Manuals+ — User Manuals Simplified.

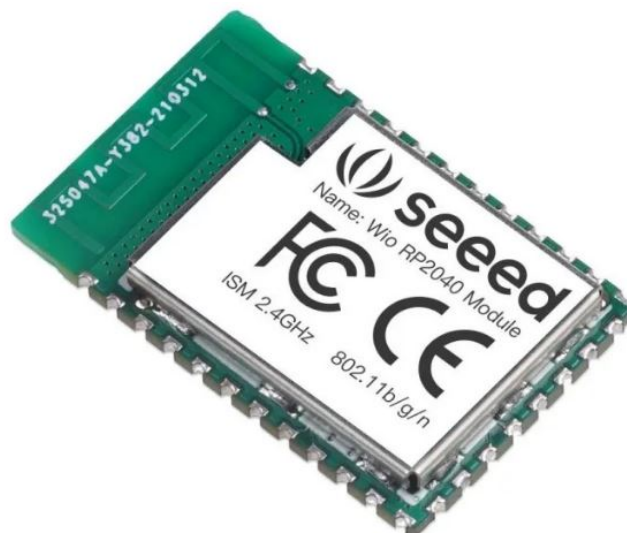# Panasonic PIOT-V2(WA) Wireless Module User Manual

Contents

Panasonic PIOT-V2(WA) Wireless Module

Copyright Statement

Federal Communication Commission Interference Statement

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 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: 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.

IMPORTANT NOTE

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 a minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
Country Code selection feature to be disabled for products marketed to the US/CANADA Integration instructions for host product manufacturers Applicable

FCC rules for module

FCC Part 15.247
Summarize the specific operational use conditions The module is must be installed on the mobile device. This device is intended only for OEM integrators under the following conditions:

1. The antenna must be installed such that 20 cm 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 2.4G band 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 cannot 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 cannot 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. 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 end user manual shall include all required regulatory information/warning as show in this manual.

Limited module procedures
Not applicable

Trace antenna designs
Not applicable

RF exposure considerations
20 cm separation distance and co-located issue shall be met as mentioned in "Summarize the specific operational use conditions".
The product manufacturer shall provide the below text in the end-product manual
"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."

Antennas

Brand name	Model name	Antenna type	Antenna gain	Antenna connector
WNC	ANT-0	Printed	2.66	NA
WNC	ANT-1	Printed	1.28	NA

Label and Compliance Information
Product manufacturers need to provide a physical or e-label stating Contains FCC ID: ACJ-V2WA" with finished product
Information on Test Modes and Additional Testing Requirements

Test tool: RTK UI_mptool.exe, version: 1V3 shall be used to set the module to transmit continuously. Additional Testing, Part 15 Subpart B Disclaimer
The module is only FCC authorized for the specific rule parts listed on the grant, and 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. The final host product still requires Part 15 Subpart B compliance testing with the modular transmitter installed

Industry Canada statement

This device contains license-exempt transmitter(s)/receiver(s) that comply with Innovation, Science, and Economic Development Canada's license-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

This device is intended only for OEM integrators under the following conditions:
1) The transmitter module may not be co-located with any other transmitter or antenna. As long as 1 condition 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 Canada authorization is no longer considered valid and the IC 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 Canada authorization.

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

Introduction

Thank you for purchasing the 802.11 b/g/n Wireless LAN module that provides the easiest way to wireless networking. This User Manual contains detailed instructions in the operation of this product. Please keep this manual for future reference.
System Requirements

- 128 MB of RAM or later (recommended)
- 300 MHz processor or higher

Driver/Utility Installation

The driver should have been installed before the Appliances is shipped from the manufacturer. You can start using its network function without installing driver or utility.
This module is associated product for Appliances' host. The following description provides a basic installation for wireless module. For more information about the Wireless Module, please refer to your manual.
Installing Wi-Fi module

1. Link cable with connector on wireless module
2. Link wireless module with connector to PC and install software in wireless module
3. Open the back lid of Appliances, lock wireless module on internal main board of Appliances.
4. Power supply on internal main-board and allow Appliances to load fully.

Connecting to an Existing Network

1. Use the remote control that came with your Appliances to access the network configuration settings page.
2. Select the scanning wireless network function. The system starts to scan for available network. On this list,

click Refresh to refresh the list at any time

3. Select the network you want to connect to.
4. If the chosen network has security enabled, you will have to setup corresponding security parameter. Contact the network manager for the correct settings. Select the security type and fill in required parameters. The options include the following:

- WPA/WPA2/CCKM
- WPA/WPA2 Passphrase
- 02.1x
- Pre-Shared Key (Static WEP)
- None

Modifying a Wireless Network

Modifying General Settings

1. Use the remote control that came with your Appliances to access the network configuration settings page.
2. From the profile list, select one profile and choose the modify function.
3. Modify the settings below for your network.

