ADVANTECH

FWA-4208 1U Rackmount Intel LGA-1156 Processor based Network Security Platform with 9 Front LAN Ports Startup Manual

Packing List

Before installation, ensure that the following materials have been received:

- One FWA-4208 Internet Security Platform
- One box of accessories
- One warranty certificate

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

Note: 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)

Safety Instructions

1. Do not leave this equipment in an un-conditioned environment where the storage temperature is under 0° C (32° F) or above 40° C (104° F), as it may damage the equipment.
2. The openings on the enclosure are for air convection; to protect the equipment from overheating, DO NOT COVER THE OPENING.
3. Make sure the voltage of the power source is correct before connecting the equipment to the power outlet.
4. Place the power cord in a way that people can not step on it. Do not place anything over the power cord. The voltage and current rating of the cord should be greater than the voltage and current rating marked on the product.

Specifications

Standard Motherboard Functions

- **CPU & Chipset:** Intel LGA1156 socket processor and Intel 3420 server chipset
- **BIOS:** Award™ 4Mbit Flash
- **System memory:** Up to 32GB memory capacity by ECC/REG DIMMs with Intel Xeon 3400 series CPU or 16GB memory capacity by ECC/unbuffered DIMMs with Intel Core i3/i5 series CPU
- **CF Interface:** Marvell (SATA to IDE bridge) 1 x CF socket
- **SATA Interface:** 1 x 3.5" SATA HDD bay Max. data transfer rate at 150 MB/sec.
- **Keyboard/mouse Pin header:** Supports standard PS/2 keyboard and mouse for debug and installation use.
- **USB 2.0:** 2 x USB 2.0
- **Serial:** 1 x RS-232 with RJ-45 type connector
- **Expansion:** 1 x PCI-Express x8 expansion slot in rear for standard PCI-Express add-on card installation

Ethernet Interface

- **Interface:** 9 x 10/100/1000 Base-T
- **Controller:** Support Intel 82574L single port GbE controllers. Support four pair of LAN bypass feature functionality

Mechanical and Enviromental

- **Dimensions(W x H x D):** 427 x 44 x 436 mm (16.8" x 1.7" x 17.1")
- **Power supply voltage:** 250 W, 100 ~ 240V AC, auto range
- **Operating temperature:** 0 ~ 40°C (32 ~ 104°F)
- **Weight:** 8kg

If you have any technical questions about the FWA-4208 or any other Advantech products, please visit our support website at:

http://www.advantech.com.tw/support

http://www.advantech.com.

For technical support and service, please visit our support website at:

http://www.advantech.com/support

This manual is for the FWA-4208 series Rev. A

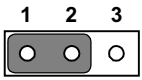
Part No. 2002420800 1st Edition,
Print in China September 2010

Jumpers and Connectors

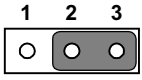
The board has a number of jumpers that allow you to configure your system to suit your application. The table below lists the function of each of the jumpers and connectors.

Connector/Jumper List	
Label	**Function**
CN14	Power Supply Connector 24Pin
CN10	VRD Power Connector 4pin
CN20	USB Pin Header 10pin
CN18	CMOS Header 3pin
CN1, CN2, CN3, CN17	Fan Header 4pin
CN15	Compact Flash Header 50pin
CN9	PCI-Express Slot
GF2, GF3	PCI-Express Gold Finger
SW2, J1	Power-On Header
SW3	System Reset Button
CN7	System Reset Header
SATA1, SATA2, SATA3, SATA4	Serial ATA Connectors
CN28	COMA Port
J3	HD LED Connector
CN23	Front Panel Connector
SW1	PCI-Express Setting
CN42	LPC Port-80 Connector
CN14	SATA Power Connector
GF1	FAN Board Gold Finger
CN31, CN32, CN33, CN34, CN35, CN36, CN37, CN38, CN39	RJ45 Connector

CN18: CMOS clear function	
Pins	**Result**
1-2	Keep CMOS data*
2-3	Clear CMOS data
*: Default	

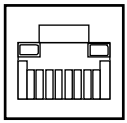


Keep CMOS data*



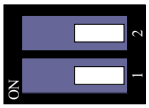
Clear CMOS data

CN31~CN39: R45 GE LAN Connector	
LED status	
GbE Link	Green (Left top LED)
FE Link	Amber (Left top LED)
Action Link	Green/Blink (Right top LED)



RJ45 for LAN Connectors

SW1: PCI Express Setting	
LED status:	
OFF	2 x 8*
ON	4 x 4
S*: Default	



The PCI Express Setting is based on the type of the Intel CPU. Intel Xeon 3400 series processor can support either 2 x8 or 4 x4 PCI Express configurations. However, with Intel Core i3/i5 and G6950 processor, the PCI Express setting is only fixed with x2 or x8. Please confirm the CPU type before changing the default switch setting.

