

# QUICK START USER GUIDE

## Interface Masters Technologies Tahoe 8724 Networking Appliance

Chassis	Description
Tahoe 8724	Highly flexible 1U networking appliance designed for enterprise market. Based on Cavium OCTEON III CN7890 (48 Core 1800MHz) CPU.

## Welcome!

Thank you for your purchase! This Quick Start Guide provides the basic information necessary to connect the Interface Masters' Tahoe 8724 Networking Appliance and quickly get it up and running.

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## Important Safety Instructions

Please read all safety statements before installing or operating the Interface Masters' Tahoe 8724 Networking Appliance.

### General Safety Requirements



**Restricted Access Location** – This equipment is for use in a restricted access area only, such as a data center or controlled-access equipment room. Only authorized and properly skilled service persons allowed. The area is restricted through the use of a tool or lock and key, or other security controls by a responsible authority for the location.

### Electrical Safety & Grounding Requirements



To remove all power from the unit, please remove both power cords from the power supplies.



For both AC and DC supplies, the socket-outlet shall be installed near the equipment and shall be easily accessible.

For DC power supplies, an external OCP device is recommended at 30 A.

### Fan Safety Instructions



#### WARNING

Hazardous moving parts.

Keep away from moving fan blades.

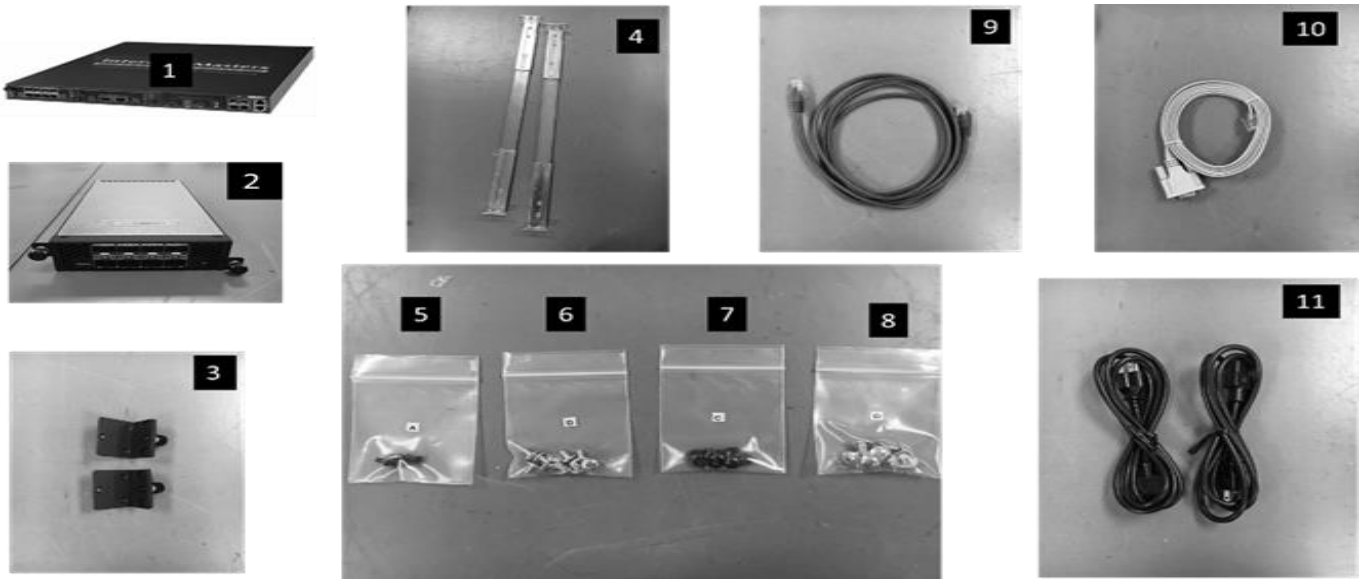


To remove any fan, unscrew the thumbscrews on the fan to remove them from the chassis. User may remove the fans while unit is powered. When removing fans, grasp the fans by two thumbscrews and pull. Once removed, DO NOT place your finger in the fan.

