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01 Desktop Network Appliances

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<td>FWS-2271</td>
<td>Desktop 6 LAN Ports Network Appliance with Intel® N3350 Processor SoC</td>
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<td>FWS-2277</td>
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<td>Network Appliance with Intel® Elkhart lake SoC Processor</td>
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FWS-7830 1U Rackmount Intel® 8th Generation Platform Network Appliance 02-7
FWS-7831 1U Rackmount Intel® 8th Generation Platform Network Appliance 02-9
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NIM-S13E Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G Fiber Ethernet 4 Ports Module 02-18
NIM-C13B Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G Copper Ethernet 8 Ports Module 02-18
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NIM-S26C Intel® XL710 PCI-Express 10G SFP+ 4 Ports Module 02-20
NIM-S26D Intel® Ethernet Controller XL710-BM1 (Fortville) Quad Port SFP+ 10 GbE LAN Module 02-20
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03 Industrial Network Appliances

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Introduction

As one of the leading manufacturers of advanced hardware platforms for network computing and security solutions, AAEON offers an extensive range of network appliances that support SD-WAN, SDN, NFV, Wireless Gateway, NGFW, Intrusion Detection/Prevention, WAN Optimization, Network Access Control, Load Balancing, Web Content Filtering, Unified Threat Management, and Wireless Network Security. Together, they make up the most versatile and cost-effective networking solutions on the market.

Offering x86-based platforms from Intel® Atom™ all the way to Intel® Xeon processors, and in desktop, 1U and 2U form factors, AAEON's team of experienced network engineers have helped companies around the world deploy reliable network appliances with faster times to market and lower development costs based on state-of-the-art hardware platforms, unmatched service quality, and long-term support.

Established in 1992, AAEON successfully established itself as a leading designer and manufacturer of advanced industrial and embedded computing platforms. AAEON maintains a strong market position providing integrated solutions, hardware, and bespoke services for premier OEM, ODM, and system integrators worldwide. After joining the ASUS group in 2011, AAEON has further strengthened its leadership and continuously pursues innovation and excellence in this industry.

Intel® Network Builders Winner's Circle

AAEON is honored to be recognized as a Solutions Plus Partner in the Intel® Network Builders Winner's Circle for 2020-2021. This honor recognizes AAEON's efforts and dedication to helping grow the Intel® Network Builders ecosystem with innovative network platforms and solutions utilizing software defined networking (SDN), network function virtualization (NFV) and software defined wide area networks (SD-WAN). AAEON is recognized as a Solutions Plus Partner for its help in accelerating the adoption of advanced IoT and edge networks by leveraging technologies including edge computing, 5G communication, and developing innovative network solutions utilizing the latest Intel architecture including the 2nd Generation Intel® Xeon® Scalable Processors and the Intel® Xeon® D Processor, found in AAEON network solutions such as the FWS-8600.
Introduction

AAEON has continued to innovate its FWS series of network appliances to develop the next generation of easy-to-manage, rapidly deployable appliances designed to power advanced network functions such as Software Defined Networking (SDN) and Network Functions Virtualization (NFV). AAEON is helping to accelerate the adoption of these next generation solutions by leveraging the built-in features of Intel® processor to provide faster and more efficient data transfer and encryption, while reducing the complexity and cost of industrial networks.

The FWS series offers solutions in a range of sizes and configurations, with enterprise-grade 2U rackmount, 1U rackmount and desktop network appliances featuring a broad array of Intel processors including the powerful 2nd Generation Intel® Xeon® Scalable Processors, Intel® Core™ i7/i5/i3, and efficient Intel® Atom™ processors. Designed for scalability and flexible configurations, the FWS family of network appliances offer reliable performance for demanding network applications, and come with various combinations of Ethernet modules including Gigabit Ethernet, SFP Fiber LAN, PCIe expansion slots and LCM with keypad controls.

DMS & Collaboration Models

AAEON solutions are backed by world-class service and support designed to reduce time to production and enable you to operate at peak efficiency. With over 25 years of experience designing and automating IT processes, AAEON end-to-end solutions enable your organization to maximize your investment in our network security solutions with professional service that exceeds client expectations. AAEON provides products built for your organization’s needs, from customizing existing AAEON products to developing bespoke products. AAEON provides professional level service and collaboration to deploy the best equipment with the highest confidence and quality.
White Box uCPE Family for SD-WAN

Optimized for Virtual Network Functions
AAEON’s white box platforms are designed to power any third-party Virtual Network Function (VNF), eliminating the need for proprietary hardware, and accelerating deployment for service providers.

Powering More Applications
To provide agile, reliable, and secure networking, AAEON’s white box platforms offer built-in advanced networking technology including performance acceleration (Intel® QAT, AES-NI, VT, SR-IOV, and DPDK), TPM, and Secure Boot, powered with high core-count Intel® x86 processors.

Introduction
In the current environment of companies moving towards connected and virtualized industries, as well as more companies moving towards work from home models, traditional dedicated network appliances are quickly becoming unsustainable. The solution to powering these networks is through leveraging uCPE technology with Software Defined Wide Area Networks (SD-WAN). AAEON brings industry-leading expertise in network appliance and IT edge computing hardware design to offer a broad range of white box platforms ready to power your uCPE, SD-WAN needs.

By leveraging uCPE and SD-WAN technologies, network managers and service providers can reduce the complexity and costs of developing, deploying and maintaining Wide Area Networks. From small desktop systems such as the FWS-2275 and FWS-2273, to rackmount platforms including the FWS-7360, AAEON’s family of white box platforms offer the processing performance, wired and wireless connectivity, scalability, and advanced encryption and virtualization technology ensuring agile, reliable and secure operation of your network.

AAEON’s white box platforms are designed to power any third-party Virtual Network Function (VNF), eliminating the need for proprietary hardware, and accelerating deployment for service providers. In addition, AAEON white box platforms offer cutting edge security and virtualization technology with built-in support for performance acceleration (Intel® QAT, AES-NI, VT, SR-IOV, and DPDK), TPM, and Secure Boot, all powered by high core-count Intel® x86 processors.

<table>
<thead>
<tr>
<th>Model</th>
<th>FWS-2272</th>
<th>FWS-2273</th>
<th>FWS-2360</th>
<th>FWS-2365</th>
<th>FWS-7360</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>Intel® N3350/ N4200</td>
<td>Intel® N3350/ N4200</td>
<td>Intel® Atom™ C3000</td>
<td>Intel® Atom™ C3000</td>
<td>Intel® Atom™ C3000</td>
</tr>
<tr>
<td>Cores</td>
<td>2, 4</td>
<td>2, 4</td>
<td>2, 4, 8</td>
<td>4 ~ 16</td>
<td>8 ~ 16</td>
</tr>
<tr>
<td>GbE Ports</td>
<td>4 Copper</td>
<td>4 Copper + 2 SFP</td>
<td>4 Copper + 2 SFP or 6 Copper</td>
<td>6 Copper</td>
<td>5 Copper + NIM</td>
</tr>
<tr>
<td>10GbE Ports</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>2 ~ 4</td>
<td>2</td>
</tr>
</tbody>
</table>

Note: All specifications are subject to change without notice.
5G Capable MEC Platforms

AAEON Network Appliances offer the power and performance to handle demanding tasks including MEC (Multi-access Edge Computing/Mobile Edge Computing) applications. MEC platforms act as a vital component in the Edge-Cloud ecosystem, combining NFV and Cloud Virtualization to minimize bandwidth requirements and provide an ultra-low latency edge cloud platform, allowing customers to take full advantage of data transfer speeds offered by 5G without needing to increase their communication budgets.

Industrial Cyber Security

With the deployment and expansion of Industry 4.0 technologies like Industrial IoT (IIoT) and Edge Computing, greater numbers of industrial systems are connecting to cloud and SD-WAN networks. This creates a gap in information security, which has been increasingly exploited by cyberattacks and malware. Where Information Technology (IT) systems have traditionally been heavily guarded against such cyber threats, operational technology (OT) systems like PLCs, Industrial Control Systems (ICS) and SCADA, have lagged behind as these systems were previously isolated from broader networks and internet connections. Furthermore, due to the costs already put into deploying OT systems, security budgets for industrial infrastructure are generally tight.

AAEON has developed solutions to help counter the threat of cyberattacks against industrial infrastructure, the compact FWS-2275 and ICS-6270 DIN rail mount network appliance. Both provide a flexible and inexpensive way to add vital network security tools to industrial networks and OT systems. Using AAEON’s experience in designing embedded industrial systems, the FWS-2275 and ICS-6270 feature fanless design, rugged metal chassis, and wide operating temperature ranges to ensure long lasting and reliable operation anywhere they’re deployed.
Product Lines

Desktop Network Appliances
AAEON’s Desktop Network Appliances support functions such as SD-WAN, vCPE, wired/wireless gateway, network access control, and load balancing in a single, convenient device for simple network security deployment. Its compact size and capability make it an ideal network appliance for small offices and branch offices.

Rackmount Network Appliances
AAEON’s Rackmount Network Appliances are designed in both 2U rackmount and 1U rackmount enterprise-grade configurations with a broad selection of processors. Designed for scalability and flexible configurations, the appliances are reliable systems for demanding network applications and come with various combinations of Ethernet modules including GbE and SFP Fiber LAN, PCI-E Bus expansion slots and LCM with keypad control.

Network Interface Module (NIM)
The dense, feature-rich 1U design network interface modules (NIM) include impressive I/O interfaces. NIMs including GbE, SFP+, and QSFP fiber options allow you to adopt an exceptional array of easily composable configurations and customizations for seamless integration into new and existing infrastructure deployments. This composability ensures the highest degree of flexibility and performance for your environment, dramatically improving server utilization, resource allocation, and ease of management.

Industrial Network Appliances
Combining our expertise in Network Solutions and rugged embedded platforms, AAEON’s Industrial Network Appliances are designed to power embedded network computing applications, from Industrial Cyber Security to Mobile NVR. With support for a range of expansion option thanks to mPCIe card slots, these devices can provide wireless connectivity, mobile operation, and power AI and Edge Computing.
Feature Highlights

Intel® Technologies
AAEON FWS models feature Intel® built-in technologies such as Intel® QuickAssist Technology, Intel® Advanced Encryption Standard Instructions (AES-NI), and Intel® Virtualization Technology (Intel® VT) which can enhance entire network performance, efficiency, and security.

Intel® QuickAssist
Intel® QuickAssist Technology speeds up the process of encrypting and compressing secure information, meaning end users can send private information with complete confidence. With the high-powered CPUs used in the AAEON FWS series, this work is isolated from the rest of the system’s functions, allowing the devices to continue their other functions without losing speed.

Data Plane Development Kit (DPDK)
The AAEON FWS series supports Intel® DPDK which can greatly boost packet processing performance and throughput, allowing more time for data plane applications.

LAN Bypass Function
Advanced LAN bypass ports protect networks against unexpected in-line system hang. With the aims of AAEON SDK, developers can easily implement the LAN bypass function.

Wireless Connectivity
AAEON FWS models feature mini-card slots for wireless connectivity expansion. In desktop models, this expansion supports functions such as Wi-Fi and support for cellular 3G, 4G/LTE and 5G modules.

IPMI Remote Management
IPMI is essential in meeting mission-critical business requirements and ensuring that enterprises are able to enjoy uninterrupted, highly available, and highly stable services. IPMI enables administrators to remotely monitor, manage, and maintain systems to provide uninterrupted services and near-zero downtimes.

Trusted Platform Module (TPM)
The AAEON FWS series supports TPM, which is designed to secure hardware by integrating cryptographic keys into appliances. Pushing security down to the hardware level provides more protection than a software-only solution. Part of latest platform support ANSSI certified TPM.

Bluetooth Control Solution
AAEON’s network appliances are built for maximum scalability and integration, and they incorporate 3E (3- Easy) core tenets: Connectivity, Maintenance and Control. Our systems feature a Bluetooth interface, eliminating the need for external console cables and/or USB drives, and they are easily operated from tablets, mobile phones, or other Bluetooth devices.