Software Installation

Software tested list:

1. Linux Debian 2.6.18 kernel
2. Linux Redhat 5.0

Customers are recommended to use Linux kernel 2.6.18 to develop their own S/W.

Notice

Note1: This device complies with the requirements in Part 15 of the FCC rules. Operation is subject to the following two conditions:
1. This device may not cause harmful interference.
2. This device must accept any interference received, including interference that may cause undesired operation.

Note2: Danger of explosion if battery is incorrectly replaced. Replace only with the same or equivalent type recommended by the manufacturer. Discard used batteries according to the manufacturer's instructions.

Note3: Before using the optical fiber for transfer data, make sure it is connected with an approved optical transceiver module.

Note4: Never pour any liquid into ventilation openings. This could cause fire or electrical damage.

Note5: Always completely disconnect the power cord from your chassis whenever you work with the hardware. Do not make connections while the power is on. Sensitive electronic components can be damaged by sudden power surges.

Note6: Always ground yourself to remove any static change before touching the motherboard, backplane or add-on cards. Modern electronic devices are very sensitive to static electric charges. Aa a safety precaution, use a grounding wrist strap at all times. Place all electronic components on a static-dissipative surface or in a static-shielding bag when they are not in the chassis,

Board Layout: Jumper and Connector Locations

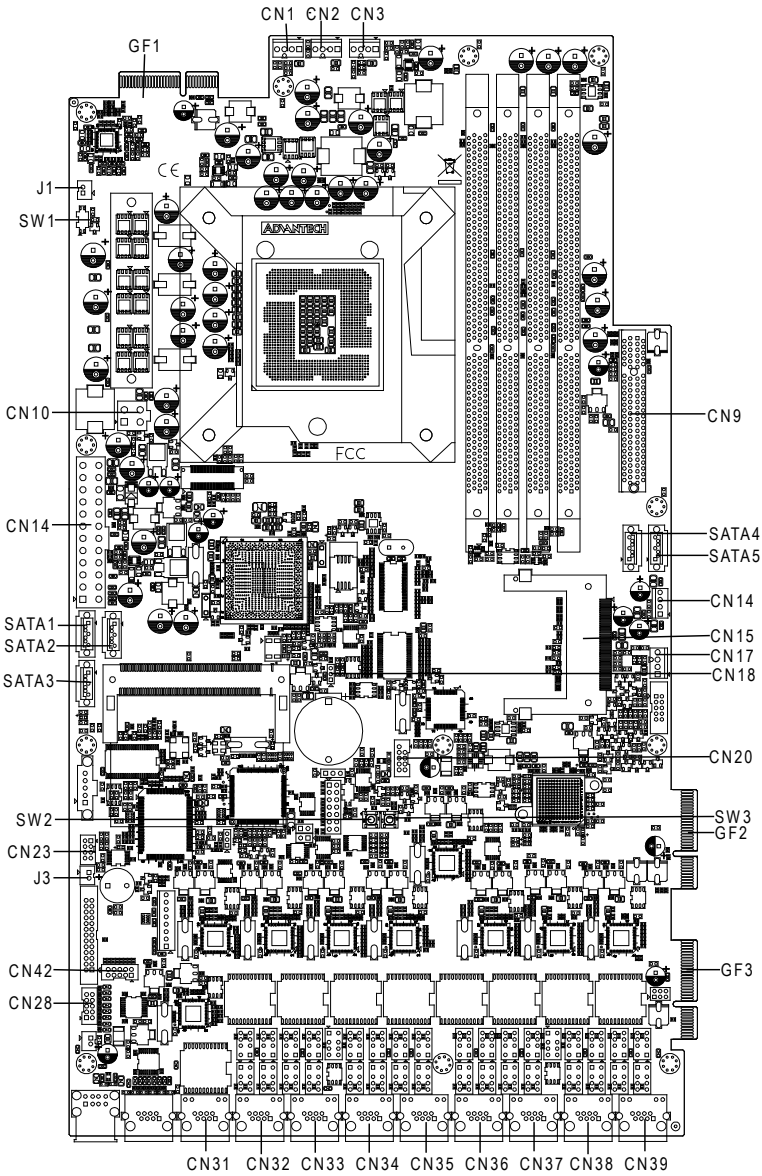


Figure 1: Board Layout: Jumper and Connector Locations