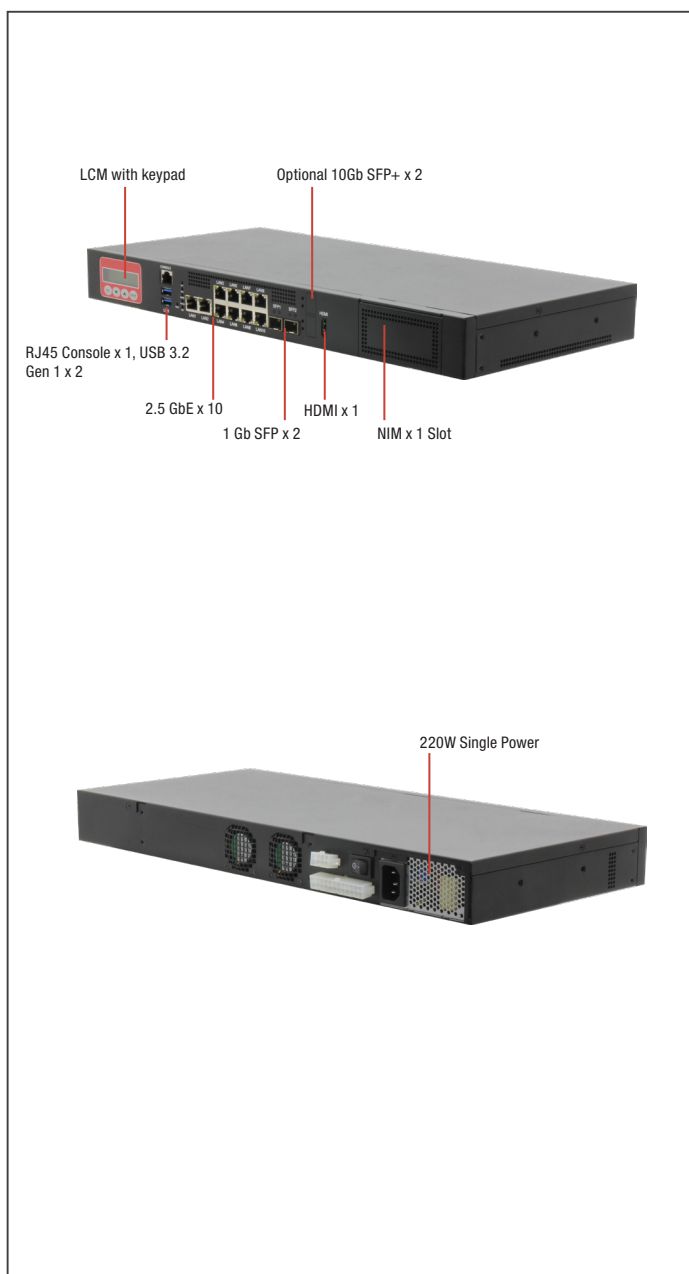


# FWS-7851

1U Rackmount Network Appliance with 12th/13th Generation Intel® Core™ Processors



## Features

- 1U Rackmount Network Appliance
- 12th/13th Generation Intel® Core™ Processors, Intel® W680 Chipset
- DDR5 SODIMM x 2 ECC/non ECC, up to 64GB
- 2.5" SATA SSD x 2 (Optional: 3.5" x 1), M.2 2242 M-Key (PCIe [x4])
- Intel® I226-V 2.5GbE RJ-45 x 10 (Including 2 pairs Bypass) + Intel® I210-IS GbE SFP x 2, optional: 10GbE SFP+ x 2 (PCIe[x4] via PER-T639)
- Supports NIM Slot x 1
- Internal AC/DC 1U Flex ATX 220W x 1 (Optional: external redundant PSU)
- 16.93" x 7.87" x 1.73" (430mm x 200mm x 44mm)



