FWA-1010VC Network system with Intel® Atom® C2000 Processor Platform

Packing List

Before you begin installing your card, please make sure that the following items have been shipped:
• One FWA-1010VC System
• One space of accessories
• One warranty certificate

If any of these items are missing or damaged, please contact your distributor or sales representative immediately.

Note 1: Acrobat Reader is required to view any PDF file.Acrobat Reader can be downloaded at: www.adobe.com/Products/acrobat/readstep2.

html (Acrobat is a trademark of Adobe)

Specifications

Main Board Functions

• **CPU:**
  Dual Intel® C2000, L2 Catch: 2MB/4MB (by CPU SKU)

• **Memory:**
  Supports two DDR3/DDR3L Memory DIMMs up to 1600 MHz, depending on CPU SKU

• **Storage:**
  Up to 1 x 2.5" SSD bracket(by product sku), 1x M.2 2280 SSD slot

• **Dimensions:**
  250 x 44 x 190.4mm (W x H x D)

• **Power Supply:**
  60W, 100 V ~ 240 V @ 50 ~ 60 Hz, full range

Table of Content

1. WARNING CAUTION AND NOTES

Warning! *Warnings indicate conditions, which, if not observed, can cause personal injury.*

Caution! *Cautions are included to help you avoid damaging hardware or losing data.*

Note! *Notes provide additional information.*

2. FEDERAL COMMUNICATIONS COMMISSION (FCC) COMPLIANCE STATEMENT

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.

To assure continued compliance, any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment. (Example: use only shielded interface cables when connecting to computer or peripheral devices).

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.

15.21

You are cautioned that changes or modifications not expressly approved by the part responsible for compliance could void the user's authority to operate the equipment.

15.105(b)

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.

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 of the device.

FCC RF Radiation Exposure Statement:
1.   This Transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.
2.   This equipment complies with FCC RF radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with a minimum distance of 20 centimeters between the radiator and your body

3. CE COMPLIANCE STATEMENT

This *product has been designed and manufactured in accordance to the following technical regulation:*
- Red Equipment Directive: 2014/53/EU
- Electromagnetic Compatibility Directive: 2014/30/EU
- Low Voltage Directive: 2014/35/EU
- RoHS Directives: 2011/65/EU

Note: RF Exposure Evaluation Summary complied to EN 62311:2008 is attached for reference. Should you need a signed copy of the declaration of conformity(DoC) or the related test reports, please contact your Advantech representative for further information.

Frequency Band	Frequency(MHz)	Output Power to Antenna (dBm)	Testing Condition
WLAN2.4G 802.11b	2412	16.4	Antenna Gain= 2.79 dBi
WLAN2.4G 802.11g	2412	14.4	Distance to human body=20.00cm
WLAN2.4G 802.11n_HT20M	2412	11.3	Duty Cycle=0.99
WLAN2.4G 802.11n_HT40M	2422	13.1	Test result: PASS
WLAN5G 802.11a	5320	12.8	Antenna Gain= 3.49 dBi
WLAN5G 802.11n_HT20M	5320	11.93	Distance to human body=20.00cm
WLAN5G 802.11n_HT40M	5310	10.92	Duty Cycle=0.96
WLAN5G 802.11ac_VHT80M	5290	7.7	Test result: PASS
WCDMA Band I	1922.4	23.17	Antenna Gain= 2.3 dBi Distance to human body=20.00cm Duty Cycle=1 (WCDMA/HSDPA/HSUPA) Test result: PASS
WCDMA Band VIII	912.6	22.71	Antenna Gain= -0.8 dBi Distance to human body=20.00cm Duty Cycle=1 (WCDMA/HSDPA/HSUPA) Test result: PASS
LTE Band I_20MHz	1930	22.96	Antenna Gain= 2.3 dBi Distance to human body=20.00cm Duty Cycle=1 Test result: PASS
LTE Band 3_1.4MHz	1710.7	23.01	
LTE Band 7_10MHz	2535	21.68	
LTE Band 8_1.4MHz	880.7	22.77	
LTE Band 20_15MHz	839.5	22.62	

4. CCC COMPLIANCE STATEMENT

警告使用者：这是甲类资讯产品，在居住的环境中使用，可能会造成射频干扰，在这种情况下，使用者会被要求采取某些适当的对抗。

声明：此为 A 级产品，在生活环境中，可能会造成无线干扰，在这种情况下，可能需要用户对其干扰采取切实可行的措施。

安全指令

1. 请仔细阅读此安全操作说明。
2. 请妥善保存此用户手册供日后参考。
3. 用湿抹布清洗设备前，请从插座拔下电源线。请不要使用液体或去污喷雾剂清洗设备。
4. 对于使用电源线的设备，设备周围必须有容易连接到的电源插座。
5. 请让设备远离潮湿环境。
6. 请在安装前确保设备放置在可靠的平面上，意外跌落可能会导致设备损坏。
7. 设备外壳的开口是用于空气对流，从而防止设备过热。请不要覆盖这些开口。
8. 当您连接设备到电源插座上前，请确认电源插座的电压是否符合要求。
9. 请将电源线安置在人们不易绊到的位置，并不要在电源在线覆盖任何杂物。
10. 请注意设备上的所有警告和注意标语。
11. 如果长时间不使用设备，请将设备与电源插座间的电线断开，避免设备被超目标电压波动损坏。
12. 请不要让任何液体流入通风口，以免引起火灾或者电路短路。
13. 请不要自行打开设备。为了确保您的安全，请由经过认证的工程师来执行。
14. 如遇下列情况，请由专业人员来维修：

■ 电源线或者插头损坏；

■ 设备内部有液体流入；

■ 设备曾暴露在于于潮湿的环境中使用；

■ 设备无法正常工作，或您无法通过用户手册来使其正常工作；

■ 设备跌落或者损坏；

■ 设备有明显的外观破损。

15. 请不要把设备放置在超出我们建议的温度范围的环境，即不要低于 0°C(-20°C;-4°F) 或高于 40°C(60°C;140°F)，否则可能会损坏设备。
16. 注意：如果电池放置不正确，将有爆炸的危险，因此，只可以使用制造商推荐的同一种或者同等型号的电池进行替换。请按照制造商的指示处理已使用过的电池。
17. 根据 IEC 704-1:1982 规定，设备产生的音量不高于 70 分贝。
18. 免责声明：请安全训示符合 IEC 704-1 要求。研华公司对其内容之准确性不

