

**Manufacturer:** National Instruments

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

Part Number and Revision	Description
143673A-01L or later	SLSC-12101 Prototyping Module

### 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>
None	-	-	-	-	-	-

### 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>
User CPLD image	Flash	27k	No	Yes	No	Procedure 2
Identification and user data	Flash	1 MB	No	Yes	Yes	Procedure 3

<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, look for a marking between Bank 3 and RTI prototyping areas. The Assembly Part Number should be formatted as “P/N: 143673A-01L”.

### **Procedure 2 – User CPLD Image:**

To clear the user CPLD image, plug Altera’s USB Blaster into the JTAG header of the board, and then use Altera’s Quartus 2 programmer software to detect the device and erase it. Refer to Altera’s Quartus 2 manual and NI’s SLSC-12101 manual for more details.

### **Procedure 3 – Identification and User Data Flash:**

The entire range of the Identification and User Data Flash is user-accessible. To clear its contents, overwrite each sector with 1’s (or pattern of your choice) using the SLSC API in LabVIEW. For an example, refer to the Write NVMEM VI installed with by SLSC driver at "<LabVIEW Directory> \examples\SLSC\Write NVMEM.vi".

- Use the Initialize Session VI from the SLSC palette to start an NVMEM Area session.
- Generate an array of 0xFF bytes which should be the same size of the memory you want to erase.
- Connect this array as the “data” input of a Set NVMEM Bytes VI, use 0 as the data address.
- Commit the NVMEM Area with the Commit VI
- Close the session after done

## 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.