

Board Assembly Part Number(s)

Part Number	Description
194495C-01L or later	NI PXIe-6672

Manufacturer: National Instruments

Volatile Memory

Type ¹	Size	User Accessible/ System Accessible ²	Battery Backup?	Purpose	Method of Clearing ³
FPGA	N/A	Yes/No	No	Board Control Registers	Power Cycle
CPLD	N/A	Yes/No (CPLD has control registers)	No	PXI Star Triggers	Power Cycle

Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
EEPROM	64Kbit	No/No	No	ASIC configuration	None Available to User
EEPROM	2Kbit	Yes/No	No	Calibration Constants	Refer to Clearing Notes

Media Storage

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
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NONE

¹ Calibration constants that are stored in device EEPROMs include information for the device's full operating range. Calibration constants do not maintain any unique data for specific configurations at which the device is used unless otherwise specified.

² Items are designated **No** for the following reason(s):

- a) Hardware changes or a unique software tool from National Instruments are required to modify contents of the memory listed.
- b) Hardware-modifying software tools are not distributed to customers for any personal access or customization, also known as non-normal use.

³ The designation *None Available to User* indicates that the ability to clear this memory is not available to the user under normal operation. The utilities required to clear the memory are not distributed by National Instruments to customers for normal use.

Clearing Notes:

The calibration constants that are user-accessible are the calibration password, oscillator voltage, Clk10 phase voltage, and DDS start pulse phase voltage. These user-defined constants can be changed by completing the following steps in LabVIEW:

1. From the Functions palette, select **Measurement I/O»NI-Sync»Calibration** and place down niSync Initialize External Calibration.
2. Wire your device's resource name and current password to this VI.
3. Place the VIs used to change the calibration constants on the block diagram:
 - a. From the **NI-Sync»Calibration** palette, select niSync Adjust Oscillator Voltage, niSync Adjust Clk10 Phase Voltage, and niSync Adjust DDS Start Pulse Phase Voltage.
 - b. From the **NI-Sync»Calibration»Utility** palette, select niSync Change External Calibration Password.
4. Wire the **instrument handle** and **error out** returned from niSync Initialize External Calibration through each of the VIs placed down in step 3.
5. Create an empty string constant. Type **NI**, and wire this to the **new password** input of niSync Change External Calibration Password. Also wire your device's current password to the **old password** input.
6. From the Functions palette, select **Measurement I/O»NI-Sync»Calibration** and place down niSync Close External Calibration.
7. Close the instrument handle by connecting it to the **instrument handle** input of niSync Close External Calibration.
8. Right-click on the action input of niSync Close External Calibration and select **Commit**.
9. Run the VI.

You can use the functions available at **NI-Sync»Calibration»Utility** to read back the calibration constants after running the above code to verify they have been reset.

Terms and Definitions

User Accessible Allows the user to directly write or modify the contents of the memory during normal instrument operation.

System Accessible Does not allow the user to access or modify the memory during normal instrument operation. However, system accessible memory may be accessed or modified by background processes. This can be something that is not deliberate by the user and can be a background driver implementation, such as storing application information in RAM to increase speed of use.

Cycle Power The process of completely removing power from the device and its components. 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.

Non-Volatile Retains its contents when power is removed. This type of memory typically contains calibration or chip configuration information, such as power up states.