

Board Assembly	Part Number(s)
Part Number	Description
191428B-01	NI VXI-USB
191428C-01	NI VXI-USB
191428D-01	NI VXI-USB

**Manufacturer:** National Instruments

### Volatile Memory

Type <sup>1</sup>	Size	User Accessible/ System Accessible <sup>2</sup>	Battery Backup?	Purpose	Method of Clearing <sup>3</sup>
<i>MANTIS (x2)</i>	<i>512 bytes</i>	<i>Yes/Yes</i>	<i>No</i>	<i>VXI configuration registers</i>	<i>Cycle Power</i>
<i>MITE FPGA</i>	<i>1,944,576 bits</i>	<i>Yes/Yes</i>	<i>No</i>	<i>VXI configuration memory</i>	<i>Cycle Power</i>
<i>MITE FPGA</i>	<i>25,660 LogicCells</i>	<i>Yes/Yes</i>	<i>No</i>	<i>VXI configuration registers</i>	<i>Cycle Power</i>
<i>uController</i>	<i>16 KB</i>	<i>No/Yes</i>	<i>No</i>	<i>Execution memory &amp; control registers</i>	<i>Cycle Power</i>
<i>SRAM</i>	<i>128 KB</i>	<i>No/Yes</i>	<i>No</i>	<i>Data &amp; Controller memory</i>	<i>Cycle Power</i>
<i>Hub Controller</i>	<i>unknown</i>	<i>No/No</i>	<i>No</i>	<i>Transaction Translator RAM for USB ports &amp; configuration registers</i>	<i>Cycle Power</i>

### Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
<i>EEPROM</i>	<i>64 KB</i>	<i>No/Yes</i>	<i>No</i>	<i>USB controller firmware</i>	<i>None available to user</i>
<i>EEPROM</i>	<i>256 bytes</i>	<i>No/No</i>	<i>No</i>	<i>USB HUB configuration data</i>	<i>None available to user</i>
<i>FLASH</i>	<i>2 MB</i>	<i>No/Yes</i>	<i>No</i>	<i>FPGA configuration data</i>	<i>None available to user</i>
<i>CPLD</i>	<i>512 MacroCells</i>	<i>No/Yes</i>	<i>No</i>	<i>FPGA loader interface</i>	<i>None available to user</i>

<sup>1</sup> 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.

<sup>2</sup> 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.

<sup>3</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.

**Media Storage**

<b>Type</b>	<b>Size</b>	<b>User Accessible/ System Accessible</b>	<b>Battery Backup?</b>	<b>Purpose</b>	<b>Method of Clearing</b>
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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.

**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.