## Inside the Box

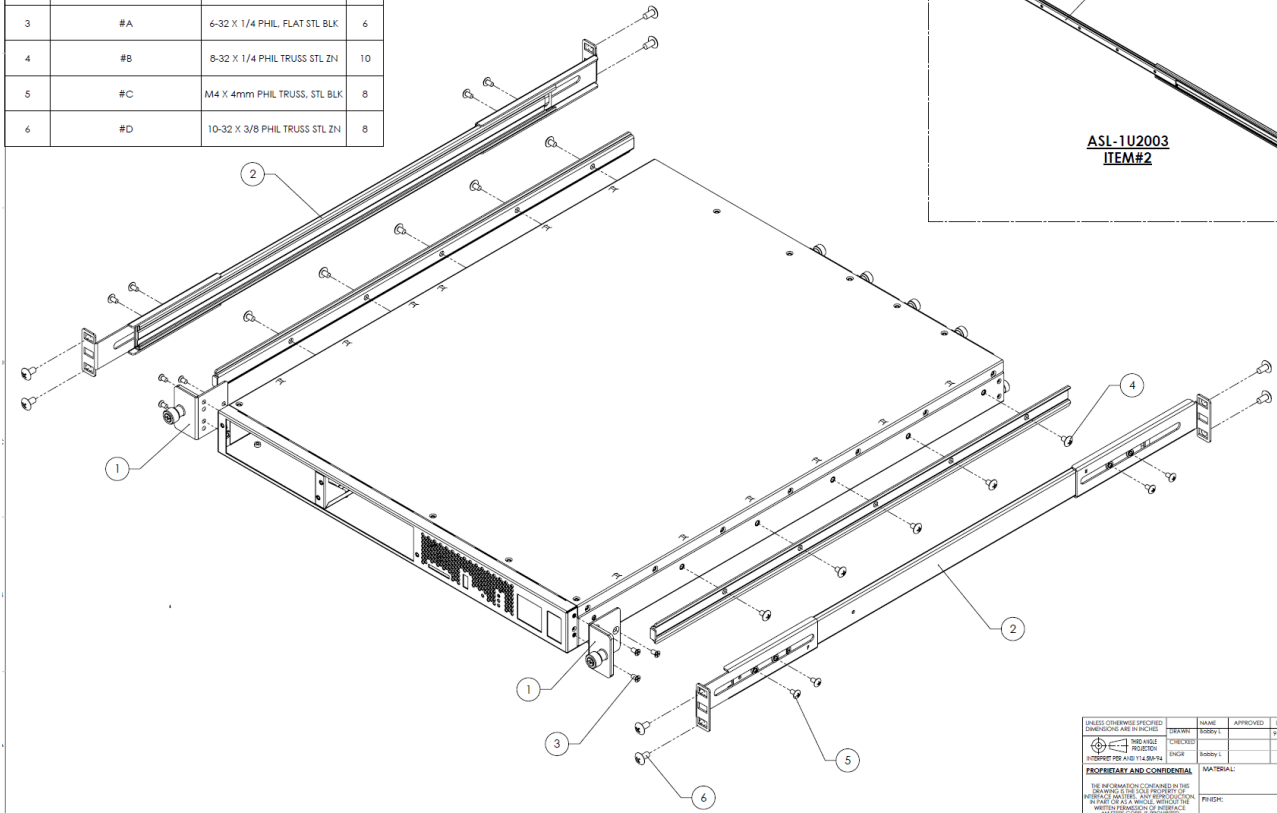
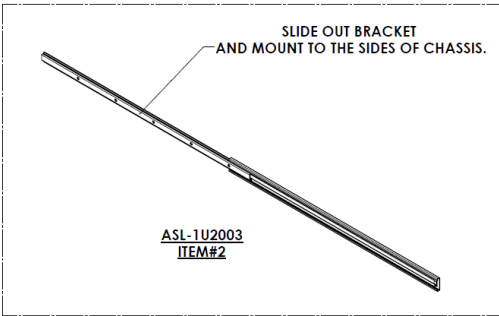
The Interface Masters Technology Tahoe 8724 ships with the following mounting hardware and accessories:

