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**FD-11613**

**Manufacturer:** National Instruments

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

Part Number and Revision	Description
145229A-01L or later	FD-11613, MINI THERMOCOUPLE DEVICE
145229A-02L or later	FD-11614, MINI THERMOCOUPLE DEVICE, 16CH

### 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>
System Memory	DRAM	2 GB	No	No	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>
System Flash	Flash	2 GB	No			
<ul style="list-style-type: none"> <li>• Firmware</li> <li>• User Configuration</li> </ul>				No Yes	Yes Yes	None Procedure 2
Cartridge Controller Flash	Flash	1 MB	No	No	Yes	None
<ul style="list-style-type: none"> <li>• Firmware and Identification</li> </ul>						
Bank 1 EEPROM	EEPROM	1 KB	No	Yes	Yes	Procedure 3
<ul style="list-style-type: none"> <li>• Module Identification</li> <li>• Calibration Data</li> </ul>						
Bank 2 EEPROM	EEPROM	1 KB	No	Yes	Yes	Procedure 3
<ul style="list-style-type: none"> <li>• Module Identification</li> <li>• Calibration Data</li> </ul>						

<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 on the back of your product. The Assembly Part Number should be formatted as P/N: #####X-##L, where X is the revision letter.

### Procedure 2 – System Flash User Configuration

To reset device configuration to defaults, you will need to perform a device-reset procedure.

1. Unplug the device from power.
2. Connect an Ethernet cable from port one to port two of the device to reset (creating a loop between the two Ethernet ports of the device).
3. Connect power back into the device.
4. Wait until the STATUS LED in the device starts blinking RED.
5. Unplug from power and remove the Ethernet loop cable.

### Procedure 3 - Bank 1 Storage

User accessibility of the EEPROM is exposed through an external calibration Applications Programming Interface (API) in LabVIEW. For instructions on how to clear user data on the EEPROM, go to [www.ni.com/info](http://www.ni.com/info) and enter info code *exs833*.

## 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.