FWA-3034

1U Network Appliance with 12th/13th/14th Gen Intel® Core Processors for Network Security and Management

Features

- Processor hybrid design combining Performance-cores with Efficient-cores supporting up to 24 cores/32 threads for outstanding multi threaded performance
- 1GbE/2.5GbE/10GbE multi Ethernet interface
- Expandable via Advantech Network Mezzanine Card (NMC) with up to 100GbE bandwidth for additional demand of Ethernet ports
- 4G and WiFi 6 support for wireless network (5G by project base)
- Advantech IPMI 2.0 platform management with Redfish option with supported features such as redundant firmwares, automatic rollback, remote upgrade, and remote configuration

Specifications

System P/N		FWA-3034R-00A1R	FWA-3034H-00A1S
Form Factor		1U	
Processor System	Processor	12th/13th/14th Generation Intel® Core™ processors	
	Core Count	24	
	Base Frequency	3.40 GHz (5.0 GHz Turbo frequency)	
	Chipset	R680E	H610E
	BIOS	AMI UEFI	
Virtualization		Intel® VT-x, VT-d, SR-IOV	
Memory	Technology	DDR5	
	Max. Capacity	64 GB (32 GB per slot)	
	Socket	2 x 288-pin DIMM	
	ECC Support	ECC/Non-ECC UDIMM	Non-ECC UDIMM
Networking	Controller	2 x Intel i210-IS 8 x Intel i226-LM 1 x Intel X710-BM2	8 x Intel i226-LM
	1GbE	2 x 1GbE SFP (2 x 1GbE RJ45 by project base)	N/A
	2.5GbE	8 x 2.5GbE RJ45	
	10GbE	2 x 10GbE SFP+	N/A
	LAN Bypass	Two pair of LAN bypass	
Expansion Slot	PCIe x8	1 (Gen 4, FH/HL)	N/A
	NMC	1 (100G via single slot)	
	M.2 (Except SSD)	1 x M.2 B-key 3052/3042 for 4G module (5G by project base) or E-key 2230 for WiFi module	N/A
	SIM Socket	1	N/A
IPMI		IPMI 2.0 and Redfish compliant 1x dedicated 1GbE LAN for IPMI port	N/A
Storage	2.5" Bay	2 x SATA HDD/SATA SSD	
	M.2 (SSD)	1 x 2280 M.2 M-key slot for SATA SSD or PCIe x4 Gen4 NVMe SSD	N/A
I/O	Console	1 x RJ45 type console	
	USB	2 x USB 3.2 Gen 2x1 ports	
	LED Indicator	1 x SW-defined LED (Amber/Green) 1 x Alert LED by IPMI (Amber) 1 x ID LED by IPMI (Blue) 1 x Power (Green)	
	Display	1 x VGA port	
	Button	1 x Power button 1 x SW-defined button	
	Others	1 x RJ45 type console	
TPM		Support by TPM 2.0 module (Optional)	
LCD Module		21 columns x 4 lines text display	

ADVANTECH **Network Appliances**

Specifications (Cont.)

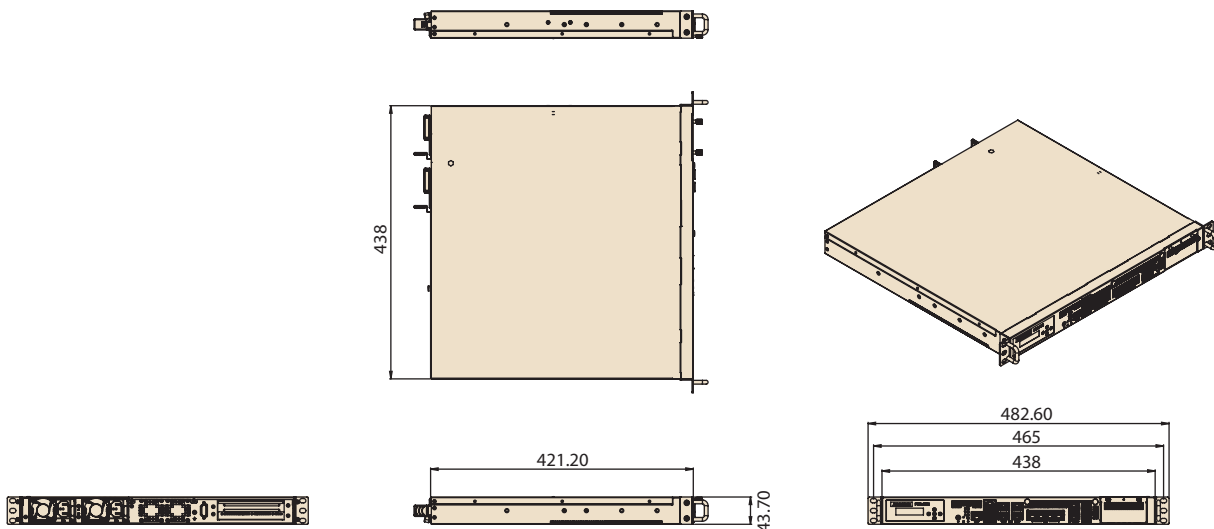|			
Power Supply	Power Type	AC Redundant	AC Single
	Watts	300 W	250 W
	Input	100-240 V	
	Connector	AC 3pin plug	AC 3pin plug
Environment	Operating Temperature	0 ~ 40 °C (32 ~ 104 °F)	
	Non-operating Temperature	-40 ~ 70 °C (-40 ~ 158 °F), 60 °C@95% Non-Condensing Humidity	
	Vibration Resistance (Operation)	5-500 Hz, 0.3 Grms, 3 axes, 1 hr/per axis	
	Shock Protection (Operation)	10 G, 11 ms	
Cooling		3 x System fans with smart fan feature	2 x System fans with smart fan feature
Mechanical	Construction	SECC	
	Mounting	Rackmount	
	Dimensions (W x H x D)	438 x 44 x 420 mm (17.2" x 1.7" x 16.5")	
	Weight	8.2 kg (18.1 lb) G.W.	
OS Support		Linux (Red Hat, Ubuntu)	
Advantech S/W Packages		ALBPCU APOECU ipmitool Server iManager (Linux base) - Health Guard - Diagnostic Framework - Network device identifier (NDI)	
Certification	EMC/Safety	CE, FCC, CB, UL, CCC	

