

Features

- 1U Rackmount Network Appliance
- Intel® Xeon® ICE-Lake-D LCC Processor
- SOC PCH
- DDR4 SO-DIMM ECC DIMM slots x2
- IPMI Support (Project base)
- Upto 4 x 10Gb SFP+ (Optional by BOM SKU)
- 1Gb RJ45 ports x 12
- NIM Slot support (Optional) x 1
- M.2 (B key 3052) for 4G/5G (USB3.0 + PCIe) x 1 with SIM
- M.2 (E key 2230) (PCIe) x 1
- TPM 2.0 SPI
- 2.5" SATA HDD x 2 (default)
- LCM with Keypad x 1
- RJ-45 Console port x 1, USB 3.2 GEN1 port x 2
- 220W PSU

Internal/ Expansion Interface

PCIe slot	—
Mini- Card slot	M.2 (B key 3052) for 4G/5G (USB3.0 + PCIe) x 1 with SIM M.2 (E key 2230) (PCIe) x 1
IPMI	Project base
Keyboard and Mouse	—
USB	USB3.2 GEN1 x 2

Miscellaneous

RTC	Internal RTC
Watchdog Timer	1~255
Software Button	1
TPM	TPM2.0 SPI
GPIO	N/A, DIO pin header x 1 (4-in/4-out), optional by BOM SKU
FAN	System Fan x 1
MTBF (Hours)	TBD
Color	Black

Environmental Parameters and Dimension

Power Requirement	220W Power
Operating Temperature	32°F ~ 104°F (0°C ~ 40°C)
Storage Temperature	-4°F~ 140°F (-20°C ~ 60°C)
Operating Humidity	10%~80% relative humidity, non-condensing
Storage Humidity	0%~80% @40°C; non-condensing
Vibration	0.5 g rms/ 5 ~ 500Hz / operation (2.5" Hard Disk Drive) 1.5 g rms/ 5 ~ 500Hz / non operation
Shock	10 G peak acceleration (11 m sec. duration), operation 20 G peak acceleration (11 m sec. duration), non operation
Dimension (W X D X H)	16.93" x 7.87" x 1.73"(430mm x 200mm x 44mm)

I/O Interfaces

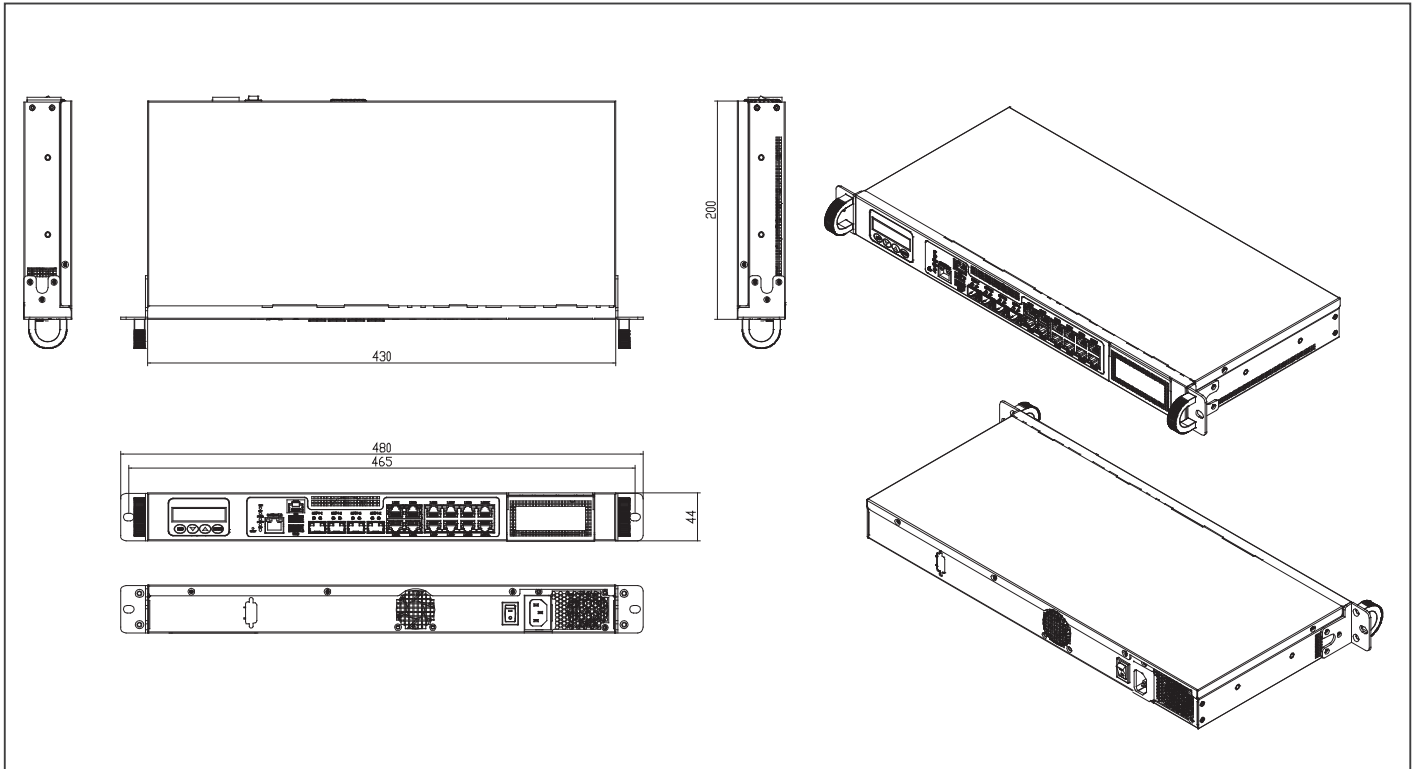
Front Panel	12 x 1Gb RJ45 + upto 4 x 10Gb SFP+ (Optional by BOM SKU) Power LED x 1 Status LED x 1 HDD Active LED x 1 USB 3.2 GEN1 Ports x 2 RJ-45 Console x 1 LCM display with keypad x 1 Software Programmable Button x 1
Rear Panel	AC Power Input x 1 Power Switch x 1

