N5172B-02

Information Only Service Note

Supersedes:
NONE

N5172B X-Series EXG Vector Signal Generator

Serial Numbers: ALL

The Problem – Incomplete or limited adjustments result is hardware being needlessly replaced.

Parts Required:

P/N	Description	Qty.
	NONE	

ADMINISTRATIVE INFORMATION

XX Calibration Required	PRODUCT LINE: PL15
[[]] Calibration NOT Required	AUTHOR: AKS

ADDITIONAL INFORMATION: Similar miss-diagnosing of hardware has also been noted on other family models of the X-Series, which is made up of the following models: N5171B, N5172B, N5173B, N5181B, N5182B and N5183B.

KEYSIGHT TECHNOLOGIES

Situation:

Worldwide, there have been instances where N5172B X-Series Signal Generators have had hardware unnecessarily replaced due to incomplete Power Level Adjustments. Technical Customers and Service Centers have identified Power Level associated failures during Performance Verification and/or after Service has been performed. During Power Level verification, of currently installed hardware, assumptions have been made that hardware is faulty due to a possible component failure. It has been determined that in most cases, perhaps incomplete or limited Adjustments were likely performed, thereby causing CAL arrays to be partially and incorrectly populated. Due to the incorrect arrays, Power Level Performance Test will appear to drift or fail at random points but not necessarily every point.

Solution/Action:

N7822A TME Service Software allows for performing selective adjustments, which can create this situation if required adjustments are bypassed or performed out of sequence. If a Technical customer reports, a recently adjusted N5172B or if a newly installed hardware fails its performance tests; specifically, Power Level Accuracy, it is highly recommended to perform the appropriate adjustments prior to replacing any suspected hardware.

For Power Level Accuracy, at minimum, the following adjustments are required...

- ALC Linearity
- Absolute Power
- ALC CAL
- Mod Driver (open loop) CAL

For other Performance as well as continued Power Level Accuracy failures, performing a **FULL Adjustment CAL** maybe necessary prior to determining that there actually is or is not a hardware failure. If a unit continues to fail after attempts at performing the necessary adjustments, this would-be confirmation that the hardware is indeed faulty.

Revision History:

Date	Service Note Revision	Author	Reason for Change
28 Aug 2017	01	Allen Stephens	As Published