

# FWA-1214

## Robust Industrial Network Appliance with x7433RE/x7835RE Intel® Atom® Processors for OT Network Security



### Features

- Intel® Atom™ x7433RE / x7835RE Processors
- 1 x DDR5 4800MT/s SODIMM Up to 16GB
- 4 x 1GbE RJ45 ports with 1 pair bypass
- Up to 2 x 1 GbE SFP or RJ45 ports
- Redundant 12~48V DC power input
- Expandable RF carrier for 2 LTE / 5G modules
- Wide temperature -40~60°C, IP40

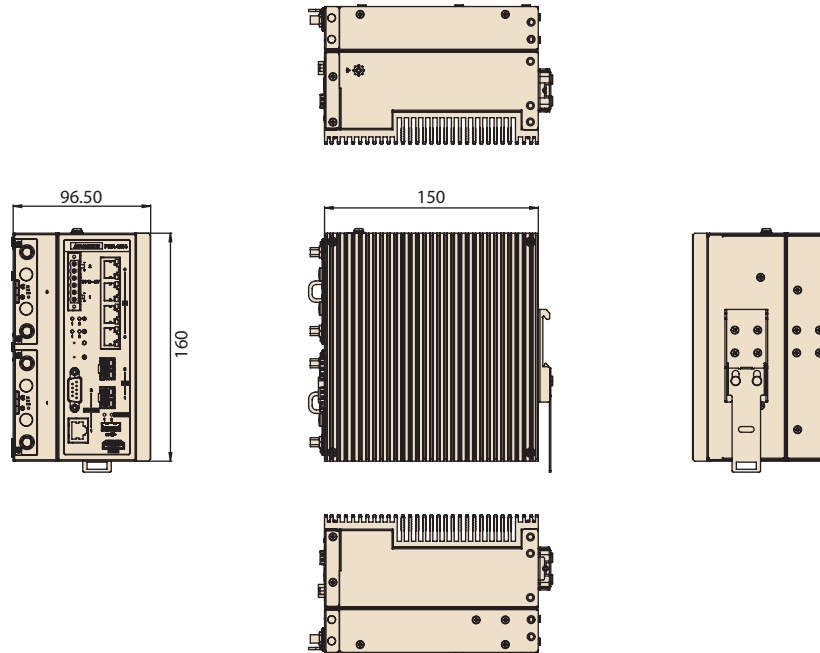


### Specifications

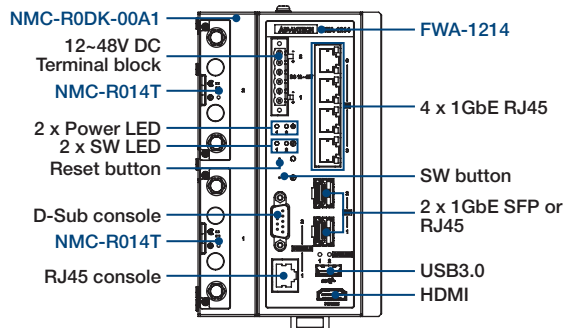
| System P/N             |                                  | FWA-1214LRI-4CA1R                                                                                             | FWA-1214CRI-4CA1R     | FWA-1214FRI-8CA1R                               |
|------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------|-----------------------|-------------------------------------------------|
| Form Factor            |                                  | DIN-Rail                                                                                                      |                       |                                                 |
| Processor System       | Processor                        | x7433RE                                                                                                       | x7433RE               | x7835RE                                         |
|                        | Core Count                       | 4                                                                                                             | 4                     | 8                                               |
|                        | Base Frequency                   | 1.5 GHz                                                                                                       | 1.5 GHz               | 1.3 GHz                                         |
|                        | BIOS                             | AMI UEFI                                                                                                      |                       |                                                 |
| Virtualization         |                                  | Intel® VT-X, VT-D                                                                                             |                       |                                                 |
| Memory                 | Technology                       | DDR5                                                                                                          |                       |                                                 |
|                        | Max. Capacity                    | Maximum 16 GB, default installation 8 GB                                                                      |                       |                                                 |
|                        | Socket                           | SODIMM                                                                                                        |                       |                                                 |
|                        | ECC Support                      | In-Band ECC                                                                                                   |                       |                                                 |
| Networking             | Controller                       | Intel i210                                                                                                    |                       |                                                 |
|                        | 1 GbE                            | 4 x 1 GbE RJ45                                                                                                | 6 x 1 GbE RJ45        | 4 x 1 GbE RJ45<br>2 x 1 GbE SFP                 |
|                        | LAN Bypass                       | 1 pair                                                                                                        |                       |                                                 |
| Expansion Slot         | M.2 (Except SSD)                 | Option                                                                                                        |                       |                                                 |
|                        | SIM Socket                       | Option                                                                                                        |                       |                                                 |
| Storage                | M.2                              | M.2 2242, M key, SATA SSD, default installation 64 GB                                                         |                       |                                                 |
|                        | eMMC                             | Option by project                                                                                             |                       |                                                 |
| I/O                    | Console                          | 1 x RJ45 type console                                                                                         | 1 x RJ45 type console | 1 x RJ45 type console<br>1 x D-sub type console |
