



NATIONAL INSTRUMENTS USB-6210 Multifunction Device Instruction Manual

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NATIONAL INSTRUMENTS PXIe-7902 Ethernet Test Solution



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PXIe-7902

Manufacturer

National Instruments

Board Assembly Part Numbers

(Refer to Procedure 1 for identification procedure):

Part Number and Revision	Description
194710A-04 or later	USB-6210
194710A-03 or later	USB-6211
196203A-03L or later	USB-6211 OEM
197493A-03L or later	USB-6212
198402A-03L or later	USB-6212 MASS TERMINATION
190630A-01L or later	USB-6212 BNC
197504A-03L or later	USB-6212 OEM
194710A-02 or later	USB-6215
197493A-01L or later	USB-6216
198402A-01L or later	USB-6216 MASS TERMINATION
190631A-01L or later	USB-6216 BNC
197504A-01L or later	USB-6216 OEM
194710A-01 or later	USB-6218
190632A-01L or later	USB-6218 BNC
196203A-01L or later	USB-6218 OEM

Volatile Memory

<i>Target Data</i>	<i>Type</i>	<i>Size</i>	<i>Battery Backup</i>	<i>User¹ Accessible</i>	<i>System Accessible</i>	<i>Sanitization Procedure</i>
Glue logic	FPGA 1	Altera EP1C3	No	No	Yes	Cycle Power
Glue logic	FPGA 2	Xilinx XC3S500E	No	No	Yes	Cycle Power
Program Code	SRAM	128 KB	No	No	Yes	Cycle Power

Non-Volatile Memory (incl. Media Storage)

Target Data	Type	Size	Battery Backup	User Accessible	System Accessible	Sanitization Procedure
Device configuration <ul style="list-style-type: none"> • Device information • Calibration metadata² • Calibration data 	EEPROM	2 KB	No	No Yes No	Yes Yes Yes	None Procedure 2 None

1 Refer to Terms and Definitions section for clarification of User and System Accessible

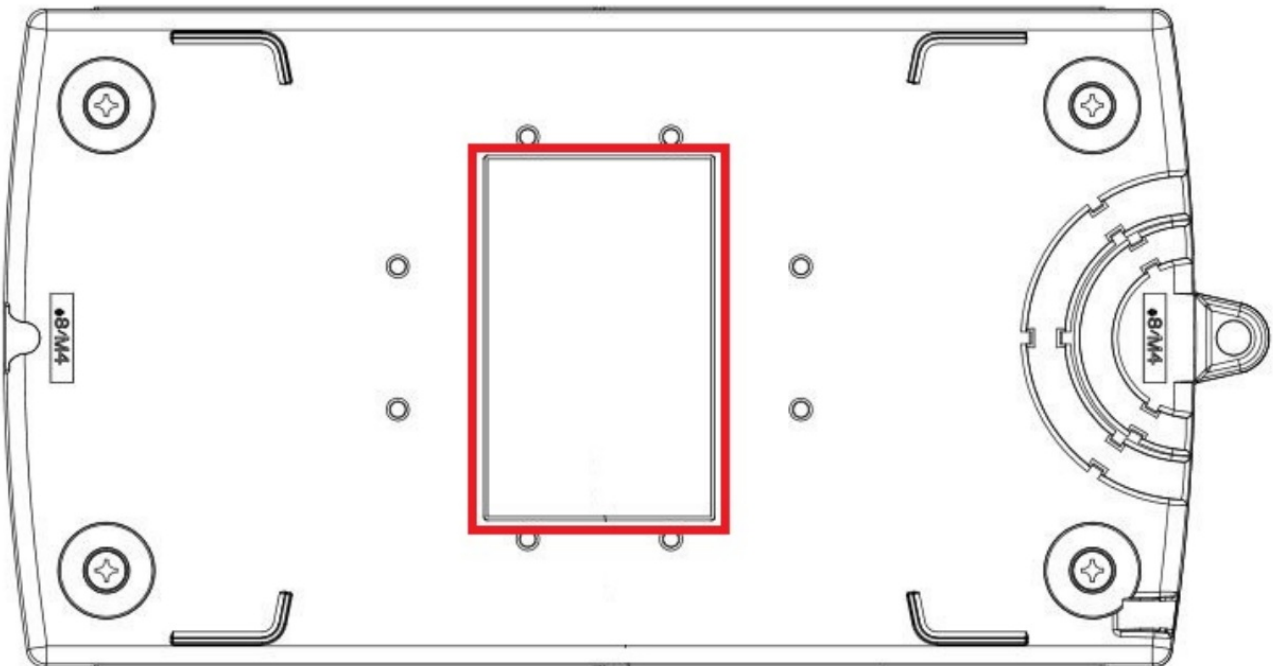
2 Calibration constants that are stored on the device include information for the device's full operating range. Any implications resulting from partial self-calibration can be eliminated by running the full self-calibration procedure.