*Note: Only supports Android OS

Swappable Design for Varied Configurations
Redundant Power Supplies
Software Programmable Button
Hot Swappable Fans
LCM & Keypad

Note: All specifications are subject to change without notice.
01

Network Appliances
FWS-2365
Desktop Network Appliance with Intel® Atom® Processor C3000 series

Features
- Intel® Atom® Processor C3000 series
- 10/100/1000Base-TX Ethernet x 6
- Supports 1 pair bypass (LAN 3 ~ 4)
- Up to 4 x 10G SFP+ Port (C3558 only supports 2 port)
- DDR4 SODIMM socket x 2
- SATA III Port x 2
- On board 16GB eMMC, up to 128GB
- Mini-card slot x 1 (Half-size, PCIe), Mini-card slot x 1 (Full-size, PCIe + USB2.0) with SIM slot
- M.2 B key 3052 x 1 (USB3.0) with SIM slot
- USB3.0 TypeA Port x 2 (1 Port only support USB2.0 signal)

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Form Factor</th>
<th>Desktop Network Appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Processor</td>
<td>Intel® Atom® Processor C3000 series (4 ~ 16 cores)</td>
</tr>
<tr>
<td></td>
<td>Chipset</td>
<td>SoC</td>
</tr>
<tr>
<td></td>
<td>System Memory</td>
<td>DDR4 SODIMM ECC x 2, up to 64GB</td>
</tr>
</tbody>
</table>

| Network | Ethernet | 1GBe RJ-45 x 6 (2 ports co-lay SFP) |
|         |          | 10G SFP+ x 4 (4 cores only support 2 port) |
| Bypass  | Supports 1 pairs on LAN 3-4 |

| Display | Graphic Controller | — |
|         | Connector         | — |

| Storage | HDD | SATA III port x 2, 2.5" HDD/SSD up to 2 |
|         | CF/CFast/MSATA   | On board 16GB eMMC, up to 128GB optional mSATA slot x 1 (co-lay with M.2 slot) |

Internal/ Expansion Interface

| PCIe Slot | Mini-Pcie Slot | — | Mini-card slot x 1 (Half-size, PCIe)
|           | Mini-card slot x 1 (Full-size, PCIe + USB2.0) with SIM slot |
|           | M 2 B key 3052 x 1 (USB3.0) with SIM slot |
| KEYBOARD and Mouse | Reserved pin-header |
| USB | USB 3.0 x 2 (1 Port only support USB2.0 signal) |

Miscellaneous

| RTC | Internal RTC |
| Watchdog Timer | 1-255 steps by software programmable |
| Software Button | GPIO programmable push button x 1 |
| TPM | TPM v2.0 9665 |
| GPIO | 4 bits input/ 4 bits output |
| Fan | System Fan x 1 |
| MIBF (Hours) | TBD |
| Color | Black |

Environmental Parameters and Dimension

| Power Requirement | 12V DC Power in connector |
|                   | 4 Cores: 40W Power Adapter |
|                   | 8 Cores and above: 60W Power Adapter |
| 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 | 10%~80% @40°C, non-condensing |
| Vibration | 0.5 Grms/ 5 ~ 500Hz / operation (2.5" HDD) |
|             | 1.5 Grms/ 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) | 260mm x 178mm x 44mm |

I/O

Front Panel
- Power LED x 1
- Status LED x 1
- Storage Active LED x 1
- Bypass LED x 1
- Ethernet LED x 20
- Antenna Hole x 2
- Accessible SIM slot x 2

Rear Panel
- USB 3.0 Port x 2
- RJ-45 Port x 6
- SFP+ Port x 2
- RJ-45 Console x 1
- 12V DC Power Input x 1
- Software Reset Button x 1
- Power Button x 1
- Antenna Hole x 4

Note: All specifications are subject to change without notice.
**Dimension**

Unit: mm

![Diagram of Dimensions]

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>RAM</th>
<th>Bypass</th>
<th>Expansion Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2365-E8-A10-00</td>
<td>Intel® Atom® C3558</td>
<td>260-pin DDR4 SODIMM socket x 2</td>
<td>1 pairs (LAN1~4)</td>
<td>Mini-card slot x 1 (Half-size, PCIe) Mini-card slot x 1 (Full-size, PCIe + USB2.0) with SIM slot M.2 B key 3052 x 1 (USB3.0) with SIM slot On board 16GB eMMC</td>
<td>6 x 1G RJ-45 2 x 10Gb SFP+</td>
<td>USB3.0 TypeA Port x 2 (1 Port only support USB2.0 signal)</td>
<td>RJ-45 x 1</td>
<td>1 x System Fan</td>
<td>TPM v2.0</td>
<td>9665/T</td>
<td>Desktop</td>
<td>DC</td>
<td></td>
</tr>
</tbody>
</table>

**Packing List**

- SATA Cable x 1
- SATA Power Cable x 1
- 40W Power Adapter x 1 (C3558 SKU)
- FWS-2365

**Optional Accessories**

- 1700091805 Console Cable
- 1702031802 Power Cord, 3P-250V/10A, 1800, 1.8M, USA, YP12/YC-12
- 1702031803 Power Cord, 3P-250V/10A, 1800, 1.8M, VDE, YP22/YP12
- 1702031808 Power Cord, 3P-250V/10A, 1800, 1.8M, China, YP-03/YC-12
- 170203180E Power Cord, 3P-125V/7A, 1.8M, PSE, YP12/YC-12
- 9761220030 1U Rackmount Ear Bracket Kit

**Note:** All specifications are subject to change without notice.
# Desktop Network Appliance with Intel® Atom® Processor C3000 Series

## Features
- Desktop Network Appliance
- Intel® Atom® C3000 Series Processor Supports Dual and Quad Core
- DDR4 SODIMM/ ECC DIMM (Dual Core 1 Slot Quad Core 2 Slot)
- 4 Copper(88E1543) + 2 Copper(I211), optional 4 Copper(88E1543) + 2 Fiber(I210)
- 2 Pairs Bypass Support
- Mini PCIe with SIM Slot Support
- Internal 2.5” SATA HDD Bay x 1 (Optional)
- eMMC Support up to 16GB
- RJ-45 Console x 1
- USB 3.2 Gen 1 x 2 (Internal USB 2.0 x 1)

## Specifications

### System
- **Form Factor**: Desktop Network Appliance
- **Processor**: Intel® Atom™ Processor C3000 Series supports dual and quad core
- **Chipset**: SoC

### Network
- **Ethernet**: Intel® X553 (Marvell 88E1543) RJ45 x 4
- **Default**: Intel® I211; 6GbE x 2 (Intel® J210 SFP x 2 Optional)
- **Bypass**: Supports up to 2 pairs bypass function

### Display
- **Graphic Controller**: —
- **Connector**: —

### Storage
- **HDD**: 2.5” HDD Bay x 1
- **CF/CFast/MSATA**: SATA 6.0 Gb/s port x 1 (Onboard eMMC up to 16GB optional)

## Internal/Expansion Interface

<table>
<thead>
<tr>
<th>Interface</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCIe Slot</td>
<td>—</td>
</tr>
<tr>
<td>Mini-PCIe Slot</td>
<td>Mini-Card socket (full-size) x 2 (1 with SIM socket)</td>
</tr>
<tr>
<td>Keyboard and Mouse</td>
<td>Reserved pin-header</td>
</tr>
<tr>
<td>USB</td>
<td>—</td>
</tr>
<tr>
<td></td>
<td>Dual Core: USB 3.2 Gen 1 x 1 + USB2.0 x 1</td>
</tr>
</tbody>
</table>

## Miscellaneous
- **RTC**: Internal RTC
- **Watchdog Timer**: 1~255 steps by software programmable
- **Software Button**: —
- **TPM**: (TPM v1.2 9660/TPM2.0 9665 Optional)
- **GPIO**: (4 bits input, 4 bits output optional)
- **Fan**: System fan x 1
- **MTBF (Hours)**: 149683 Hours
- **Color**: Black

## Environmental Parameters and Dimension
- **Power Requirement**: 12V DC Power in connector
- **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**: 10%–80% @ 40°C; non-condensing
- **Vibration**: 0.5 Gms/ 5 ~ 500Hz / operation (2.5” HDD)
- **Shock**: 20 G peak acceleration (11 m sec. duration) non-operation
- **Dimension (W X D X H)**: 8.66” x 4.13” x 1.73” (220mm x 105mm x 44mm)

## I/O

### Front Panel
- Power LED x 1
- Status LED x 1
- Bypass LED x 2
- LAN LED x 12
- (Antenna Hole x 2 Optional)

### Rear Panel
- USB 3.2 Gen 1 Port x 2
- RJ-45 Port x 6 (Optional RJ-45 x 4 + SFP x 2)
- RJ-45 Console x 1
- 12V DC Power Input x 1
- Software Reset Button x 1
- Power Button x 1
- (Antenna Hole x 2 Optional)

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Note: All specifications are subject to change without notice.

---

---
Dimension

Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>RAM</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2360E-A10-00</td>
<td>Intel® Atom®</td>
<td>260-pin DDR4 SODIMM/</td>
<td>2 pins</td>
<td>Full Size x 2 (PCIe + USB), 1 with UMI socket</td>
<td>2.5&quot; HDD, Bay x 1</td>
<td>6 Internal 9S13 (Marvell 88E1543) RJ-45 x 4</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 console x 1</td>
<td>—</td>
<td>—</td>
<td>Desktop</td>
<td>DC</td>
<td></td>
</tr>
</tbody>
</table>

Packing List

- Power Adapter
- SATA Cable
- SATA Power Cable
- FWS-2360

Optional Accessories

- 1702031803
  Power Cord, 3P-250V/10A, 1800, 1.8M, VDE, YP12/YC-12
- 1702031802
  Power Cord, 3P-250V/10A, 1800, 1.8M, USA, YP12/YC-12
- 170203180B
  Power Cord, 3P-250V/10A, 1800, 1.8M, China, YP-03/YC-12
- 170203180E
  Power Cord, SP-125V/7A, 1.8M, PSE, YP12/YC-12
- 1700091805
  Console Cable
# Desktop Network Appliance with Intel® Elkhart Lake Processor

## Features
- Intel® Elkhart lake SoC Processor, 2–4 cores
- 260-pin DDR4 3200MHz SODIMM x 1, Up to 32GB
- Intel® i211 GbE x 4, Intel® i210 SFP x 1
- Mini-Card full size (with SIM socket) x1
- Mini-Card half size slot x1
- M.2 B key 3052 slot (with SIM socket) x 1 (Optional)
- Redundant power support

## Specifications

### System
- **Form Factor**: Desktop Network Appliance
- **Processor**: Intel® Elkhart lake SoC Processor 2–4 cores
- **Chipset**: SoC
- **System Memory**: 260-pin DDR4 3200MHz

### Network
- **Ethernet**: Intel® i211, Gigabit Ethernet x 4; Intel® i210, SFP x 1
- **Bypass**

### Display
- **Graphic Controller**: Intel® UHD Graphics
- **Connector**: HDMI x 1

### Storage
- **HDD**
- **CF/CFast/MSATA**: mSATA slot x 1; SATA III port x 1

### Power Requirement
- 2 x 12V DC Power Input Connector Lockable, 40W power adapter

### 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: 10%~80% @40°C; non-condensing

### Vibration
- 0.5 Grms / 5 ~ 500Hz / operation (mSATA)
- 1.5 Grms / 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)
- 8.27” x 4.09” x 1.73” (210mm x 105mm x 44mm)

### I/O
- **Front Panel**: 3 x LEDs (Power, Status, Storage); 1 x Micro-SIM; 2 x Antenna Hole
- **Rear Panel**: 2 x DC Power Input Connector Lockable; 1 x Power Button; 2 x USB2.0 Ports; 4 x 1Gbe RJ45 Ports; 1 SFP; 1 x RJ-45 console; 1 x Reset Button; 3 x Antenna Hole

---

**Note**: All specifications are subject to change without notice.
Dimension

Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>RAM</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2280-E5-A10-000</td>
<td>Intel® Celeron N4020</td>
<td>DDR4 3200 SODIMM socket x 1</td>
<td>—</td>
<td>Mini Card Socket (PCIe x1 + USB)</td>
<td>SATA III Port x 1</td>
<td>4 x 1Gb RJ-45</td>
<td>1 x 1Gb SFP</td>
<td>USB2.0 TypeA</td>
<td>RJ-45 x 1</td>
<td>—</td>
<td>1 x HDMI</td>
<td>Desktop</td>
<td>DC 12V/Power adapter x 1</td>
</tr>
</tbody>
</table>

Packing List

- Power Adapter x 1
- FWS-2280
- 2.5" SSD Bay x 1

Optional Accessories

- 1700091805
  Console Cable
- 1702031802
  Power Cord, 3P-250W/10A, 1800, 1.8M, USA, YP12/YP12
- 1702031803
  Power Cord, 3P-250W/10A, 1800, 1.8M, VDE, YP22/YP12
- 170203180B
  Power Cord, 3P-250W/10A, 1800, 1.8M, China, YP-03/YC-12
- 170203180E
  Power Cord, 3P-125W/7A, 1.8M, PSE, YP12/YC-12
FWS-2276
Desktop Network Appliance with Intel® Celeron® Processor N3350

Features
- Desktop Network Appliance
- Intel® Celeron® Processor N3350
- Onboard LPDDR4 2GB, optional DDR3L 1866, Single Channel SODIMM x 1 (Max. 8GB, up to 1600MHz)
- Gigabit Ethernet x 4 (Intel® i211)
- 1 Pair Bypass
- Internal 2.5” SATA HDD Bay x 1
- Onboard 8 GB eMMC
- RJ-45 Console x 1
- USB 3.2 Gen 1 x 2

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Desktop Network Appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>Desktop Network Appliance</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® Celeron® Processor N3350 SoC</td>
</tr>
<tr>
<td>Chipset</td>
<td>SoC</td>
</tr>
<tr>
<td>System Memory</td>
<td>Onboard LPDDR4 2GB, optional DDR3L 1866, Single Channel SODIMM x 1 (Max. 8GB, up to 1600MHz)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>Intel® i211 GbE x 4</td>
</tr>
<tr>
<td>Bypass</td>
<td>1 pair bypass function</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Display</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Controller</td>
<td>Intel® HD graphics integrated</td>
</tr>
<tr>
<td>Connector</td>
<td>—</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Storage</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>HDD</td>
<td>2.5” HDD Bay x 1</td>
</tr>
</tbody>
</table>

Note: All specifications are subject to change without notice.
Dimension
Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>Display</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>TPM</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2276E4-A10-A10-000</td>
<td>Intel® Celeron® N3350</td>
<td>Onboard LPDDR4 2GB memory</td>
<td>—</td>
<td>2.5” HDD Bay x 1</td>
<td>Intel® I211 GbE x 4</td>
<td>USB 3.2 Gen 1 x 3</td>
<td>RJ-45 console x 1</td>
<td>1 pairs</td>
<td>—</td>
<td>1</td>
<td>Desktop</td>
<td>DC</td>
<td>* Please contact AAEON for other optional specifications.</td>
<td></td>
</tr>
</tbody>
</table>

Packing List
- SATA Cable x 1
- SATA Power Cable x 1
- Power Adapter
- FWS-2276

Optional Accessories
- 1700091805
  Console Cable
- 1702031802
  Power Cord, 3P-250W/10A, 1800, 1.8M, USA, YP22/YP12
- 1702031803
  Power Cord, 3P-250W/10A, 1800, 1.8M, VDE, YP22/YP12
- 170203180B
  Power Cord, 3P-250W/10A, 1800, 1.8M, China, YP03/YC-12
- 170203180E
  Power Cord, 3P-250W/10A, 1800, 1.8M, PSE, YP12/YC-12
FWS-2275
Desktop 3 LAN Ports Network Appliance with Intel® Celeron® Processor N3350

