

Board Assembly Part Number(s)

Part Number	Description
150262C-01L or later	NI WSN-3214
150262C-04L or later	NI WSN-3214 (Programmable)

Manufacturer: National Instruments

Volatile Memory

Type ¹	Size	User Accessible/ System Accessible ²	Battery Backup?	Purpose	Method of Clearing ³
Microcontroller	16 KB	Yes/Yes	No	Waveform Data, User Data, Settings	Cycle power
FPGA/CPLD	4.5 KB	No/Yes	No	Waveform Data, User Data	Cycle Power
SRAM	2 MB	Yes/Yes	No	Waveform Data, User Data	Cycle Power
Radio	5 KB	No/Yes	No	Radio Buffer	Cycle Power

Non-Volatile Memory

Type	Size	User Accessible/ System Accessible	Battery Backup?	Purpose	Method of Clearing
Flash	1 MB	Yes/Yes	No	Firmware, Calibration, Settings, User Data	See Notes
FPGA/CPLD	6144 VersaTiles	No/Yes	No	Digital Logic	None available to user
Microcontroller	256 KB + 512 B	No/Yes	No	Firmware, Bootstrap	None available to user
Radio	128 KB	No/Yes	No	Radio Firmware, Calibration	None available to user

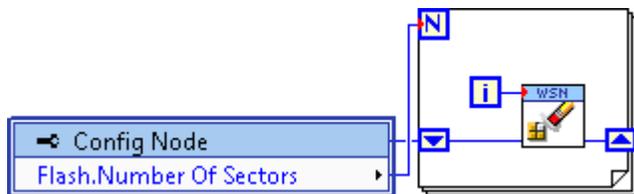
Media Storage

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

Clearing Notes:

Flash: The flash on the node contains radio firmware, factory default msp430 firmware, user created firmware, settings, device state, and user data. Only the user data can be cleared through a LabVIEW WSN VI running on the device by calling the Erase Sector VI for each sector containing user data such as in the example below. Other sectors of the flash may retain information about the number of remaining erase cycles for each sector of user memory which cannot be cleared by the user. No other section of the flash is clearable by the user.



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.

¹ Calibration constants that are stored in device Flash 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.