
E6680A & E6680E Wireless Test Sets

Introduction

The purpose of this document is to outline the instrument software update procedure for the E6680A and the E6680E Wireless Test Sets.

This procedure will update the instrument software, from the revision that is currently installed, to the latest revision available. The advantages of updating the instrument software with the current revision include:

1. Keeps the E6680A and the E6680E Wireless Test Set current and up to date.
2. Updating the measurement applications where appropriate.
3. Updating the PC board software where appropriate.

An update to the instrument software revision **does not** require a new license key for the measurement application(s), so long as the application(s) were licensed prior to the update.

To determine what revision of instrument software is currently installed, press [**Gear Icon**], {**System tab**}, look for the “Instrument S/W Revision” number (Example: “E.27.26”). If the installed revision is the same as the latest revision on the E6680A and E6680E instrument software page on the web, there is no need to update the instrument software.

NOTE: This will only update the instrument software that currently resides on the C: drive of the instrument. It will not update the version that exists on the recovery partition. Because of this, if the recovery process, as described in the E6680A and E6680E service guide is performed, the instrument will revert back to the instrument software revision that was originally shipped from the factory.

Requirements

To use this update procedure, the following requirements must be met:

- A properly functioning instrument.
- A USB keyboard and mouse.
- The ability to log in to the instrument as the **administrator**.
- The ability to transfer a large file (~3G Byte) to the instrument being updated.

File Download

1. Go to

https://www.keysight.com/find/e6680a_software

or

https://www.keysight.com/find/e6680e_software

NOTE: E.31.28 was the initial software release for **E6680E**. No previously released software for the **E6680A** will function with the **E6680E**. If attempted this may require the equipment to be returned to a Keysight office for repair.

2. Select and download the executable file “Instrument Software (Version E.xx.xx)” in the “Documents & Downloads” section of the webpage.

If you do not have the ability to download files directly to the C: drive of the instrument being updated, store the file on a large capacity USB storage device for transfer to the instrument. (The file size is ~3 GByte.)

USB: If you downloaded the instrument software update file to a PC, then transferred to a USB storage device, plug that USB device into one of the USB ports on the instrument. Access the file using Windows Explorer and proceed to Step 1.

LAN: If you downloaded the instrument software update file directly via LAN to the instrument, for example, to C:\Temp, access the file from that location and proceed to Step 1.

NOTE: If using the LAN method, depending on your firewall settings, you may see the pop-up message shown in the following figure, Select “**Unblock**” to continue.

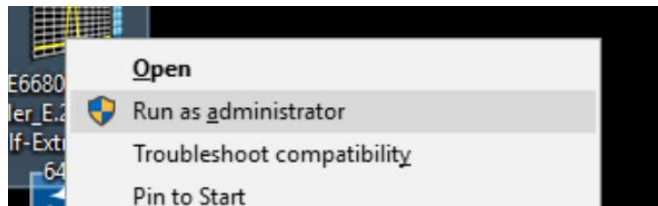


Software Update Procedure

The default user account is *Instrument*, which does not have the required permissions to install the instrument software updates. For the process outlined below, the user must be logged in as the *Administrator*.

The E6680A automated instrument Software upgrade process has an install wizard which removes the old software version and installs new software version with a couple manual steps. It only requires the user to be logged in as administrator.

NOTE: The installer can be run from the instrument account by right clicking on the installer and selecting “Run as administrator”.



