

Keysight Wireless Test Sets

E6640A EXM Wireless Test Set

Option M9433A-5B0
Frequency Range Upgrade

Notices

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Option M9433A-5B0 Frequency Range Upgrade

Option to be Installed:	M9433A-5B0 (upgrades from 4G frequency range to 5G)
Products Affected:	E6640A, EXM Wireless Test Set (upgrade applies to one M9433A TRX module within the test set)
Available on:	Instruments with M9433A TRX modules installed and Option M9433A-B1X (160 MHz bandwidth) installed
To Be Performed By:	(X) Keysight Service Center () Personnel Qualified by Keysight () Customer (within the first two years of ownership)
Estimated Installation Time:	1.0 Hours
Estimated Adjustment Time:	8.0 Hours
Estimated Verification Time:	2.5 Hours
Materials Provided:	1 Installation note (this document, Part# E6640-90031 1 Option M9433A-5B0 Upgrade Entitlement Certificate, Part# E6640-90025
Adjustment Software:	TME N7835A (available in Service Center)
Verification Calibration Software:	STE 9000 M9433A (available in Service Center)

Installation Procedure

This procedure will add the additional 5G frequency bands to an M9433A module which only had 4G capability before.

The procedure in outline form is:

- Install Option 5B0 license (1 license certificate per TRX module upgraded)
- Run the Adjustment software (TME N7835A)
- Run the Verification Calibration software: (STE 9000 M9433A)
- Generate a new Calibration Certificate

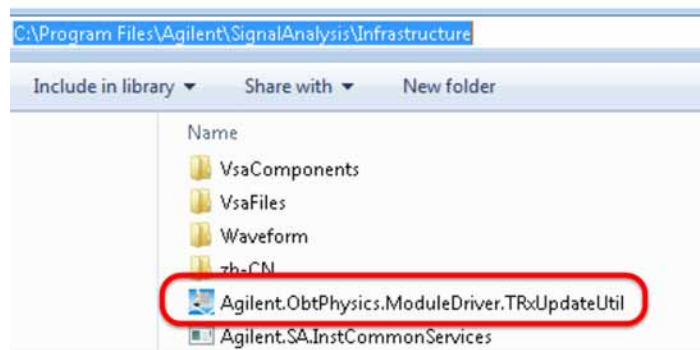
M9433A-5B0 license installation process

This procedure adds the option to one M9433A module within the E6640A (there can be as many as four of these full-duplex TRX modules in the test set, each of which would require its own license to be upgraded in this way).

You must add the 5B0 option before you can run the adjustments and verifications to the M9433A module.

Step 1. Open a file-explorer window and go to:

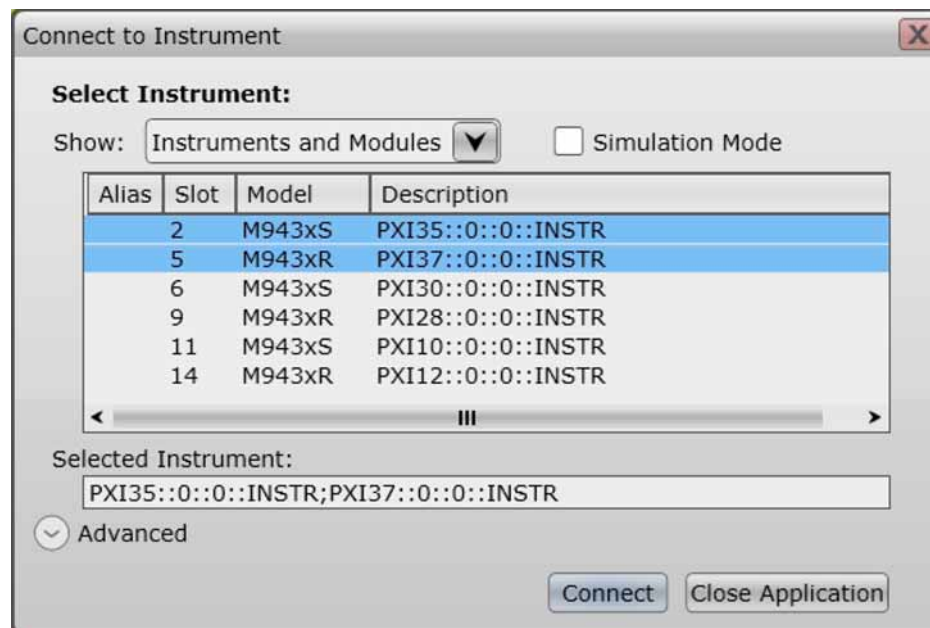
C:\Program Files\Agilent\SignalAnalysis\Infrastructure



