

USER MANUAL

IEEE802.11a/b/g/n/ac/ax and Bluetooth
Wireless Module

Model Name : P24VS_01

Version : 0.12
14, Sep. 2023

Panasonic Entertainment & Communication Co., Ltd.

Revision History

Version	Date	Author	Description
V0.1	2023/06/26	Masahiko Nagoshi	Initial release
V0.11	2023/08/29	Norikazu Kaneshiro	Add brand P.1 Correct product name P.3 Correct frequency range for NCC & antenna type Add row of NCC ID P.4 Remove frequency range P.6 Add NCC statement
V0.12	2023/09/14	Norikazu Kaneshiro	P.3 Correct TX/RX information for BT P.6 add sentence of NCC warning

1. PRODUCT OVERVIEW

1.1 DESCRIPTION

P24VS_01 is a IEEE802.11a/b/g/n/ac/ax wireless LAN and Bluetooth v5.2 module using chipset MT7921AUN.

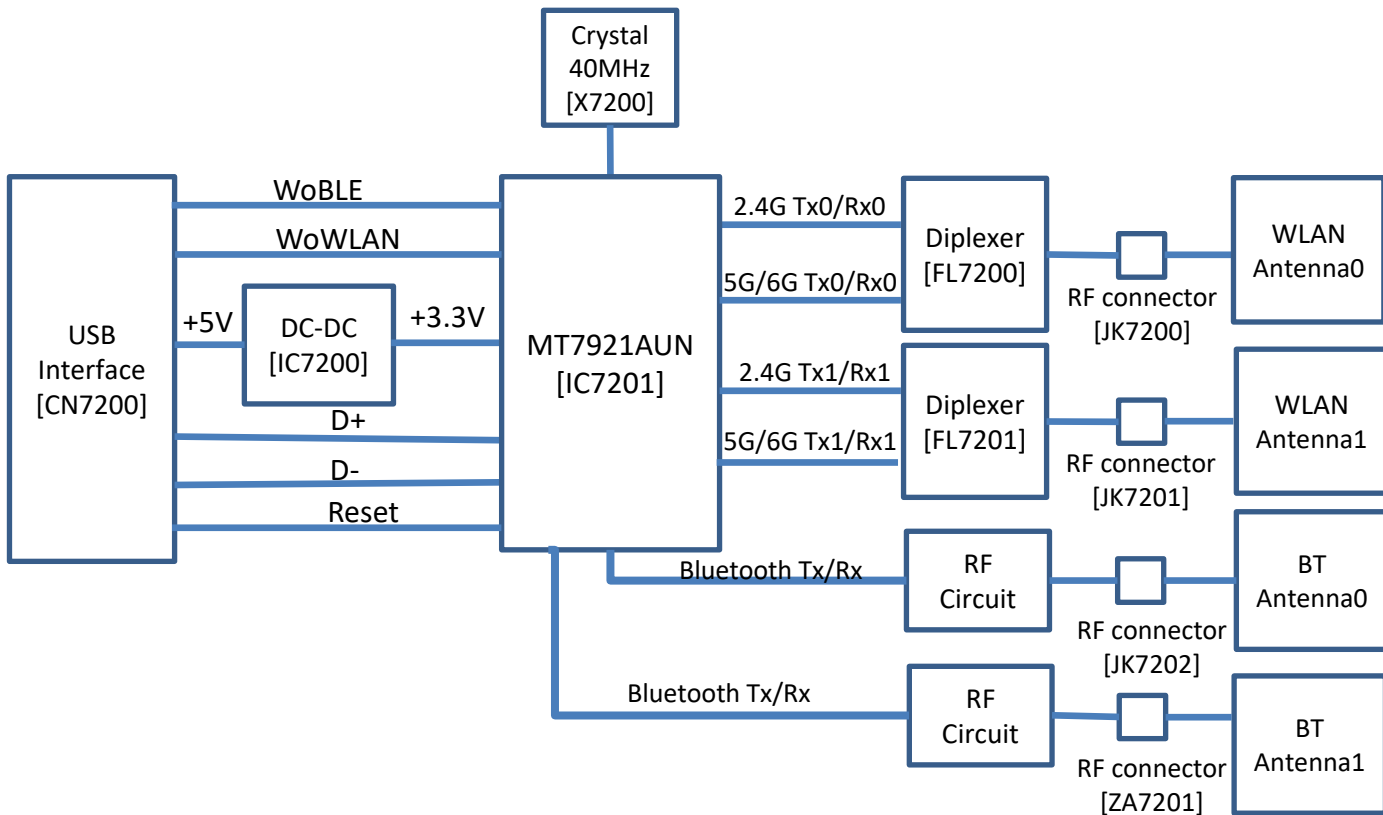
1.2 GENERAL SPECIFICATIONS

Wireless Chipset	MT7921AUN
Standard	IEEE802.11a/b/g/n/ac/ax Bluetooth v5.2
TX/RX	[Wireless LAN] 2TX , 2RX [Bluetooth] 1TX , 1RX for each
Host Interface	USB2.0
Frequency Range	2400–2483.5MHz, 5150–5350MHz, 5470–5725MHz, 5725–5850MHz, 5925–7125MHz
Use Frequency Band for Each Country	US/EU/HK/NZ/JP: 2.4GHz,5GHz, 6GHz TW: 2.4GHz, 5GHz
Maximum Data Rate	802.11b : 11Mbps 802.11g : 54Mbps 802.11a : 54Mbps 802.11n : 300Mbps 802.11ac : 866.7Mbps 802.11ax : 1201Mbps Bluetooth : 3 Mbps
Operating Voltage	5V DC ±10%
Operating Temperature	0 – 40℃
Antenna Type	[Wireless LAN] Antenna0/1: Inverted F [Bluetooth] Antenna 0: Inverted F, Antenna 1 : Slit
Dimension	105x35x6.5mm

1.3 CERTIFICATION ID

FCC	ACJ-TNPA7911
Japan(Radio Law)	003-230190
Japan(Telecommunications Business Law)	D230092003
NCC	T.B.D

1.4 BLOCK DIAGRAM



2. PRECAUTIONS

The following limits are in place regarding the usage of this module. You must be aware of these limits before using this module. Panasonic will in no way be responsible for any incidental damage which may arise due to a failure to obey these limits, or to any condition of use or disuse of this module.

- Data transmitted and received over radio waves may be intercepted and monitored.
- This module contains delicate electric components.

Please use this module in the manner in which it was intended and Follow the following points.

- Do not expose this module to high temperatures or direct sunlight.
- Do not bend or subject this module to strong impacts.
- Keep this module away from moisture.
- Do not disassemble or alter this module in any way.

3. REGULATORY STATEMENTS

依據低功率射頻器材技術規範

- 取得審驗證明之低功率射頻器材，非經核准，公司、商號或使用者均不得擅自變更頻率、加大功率或變更原設計之特性及功能。低功率射頻器材之使用不得影響飛航安全及干擾合法通信；經發現有干擾現象時，應立即停用，並改善至無干擾時方得繼續使用。前述合法通信，指依電信管理法規定作業之無線電通信。低功率射頻器材須忍受合法通信或工業、科學及醫療用電波輻射性電機設備之干擾。
- 應避免影響附近雷達系統之操作。
- 高增益指向性天線只得應用於固定式點對點系統。

<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.

Contains FCC ID: ACJ-TNPA7911