Profile Name	Identifies the configuration wireless network profile. This name must be unique. Profile names are not case sensitive.
Client Name	Identifies the client machine.
Use this profile for Access Point mode	Configures station to operate in Access Point mode.
Network Names (SSIDs)	The IEEE 802.11 wireless network name. This field has a maximum limit of 32 characters. Configure up to three SSIDs (SSID1, SSID2, and SSID3).

Modifying Security Settings

1. Use the remote control that came with your Appliances to access the network configuration settings page.
2. Select a security option of this wireless network. This product provides security options below. Contact your wireless network administrator for choosing the correct option.
   - WPA/WPA2/CCKM
   - WPA/WPA2 Passphrase
   - 802.1x
   - Pre-Shared Key (Static WEP)
   - None

WPA/WPA2	Enables the use of Wi-Fi Protected Access (WPA). Choosing WPA/WPA2 opens the WPA/WPA2 EAP drop-down menu. The options include: l EAP-FAST l EAP-TLS l EAP-TTLS l EAP-SIM l PEAP (EAP-GTC) l PEAP (EAP-MSCHAP V2) l LEAP
WPA/WPA2 **Passphrase**	Enables WPA/WPA2 Passphrase security. Click on the Configure button and fill in the WPA/WPA2 Passphrase.

802.1x	Enables 802.1x security. This option requires IT administration. Choosing 802.1x opens the 802.1x EAP type drop-down menu. The options include: l EAP-FAST l EAP-TLS l EAP-TTLS l EAP-SIM l PEAP (EAP-GTC) l PEAP (EAP-MSCHAP V2) l LEAP
Pre-Shared Key (Static WEP)	Enables the use of pre-shared keys that are defined on both the access point and the station. To define pre-shared encryption keys, choose the Pre-Shared Key radio button and click the Configure button to fill in the Define Pre-Shared Keys window.

None	No security (not recommended).

Allow Association to Mixed Cells	Check this check box if the access point with which the client adapter is to associate has WEP set to Optional and WEP is enabled on the client adapter. Otherwise, the client is unable to establish a connection with the access point.
Limit Time for Finding Domain Controller To	Check this check box and enter the number of seconds (up to 300) after which the authentication process times out when trying to find the domain controller. Entering zero is like unchecking this check box, which means no time limit is imposed for finding the domain controller. Note: The authentication process times out whenever the authentication timer times out or the time for finding the domain controller is reached.
Group Policy Delay	Specify how much time elapses before the Windows logon process starts group policy. Group policy is a Windows feature used by administrators to specify configuration options for groups of users. The objective is to delay the start of Group Policy until wireless network authentication occurs. Valid ranges are from 0 to 65535 seconds. The value that you set goes into effect after you reboot your computer with this profile set as the active profile. This drop-down menu is active only if you chose EAP-based authentication.

Specifications

Item	Content
Main chipset	RTL8720CM-VH2

TX/RX	1TX/1RX
Frequency range	2.400 ~ 2.4835 GHz
Channel spacing	5MHz for Wi-Fi, 2MHz for Bluetooth
Modulation technology	DSSS : CCK,DQPSK,DBPSK OFDM :BPSK,QPSK,16QAM,64QAM GFSK
Data Rate	802.11b: 11/5.5/2/1Mbps 802.11g: 54/48/36/24/18/12/9/6Mbps 802.11n: MCS0~MCS7(65Mbps) 802.15.1:
Host interface	UART
Operation voltage	DC 5V (1A, 5W)
Operation temperature	-10º ~ 70ºC
Antenna Type	Printed Antenna

Antenna peak gain	ANT0 : 2.66dBi ANT1 : 1.28dBi

Documents / Resources

Wireless Module Panasonic PIOT-V2(WA) User Manual Copyright Statement No part of this publication may be reproduced, stored in a retrieval system or transmitted in any form, or by any means, whether electronic, mechanical, photocopying, recording or others for without the prior writing of the publisher. Pentium is trademark of Intel All copyrights reserved	**Panasonic PIOT-V2(WA) Wireless Module** [pdf] User Manual V2WA, ACJ-V2WA, ACJV2WA, PIOT-V2 WA, Wireless Module