Pin No.	Name	Description
1	VCC	Power Supply (3.3V)
2	D-	USB D-
3	D+	USB D+
4	GND	Ground
5	WoWLAN	Low Active Output to indicate receiving WLAN Magic Packet
6	N.C.	N.C.
7	RESET	Low Active Input to RESET module
8	Host Wake	Low Active Input from CPU



Pin No.	Name
1	3.3V
2	D-
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4	GND
5	WoWLAN
6	N.C.
7	RESET
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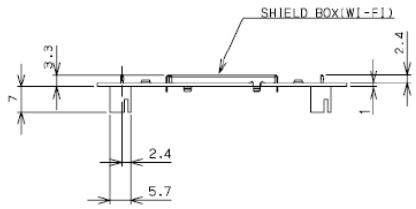
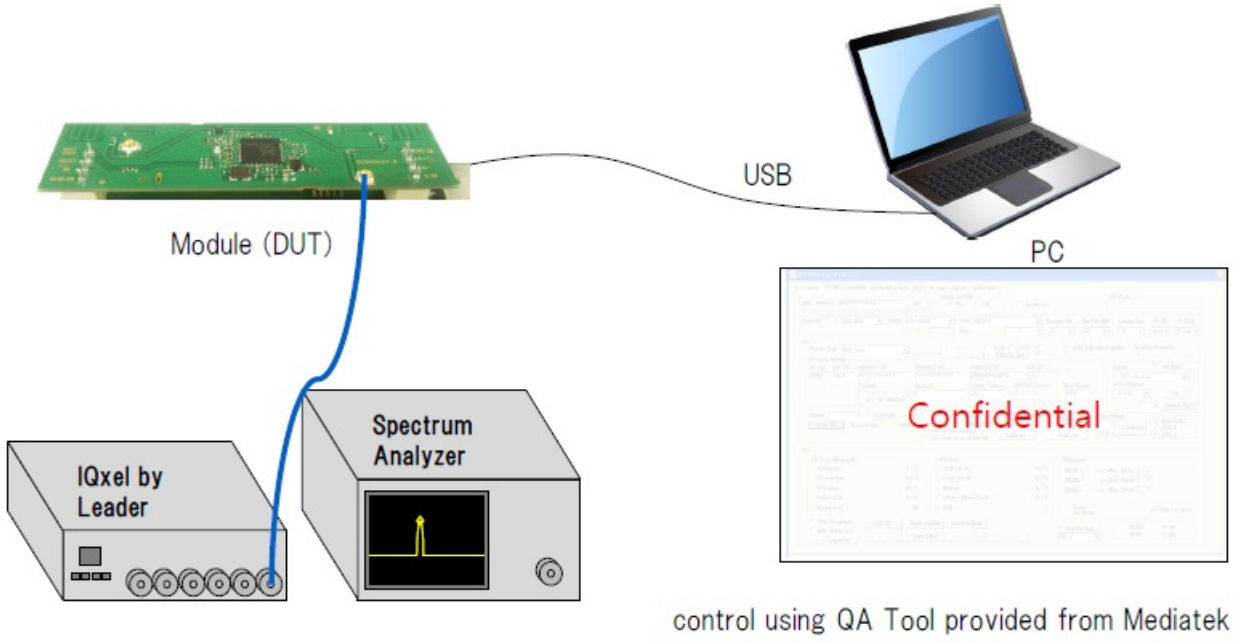


MODEL :

