

# FWA-6510

## Intel® Xeon® E5-2600 Series Processor-based 2U Network Application Platform

NEW



### Features

- Supports dual Intel® Xeon® E5-2600 processors
- DDR3 1333/1600 ECC registered memory, up to 384GB
- PCIe gen3 support
- Four Network Mezzanine Cards (NMC) slots for a wide range of GbE and 10GbE NMCs with or without bypass
- One PCIe x8 full-height/ half-length add-on card
- Four 2.5" removable SAS/SATA HDD and SSDs
- IPMI 2.0-compliant Remote Management

### Introduction

Based on Intel's latest Xeon® processor platform, the FWA-6510 system is designed for maximum performance, scalability and functionality in a 2U rack mount footprint. This multi-core processor-based, high-end network communications appliance is optimized for computing power and high speed, high density I/O with best-in-class energy efficiency.

Two E5-2600 series Intel® Xeon® processors (Socket R) with up to 8 cores provide the latest architectural enhancements as well as unprecedented I/O integration: Two Intel® QuickPath Interconnects running at up to 8GT/s each support reduced cross-socket memory I/O latencies and increased throughput. Each socket supports 4 DDR3 channels with speeds up to 1600 MHz for up to 384 GB of ECC memory when using the latest LR DIMM technology. Advanced RAS modes such as mirroring and sparing increase platform reliability. Three I/O controllers per socket provide a total of 80 PCIe lanes supporting the latest gen 3 technology of up to 8Gbps per lane.

With this improved I/O connectivity, the FWA-6510 can support up to 8 Network Mezzanine Cards (NMCs) for modular, configurable networking I/O and acceleration. PCIe gen 3 technology paves the way for supporting 40GbE and quad 10GbE modules in the near future. (Please contact your Advantech representative for an overview of available and planned NMCs).

The Intel® C600 Series PCH (chipset) not only integrates standard platform I/O and peripherals, but also supports an integrated SAS controller for the most reliable, highest speed mass storage. Up to four front-loadable 2.5" SAS/SATA hard disks or solid state drives are supported.

Advanced Lights Out Management based on Aspeed's latest iBMC AST2300 and AMI's MegaRAC IPMI suite improves system manageability and reliability, providing platform thermal management, H/W monitoring and supervision. Remote firmware upgrade capability and hardware-based BIOS redundancy make the FWA-6510 an ideal platform for mission-critical and highly available networks.

Support for standard PCI Express expansion slots with a riser card and TPM (Trusted Platform Management) for enhanced platform security round off the feature set of this platform.

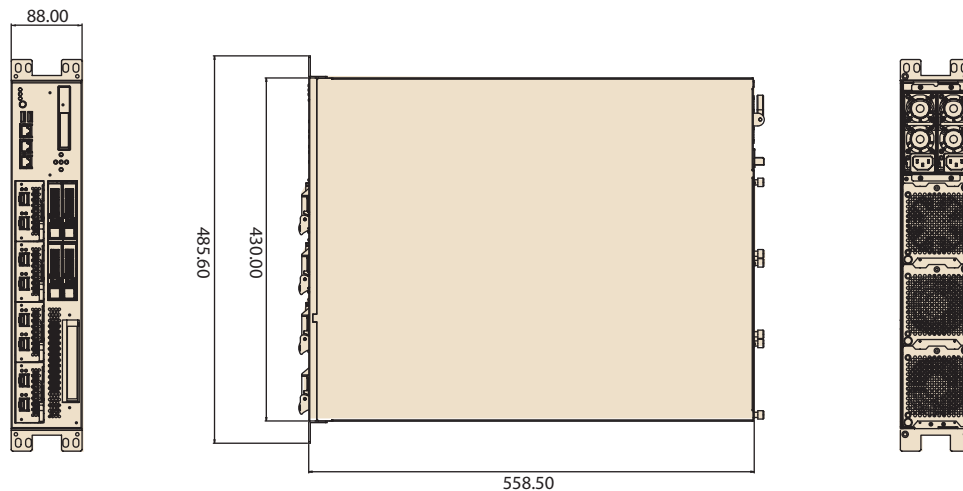
The management panel at the front provides one RJ-45 serial port, two Gigabit Ethernet management ports, two USB ports and an LCD module, and LED indicators for power/locate/alert for local system management, maintenance, and diagnostics. The system is FCC, UL, CB, CE, CCC and RoHS compliant.