Specifications

System	
Form Factor	1U Rackmount ICE-Lake-D LCC Platform Network Appliance
Processor	Intel® Xeon® ICE-Lake-D LCC Processors
Chipset	SoC
System Memory	Upto DDR4 SO-DIMM ECC DIMM slots x 2
Network	
Ethernet	1Gb RJ45 (I350 AM4 x 3) x 12 + Upto 4 x 10Gb SFP+ (SKU optional)
Bypass	2 Pairs LAN Bypass 3.1
NIM Slot	NIM Slot x 1 (Optional)
Display	
Graphic Controller	—
Connector	VGA from IPMI x 1 (Optional by BOM SKU)
Storage	
HDDs	2.5" HDD x 2 (default) or 3.5" HDD x 1 (If no NIM module presence)
CF/CFast/mSATA	—

Dimension

Unit: mm



Ordering Information

Part Number	CPU	RAM	Mini-Card Slot	Storage	LAN	USB	Console	Bypass	NIM Slot	Expansion Slot	TPM	Display	Fan	Mounting	Power
FWS-7541-E12-A10-00	XEON D-1713NT Processor	DDR4 SO-DIMM ECC DIMM slots x2	—	2.5" HDD x 2 (default)	1Gb RJ45 ports x 12, Upto 10Gb SFP+ x4 (Optional by BOM SKU)	USB 3.2 GEN1 x 2	RJ-45 console x 1	2 Pairs LAN Bypass 3.1	NIM Slot x 1 (Optional)	M.2 (B key 3052) for 4G/5G (USB3.0 + PCIe) x 1 with SIM M.2 (E key 2230) (PCIe) x 1	TPM2.0 SPI	N/A (Optional VGA from IPMI by BOM SKU)	System Fan x 1	Rack	ATX 220W

Packing List

- Console Cable
- Ear Brackets
- SATA Cable x 2
- SATA Power Cable x 2
- HDD brackets x 2
- FWS-7541

Optional Accessories

- **1702031803**
Power Cord, 3P-250V/10A, 180D, 1.8M, VDE,YP22/YP12
- **1702031802**
Power Cord, 3P-250V/10A, 180D, 1.8M, USA,YP22/YP12
- **170203180E**
Power Cord, 3P-25V/7A, 180D, 1.8M, PSE, YP12/YP12
- **9761783000**
(TF)3.5x1 HDD Module, FWS-7830/7831
- **NIM-S26C-A10-T40-0002**
Intel® Fortville XL710 PCI-Express 10G SFP+ 4 Ports Module for FWS-7820/7830/7831
- **NIM-S26B-A10-F20-0002**
Intel® Fortville XL710 PCI-Express 40G QSFP 2 Ports Module for FWS-7820/7830/7831
- **NIM-S13B-A10-G80-0002**
Intel® 82580EB PCI-Express 1G SFP 8 Ports Module for FWS-7820/7830/7831
- **NIM-S13D-A10-G40-0002**
Intel® 82580EB PCI-Express 1G SFP 4 Ports Module for FWS-7820/7821/7830/7831
- **NIM-C13B-A10-G82-0001**
Intel® 82580EB PCI-Express 1G Copper Ethernet 8 Ports Module for FWS-7820 w/ 2Pair bypass/7830/7831
- **NIM-C13D-A10-G42-0002**
Intel® 82580EB PCI-Express 1G Copper Ethernet 4 Ports Module for FWS-7820 w/ 2Pair bypass/7830/7831