N9030A-03A

# Information Only Service Note

Supersedes:
N9030A-03

## N9030A PXA Signal Analyzer

Serial Numbers: ALL

PXA Signal Analyzer Removable Disk Drive and CPU Compatibility

As of December 2016, there are three versions of CPUs used in PXA signal analyzers that accept removable disk drives, but not all removable disk drives can be used on all versions of CPU.

Parts Required: NONE

ADMINISTRATIVE INFORMATION

| | |
|---|---|
| [[]] Calibration Required | PRODUCT LINE: 12 |
| X Calibration NOT Required | AUTHOR: BDT |

ADDITIONAL INFORMATION:

KEYSIGHT TECHNOLOGIES

Situation:

As of December, 2016, there are three versions of CPUs used in PXA signal analyzers that accept removable disk drives, but not all removable disk drives can be used on all versions of CPU. It is the image with which the disk drive was built that determines with what CPUs the disk drive is compatible. The currently-running instrument software version is not necessarily the same as the image with which the disk drive was built.

Solution/Action:

The three CPUs with removable drives and the supported images are listed in Table 1. To view the CPU Option, press System, Show, System on the analyzer. One of the first two options listed will be the CPU option

Note that one of the CPUs support only the WinXP operating system, another CPU supports either WinXP or Windows Embedded Standard 7 ("WES7"), and the most recent CPU supports only WES7.

Note that disk drives are imaged with only one operating system, either WinXP or WES7, not both.

Table 1. EXA CPUs with Removable Drives and Supported Images

| CPU Option | CPU Type | Supported Images | |
|---|---|---|---|
| | | WinXP | WES7 |
| N9010A-PC2 | Intel ® Core TM Duo T2500 @2.00 GHz | >= A.02.06 | Not Supported |
| N9010A-PC4 | Intel ® i7 L 620 @2.00 GHz | >= A.10.04 | >= A.13.06 |
| N9010A-PC6 | Intel ® Core i7 – 3615QE CPU @ 2.30 GHz | Not Supported | >= A.16.05 |

To determine what the image version is for a particular disk drive, navigate to the C:\TEMP folder. In there you will find an Installer file, such as "XSA_Installer_A.13.12_x64.exe". The "A.13.12." portion of the filename indicates the image version.

The image version is the version of the XSA Signal Analyzer application. In the case of the example above, this would be A.13.12. According to Table 1, this version is compatible with N9020A-PC4, but not N9020A-PC6.

Even if a disk drive has a compatible image, this does not mean that the drive can be easily shared amongst several different types of CPUs. When a new disk drive is installed in an analyzer, the disk drive is "unsealed" at first power-up. As part of the unsealing process, the operating system discovers what CPU hardware is being used and configures itself properly for that CPU hardware.

Once the disk drive has been unsealed, it is configured only for the type of CPU in which it was originally installed.

If it is necessary to use the disk drive on a CPU of a different type (a “new CPU”), and the image on the disk drive can support the new CPU, it will be necessary to perform an Agilent Recovery or Instrument Image Recovery. This essentially returns the disk drive back to what it was like when it was new. Any updates to the XSA Signal Analyzer application and any user-installed software on the C: drive is over-written by the recovery process. The recovery process, however, does not delete or overwrite any files on the D: (user documents) or E: (calibration data) drives.

As part of the recovery process, the operating system will again discover what CPU hardware is being used and configure itself appropriately.

CAUTION: Keysight does not support sharing a disk drive amongst several analyzers, even if the CPUs are all of the same type. The reason for this is that the disk drive also contains the calibration files which are unique for each analyzer. Sharing a drive amongst several analyzers requires separately backing up and archiving the calibration files for each analyzer and making sure these backups and archives are updated whenever the analyzer is calibrated or repaired. This requires great discipline.

An upgrade kit is available to upgrade to the N9030A-PC6 CPU. This kit, N9094AK-PC6, includes a new solid state drive (SSD) with the currently released instrument software installed. This kit is designed to upgrade the CPU on a properly-functioning analyzer and should not be used to replace a damaged CPU. The kit can also be used to upgrade the operating system from WinXP to WES7. Upgrades require a properly-functioning analyzer so that it will be possible to back-up the calibration files using the original CPU and then restore the calibration files once the new CPU is installed.

CPU replacement kits are also available to replace damaged CPUs. These kits do not include a new SSD since it should be possible to re-use the original SSD. These kits should not be used to upgrade from one CPU type to another. Refer also to service note N9030A-01A for CPU replacement kit part numbers.

Revision History:

| Date | Service Note Revision | Author | Reason for Change |
|---|---|---|---|
| 02 May 2012 | 03 | BDT | As Published |
| 21 Dec 2016 | 03A | BDT | Added reference to WES7 and PC6 |