|                        | USB                              | 1 x USB 3.0                                                                                                   |                       |                                                 |
|                        | LED Indicator                    | 2 x Power LED, 2 x Software-defined LED                                                                       |                       |                                                 |
|                        | Display                          | 1 x HDMI port                                                                                                 |                       |                                                 |
|                        | Button                           | 1 x Reset button, 1 x Software-defined button                                                                 |                       |                                                 |
| TPM                    | TPM2.0                           | On board                                                                                                      |                       |                                                 |
| Power Supply           | Power Type                       | Terminal Block                                                                                                |                       |                                                 |
|                        | Watts                            | 60 W (Optional power adapter not included with FWA-1214 certification)                                        |                       |                                                 |
|                        | Input                            | Dual DC: 12~48V                                                                                               |                       |                                                 |
|                        | Connector                        | 6P terminal block                                                                                             |                       |                                                 |
| Environment            | Operating Temperature            | -40 ~ 60 °C (-40 ~ 140 °F) (0.7m/s air flow and not including power adapter)                                  |                       |                                                 |
|                        | Non-operating Temperature        | -40 ~ 70 °C (-40 ~ 158 °F), 60 °C@95% Non-Condensing Humidity                                                 |                       |                                                 |
|                        | Vibration Resistance (Operation) | 5-500 Hz, 1 Grms, 3 axes, 1 hr/per axis                                                                       |                       |                                                 |
|                        | Shock Protection (Operation)     | 10 G, 11 ms                                                                                                   |                       |                                                 |
| Cooling                |                                  | Fanless                                                                                                       |                       |                                                 |
| Mechanical             | Metallic Material                | SGCC & Aluminum                                                                                               |                       |                                                 |
|                        | Mounting                         | DIN-Rail                                                                                                      |                       |                                                 |
|                        | Dimensions (W x H x D)           | 160 x 96.5 x 150 mm (6.3" x 3.8" x 5.9") w/ NMC-R0DK<br>160 x 66.2 x 150 mm (6.3" x 2.6" x 5.9") w/o NMC-R0DK |                       |                                                 |
|                        | Weight (G.W.)                    | 2.5kg                                                                                                         |                       |                                                 |
| OS Support             |                                  | Linux                                                                                                         |                       |                                                 |
| Advantech S/W Packages |                                  | 1. ALBPCU<br>2. Server Monitoring<br>5. Quick Start Linux Image                                               |                       |                                                 |
| Certification          | EMC/Safety                       | CE, FCC, CB, UL                                                                                               |                       |                                                 |

