National Instruments NI 65xx FlexRIO Adapter Modules Instruction Manual

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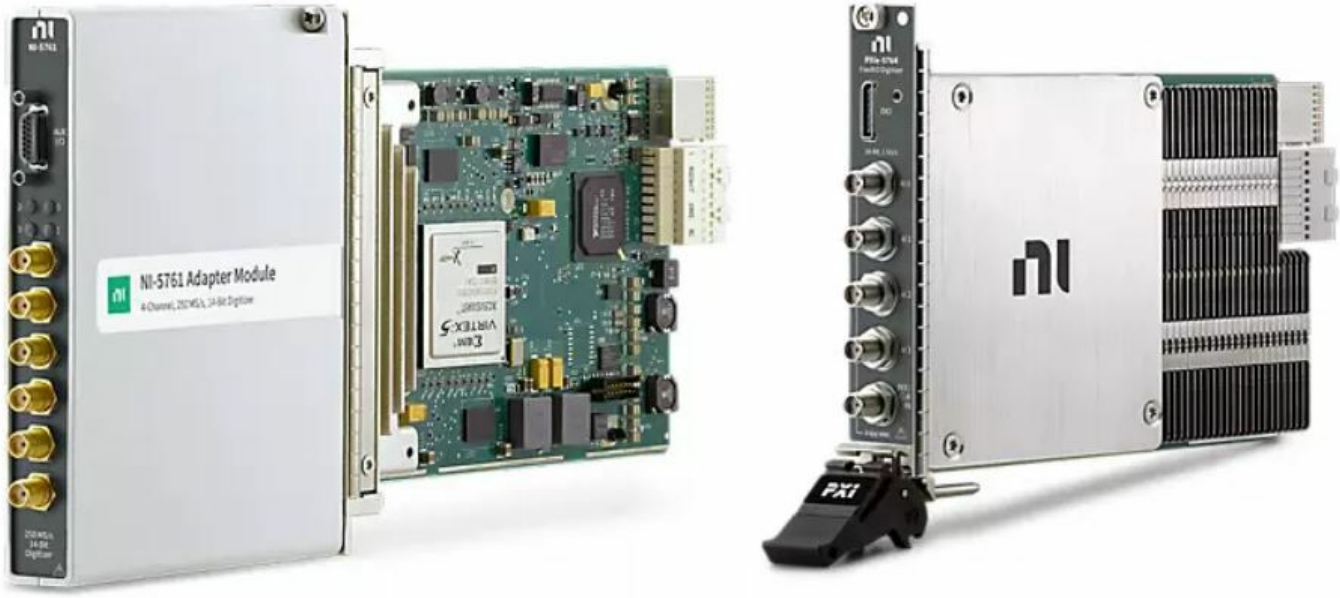

Product Information

The NI-5753 is a digitizer adapter module manufactured by National Instruments. It is part of the NI 1483/57xx/65xx FlexRIO Adapter Modules series. The module is designed to capture waveforms and is compatible with various other adapter modules in the series.
The NI-5753 module has the following board assembly part number and revision:

- **Part Number:** 143234A-0x or later
- **Revision Description:** NI 5753, DIGITIZER ADAPTER MODULE

The module is equipped with volatile memory and non-volatile memory. The volatile memory requires power to maintain stored information, while the non-volatile memory retains its contents even when power is removed.

Product Usage Instructions

To use the NI-5753 digitizer adapter module, follow these steps:

1. Ensure that your PC or chassis containing the module is completely powered off. A simple reboot is not sufficient for the process.
2. Carefully install the NI-5753 digitizer adapter module into the appropriate slot in your system.
3. Make sure that all necessary connections, such as data and power cables, are securely attached to the module.
4. Power on your PC or chassis to provide power to the module.
5. If required, configure the module using the appropriate software provided by National Instruments.
6. You can now use the NI-5753 digitizer adapter module to capture waveforms according to your application requirements.

Note: For further information and support, please refer to the most recent version of the user manual available at ni.com/manuals or contact National Instruments support at 866-275-6964 or support@ni.com.