Procedures

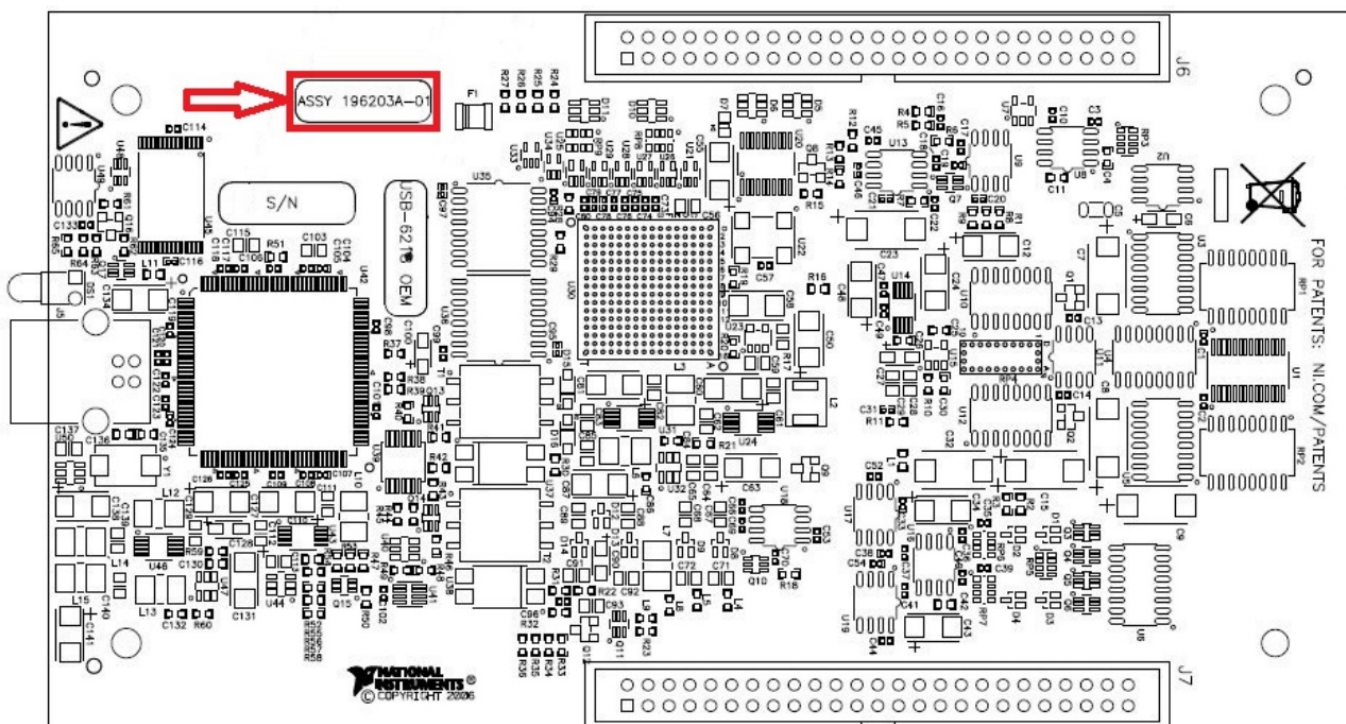
Procedure 1 –Board Assembly Part Number Identification:

To determine the Board Assembly Part Number and Revision, refer to the “P/N” label applied to the surface of your product as shown below. The Assembly Part Number should be formatted as “P/N: #####a-vvL” where “a” is the letter revision of the Board Assembly (eg. A, B, C...) and the “vv” is the type identifier. If the product is RoHS compliant, “L” can be found at the end of the part number.