### Specifications

Processor System	CPU	2 x Intel Xeon E5-2600 processors with integrated 4 channel memory controller and PCIe Gen3 controllers
	LLC	Two full-width Intel QuickPath Interconnect links, up to 8 GT/s in each direction between sockets 20 MB per socket
Memory	Technology	Support for DDR3 1066/1333/1600 memory ECC RDIMM Primary CPU support 2 DIMMs/channel, up to 8 DIMMs Secondary CPU support 1 DIMM/channel, up to 4 DIMMs
	Capacity	Up to 384 GB with 12 slots
PCIe	PCH	Intel C604 series chipset
	Expansion Slot	4 x PCIe Gen3 x8 slots connect to NMC modules (2 per CPU socket) 1 x PCIe Gen3 x8 slot for riser card (primary CPU)
	Riser Card	1 x PCIe x8 riser card Supports full-height/half-length cards and external access
Network Connectivity	NMC Modules	4 x NMC modules with PCIe x8 gen.3 interfaces Maximum 32 GbE ports or 8 x 10GE ports. Please refer to the "Available NMC module list" section for a list of currently available NMCs
	LAN bypass	Up to 16 segments
Storage	SAS/SATA	4 x 2.5" hot-swappable SAS/SATA hard drive in the front (from PCH)
	Compact Flash	1 x CFast socket
	USB Flash Disk	2 x USB 2.0 on-board pin header for USB flash disk (DOM)
System Management	IPMI	Aspeed AST2300 iBMC + AMI MegaRAC firmware Supports IPMI 2.0 Supports iKVM Shared NIC via NC-SI on management LAN ports

## Dimensions

Unit: mm



## Specifications (Cont.)

Management Ports & Peripherals	LAN	2 x Intel 82574L 10/100/1000 Base-T Ethernet	
	USB	2 x USB 2.0 ports on the front	
	Serial	1 x RS-232 console port by RJ-45 connector on the front	
	LCD Module	16 x 2 graphical display, 5 buttons	
	VGA	Pin header (for debug only)	
Power Supply	TPM	TPM1.2 compliant (Infineon SLB9635TT1.2)	
	Wattage	720 W 2U (1+1 redundant, 720 W each)	
	Input	AC 100 ~ 240 V @ 50 ~ 60 Hz, full range, With PMBus support	
Environment	Operating	Non-Operating	
	Temperature	0 ~ 40° C (32 ~ 104° F)	-20 ~ 80° C (-4 ~ 167° F)
	Humidity	5 ~ 85% @ 40° C (104° F)	5 ~ 95%
Physical Characteristics	Dimensions (W x H x D)	430 x 88 x 558 mm (17" x 3.5" x 22")	
	Weight	18 kg (40 lb)	

## Available NMC Module List

Part Number	Description
NMC-0107-10E	4-port GE copper with LAN bypass
NMC-0108-10E	4-port GE SFP w/o LAN bypass
NMC-0803-10E	8-port Copper GE NMC card w/ bypass
NMC-1004-10E	2-port SFP+ 10GE NMC card

## Accessories

Part Number	Description
1702002600	3P 180 cm, USA
1702002605	3P 180 cm, Europe
1702031801	3P 180 cm, UK
1700000237	3P 180 cm, JP

## Ordering Information

Part Number	Description
FWA-6510-00E	FWA-6510 2U system, VAC RPU, 4 NMCs up to 32-port GbE

## Packing List

Part Number	Description
1700012372	Cable RJ-45 to Console 9P 220 cm T