

Keysight Frequency or Bandwidth Option Upgrade

Frequency

E6650AK-516 Upgrade from 504 to 506

E6650AK-526 Upgrade from 5WC to 506s

Bandwidth - Analysis Bandwidth Upgrade

E6650AK-B85 Upgrade 40 to 80 MHz

E6650AK-B1X Upgrade 40 to 160 MHz

E6650AK-BU5 Upgrade 80 to 160 MHz

Notice: This document contains references to Agilent. Please note that Agilent's Test and Measurement business has become Keysight Technologies. For more information, go to www.keysight.com.

Installation Note

Part Number E6650-90012

Published in USA November 2014

Notice.

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Frequency or Bandwidth Upgrade

Frequency or Bandwidth Option Upgrade to an Existing TRX Module

Products Affected:	E6650A
Serial Numbers:	All
Options:	
To Be Performed By:	(X) Keysight Service Center (X) Personnel Qualified by Keysight (X) Customer (within the first two years of ownership)
Estimated Installation Time:	0.5 Hours
Estimated Verification Time:	5 Minutes

Introduction

This installation note contains all of the instructions required to install either a Frequency Option upgrade or a Bandwidth Option upgrade.

NOTE

1. At the time of manufacture the hardware related to this option was fully adjusted and the option performance was verified to be within its warranted specifications. Within two years of the initial calibration date of the instrument this option is fully calibrated with no further adjustment or verification testing.

To determine the initial calibration date, locate the original calibration certificate that was shipped with the TRX module at the time of purchase. The Date of Calibration is printed on the original calibration certificate.

No factory test data is available for this option. If you require test data for this option then a full calibration is required after installation of this option. Arrangements regarding the level of calibration must be made with the calibration provider.

2. If this TRX module has been adjusted as part of a repair or calibration during its first two years, or if the TRX module is more than two years old, additional adjustments and performance verification tests are required to ensure that this newly installed option is functioning properly.
3. STE 9000 software and test equipment is required for making adjustments and for performance verification testing.

Information on how to obtain these calibration services can be found at:
www.keysight.com/find/calibration

4. This option upgrade is licensed for one TRX module. The license key will only install on the designated PC HOST ID and Serial number TRX module.

Frequency or Bandwidth Upgrade

Frequency or Bandwidth Option Upgrade to an Existing TRX Module

Contents

Quantity	Description	Keysight Part Number
1	Installation Note	This note
1	Option Upgrade Entitlement Certificate	E6650-90015

Procedure

Connect to the E6650A using a method of sending a receiving SCPI commands.

Example: Interactive IO.

You can use the Keysight IO connection expert to open an interactive IO session.

Select Connect and type in the connect command for the TRX module you are adding the Frequency or Bandwidth option to.

Using Socket Ports

Use sockets 5025, 5125, 5225, and 5325:

- TRX1, 5025: TCPIP0::<IP Address>::5025::SOCKET
- TRX2, 5125: TCPIP0::<IP Address>::5125::SOCKET
- TRX3, 5225: TCPIP0::<IP Address>::5225::SOCKET
- TRX4, 5325: TCPIP0::<IP Address>::5325::SOCKET

Example to connect to TRX1:

TCPIP0::<IP Address>::5025::SOCKET

After establishing the connection use the following SCPI command to obtain the HostID and the TRX modules serial number you wish to add the upgrade option to.

SYSTEM:LICense:MODule:HID? --The command will return the HostID and TRX serial number information.

Example: "PCSERNO,EF25273867, MY53380060"

Use the Host ID and TRX serial number information when you obtain your license from the Keysight License manager web site.

Keysight Software Manager : Request Licenses from Order



Assign licenses to hosts, then click Continue to proceed.

Select the host to assign licenses to

Enter new host information: ❗ How do I find my Host ID?

Example: PCSERNO,ED24797275,US12345678

PXI and AXIe Hardware Options Upgrade : PCSERNO,ED12345678,US12345678

PCSERNO,ED24797275 - Agilent License Manager Host ID.
US12345678 - Serial Number of the module that will be upgraded.

Select the licenses to assign

	License	Version	Quantity Available	Quantity to Assign
<input type="checkbox"/>	E6650AK-516 Upgrade Frequency range, from 504 to 506	-	1	1
<input type="checkbox"/>	E6650AK-526 Upgrade Frequency range, from 506 to 506	-	1	1
<input type="checkbox"/>	E6650AK-R1X Upgrade from 40 MHz to 160 MHz			

Frequency or Band width Upgrade Procedure

Assign licenses and continue.

Assign Licenses
You can assign more licenses, or click **Continue** to proceed.