Password = **Keysight4u!**

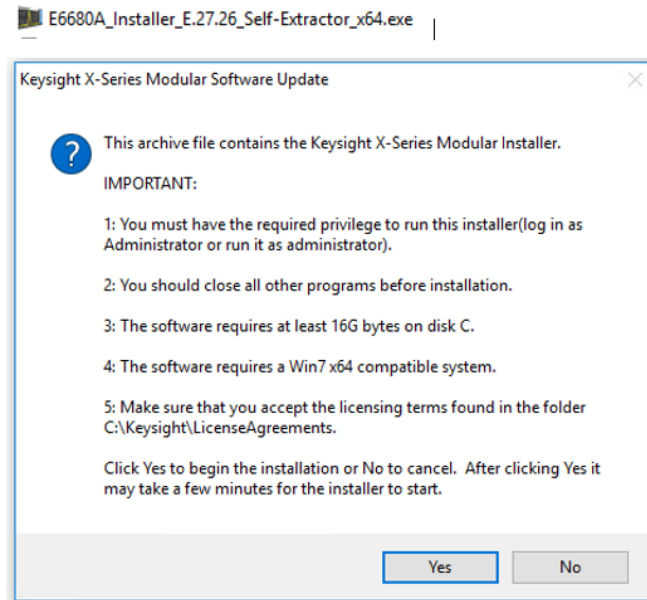
The removal of the old software version and the installation of the new software version completes in approximately 20 to 30 minutes. (Dependent on number of files requiring update)

Software installation

1. Close the application by pressing [File], {Exit}
2. Connect a USB keyboard and mouse to the instrument.
3. Log out of the default user (*Instrument*) by selecting **Start**→**Log Off**→**Log Off**.
4. At the login prompt enter:
 - User name: **administrator**
 - Password: **Keysight4u!**

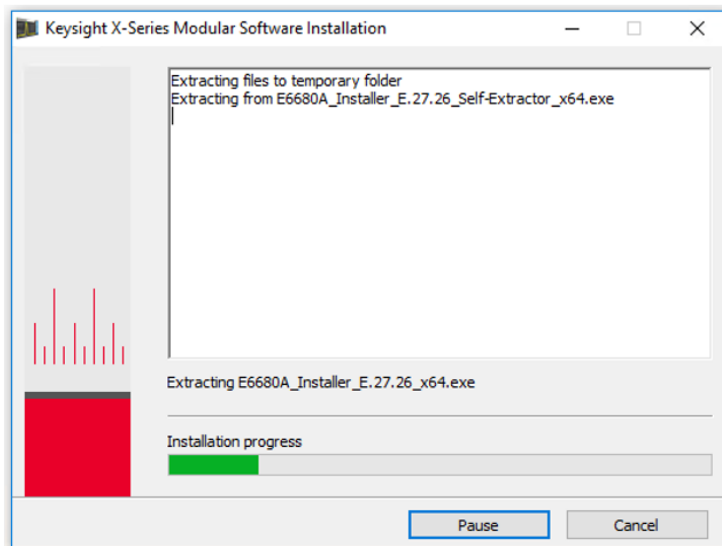
NOTE: If a “Found New Hardware” wizard window pops up, select “No Not at this Time” to bypass the activity.

5. Locate the instrument software file you downloaded from the Keysight web site.
6. Double click on the file named “**E6680A_Installer_E.XX.YY.exe**” or “**E6680E_Installer_E.XX.YY.exe**”
7. A message appears, reminding you that you must be logged in as **administrator**.