承担任何法律责任。

5. HARDWARE INSTALLATION INTRODUCTION

5.1 Memory Installation

Open the top cover and insert DDR3 UDIMM module into the socket, insert RAM module into black socket first then insert RAM module in orange socket
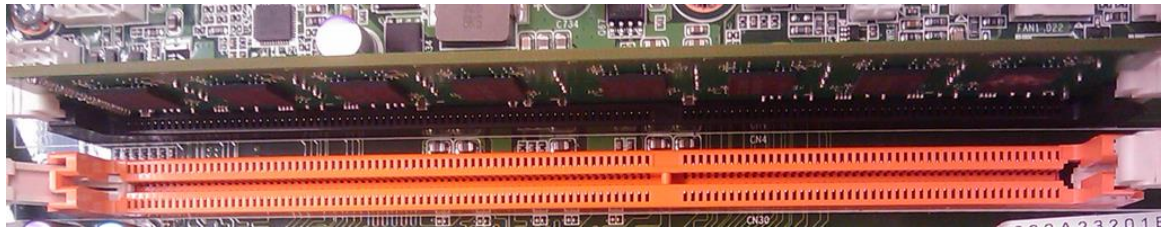
5.2 2.5"SSD Bracket Installation

5.2.1 M3*4.0L screws & SSD bracket

Get 4 pcs M3*4.0L screws & SSD bracket from accessory box

M3*4.0L screw

5.2.2 2.5" SSD in SSD bracket.

Use screwdriver locking 4 screws to fix 2.5" SSD in SSD bracket.

5.2.3 M3*4L screws

Get 4 pcs M3*4L screws from accessory box

M3*4 screw

5.2.4 SSD bracket

Use screwdriver locking 4 screws to fix SSD bracket
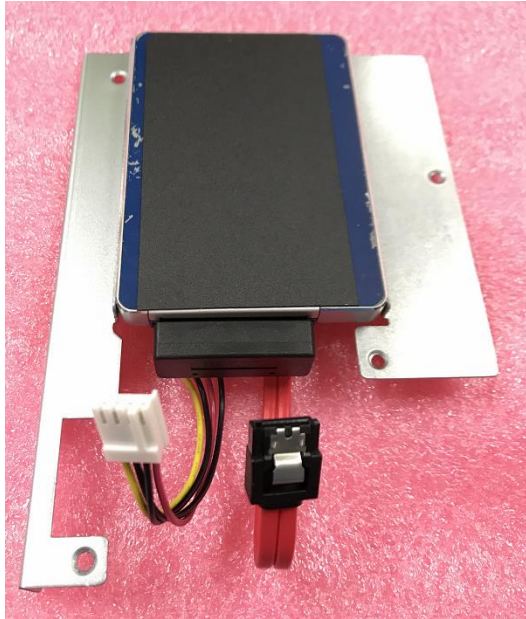
SSD SATA & power connector side needs face from chassis side.
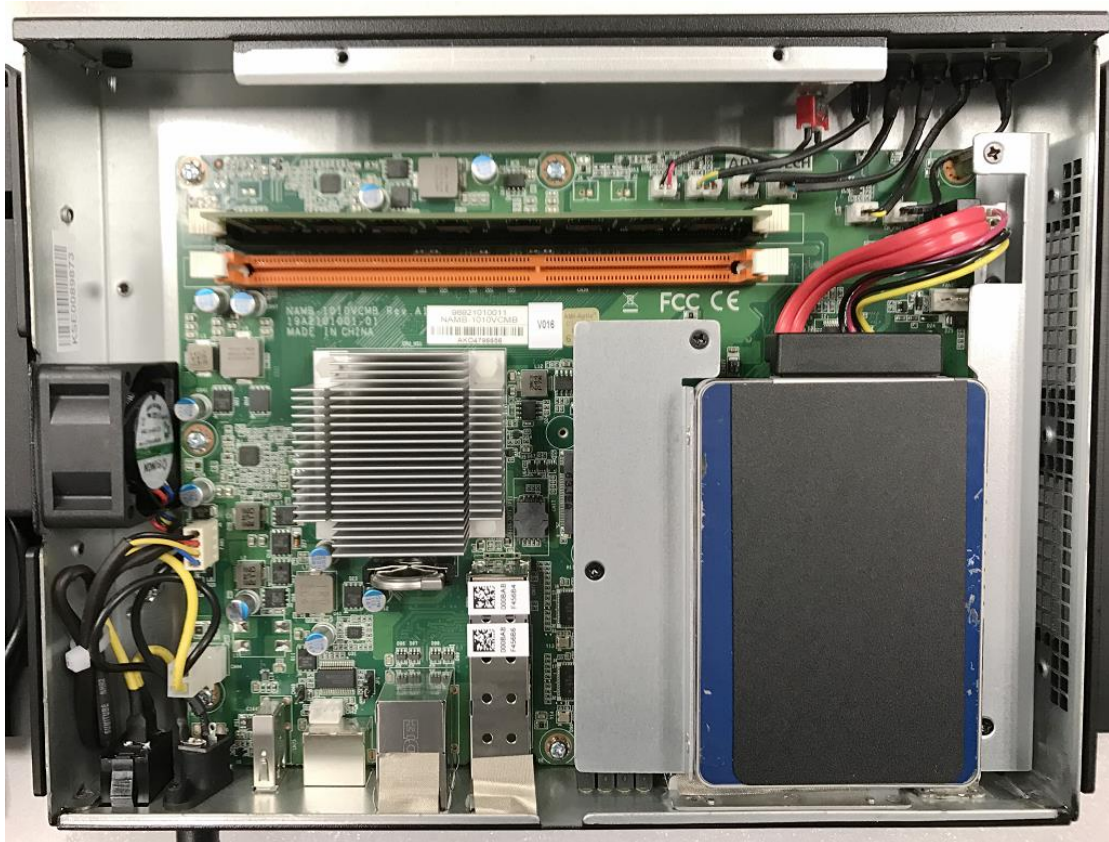
5.2.5 SATA & Power cable

Please connect SATA & Power cable to SSD connectors.

