Panasonic

Instructions

WLAN module

Model No. **WJ-VR3004**

Before attempting to connect or operate this product, please read these instructions carefully and save this manual for future use.

The model number is abbreviated in some descriptions in this manual.

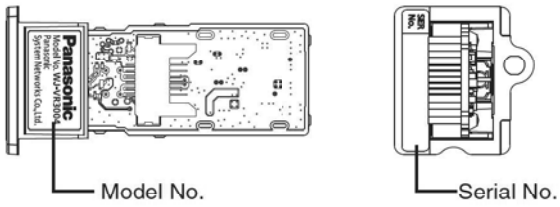
Warning: All work related to the installation of this product should be qualified service personnel or system installer.

For U.S.A

The model number and serial number of this product may be found on the surface of the unit. You should note the model number and serial number of this unit in the space provided and retain this book as a permanent record of your purchase to aid identification in the event of theft.

Model No. _____

Serial No. _____



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(4) ANY PROBLEM, CONSEQUENTIAL INCONVENIENCE, OR LOSS OR DAMAGE, ARISING OUT OF THE SYSTEM COMBINED BY THE DEVICES OF THIRD PARTY.

Important safety instructions

1) Read these instructions.

2) Keep these instructions.

Features

The Wireless LAN Module WJ-VR3004 is an option for installation into the Video Processing Unit WJ-VR30 Series. This module complies with the IEEE802.11 a/b/g/n (2.4GHz band/5GHz band) standard and uses a wireless network to enable wireless connection to a PC on which the Front-End_Application is installed.

Precautions

- Installation of this device should be handled by qualified service personnel.
- This product contains electronic components that are sensitive to static electricity and cables and harnesses that could easily break. To prevent damage, only qualified service personnel should be allowed to unpack the product.
- This module is exclusively designed for the WJ-VR30 Series (sold separately). Do not install this board in other devices or use this board independently.
- Contact your dealer when having a problem. Turn off the power of the Video Processing Unit immediately, and then contact qualified service personnel.

Installations

Installation of this device should be handled by qualified service personnel.

Specifications

Environment :

ITEM	Operation	Storage
Ambient Temperature	–10 ˚C to 50 ˚C {14 °F to 122 °F}	-20 ˚C to 60 ˚C {-4 °F to 140 °F}
Humidity	10 % to 80 % (no condensation)	

* The module specifications are described above.
When the module is installed in a WJ-VR30 series recorder, it will comply with the environmental specifications of the recorder.

Dimensions : 31.2 mm (W) x 29.4 mm (H) x 63.6 mm (D)
{1-7/32 inches (W) x 1-5/32 inches (H) x 2-1/2 inches (D)}
However, projections and harnesses are excluded.

Mass : 15 g {0.04 lbs}

Radio Specifications :

ITEM	Descriptions
Communication Standard	802.11 a/b/g/n
Access Control	CSMA/CA
Frequency Band	2.4 GHz band (ISM) 2412 to 2462 MHz, 5 MHz step 11ch (IEEE802.11b/g/n-HT20) 2422 to 2452 MHz, 5 MHz step 7ch (IEEE802.11n-HT40) 5.3 GHz band 5280 to 5320 MHz, 20 MHz step 3ch (IEEE802.11a/n-HT20) 5310 MHz (IEEE802.11n-HT40) 5.8 GHz band 5745 to 5825 MHz, 20 MHz step 5ch (IEEE802.11a/n-HT20) 5755 to 5795 MHz, 40 MHz step 2ch (IEEE802.11n-HT40)
MIMO	2x2, 2 stream
Transmit Rate	802.11b: 1 to 11 Mbps 802.11g: 6 to 54 Mbps 802.11a: 6 to 54 Mbps 802.11n: 6.5 to 300 Mbps
Antenna Connectors	Module side: Rectangular Coaxial Connector (SMT), 2pcs. Antenna side: RP-SMA, 2pcs. **Note:** Convert the RP-SMA jack into a rectangular coaxial connector (SMT) by connecting the antenna harness (standard accessory).

Antenna requirements

It is strictly prohibited to co-locate or operate this module with antennas or transmitters not included on this list.

No.	Manufacturer	Part No.	Gain (2.4GHz/5.5GHz) w/ Cable Loss	Impedance	Antenna Type
1	ANTENNA PLUS LLC	AP-WW-**x**-S22-RP-**xx** (Panasonic:ARB-APWWxS22-RP-xx)	0.58dBi / -0.98dBi	50ohm	2.4GHz: Dual (Planar patch) 5GHz: Dual (Inverted F)
2	Airgain	AP-PAN-WW-**x**-S22-RP-**xx**-18 (Panasonic:ARB-APWWxS22-RP-xx)	3.9145dBi / 0.24dBi	50ohm	Dual (Pattern)

Note: x: Mount Style Q:Bolt M:Magnetic xx: Color WH:White BL:Black

Note:

The 20 cm {8 inches} minimum separation must be maintained between users and the antenna. It is desireable that the antenna is located at least 1 m {40 inches} away from other Wireless LAN antennas to avoid the interference.

Standard Accessories

Instructions (this document) ..... 1 pc.
Antenna harness ..... 2 pcs.
Cable tie ..... 2 pcs.

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Compliance statement and notification

For U.S.A

FCC CAUTION

Changes or modifications no expressly approved by the party responsible for compliance could void the user's authority to operate the 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.