Features
- Desktop Network Appliance
- Intel® Celeron® Processor N3350 SoC
- Onboard eMMC 16GB (Optional up to 32GB)
- Onboard LPDDR4, 2GB
- Intel® i211 GbE x 3
- 1 x Mini-Card Full Size Slot with SIM Socket
- Onboard WiFi 802.11 b/g/n 2x2, BT4.1
- HDMI Connector (Optional)
- TPM Supported (Optional)

Specifications
- **System**
  - Form Factor: Desktop Network Appliance
  - Processor: Intel® Celeron® Processor N3350 SoC
  - Chipset: SoC
  - System Memory: Onboard LPDDR4, 2GB
- **Network**
  - Ethernet: Intel® i211 GbE x 3
  - Bypass: —
- **Display**
  - Graphic Controller: Intel® HD graphics integrated
  - Connector: (HDMI Connector x1 Optional)
- **Storage**
  - HDD: —
  - CF/CFast/mSATA: Onboard eMMC 16GB (Optional up to 32GB) SATA III Port x 1 for SATA DOM Micro-SD card Reader x1

Internal/ Expansion Interface
- PCIe Slot: —
- Mini-PCle Slot: Mini-Card Full Size Slot with SIM Socket x 1 (USB 2.0; PCIe co-lay with LAN 3)
- Keyboard and Mouse: —
- USB: USB 3.2 Gen 1 x 2

Miscellaneous
- RTC: Internal RTC
- Watchdog Timer: 1~255 steps by software programmable
- Software Button: GPIO Programmable push button x 1
- TPM: (TPM2.0 9665 Optional)
- GPIO: 4 bits input, 4 bits output
- Fan: —
- MTBF (Hours): 550,521 Hours
- Color: Black

Environmental Parameters and Dimension
- Power Requirement: 9~24 VDC Power
- Operating Temperature: 32°F ~ 122°F (0°C ~ 50°C)
- Storage Temperature: -4°F ~ 140°F (-20°C ~ 60°C)
- Operating Humidity: 10%~80% relative humidity, non-condensing
- Storage Humidity: 10%~80% @40°C; non-condensing
- Vibration: 0.5 Grms / 5 ~ 500Hz / operation
  1.5 Grms / 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): 4.53” x 4.53” x 1.73 ” (115mm x 115mm x 44mm)

I/O
- **Front Panel**
  - Interface: USB 3.2 Gen 1 Ports x 2
  - Power Button with LED integrated x 1
  - COM x 1
  - DIO x 1
  - LED’s (3 x TOP Row, 2 x Bottom Row) x 6
  - Reset button x 1
- **Rear Panel**
  - Interface: 1GbE RJ45 Ports x 3
  - Power Input connector, lockable x 1
- **Left I/O**
  - Interface: SIM Slot x 1 + Micro-SD Slot with Cover x 1
  - WiFi Antenna Connector x 1
  - LTE Antenna Connector
- **Right I/O**
  - Interface: WiFi Antenna Connector x 1
  - LTE Antenna Connector

Note: All specifications are subject to change without notice.
### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>Display</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>TPM</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2275E3-A10-00</td>
<td>Intel® Celeron® N3350</td>
<td>Onboard LPDDR4 2GB memory</td>
<td>Mini-Card Full Size Slot with SIM Socket x 1 (USB 2.0)</td>
<td>16GB eMMC SATA III Port x 1 for SATA-DOM Micro SD card Reader x 1</td>
<td>Intel® i211 x 3</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>Micro USB console x 1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Desktop DC 12V, 40W Power Adapter x1</td>
<td>* Please contact AAEON for other optional specifications.</td>
</tr>
</tbody>
</table>

### Packing List

- Antenna x 2
- Power Adapter x 1
- VESA mount x 1
- FWS-2275

### Optional Accessories

- **1702031802**
  Power Cord, 3P-250V/10A, 1800, 1.8M, USA, YP22/YP12
- **1702031803**
  Power Cord, 3P-250V/10A, 1800, 1.8M, VDE, YP22/YP12
- **170203180B**
  Power Cord, 3P-250V/10A, 1800, 1.8M, China, YP-03/YC-12
- **170203180E**
  Power Cord, 3P-250V/10A, 1800, 1.8M, PSE, YP12/YC-12

Note: All specifications are subject to change without notice.
FWS-2273
Desktop 6 LAN Ports Network Appliance with Intel® Celeron® N3350 Processor SoC

Features
- Intel® Celeron® N3350 Processor SoC
- 10/100/1000Base-TX x 6 (4 x RJ-45, 2 x SFP connector)
- Supports up to 2 Pair Bypass
- CF Socket x 1, SATA 6.0 Gb/s Port x 1 for 2.5" HDD/SSD
- Mini-Card Slot (with SIM Socket) x 2
- RJ-45 Console x 1, USB 3.2 Gen 1 x 2
- DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)

Specifications

System
- Form Factor: Desktop Network Appliance
- Processor: Intel® Celeron® N3350 Processor
- Chipset: Intel® Celeron® N3350 Processor
- System Memory: DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)

Network
- Ethernet: Intel® i211, Gigabit Ethernet x 4
- Intel® i210, SFP x 2
- Bypass: Supports up to 2 pair bypass function

Display
- Graphic Controller: Intel® HD Graphics 505 Integrated
- Connector: HDMI x 1

Storage
- HDD: 2.5" HDD Bay x 1
- CF/CFAST/MSATA: CompactFlash™ socket x 1 (Co-lay for BOM Optional CFast™ socket x 1) / SATA 6.0 Gb/s port x 1

Internal/ Expansion Interface
- PCIe Slot: —
- Mini-PCIe Slot: Mini-Card socket (full-size) with SIM socket x 2
- Keyboard and Mouse: Reserved pin-header
- USB: USB 3.2 Gen 1 x 2

Miscellaneous
- RTC: Internal RTC
- Watchdog Timer: 1~255 steps by software programmable
- Software Button: —
- TPM: (TPM v1.2 9660/TPM2.0 9665 Optional)
- GPIO: Reserved internal pin-header 8-bit Digital I/O interface (4-in /4-out)
- Fan: Fanless, reserved pin-header for system fan
- MTBF (Hours): 109,725
- Color: Black

Environmental Parameters and Dimension
- Power Requirement: 12V DC Power in connector
- Operating Temperature: 32°F ~ 104°F (0°C ~ 40°C)
- Storage Temperature: -4°F ~ 140°F (-20°C ~ 60°C)
- Operating Humidity: 10%~90% relative humidity, non-condensing
- Storage Humidity: 10%~80% @40°C; non-condensing
- Vibration: 0.5 G rms/ 5 ~ 500Hz / operation (2.5" HDD)
- 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): 8.66” x 4.13” x 1.73” (220mm x 105mm x 44mm)

I/O

Front Panel
- Power LED x 1
- Status LED x 1
- Storage Active LED x 1
- Bypass LED x 2
- LAN LED x 12

Rear Panel
- USB 3.2 Gen 1 Port x 2
- RJ-45 Port x 4
- SFP x 2
- RJ-45 Console x 1
- 12V DC Power Input x 1
- Software Reset Button x 1
- Power Button x 1
- HDMI x 1
- Antenna Hole x 2

Note: All specifications are subject to change without notice.
**Dimension**  
Unit: mm

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>RAM</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2273E7-A10-A10-00</td>
<td>Intel® Celeron® N3350</td>
<td>204-pin DDR3L</td>
<td>2 pairs</td>
<td>Full Size x 1 PCIe + USB with SIM socket + Full Size x 1 (PCIe + USB) signal with SIM socket</td>
<td>CF socket x 1</td>
<td>6</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>Fanless</td>
<td>—</td>
<td>HDMI x 1</td>
<td>Desktop</td>
<td>DC</td>
</tr>
</tbody>
</table>

**Packing List**
- SATA Cable x 1
- SATA Power Cable x 1
- Power Adapter
- FWS-2273

**Optional Accessories**
- 1700091805  
  Console Cable
- 1702031802  
  Power Cord, 3P-250V/10A, 1800, 1.8M, USA, YP22/YP12
- 1702031803  
  Power Cord, 3P-250V/10A, 1800, 1.8M, VDE, YP22/YP12
- 170203180B  
  Power Cord, 3P-250V/10A, 1800, 1.8M, China, YP-03/YC-12
- 170203180E  
  Power Cord, 3P-250V/10A, 1800, 1.8M, PSE, YP12/YC-12

Note: All specifications are subject to change without notice.
**FWS-2272**

Desktop 4 LAN Ports Network Appliance with Intel® Celeron® N3350 Processor SoC

**Features**
- Intel® Celeron® N3350 Processor SoC
- Onboard LPDDR4 1GB, optional DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)
- 10/100/1000Base-T x 4
- Onboard 8GB eMMC, SATA 6.0 Gb/s Port x 1
- Mini-Card Slot (with SIM Socket) x 1
- RJ-45 Console x 1, USB 3.2 Gen 1 x 2

**Internal/ Expansion Interface**
- PCIe Slot —
- Mini-PCIe Slot Mini-Card socket (full-size) with SIM socket x 1
- USB 3.2 Gen 1 x 2

**Miscellaneous**
- RTC Internal RTC
- Watchdog Timer 1-255 steps by software programmable
- Software Button —
- TPM (TPM v1.2 9660/TPM2.0 9665 Optional)
- GPIO Reserved internal pin-header 8-bit Digital I/O interface (4-in /4-out)
- Fan Fanless
- MTBF (Hours) 162,469
- Color Silver

**Environmental Parameters and Dimension**
- Power Requirement 12V DC Power in connector
- 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 10%~80% @40°C; non-condensing
- Vibration 0.5 G rms/ 5 ~ 500Hz / operation (SATA DOM)
- 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) 6.1” x 3.62” x 1.26” (155mm x 92mm x 32mm)

**I/O**

**Front Panel**
- Power LED x 1
- Status LED x 1
- LAN LED x 8

**Rear Panel**
- USB 3.2 Gen 1 Port x 2
- RJ-45 Port x 4
- RJ-45 Console x 1
- 12V DC Power Input x 1
- Software Reset Button x 1
- Power Button x 1
- Antenna Hole x 2

**Specifications**

<table>
<thead>
<tr>
<th>System</th>
<th>Desktop Network Appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>Intel® Celeron® N3350 Processor</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® Celeron® N3350 Processor</td>
</tr>
<tr>
<td>System Memory</td>
<td>Onboard LPDDR4 1GB, optional DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)</td>
</tr>
</tbody>
</table>

**Network**

<table>
<thead>
<tr>
<th>Ethernet</th>
<th>Intel® i211, Gigabit Ethernet x 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bypass</td>
<td>—</td>
</tr>
</tbody>
</table>

**Display**

<table>
<thead>
<tr>
<th>Graphic Controller</th>
<th>Intel® HD Graphics 505 Integrated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Connector</td>
<td>—</td>
</tr>
</tbody>
</table>

**Storage**

| HDD                | —                                 |
| CF/CFAST/MSATA     | Onboard 8GB eMMC SATA 6.0 Gb/s port x 1, for SATA DOM |

Note: All specifications are subject to change without notice.
Dimension

Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2272E4-A10-A10-00</td>
<td>Intel® Celeron® N3350</td>
<td>Onboard 1GB LPDDR4</td>
<td>—</td>
<td>Full Size (USB Only)+ SIM socket x 1</td>
<td>Onboard 8GB eMMC, SATA 6.0 Gb/s Port x 1</td>
<td>4</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>Desktop</td>
<td>DC</td>
</tr>
</tbody>
</table>

Packing List

- Power Adapter
- FWS-2272

Optional Accessories

- 1700091805
  Console Cable
- 1702021832
  Power Cord, 2P/2P, 1.8M, USA
- 1702021836
  Power Cord, 2P/2P, 1.8M, EU

Note: All specifications are subject to change without notice.
### Features
- Intel® N3350 Processor SoC
- DDR3L 1866, Single Channel SODIMM x 1 (Max. 8GB, up to 1600MHz)
- 10/100/1000Base-T Ethernet Port x 6
- CFast™ Socket x 1
- Mini-Card Slot x 2 (USB Signal only with SIM Socket x 1)
- Accessible SIM Cover
- Supports TPM
- RJ-45 Console x 1, USB 3.2 Gen 1 x 2, HDMI x 1
- Supports Antenna up to 4

### Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Desktop 6-port Network Appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>Onboard Intel® Celeron® processor N3350</td>
</tr>
<tr>
<td>Processor</td>
<td>DDR3L 1866, Single Channel SODIMM x 1 (Max. 8GB, up to 1600MHz)</td>
</tr>
<tr>
<td>Network</td>
<td>Intel® i211 (Co-lay with Intel® i210), Gigabit Ethernet x 6 (80M Optional 4 Ports)</td>
</tr>
<tr>
<td>Display</td>
<td>Supports up to 2 pairs bypass function</td>
</tr>
<tr>
<td>Storage</td>
<td>Intel® HD Graphics 505 Integrated</td>
</tr>
<tr>
<td>Connectors</td>
<td>HDMI x 1</td>
</tr>
<tr>
<td>I/O</td>
<td>USB 3.2 Gen 1 Port x 2, RJ-45 Port x 6 (80M Optional RJ-45 Port x 4)</td>
</tr>
</tbody>
</table>