5.3 M.2 SSD Installation

5.3.1   M3*3.5 screw for M.2 module

Get M.2 module & Screw M3*3.5 (P/N: 1930006888-01)

5.3.2   M.2 module

Use screwdriver locking a screw to fix M.2 module and M/B.
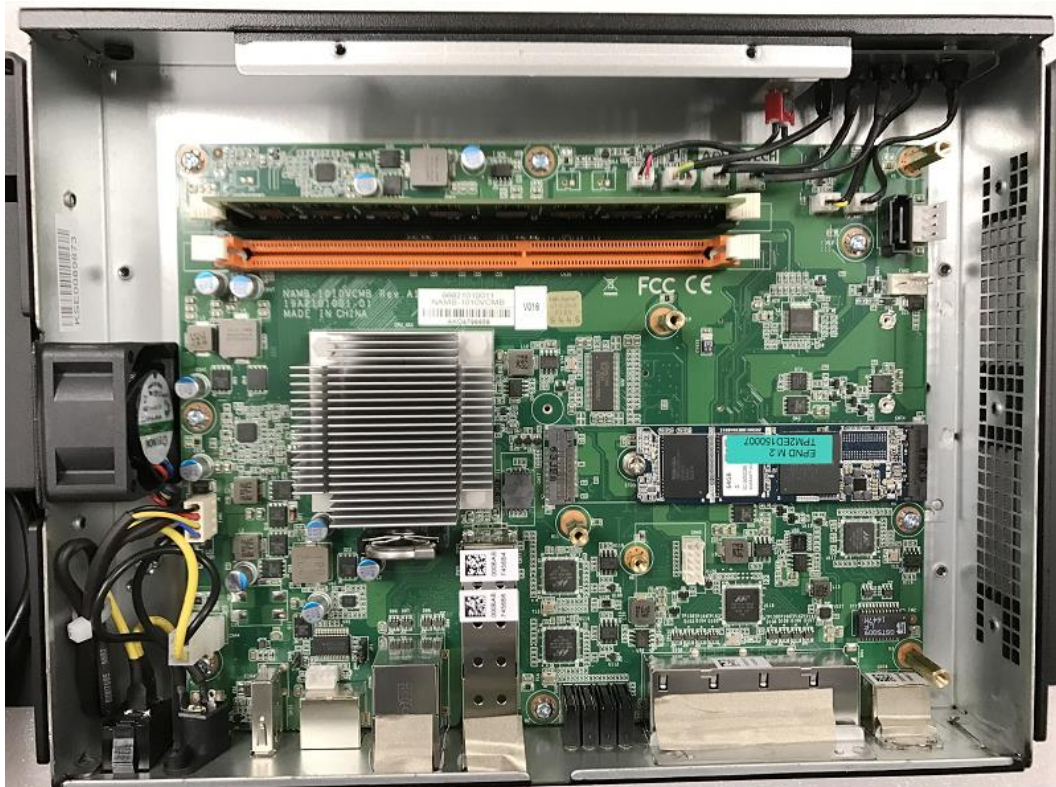
5.4 WWAN(LTE) & WLAN(WiFi) Antenna Installation

Get 2 pcs LTE Antenna and 2 pcs WiFi Antenna. Please make the antenna be into the

correct position！

5.5 WallMount Kit Installation

Get 6 pcs M3*4L screws from accessory box

Use screwdriver locking 6 screws to fix WallMount Kit bracket on FWA-1010VC

5.6 RackMount Kit Installation

Get 6 pcs M3*4L screws from accessory box

Plug in Power Adaptor into power Adaptor bracket

Revert power adaptor bracket into rack-mounting bracket

Please use screwdriver locking 6 screws to fix RackMount Kit bracket on FWA-1010VC

6. BIOS CONSOLE REDIRECTION SETTING

6.1 Console Redirection Function Install & Setting

FWA-1010VC doesn't have a VGA function; user needs to use console-redirection cable(please contact your Advantech contact window to order this cable) to control FWA-1010VC function,

6.1.1 RJ45 Console cable connection

Please use RJ45 console cable to connect FWA-1010VC's console port. Then test PC's RS232 COM port, user may press "DEL" or "ESC" key into BIOS by console-redirection utility

6.1.2 Serial port console redirection

Choose "Advanced"→ "Serial Port Console Redirection" item.

```
         Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
     Main  Advanced  Chipset  Security  Boot  Save & Exit
/------------------------------------------------+-----------------------\
|> System Health                                 |Serial Port Console    |
|> Serial Port Console Redirection               |Redirection            |
|> PCI Subsystem Settings                        |                       |
|> Network Stack Configuration                   |                       |
|> CSM Configuration                             |                       |
|> Trusted Computing                             |                       |
|> USB Configuration                             |                       |
|                                                |                       |
|                                                |                       |
|                                                |-----------------------|
|                                                |><: Select Screen      |
|                                                |^v: Select Item        |
|                                                |Enter: Select          |
|                                                |+/-: Change Opt.       |
|                                                |F1: General Help       |
|                                                |F2: Previous Values    |
|                                                |F3: Optimized Defaults |
|                                                |F4: Save & Exit        |
|                                                |ESC: Exit              |
\------------------------------------------------+-----------------------/
         Version 2.17.1254. Copyright (C) 2016 American Megatrends, Inc.
```

6.1.3 Default console redirection setting

Default console redirection setting of FWA-1010VC BIOS is **COM1**

```
         Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
            Advanced
/------------------------------------------------+-----------------------\
|                                                |The settings specify   |
|   COM1                                         |how the host computer  |
|   Console Redirection      [Enabled]           |and the remote computer|
|>  Console Redirection Settings                 |(which the user is     |
|                                                |using) will exchange   |
|                                                |data. Both computers   |
|                                                |should have the same or |
|                                                |compatible settings.   |
|                                                |                       |
|                                                |-----------------------|
|                                                |><: Select Screen      |
|                                                |^v: Select Item        |
|                                                |Enter: Select          |
|                                                |+/-: Change Opt.       |
|                                                |F1: General Help       |
|                                                |F2: Previous Values    |
|                                                |F3: Optimized Defaults |
|                                                |F4: Save & Exit        |
|                                                |ESC: Exit              |
\------------------------------------------------+-----------------------/
         Version 2.17.1254. Copyright (C) 2016 American Megatrends, Inc.
```