FCC Note:

This equipment has been tested and found to comply with the limits for a Class A digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference
to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

For Canada

CAN ICES-3(A)/NMB-3(A)

For U.S.A.

<FCC Information>

Information to to Be Supplied to the End User by the Installer or Integrator
If the FCC ID of this module is not visible from the outside of the end product, to satisfy FCC exterior labeling requirements, the end product must be labeled in a visible area with the following: “Contains FCC ID: ACJ9TAWJ-VR3004”
The following regulatory and safety notices must be published in documentation supplied to the end user of the product or system incorporating an adapter in compliance with local regulations.

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

Operating near 2.4 GHz electrical appliances may cause interference. Move away from the electrical appliances.

Compliance with FCC requirement 15.407(c)
Data transmission is always initiated by software, which is the passed down through the MAC, through the digital and analog baseband, and finally to the RF chip. Several special packets are initiated by the MAC. These are the only ways the digital baseband portion will turn on the RF transmitter, which it then turns off at the end of the packet. Therefore, the transmitter will be on only while one of the aforementioned packets is being transmitted. In other words, this device automatically discontinue transmission in case of either absence of information to transmit or operational failure.

Frequency Tolerance: ± 50 ppm (2.4GHz band), ± 20 ppm (5GHz band)

Radio Frequency (RF) Exposure Warning
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 should be installed and operated keeping the radiator at least 20cm or more away from person’s body.

MEDICAL:
Consult the manufacturer of any personal medical devices, such as pacemakers, to determine if they are adequately shielded from external RF (radio frequency) energy. The unit operates in the frequency range of 2.412 GHz to 2.462 GHz and/or 5.180 GHz to 5.85 GHz.
Do not use the unit in health care facilities if any regulations posted in the area instruct you not to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF (radio frequency) energy.

For Canada

<IC Information>

Information to to Be Supplied to the End User by the Installer or Integrator
If the IC ID of this module is not visible from the outside of the end product, to satisfy IC exterior labeling requirements, the end product must be labeled in a visible area with the following: “Contains IC: 216A-WJVR3004”
The following regulatory and safety notices must be published in documentation supplied to the end user of the product or system incorporating an adapter in compliance with local regulations.
Informations à fournir à l’utilisateur final par l’installateur ou l’intégrateur
Afin de satisfaire les exigences en matière d’étiquetage externe IC, si l’identification IC de ce module n’est pas visible sur le produit final, celui-ci doit être muni d’une étiquette apposée dans une zone visible avec les indications suivantes : “Contient IC : 216A-WJVR3004”
Les consignes de contrôle et de sécurité suivantes doivent être publiées dans la documentation fournie à l’utilisateur final du produit ou du système intégrant un adaptateur conformément aux règlements locaux.

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.
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.

This radio transmitter (IC: 216A-WJVR3004) 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.

No.	Manufacturer	Part No.	Gain (2.4GHz/5.5GHz) w/ Cable Loss	Impedance	Antenna Type
1	ANTENNA PLUS LLC	AP-WW-**x**-S22-RP-**xx** (Panasonic:ARB-APWWxS22-RP-xx)	0.58dBi / -0.98dBi	50ohm	2.4GHz: Dual (Planar patch) 5GHz: Dual (Inverted F)
2	Airgain	AP-PAN-WW-**x**-S22-RP-**xx**-18 (Panasonic:ARB-APWWxS22-RP-xx)	3.9145dBi / 0.24dBi	50ohm	Dual (Pattern)

Note: x: Mount Style Q:Bolt M:Magnetic xx: Color WH:White BL:Black

Le présent émetteur radio (IC: 216A-WJVR3004) a été approuvé par Innovation, Sciences et Développement économique Canada pour fonctionner avec les type d'antenne énumérés ci-dessous et ayant un gain admissible maximal. Les types d'antenne non inclus dans cette liste, et dont le gain est supérieur au gain maximal indiqué pour tout type figurant sur la liste, sont strictement interdits pour l'exploitation de l'émetteur.

No.	Fabricant	Numéro de pièce	Gain (2.4GHz/5.5GHz) avec perte de câble	Impédance	Type d'antenne
1	ANTENNA PLUS LLC	AP-WW-**x**-S22-RP-**xx** (Panasonic:ARB-APWWxS22-RP-xx)	0.58dBi / -0.98dBi	50ohm	2,4 GHz: Dual (patch planaire) 5 GHz: Dual (F inversé)
2	Airgain	AP-PAN-WW-**x**-S22-RP-**xx**-18 (Panasonic:ARB-APWWxS22-RP-xx)	3.9145dBi / 0.24dBi	50ohm	Dual (Motif)

Remarque: x: style de montage Q:boulon M:magnétique xx: Couleur WH:Blanc BL:Noir

For Canada

<IC Information>

Radio Frequency (RF) Exposure Warning

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment and meets RSS-102 of the IC radio frequency (RF) Exposure rules. This equipment should be installed and operated keeping the radiator at least 20cm or more away from person's body.

Cet équipement est conforme aux limites d'exposition aux rayonnements énoncées pour un environnement non contrôlé et respecte les règles d'exposition aux fréquences radioélectriques (RF) CNR-102 de l'IC. Cet équipement doit être installé et utilisé en gardant une distance de 20 cm ou plus entre le dispositif rayonnant et le corps.

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