### Notes:
- All specifications are subject to change without notice.
- www.aaeon.com
Desktop Network Appliances

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2271E6-A10-A10-00</td>
<td>Intel® Celeron® N3350</td>
<td>DDR3L, SODIMM Single Channel</td>
<td>2 pairs</td>
<td>Full Size (PCIe+USB) x 1</td>
<td>Full Size (USB Only) + SIM socket x 1</td>
<td>SATA II Port x 1</td>
<td>CFast™ socket x 1</td>
<td>6</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>Fax x 1</td>
<td>HDMI x 1</td>
<td>Desktop</td>
</tr>
</tbody>
</table>

Packing List

- SATA Cable x 1
- SATA Power Cable x 1
- Power Adapter
- FWS-2271

Optional Accessories

- **1700091805**
  Console Cable
- **1702031802**
  Power Cord, 3P-250V/10A, 180D, 1.8M, USA, YP22/YP12
- **1702031803**
  Power Cord, 3P-250V/10A, 180D, 1.8M, VDE, YP22/YP12
- **170203180B**
  Power Cord, 3P-250V/10A, 180D, 1.8M, China, YP-03/YC-12
- **170203180E**
  Power Cord, 3P-125V/7A, 1.8M, PSE, YP12/YC-12

Note: All specifications are subject to change without notice.
FWS-2277
Desktop Network Appliance with Intel® Celeron® Processor N3350 SoC (formerly Apollo Lake)

Features
- Desktop Network Appliance
- Intel® Celeron® Processor N3350 SoC
- Onboard eMMC 16GB (Optional up to 32GB)
- Intel® i211 GbE x 2
- Mini-Card full size with wifi (11a/b/g/n/ac 2Tx2R) + BT (V5.0 LE)
- Onboard LPDDR4, 4GB
- TPM Supported (Optional)

Internal/ Expansion Interface
- PCIe Slot —
- Mini-PCIe Slot Mini-Card Full Size Slot x1
- Keyboard and Mouse —
- USB USB 3.2 Gen 1 x 2

Miscellaneous
- RTC Internal RTC
- Watchdog Timer 1~255 steps by software programmable
- Software Button GPIO Programmable push button x 1
- TPM (TPM SLB9670 VQ2.0 FW7.85 Optional)
- GPIO (4 bits input, 4bits output optional)
- Fan Fan-less
- MTBF (Hours) TBD
- Color Black

Environmental Parameters and Dimension
- Power Consumption 12V DC Power Input Connector non-lock, 24W power adapter
- 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 10%~80% @40°C, non-condensing
- Vibration 0.5 Grms/ 5 ~ 500Hz / operation (mSATA)
- Shock 10 G peak acceleration (11 ms sec. duration), operation
- 20 G peak acceleration (11 ms sec. duration), non-operation
- Dimension (W x D x H) 4.53” x 4.53” x 1.26”(115mm x115mm x 32mm)

I/O
- Front Panel USB 3.2 Gen 1 x 2
- Power Button x 1
- Reset Button x 1
- Rear Panel DC Power Input Connector non-lock x 1
- 1GbE RJ45 Ports x 2
- HDMI x 1

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Desktop Network Appliance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>Desktop Network Appliance</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® Celeron® Processor N3350 SoC</td>
</tr>
<tr>
<td>Chipset</td>
<td>SoC</td>
</tr>
<tr>
<td>System Memory</td>
<td>Onboard LPDDR4, 4GB</td>
</tr>
<tr>
<td>Network</td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>Intel® i211, Gigabit Ethernet x 2</td>
</tr>
<tr>
<td>Bypass</td>
<td>—</td>
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<tr>
<td>Display</td>
<td></td>
</tr>
<tr>
<td>Graphics Controller</td>
<td>Intel® UHD Graphics</td>
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<tr>
<td>Connector</td>
<td>HDMI x 1</td>
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<tr>
<td>Storage</td>
<td></td>
</tr>
<tr>
<td>HDD</td>
<td>—</td>
</tr>
<tr>
<td>CF/CFast/mSATA</td>
<td>eMMC 16G</td>
</tr>
</tbody>
</table>

Note: All specifications are subject to change without notice.
**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-2277-E2-A10-000</td>
<td>N3350</td>
<td>Onboard LPDDR4 4G</td>
<td>—</td>
<td>Mini Card Socket x1</td>
<td>eMMC 16G</td>
<td>2</td>
<td>USB 3.1 x 2</td>
<td>—</td>
<td>Fan-less</td>
<td>Optional</td>
<td>HDMI x 1</td>
<td>Desktop</td>
<td>DC</td>
</tr>
</tbody>
</table>

**Packing List**
- Power Adapter x1
- FWS-2277

**Optional Accessories**
- 1702021832
  - Power Cord, 2P/2F, 1.8M, USA
- 1702021836
  - Power Cord, 2P/2F, 1.8M, EU
Launching in Q1

Specifications

System
Form Factor Desktop Network Appliance
Processor Intel® Elkhart lake SoC Processor 2~4 cores
Chipset SoC
System Memory 260-pin DDR4 3200MHz SODIMM x 1, Up to 32GB

Network
Ethernet Intel® i226v, Gigabit Ethernet x 4
Bypass 2 Pair

Display
Graphics Controller Intel® UHD Graphics
Connector HDMI x 1

Storage
HDD —
CF/CFast/mSATA 16G eMMC
SATA III port x 1

Internal/Expansion Interface
PCIe Slot —
Mini-PCIe Slot Mini Card Socket with SIM push-push type (Full Size) for 4G/LTE, Co-lay M.2 (B Key 3052) for 5G
Keyboard and Mouse —
USB USB 3.1 Type A x 2 (one only have 2.0, share to M.2 for LTE)

Miscellaneous
RTC Internal RTC
Watchdog Timer 1~255 steps by software programmable

Features
- Intel® Elkhart lake SoC Processor, 2~4 cores
- 260-pin DDR4 3200MHz SODIMM x 1, Up to 32GB
- Intel® Intel® i226v, 2.5 Gigabit Ethernet x 4 + Intel® i210, SFP X2
- Mini Card Socket with SIM push-push type (Full Size) for 4G/LTE, Co-lay M.2 (B Key 3052) for 5G
- Redundant power support

Software Button GPIO Programmable push button x 1
TPM (TPM SLB9670 V02.0 FW7.85 Optional)
GPIO (4 bits input, 4bits output optional)
Fan Fan x 1
MTBF (Hours) TBD
Color Black

Environmental Parameters and Dimension
Power Consumption 2 x 12V DC Power Input Connector Lockable, 40W power adapter
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 10%~80% Ø40°C, non-condensing
Vibration 0.5 Grms/ 5 ~ 500Hz / operation (mSATA)
1.5 Grms/ 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) 8.66” x 4.09” x 1.73” (220mm x 105mm x 44mm)

I/O
Front Panel 3 x LEDs (Power, Status, Storage)
1 x Micro-SIM
3 x Antenna Hole
Rear Panel 2 x DC Power Input Connector Lockable
1 x Power Button
2 x USB2.0 Ports
4 x 10Gb RJ45 Ports, 2 SFP
1 x RJ-45 console
1 x Reset Button
3 x Antenna Hole

Ordering Information

Part Number CPU Memory Bypass Mini-Card Slot Storage LAN USB Console System Fan TPM Display Mounting Power
FWS-2281 J6412 260-pin DDR4 3200MHz SODIMM x 1 — Mini-Card Slot x 2 SATA port x 1
Intel® i226v Gigabit Ethernet x 4 + LAN ports, Intel® i210, SFP x 2
USB 3.0 x 2 Console x 1 Fan x 1 Optional HDMI x 1 Desktop DC

Note: All specifications are subject to change without notice.
### Network Appliance with Intel® Alder Lake N SoC Processor

#### Features
- Intel® Alder Lake N SoC Processor, 2–8 cores
- On board 4G LPDDR5 up to 16GB
- Intel® Intel® i226v, 2.5 Gigabit Ethernet x 4
- M.2 (B Key 3052) for 5G (Co-lay Mini-Card slot-2 with Push-pin SIM for 4G LTE/Wifi)
- M.2 (E Key 2230) (Co-lay Mini-Card-1 slot for WiFi)

### Specifications

**System**
- Form Factor: Desktop Network Appliance
- Processor: Intel Alder lake N SoC Processor 2–8 cores
- Chipset: SoC
- System Memory: On board 4G LPDDR5 up to 16GB

**Network**
- Ethernet: Intel® i226V, Gigabit Ethernet x 4
- Bypass: 1 Pair

**Display**
- Graphics Controller: Intel® UHD Graphics
- Connector: HDMI x 1 Optional

**Storage**
- HDD: —
- CF/CFast/mSATA: 16G eMMC SATA III port x 1

**Internal/Expansion Interface**
- PCIe Slot: —
- Mini-PCIe Slot: M.2 (B Key 3052) for 5G (Co-lay Mini-Card slot-2 with Push-pin SIM for 4G LTE/WiFi) reserve 3042 screw hold for 4G LTE M.2 (E Key 2230) (Co-lay Mini-Card-1 slot for WiFi)
- Keyboard and Mouse: —
- USB: USB 3.1 Type A x2 (one only have 2.0 ,share to M.2 for LTE)
- Miscellaneous: RTC Internal RTC
- Watchdog Timer: 1–255 steps by software programmable

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
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</thead>
<tbody>
<tr>
<td>FWS-2290</td>
<td>TBD</td>
<td>Onboard 4G LPDDR5</td>
<td>—</td>
<td>Mini Card Socket x1</td>
<td>SATA port x1</td>
<td>16G eMMC</td>
<td>Intel® i226v Gigabit Ethernet x 4</td>
<td>LAN Ports</td>
<td>3.0 x 2</td>
<td>Console x 1</td>
<td>Fan x1</td>
<td>Optional</td>
<td>HDMI x 1</td>
</tr>
</tbody>
</table>

### Note
- All specifications are subject to change without notice.

**Launching in Q1**

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**Packing List**
- Power Adapter x 1
- FWS-2290

**Optional Accessories**
- 1700091805
  - Console Cable
- 1702031802
  - Power Cord, 3P-250V/10A, 1800, 1.8M, USA, YP22/YP12
- 1702031803
  - Power Cord, 3P-250V/10A, 1800, 1.8M, VDE, YP22/YP12
- 170203180B
  - Power Cord, 3P-250V/10A, 1800, 1.8M, China, YP-03/YC-12
- 170203180E
  - Power Cord, 3P-125V/7.1A, 1.8M, PSE, YP12/YC-12
Rackmount Network Appliances & Network Interface Modules
## Features
- **2U Rackmount Network Appliance**
- **Dual 2nd Gen Intel® Xeon® Scalable Processors**
- **Intel® C621 Chipset**
- **DDR4 2133/2400/2666 MHz RDIMM x 16, up to 512GB**
- **1GbE RJ45 Intel® i211 x 2, NIM slot x 4 (Project based up to 8 slots)**
- **IPMI supported by AAEON Module**
- **External Hotswappable 3.5” HDD Bay x 4, Internal 3.5” HDD Bay x 1**
- **Mini-Card slot x 1, M.2 2260 M-key x 1**
- **RJ-45 Console x 1, USB 3.2 Gen 1 x 2**
- **550W ~ 600W Redundant Power**

## Storage
- **HDDs**
  - SATA III Port x 6
  - External Hotswappable 3.5” HDD Bay x 4
  - Internal 3.5” HDD Bay x 1, option with 2.5” HDD Bay x 2
- **CF/CFast/mSATA**
  - M.2 2260 M-key x 1
  - mSATA slot x 1 (share same slot with Mini-Card)
- **Internal/ Expansion Interface**
  - PCIe slot
    - Optional PCIe [x16] slots x 2, via riser card
  - Mini-Card slot
    - Mini Card slot (PCIe/SATA, USB2.0)
  - IPMI
    - Optional IPMI via AAEON Module (Project based)
  - Keyboard and Mouse
    - —
  - USB
    - USB 3.2 Gen1 x 2 (Optional 2*10 pin USB 3.2 Gen1 x 2 Box Header 2.0mm)

## Miscellaneous
- **RTC**
  - Internal RTC
- **Watchdog Timer**
  - 1~255 steps by software programmable
- **Software Button**
  - GPIO Programmable push button x 1
- **TPM**
  - Optional TPM2.0 9665 on board
- **GPIO**
  - (4 bits input, 4 bits output optional)
- **FAN**
  - 5 x Hotswappable FAN
- **MTBF (Hours)**
  - 192,691 Hours
- **Color**
  - Black

## Environmental Parameters and Dimension
- **Power Requirement**
  - 550 – 600W Redundant 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**
  - 10% ~ 80% @40°C, non-condensing
- **Vibration**
  - 0.5 G rms/ 5 ~ 50Hz / operation (3.5” Hard Disk Drive x 5)
  - 1.5 G rms/ 5 ~ 50Hz / 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)**
  - 17.48” x 22.83” x3.46” (444mm x 580mm x 88mm)

## I/O Interfaces
- **Front Panel**
  - 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
  - Parallel LCD display and 4 keypad x 1
  - Software Programmable Button x1
  - RJ-45 LAN x 2
  - IPMI x 1 (Project based)
- **Rear Panel**
  - AC Power Input x 2, Power Switch x 1, VGA port (Optional), Rear Expansion Slot x 2 /PCIe [x16] (Optional)
Ordering Information

<table>
<thead>
<tr>
<th></th>
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</tr>
</thead>
<tbody>
<tr>
<td>FWS-8600S2-R60-A10-00</td>
<td>Dual 2nd Gen Intel® Xeon® Scalable Processor</td>
<td>DDR4 RDIMM x 16, up to 512GB</td>
<td>Mini-Card slot x 1 (PCIe/SATA, USB2.0)</td>
<td>External 3.5&quot; HDD Bay x 4, Internal 3.5&quot; HDD Bay x 1, M.2 2280 M-key x 1</td>
<td>Intel® 1211 Gigabit Ethernet x 2</td>
<td>USB 3.2 Gen x 2</td>
<td>RJ-45 console x 1</td>
<td>—</td>
<td>4</td>
<td>—</td>
<td>—</td>
<td>5</td>
<td>2U Rackmount</td>
<td>600W Redundant Power</td>
<td></td>
</tr>
</tbody>
</table>

