Quick Start Guide

Network Appliance Platform
SAF4100I | SAF4101I

Edge-corE ®


Package Contents

1. Network Appliance Platform SAF4100I
2. Network Appliance Platform SAF4101I
3. Rackmount Kit—2 brackets and 8 screws (SAF4101I only)

4. Four adhesive foot pads
5. Power Cord—either Japan, US, Continental Europe or UK
6. Console Cable—RJ-45 to DB-9

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i **Note:** The device is an open platform with Ubuntu Linux pre-installed, but no application software.

1 Mount the Device

Rackmount the SAF4101I
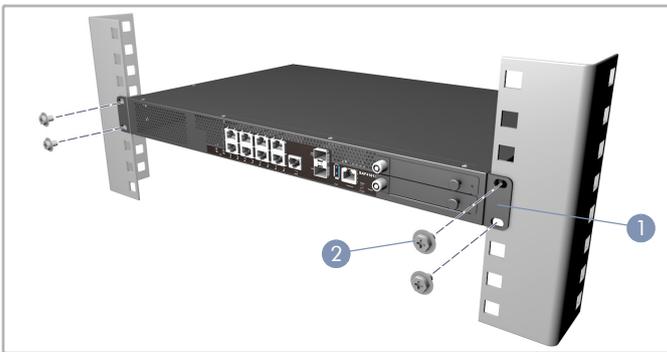
1. Attach the brackets to the SAF4101I.
2. Use the screws and cage nuts supplied with the rack to secure the device in the rack.

⚠ **Caution:** Installing the device in a rack requires two people. One person should position the device in the rack, while the other person secures it using the rack screws.

Desktop Mount the SAF4100I

1. The SAF4100I can be installed on a desktop or shelf using the included adhesive rubber foot pads.

2 Ground the Device

1. Ensure the rack is properly grounded and in compliance with ETSI ETS 300 253. Verify that there is a good electrical connection to the grounding point on the rack (no paint or isolating surface treatment).
2. Attach the grounding wire (#14 AWG) to the grounding point on the device rear panel. Then connect the other end of the wire to rack ground.
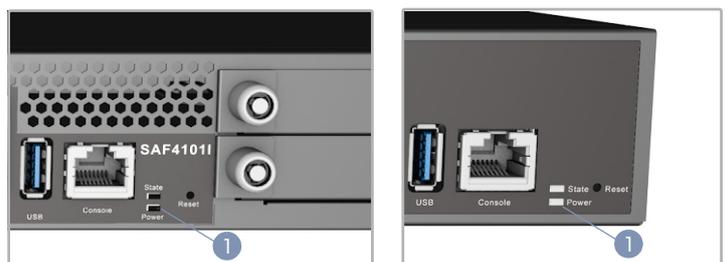
⚠ **Caution:** The earth connection must not be removed unless all supply connections have been disconnected.
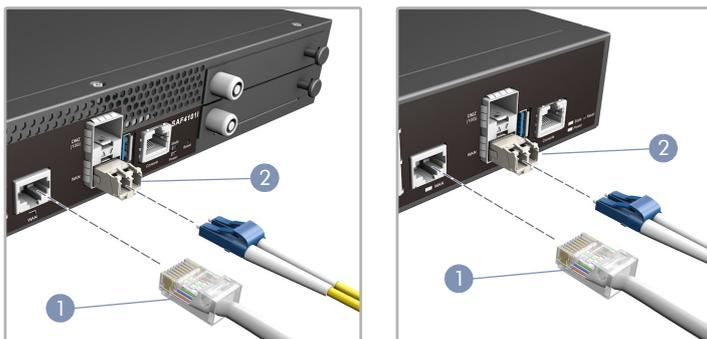
3 Connect Power
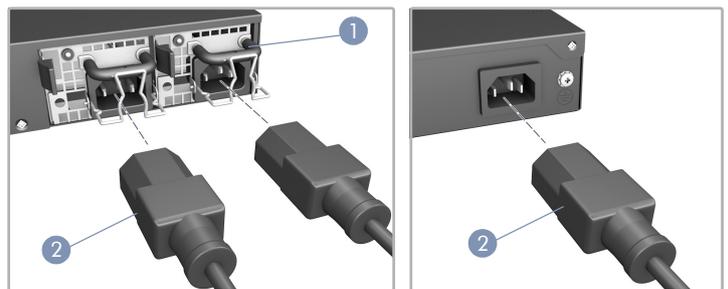
1. Install one or two AC PSUs in the SAF4101I.
2. Connect an external AC power source to the device.

4 Verify Device is Powered On

1. Verify the device is powered on by checking the Power LED.

   When operating normally, the Power LED should be on green.

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5 Connect Network Cables

1. For the RJ-45 ports, connect 100-ohm Category 5, 5e or better twisted-pair cable.

2. Connect DAC cables to the SFP/SFP+ slots. Or first install SFP/SFP+ transceivers and then connect fiber optic cabling to the transceiver ports.

   The following transceivers are supported in the 10G DMZ SFP+ port:

   - 10GBASE-SR
   - 10GBASE-LR
   - 10GBASE-CR

   The following transceivers are supported in the 1G WAN SFP port:

   - 1000BASE-SX
   - 1000BASE-LX

3. As connections are made, check the port status LEDs to be sure the links are valid.

   - Green — 1 Gbps mode
   - Amber — 10/100 Mbps mode

6 Connect to the Console Port

1. Connect a PC to the serial console port using the included console cable.

2. Configure the PC's serial port as follows:

   - **115200 bps**
   - **8 characters**
   - **No parity**
   - **One stop bit**
   - **8 data bits**
   - **No flow control**

3. Log in to the Ubuntu system using the default settings:

   - Username "**root**"
   - Password "**accton**"

7 Perform Initial Configuration

Use the following commands for the diagnostic functions on the device.

