J7201A/B/C Attenuation Control Units

DC to 6 GHz, DC to 18 GHz, DC to 26.5 GHz

0 to 101/121 dB attenuation range, 1 dB step size



NOTE: This Firmware Update Guide applies only to J7201A/B/C instruments with firmware

KEYSIGHT

FIRMWARE UPDATE INSTRUCTION

Product and Solution Cybersecurity

Keysight complies with multinational regulations for the cybersecurity of its own products and is committed to providing information to assist you in protecting your products and solutions from external cyber threats. For more information, see: https://www.keysight.com/us/en/about/quality-and-security/security/product-and-solution-cyber-security.html

Keysight also recommends that you secure your IT environment using appropriate third-party tools. Ensure that the instrument/software is protected:
– Get the latest security updates for the relevant Operating System
– For network-connected instruments/software, use an internet firewall (in Keysight instruments, Windows Firewall is enabled by default)
– For network-connected instruments/software, use up-to-date antivirus and anti-spyware software

Responsible Disclosure Program

Keysight recommends that security researchers share the details of any suspected vulnerabilities across any asset owned, controlled, or operated by Keysight (or that would reasonably impact the security of Keysight and our users) using this form: https://www.keysight.com/us/en/contact/responsible-disclosure-program.html

Report a Product Cybersecurity Issue

If you discover a cybersecurity issue that you suspect may involve Keysight's proprietary software, or third-party software supplied by Keysight as part of a product, or that may affect the operation of Keysight products, we encourage you to report it to us using this form: https://www.keysight.com/us/en/about/quality-and-security/security/product-and-solution-cyber-security/report-a-product-cybersecurity-issue.html

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Chapter 1 Firmware Update Process

1.1 Prerequisite Software

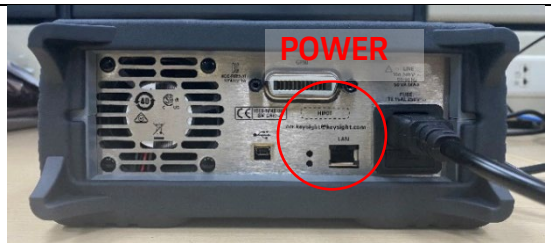
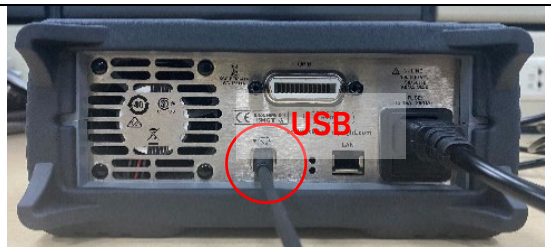
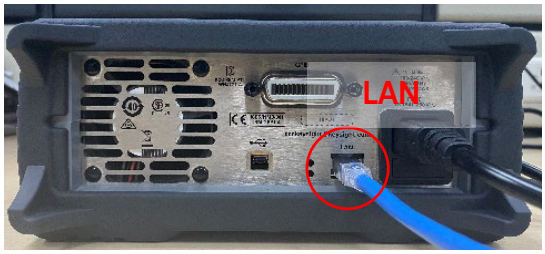
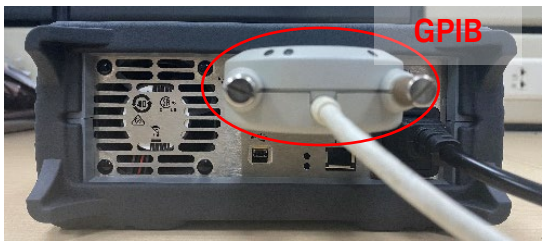
Item	
1. Install *Keysight IO libraries Suite 21*.	Download both the *IOLS Prerequisite* and *IOLS Main* installer from IO Libraries Suite Downloads | Keysight.
2. FirmwareUpdateUtility.exe Supported Operating Systems: - Windows 10 - Windows 11 Licensing: - Not Required	***Note:*** The FirmwareUpdateUtility.exe only supports J7201A/B/C instruments with firmware version 3.*x.y*.
3. Firmware Package File, J7201x-3.*x.y*.swu	***Note:*** The firmware package file J7201x-3.*x.y*.swu only supports J7201A/B/C instruments with firmware version 3.*x.y*.