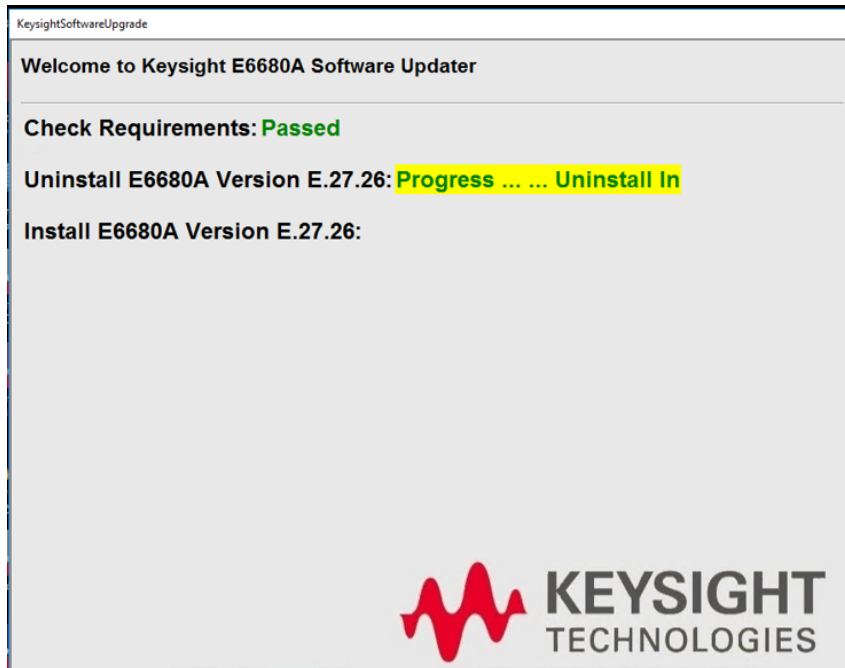


8. A window appears showing the extraction of the software installer. When the extraction process is complete, there will be another window that will check that all software update requirements are met. The next window will show the progress of the software removal and installation.

Extraction window:

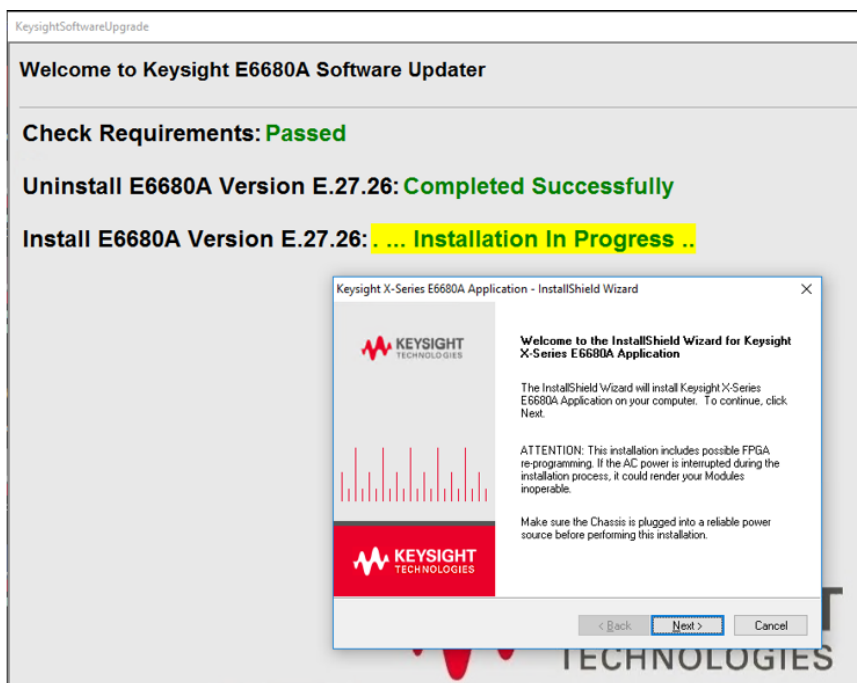


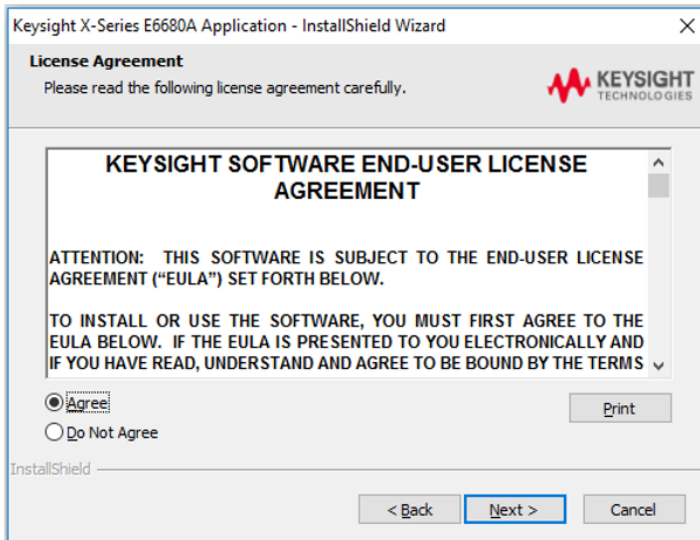
Instrument Software update windows:



