

UNCLASSIFIED

**IDENTIFICATION OF VOLATILE  
AND NON-VOLATILE STORAGE  
AND  
SANITIZATION OF SYSTEM  
COMPONENTS**

**JUNIPER NETWORKS  
QFX5110-48S**

**REVISION 1.0  
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## **1 INTRODUCTION**

### **1.1 Purpose**

The purpose of this document is to provide direction to identify and remove all non-volatile (NV) storage from the Juniper Networks QFX5110-48S platform. Non-Volatile (NV) storage is a system memory that can store user data information and system configuration data even when system not powered. Volatile (V) storage is a system memory that only retains data or its contents while system powered but when system powered off or interrupted, its data or contents are immediately lost.

### **1.2 Scope**

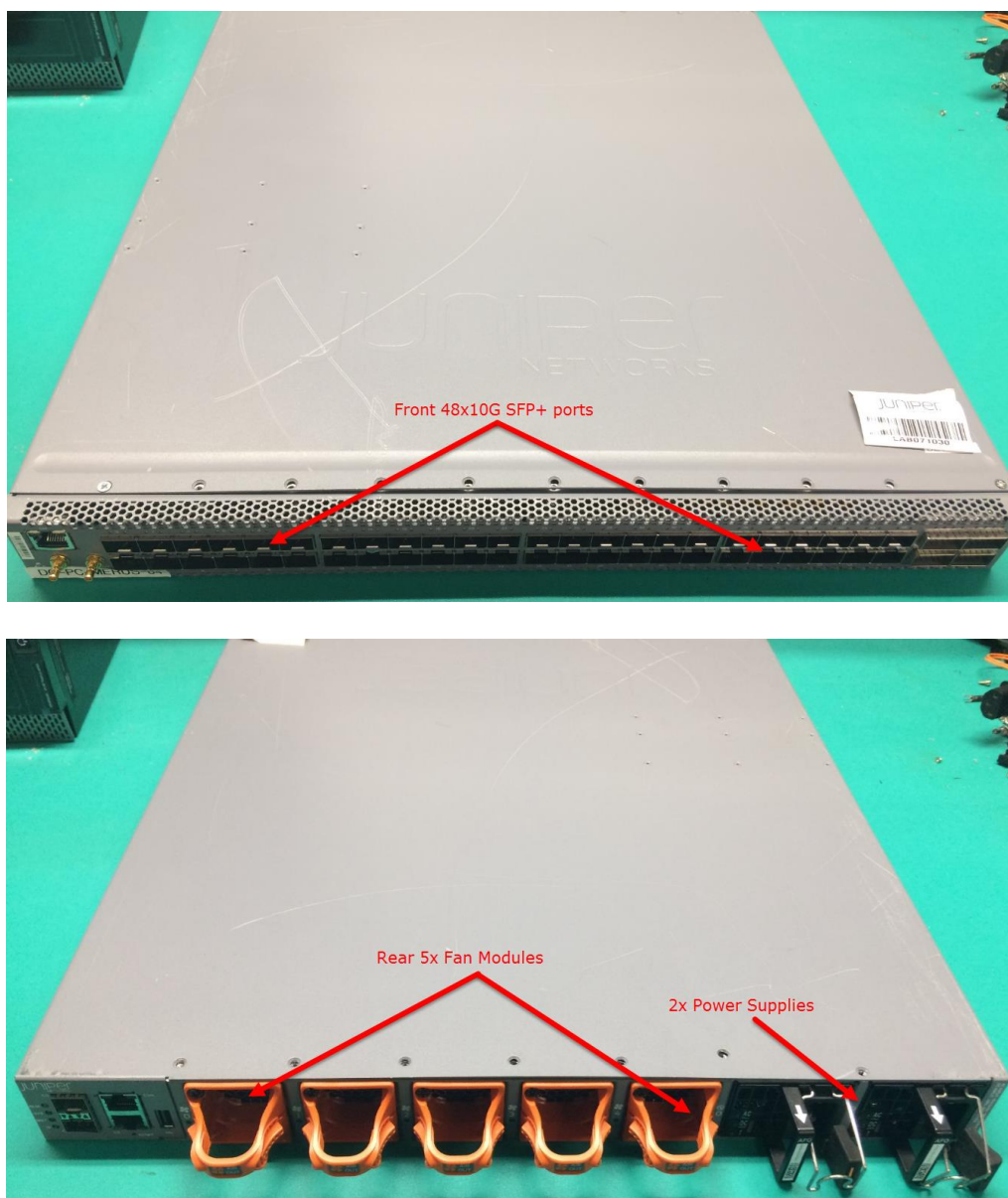
This document only addresses the QFX5110-48S platform. While other platforms offered by Juniper Networks may contain similar hardware components, this document only applies to these devices. Furthermore, this document only provides direction for the identification and removal of NV storage components. It does not address destruction procedures for those components. As all of the NV storage components used in the QFX5110-48S are commercial off-the-shelf (COTS) components, directions for destruction of those components are left to the governing Department, Agency, or Office.