5.47-5.725 GHz band is restricted to indoor operations only.

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 transmitter must not be co-located or operated in conjunction with any other antenna or transmitter.

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment and meets the FCC radio frequency (RF) Exposure Guidelines.

This equipment has very low levels of RF energy that are deemed to comply without testing of specific absorption ratio (SAR).

But it is desirable that it should be installed and operated keeping the radiator at least 20 cm or more away from person's body (excluding extremities: hands, wrists, feet and ankles).

FCC Note:

This equipment has been tested and found to comply with the limits of 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 Caution: To assure continued compliance, follow the attached installation instructions and use only shielded interface cables when connecting to peripheral devices.

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. 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 is intended only for OEM integrators under the following conditions:

- 1) The antenna must be installed such that 20cm is maintained between the antenna and users, and
- 2) The transmitter module may not be co-located with any other transmitter or antenna,
- 3) For all products market in US, OEM has to limit the operation channels in CH1 to CH11 for 2.4Gband by supplied firmware programming tool. OEM shall not supply any tool or info to the end-user regarding to Regulatory Domain change.

As long as 3 conditions above are met, further transmitter test will not be required.

However, the OEM integrator is still responsible for testing their end-product for any additional compliance requirements required with this module installed.

IMPORTANT NOTE:

In the event that these conditions can not be met (for example certain laptop configurations or co-location with another transmitter), then the FCC authorization is no longer considered valid and the FCC ID can not be used on the final product. In these circumstances, the OEM integrator will be responsible for re-evaluating the end product (including the transmitter) and obtaining a separate FCC authorization.

End Product Labelling

The final end product must be labelled in a visible area with the following:

“Contains FCC ID: ACJ-TNPA7911.

Manual Information to the End User

The OEM integrator has to be aware not to provide information to the end user regarding how to install or remove this RF module in the user’s manual of the end product which integrates this module.

The device for operation in the band 5150–5250 MHz is only for indoor use to reduce the potential for harmful interference to co-channel mobile satellite systems.