Item	Item Description	Part Number	Quantity
1	Tahoe 8724 Base System	Tahoe 8724 Base System	1
2	Tahoe 8724 I/O Module	Configured per customer order.	2
3	1U Ear, Rack Mount, Left/Right	001-IM4076-E2	2
4	20-Inch Slide Rail	ASL-1U2003	1
5	Screws for Rack Mount (A)	6C25PFHZB	6
6	Screws for Sliders (B)	8C25PTMZR	10
7	Screws, Mount Sliders to Rack (C)	10F37PTMZR	8
8	Screw, Mount Sliders to Rack (D)	10F37PTMZR	8
9	CAT 5 Cable	N002-007GN	1
10	Console Cable	CAB-CONSOLE-RJ45	1
11	Power Cable	PCR-B3US-150C	2



# Mounting Hardware and Accessories

ITEM NO.	PART NUMBER	DESCRIPTION	QTY.
1	001-IM4076-E2	1U EAR, RACK MOUNT, LEFT/RIGHT	2
2	ASL-1U2003	20" SLIDE RAIL	2
3	#A	6-32 X 1/4 PHIL. FLAT STL BLK	6
4	#B	8-32 X 1/4 PHIL TRUSS STL ZN	10
5	#C	M4 X 4mm PHIL TRUSS, STL BLK	8
6	#D	10-32 X 3/8 PHIL TRUSS STL ZN	8



UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES		NAME	APPROVED	DATE	<b>INTERFACE MASTERS</b>
DESIGNED BY	CHECKED BY	DESIGNED BY	DATE	DATE	
PROJECT	ENGR	PROJECT	ENGR	DATE	TITLE: TAHOE 8724P, RACK MOUNT, INSTALLATION GUIDE
PROPERTY AND CONFIDENTIAL		MATERIAL		DATE	SIZE: D
THE INFORMATION CONTAINED IN THIS DOCUMENT IS THE PROPERTY OF INTERFACE MASTERS. ANY REPRODUCTION IN PART OR IN WHOLE WITHOUT THE WRITTEN PERMISSION OF INTERFACE MASTERS IS PROHIBITED.		FILE NAME: IMAN-00005-01.DWG	DATE: 9/28/18	REV: E1	SHEET 1 OF 1

Document: Tahoe 8724P Rack Mount Installation Guide (Available From Interface Masters)