## **2 EQUIPMENT OVERVIEW**

### **2.1 Identification of Chassis**

QFX5110-48S is a 1RU top of the rack switch provided scalable connectivity for the enterprise market, including branch offices, campus locations, and data centers. The switches run under the JUNOS software, which provides Layer 2 and Layer 3 switching, routing, and security services. The same JUNOS code base that runs on QFX5110-48S switch also runs on all Juniper Networks products.

QFX5110-48S has 40x1G/10G + 4x40G/100G fixed ports. Its configuration is a single PFE that provides 960 GB/s total bandwidth. QFX5110-48S is designed to fit in a standard 19" rack.



**Figure 2-1: QFX5110-48S Chassis**

## **2.2 Description of Field Replaceable Units (FRU)**

The power supply, fan modules, and transceivers are hot-swappable. You can remove and replace them without powering off the system or disrupting system functions.

*None of these components contain NV RAM. All NV RAM is either soldered or installed onto the system boards.*

### 3 POWER DOWN AND REMOVAL OF NON-VOLATILE STORAGE

In order to ensure that no user data or system configurations remain resident on an QFX5110-48S platform, the following steps must be performed:

1. Power must be removed from the system to clear all volatile storage.
2. The NOR Flash and NAND Flash storage devices must be removed from the board.

A detailed process is included in the following sections.

#### 3.1 System Power Down

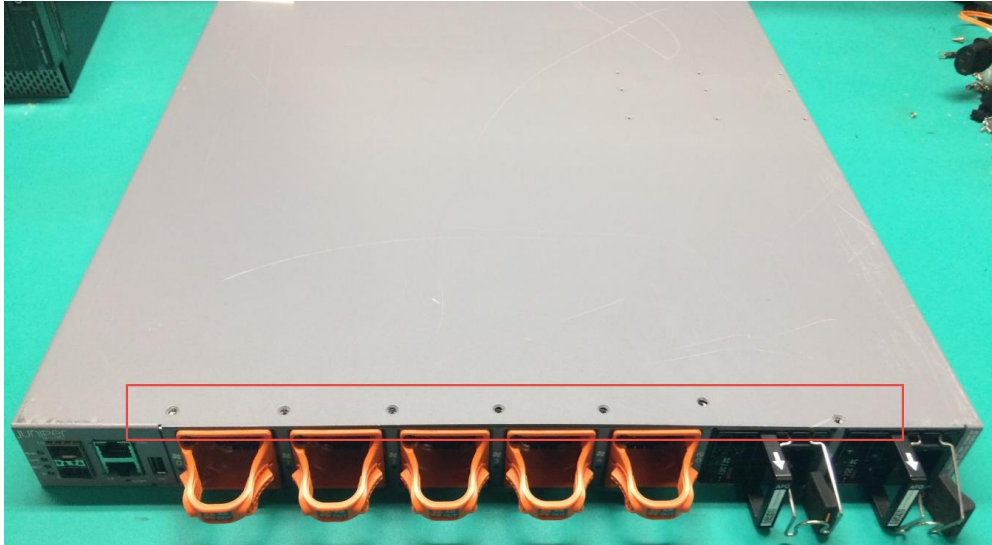
Power down the system by removing any connected power cords from power supply.