## Dimensions

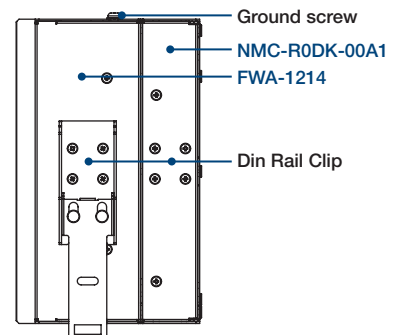
Unit: mm



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



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



## Ordering Information

| Part Number       | Processor | DDR5 slot | Storage slot | LAN Port |        |        | USB3.0 | Console | HDMI | PSU    |
|-------------------|-----------|-----------|--------------|----------|--------|--------|--------|---------|------|--------|
|                   |           |           |              | 1G RJ45  | Bypass | 1G SFP |        |         |      |        |
| FWA-1214LRI-4CA1R | x7433RE   | 8 GB      | 64 GB        | 4        | 1      | 0      | 1      | 1       | 1    | Option |
| FWA-1214FRI-8CA1R | x7835RE   | 8 GB      | 64 GB        | 4        | 1      | 2      | 1      | 2       | 1    | Option |
| FWA-1214CRI-4CA1R | x7433RE   | 8 GB      | 64 GB        | 6        | 1      | 0      | 1      | 1       | 1    | Option |

## Packing List

| Part Number    | Description                          | Quantity |
|----------------|--------------------------------------|----------|
| 1700020691-01  | Console cable D-SUB 9P(F)/RJ45 220cm | 1        |
| 1652001524     | TERMINAL BLOCK 6P 5.00mm Female 90D  | 1        |
| 1950027608T050 | DIN RAIL 160H Holder U for FWA-1214  | 1        |
| 1930008529     | Screw M3*4.0L for DIN RAIL Holder    | 4        |

## Optional Accessories

| Part Number      | Description                  |
|------------------|------------------------------|
| 96PSA-A60W24T2-3 | 60W power adaptor            |
| 1702002600       | Power cord 3P 180 cm, USA    |
| 1702002605       | Power cord 3P 180 cm, Europe |
| 1700032693-11    | Power Cord 3P 183cm, BSI     |
| 1700000237       | Power cord 3P 180 cm, JP     |
| 1700009652       | Power cord 3P 180 cm, China  |
| NMC-R0DK-00A1    | RF carrier                   |
| NMC-R014T-12A1   | LTE RF module kit            |

# FWA-1214

**Robust Industrial Network Appliance  
with x7433RE/x7835RE Intel® Atom®  
Processors for power plant and substation**



## Features

- Intel® Atom™ x7433RE / x7835RE Processors
- 1 x DDR5 4800MT/s SODIMM up to 16GB
- 4 x 1GbE RJ45 ports with 1 pair bypass
- Up to 2 x 1 GbE SFP or RJ45 ports
- Redundant 12~48V DC power input
- Expandable RF carrier for 2 LTE / 5G modules
- Wide temperature -40~60°C, IP40

