

**Manufacturer:** National Instruments

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

Part Number and Revision	Description
141198A-01L or later	NI 9350, 8-CH DI/DO, FUNCTIONAL SAFETY

### Volatile Memory

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User<sup>1</sup> Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
User Program File	FPGA On-chip	79.6KB	No	Yes	Yes	Cycle Power

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

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
Device Configuration	EEPROM	1KB	No	No	Yes	None
Device Status	EEPROM	1KB	No	No	Yes	None
Temperature Sensor	Temperature Sensor On-Chip	72 bit	No	No	Yes	None
User Program File	FPGA On-chip	79.6KB	No	Yes	Yes	Procedure 2
FPGA1 Bitstream	FPGA On-chip	27,696 LE	No	No	Yes	None
FPGA1 Recovery Image	FLASH	16MB	No	No	Yes	None
FPGA2 Bitstream	FPGA On-chip	640 Slices	No	No	Yes	None

<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, check the top left corner of the white label on the bottom of the module (19xxxx-0xL).

### **Procedure 2 – User Program File FPGA**

The User Program File FPGA can be cleared by overwriting the current file a new one. The user program file is updated through the 9350 properties page in the LabVIEW project. To download a new user program file to the 9350, follow the “Downloading User Programs” section of the [C Series Functional Safety Manual](#).

## 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.