

## Manufacturer: NI

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

Part Number and Revision	Description
<b>136467B-01L or later</b>	PXIe-7903

### **Volatile Memory**

			Battery	User <sup>1</sup>	System	Sanitization
Target Data	Туре	Size	Backup	Accessible	Accessible	Procedure
Data storage – Bank 1	DRAM	10 GB	No	Yes	Yes	Cycle Power
Data storage – Bank 2	DRAM	10 GB	No	Yes	Yes	Cycle Power
User FPGA Bitfile Storage	SDRAM	128 MB	No	Yes	Yes	Cycle Power
FPGA Logic	Ultrascale+	VU11P	No	Yes	Yes	Cycle Power
-	FPGA					

# Non-Volatile Memory (incl. Media Storage)

Target Data	Туре	Size	Battery Backup	User Accessible	System Accessible	Sanitization Procedure
Device configuration	Flash	128 MB	No			
Device information				No	Yes	None
• FPGA bitstream				No	Yes	None
• User FPGA bitstream				Yes	Yes	Procedure 2

<sup>&</sup>lt;sup>1</sup> 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, refer to the label applied to the surface of your product. The Assembly Part Number should be formatted as "136467a-01L where "a" is the letter revision of the assembly (e.g. A, B, C...)".

### Procedure 2 – Clear User FPGA Bitstream:

Requirements: LabVIEW 2023 or later and FlexRIO 2023 Q3 or later.

The user FPGA bitstream can be cleared by using the FlexRIO API to erase the user bitstream memory space. To clear the storage through LabVIEW, complete the following steps:

- 1. Create a new VI and drop "Clear User Image.vi" from the FlexRIO API palette.
- 2. Drop the Open FPGA VI Reference onto the diagram, point it to any PXIe-7903 .lvbitx file, and connect it to the Clear User Image VI.
- 3. Drop the Close FPGA VI Reference onto the diagram and connect it to the Clear User Image VI.
- 4. The VI should look like this:



5. Run the VI to clear the user image from flash.



## **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.