6.1.4 Baud rate setting

Baud rate setting is **115200,8,n1**, and "Redirection after BIOS POST" is **Always**.

```
          Aptio Setup Utility - Copyright (C) 2016 American Megatrends, Inc.
            Advanced
/-------------------------------------------------+------------------------\
|  COM1                                           |Emulation: ANSI:        |
|  Console Redirection Settings                   |Extended ASCII char     |
|                                                 |set. VT100: ASCII char  |
|  Terminal Type           [VT100+]               |set. VT100+: Extends    |
|  Bits per second         [115200]               |VT100 to support color, |
|  Data Bits               [8]                    |function keys, etc.      |
|  Parity                  [None]                 |VT-UTF8: Uses UTF8       |
|  Stop Bits               [1]                    |encoding to map Unicode  |
|  VT-UTF8 Combo Key Sup   [Enabled]              |chars onto 1 or more     |
|  Recorder Mode           [Disabled]             |------------------------|
|  Resolution 100x31       [Disabled]             |><: Select Screen       |
|  Legacy OS Redirection   [80x24]                |^v: Select Item         |
|  Putty KeyPad            [VT100]                 |Enter: Select           |
|  Redirection After BIO   [Always Enable]        |+/-: Change Opt.         |
|                                                 |F1: General Help        |
|                                                 |F2: Previous Values     |
|                                                 |F3: Optimized Defaults  |
|                                                 |F4: Save & Exit         |
|                                                 |ESC: Exit               |
\-------------------------------------------------+------------------------/
          Version 2.17.1254. Copyright (C) 2016 American Megatrends, Inc.
```

7. FWA-1010VC QUICK START IMAGE INSTALLATION AND SETTING

Advantech provided FWA-1010VC Quick Start Linux image which is based on Ubuntu Linux distribution and is configured to run on FWA-1010VC for vE-CPE and SD-WAN applications. Useful software utilities and tools which are either Advantech proprietary or are under opens source license are integrated into the image to provide customers with a quick and easy approach for platform evaluation.
Please contact your Advantech representative for getting FWA-1010VC Quick Start Linux image and Getting Started Guide.

8. FWA-1010VC BIOS FLASH STEP

8.1 FWA--1010VC BIOS flash step.

FWA-1010VC BIOS V016 or latest version are support flash BIOS by UEFI shell, when user needs flash er below step to flash FWA-1010VC BIOS.

8.1.1 Copy BIOS & Flash Tool

Please copy BIOS & flash tool (ex: fpt.efi) in USB flash, and insert USB flash to FWA-1010VC.

8.1.2 Power up System

After power up, choose "Save & Exit"→ "Boot Overider"→ "UFEI: Bulit-in EFI Shell"

```
        Aptio Setup Utility – Copyright (C) 2016 American Megatrends, Inc.
          Main  Advanced  Chipset  Security  Boot  Save & Exit
/------------------------------------------------+-----------------------------\
| Save Changes and Exit                          |                             |
| Discard Changes and Exit                       |                             |
| Save Changes and Reset                         |                             |
| Discard Changes and Reset                      |                             |
|                                                |                             |
| Save Options                                   |                             |
| Save Changes                                   |                             |
| Discard Changes                                |                             |
|                                                |                             |
| Restore Defaults                               |-----------------------------|
| Save as User Defaults                          |><: Select Screen            |
| Restore User Defaults                          |^v: Select Item              |
|                                                |Enter: Select                |
| Boot Override                                  |+/-: Change Opt.             |
| UEFI: Built-in EFI Shell                       |F1: General Help             |
| ADATA USB Flash Drive 1.00                     |F2: Previous Values          |
| UEFI: ADATA USB Flash Drive 1.00               |F3: Optimized Defaults       |
|                                                |F4: Save & Exit              |
| Launch EFI Shell from filesystem device        |ESC: Exit                    |
\------------------------------------------------+-----------------------------/
           Version 2.17.1254. Copyright (C) 2016 American Megatrends, Inc.
```

8.1.3 Skip Startup.nsh

Please press "ESC" to skip startup.nsh, it will show "Shell >" message

8.1.4 When system only install a USB flash

When system only install a USB flash, EFI shell will detect USB flash as "fs0", if system install 2 USB flash , EFI shell will detect USB flash as "fs0" and "fs1".

8.1.5 BIOS file is located

→ Kindly key-in "USB ID" whether BIOS file is located. (Example: the system only install a USB flash, it needs key-in "fs0" into USB flash)

→ Kindly key-in sub-directories whether BIOS file is located. (Example: the BIOS file put in /FWA1010VC/BIOS)

```
EFI Shell version 2.31 [5.9]
Current running mode 1.1.2
Device mapping table
  fs0  :Removable HardDisk - Alias hd15a0a0b blk0
       PciRoot(0x0)/Pci(0x16,0x0)/USB(0x0,0x0)/USB(0x0,0x0)/HD(1,MBR,0xEA58CBF6
,0x3F,0x1D73FC1)
  blk0 :Removable HardDisk - Alias hd15a0a0b fs0
       PciRoot(0x0)/Pci(0x16,0x0)/USB(0x0,0x0)/USB(0x0,0x0)/HD(1,MBR,0xEA58CBF6
,0x3F,0x1D73FC1)
  blk1 :Removable BlockDevice - Alias (null)
       PciRoot(0x0)/Pci(0x16,0x0)/USB(0x0,0x0)/USB(0x0,0x0)

Press ESC in 4 seconds to skip startup.nsh, any other key to continue.
Shell> fs0:

fs0:\> cd FWA1010VC\bios

fs0:\FWA1010VC\bios> ls
Directory of: fs0:\FWA1010VC\bios

  03/07/17  04:42p <DIR>          8,192  .
  03/07/17  04:42p <DIR>          8,192  ..
  10/18/16  01:19p          8,388,608  1010VCV016.bin
         1 File(s)   8,388,608 bytes
         2 Dir(s)


fs0:\FWA1010VC\bios>
```

8.1.6 Flash BIOS

Kindly key-in "fpt.efi 0f "BIOS file" to flash FWA-1010VC BIOS, and **please don't power off system during the flash BIOS**.