Command	Description
`bcm_59111`	PoE control tool
`cs42`	Access CS4227 register
`fan-speed`	Set/get fan speed
`i2c-walk.sh`	Walk through all i2c device
`io_port`	Access cpu io port
`l2.sh`	MAC port l2 table set/display
`llb`	MAC traffic test
`mem`	Access memory address
`memtester`	Memory test tool
`mii_cmd`	mdio command to access 88E6109X and 98X2051
`port_status.sh`	MAC port link status display
`pvlan.sh`	MAC port pvlan set/display
`sfp-pins.sh`	Probe sfp pins
`show_counter.sh`	MAC port counter display
`show-temp`	Show on board thermal sensor result
`show-version`	Show cpld version
`traffic.sh`	Ethernet interface traffic test
`vlan.sh`	MAC vlan set/display

For example, using the command `traffic.sh` to run Ethernet interface tests.

```
root@ubuntu:~# ifconfig sfp-1G up
root@ubuntu:~# traffic.sh add ext1 sfp-1G
Add ext1 sfp-1G
root@ubuntu:~# traffic.sh run 1518
root@ubuntu:~# traffic.sh show
sfp-1G: TX = 240552 RX = 240553
Rate = 972 MBPS
root@ubuntu:~# traffic.sh show
sfp-1G: TX = 321664 RX = 321662
Rate = 978 MBPS
root@ubuntu:~# traffic.sh show
sfp-1G: TX = 402760 RX = 402753
Rate = 981 MBPS
root@ubuntu:~# traffic.sh stop
root@ubuntu:~# traffic.sh show
sfp-1G: TX = 658238 RX = 658238
Rate = 985 MBPS
root@ubuntu:~# traffic.sh end
root@ubuntu:~#
```

SAF4101I Specifications

Form Factor	1 RU rackmount
Dimensions (W x D x H):	442 x 298.3 x 43.6 mm (17.4 x 11.74 x 1.72 inches)
CPUs	SOC, Intel® Pentium® Processor D-1517 1.6 GHz (Turbo 1.9 GHz) Support 4 cores, 8 threads
Memory	Sockets: 2x 260pin DDR4 SODIMM Slots Type: DDR4 2133MHz 16GB ECC (32GB Max)
Local Storage	1x 32GB MLC M.2 SATA3 SSD 1TB 2.5" Hot-Swappable SATA3 HDD/SSD, Max 2 devices
I/O Interfaces	1 x USB3 1 x RJ-45 serial console
Network Interfaces	1 SFP+ 10GbE for WAN/DMZ 1 RJ-45/SFP Combo GbE for WAN 8 RJ-45 GbE for LAN (support 4 POE PSE ports; 2x 802.3at or 4x 802.3af)
Expansion Slot	1 x PCIe x8 add-in card
Accelerator	Advanced Technologies: Intel vPro, VT-x, VT-d, EPT, AES-NI, TSX-NI Storage Encryption: TPM V1.2 thru ST ST33TPM12LPC
Power Supply Unit Rating	Input: AC 110V to 240V @ 50/60 Hz Type: 1+1 Redundant hot-swappable power supply unit 300 W
System Cooling	Two active fans in rear, support smart fan speed control
Temperature	Operating: 0 °C to 45°C (32 °F to 104 °F) Storage: -20 °C to 70 °C (-4 °F to 158 °F)
Humidity	Operating: 20% to 90% (non-condensing) Storage: 5% to 90% (non-condensing)
Compliances	CE FCC RoHS 2.0

SAF4100I Specifications

Form Factor	Compact desktop
Dimensions (W x D x H):	330 x 203.8 x 43.6 mm (12.99 x 8.02 x 1.72 inches)
CPUs	SOC, Intel® Pentium® Processor D-1508 2.2 GHz (Turbo 2.5 GHz) Support 2 cores, 4 threads
Memory	Sockets: 2x 260pin DDR4 SODIMM Slots Type: DDR4 1866 MHz 8GB ECC (32GB Max)
Local Storage	1x 32GB MLC M.2 SATA3 SSD
I/O Interfaces	1 x USB3 1 x RJ-45 serial console
Network Interfaces	1 SFP+ 10GbE for WAN/DMZ 1 RJ-45/SFP Combo GbE for WAN 8 RJ-45 GbE for LAN
Accelerator	Advanced Technologies: Intel vPro, VT-x, VT-d, EPT, AES-NI, TSX-NI Storage Encryption: TPM V1.2 thru ST ST33TPM12LPC
Power Supply Unit Rating	Input: AC 110V to 240V @ 50/60 Hz Type: Single fixed power supply unit 150 W
System Cooling	Two active fans in rear, support smart fan speed control
Temperature	Operating: 0 °C to 45°C (32 °F to 104 °F) Storage: -20 °C to 70 °C (-4 °F to 158 °F)
Humidity	Operating: 20% to 90% (non-condensing) Storage: 5% to 90% (non-condensing)
Compliances	CE FCC RoHS 2.0