

## Board Assembly Part Number(s)

Part Number	Description
150303E-912L and all previous letter revisions (where E is the revision number)	NI PXI-8109

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>
DDR3	2+ GB	Yes/Yes	No	Controller RAM	Cycle Power
CMOS	256 B	Yes/Yes	Yes	ICH9 Chipset CMOS	Remove CMOS battery

## Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
EEPROM	2 Kbit	No/No	No	GPIO configuration	None Available to User
EPROM	n/a	No/No	No	Clock configuration	None Available to User
Flash	32 MBit	Yes/Yes	No	Gbit Ethernet / Management Engine	None Available to User
Flash	32 MBit	Yes/Yes	No	BIOS configuration	Factory reset in BIOS
CPLD	192 MacroCells	No/No	No	Trigger routing/power sequencing	None Available to User
CPLD	512 MacroCells	No/No	No	Power management/ trigger routing/watchdog	None Available to User

## Media Storage

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
Hard Drive	80+ GB	Yes/Yes	No	Primary Disk Drive	Remove from controller <sup>4</sup>

<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 perform this action are not distributed by National Instruments to customers for normal use.

<sup>4</sup> Since a hard drive cannot be cleared, to declassify a system containing a PXI embedded controller, the controller's hard drive must be removed as part of the declassification procedure. This can be done by removing the controller from the system or removing the hard drive from the controller during declassification. Alternatively, the hard drive can be permanently removed from the controller and a CompactPCI (cPCI) hard drive carrier/interface can be used to provide an easily-removable, bootable hard drive.

## 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.