8.1.7 Flash BIOS completed

Please power off and re-power on system, the system BIOS will flash to new version.

```
fs0:\FWA1010VC\bios> fpt.efi -f 1010VCV016.bin

Intel (R) Flash Programming Tool. Version:  0.0.0.12
Copyright (c) 2007 - 2013, Intel Corporation. All rights reserved.

Platform: Intel(R) Atom Zxxxx
Reading HSFSTS register... Flash Descriptor: Valid

    --- Flash Devices Found ---
    W25Q64BV    ID:0xEF4017    Size: 8192KB (65536Kb)

PDR Region does not exist.
TXE Region does not exist.
Could not communicate with the HECI.

- Reading Flash [0x800000] 8192KB of 8192KB - 100% complete.
- Erasing Flash Block [0x208000] - 100% complete.
- Programming Flash [0x208000]   32KB of   32KB - 100% complete.
- Erasing Flash Block [0x220000] - 100% complete.
- Programming Flash [0x220000]    4KB of    4KB - 100% complete.
```

9. SYSTEM PLATFORM SKUS

FWA-1010VC-4CA2S:

◆ Tabletop

◆ 1x 60W Power Adaptor, CPU 4Core C2558 1x M.2 2280 SSD slot, 7x 1GbE Ethernet port, 2x 1GbE SFP port and 4x 1GbE switched Ethernet port with 1GbE uplink to CPU

FWA-1010VC-8CA2S:

◆ Tabletop

◆ 1x 60W Power Adaptor, CPU 8Core C2758, 1x 2.5" SSD bracket, 1x M.2 2280 SSD slot, 7x 1GbE Ethernet port, 2x 1GbE SFP port and 4x 1GbE switched Ethernet port with 1GbE uplink to CPU
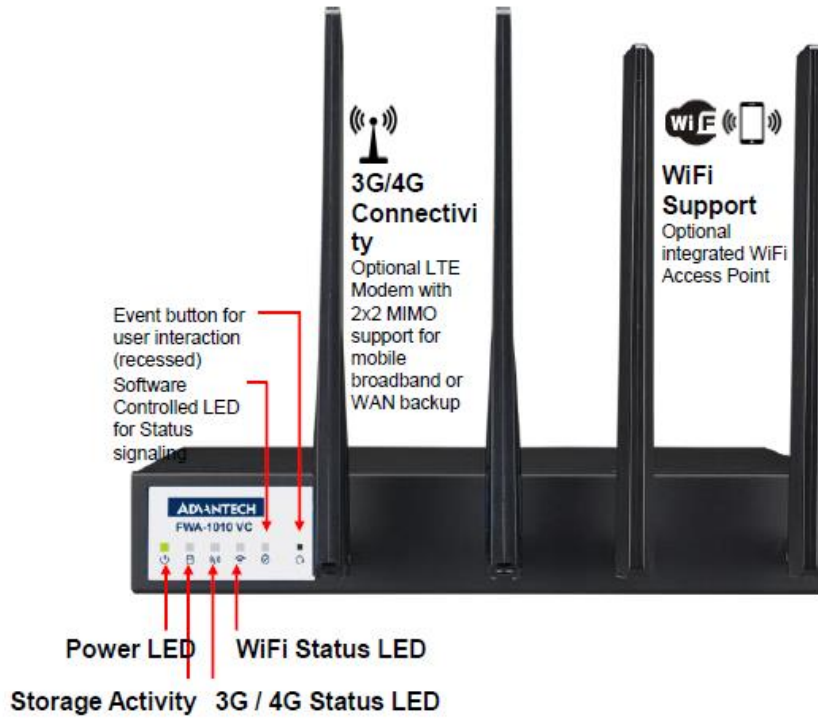
FWA-1010VCR-8CA2S:

◆ Tabletop

◆ 1x 60W Power Adaptor, CPU 8Core C2758, 1x 2.5" SSD bracket, 1x M.2 2280 SSD slot, 7x 1GbE Ethernet port, 2x 1GbE SFP port and 4x 1GbE switched Ethernet port with 1GbE uplink to CPU, Wifi and LTE kit
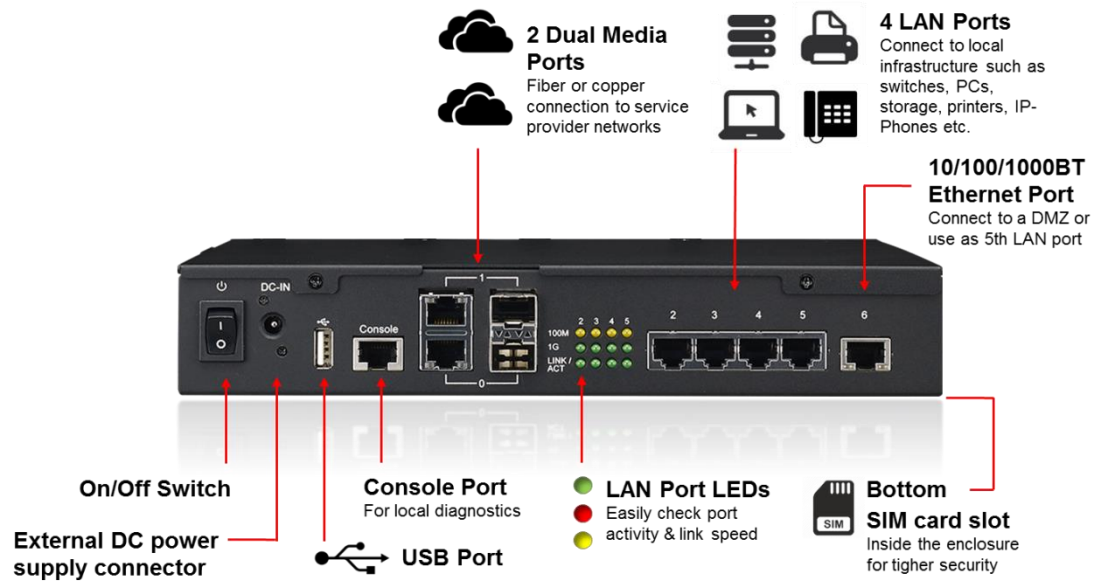
9.1 System Architecture

