

Board Assembly Part Number(s)

Part Number	Description
196576E-712L and all previous letter revisions (where E is the revision number)	NI PXI-8102

Manufacturer: National Instruments

Volatile Memory

Type ¹	Size	User Accessible/ System Accessible ²	Battery Backup?	Purpose	Method of Clearing ³
DDR2	2+GB	Yes/Yes	No	Controller RAM	Power Down
CMOS	256B	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	1 Kbit	No/No	No	GPIO configuration	Utility ⁴
Flash	(x2) 16 MBit	Yes/No	No	BIOS configuration	Factory reset in BIOS
CPLD	512MacroCells	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 ⁵

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.

⁴ Utility for clearing available through National Instruments by request.

⁵ 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.