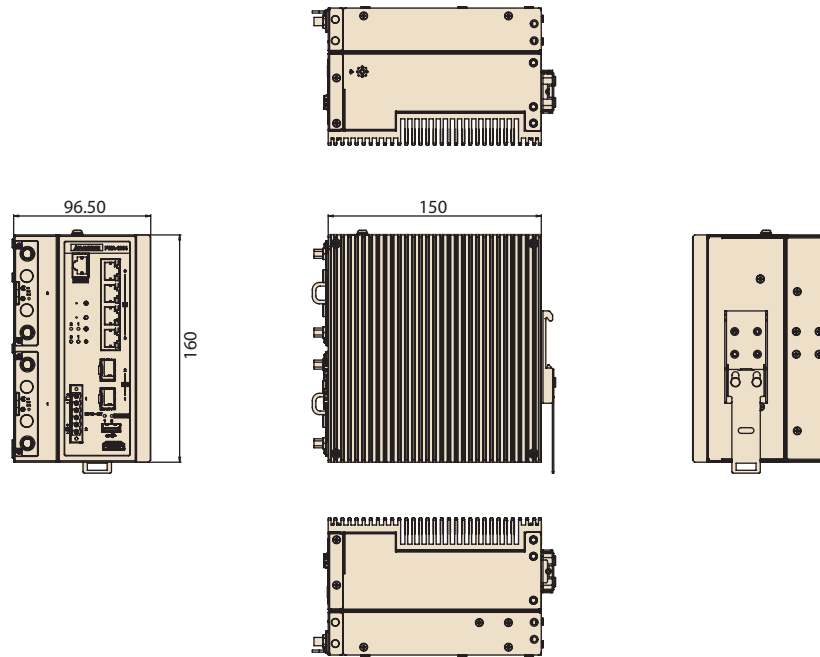


## Specifications

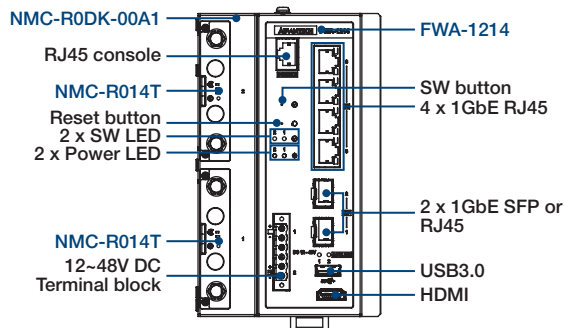
|                        |                                  |                                                                                                               |                                 |
|------------------------|----------------------------------|---------------------------------------------------------------------------------------------------------------|---------------------------------|
| System P/N             |                                  | FWA-1214CRP-4CA1RU                                                                                            | FWA-1214FRP-8CA1RU              |
| Form Factor            |                                  | DIN-Rail                                                                                                      |                                 |
| Processor System       | Processor                        | x7433RE                                                                                                       | x7835RE                         |
|                        | Core Count                       | 4                                                                                                             | 8                               |
|                        | Base Frequency                   | 1.5 GHz                                                                                                       | 1.3 GHz                         |
|                        | BIOS                             | AMI UEFI                                                                                                      |                                 |
| Virtualization         |                                  | Intel® VT-X, VT-D                                                                                             |                                 |
| Memory                 | Technology                       | DDR5                                                                                                          |                                 |
|                        | Max. Capacity                    | Maximum 16 GB, default installation 8 GB                                                                      |                                 |
|                        | Socket                           | SODIMM                                                                                                        |                                 |
|                        | ECC Support                      | In-Band ECC                                                                                                   |                                 |
| Networking             | Controller                       | Intel i210                                                                                                    |                                 |
|                        | 1 GbE                            | 6 x 1 GbE RJ45                                                                                                | 4 x 1 GbE RJ45<br>2 x 1 GbE SFP |
|                        | LAN Bypass                       | 1 pair                                                                                                        |                                 |
| Expansion Slot         | M.2 (Except SSD)                 | Option                                                                                                        |                                 |
|                        | SIM Socket                       | Option                                                                                                        |                                 |
| Storage                | M.2                              | M.2 2242, M key, SATA SSD, default installation 64 GB                                                         |                                 |
|                        | eMMC                             | Option by project                                                                                             |                                 |
| I/O                    | Console                          | 1 x RJ45 type console                                                                                         | 1 x RJ45 type console           |
|                        | USB                              | 1 x USB 3.0                                                                                                   |                                 |
|                        | LED Indicator                    | 2 x Power LED, 2 x Software-defined LED                                                                       |                                 |
|                        | Display                          | 1 x HDMI port                                                                                                 |                                 |
|                        | Button                           | 1 x Reset button, 1 x Software-defined button                                                                 |                                 |
| TPM                    | TPM2.0                           | On board                                                                                                      |                                 |
| Power Supply           | Power Type                       | Terminal Block                                                                                                |                                 |
|                        | Watts                            | 60 W (Optional power adapter not included with FWA-1214 certification)                                        |                                 |
|                        | Input                            | Dual DC: 12~48V                                                                                               |                                 |
|                        | Connector                        | 6P terminal block                                                                                             |                                 |
| Environment            | Operating Temperature            | -40 ~ 60 °C (-40 ~ 140 °F) (0.7m/s air flow and not including power adapter)                                  |                                 |
|                        | Non-operating Temperature        | -40 ~ 70 °C (-40 ~ 158 °F), 60 °C@95% Non-Condensing Humidity                                                 |                                 |
|                        | Vibration Resistance (Operation) | 5-500 Hz, 1 Grms, 3 axes, 1 hr/per axis                                                                       |                                 |
|                        | Shock Protection (Operation)     | 10 G, 11 ms                                                                                                   |                                 |
| Cooling                |                                  | Fanless                                                                                                       |                                 |
| Mechanical             | Metallic Material                | SGCC & Aluminum                                                                                               |                                 |
|                        | Mounting                         | DIN-Rail                                                                                                      |                                 |
|                        | Dimensions (W x H x D)           | 160 x 96.5 x 150 mm (6.3" x 3.8" x 5.9") w/ NMC-R0DK<br>160 x 66.2 x 150 mm (6.3" x 2.6" x 5.9") w/o NMC-R0DK |                                 |
|                        | Weight (G.W.)                    | 2.6Kg                                                                                                         |                                 |
| OS Support             |                                  | Linux                                                                                                         |                                 |
| Advantech S/W Packages |                                  | 1. ALBPCU<br>2. Server Monitoring<br>5. Quick Start Linux Image                                               |                                 |
| Certification          | EMC/Safety                       | CE, FCC, CB, UL                                                                                               |                                 |
|                        | Others                           | IEC-61850-3, IEEE-1613                                                                                        |                                 |