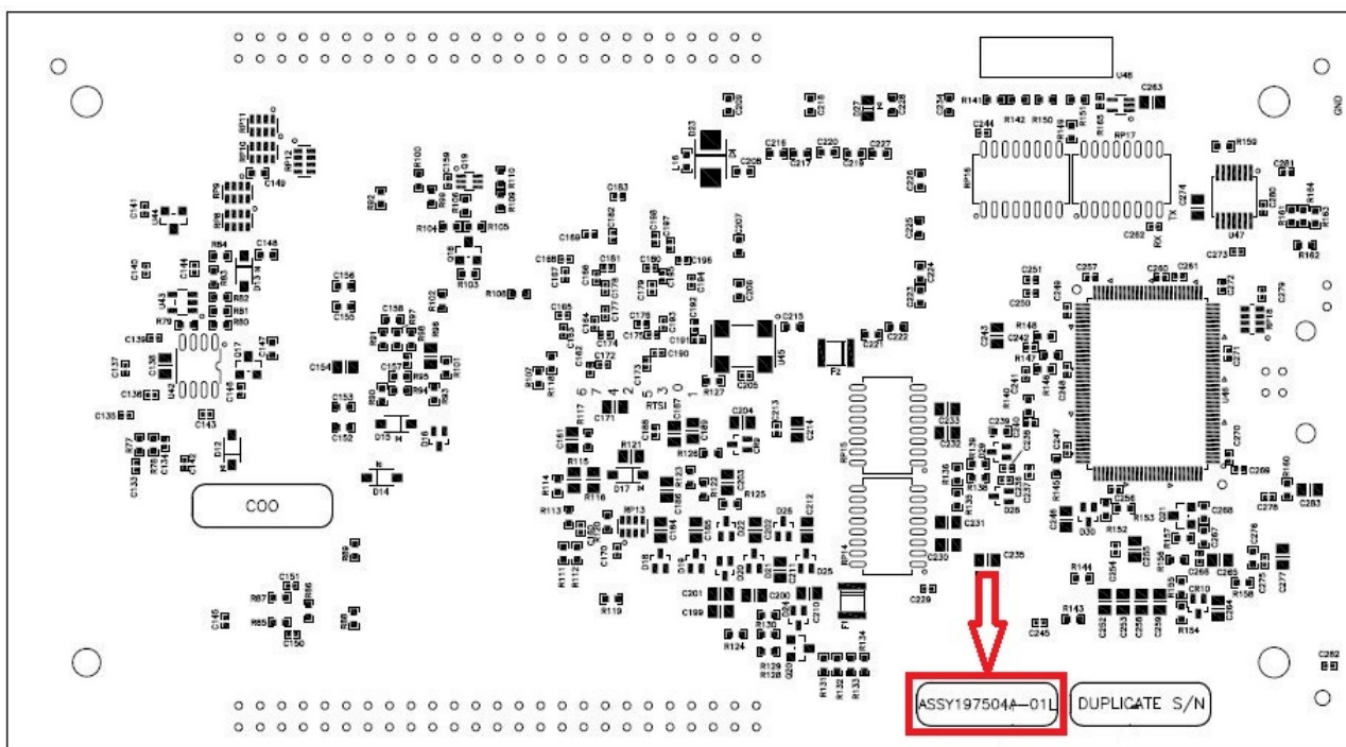
USB-6210/6211/6212/6215/6216/6218/6212 MASS TERMINATION/6216 MASS TERMINATION – Label can be found on the bottom of the enclosure.