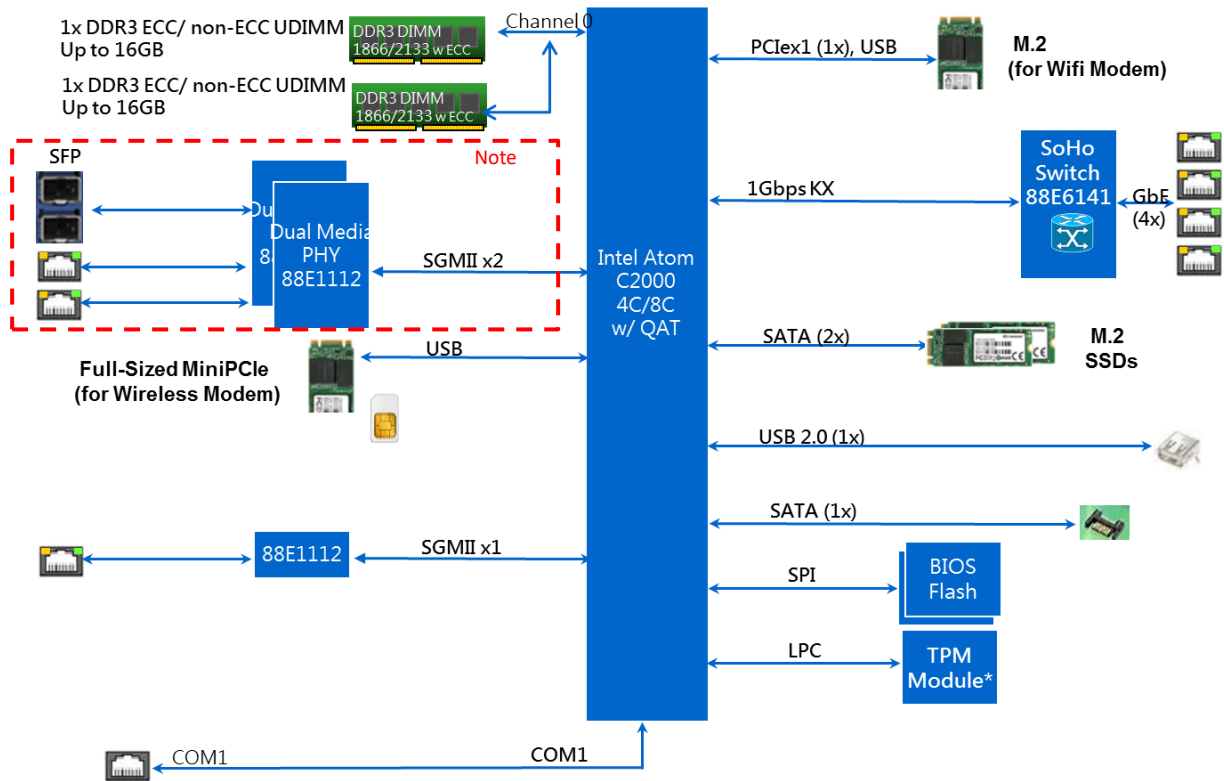## 9.1.1 Front Side

FWA-1010VC System Front View

	Color	Action
Power LED	Red	AC ON => Always On AC Off => LED Off
Storage Activity	Yellow	Active => Blinking
3G/4G Status LED	Green	Air Mode => LED OFF Others => Always On
WiFi Status LED	Green	Connecting => Blinking
S/W Defined LED	Orange/Green	Defined by software

9.1.2 Rear Side

FWA-1010VC System Rear View
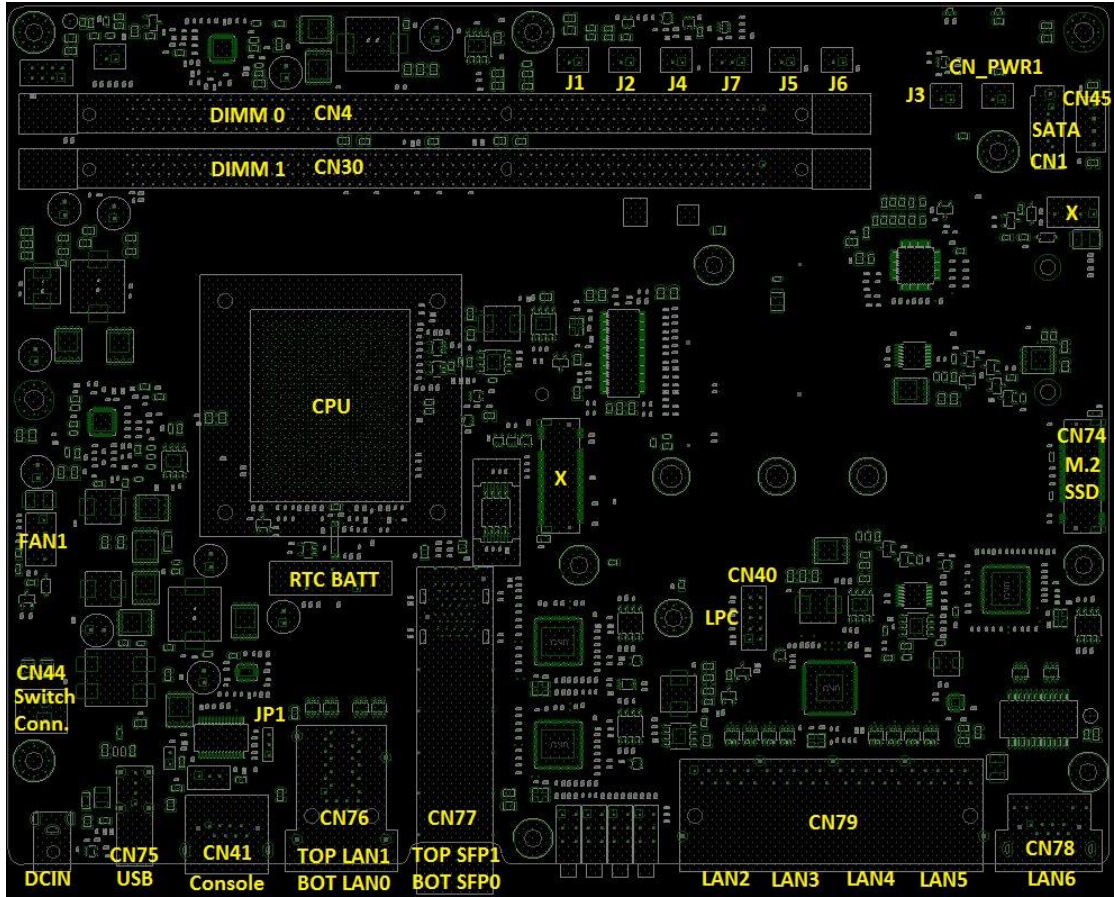
9.2 System Block Diagram
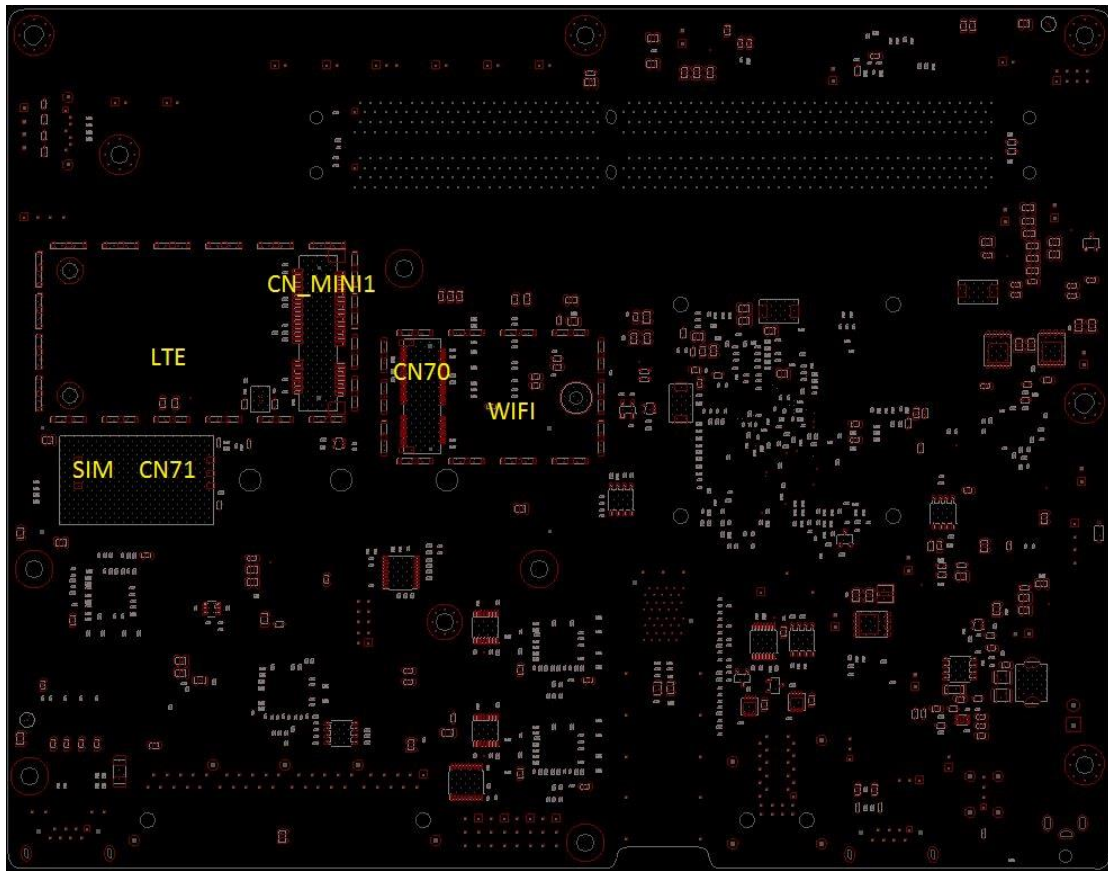