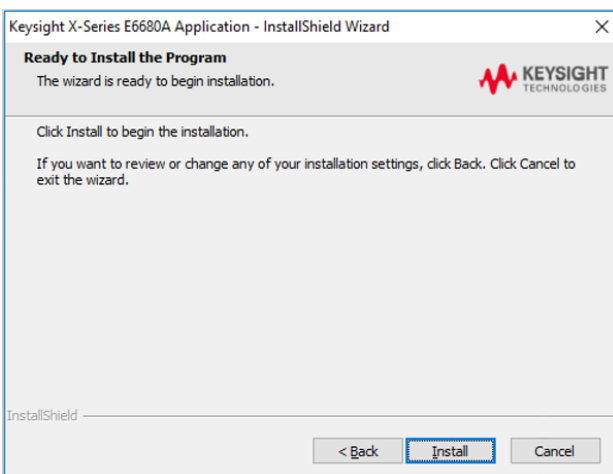
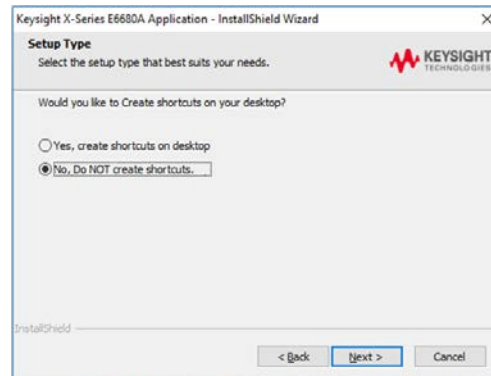
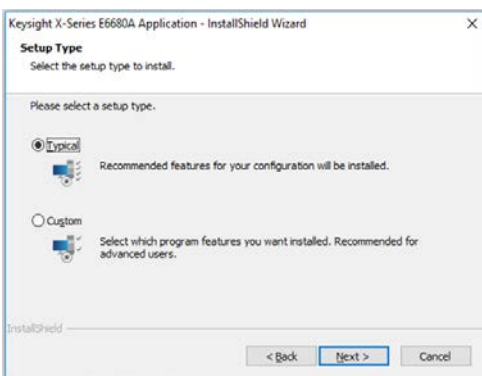
The old instrument software is being removed. The “Uninstall in Progress” text will roll across the screen indicating software activity. There will be several windows appearing and disappearing. It will display “Completed Successfully” when this step is finished.

Once the removal is complete the Installer for the new version will appear. Select “Next” and then accept the end user license agreement.