Packing List

- Gift Box (Including Console Cable x 1, 3.5" HDD Tray Kit x 1, External HDD Bay Key x 1, Ear Bracket Kit x 1)
- CPU Cooler x 2
- FWS-8600

Optional Accessories

- M028500000
  Slide x 2, Chassis Rail Kit
- 9761EMPV02
  Mini-PCIe VGA module Kit, Full Size, Inmodek EMPV-1201-C1, without Packing
- 1702031803
  Power Cord, 3P-250W/10A, 1800, 1.8M, VDE, YP22/YP12
- 1702031802
  Power Cord, 3P-250W/10A, 1800, 1.8M, USA, YP22/YP12
- 170203180E
  Power Cord, 3P-250W/10A, 1800, 1.8M, PSE, YP12/YP12
- PER-T488-A10-00
  PER-T488 Riser Card, PCIe [x16] slot x2, Rev.A1.0, for FWS-8600

- NIM-S26C-A10-T40-0002
  Intel® Fortville XL710 PCI-Express 10G SFP+ 4 Ports Module
- NIM-S26B-A10-F20-0002
  Intel® Fortville XL710 PCI-Express 40G QSFP 2 Ports Module
- NIM-S13B-A10-G80-0002
  Intel® 82580EB PCI-Express 1G SFP 8 Ports Module
- NIM-S13D-A10-G40-0002
  Intel® 82580EB PCI-Express 1G SFP 4 Ports Module
- NIM-C13B-A10-G82-0001
  Intel® 82580EB PCI-Express 1G Copper Ethernet 8 Ports Module w/ 2Pair bypass
- NIM-C13D-A10-G42-0002
  Intel® 82580EB PCI-Express 1G Copper Ethernet 4 Ports Module w/ 2Pair bypass
## 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

## Specifications

### Rackmount Network Appliances

- **1U Rackmount Network Appliance with Intel® Xeon® LCC Processor (formerly ICE-Lake-D)**

### Features
- Front View
- Rear View

### Internal/ Expansion Interface

<table>
<thead>
<tr>
<th>Interface</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>PCIe slot</td>
<td>—</td>
</tr>
<tr>
<td>Mini-Card slot</td>
<td>M.2 (B key 3052) for 4G/5G (USB3.0 + PCIe) x 1 with SIM, M.2 (E key 2230) (PCIe) x 1</td>
</tr>
<tr>
<td>IPMI</td>
<td>Project base</td>
</tr>
<tr>
<td>Keyboard and Mouse</td>
<td>—</td>
</tr>
<tr>
<td>USB</td>
<td>USB3.2 GEN1 x 2</td>
</tr>
</tbody>
</table>

### Miscellaneous

- **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 + up to 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

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Note: All specifications are subject to change without notice.
### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>RAM</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>NIM Slot</th>
<th>Expansion Slot</th>
<th>TPM</th>
<th>Display</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-7541-E12-A10-00</td>
<td>XEON D-1718T Processor</td>
<td>DDR4-SD-DIMM</td>
<td>2.5&quot; HDD x 2 (default)</td>
<td>10x RJ45 ports x 12 (10G SFP+ x4 (optional by BOM SKU))</td>
<td>USB 3.2 Gen1 x 2</td>
<td>RJ-45 console x 1</td>
<td>2 Parts LAN Bypass 3.1</td>
<td>NIM Slot x 1 (Optional)</td>
<td>M.2 (2 key M.2 for 4G/5G, 3/4 key B+ C x 1 with SIM, 2/3 key 2230 (PCIe) x 1</td>
<td>SDM2.0 SP</td>
<td>N/A (Optional VGA from PM by BOM SKU)</td>
<td>System Fan x 1</td>
<td>Rack</td>
<td>ATX 220W</td>
<td></td>
</tr>
</tbody>
</table>

### Packing List

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

### Optional Accessories

- **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
Features

- 1U Rackmount Network Appliance
- 10th Generation Intel® Core™/ Xeon® processor
- Intel® Communications Chipset W480E
- 2 x DDR4 2666MHz U-DIMM ECC DIMM slots
- 8 x 1Gb RJ45 Port or 6 x 1Gb RJ45 + 2 x 1Gb SFP, with 2 x 350AM4 LAN Chips
- 2 x 10Gb SFP+ with XL710 AM2 LAN Chip (Option)
- 2 x NIM Slots
- 1 x RJ45 console Port (Option Micro USB console)
- 1 x Mini PCIe (Option mSATA)
- 2 Pairs Bypass default

Storage

- HDDs: SATA III port x 2, 2.5” HDD/SSD up to 2
- CF/CFast/mSATA: 1 x Mini card socket (Option mSATA)

Internal/Expansion Interface

- PCIe slot: Optional PCIe x8 slot x 1, via riser card
- Mini-PCIe slot: Mini Card x 1
- IPMI: —
- Keyboard and Mouse: —
- USB: USB 3.2 Gen1 x 2

Miscellaneous

- RTC: Internal RTC
- Watchdog Timer: 1~255 steps by software programmable
- Software Button: GPIO Programmable push button x 1
- TPM: TPM v2.0 9665
- GPIO: 4 bits input/4 bits output
- FAN: System Fan x 2
- MTBF (Hours): TBD
- Color: Black

Environmental Parameters and Dimension

- Power Requirement: 220W ATX PSU or 250W ATX PSU
- Operating Temperature: 32°F - 104°F (0°C - 40°C)
- Storage Temperature: 32°F - 140°F (-20°C - 60°C)
- Operating Humidity: 10% - 80% relative humidity, non-condensing
- Storage Humidity: 10% - 80% @ 40°C, non-condensing
- Vibration: 0.5 Grms/ 5 ~ 500Hz / operation (3.5” H.D.D).
- Shock: 10G peak acceleration (11 m sec. duration), operation
- Dimension (W X D X H): 430mm x 305mm x 44mm

I/O Interfaces

Front Panel

- Power LED x 1
- Status LED x 1
- Storage Active LED x 1
- Bypass LED x 2
- Ethernet LED x 16
- USB 3.2 Type A port x 2
- Parallel LCD display and 4 keypad x 1
- Software Programmable Switch x 1
- 1 GbE RJ-45 x 8 or 1 GbE RJ45 x 6 + SFP x 2
- 10 GbE SFP+ x 2 LAN port (Option by module)
- NIM Slot x 2

Rear Panel

- AC Power Input x 1, Power Switch x 1, (Rear Expansion Slot x 1 Optional)

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>1U Rackmount Network Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Processor</td>
<td>10th Generation Intel® Core™/ Xeon® processor</td>
</tr>
<tr>
<td>System Memory</td>
<td>2 x DDR4 2666MHz U-DIMM ECC DIMM slots up to 64G</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>8 x 1Gb RJ45 Port or 6 x 1Gb RJ45 + 2 x 1Gb SFP, with 2 x 350AM4 LAN chips</td>
</tr>
<tr>
<td></td>
<td>2 x 10Gb SFP+ with XL710 AM2 LAN chip (Option)</td>
</tr>
<tr>
<td>Bypass</td>
<td>2 Pairs</td>
</tr>
<tr>
<td>NIM Slot</td>
<td>NIM slot x 2</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Display</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Controller</td>
<td>Intel® UHD Graphics</td>
</tr>
<tr>
<td>Connector</td>
<td>HDMI x1 (Optional)</td>
</tr>
</tbody>
</table>

Note: All specifications are subject to change without notice.
FWS-7840 Rackmount Network Appliances

**Dimension**

Unit: mm

**Packing List**

- Console Cable
- Ear Brackets
- SATA Cable x 2
- SATA Power Cable x 2
- HDD Kit x 1
- FWS-7840

**Optional Accessories**

- M0266600 Slide x 2, for Rackmount Usage
- 1702031802 Power Cord, 3P-25V/10A, 1800, 1.8M, USA, YP22/YP12
- 170203180E Power Cord, 3P-25V/10A, 1800, 1.8M, PSE, YP12/YP12
- 9761783102 HDMI Cable
- PER-T639 2Port SFP+ Module
- PER-T629 NIM Riser card
- PER-T636 Real expansion riser card
- NIM-S26C-A10-T40-0002 Intel® Fortville XL710 PCI-Express 10G SFP+ 4 Ports Module

**Ordering Information**

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>NIM Slot</th>
<th>Expansion Slot</th>
<th>TPM</th>
<th>Display</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-7840-E8-A10-00</td>
<td>Intel® 10th Generation Core™/ Xeon® Procesors</td>
<td>2 x DDR4 2666MHz U-DIMM/ ECC UDIMM sets up to 64G</td>
<td>1 x Mini card slot (USB2.0+PCIe)</td>
<td>2.5” HDD Bay x 2</td>
<td>Intel® I550 AM2 Gigabit Ethernet x 2</td>
<td>USB 3.2</td>
<td>Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>2</td>
<td>—</td>
<td>—</td>
<td>2</td>
<td>1U Rackmount</td>
<td>ATX 220W</td>
<td></td>
</tr>
</tbody>
</table>
FWS-7830
1U Rackmount Intel® 8th Generation Platform Network Appliance

Features
- 1U Rackmount Network Appliance
- Single Intel® 8th Generation Core™/Xeon™ processor
- Intel® Communications Chipset C246
- DDR4 2133/2400/2666 MHz UDIMM x 4, up to 128GB
- IPMI Support by Aaeon Module
- Onboard 2 LAN (I350 AM2)
- Up to 24 Gigabit Ethernet Ports Via NIM
- 1 x 3.5" SATA HDD or 2.5" SATA HDD x 2, mSATA Socket x 1
- LCM with Keypad x 1
- RJ-45 Console x 1, USB 3.2 Gen 1 x 2, 1 GbE LAN x 2
- 220W Single Power or 250W Single Power

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>1U Rackmount Network Platform</td>
<td></td>
</tr>
<tr>
<td>Processor</td>
<td>8th Generation Intel® Core™/Xeon® processor</td>
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</tr>
<tr>
<td>Chipset</td>
<td>Intel® C246</td>
<td></td>
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<tr>
<td>System Memory</td>
<td>DDR4 2133/2400/2666 MHz UDIMM Up to 128GB 288-pin DIMM x 4</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Network</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ethernet</td>
<td>Intel® I350 AM2 Gigabit Ethernet x 2</td>
<td></td>
</tr>
<tr>
<td>Bypass</td>
<td>Depend on NIM module</td>
<td></td>
</tr>
<tr>
<td>NIM Slot</td>
<td>NIM Slot x 3</td>
<td></td>
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</table>

<table>
<thead>
<tr>
<th>Display</th>
<th>Feature</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Graphic Controller</td>
<td>Intel® HD graphics integrated</td>
<td></td>
</tr>
<tr>
<td>Connector</td>
<td>VGA cable (Optional)</td>
<td></td>
</tr>
</tbody>
</table>

Storage
- HDDs: Internal 2.5" SATA HDD x 2 or 3.5" SATA HDD x 1 (Optional)
- CF/CFast/mSATA: Default mSATA Slot (Optional CFast™ Socket)

Internal/Expansion Interface
- PCIe slot: Optional PCIe (x8) slot x 1, via riser card
- Mini-PCIe slot: Mini Card x 1
- IPMI: —
- Keyboard and Mouse: Pin-header
- USB: USB 3.2 Gen 1 x 2, Box Header (2.0mm)

Miscellaneous
- RTC: Internal RTC
- Watchdog Timer: 1~255 steps by software programmable, 1 sec per step
- Software Button: GPIO Programmable push button x 1
- TPM: Optional TPM v2.0
- GPIO: 8bits, BI0S default 4 bits input, 4bits output.
- FAN: 2
- MTBF (Hours): TBD
- Color: Black

Environmental Parameters and Dimension
- Power Requirement: 220W ATX PSU or 250W ATX PSU
- Operating Temperature: 32°F ~ 104°F (0°C ~ 40°C)
- Storage Temperature: -4°F ~ 140°F (-20°C ~ 60°C)
- Operating Humidity: 10% ~ 80%
- Storage Humidity: 10% ~ 80% @ 40°C, non-condensing
- Vibration: 0.5 Grms/ 5 ~ 500Hz/operation (3.5” H.D.D)
- Shock: 1.5 Grms/ 5 ~ 500Hz/no operation
- Vibration: 0.5 Grms/ 5 ~ 500Hz/operation (3.5” H.D.D)
- Shock: 1.5 Grms/ 5 ~ 500Hz/no operation

Dimension (W X D X H): 16.93” x 18.7” x 1.73” (430mm x 475mm x 44mm)

I/O Interfaces

Front Panel
- Power LED x 1
- Status LED x 1
- HDD Active LED x 1
- USB 3.2 Gen 1 Ports x 2
- RJ-45 Console x 1
- Parallel LCM display and 4 keypad x 1
- Software Programmable Switch x 1

Rear Panel
- AC Power Input x 1
- Power Switch x 1
- VGA port (Optional)

Note: All specifications are subject to change without notice.
FWS-7830

Dimension
Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>NIM Slot</th>
<th>Expansion Slot</th>
<th>TPM</th>
<th>Display</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-7830-E2-A11-000</td>
<td>Intel® 8th Generation Core™/Xeon® Processors</td>
<td>DDR4 UDIMM x 4</td>
<td>PCIe x 1</td>
<td>2.5” HDD x 1 + mSATA slot</td>
<td>Intel® I350 AM2</td>
<td>Gigabit Ethernet x 2</td>
<td>RJ-45 console</td>
<td>—</td>
<td>3 (Note 1)</td>
<td>1 (Note 2)</td>
<td>—</td>
<td>2</td>
<td>U1 Rackmount</td>
<td>ATX</td>
<td></td>
</tr>
</tbody>
</table>