#### 3.2 Disassembly of the QFX5110-48S Chassis and Identification of NV storage

The QFX5110-48S contains NV storages that are soldered to the system board. In order to access the memories for removal, refer to the following steps:

1. Remove the power supply from the system.
2. Remove the ear-mounts on both left and right side of the chassis if any.
3. Remove all screws from the top and sides of the system (Figure 3-1)





**Figure 3-1: Top side screws removal**

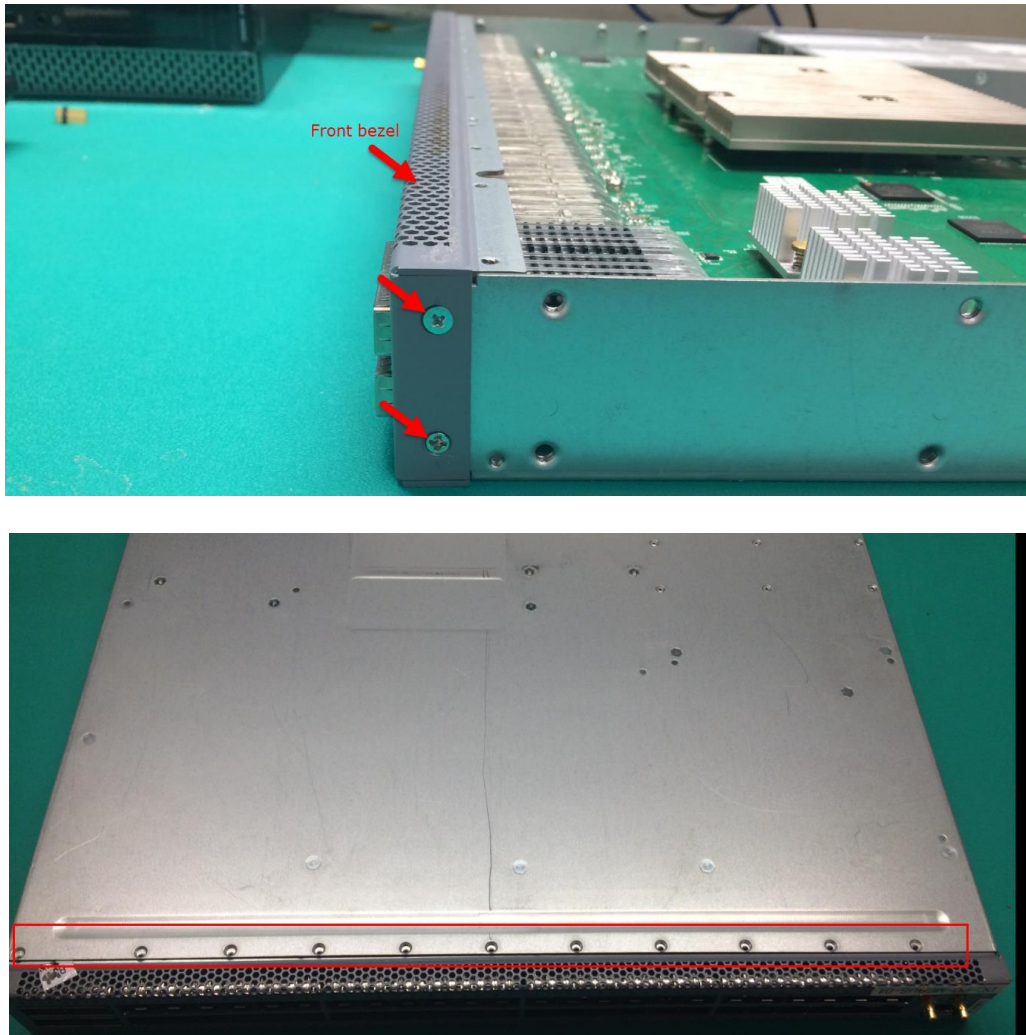
4. Remove all screws from left and right sides of chassis (Figure 3-2)