## Dimensions

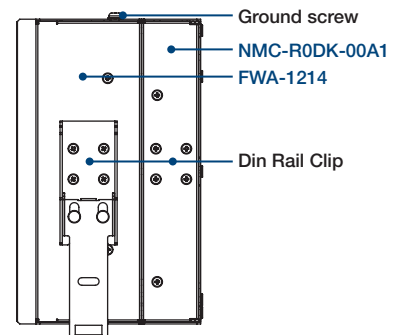
Unit: mm



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



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



## Ordering Information

| Part Number        | Processor | DDR5 slot | Storage slot | 1G RJ45 | LAN Port |        | USB3.0 | Console | HDMI | PSU    |
|--------------------|-----------|-----------|--------------|---------|----------|--------|--------|---------|------|--------|
|                    |           |           |              |         | Bypass   | 1G SFP |        |         |      |        |
| FWA-1214FRP-8CA1RU | x7835RE   | 8 GB      | 64 GB        | 4       | 1        | 2      | 1      | 1       | 1    | Option |
| FWA-1214CRP-4CA1RU | x7433RE   | 8 GB      | 64 GB        | 6       | 1        | 0      | 1      | 1       | 1    | Option |

## Packing List

| Part Number    | Description                          | Quantity |
|----------------|--------------------------------------|----------|
| 1700020691-01  | Console cable D-SUB 9P(F)/RJ45 220cm | 1        |
| 1652001524     | TERMINAL BLOCK 6P 5.00mm Female 90D  | 1        |
| 1950027608T050 | DIN RAIL 160H Holder U for FWA-1214  | 1        |
| 1930008529     | Screw M3*4.0L for DIN RAIL Holder    | 4        |

## Optional Accessories

| Part Number      | Description                  |
|------------------|------------------------------|
| 96PSA-A60W24T2-3 | 60W power adaptor            |
| 1702002600       | Power cord 3P 180 cm, USA    |
| 1702002605       | Power cord 3P 180 cm, Europe |
| 1700032693-11    | Power Cord 3P 183cm, BSI     |
| 1700000237       | Power cord 3P 180 cm, JP     |
| 1700009652       | Power cord 3P 180 cm, China  |
| NMC-R0DK-00A1    | RF carrier                   |
| NMC-R014T-12A1   | LTE RF module kit            |