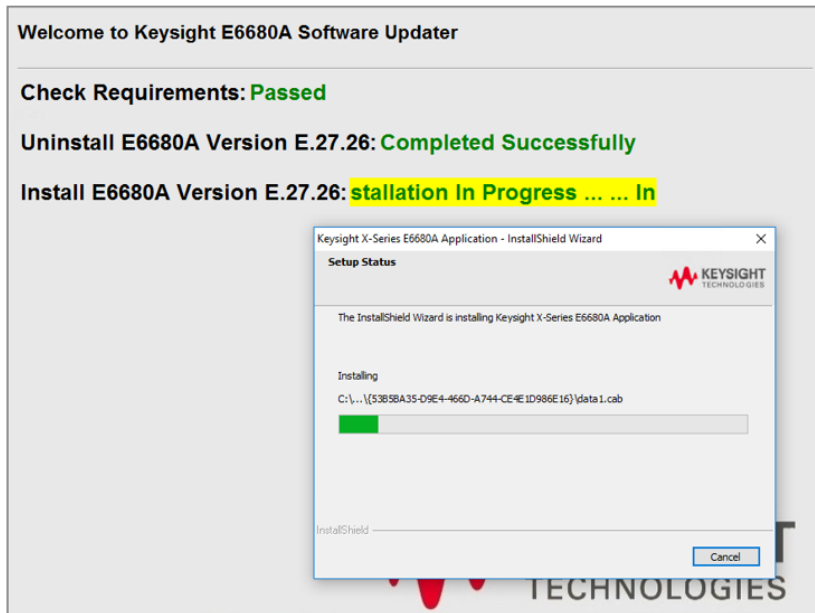


Select **Typical** for the install and choose **No, DO NOT** create a desktop short cut. One will be automatically created by the install process.



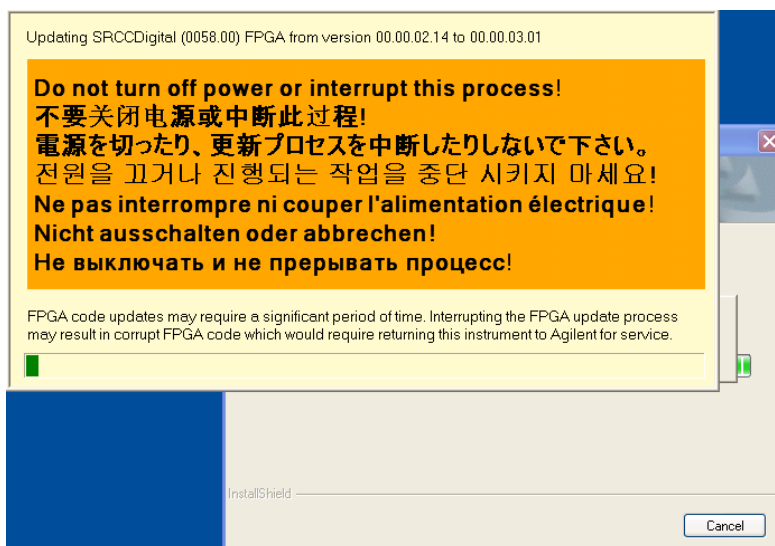
Select Install.

The new instrument software is being installed. The “Installation in Progress” text will roll across the screen indicating software activity. There will be several windows appearing and disappearing during this time. NO interaction with the E6680A/E6680E is required. Please be patient as the total software installation process can take approximately 20 minutes. It will display “**Completed Successfully**” when the software update is complete. You will be prompted to shut down and restart you instrument at the end.

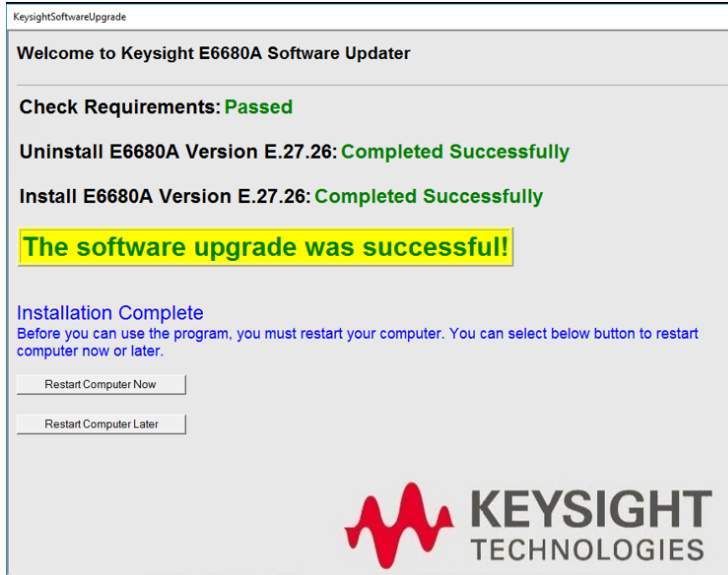


Example of one of the windows you will see during the software update process:

FPGA Programming: DO NOT power off the instrument at this time for **ANY** reason. If this process is interrupted, the instrument may end up in an unusable state, and will likely need to be sent to Keysight for repair before it will be usable again.