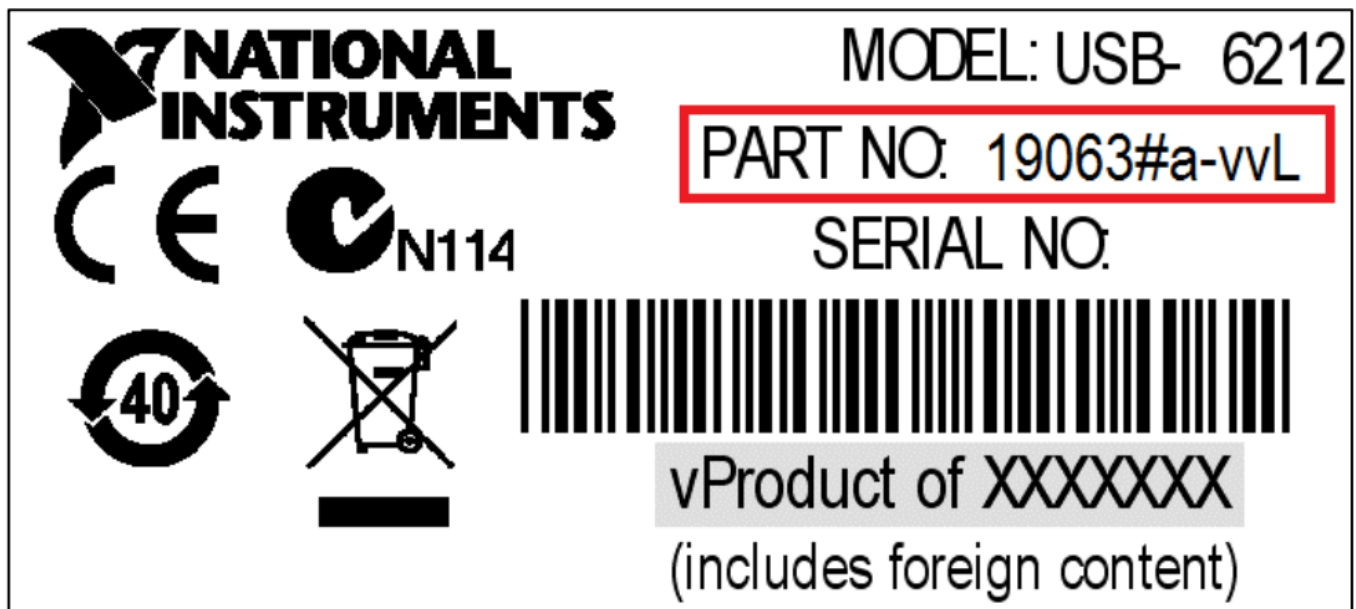
USB-6211 OEM/6218 OEM – Primary Side



USB-6212 OEM/6216 OEM – Secondary Side



USB-6212 BNC/6216 BNC/6218 BNC – Label can be found on the bottom of the enclosure.



Procedure 2 – Device Configuration EEPROM (Calibration Metadata):

The user-accessible areas of the Device Configuration EEPROM are exposed through a calibration Applications Programming Interface (API) in LabVIEW. To clear the Calibration Metadata area, complete the following steps:

1. To clear the calibration password, use the DAQmx Change External Calibration Password.vi to overwrite the current password of the device you wish to clear.
2. The user-accessible area of the Device Configuration EEPROM can be cleared using the NI DAQmx API.
For instructions on how to clear these areas, go to www.ni.com/info and enter info code DAQmxLOV.

Terms and Definitions

Cycle Power:

The process of completely removing power from the device and its components and allowing for adequate discharge. 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.

This type of memory typically contains application specific data such as capture waveforms.

Non-Volatile Memory:

Power is not required to maintain the stored information. Device retains its contents when power is removed.

This type of memory typically contains information necessary to boot, configure, or calibrate the product or may include device power up states.

User Accessible:

The component is read and/or write addressable such that a user can store arbitrary information to the component from the host using a publicly distributed NI tool, such as a Driver API, the System Configuration API, or MAX.

System Accessible:

The component is read and/or write addressable from the host without the need to physically alter the product.

Clearing:

Per NIST Special Publication 800-88 Revision 1, “clearing” is a logical technique to sanitize data in all User Accessible storage locations for protection against simple non-invasive data recovery techniques using the same interface available to the user; typically applied through the standard read and write commands to the storage device.

Sanitization:

Per NIST Special Publication 800-88 Revision 1, “sanitization” is a process to render access to “Target Data” on the media infeasible for a given level of effort. In this document, clearing is the degree of sanitization described.

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Documents / Resources



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USB-6210, USB-6210 Multifunction Device, Multifunction Device, Device

References

- [NI Product Documentation - NI](#)
- [NI Using Info Codes - NI](#)
- [AW USB-6216 National Instruments Multifunction I/O Device | Apex Waves](#)