* Please contact AAEON for other optional specifications.
Note 1: Need to configure riser card and module
Note 2: Need to configure riser card

Packing List

- Console Cable
- Ear Brackets
- FWS-7830

Optional Accessories

- M02666600
  Slide x 2, for Rackmount Usage
- 1702031803
  Power Cord, 3P-250V/1A, 180D, 1.8M, VDE, YP22/YP12
- 1702031802
  Power Cord, 3P-250V/1A, 180D, 1.8M, USA, YP22/YP12
- 170203180E
  Power Cord, 3P-25V/7A, 180D, 1.8M, PSE, YP12/YP12
- 9761781027
  VGA Cable
- 9761783000
  (TF)3.5x1 HDD Module, FWS-7830
- 9761783001
  (TF)2.5x2 HDD-LEFT Module, FWS-7830
- NIM-S26C-A10-T40-0002
  Intel® Fortville XL710 PCI-Express 1G SFP+ 4 Ports Module for FWS-7820/7830
- NIM-S26B-A10-F20-0002
  Intel® Fortville XL710 PCI-Express 4G QSFP 2 Ports Module for FWS-7820/7830
- NIM-S13B-A10-G80-0002
  Intel® 82580EB PCI-Express 1G SFP 8 Ports Module for FWS-7820/7830
- NIM-S13D-A10-G40-0002
  Intel® 82580EB PCI-Express 1G SFP 4 Ports Module for FWS-7820/7821/7830
- NIM-C13B-A10-G82-0001
  Intel® 82580EB PCI-Express 1G Copper Ethernet 8 Ports Module for FWS-7820 w/ 2Pair bypass/7830
- NIM-C13D-A10-G42-0002
  Intel® 82580EB PCI-Express 1G Copper Ethernet 4 Ports Module for FWS-7820 w/ 2Pair bypass/7830
Features

- Single Intel® 8th Generation Core™/Xeon™ processor
- Intel® Coffee Lake 2/6 Core (H310/C246)
- DDR4 SODIMM/ECC x2, up to 64GB
- TPM Supported (Optional Request)
- LCM with Keypad x 1
- RJ-45 Console x 1, USB 3.2 Gen 1 x 2, HDMI x 1
- 220W ATX PSU
- Intel® i211 Gigabit Ethernet x 8 or Intel® i211 Gigabit Ethernet x 6 + SFP Ethernet ports x2
- Mini-Card (mSATA)

Specifications

- Form Factor: 1U Rackmount Network Platform
- Processor: Intel® Xeon® processor E-2100 family for Intel® C246 Chipset
- Chipset: Intel® C246/H310
- System Memory: 260-pin DDR4 1600/1866/2133 SODIMM/ECC x 2, up to 64GB
- Network: Intel® i211 Gigabit Ethernet x 8 or Intel® i211 Gigabit Ethernet x 6 + SFP Ethernet ports x2 (C246)
- Bypass: 2 Pairs
- NIM Slot: Need to configure riser card
- Display: Internal 2.5” HDD bay x 2 or 3.5” HDD bay x 1 can’t use with NIM Optional
- Storage: Internal 2.5” HDD bay x 2 or (3.5” HDD bay x 1 can’t use with NIM Optional)
- Internal/Expansion Interface: PCI slot ---
- Mini-PCIe slot Mini-Card x 1 (PCIe[x1] = mSATA)
- IPMI: ---
- Keyboard and Mouse: NA
- USB: USB 3.2 Gen 1 x 2
- RTC: Internal RTC
- Watchdog Timer: 1~255 steps by software programmable
- Software Button: GPIO Programmable push button x 1
- TPM: (TPM2.0 9665/TPM v1.2 9660 optional)
- GPIO: 4 bits input, 4 bits output
- EMI: 2
- MTBF (Hours): 362,825 Hours
- Color: Black

Environmental Parameters and Dimension

- Power Requirement: 220W ATX PSU
- 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: 10%~80% @40°C; non-condensing
- Vibration: 0.5 Grms/5 ~ 500Hz / operation (2.5” Hard Disk Drive)
- Shock: 1.5 Grms/5 ~ 500Hz / 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: Power LED x 1, Status LED x 1, HDD Active LED x 1, USB 3.2 Gen 1 Ports x 2 - RJ-45 Console x 1
- Rear Panel: AC Power Input x 1, Power Switch x 1, (Rear Expansion Slot x 1 Optional)

Note: All specifications are subject to change without notice.
**Dimension**

Unit: mm

---

### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>NIM Slot*</th>
<th>Expansion Slot</th>
<th>TPM</th>
<th>Display</th>
<th>Fan</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-7837/FWS-7831</td>
<td>Intel® 8th Generation Core™/Xeon® Processors</td>
<td>DDR4 5000/4800 / ECC x 2, up to 64GB</td>
<td>Mini-Card x 1 (PCIe[x1]+mSATA)</td>
<td>2.5” HDD Bay x 2</td>
<td>Intel® I211 Gigabit Ethernet x 8</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 console x 1</td>
<td>2 Pairs</td>
<td>1 (Note)</td>
<td>—</td>
<td>—</td>
<td>—</td>
<td>1U/Rack-mount</td>
<td>ATX</td>
<td></td>
</tr>
</tbody>
</table>

* Note: Need to configure riser card and module

( Please contact AAEON for other optional specifications. )

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### Packing List

- Console Cable
- Ear Brackets
- FWS-7831

### Optional Accessories

- **NIM-S13B-A10-G80-0002**
  Intel® 82599EG PCI-Express 1G SFP+ 8 Ports Module for FWS-7820/7830/7831

- **NIM-S13D-A10-G40-0002**
  Intel® 82599EG PCI-Express 1G SFP 8 Ports Module for FWS-7820/7830/7831

- **NIM-C13B-A10-G82-0001**
  Intel® 82599EG PCI-Express 1G Copper Ethernet 8 Ports Module for FWS-7820 w/ 2Pair bypass/7830/7831

- **NIM-C13D-A10-G42-0002**
  Intel® 82599EG PCI-Express 1G Copper Ethernet 4 Ports Module for FWS-7820 w/ 2Pair bypass/7830/7831

- **PER-R40X**
  NIM LAN Module Riser Card
Intel® C236 1U Rackmount 8 LANs with 1 NIM Slot Network Appliance

### Features
- **1U Rackmount Network Appliance**
- **Intel® LGA1151 6th/7th Generation Core™/Xeon® Processors**
- **288-pin ECC Dual Channel DDR4 2133 UDIMM x 4 Up to 64GB**
- **10/100/1000Base-TX Ethernet Ports x 8 (Onboard RJ-45 x 6 & SFP x 2) with Max. 3 Pairs of LAN Bypass Function**
- **Internal 3.5” SATA HDD x 1 or 2.5” SATA HDD x 2 (Optional Extra 4 Pcs x 2.5” HDD without NIM and Expansion Lot Presented)**
- **CFast x 1 (Optional CF Socket or mSATA Slot)**
- **8 bits GPIO (Default 4-bits Input, 4-bits Output)**
- **TPM Supported (Optional Request), RAID 0,1 Supported**
- **LCM with Keypad x 1, RJ-45 for Console x 1, USB 3.2 Gen 1 x 2**
- **250W AC Type Power Input or 220W Single Power**
- **VGA Header x 1 (Optional VGA Cable)**

### Specifications

#### System
- **Form Factor:** 1U Rackmount Network Platform
- **Processor:** 6th/7th Generation Intel® Core™/Xeon® processors
- **Chipset:** Intel® C236
- **System Memory:** DDR4 1600/1866/2133/2400 UDIMM/ECC Up to 64GB 288-pin DIMM x 4

#### Network
- **Ethernet:** Intel® I211 GbE x 6 + Intel® I210 GbE x 2 (SFP) + NIM x 10G GbE x 2 + NIM x 1DMM/ECC
- **Bypass:** Onboard 2 pairs bypass, others depend on NIM module
- **NIM Slot:** 1

#### Display
- **Graphic Controller:** Intel® HD graphics integrated
- **Connector:** VGA cable (Optional)

#### Storage
- **HDDs:** Internal 2.5” SATA HDD x 1 or 3.5” SATA HDD x 1 (optional)
- **CF/CFast/mSATA:** Optional BOM CFast™ socket or mSATA slot or CF™ socket (optional)

#### Internal/ Expansion Interface
- **PCIe slot:** Up to PCIe[x8] slot x 2
- **Mini-PCIe slot:** Mini Card x 1
- **IPMI:** —
- **Keyboard and Mouse:** Pin-header
- **USB:** USB 3.2 Gen 1 x 2, Box Header (2.0mm)

#### Miscellaneous
- **RTC:** Internal RTC
- **Watchdog Timer:** 1~255 steps by software programmable, 1 sec per step
- **Software Button:** GPIO Programmable push button x 1
- **TPM:** TPM v1.2 9660 (TPM2.0 9665 optional)
- **GPIO:** 4 bits input, 4 bits output
- **FAN:** 2
- **MTBF (Hours):** 94,241
- **Color:** Black

#### Environmental Parameters and Dimension
- **Power Requirement:** 250W ATX PSU or 220W ATX PSU
- **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:** 10% ~ 80% @ 40°C, non-condensing
- **Vibration:** 0.5 Grms/ 5 ~ 500Hz/ operation (3.5” H.D.D) 1.5 Grms/ 5 ~ 500Hz/ no operation
- **Shock:** 10G peak acceleration (11 m sec. duration), operation 20G peak acceleration (11 m sec. duration), non-operation
- **Dimension (W X D X H):** 16.93” x 12.01” x 1.73” (430mm x 305mm x 44mm)

#### I/O Interfaces

### Front Panel
- **Power LED x 1**
- **Status LED x 1**
- **HDD Active LED x 1**
- **USB 3.2 Gen 1 Ports x 2**
- **RJ-45 Console x 1**
- **Parallel LCM display and 4 keypad x 1 (Optional w/ NIM slot)**
- **Software Programmable Switch x 1**
- **Bypass LED X3**
- **RJ45 X8 or RJ45 X6+SFPX 2**

### Rear Panel
- **AC Power Input x 1**
- **Power Switch x 1**
- **VGA port (Optional)**
- **Rear Expansion Slot x 2 (2 x PCIe [x8] slots, NIM slot will be disabled if PCIe Riser supported)**
Dimension Unit: mm

Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Storage</th>
<th>Display</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>*NIM Slot</th>
<th>*Expansion Slot</th>
</tr>
</thead>
<tbody>
<tr>
<td>FWS-7821W8-H25-A10-000</td>
<td>6th/7th Gen. Intel® Core™/Xeon</td>
<td>DDR4 ECC/UDIMM (Up to 64 GB)</td>
<td>2.5&quot; HDD Bay x 2 + CFast™ Slot x 1</td>
<td>1 GbE x 6, 2 x 1G SFP</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>2</td>
<td>1 (Note 1)</td>
<td>2 (Note 2)</td>
<td></td>
</tr>
</tbody>
</table>

* Please contact AAEON for other optional specifications.  
** Note 1: Need to configure riser card and module  
*** Note 2: Need to configure riser card

Packing List

• Console Cable  
• Ear Brackets  
• FWS-7821

Optional Accessories

• M02666600  
  Slide x 2, for Rackmount Usage
• 1702031803  
  Power Card, 3P-250V/10A, 1800, 1.8M, VDE, YP22/YP12
• 1702031802  
  Power Card, 3P-250V/10A, 1800, 1.8M, USA, YP22/YP12
• 170203180E  
  Power Card, 3P-25V/7A, 1800, 1.8M, PSE, YP12/YP12
• 9761781027  
  VGA Cable
• 9761782100  
  (TF)2.5" x 2 HOD-LEFT Module, FWS-7821
• PER-R40X  
  NIM LAN Module Riser Card
• PER-R44X  
  2 Slot Rear PCIe Riser Card
• PER-T354  
  1 Slot Rear PCIe Riser Card
• NIM-S26C-A10-T40-0002  
  Intel® Fortville XL710 PCI-Express 10G SFP+ 4 Ports Module for FWS-7821

Note: All specifications are subject to change without notice.
FWS-7360
1U Rackmount 7 LAN Network Appliance with Intel® Atom™ C3758 Processor SoC

**Features**
- Intel® Atom™ C3758 SoC Processor, Optional Support up to 16 Core
- DDR4 Slot x 4, Support ECC UDIMM/RODIMM up to 256GB
- 5 Copper (2 From 88E1543/ 3 From Intel® I211)
- 2 10Gb SFP+ (From CPU)
- Onboard 2 Pairs Bypass
- Mini-Card Socket (Full-Size) x 1, Mini-Card Socket (Full-Size) with SIM Socket x 1 (Optional)
- Internal 2.5” SATA HDD x 2
- LCM with Keypad x 1, RJ-45 Console x 1, USB 3.2 Gen 1 x 2
- 100W Flex ATX PSU 150W
- TPM (Optional)

**Internal/ Expansion Interface**
- PCIe Slot
- Mini-PCIe Slot
- IPMI
- Keyboard and Mouse
- USB
- Miscellaneous

**Environmental Parameters and Dimension**
- Power Requirement
- Operating Temperature
- Storage Temperature
- Operating Humidity
- Storage Humidity
- Vibration
- Shock
- Dimension (W X D X H)