**Figure 3-2: Left and Right side screws removal**

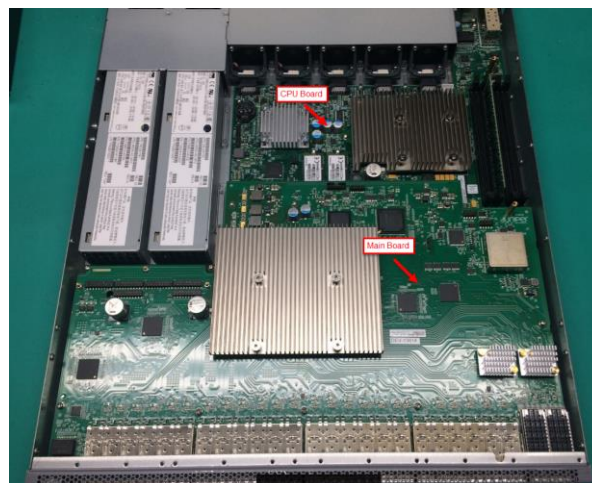
5. After removing the top cover of the chassis, remove the front panel bezel by removing 4 screws from each side and 11 screws from the bottom then pulling it out. (Figure 3-3).

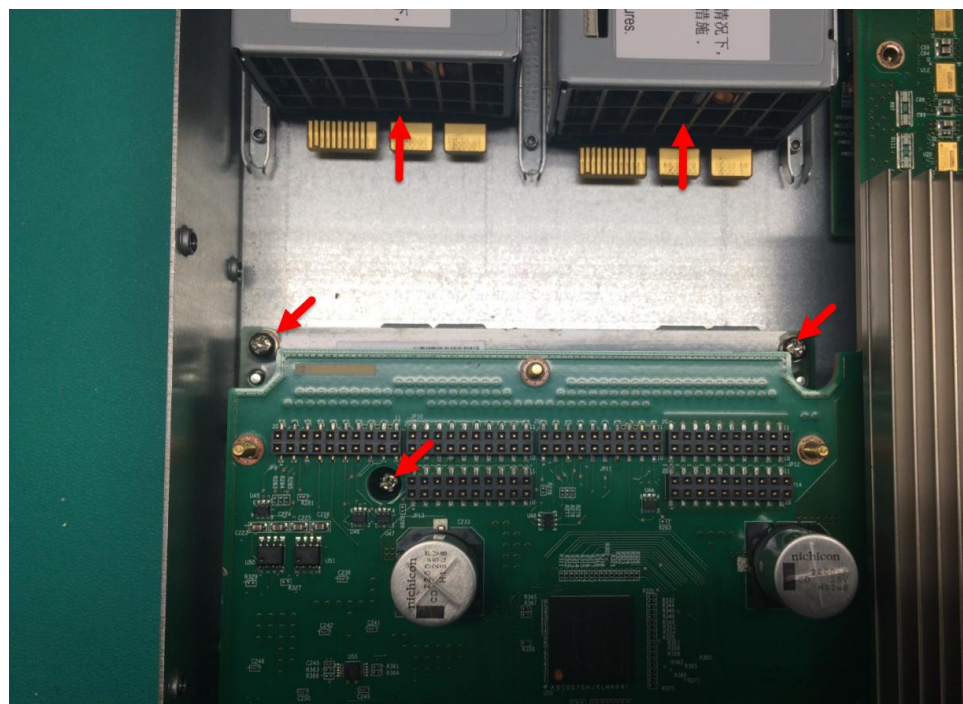
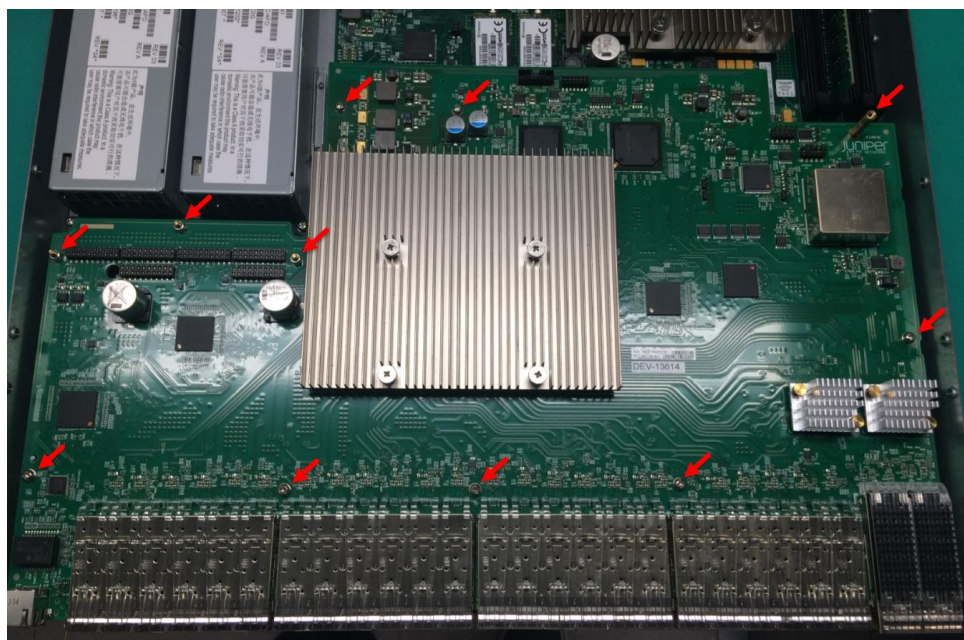