Approved	Checked	Checked	Drawn

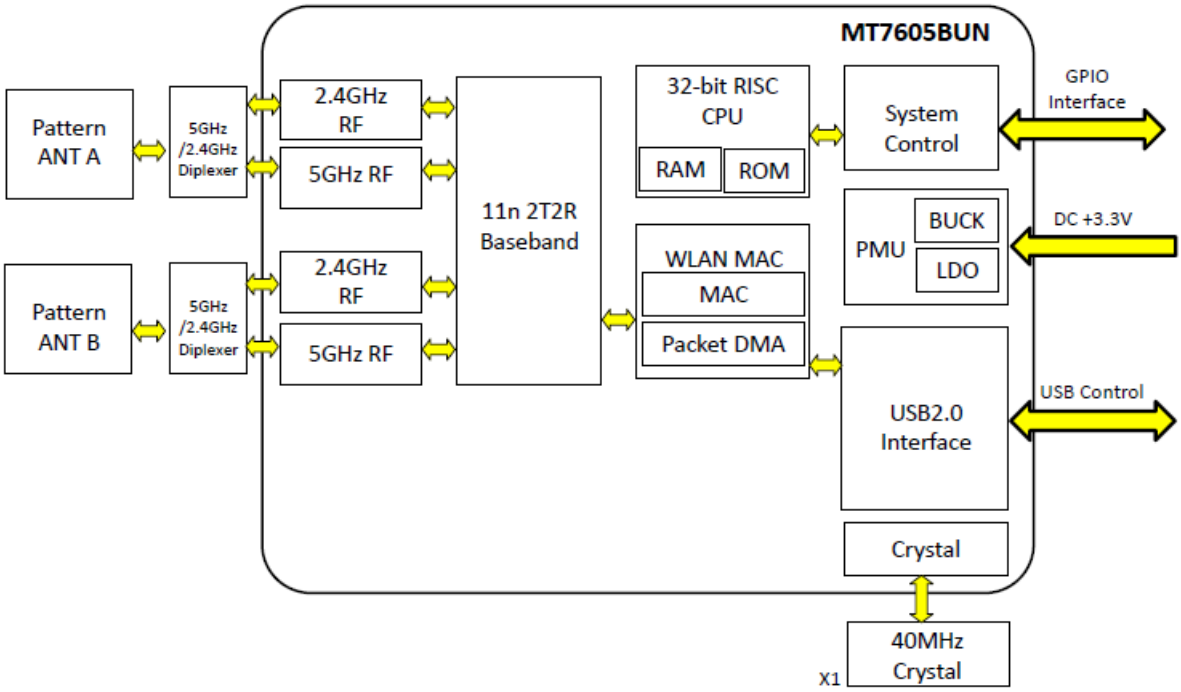
Part name	WI-FI MODULE OUTLINE (外観図)		
Revision	Tolerance	Material	Drawn
	0~25 ±0.1 25~50 ±0.15 50~100 ±0.2 100~250 ±0.3 250~ ±0.4 角度 ±1.0°	---	
		Q'ty ---	Model No.
船井電機株式会社 FUNAI ELECTRIC CO.,LTD.	Projection	Scale 1:1	Part No. & Drawing No. <Page No.> <1 or 1>