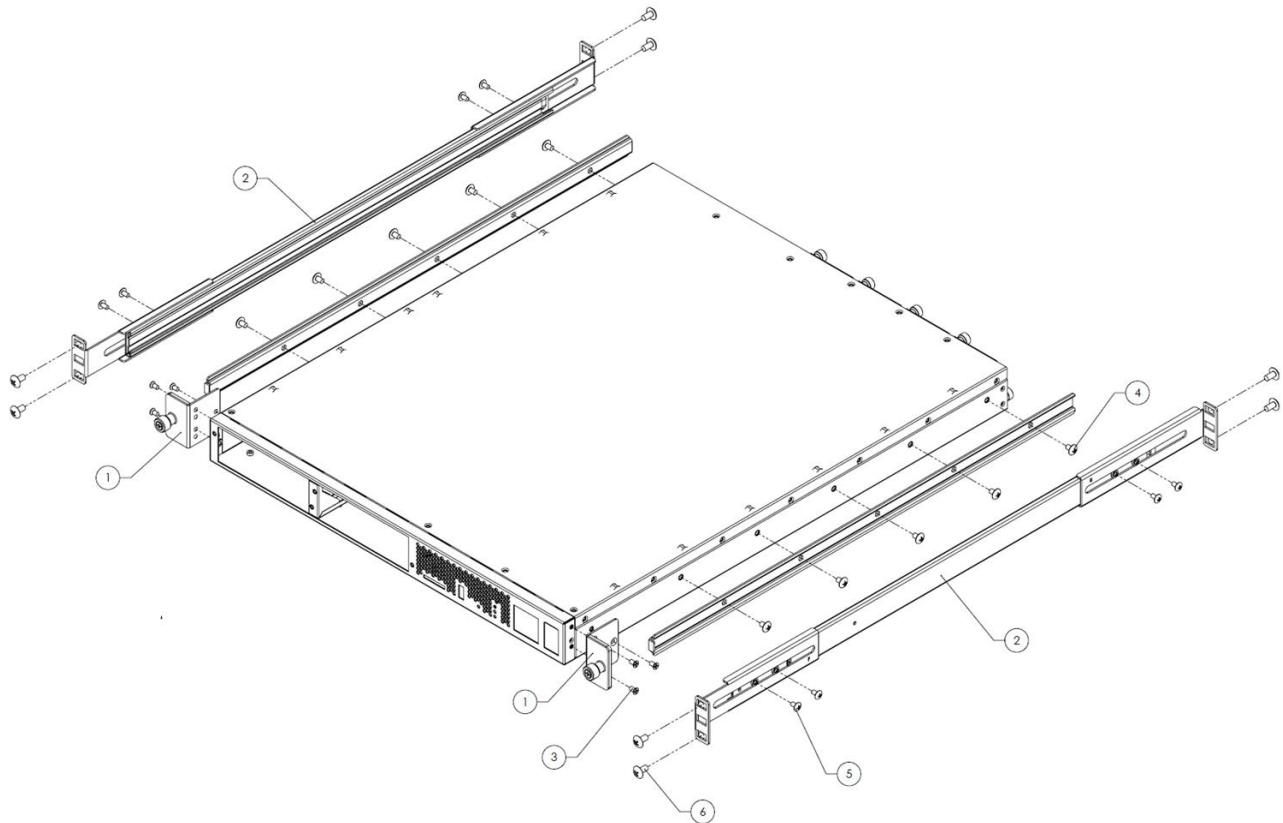
## Mounting Tahoe 8724 in a Rack

Rack mount installation can be successfully completed by one person; however, two people are recommended. REFERENCE IMAGE ON PREVIOUS PAGE.



*A Phillips head screwdriver is required for the installation.*

1. Prepare a space on the equipment rack where the unit will be mounted. Remove the unit from the box and place all of the supplied mounting hardware in a convenient location.
2. Install one ear mount bracket on the *left, front* side of the unit and the other bracket on the *right, front* side of the unit using three (A) screws on each side. The ears of the brackets should be aligned with the front side of the unit.
3. Install the sliders on each side of the unit by aligning the screw holes and attaching with screws shown in the Mounting and Hardware Accessories section.
4. Install brackets on the back of the equipment rack using screws on each rear rack ear.



Document: Tahoe 8724P Rack Mount Installation Guide (Available From Interface Masters)

5. Gently slide the back of the unit into the front of the equipment rack while aligning the grooves on the sliders with the grooves on the brackets that are attached to the equipment rack. Slide the unit until no more movement is possible.
6. Align the front screw holes of the ear mount brackets with those on the equipment rack. Use provided screws to secure the unit.

The unit is now ready for cable installation and configuration.

## Hardware Overview

Interface Masters Technologies presents Tahoe 8724, a highly-flexible 1U networking appliance designed for enterprise installations. Tahoe 8724 is based on Cavium 64-bit MIPS technology.

### Front Panel

The Tahoe 8724 chassis features four fixed ports of 10G SFP+, One 10/100/1000 BASE-T RJ45 management port, One RJ45 console port, One USB 3.0 Host port, One SD card slot, and two field-replaceable I/O Modules. The four currently available I/O modules are field installable and support eight ports of 10G SFP+, two ports of 25G SFP28, two ports of 40G QSFP+ and a double-wide featuring 4 ports of 100G QSFP28 + 24 ports of 1/10G SFP+.