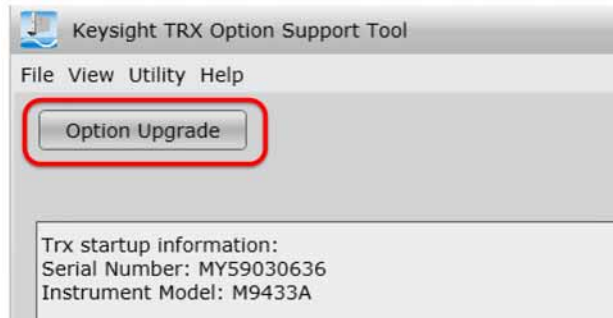
Step 2. Double click on this executable file (the .exe file extension may or not be visible in your file explorer):

Agilent.ObtPhysics.ModuleDriver.TRxUpdateUtil

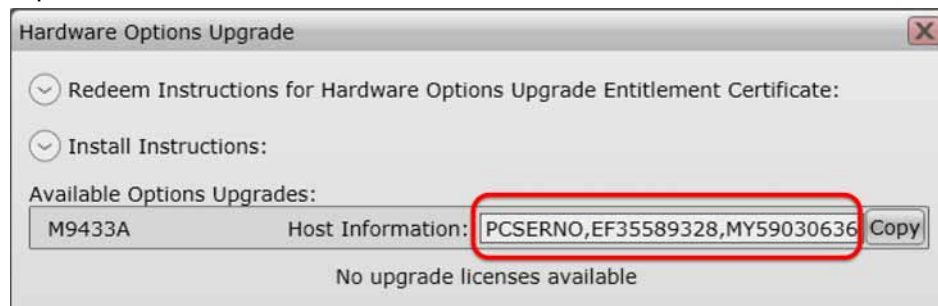
Step 3. In the window which appears, select the TRX module you want to connect to and upgrade. You must connect to both the "xS" (source) and "xR" (receiver) model. The Slot assignments are 2/5 for TRX 1, 6/9 for TRX 2, 11/14 for TRX3, or 15/18 for TRX 4. The slots highlighted below are for TRX 1.



Step 4. After you connect, choose “Option Upgrade” in the window which appears:

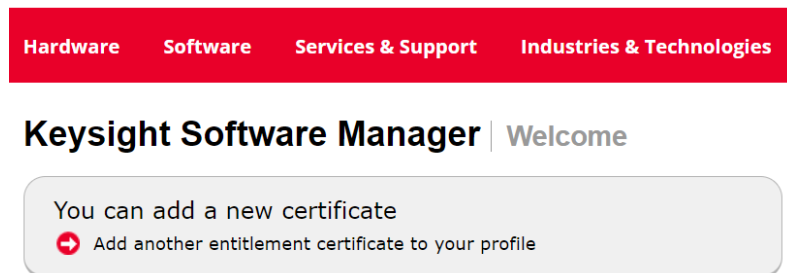


Step 5. Copy the Host ID information, which you will use to redeem the 5B0 license. (Clicking the Copy button transfers the information to the clipboard, as if you had pressed Ctrl-C.)



Step 6. Go to the Keysight Software Manager web site:
<https://ksm.software.keysight.com/ASM/External/UI/Welcome.aspx?app=KSM>

Step 7. Click on "Add another entitlement certificate...".



Step 8. Enter the order number and certificate number (from the Entitlement Certificate) and click **Continue**.

Keysight Software Manager : Add Certificate

1 Enter Certificate 2 Review and Submit

Enter your certificate information Help

Order Number ?
 Certificate Number ?