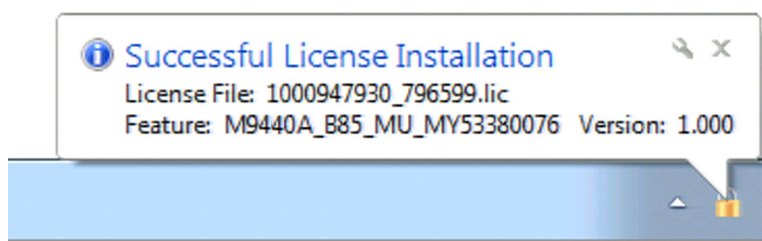
Assigned licenses:

PXI and AXIe Hardware Options Upgrade: PCSERNO,JF68787266,MY53380076
M9440A-SWC Frequency Range, 1.1 to 1.7 GHz, 2.4 to 2.5 GHz, and 4.8 to 6 GHz - - (Quantity 1) Remove
M9440A-B85 Upgrade from 40 MHz to 80 MHz measurement bandwidth - - (Quantity 1) Remove

Cancel Continue >

Requested license will be sent to you via e-mailed

Copy the License key from the E-mail to a USB memory device. Then move the USB memory device to the EXF and it will be automatically consumed by the Keysight License Manager.



You can also open Keysight License Manager on the EXF and see the license key:

Host System

Host Name :A-E6650A-00099

Host ID :PCSERNO,HA97835563

Interface TypeWindows

Copy

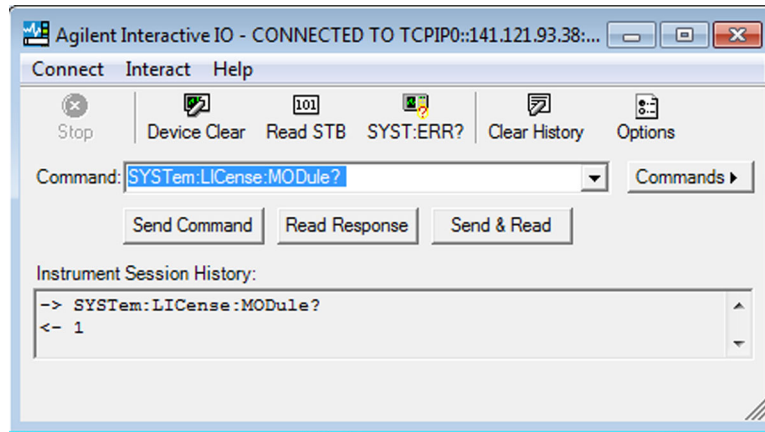
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Licensed Products and Features

Product/Feature	Version	Description	Type	Expiration	Count	Location
Product Unspecified						
E6640A-RFO	1.000	RFIO	Removable	Permanent	Unlimited	Local
E6640A-SBC	1.000	Signal Source	Removable	Permanent	Unlimited	Local
M9440A_B85_MU_MY...	1.000	M9440A_B85_MU_MY53380076	Removable	Permanent	Unlimited	Local
M9440A_SNVVRTSN...	1.000	M9440A_SNVVRTSN_MR_1111111111...	Removable	Permanent	Unlimited	Local
M9440A_SNVVRTSN...	1.000	M9440A_SNVVRTSN_MR_1111111111	Removable	Permanent	Unlimited	Local
V9060A-2FP	1.000	Test Set Measurement Application	Removable	Permanent	Unlimited	Local
V9072B-2FP	1.000	V9072B-2FP	Removable	Permanent	Unlimited	Local
V9073A-2FP	1.000	HSDPA/HSUPA Measurement Applic...	Removable	Permanent	Unlimited	Local
V9073B-2FP	1.000	V9073B-2FP	Removable	Permanent	Unlimited	Local

Verify that the TRX module has an upgrade option available by sending the following SCPI command:

SYSTem:LiCense:MODule? --The command will return a Boolean value: 0 for hardware option not available, 1 available.



Send the following SCPI command to install the new Frequency or Bandwidth option to the TRX module.

SYSTem:LiCense:MODule:ADD --This command will add the options to the TRX module.

After you run this command the License will be removed from the ALM license list:

Restart the EXF application software and check the show System screen for the newly installed option:

Example: Adding option B1X to a TRX with option B40

Keysight Technologies		
Keysight EXF	Keysight EXF Wireless Test Set	
Product Number	E6650A	
Serial Number	US54320101	
Instrument S/W Revision	F.14.54	
Revision Date	10/22/2014 2:33:10 PM	
Computer System	Windows 7 , Service Pack 1	
Computer Name	A-E6650A-20101	
LAN Port1		
IP Address	10.112.37.204	
IPv6 Address		
Link-Local IPv6 Address	fe80::6435:c0d7:25cf:bdfc%12	
LAN Port2	---Down---	
Host ID	PCSERNO,SB52626983	
mDNS Enabled	Yes	
mDNS Host Name	A-E6650A-20101	
mDNS Service Name	Keysight E6650A Wireless Test Set - US54320101	
Option	Name / Description	Option Version
E6650A-PCX	Intel(R) Core(TM) i7-3610QE CPU @ 2.30GHz, 12 GB	
E6650A-W7X	Windows Embedded Standard 7, 64 bit OS	
E6650A-250	Waveform License 50-pack	---
E6650A-251	Waveform License 50-pack	---
E6650A-252	Waveform License 50-pack	---
E6650A-506	Frequency Range, 6.0 GHz	---
E6650A-5LF	Frequency Range < 380 MHz	---
E6650A-B1X	Analysis bandwidth, 160 MHz	---
E6650A-BTS	Enable BTS Radio Device Testing	---
E6650A-M22		

Note that option Option B40 has been removed and option B1X added.

Frequency or Bandwidth Upgrade Procedure