**Specifications**

<table>
<thead>
<tr>
<th>System</th>
<th>1U Rackmount Network Platform</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>1U Rackmount Network Platform</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® C3758 processor SoC, optional support up to 16 core</td>
</tr>
<tr>
<td>Chipset</td>
<td>SoC</td>
</tr>
<tr>
<td>System Memory</td>
<td>DDR4 slot x 4, Support ECC UDIMM/RODIMM up to 256GB</td>
</tr>
<tr>
<td>Network</td>
<td></td>
</tr>
<tr>
<td>Ethernet</td>
<td>Intel® X553 RJ45 x 2, Intel® I211 QeE x 3, SFP+ x 2 from CPU</td>
</tr>
<tr>
<td>Bypass</td>
<td>Onboard 2 pairs bypass, others depend on NIM module</td>
</tr>
<tr>
<td>NIM Slot</td>
<td>1</td>
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<tr>
<td>Display</td>
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<tr>
<td>Graphic Controller</td>
<td>—</td>
</tr>
<tr>
<td>Connector</td>
<td>—</td>
</tr>
<tr>
<td>Storage</td>
<td>HDD</td>
</tr>
<tr>
<td>HDD</td>
<td>2.5” HDD Bay x 2</td>
</tr>
<tr>
<td>CF/CFast/SSD/SATA</td>
<td>Default SATA III port x 2 (MSATA Slot X 2 Optional)</td>
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**Rackmount Network Appliances**

Note: All specifications are subject to change without notice.
### Ordering Information

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<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>Console</th>
<th>Bypass</th>
<th>NIM Slot</th>
<th>Expansion Slot</th>
<th>TPM</th>
<th>Display</th>
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<tbody>
<tr>
<td>FWS-7360E7-A10-000</td>
<td>Intel® Atom® C3758</td>
<td>DDR4 UDIMM/ECC slot x 4</td>
<td>Full Size x 1 (PCIe + USB)</td>
<td>2.5” HDD Bay x 2</td>
<td>RJ-45 x 5, SFP+ x 2</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>RJ-45 x 1</td>
<td>2 pairs onboard</td>
<td>1 (Note 1)</td>
<td>1 (Note 2)</td>
<td>—</td>
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</table>

* Please contact AAEON for other optional specifications.  
Note 1: Need to configure riser card and module  
Note 2: Need to configure riser card  
Note 3: NIM and expansion slot cannot be used at the same time

### Packing List

- Console Cable
- Ear Brackets
- FWS-7360

### Optional Accessories

- **NIM-S13B-A10-G80-0002**  
  Intel® 82580EB PCI-Express 1G SFP 8 Ports Module for FWS-7820

- **NIM-S13D-A10-G40-0002**  
  Intel® 82580EB PCI-Express 1G SFP 4 Ports Module for FWS-7820/7821

- **NIM-C13-A10-G82-0001**  
  Intel® 82580EB PCI-Express 1G Copper Ethernet 8 Ports Module for FWS-7821 w/ 2Pair bypass

- **NIM-C13-A10-G42-0002**  
  Intel® 82580EB PCI-Express 1G Copper Ethernet 4 Ports Module for FWS-7821 w/ 2Pair bypass

- **NIM-S13E-A10-G42-0001**  
  LAN Module, Intel® 82580EB, 4 x 1G SFP, 2 Bypass, LK short wave, REV A1.0

- **NIM-S13E-A10-G42-0002**  
  LAN Module, Intel® 82580EB, 4 x 1G SFP, 2 Bypass, LX long wave, REV A1.0
Launching in Q2

**Features**

- 1U Rackmount Network Appliance
- Intel Alder Lake-S Platform, W680 chipset
- 4 x 288-pin UDIMM DDR5 ECC, up to 128GB
- Two 2.5” SATA SSD (Optional 3.5” x 1), One M.2 m key 2242 and 2260, (PCIe x 4)
- 2 x RJ45 /SFP Ethernet ports (Intel i350-AM2 x 1). Optional: Upto 24 x RJ Ethernet ports via 5xNIM modules
- 3 x NIM slot support
- 1 x IPMI port, 1 x HDMI port, 1 x RJ45 Console port, 2 x USB 3.2 GEN1 ports
- Internal AC/DC 1U Flex ATX 220W x 1 (Optional for external redundant PSU)
- 430mm x 400 mm x 44mm

**Specifications**

- **System**
  - Form Factor: 1U Rackmount Network Appliance
  - Processor: Intel® Alder Lake-S Processors
  - Chipset: W680
  - System Memory: 288-pin UDIMM DDR5 ECC x 4, up to 128GB

- **Network**
  - Ethernet: RJ45 /SFP Ethernet ports x 2 (Intel i350-AM2 x 1)
  - Bypass: Depend on NIM module expansion
  - NIM Slot: NIM slot x 3
    - Option1: PCIe x4 (x4) GEN3.0 x 2 + PCI-E (x8) GEN3.0 x 1
    - Option2: PCIe x8 (x4, x4) GEN3.0 x 3

- **Display**
  - Graphic Controller: —
  - Connector: HDMI port x 1

- **Storage**
  - HDD: Optional 1: 2.5” HDD Bay x 2 or 3.5” HDD x 1
    - Option 2: 2.5” HDD Bay x 2 or 3.5” HDD x 1 (Rear expansion not presented)
    - Option 3: Upto 2.5” HDD Bay x 6 (Rear expansion not presented)
  - CF/CFast/mSATA: —

- **Internal/Expansion Interface**
  - PCIe Slot: —
  - Mini-PCIe Slot: Mini Card x 1(PCIe x1) / USB Colay mSATA M.2 M key 2280 x 1 (PCIe x4) or SATA x 1) for NiM colay SATA
  - IPMI: IPMI port x 1
  - Keyboard and Mouse: —
  - USB: USB3.2 GEN1 port x 2

- **Miscellaneous**
  - RTC: Internal RTC
  - Watchdog Timer: 1~255
  - Software Button: 1
  - TPM: TPM2.0 SPI
  - GPIO: Reserve internal pin header 8-bit Digital I/O interface (4-in/4-out)
  - Fan: Smart Fan x 3
  - MTBF (Hours): TBD
  - Color: Black

- **Environmental Parameters and Dimension**
  - Power Requirement: Single AC/DC 1U Flex ATX 220W x 1 or 1U 300W Redundant PSU (optional) x 1
  - Operating Temperature: 32°F ~ 104°F (0°C ~ 40°C)
  - Storage Temperature: -4°F ~ 140°F (-20°C ~ 60°C)
  - Operating Humidity: 10%~90% relative humidity, non-condensing
  - Storage Humidity: 0%~80% 840°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 15.75” x 1.73”(430mm x 400 mm x 44mm)

- **I/O**
  - Front Panel: RJ45 /SFP Ethernet ports x 2
    - Power LED x 1
    - Status LED x 1
    - HDD Active LED x 1
    - USB 3.2 GEN1 Ports x 2
    - HDMI port x 1
    - RJ-45 Console x 1
    - LCM display with keypad x 1
    - Software Programmable Button x 1
    - NIM Slot x 3
    - IPMI port x 1
  - Rear Panel: AC Power Input x 1
    - Power Switch x 1
    - Rear expansion slot x 1 (PCIe [x8]): Optional
Launched in Q1

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>1U Rackmount Network Appliance</th>
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<tbody>
<tr>
<td>Form Factor</td>
<td>1U Rackmount Network Appliance</td>
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<tr>
<td>Processor</td>
<td>Intel Alder Lake-S Processors</td>
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<tr>
<td>Chipset</td>
<td>W680; (Project base Q670, H610)</td>
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<tr>
<td>System Memory</td>
<td>DDR5 SODIMM slots x 2</td>
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<tr>
<th>Network</th>
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<tbody>
<tr>
<td>Ethernet</td>
<td>2.5Gb RJ45 x 10 (I226-LM), 1Gb SFP ports x 2 (I210); Optional for 10Gb SFP+ x 2 (PER-T639 by PCIe[x4]) Note: If H610, only 8x 2.5Gb RJ45 available</td>
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<tr>
<td>Bypass</td>
<td>2 Pairs LAN Bypass 3.1 (LAN 3-4, LAN 5-6)</td>
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<tr>
<td>NIM Slot</td>
<td>NIM Slot x 1, support PCIe[x4] x 2 interface, optional PCIe[x8] x 1 by BOM SKU</td>
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<table>
<thead>
<tr>
<th>Display</th>
<th></th>
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<tbody>
<tr>
<td>Graphic Controller</td>
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<tr>
<td>Connector</td>
<td>HDMI port x 1</td>
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<table>
<thead>
<tr>
<th>Storage</th>
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<tbody>
<tr>
<td>HDD</td>
<td>2.5” HDD x 2 (default) or 3.5” HDD x 1 (if no NIM module presence)</td>
</tr>
</tbody>
</table>

Features

- 1U Rackmount Network Appliance
- Intel Alder Lake-S processor, W680 chipset
- 2 x 262pin DDR5 SODIMM slots ECC/ non ECC, up to 64GB
- Two 2.5” SATA SSD (Optional 3.5” x 1), One M.2 m key 2242 and 2260, (PCle x 4)
- 10 x Intel i226 2.5Gb RJ45 LAN ports (Including 2 pairs Bypass) + 2 x Intel I210 1Gb SFP ports, (Optional for 2 x 10Gb SFP+ (by PCIe[x4] riser card)
- Support 1 x NIM slot
- Internal AC/DC 1U Flex ATX 220W x 1 (Optional for external redundant PSU)
- 430mm x 200mm x 44mm

Features

- 1U Rackmount Network Appliance
- Intel Alder Lake-S processor, W680 chipset
- 2 x 262pin DDR5 SODIMM slots ECC/ non ECC, up to 64GB
- Two 2.5” SATA SSD (Optional 3.5” x 1), One M.2 m key 2242 and 2260, (PCle x 4)
- 10 x Intel i226 2.5Gb RJ45 LAN ports (Including 2 pairs Bypass) + 2 x Intel I210 1Gb SFP ports, (Optional for 2 x 10Gb SFP+ (by PCIe[x4] riser card)
- Support 1 x NIM slot
- Internal AC/DC 1U Flex ATX 220W x 1 (Optional for external redundant PSU)
- 430mm x 200mm x 44mm

CIF/CFast/mSATA —

Internal/ Expansion Interface

- PCle Slot —
- Mini-PCle Slot M.2 M key 2242/2260 (PCle[x4]) x 1
- IPMI —
- 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 Internal pin header 8-bit Digital I/O interface (4-in /4-out)
- Fan System Fan x 2
- 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)
- 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” x1.73” (430mm x 200mm x 44mm)

I/O

Front Panel

- 2.5Gb RJ45 port x 10 + 10Gb SFP port x 2 + Optional 10Gb SFP+ port x 2 (via PCIe[x4] Slot)
- Power LED x 1
- Status LED x 1
- HDD Active LED x 1
- USB 3.2 GEN1 Ports x 2
- HDMI port x 1
- RJ-45 Console x 1
- LCD display with keypad x 1
- Software Programmable Button x 1
- NIM Slot x 1

Rear Panel

- AC Power Input x 1
- Power Switch x 1

Note: All specifications are subject to change without notice.

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NIM-S13B
Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G SFP 8 Ports Module

**Features**
- PCI-Express Host Interface

**Network Appliance Options**
- FWS-7360
- FWS-7830
- FWS-7831
- FWS-7821
- FWS-7820
- FWS-7840
- FWS-8600
- FWS-7541

**Ordering Information**
- NIM-S13B-A10-G80-0002
  LAN Module.2xIntel i350AM4.8x1GbE SFP.No Bypass.Rev.A1.0_0_0

**Specifications**

<table>
<thead>
<tr>
<th>Main Specification</th>
<th>Form Factor</th>
<th>Main Chipset</th>
<th>Bypass</th>
<th>Host Interface</th>
<th>LAN Port</th>
<th>Indicator</th>
<th>Qualification</th>
<th>Operation Temp.</th>
<th>Dimension</th>
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</thead>
<tbody>
<tr>
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<td>1G Fiber Module</td>
<td>Intel® 82580EB (i350-AM4; Optional by request) Ethernet Controller x 2</td>
<td>—</td>
<td>PCI-Express [x4]</td>
<td>SFP 1GbE Connector x 8</td>
<td>LED x 8 for Active/Link</td>
<td>CE/FCC Class A</td>
<td>32°F – 104°F (0°C – 40°C)</td>
<td>5.71” x 3.03” (145mm x 77mm)</td>
</tr>
</tbody>
</table>

NIM-S13D
Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G SFP 4 Ports Module

**Features**
- PCI-Express Host Interface

**Network Appliance Options**
- FWS-7360
- FWS-7830
- FWS-7831
- FWS-7821
- FWS-7820
- FWS-7840
- FWS-8600
- FWS-7541

**Ordering Information**
- NIM-S13D-B10-G40-0002
  LAN Module.intel 82500EB.4x1GbE SFP.No Bypass.Rev.B1.0_0_0

**Specifications**

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<th>Form Factor</th>
<th>Main Chipset</th>
<th>Bypass</th>
<th>Host Interface</th>
<th>LAN Port</th>
<th>Indicator</th>
<th>Qualification</th>
<th>Operation Temp.</th>
<th>Dimension</th>
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</thead>
<tbody>
<tr>
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<td>1G Fiber Module</td>
<td>Intel® 82580EB (i350-AM4; Optional by request) Ethernet Controller x 1</td>
<td>—</td>
<td>PCI-Express [x4]</td>
<td>SFP 1GbE Connector x 4</td>
<td>LED x 4 for Active/Link</td>
<td>CE/FCC Class A</td>
<td>32°F – 104°F (0°C – 40°C)</td>
<td>5.71” x 3.03” (145mm x 77mm)</td>
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NIM-S13E
Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G Fiber Ethernet 4 Ports Module

Specifications

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<th>1G Fiber Module</th>
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<tbody>
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<td>Main Chipset</td>
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<tr>
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<td>Bypass</td>
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<tr>
<td></td>
<td>Host Interface</td>
<td>PCI-Express [x4]</td>
</tr>
<tr>
<td></td>
<td>LAN Port</td>
<td>SFP 1GbE Connector x 4</td>
</tr>
<tr>
<td></td>
<td>Indicator</td>
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<td>Dimension</td>
<td>5.71” x 3.03” (145mm x 77mm)</td>
</tr>
</tbody>
</table>