Certificates already in your profile:

Order Number	Certificate Number
UXM-SW-INTERNAL	AYPU-AQ2N

Cancel Continue >

Step 9. In the dropdown list under "Select the host to assign licenses to", choose "Add a new PXI and AXIe Hardware Options Upgrade host..."

Assign licenses to hosts, then click Continue to proceed.

Select the host to assign licenses to

Add a new PXI and AXIe Hardware Options Upgrade host...

Click to add or select a host

- Add a new License Notifier Host ID host...
- Add a new Model and Serial Number separated with a comma host...
- Add a new PCSERNO HOSTID host.
- Add a new PXI and AXIe Hardware Options Upgrade host.
- Add a new PXI and AXIe Replacement Core Serial Number Update host...
- Add a new Signal Studio B model license to host...

License Notifier Host ID: PCSERNO.AS33464524
 License Notifier Host ID: PCSERNO.AF54223796
 License Notifier Host ID: PCSERNO.AF54223796
 License Notifier Host ID: PCSERNO.AF84893376

Example: PCSERNO.ED Manager Host US12345678 will be upgrade

Version	Quantity
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Step 10. Under "Enter new host information", paste the identifiers that you copied to the clipboard earlier into the window provided. Under "Select the licenses to assign", click the box for the M9433A-5B0 license.

Select the host to assign licenses to

Add a new PXI and AXIe Hardware Options Upgrade host...

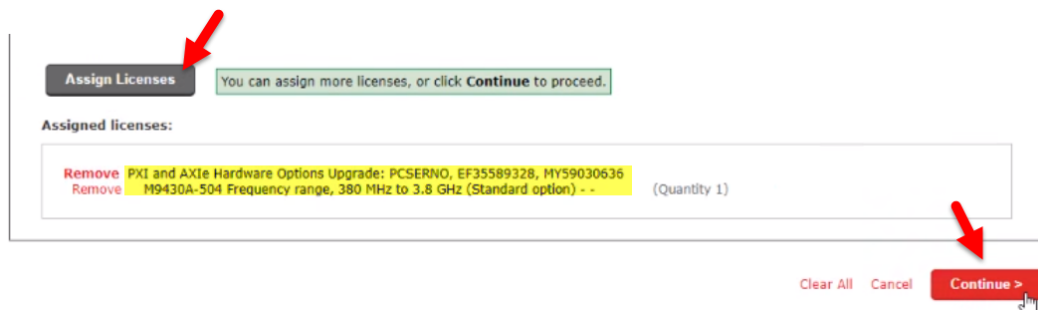
Enter new host information:

PXi and AXIe Hardware Options Upgrade :

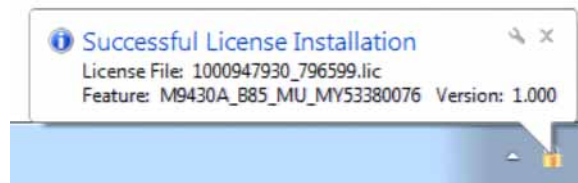
Select the licenses to assign

<input type="checkbox"/>	Line Number	License	Version	Qu
<input checked="" type="checkbox"/>		M9433A-5B0 Frequency range, 380 MHz to 6 GHz with 5G NR bands	-	
<input type="checkbox"/>		M9433A-5LF Frequency range 76-100 MHz and 207-222 MHz (Standard option)	-	

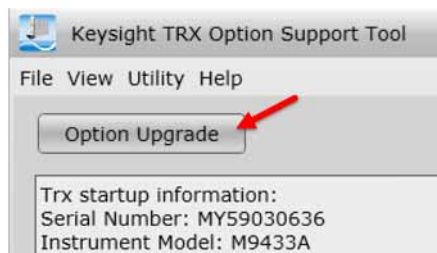
Step 11. Click **Assign Licenses** and then **Continue**.