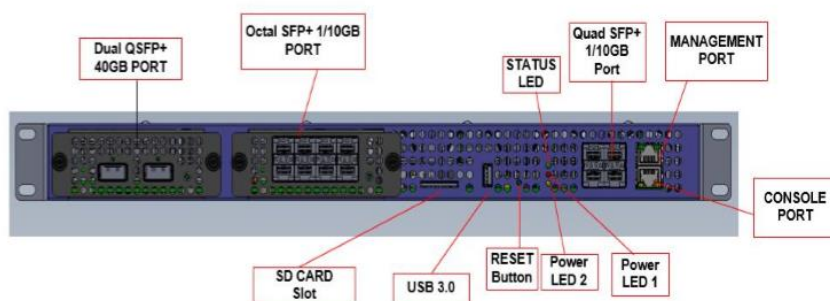


Figure 1: Interface Masters Technology Tahoe 8724 Front View

### Back Panel

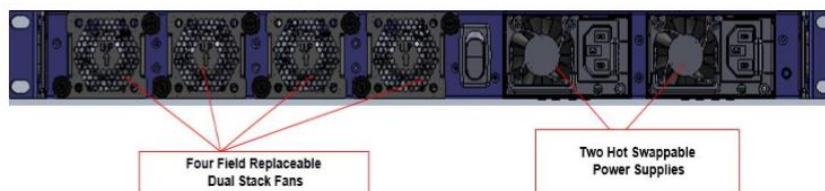


Figure 2: Rear of Unit Showing Fans and AC PSU

The back of the unit contains hot-swappable, redundant power supplies and four field replaceable dual stack fans. The Tahoe 8724 unit is configurable with AC power supply. For AC power, the unit ships with two power cords.

If needed, the power supplies can be removed using the power supply latches.



To remove all power from the unit, please remove both power cords from the power supplies.

Removable fans are installed on the back of the unit. There are four screws for each fan that can be used to secure or remove the fan.



#### WARNING

Hazardous moving parts.  
Keep away from moving fan blades.

To remove any fan, unscrew the four thumbscrews on the fan to remove them from the chassis. You may remove the fans while unit is powered. When removing fans, grasp the fans by the thumbscrews and pull. Once removed, DO NOT place your fingers in the fan.

## Hardware Specifications

The Interface Masters Technology Tahoe 8724 Networking Appliance supports the following specifications.

Specifications			
Height	1.75 in (44.45 mm)	Operating Humidity	10-90% RH, non-condensing
Length	21 in (533.40 mm)	Storage Humidity	5-95% RH, non-condensing
Width	16.80 in (126.72 mm)	Max Raw Power	356W
Weight	20.70 lbs. (9.39 kg)	Air Flow	Front to Back
Operating Temp	0-40 Celsius (32-104 Fahrenheit)	AC	100-240V, 8-4A, 50-60Hz

Table 1: Hardware Specifications

## Port Connections

Port connections specific for Tahoe 8724 are as follows:

- **Management port:** Can connect via the provided Cat-5e Management cable to any 10/100/1000 Ethernet port on the PC.
- **Console/Serial port:** Can connect to a DB9-supported PC directly or via a DB9-USB adapter.
- **Data ports:** Can connect to a server, workstation, or router using a Category 5/5e/6/6a cable for copper modules and LC fiber cables for optical modules.

## Available and Supported I/O, Bypass, and Tap Modules

The Interface Masters Technology Tahoe 8724 Networking Appliance platform supports the modules listed in Table 2.

I/O Modules	
IM13233	I/O module with 8 x 1/10G SFP+
IM13262	I/O module with 2 x 10/25G SFP28
IM13264	I/O module with 2 x 10/40G
IM13266	Double-wide I/O module with 4 x 100 QSFP28 and 24 x 1/10G SFP+

Table 2: Module Part Numbers\*\*



## Replacing a Module



You must power down the system (chassis) completely before you install or remove a module.