Manufacturer

National Instruments

Board Assembly Part Numbers (Refer to Procedure 1 for identification procedure):

Part Number and Revision	Description
198812A-01L or later	NI 1483, CAMERA LINK ADAPTER MODULE
151148A-0xL or later	NI 5731/5732/5733/5734, DIGITIZER ADAPTER MODULE
153113A-0xL or later	NI 5741/5742, SIGNAL GENERATOR ADAPTER MODULE
199543A-01L or later 158676A-01L or later	NI 5751/5751B, DC COUPLED DIGITIZER ADAPTER MODULE
199468A-01L or later 158679A-01L or later	NI 5752/5752B, AC COUPLED DIGITIZER ADAPTER MODULE
143234A-0x or later	NI 5753, DIGITIZER ADAPTER MODULE
150937A-0x or later	NI 5761, DIGITIZER ADAPTER MODULE
151727A-0xL or later	NI 5762, DIGITIZER ADAPTER MODULE
195815A-0xL or later	NI 5771, DIGITIZER ADAPTER MODULE
152125A-0xL or later	NI 5772, DIGITIZER ADAPTER MODULE
196496A-01L or later	NI 5781, BASEBAND TRANSCEIVER ADAPTER MODULE
153241A-0x or later	NI 5782, IF TRANSCEIVER ADAPTER MODULE
158183A-0xL or later	NI 5783, BASEBAND TRANSCEIVER ADAPTER MODULE
152888A-01L or later	NI 5791, RF TRANSCEIVER ADAPTER MODULE
152889A-01L or later	NI 5792, RF RECEIVER ADAPTER MODULE
152890A-01L or later	NI 5793, RF TRANSMITTER ADAPTER MODULE
198713A-01L or later 156996A-01L or later	NI 6581/6581B, DIGITAL ADAPTER MODULE
199490A-0xL or later	NI 6583, MIXED LOGIC DIGITAL ADAPTER MODULE
199496A-0xL or later	NI 6584, RS-485/RS-422 DIGITAL ADAPTER MODULE
190687A-01L or later 156999A-0xL or later	NI 6585/6585B, LVDS DIGITAL ADAPTER MODULE
192169A-01L or later	NI 6587, LVDS DIGITAL ADAPTER MODULE
157002A-01L or later	NI 6589, LVDS DIGITAL ADAPTER MODULE

Volatile Memory

			Battery	*User*[1]	*System*	*Sanitization*
Target Data	***Type***	***Size***	***Backup***	***Accessible***	***Accessible***	***Procedure*** None

Non-Volatile Memory (*incl. Media Storage*)						
Target Data	***Type***	***Size***	***Battery Backup***	***User Accessible***	***System Accessible***	***Sanitization Procedure***
Device configuration, Product	EEPROM	2 KB	No	Yes	Yes	Procedure 2
Identification and Configuration						

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

Procedures

Procedure 1 –Board Assembly Part Number Identification:
To determine the Board Assembly Part Number and Revision, refer to the label applied to the surface of your product. The Assembly Part Number should be formatted as “P/N: #####a-##L
Procedure 2 – Device Configuration EEPROM:
The Device Configuration EEPROM and its entire address space are exposed through the FlexRIO Host Interface in LabVIEW. To clear the entire EEPROM, overwrite the entire address space with null values using either the FlexRIO_Host_EEPROMWriteByteArray VI or FlexRIO_Host_EEPROMWrite32 VI.

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. The device retains its contents when power is

removed.

- This type of memory typically contains the 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 about 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 written 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.
- **Notice:** This document is subject to change without notice. For the most recent version, visit.ni.com/manuals.
- **Contact:** 866-275-6964 support@ni.com

Documents / Resources

	National Instruments NI 65xx FlexRIO Adapter Modules [pdf] Instruction Manual NI-5753, NI 5731-5732-5733-5734, NI 5741-5742, NI 5751-5751B, NI 5752-5752B, NI 5753, NI 5761, NI 5762, NI 5771, NI 5772, NI 5781, NI 5782, NI 5783, NI 5791, NI 5792, NI 5793, NI 6581-6581B, NI 6583, NI 6584, NI 6585-6585B, NI 6587, NI 6589, NI 65xx, NI 65xx FlexRIO Adapter Modules, FlexRIO Adapter Modules, Adapter Modules

References

- Product Documentation - NI
- NI-5753 National Instruments Digitizer Adapter Module for FlexRIO | Apex Waves