Method to control Module for measurement

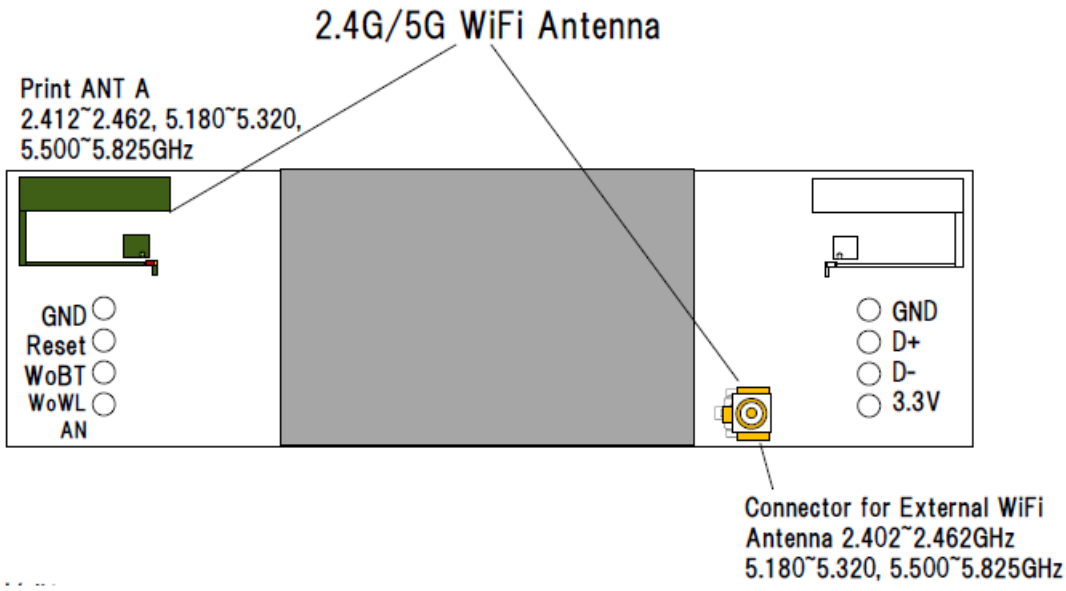


The module can be entered to the test mode by using Mediatek QA tool, and can be tested In different operational conditions. (KDB 996369 D03 2.9)

WiFi Module U9W35 Block Diagram



ANT Specifications



- WiFi Antenna A : λ/4 monopole antenna
- WiFi Antenna B : External Metal Antenna

Antenna Specifications

The antenna used for this product are monopole antenna that no antenna other than that furnished by the responsible party shall be used with the device, the maximum peak gain of the transmit antenna is as following. (KDB996369 D03 2.7)

WiFi 2.4GHz Antenna

- Antenna Type : PCB Antennas (Antenna A/B)

- Antenna Gain: -1.04dBi max (Antenna A)
- -2.80dBi max (Antenna B)

WiFi U-NII-1 Band (5.15-5.25GHz) Antenna

- Antenna Type : PCB Antennas (Antenna A/B)
- Antenna Gain: 1.42dBi max (Antenna A)
- -4.67dBi max (Antenna B)

WiFi U-NII-2 Band (5.25-5.32GHz) Antenna

- Antenna Type : PCB Antennas (Antenna A/B)
- Antenna Gain: -4.34dBi max (Antenna A)
- -0.16dBi max (Antenna B)

WiFi U-NII-3 Band (5.5-5.7GHz) Antenna

- Antenna Type : PCB Antennas (Antenna A/B)
- Antenna Gain: -4.03dBi max (Antenna A)
- 0.09dBi max (Antenna B)

WiFi U-NII-3 Band (5.725-5.85GHz) Antenna

- Antenna Type : PCB Antennas (Antenna A/B)
- Antenna Gain: 0.98dBi max (Antenna A)
- -4.36dBi max (Antenna B)

The module has been certified for integration into products only by the host integrators under the following condition.

