

**Board Assembly Part Number(s)**

Part Number	Description
156336B-01L or later	NI PXIe-7820R
156336B-02L or later	NI PXIe-7821R
156336B-03L or later	NI PXIe-7822R

**Manufacturer:** National Instruments

**Volatile Memory**

Type	Size	User Accessible/ System Accessible <sup>1</sup>	Battery Backup?	Purpose	Method of Clearing <sup>2</sup>
<b>(7820R/7821R)</b>					
FPGA Block RAM	11,700 KB	Yes/Yes	No	Data storage during VI Execution	Cycle Power
<b>(7822R)</b>					
FPGA Block RAM	16,020 KB	Yes/Yes	No	Data storage during VI Execution	Cycle Power
<b>(7821R/7822R)</b>					
DRAM	512MB	Yes/Yes	No	Onboard Memory Storage	Cycle Power

**Non-Volatile Memory**

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
<b>(7820R/7821R)</b>					
Flash	64 Mb				
- Firmware		No/Yes	No	FPGA Firmware	None available to user
-FPGA Bitstream		Yes/Yes	No	User LV FPGA VI Bitstream	NI-RIO Device Setup
<b>(7822R)</b>					
Flash	128 Mb				
- Firmware		No/Yes	No	FPGA Firmware	None available to user
-FPGA Bitstream		Yes/Yes	No	User LV FPGA VI Bitstream	NI-RIO Device Setup

**Media Storage**

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

**Terms and Definitions**

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

<sup>1</sup> Items are designated **No** for the following reason(s):

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

<sup>2</sup> 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.

**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.