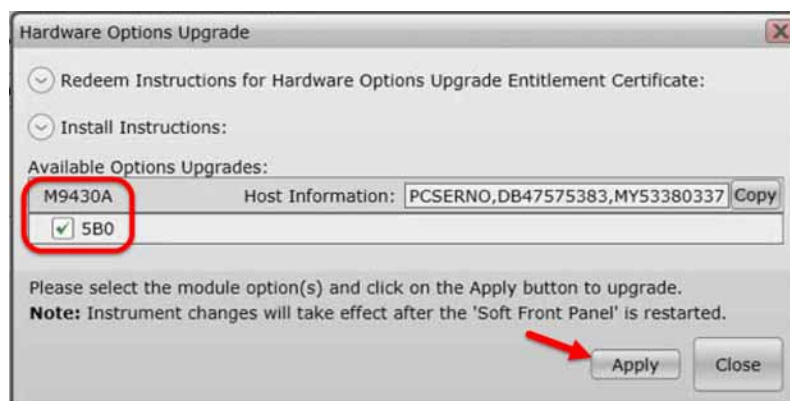
Step 12. The requested license will be sent to you via e-mail. Copy the license key from the E-mail to a USB memory device. Then plug the USB memory device into the E6640A EXM test set; it will be automatically consumed by the Keysight License Manager.



Step 13. After you install the license, close the **Hardware Options Upgrade** window. The **Keysight TRX Option Support Tool** reappears. Click **Option Upgrade**:



Step 14. Check the box beside option 5B0 and click **Apply**.



Step 15. Reboot the E6640A EXM test set and look at the **Show System** screen, to verify that the E6640A-5B0 license now appears in the option list.

TRX1			
System Settings		System Information	
System	System	System Information	
I/O Config	Keysight Technologies	Keysight EXM Wireless Test Set	
	Keysight EXM	E6640A	
User Interface	Product Number	US533000099	
	Serial Number	2020 Update 1	
Power On	S/W Release Name	E.27.10	
	Instrument S/W Revision	10/28/2020 3:23:14 PM	
Restore Defaults	Revision Date	Windows 7 , Service Pack 1	
	Computer System	K-E6640A-00099	
Alignments	Computer Name	LAN Port1	
	LAN Port1	IP Address	
Licensing	IP Address	10.81.213.183	
	IPV6 Address	Link-Local IPV6 Address	
Security	Link-Local IPV6 Address	fe80::d0e5:2f62:4457:190d%13	
	LAN Port2	---Down---	
Diagnostics	Host ID	PCSERNO,EF35589328	
	mDNS Enabled	Yes	
Service	mDNS Host Name	A-E6640A-00099	
	mDNS Service Name	Keysight E6640A Wireless Test Set - US533000099	
		Option	Name / Description
		E6640A-PCX	Intel(R) Core(TM) i7-4700EQ CPU @ 2.40GHz, 16 GB
		E6640A-SSD	INTEL SSDSC2BB240G4 SCSI DISK DEVICE
		E6640A-W7X	Microsoft Windows Embedded Standard, 64 bit OS
		E6640A-250	Waveform License 50-pack
		E6640A-506	Frequency Range, 6.0 GHz
		E6640A-5B0	Frequency Range, 380 MHz to 6 GHz with 5G NR bands
		E6640A-5B1	Frequency Range, 24.25 to 29.5 GHz
		E6640A-5B5	Frequency Range, 37 to 40 GHz
		E6640A-5B6	Frequency Range, 40 to 43.5 GHz
		E6640A-B1X	Analysis bandwidth, 160 MHz

Step 16. Take the E6640A to the TME N7835A adjustment station and run the M9433A full adjustments. This will take approximately 8 hours. The list of TRX adjustments is:

- (1) TRx Internal Calibration
- (2) Receiver Alignment
- (3) Receiver Temperature Offset Alignment
- (4) Source Attenuator Alignment
- (5) Receiver Factory Alignment
- (6) Receiver Port Calibration
- (7) Receiver Burst Trigger Calibration
- (8) Receiver IF Flatness Calibration
- (9) Source Firmware Alignment
- (10) Source Port Calibration
- (11) Source IF Alignment

Step 17. When the adjustment is completed, take the E6640A to the STE 9000 Verification Calibration station and run the full procedure to get a new calibration certificate.