### Step 1

- Remove thumb screws



### Step 2

- Pull out old module from chassis



### Step 3

- Reinsert I/O module, and reattach thumb screws.

**Note:** Double-wide modules have a latch on both sides. Also, if needed, use a blank cover to place over an empty bay (slot).

## SFP/SFP+ Support

The Interface Masters Tahoe 8724 Networking Appliance platform supports the following SFP/SFP+ products listed in Table 3.

To ensure optimal connectivity, Interface Masters recommends using:

- Single-mode fiber with single-mode SFPs
- Multi-mode fiber with multi-mode SFPs.
- SFPs in matched pairs (not required but recommended)

Company	Part Number	Comments
Finisar	FTLX8571D3BCL	10G 850nm, SFP+
Finisar	FTLX8571D3BCV	1/10G 850nm, SFP+
Finisar	FTLX1471D3BCL	10G 1310nm, SFP+
Finisar	FTLX1471D3BCV	1/10G 1310nm, SFP+
Finisar	FTLF1436P3BCL	25G 1310nm, SFP28
Avago	AFBR-79EIDZ	40G 850nm, QSFP+
Finisar	FTLC1151RDPL	100G single-mode LC transceiver
Finisar	FTLC9551REPM	100G multi-mode MTP transceiver

Table 3: Supported SFP/SFP+ Products

## Serial Terminal Setting

After connecting the Console port to a computer, use a serial terminal emulator to access the Command Line Interface (CLI). The serial terminal configuration settings are as follows:

Bits per second:	115200 baud	Stop:	1
Data bits:	8	Flow Control:	None
Parity:	None		

## Management Port Information

The IP address for the Management Port can be configured statically using the following commands:

```
Octeon im8724(ram)# setenv serverip <ip_addr>
Octeon im8724(ram)# setenv netmask <netmask_addr>
Octeon im8724(ram)# saveenv
```

## Installing Cavium SDK

The Cavium SDK is available for download from the Cavium Support Portal (<https://support.cavium.com/>) after registering for a Cavium account.

After obtaining the Cavium SDK, install the image with the following commands:

```
tftp 0 <image_name>
bootoctlinux 0 coremask=0xffffffff
```

For any questions or support, please contact: [support@interfacemasters.com](mailto:support@interfacemasters.com) Getting Help

Additional Resources	<p>The following resources are also available for you to obtain additional user documentation, support, or sales information:</p> <ul style="list-style-type: none"> <li>• <a href="mailto:support@interfacemasters.com">support@interfacemasters.com</a></li> <li>• <a href="mailto:sales@interfacemasters.com">sales@interfacemasters.com</a></li> </ul>
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## Loading 'Boot Image' from SD Card

1. Download the latest release of the OCTEON SDK image from IMT's FTP server.

**FTP Server:** <ftp2.interfacemasters.com>

**Username:** *support*

**Password:** *Niagara123!*

2. Transfer the boot image to the provided SD card.
3. Insert the SD card into the slot marked "SD" on the frontside of the T8724 appliance.
4. Connect the provided RJ45 console cable from the user's workstation to the port marked "Console" on the frontside of the T8724 appliance.
5. Open any terminal emulator application (i.e. Putty) from the user's workstation.

**Baud rate:** 115200

**Data:** 8-bit

**Parity:** None

**Stop:** 1-bit

**Flow Control:** None

6. Apply power to the T8724 appliance.
7. After the bootup process has completed, enter the following commands in the terminal:

```
fatls mmc 1
```

```
fatload mmc 1 0 <full binary name>
```

```
bootoctlinux 0 coremask=0xffffffff
```

8. The unit will begin to boot from the latest SDK image

Again, for any questions or support, please contact: [support@interfacemasters.com](mailto:support@interfacemasters.com) Getting Help

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