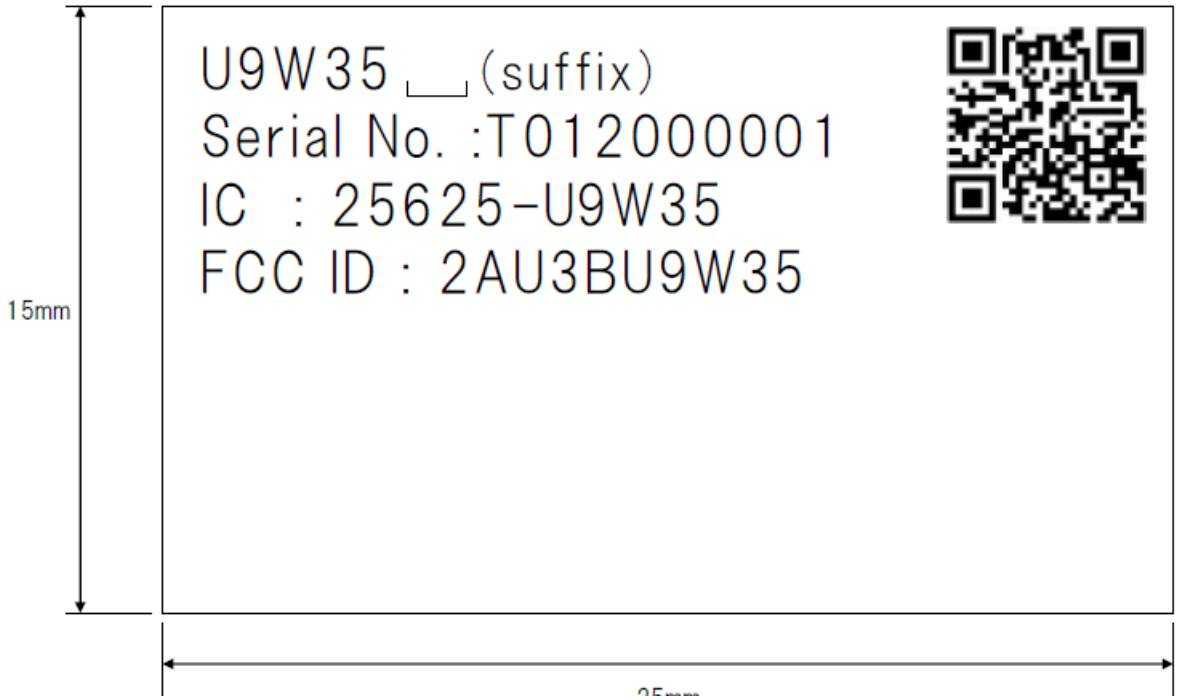
- This module must be located such that a minimum separation distance of at least 20cm is maintained between the radiator (antenna of this module) and all persons at all times.
  (KDB996369 D03 2.6)

End Product Labeling

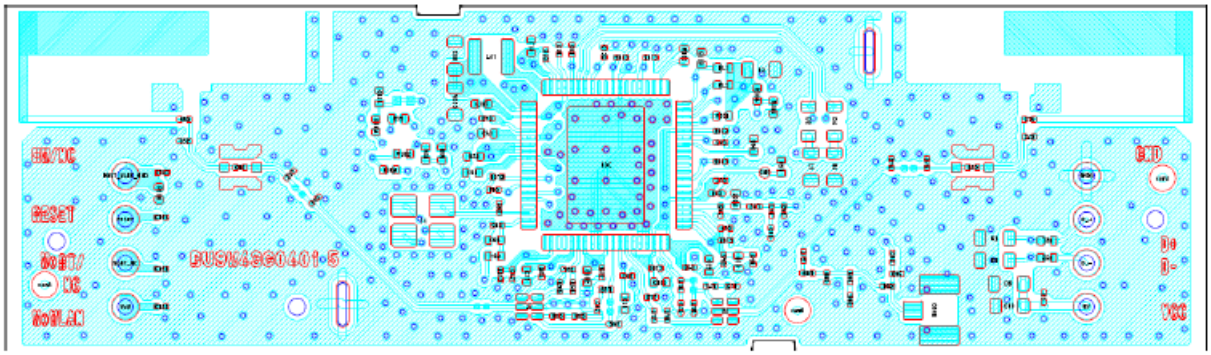
The module is labeled with its own FCC ID and IC Certification Number. If the FCC ID and IC Certification Number are not visible when the module is installed inside another device, then the outside of the device into which the module is installed must also display a label referring to the enclosed module. In that case, the final end product must be labeled in a visible area with the following.
“Contains FCC ID: 2AU3BU9W35
Contains IC: 25625-U9W35”
(KDB996369 D03 2.8)

