

P5023A-04

Information Only Service Note

Supersedes:
None

P5023A Keysight Streamline USB Vector Network Analyzer

Serial Numbers: ALL

False alarm on self-test failure on firmware revision of A.13.40.02 - DDR3 memory removal

Parts Required:

P/N	Description	Qty.
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None

ADMINISTRATIVE INFORMATION

Calibration Required
 Calibration NOT Required

PRODUCT LINE: WN
AUTHOR: ls

ADDITIONAL INFORMATION:

Situation:

Keysight P502xA (x= 0/1/2/3/4/5/6/7/8) Vector Network Analyzer (VNA) firmware revision A.13.40.02 will report self-test failure on newer batch of VNAs with shipment date of early 2022 and onwards.

Background

The on board DDR 3 memory in VNA is not in use since its release. With the removal of DDR 3 memory IC on newer P502xA VNA, right after firmware is launched, false alarm (self-test failure) will be reported as shown. This has no impact to VNA performance and specifications.

Similarly, firmware will report a false failure in Operator check. Shown are the error messages example on VNA firmware UI.

Impacted firmware revision: A.13.40.02

Non impacted firmware revision: A.13.70.02 and newer.

Self-test

The screenshot displays the Keysight P502xA VNA interface. At the top, a red banner indicates a "Self test failure. Module test". The main display area shows a plot titled "S11 LogM 10.00dB/ 0.00dB" with a y-axis ranging from -50 to 50. A modal error message box is overlaid on the plot, containing the following text:

```
(01/26 16:27:26) Self test failure: Module test  
M9804A (Chassis 1, Slot 17)  
  
Clear Inactive Error Records  
Show all error message records
```

Below the VNA interface, a Notepad window titled "ErrorRecords.txt" shows the recorded error message:

```
-(Error): (01/26 16:27:26) Self test failure: Module test  
M9804A (Chassis 1, Slot 17); ActiveError
```

Operator Check



Solution/Action:

Since this DDR3 memory is not in use, newer firmware revision no longer consider it as the failure. Keysight recommends keeping VNA firmware up-to-date whenever it is possible.

For users with firmware revision of A.13.40.02,
Update firmware to revision A.13.70.02 or newer to resolve this false alarm on self-test.

For users with firmware revision of A.13.70.02 or newer,
No action is necessary.

P502xA Vector Network Analyzer Firmware Update (Keysight.com)

<https://www.keysight.com/my/en/lib/software-detail/instrument-firmware-software/pxieusb-vector-network-analyzer-firmware-update-64-bit-3027357.html>

Note: VNA firmware update can be easily performed by user on the intended controller PC/ embedded controller. User does not need to return controller or VNA to Keysight service center.

~ End~

Revision History:

Date	Service Note Revision	Author	Reason for Change
9-Feb-2022	P5023A-04	ls	As Published