|   |   |
|---|---|
| CF/CFast/mSATA                                | —   |
| <b>Internal/ Expansion Interface</b>          |   |
| PCIe Slot                                     | —   |
| Mini-PCIe Slot                                | M.2 2242 M-Key (PCIe [x4]) x 1  |
| IPMI  | —   |
| Keyboard and Mouse                            | —   |
| USB   | USB 3.2 Gen 1 x 2   |
| <b>Miscellaneous</b>                          |   |
| RTC   | Internal RTC  |
| Watchdog Timer                                | 1~255   |
| Software Button                               | 1   |
| TPM   | TPM2.0 SPI  |
| GPIO  | Reserved internal pin header 8-bit Digital I/O interface (4-in /4-out)  |
| Fan   | System Fan x 2  |
| MTBF (Hours)                                  | TBD   |
| Color   | Black   |
| <b>Environmental Parameters and Dimension</b> |   |
| 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)<br>1.5 g rms/ 5 ~ 500Hz / non operation   |
| Shock   | 10 G peak acceleration (11 m sec. duration), operation<br>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)   |
| <b>I/O</b>                                    |   |
| Front Panel                                   | Intel® I226-V 2.5GbE RJ-45 x 10 (Including 2 pairs Bypass) + Intel® I210-IS GbE SFP x 2, optional: 10GbE SFP+ x 2 (PCIe[x4] via PER-T639)<br>Power LED x 1<br>Status LED x 1<br>HDD Active LED x 1<br>USB 3.2 Gen 1 x 2<br>HDMI x 1<br>RJ-45 Console x 1<br>LCM display with keypad x 1<br>Software Programmable Button x 1<br>NIM Slot x 1 |
| Rear Panel                                    | AC Power Input x 1<br>Power Switch x 1  |

