# E4809A-01

# S E R V I C E  N O T E

Supersedes:
NONE

## E4809A 13.5 GB/S CLOCK MODULE

**Serial Numbers: [0000A00000 / 9999Z99999]**

**Giga clock output termination.**

**Parts Required:**

| P/N | Description | Qty. |
|---|---|---|
| NONE | | |

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:

**INFORMATION ONLY**

AUTHOR: HB PRODUCT LINE: 24

ADDITIONAL INFORMATION:



Agilent Technologies

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**Situation:**
In the 81250_Installation_Guide.pdf chapter “The ParBERT Modules” – “Clock Modules” – “E4809A Clock Module” is stated:

The E4809A clock module uses power splitters for the giga clock outputs.
The output connectors are paired as follows: [1,2] [3,4] [5,6] [7,8] [9,10] [11,12]. Output #1 is at the top, output #12 is at the bottom.
If only one connector of a pair is used, the unused connector must be terminated with 50 Ohm to RF ground.

**Solution/Action:**

**List of modules without LimBERT, i.e. odd giga clock outputs should be terminated.**

| N4872A | N4874A | N4873A | N4875A |
|---|---|---|---|
| DE43A00101-DE43A00237 | DE43A00102-DE43A00108 | DE43A00104-DE43A00165 | DE43A00105 |
| DE43A00242-DE43A00243 | DE43AEX004-DE43AEX005 | DE43A00170 | |
| DE43A00272 | | DE43A00175 | |
| DE43A00287 | | | |
| DE43A00293 | | | |
| DE43AEX001-DE43AEX004 | | | |
| DE43AEX009 | | | |
| DE43AEX013 | | | |
| DE43AEX024 | | | |
| DE43AEX026 | | | |
| DE43AEX028 | | | |
| DE43AEX035 | | | |
| DE43AEX042 | | | |
| DE43AEX044-DE43AEX047 | | | |
| DE43AEX054-DE43AEX057 | | | |

**The following belongs to 13G/7G modules without a LimBERT device at the giga clock input (GIGA CLK IN), which means hardware revision 1.**

You can verify the hardware version of your module by running the "Agilent 81250 User Software".
Select in menu System -> Power-On Test ... -> Service.
Press "View Results" and the number after "..., <FE_N4872A," is the hardware revision.

The giga clock outputs are designed as pairs. It is highly recommended to use them from bottom to top on the clock module E4809A and as pairs. If using an odd number of giga clocks the "odd output" should be terminated. Otherwise the amplitude of the clock signal could be decreased at certain frequencies (crosstalk) and the connected generator or analyzer may not work correctly.

Using unterminated giga clock outputs cannot destroy the clock module. However, the signal quality of the clock could be affected.

All other N4872A, N4873A, N4874A and N4875A modules have a LimBERT (limiting amplifier) at the giga clock input and the termination of any open outputs at the clock module is not required.