FWA-1010VC System Block Diagram

Note: SFP is with higher priority if boot up system while both SFP and RJ45 ports are plugged with modules/ cable. After boot-up, connection will be auto-negotiated depends on which connection is enabled first

10. NAMB-1010VCMB JUMPER SETTING AND CONNECTOR LIST

10.1 Connector

NAMB-1010VCMB Top side Connector Placement

NAMB-1010VCMB Bot side Connector Placement

Location	Description	Comment
DC_JACK1	DC POWER JACK 4P 90D(M) DIP 2DC-0006-B01	DC12V Power Input.
CN75	USB Conn 4P 90D(F) DIP USB-1F0401-2W	For USB Function.
CN41	PHONE JACK RJ45 8P 1.02mm 90D(F) DIP C20GY0-500	For Console.
CN76	PHONE JACK RJ45 28P 2.54mm 90D(F) DIP RM3-1TJA9V	For 2x1 LAN w/ Combo Media.
CN77	SFP+ 1x2 Cage 90D(M) 3S1020F7-AJ4-4F	For 2x1 SFP w/ Combo Media.
CN79	RJ45_40P_RB4-109D9F1D	For 1x4 LAN w/ 88E6141 switch.
CN78	PHONE JACK RJ45 12P 1.02mm 90D(F) DIP C23GY0-590	For single LAN function.

| Location	Description	Comment
JP1	PIN HEADER 3x1P 2.0mm 180D(M) DIP 2000-13 WS	For CPU CMOS Clean w/ Jumper.
CN44	WAFER BOX 2P 3.96mm 180D(M) DIP 3961-WS-2-LF	For Power Switch Cable.
FAN1	WAFER 2.54 1*4P 180D(M) DIP 744-81-04TW30	For system cooler use.
SPI1	IC SKT 8P SMD 8P SMD ACA-SPI-004-K01	For CPU BIOS EEPROM.
CN40	WAFER BOX 2x5P 2.00mm 180D(M) DIP 24W2140-10S10	For TPM and LPC function.
CN74	PCI-E MKEY NGFF_75P_AS0BC21-S40BM-7H	For SATA3 6G SSD Card.
CN45	WAFER 4P 2.5mm 180D(M) DIP 24W1161-04S10-01T	For SATA3 6G HDD Power.
CN1	Serial ATA 7P 1.27mm 180D(M) DIP WATM-07DBN4A3B8	For SATA3 6G function.
CN30	DIMM DDR3 240P orange DIP 15u inch ATH4017-P3E-4F	For DDR DIMM A2 (Second)
CN4	DIMM DDR3 240P orange DIP 15u inch ATH4017-P3E-4F	For DDR DIMM A0 (Main)
CN_PWR1	WAFER BOX 2P 2.0mm 180D(M) DIP A2001WV2-2P	For system power LED.
J3	WAFER BOX 2P 2.0mm 180D(M) DIP A2001WV2-2P	For System HDD LED.
J6	WAFER BOX 2P 2.0mm 180D(M) DIP A2001WV2-2P	For System LTE LED.
J5	WAFER BOX 2P 2.0mm 180D(M) DIP A2001WV2-2P	For System WIFI LED.
J7	WAFER BOX 3P 2.0mm 180D(M) DIP 2001-WS-3	For Software Define LED
J4	WAFER BOX 2P 2.0mm 180D(M) DIP A2001WV2-2P	For Software Define button
CN_MINI1	MINI PCI 52P 0.8mm 90D(F) SMD AS0B226-S40Q-7H	For LTE Module.
CN71	SIM card conn. 6p 2.54mm 90D(F) SMD 5210622	For SIM Card.

Location	Description	Comment
CN70	NGFF_75P_AS0BC21-S40BE-7H	For Wifi Module.