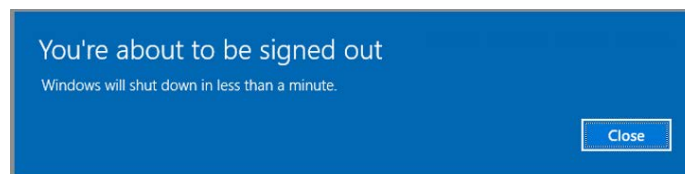


Software upgrade “Completed Successfully”.

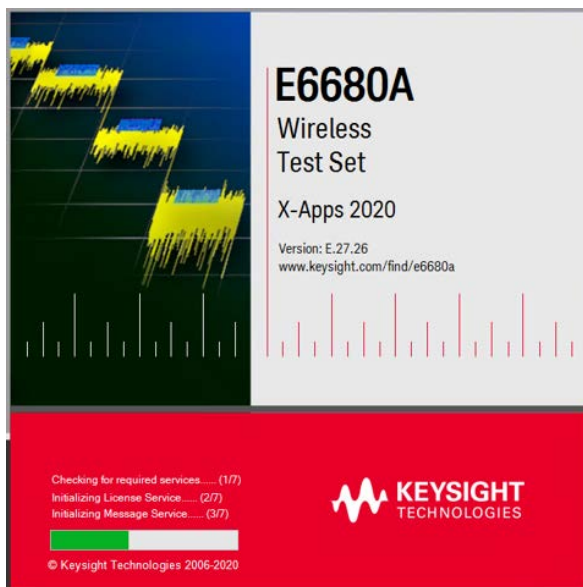


9. When the Software installation is complete you will be asked to restart the instrument.

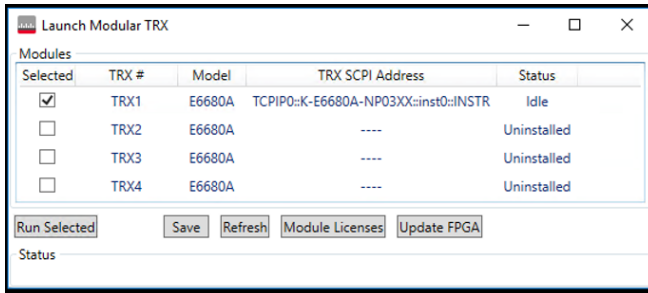
NOTE: When finished, you will see the following message indicating that the system is shutting down. This is normal message.



10. After the instrument restarts it will auto launch the application.



11. If it does not, or you shut the application down, use the “Launch Modular TRX” icon on the desktop. It will boot up to this screen. The following figure shows an example of an E6680A with one TRX module installed. Select the TRX and “Run Selected.”



12. Check for any errors and verify that the new software version is installed. Press [Gear Icon], [System tab], look for the “Instrument S/W Revision” number (Example: “E.27.26”).

