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USB-5681

Manufacturer: National Instruments

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

Part Number and Revision	Description
199764A-01 or later	USB-5681, RF Power Sensor 10 MHz-18 GHz

Volatile Memory

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User¹ Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
Waveform Data	SDRAM	32 MB	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>
Microcontroller Firmware	FLASH	512 KB	No	No	Yes	None
Device configuration	FLASH	4 MB	No			
<ul style="list-style-type: none"> • Calibration Data² • Calibration Metadata • Device configuration and info 				No Yes No	Yes Yes Yes	None Procedure 2 None

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

² Calibration constants that are stored on the device include information for the device's full operating range. Any implications resulting from partial self-calibration can be eliminated by running the full self-calibration procedure.

Sanitization 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 “199764#-01” where “#” is the letter module revision. This number is typically found on the same label as the device serial number.

Procedure 2 – Device Configuration Flash (Calibration Metadata):

The user-accessible areas of the Device Configuration Flash are exposed through a calibration Applications Programming Interface (API). To clear the calibration metadata area, complete the following steps in the NI568x Soft Front Panel.

1. Clearing user data from memory can be accomplished by using the secure mode option in the NI568x Soft Front Panel.
2. With the power sensor connected, open the NI568x Soft Front Panel and click the ‘Settings’ icon.
3. Click ‘Secure Mode’ in the drop-down menu. A warning dialog will appear asking to continue erasing the device. Click ‘yes’.
4. Shut down and restart the NI568x Soft Front Panel.

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.