10.2 Jumper Setting

- **Clear CMOS Header (JP1)**

Use a three pin header. For Clear CMOS data

Clear CMOS Jumper Definition

```
              JP1
          1  ┌──┐
          ╳  │■ │
          2  │  │
          3  │● │
             └──┘
        PH_3x1V_2.00mm
        <Characteristic>
```
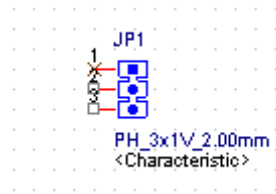
Pitch: 2.00mm

Jumper	Circuit	Comment
1-2 Installed	Pull up	Pull up to +VBAT 3.3V, Normal status (Default)
2-3 Installed	Pull down	Pull to ground to clear CMOS

JP1 Symbol (NAMB-1010VCMB)

- **Fan Header**

Locations of the fan headers shall accommodate circulation of fresh air from the front of the chassis.
FAN Header 4 Pin (FAN1).

Pin No.	Pin Define.	Pin No.	Pin Define.
1	Ground	2	12V Power
3	FANTACH	4	FANPWM

FAN1 Symbol (NAMB-1010VCMB)

- **SATA CONNECTOR**

SATA Connector (CN1) SATA3 6G

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SATA CONNECT

Pin No.	Pin Define.	Pin No.	Pin Define.
1	GND	2	TX+
3	TX-	4	GND
5	RX-	6	RX+
7	Ground	8	GND
9	GND		

CN1
SATA_7V
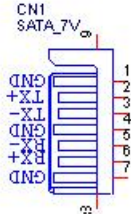
CN1 Symbol (NAMB-1010VCMB)

■ **SATA Power CONNECTOR**

SATA Power Connector (CN45)

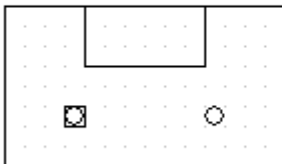| Pin No.	Pin Define.	Pin No.	Pin Define.
1	5V Power	2	Ground
3	Ground	4	12V Power

CN45 Symbol (NAMB-1010VCMB)

■ **DC12V Power CONNECTOR**

Power Switch Connector(CN44)

CN44

DC12V POWER Connector

Pin No.	Pin Define.	Pin No.	Pin Define.
1	12V	2	GND

Wafer.1*2P

CN44 Symbol (NAMB-1010VCMB)

■ **LPC CONNECTOR**

LPC Connector(CN40)

CN40
LPC Connector

Pin No.	Pin Define.	Pin No.	Pin Define.
1	FRAME#	2	Ground
3	AD0	4	Clock
5	AD1	6	SERIRQ
7	AD2	8	Reset#
9	AD3	10	3.3V Power

Wafer 2.00mm 2*5P

CN40 Symbol (NAMB-1010VCMB)

11. EU DECLARATION OF CONFORMITY(DOC)

Frequency Range and Max transmit power of supported Band in EU as below

WLAN 2.4G：2412-2472MHz - 19.19 dBm(EIRP)

WLAN 5G： 5150-5250MHz - 16.99 dBm(EIRP)

5250-5350MHz - 17.19 dBm(EIRP)

5470-5725MHz - 17.02 dBm(EIRP)

WCDMA Band 1：1922.4MHz-1977.6MHz - 24dBm

WCDMA Band 8： 882.4MHz-912.6MHz- 24dBm

LTE Band 1：1922.5MHz-1977.5MHz - 23dBm

LTE Band 3：1710.7MHz-1784.3MHz - 24dBm

LTE Band 7：2502.5MHz-2567.5MHz - 24dBm

LTE Band 8：880.7MHz-914.3MHz - 23dBm

LTE Band 20：834.5MHz-859.5MHz -23dBm

Requirements in
AT/BE/BG/CZ/DK/EE/FR/DE/IS/IE/IT/EL/ES/CY/LV/LI/LT/LU/HU/MT/NL/NO/PL/PT/RO
/SI/SK/ĐR/FI/SE/CH/UK/HR.5150MHz~5350MHz is for indoor use only.

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Tel:886-2-2792-7818 Fax:886-2-2794-7334
www.advantech.com

# EU Declaration of Conformity (DoC)

Hereby we,

Name of manufacturer:	Advantech Co., Ltd
Address:	No.1, Alley 20, Lane 26, Rueiguang Road, Neihu District,
Zip code & City:	11491 & Taipei
Country:	Taiwan
Telephone number:	+886-2792-7818

declare that this DoC is issued under our sole responsibility and that this product:

Product description:	Network Platform
Type designation(s):	FWA-1010VC
Trademark:	ADVANTECH
Batch / Serial number:	n/a

Object of the declaration (further identification of the radio equipment allowing traceability; it may include a color image for the identification of the radio equipment):
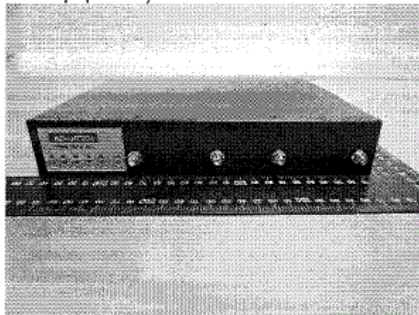
is in conformity with the relevant Union harmonization legislation:
Radio Equipment directive: **2014 / 53 / EU**
and other Union harmonization legislation where applicable:

2011/65/EU Restriction of the use of certain hazardous substances (RoHS)

2012/19/EU on waste electrical and electronic equipment (WEEE)

Restriction of Chemicals (REACH)

with reference to the following standards applied:

EN301908-1 V11.1.1:2016

EN301908-2 V11.1.1:2016

EN301908-13 V11.1.1:2016

EN300 328 V2.1.1: 2016

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EN62311: 2008

EN301 893 V2.1.1: 2017

EN301489-1 v2.2.0(Draft) / EN301489-17 v3.2.0(Draft)/EN301489-52 v1.1.0(Draft)

EN55032:2015+AC:2016-07/ EN55024:2010+A1:2015

EN60950-1: 2006+ A11:2009+A1:2010+A12:2011+A2:2013

The Notified Body Telefication B.V., with Notified Body number 0560 performed:
[*Modules: **B+C***]

Where applicable:
The issued the EU-type examination certificate: 182140395/AA/00,

Description of accessories and components, including software, which allow the radio equipment to operate as intended and covered by the DoC:
N/A………………………………………………………………………………………

Signed for and on behalf of:
Taipei / 2018.07.12

Lily Huang /Assistant Manager

_____
Place and date of issue

_____
Name, Function, signature