Module Label

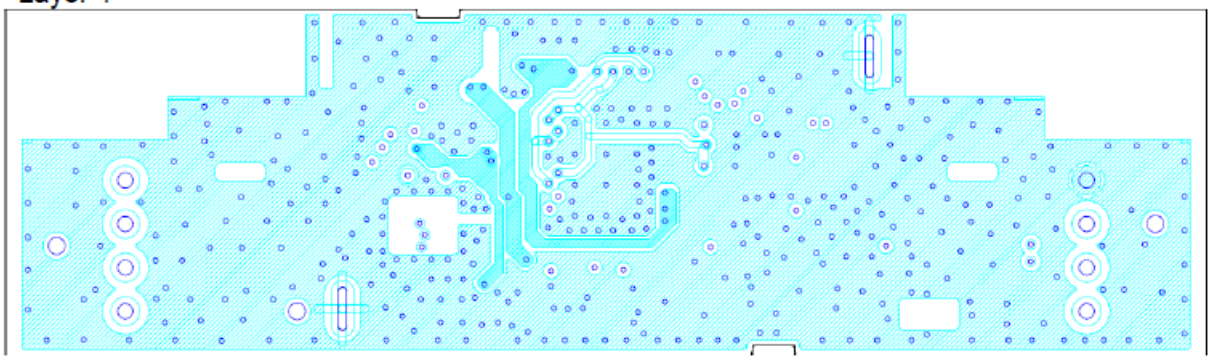
The module label should be located at the position described in P.7., and should not be peeled off easily



PCB Layout (top view)

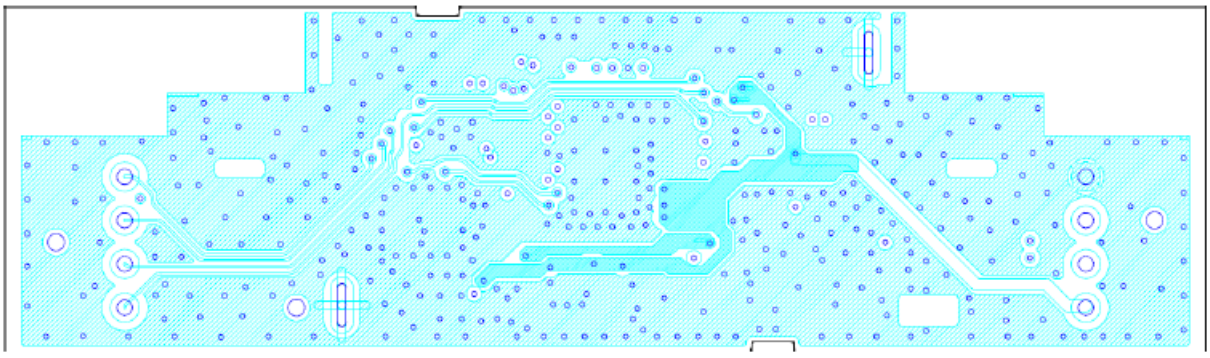


Layer 1

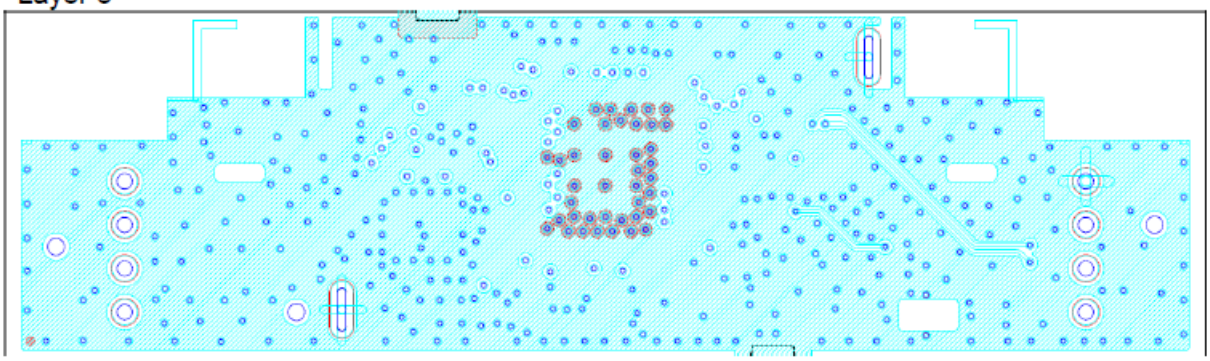


Layer 2

PCB Layout



Layer 3



Layer 4

Documents / Resources

	FUNAI WiFi Module U9W35 [pdf] Instruction Manual U9W35, 2AU3BU9W35, WiFi Module U9W35, WiFi Module