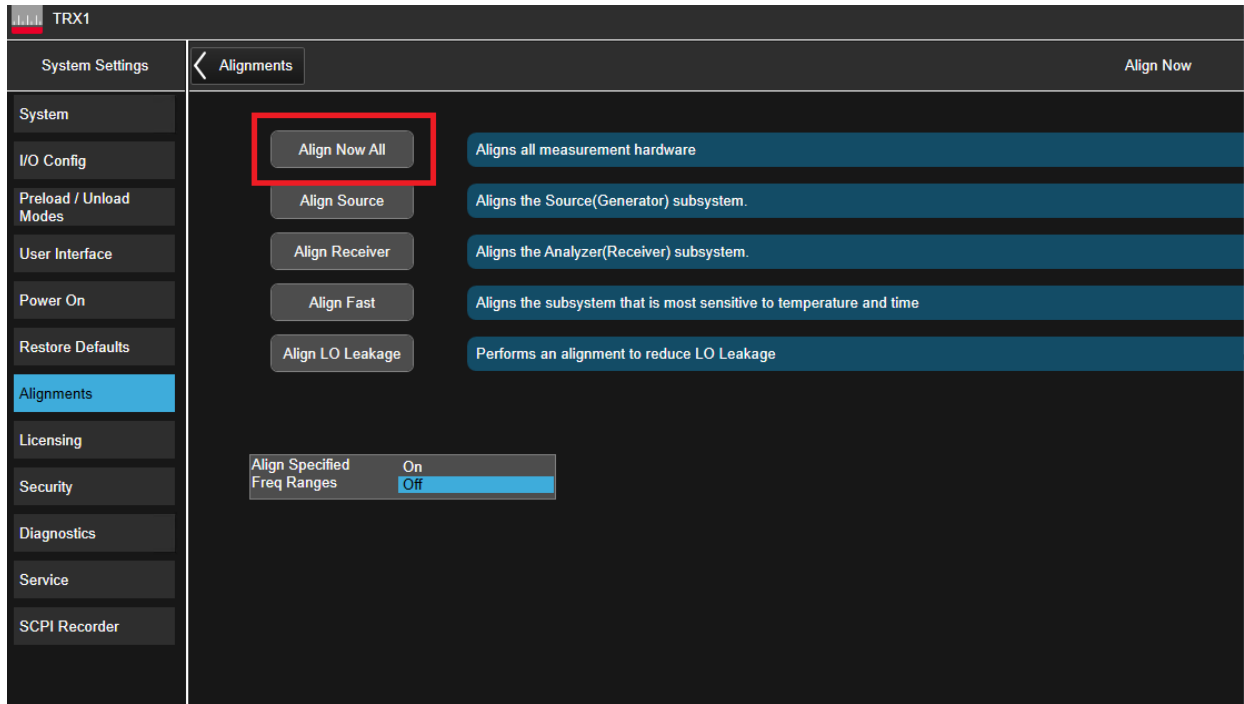
Keysight Technologies		Keysight E6680A Wireless Test Set
Keysight E6680A		E6680A
Product Number		E6680A
Serial Number		MY00000001
S/W Release Name		2020
Instrument S/W Revision		E.27.26
Revision Date		11/20/2020 12:32:38 PM
Computer System		Windows 10
Computer Name		K-E6680A-NP03XX
LAN Port1		
IP Address		10.72.72.174
IPv6 Address		
Link-Local IPv6 Address		fe80::6c52:63fe:f973:b7a3%6
LAN Port2		--Down--
Host ID		PCSERNO_JB46548966
mDNS Enabled		Yes
mDNS Host Name		K-N9020A-3000-2
mDNS Service Name		Keysight E6680A Wireless Test Set - MY00000001
Option	Name / Description	Option Version
E6680A-PCX	Intel(R) Core(TM) i7-4700EQ CPU @ 2.40GHz, 16 GB	
E6680A-SSD	INTEL SSDSC2KB240G8	
E6680A-W10	Microsoft Windows 10 Enterprise 2016 LTSB, 64 bit OS	

NOTE: If the E6680A or the E6680E does not reboot, remove the USB storage device before you restart the instrument. The default boot order for the instrument is the USB drive first and the hard disk drive second. Failure to remove the device will result in an error, as the instrument attempts to boot from it.

13. It is recommended to perform an alignment after a firmware upgrade or downgrade. After the alignment process is complete, please verify that the alignment was successful.

NOTE: Firmware revision E.36.43 and above incorporates the refractor alignment features to optimize the TRX module's speed. If the user upgrades or downgrades to E36.XX, an alignment is necessary to ensure optimal performance.

NOTE: The “Align Now All” alignment typically takes less than 15 minutes to run.



If the alignment fails, detailed information on the failure is located:

C:\ProgramData\Keysight\X-Series Instrument\AlignDataStorage

Determine the TRX module that failed in the AlignDataStorage folder.

Contact your local Keysight support personnel for further assistance.



This information is subject to change without notice.

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