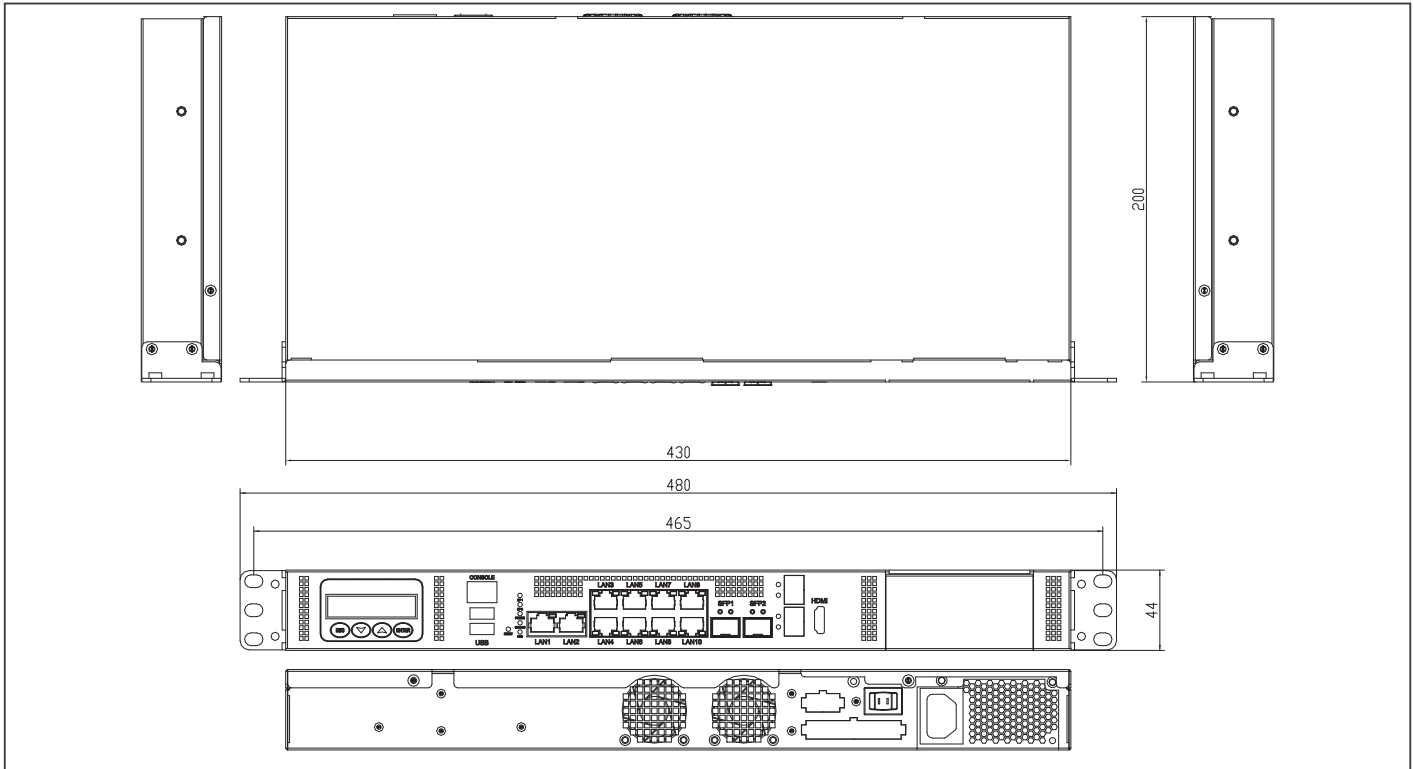
## Specifications

|                    |  |
|--------------------|--|
| <b>System</b>      |  |
| Form Factor        | 1U Rackmount Network Appliance   |
| Processor          | 12th/13th Generation Intel® Core™ Processors   |
| Chipset            | Intel® W680 Chipset (Project Base: Intel® Q670, H610)  |
| System Memory      | DDR5 SODIMM slots x 2  |
| <b>Network</b>     |  |
| Ethernet           | Intel® I226-V 2.5GbE RJ-45 x 10 (Including 2 pairs Bypass) + Intel® I210-IS GbE SFP x 2, optional: 10GbE SFP+ x 2 (PCIe[x4] via PER-T639)<br>Note: Intel® H610 Chipset SKU limited to 2.5GbE RJ-45 x 8 |
| Bypass             | 2 Pairs LAN Bypass 3.1 (LAN 3-4, LAN 5-6)  |
| NIM Slot           | 1  |
| <b>Display</b>     |  |
| Graphic Controller | —  |
| Connector          | HDMI port x 1  |
| <b>Storage</b>     |  |
| HDD                | 2.5" HDD x 2 (default) or 3.5" HDD x 1 (if no NIM module present)  |

Note: All specifications are subject to change without notice.

## Dimension

Unit: mm



## Ordering Information

| Part Number         | CPU  | Memory                       | Mini-Card Slot                 | Storage          | LAN                | USB               | Console   | Bypass          | NIM Slot   | Expansion Slot | TPM     | Display  |
|---------------------|--|------------------------------|--------------------------------|------------------|--------------------|-------------------|-----------|-----------------|------------|----------------|---------|----------|
| FWS-7851-E12-A10-00 | 12th/13th Generation Intel® Core™ Processors | DDR5 SODIMM x 2 ECC/ non ECC | M.2 2242 M-Key (PCIe [x4]) x 1 | 2.5" HDD Bay x 2 | RJ45 x 10, SFP x 2 | USB 3.2 Gen 1 x 2 | RJ-45 x 1 | 2 pairs onboard | 1 (Note 1) | —              | Onboard | HDMI x 1 |

## Packing List

- Console Cable
- Ear Brackets
- FWS-7851

## 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-C15A-A10-G82-0001**  
Intel® I226V PCI-Express 2.5G Copper Ethernet 8 Ports Module for FWS-7851/7850 w/ 2Pair bypass
- **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
- **PER-R40X**  
NIM LAN Module Riser Card