#### **COMPREHENSIVE SERVICES**

We offer competitive repair and calibration services, as well as easily accessible documentation and free downloadable resources.

#### SELL YOUR SURPLUS

We buy new, used, decommissioned, and surplus parts from every NI series. We work out the best solution to suit your individual needs. We Sell For Cash We Get Credit We Receive a Trade-In Deal

**OBSOLETE NI HARDWARE IN STOCK & READY TO SHIP** 

We stock New, New Surplus, Refurbished, and Reconditioned NI Hardware.

APEX WAVES

**Bridging the gap** between the manufacturer and your legacy test system.

1-800-915-6216
www.apexwaves.com
sales@apexwaves.com

All trademarks, brands, and brand names are the property of their respective owners.

Request a Quote CLICK HERE NI-7932



## Manufacturer: National Instruments

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

Part Number and Revision	Description
157752A-0xL or later	NI-7931R, NI-7932R, and NI-7935R

## **Volatile Memory**

		Battery	User <sup>1</sup>	System	Sanitization
Туре	Size	Backup	Accessible	Accessible	Procedure
CPU DRAM	512 MB	No	Yes	Yes	Cycle Power
Zynq Block	560 Kb	No	No	No	Cycle Power
RAM					
Kintex-7 Block	16,020Kb or	No	Yes	Yes	Cycle Power
RAM	28,620Kb				
FPGA DRAM	2 GB	No	Yes	Yes	Cycle Power
CPLD	32 B	No	No	Yes	Cycle Power
RTC	20 B	Yes	No	Yes	Procedure 2
	CPU DRAM Zynq Block RAM Kintex-7 Block RAM FPGA DRAM CPLD	CPU DRAM512 MBZynq Block560 KbRAM560 KbRAM28,620KbFPGA DRAM2 GBCPLD32 B	TypeSizeBackupCPU DRAM512 MBNoZynq Block560 KbNoRAMKintex-7 Block16,020Kb orRAM28,620KbNoFPGA DRAM2 GBNoCPLD32 BNo	TypeSizeBackupAccessibleCPU DRAM512 MBNoYesZynq Block560 KbNoNoRAM16,020Kb orNoYesRAM28,620KbYesYesFPGA DRAM2 GBNoYesCPLD32 BNoNo	TypeSizeBackupAccessibleAccessibleCPU DRAM512 MBNoYesYesZynq Block560 KbNoNoNoRAMKintex-7 Block16,020Kb orNoYesRAM28,620KbYesYesYesFPGA DRAM2 GBNoYesYesCPLD32 BNoNoYes

# Non-Volatile Memory (incl. Media Storage)

Target Data	Туре	Size	Battery Backup	User Accessible	System Accessible	Sanitization Procedure
Operating System constants	EEPROM	2Kb	No	No	Yes	None
Board revision, clocking and	EEPROM	2Kb	No	No	Yes	None
voltage constants						
CPLD configuration	CPLD	0.17 MB	No	No	No	None
Operating System Storage	Flash	512 MB	No			Procedure 3
Device Firmware				No	Yes	
Operating System				Yes	Yes	
• User Data				Yes	Yes	
User FPGA Bitfile	Flash	512 MB	No	Yes	Yes	Procedure 3

<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 bottom surface of your product. The Assembly Part Number should be formatted as "P/N: #####a-##L.

### **Procedure 2 – Time-Keeping RTC:**

To clear the battery-backed Time-Keeping RTC, complete the following steps:

- 1. Remove the battery
- 2. Unplug master power for at least 5 minutes

#### Procedure 3 – Operating System Storage Flash & User FPGA Bitfile:

To clear the Operating System Storage Flash and the User FPGA Bitfile, complete the following steps:

- 1. Connect to your NI-793XR as outlined in the NI-793XR Getting Started Guide
- 2. Open NI MAX
- 3. Find and select your NI-793XR device under "Remote Systems"
- 4. Click on the "Update Firmware" button and choose a default firmware image to re-flash the entire Operating System Storage Flash and User FPGA Bitfile memory to a default, factory state.



## **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.