Note:
The sequence of installing on FWA-3034R-00A1R: Plug in NMC card -> Raiser card.
Please do read and follow the instruction with the user manual when you purchase any PCIe card and NMC card.
S/W development with Alder Lake/Rapter Lake-S platform please refer to https://www.intel.com/content/www/us/en/developer/articles/technical/hybrid-architecture.html
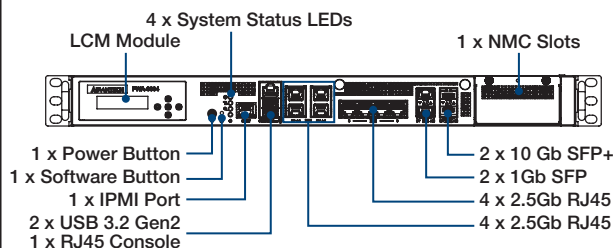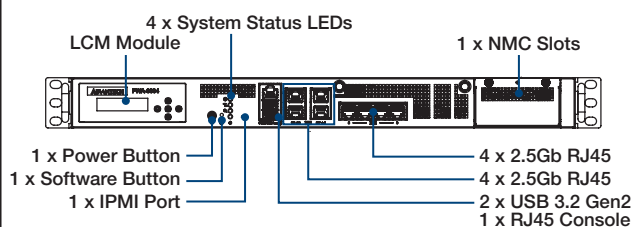
Dimensions

Unit: mm

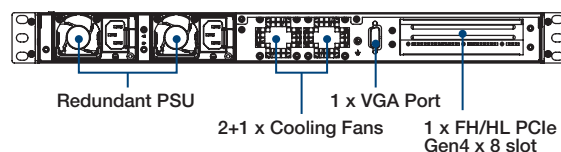## Front Panel External I/O Mechanical Layout/Drawing

FWA-3034R-00A1R

- LCM Module
- 4 x System Status LEDs
- 1 x NMC Slots
- 1 x Power Button
- 1 x Software Button
- 1 x IPMI Port
- 2 x USB 3.2 Gen2
- 1 x RJ45 Console
- 2 x 10 Gb SFP+
- 2 x 1Gb SFP
- 4 x 2.5Gb RJ45
- 4 x 2.5Gb RJ45

FWA-3034H-00A1S

- LCM Module
- 4 x System Status LEDs
- 1 x NMC Slots
- 1 x Power Button
- 1 x Software Button
- 1 x IPMI Port
- 4 x 2.5Gb RJ45
- 4 x 2.5Gb RJ45
- 2 x USB 3.2 Gen2
- 1 x RJ45 Console

Rear Panel External I/O Mechanical Layout/Drawing

FWA-3034R-00A1R

- Redundant PSU
- 2+1 x Cooling Fans
- 1 x VGA Port
- 1 x FH/HL PCIe Gen4 x 8 slot

FWA-3034H-00A1S

- ATX PSU
- 2 x Cooling Fans
- 1 x VGA Port
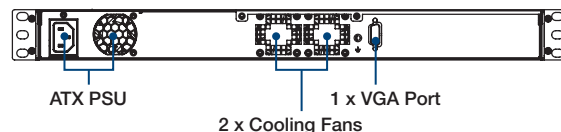
Ordering Information

Part Number	Processor	DDR5	PCH	QAT	NMC Slot	PCIe Slot	Storage Bay	USB 3.0	IPMI Port	Console Port	LAN Port			System Fan	PSU
											2.5G RJ45	1G SFP	10G SFP+		
FWA-3034R-00A1R	Single socket for 12th/13th/14th Gen Intel® Core™ processor	2	R680E	N/A	1	1	2	2	1	1	8	2	2	3	2
FWA-3034H-00A1S	Single socket for 12th/13th/14th Gen Intel® Core™ processor	2	H610E	N/A	1	N/A	2	2	N/A	1	8	0	0	2	1

Packing List

Part Number	Description
1700020691-01	M CABLE D-SUB 9P(F)/RJ45 220cm

Optional Accessories

Part Number	Description
1702002600	Power cord 3P 180 cm, USA
1702002605	Power cord 3P 180 cm, Europe
1702031801	Power cord 3P 180 cm, UK
1700000237	Power cord 3P 180 cm, JP
1700009652	Power cord 3P 180 cm, China
968AE00073	22" Rail Kit for 438mm chassis (TL:381mm)
FWA-3050-800WPSU	800W DC Power kit
1700027334-01	USB for RJ45 console cable, 190cm
PCA-TPMSPI-00A1	TPM 2.0 Module by SPI for CPU cards, A101-1