Features

- PCI-Express Host Interface

Network Appliance Options

- FWS-7360
- FWS-7830
- FWS-7831
- FWS-7821

Ordering Information

- NIM-S13E-A10-G42-0001
  LAN Module, Intel® 82580EB, 4 x 1GSFP, 2 Bypass, SX short wave, REV. A1.0
- NIM-S13E-A10-G42-0002
  LAN Module, Intel® 82580EB, 4 x 1GSFP, 2 Bypass, LX long wave, REV. A1.0

NIM-C13B
Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G Copper Ethernet 8 Ports Module

Specifications

<table>
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<th>1G LAN Module</th>
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</thead>
<tbody>
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<tr>
<td></td>
<td>Bypass</td>
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<tr>
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<td>Host Interface</td>
<td>PCI-Express [x8] (x4 + x4)</td>
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<td>LAN Port</td>
<td>1GbE Connector x 8</td>
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<tr>
<td></td>
<td>Indicator</td>
<td>LED x 8 for Active/Link</td>
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<tr>
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<td>Qualification</td>
<td>CE/FCC Class A</td>
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<td>Operation Temp.</td>
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<td>Dimension</td>
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Features

- PCI-Express Host Interface

Network Appliance Options

- FWS-7360
- FWS-7830
- FWS-7831
- FWS-7821

Ordering Information

- NIM-C13B-A10-G82-0001
  Intel® 82580EB PCI-Express 1G Copper Ethernet 8 Ports Module for FWS-7820/7821/7830/7831/7360/8600 w/ 2Pair bypass

Note: All specifications are subject to change without notice.
NIM-C13D
Intel® 82580EB (i350-AM4; Optional by request) PCI-Express 1G Copper Ethernet 4 Ports Module

Features
- PCI-Express Host Interface

Network Appliance Options
- FWS-7360
- FWS-7361
- FWS-7821
- FWS-7840
- FWS-8600

Ordering Information
- NIM-C13D-B10-G42-0002

Specifications
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<td>Bypass</td>
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<td>Host Interface</td>
<td>PCI-Express [x4]</td>
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<td>LAN Port</td>
<td>1GBe Connector x 4</td>
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<td>Indicator</td>
<td>LED x 4 for Active/Link</td>
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<td>Operation Temp.</td>
<td>32°F ~ 104°F (0°C ~ 40°C)</td>
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<tr>
<td>Dimension</td>
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</table>

NIM-S26B
Intel® XL710 PCI-Express 40G QSFP 2 Ports Module

Features
- PCI-Express Host Interface
- 40 GbE QSFP Fiber Port x 2

Network Appliance Options
- FWS-7360
- FWS-7361
- FWS-7821
- FWS-7840
- FWS-8600

Ordering Information
- NIM-S26B-A10-F20-0002

Specifications
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<td>Host Interface</td>
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<td>Qualification</td>
<td>CE/FCC Class A</td>
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<td>Operation Temp.</td>
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<tr>
<td>Dimension</td>
<td>5.71&quot; x 3.03&quot; (145mm x 77mm)</td>
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NIM-S26C
Intel® XL710 PCI-Express 10G SFP+ 4 Ports Module

Features
- PCI-Express Host Interfaces
- 10G SFP+ Fiber Port x 4

Specifications
- Form Factor: 10G Fiber Module
- Main Chipset: Intel® XL710 Ethernet Controller x 1
- Host Interface: PCI-Express [x8]
- LAN Port: SFP+ 10 GbE Connector x 4
- Indicator: LED x 4 for Active/Link
- Qualification: CE/FCC Class A
- Operation Temp.: 32°F ~ 104°F (0°C ~ 40°C)
- Dimension: 5.71” x 3.03” (145mm x 77mm)

Network Appliance Options
- FWS-7360
- FWS-7830
- FWS-7831
- FWS-7821
- FWS-7820
- FWS-7840
- FWS-8600

Ordering Information
- NIM-S26C-A10-T40-0002
  LAN Module, Intel® XL710, 10 GbE SFP+ x 4, FWS-7820/7821/7830/7831/7860/8600, Rev. A.1.0

NIM-S26D
Intel® Ethernet Controller XL710-BM1 (Fortville) Quad Port SFP+ 10 GbE LAN Module

Features
- PCI-Express Gen3 [x8] Host Interfaces
- Intel® Ethernet Controller XL710-BM1
- 10G SFP+ Fiber ports x 4+SR
- Two pairs Bypass function

Specifications
- Form Factor: 10GbE Fiber LAN Module
- Main Chipset: Intel® XL710-BM1 Ethernet Controller x 1
- Bypass: 2
- Host Interface: PCI-Express [x8]
- LAN Port: SFP+ 10 GbE Connector x 4 SR
- Indicator: LED x 4 for Active/Link
- Qualification: CE/FCC Class A
- Operation Temp.: 32°F ~ 104°F (0°C ~ 40°C)
- Dimension: 5.71” x 3.03” (145mm x 77mm)

Network Appliance Options
- FWS-7820
- FWS-7821
- FWS-7830
- FWS-7840
- FWS-8600

Ordering Information
- NIM-S26D-A10-T42-0002
  LAN Module, Intel® XL710, 10 GbE SFP+ x 4+SR, FWS-7820/7821/7830/8600

Note: All specifications are subject to change without notice.

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Launching in Q1

**Features**
- PCI-Express Host Interface
- Intel i226V LAN
- 2.5GbE RJ45 x 8
- Two pairs bypass

**Network Interface Modules**

**Specifications**

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<thead>
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<th>Main Specification</th>
<th>Value</th>
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<td>Host Interface</td>
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<tr>
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</tr>
<tr>
<td>Indicator</td>
<td>LED x 8 for Active/Link</td>
</tr>
<tr>
<td>Qualification</td>
<td>CE/FCC Class A</td>
</tr>
<tr>
<td>Operation Temp.</td>
<td>32°F – 104°F (0°C – 40°C)</td>
</tr>
<tr>
<td>Dimension</td>
<td>5.71” x 3.03” (145mm x 77mm)</td>
</tr>
</tbody>
</table>

**Network Appliance Options**

- FWS-7360
- FWS-7541
- FWS-7821
- FWS-7830
- FWS-7831
- FWS-7840
- FWS-7850
- FWS-7851
- FWS-8600

**Ordering Information**

- TBD

Note: All specifications are subject to change without notice.
Focus · Agility · Competitiveness
03

Industrial Network Appliances
Features
- Intel® Celeron® Processor N3350 SoC
- DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)
- 10/100/1000Base-TX Ethernet Port x 6 (Supports up to 2 Pairs bypass)
- Supports up to Mini-Card Socket with SIM Socket x 1
- +9 ~ 36V DC Power Input Terminal Block
- Supports up to RS-232/422/485 COM Port x 2 with ESD Protection
- -40°C~75°C Operating Temp.

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form Factor</td>
<td>DIN Rail/ Desktop</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® Celeron® Processor N3350 SoC</td>
</tr>
<tr>
<td>System Memory</td>
<td>DDR3L 1866, Single Channel SODIMM x 1 (Max.8GB, up to 1600MHz)</td>
</tr>
<tr>
<td>Chipset</td>
<td>Intel® i210AT, Gigabit Ethernet x 6</td>
</tr>
<tr>
<td>Power Supply</td>
<td>2 Pin Terminal Block</td>
</tr>
<tr>
<td>Dimension</td>
<td>4.96&quot; x 2.93&quot; x 5.74&quot; (126 x 74.5 x 146mm)</td>
</tr>
<tr>
<td>Power Requirement</td>
<td>+9 ~ 36V, 2-pin terminal block</td>
</tr>
<tr>
<td>MTBF (Hours)</td>
<td>101,292</td>
</tr>
</tbody>
</table>

Display
- Chipset: Intel® HD Graphics 500
- Interface: VGA port x 1

I/O
- Front I/O Panel: RS-45 GbE x 6
- Rear I/O Panel: DIN Rail/Wallmount Lock
- Top Panel: 2-Pin Terminal Block +9~36VDC x 1

Environmental Parameters and Dimension
- Operating Temperature: -40°F ~ 156°F (-40°C ~ 75°C)
- Storage Temperature: -40°F ~ 185°F (-40°C ~ 85°C)
- Operating Humidity: 10% ~ 80% relative humidity, non-condensing
- Storage Humidity: 10% ~ 80% @40°C; non-condensing
- Vibration: 0.5 Grms/ 5 ~ 500Hz / operation (500Hz / non operation)
- Shock: 10 G peak acceleration (11 m sec. duration), operation
- 20 G peak acceleration (11 m sec. duration), non operation
### Ordering Information

<table>
<thead>
<tr>
<th>Part Number</th>
<th>CPU</th>
<th>Memory</th>
<th>Bypass</th>
<th>Mini-Card Slot</th>
<th>Storage</th>
<th>LAN</th>
<th>USB</th>
<th>RS-232/422/485</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS-6270A-A10-01</td>
<td>Intel® Celeron® N3350</td>
<td>204-pin DDR3L</td>
<td>1 Pair</td>
<td>Full Size and SIM socket x 1</td>
<td>CFast socket x 1</td>
<td>SATA 6.0 Gb/s port x 1</td>
<td>USB 3.2 Gen 1 x 2</td>
<td>COM x 2</td>
<td>COM2 with isolation</td>
<td>1</td>
<td>Optional, default N/A</td>
<td>VGA x 1</td>
<td>DIN Rail</td>
</tr>
</tbody>
</table>

### Packing List

- 2 Pin Phoenix Contact Connector (Male)
- SATA Cable x 1
- SATA Power Cable x 1
- DIN Rail Kit x 1
- ICS-6270

### Optional Accessories

- 9761627020
  Wallmount Kit (No Packing)
- 1255300407
  2 Pin Phoenix Contact 40W Power Adapter

Note: All specifications are subject to change without notice.
ICS-6280
DIN Rail 4 LAN Ports Industrial-Grade Network Appliance with Intel Atom® x6000E Series Processor

Features
- Intel Atom® x6000E Series/Pentium®/Celeron® N and J Series Processor, 2–4 cores
- 10/100/1000Base-TX Ethernet x 4
- Supports up to 2 Pairs LAN Bypass (Optional)
- 260-pin DDR4 3200Mhz SODIMM with IBECC support x 1
- Support mini-card socket x 1, Micro SIM socket x 1
- 9–48Vdc power redundancy input with terminal block x 2
- 2.5” SATA SSD x 1 support
- Support up to RS-232/422/485 COM ports x 2 (COM2 with isolation) with ESD Protection
- HDMI port x 1, USB 3.2 ports x 2, VGA port x 1
- Wide-Temp -40°C ~ 75°C Fanless Solution

Specifications

<table>
<thead>
<tr>
<th>System</th>
<th>Feature</th>
</tr>
</thead>
<tbody>
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<td>Form Factor</td>
<td>DIN Rail/ Desktop</td>
</tr>
<tr>
<td>Processor</td>
<td>Intel® Atom® x6000E Series Processor, 2–4 cores</td>
</tr>
<tr>
<td>System Memory</td>
<td>260-pin DDR4 3200Mhz SODIMM with IBECC support x 1</td>
</tr>
<tr>
<td>Chipset</td>
<td>SoC</td>
</tr>
<tr>
<td>Ethernet</td>
<td>Intel® i210AT Gigabit Ethernet x 4</td>
</tr>
<tr>
<td>Bypass</td>
<td>Supports up to 2 Pairs LAN Bypass (Optional)</td>
</tr>
<tr>
<td>BIOS</td>
<td>AMI SPI Flash BIOS</td>
</tr>
<tr>
<td>Serial ATA</td>
<td>SATA III port x 1 for 2.5” SSD support</td>
</tr>
<tr>
<td>CFast/mSATA</td>
<td>mSATA (Full size) socket cotay SATAIII port x 1</td>
</tr>
<tr>
<td>Expansion Interface</td>
<td>Supports Mini-card slot x 1 with Micro SIM socket</td>
</tr>
<tr>
<td>USB</td>
<td>USB 3.2 Gen 1 x 2</td>
</tr>
<tr>
<td>Serial Port</td>
<td>Supports up to RS-232/422/485 COM Port x 2</td>
</tr>
<tr>
<td>Watchdog Timer</td>
<td>1~255 steps by software programmable</td>
</tr>
<tr>
<td>RTC</td>
<td>Internal RTC</td>
</tr>
</tbody>
</table>

Note: All specifications are subject to change without notice.
**Dimension**

Unit: mm

---

**Ordering Information**

<table>
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<th>USB</th>
<th>Console</th>
<th>System Fan</th>
<th>TPM</th>
<th>Display</th>
<th>Mounting</th>
<th>Power</th>
</tr>
</thead>
<tbody>
<tr>
<td>ICS-6280A-A10-00</td>
<td>Intel Atom® x6425E</td>
<td>260-pin DDR4 1333MHz SODIMM with IIECC support x 1</td>
<td>Supports upto 2 Pairs LAN Bypass (Optional)</td>
<td>mSATA (Full size) socket colay</td>
<td>SSD x 1</td>
<td>1Gb RJ-45 x 4</td>
<td>USB 3.2 Gen 1 port x 2</td>
<td>Fanless</td>
<td>Optional upon request</td>
<td>HDMI x 1</td>
<td>VGA x 1</td>
<td>Redundant 9~48Vdc input</td>
<td></td>
</tr>
</tbody>
</table>

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**Packing List**

- SATA Cable x 1
- SATA Power Cable x 1
- DIN Rail Kit x 1
- ICS-6280

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**Optional Accessories**

- 9761627020
  Wallmount Kit (No Packing)
- 1255300407
  2 Pin Phoenix Contact 40W Power Adapter

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Note: All specifications are subject to change without notice.
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