EXF Wireless Test Set for Femtocell Software Update Instructions

Introduction

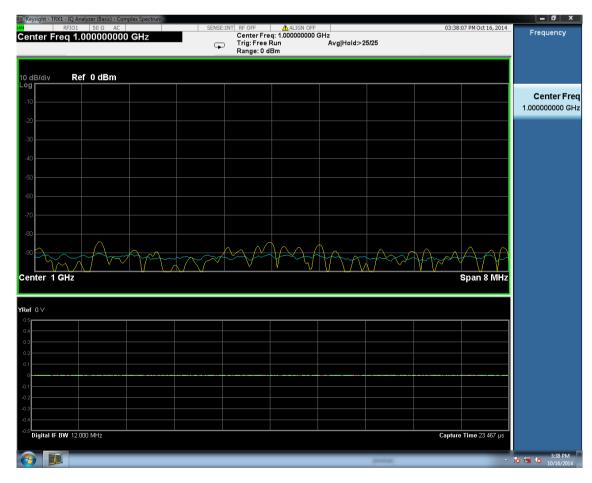
The purpose of this document is to outline the instrument software update procedure for the E6650A EXF Wireless Test Set for Femtocell.

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 EXF Wireless Test Set for Femtocell current and up to date.
- 2. Updates the measurement applications where appropriate.
- 3. Updates 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, the XSA Application must be running; see figure 1.



Connect a mouse to one of the front panel USB ports and right mouse click inside the XSA Application Window. Go to **Utility, System, Show, System** on the instrument and look for the "Instrument S/W Revision" number (for example: "F.14.54"), see figure 2.

Figure 2

		IGN OFF 02:31:28 PM Oct 16, 2014	Page	
Center Freq 1.0000	00000 GHz Center Freq: 1.000 Trig: Free Run Range: 0 dBm	000000 GHz Avg Hold:>25/25	Fage	
Keysight Technologies			Prev Pag	
Keysight EXF	Keysight EXF Wireless Test Set			
Product Number	E6650A			
Serial Number	US54320101			
Instrument S/W Revision	F.14.54		NextPag	
Revision Date	10/16/2014 2:19:29 PM			
Computer System	Windows 7, Service Pack 1			
Computer Name	A-E6650A-20101			
LAN Port1	Down			
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				
E6650A-M33				
E6650A-M44				
E6650A-RFO	RFIO			
E6650A-SRC	Signal Source			
N7699A-D24	Measurement Applications Temporary License - demo only			
V9060A-2FP	Test Set Measurement Application			
V9065B-1FP	Sequence Analyzer for BTS Applications			

If the installed revision is the same as the latest revision on the web, there is no need to update the EXF Software.

<u>Note</u>: 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 EXF 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 (~1.5G Byte) to the instrument being updated.

File Download

- 1. Go to http://www.keysight.com/find/EXF_Software
- **2.** Select and download the executable file "Instrument Software (Version F.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 ~1.5 GByte.)

<u>USB</u>: 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 Figure 3, 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 EXF automated instrument software upgrade process has an install wizard which removes the prior software version and installs the new software version without manual steps. It only requires the user to be logged in as administrator. The removal of the prior software version and the installation of the new software version completes in approximately 40 minutes. (Dependent on number of files requiring update)

Software install

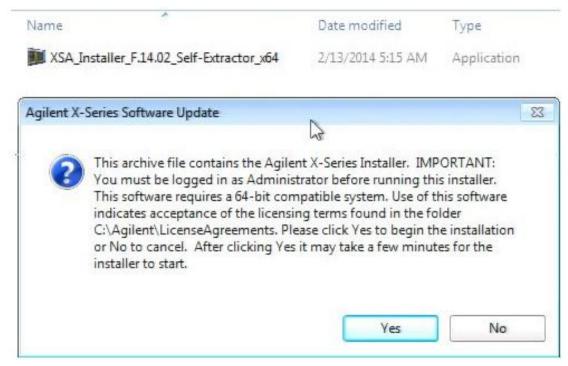
1. Close the application by right mouse clicking in the XSA Application window and navigating to

Utility, File, Exit

- 2. Select **OK** to close the analyzer program and exit.
- 3. Connect a USB keyboard and mouse to the instrument.
- 4. Log out of the default user (*Instrument*) by going to the Start Menu→Shutdown→Log Off.
- 5. 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.

