**Manufacturer:** National Instruments

**Board Assembly Part Numbers** (Refer to Procedure 1 for identification procedure):

| Part Number and Revision | Description |
|---|---|
| **156839A-02L or later** | **cRIO-9063** |

## Volatile Memory

| Target Data | Type | Size | Battery Backup | User[1] Accessible | System Accessible | Sanitization Procedure |
|---|---|---|---|---|---|---|
| System Memory | DRAM | 2 GB | No | Yes | Yes | Cycle Power |
| LabVIEW and User Data | FPGA w/ Block RAM | 560 KB | No | Yes | Yes | Cycle Power |
| CPLD Memory | CPLD | 32 bytes | No | No | Yes | Cycle Power |
| Real-Time Clock Data | RTC | 20 Bytes | Yes | No | Yes | None |

## Non-Volatile Memory (*incl. Media Storage*)

| Target Data | Type | Size | Battery Backup | User Accessible | System Accessible | Sanitization Procedure |
|---|---|---|---|---|---|---|
| CPLD configuration | CPLD | 0.17 MB | No | No | Yes | None |
| Primary storage | FLASH | 512 MB | No | | | |
| • Firmware | | | | No | Yes | None |
| • Operating System | | | | No | Yes | Procedure 2 |
| • User Data | | | | Yes | Yes | Procedure 2 |

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[1] Refer to *Terms and Definitions* section for clarification of *User* and *System Accessible*

## Procedures

**Procedure 1 – Board Assembly Part Number identification:**
To determine the Board Assembly Part Number and Revision, check the top left corner of the white label on the bottom of the module (15xxxx<REV>-xxL).

**Procedure 2 – Primary Storage Flash (OS and User Data):**
The Primary Storage Flash can be reformatted to clear the OS and User Data areas. The format operation is a "quick format" that re-initializes the file table, thereby making the existing files inaccessible. Format the drive for this NI Linux Real-Time target by performing one of the following steps:
1. Right-click the controller in MAX and click on "Format Drive".
2. Issue the nisystemformat command via a serial console local connection or SSH remote connection. Visit ni.com/info and enter the info code *format* for details.
3. Write a .VI that invokes the Format VI using the System Configuration API for the controller.

## Terms and Definitions

**Cycle Power:**
The process of completely removing power from the device and its components and allowing for adequate discharge. This process includes a complete shutdown of the PC and/or chassis containing the device; a reboot is not sufficient for the completion of this process.

**Volatile Memory:**
Requires power to maintain the stored information. When power is removed from this memory, its contents are lost. This type of memory typically contains application specific data such as capture waveforms.

**Non-Volatile Memory:**
Power is not required to maintain the stored information. Device retains its contents when power is removed. This type of memory typically contains information necessary to boot, configure, or calibrate the product or may include device power up states.

**User Accessible:**
The component is read and/or write addressable such that a user can store arbitrary information to the component from the host using a publicly distributed NI tool, such as a Driver API, the System Configuration API, or MAX.

**System Accessible:**
The component is read and/or write addressable from the host without the need to physically alter the product.

**Clearing:**
Per *NIST Special Publication 800-88 Revision 1*, "clearing" is a logical technique to sanitize data in all User Accessible storage locations for protection against simple non-invasive data recovery techniques using the same interface available to the user; typically applied through the standard read and write commands to the storage device.

**Sanitization:**
Per *NIST Special Publication 800-88 Revision 1*, "sanitization" is a process to render access to "Target Data" on the media infeasible for a given level of effort. In this document, clearing is the degree of sanitization described.