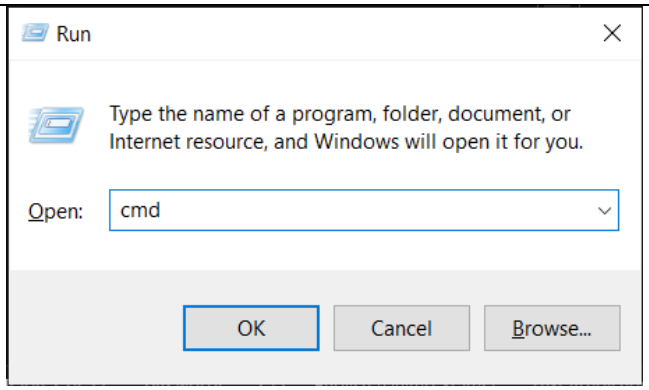
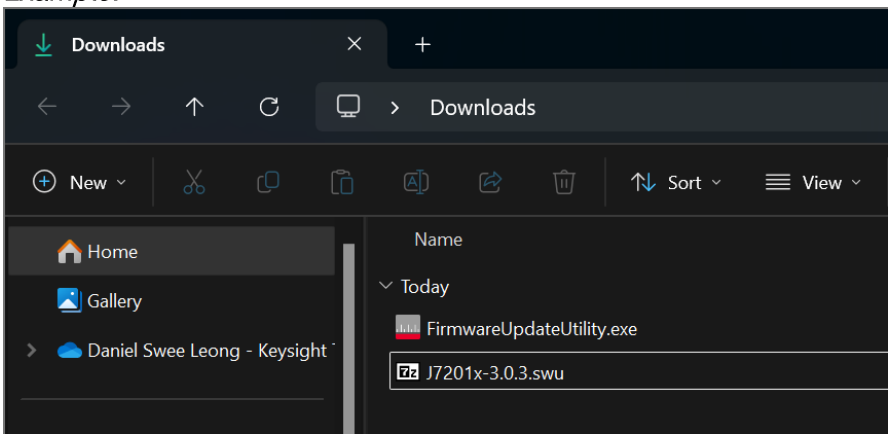
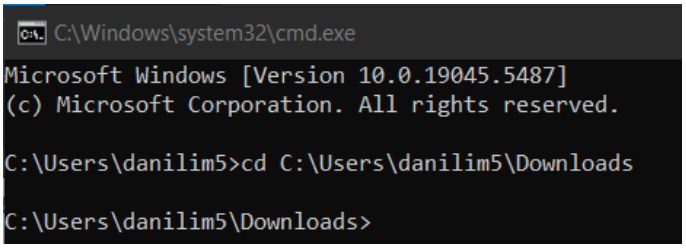
1.2 Prerequisite Hardware

Item	
1. Update process only requires one connection type, either: USB 2.0 Cable USB Type A Male to USB Type Mini-B Male OR LAN Cable Male-to-Male RJ45 CAT 5 OR GPIB Interface **NOT recommended due to slow data transfer rate*	 OR  OR 
2. Computer [Desktop / Laptop]	

1.3 Update Instrument Firmware

Note: Ensure Keysight IO Libraries is already installed and is running in the background on your host PC.

Step	
1. Connect the power cord to the instrument.	
2. Power ON the instrument and ensure that instrument firmware is running.	
3. Select one of the update methods and connect device side IO interface. USB -> PC OR LAN -> PC OR GPIB -> PC **NOT recommended due to slow data transfer rate and takes around 7-8 mins to complete.*	 OR  OR 

4. Launch the *Command Prompt* by pressing keyboard shortcut *WIN+R* and typing *"cmd"* and press enter.	
5. In the *Command Prompt*, navigate to the directory that contains the *FirmwareUpdateUtility.exe*	In *Command Prompt*, execute the following command: `> cd <FirmwareUpdateUtilty.exe-folder-path>` *Example:*  

6. Perform firmware update with the provided firmware package file.
 	
[1] Update via GPIB is NOT recommended due to slow data transfer rate and takes around 7-8 mins to complete.
	In Command Prompt, run command:
	`> FirmwareUpdate.exe <visa_address> <path-to-swu-package>`
	Note: The format for *visa_address* differs for each type of connection interface as shown in the following examples:
	
	Example via USB:
	`C:\Users\danilim5\Downloads>FirmwareUpdateUtility.exe USB0::0x2A8D::0x7301::MY20190014::0::INSTR J7201x-3.0.3.swu`
	
	Example via LAN (SOCKET):
	`C:\Users\danilim5\Downloads>FirmwareUpdateUtility.exe TCPIP::141.183.189.100::5025::SOCKET J7201x-3.0.3.swu`
	
	Example via LAN (VXI-11):
	`C:\Users\danilim5\Downloads>FirmwareUpdateUtility.exe TCPIP::141.183.189.100::inst0::INSTR J7201x-3.0.3.swu`
	
	Example via GPIB [1]:
	`C:\Users\danilim5\Downloads>FirmwareUpdateUtility.exe GPIB::28::INSTR J7201x-3.0.3.swu`

7. The estimated update time is around 1-2 minutes (other than GPIB process which takes around 7-8 minutes) and the instrument will reboot once during the process.
 	
*** Do not disconnect the power source to the instrument and ensure the instrument remains untouched throughout the firmware update process ***
	Example:
	`C:\Users\danilim5\Downloads>FirmwareUpdateUtility.exe TCPIP::141.183.189.100::5025::SOCKET J7201x-3.0.3.swu`
	`Connecting to TCPIP::141.183.189.100::5025::SOCKET`
	`Connected to TCPIP::141.183.189.100::5025::SOCKET`
	`Model number: J7201A`
	`Serial number: MY20190014`
	`Firmware version: 3.0.2`
	`File transfer started.`
	`File transfer completed.`
	`Update started.`
	`Instrument reboot initiated.`
	`Start Reconnecting to TCPIP::141.183.189.100::5025::SOCKET`
	`Reconnected to TCPIP::141.183.189.100::5025::SOCKET`
	`Model number: J7201A`
	`Serial number: MY20190014`
	`Firmware version: 3.0.3`
	`Successfully updated`
	
	`Update success.`
	
	`C:\Users\danilim5\Downloads>`
	
	

Chapter 2 Revision History

Revision	Date	Description	Section Modified
1.0	21st Mar 2025	Initial release.	–