- 6. Locate the instrument software file you downloaded from the Agilent web site.
- 7. Double click on the file named "XSA_Installer_F.XX.YY.exe"
- 8. A message appears as shown in figure 4, reminding you that you must be logged in as **administrator.** Select **Yes**.



9. A window appears as in figure 5 showing the extraction of the software installer. When the extraction process is complete, there will be other windows as illustrated in figures 6 and 7 that will show the progress of the software removal and installation. There is no interaction required from this point forward. A prompt to **Shut down and Restart the EXF**, will be display when the Software update is complete.

Extracting files to temporary folder
Extracting XSA_Installer_F. 14.54_x64.exe



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.

NO interaction with the instrument is required.



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 EXF is required. Please be patient the total software installation process can take approximately 40 minutes. It will display "Completed Successfully" when the software update is complete. You will be prompted to shutdown and restart you instrument at the end.

Example of one of the windows shown in figure 8 that you may 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 an Agilent for repair before it will be usable again.

Updating SRCCDigital (0058.00) FPGA from version 00.00.02.14 to 00.00 Do not turn off power or interrupt this pro 不要 关闭电 源或中断此过程! 電源を切ったり、更新プロセスを中断したりし 전원을 끄거나 진행되는 작업을 중단 시 Ne pas interrompre ni couper l'alimentation Nicht ausschalten oder abbrechen! Не выключать и не прерывать процесс	cess! ないで下さい。 키지 마세요! on électrique!
FPGA code updates may require a significant period of time. Interrupting may result in corrupt FPGA code which would require returning this instru	
InstallShield	Cancel

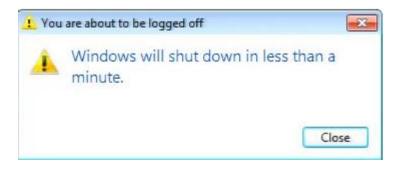
Figure 9 illustrating the software upgrade "Completed Successfully"

Figure 9



10. When the software installation is complete, you will be asked shutdown and restart you instrument

Note: Select "Finish" and you will see a window message as illustrated in figure 10 indicating that the system is shutting down. This is normal message



11. After the instrument turns off, press the power on button to turn the instrument on. Example of an EXF with two TRX modules installed is illustrated in figure 11 below.

Note: If the EXF 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.

01:35:06 PM Feb 20, 2014 ALIGN OFF Center Freq: 1.000000000 GHz Trig: Free Run Avg|Ho Frequency Center Freg 1.000000000 GH: Avg|Hold:>25/25 Range: 0 dBm 01:35:07 PM Feb 20, 2014 ALIGN OF Center Freq: 1.00000000 GHz Trig: Free Run Avg|Hol Center Freg 1.0000000 Avg|Hold:>25/25 Range: 0 dBm Ref 0 dBm 0 dB/di og C 1.000 Center Ref 0 V Center 1 GHz Span 8 MHz YRef 0 V

Figure 11

12. Check for any errors and verify that the new software version is installed. Press [**System**], {**Show**}, {**System**} on the instrument, look for the "Instrument S/W Revision" as illustrated in figure 12.

		LIGN OFF 02:31:28 PM Oct 16, 2014	Page
Center Freq 1.0000	1000000 GHz Center Freq: 1.000 Trig: Free Run Range: 0 dBm	000000 GHz Avg Hold:>25/25	Fage
Keysight Technologies			Prev Pa
Keysight EXF	Keysight EXF Wireless Test Set		
Product Number	E6650A		
Serial Number	US54320101		
Instrument S/W Revision	F.14.54		NextPa
Revision Date	10/16/2014 2:19:29 PM		
Computer System	Windows 7, Service Pack 1		
Computer Name	A-E6650A-20101		
LAN Port1	Down		
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			
E6650A-M33			
E6650A-M44			
E6650A-RFO	RFIO		
E6650A-SRC	Signal Source		
N7699A-D24	Measurement Applications Temporary License - demo only		
V9060A-2FP	Test Set Measurement Application		
V9065B-1FP	Sequence Analyzer for BTS Applications		
ISG		STATUS	