**Figure 3-3: Front bezel removal**

6. Remove the Main board by removing all screws as shown in Figure 3-4.





**Figure 3-4: Main board removal**

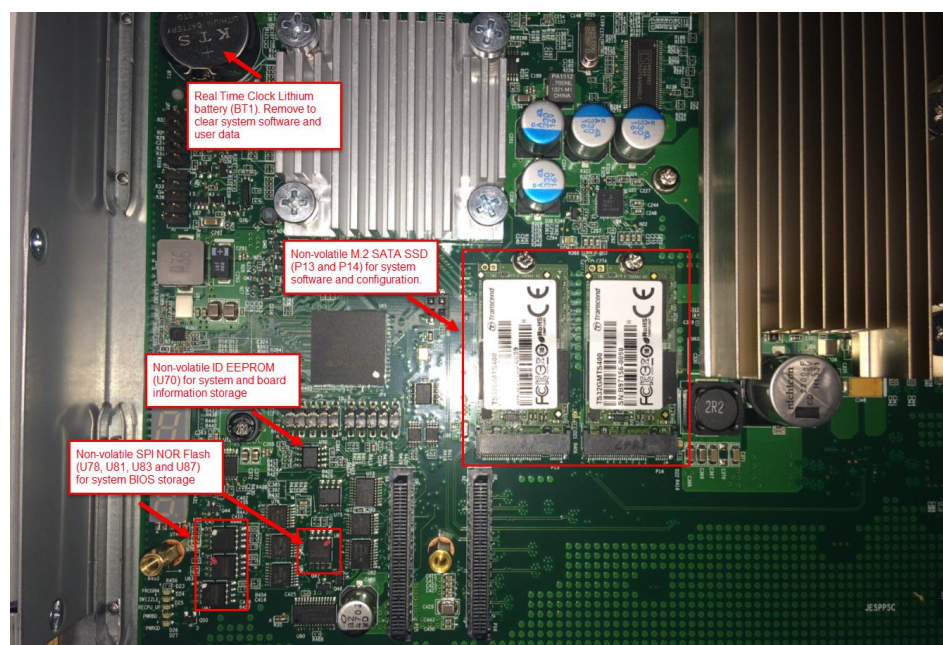
7. Locate NV storage devices on Main board (Figure 3-5).





**Figure 3-5: Locate NV storage devices on Main board**

8. Locate NV storage devices on CPU board (Figure 3-6).



**Figure 3-6: Locate NV storage devices on CPU board**

9. Locate volatile storage devices on CPU board (Figure 3-7).



**Figure 3-7: Locate volatile storage devices on CPU board**

10. Removal of the NOR and NAND Flash devices from the board.

- a. Once the NV storage devices have been located, unsolder these devices from the board.

*NOTE: Before removal, ensure J-TAC and the appropriate account team have been notified of your intentions.*