M8062A-02

Modification Recommended Service Note

Supersedes:
NONE

M8062A - 32 Gb/s Front-End for J-BERT M8020A High-Performance BERT

Serial Numbers: MY55120057, MY55120068, MY55400301, MY55400302, MY55400303, MY55400304, MY55400305, MY55400306, MY55400307, MY55400311, MY55400312, MY55400315, MY55400317, MY55400318

The Problem: When using the CDR as the M8062A Analyzer Clock Source and operating at data rates near 16 Gbps (8 GHz clock frequency), some units may experience elevated jitter levels on the recovered clock, as measured at the Analyzer Clock Out connector.

Parts Required: NONE

ADMINISTRATIVE INFORMATION

ACTION CATEGORY:	[ ] ON SPECIFIED FAILURE X AGREEABLE TIME	STANDARDS LABOR: 1.0 Hours			
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE (active On-site contract required) X FACTORY [ ] CHANNEL PARTNERS	SERVICE INVENTORY:	X RETURN [ ] SCRAP [ ] SEE TEXT	USED PARTS:	X RETURN [ ] SCRAP [ ] SEE TEXT
AVAILABILITY: PRODUCT'S SUPPORT LIFE		NO CHARGE AVAILABLE UNTIL: PRODUCT'S SUPPORT LIFE			
X Calibration Required [ ] Calibration NOT Required		PRODUCT LINE: PL24 AUTHOR: MM			

ADDITIONAL INFORMATION:
Hardware modification can be performed at the Factory only.

KEYSIGHT TECHNOLOGIES

Situation:
When the CDR is selected as the M8062A analyzer clock source (Data In > Clock > Source) and the system is operating at data rates around 16 Gbps (8 GHz clock frequency) the recovered clock from the CDR may have an oscillation, observable as elevated jitter levels on the analyzer clock output.

- The affected data rate range is typically between 16.0 – 16.4 Gbps (8.0 – 8.2 GHz clock).
- Units without this problem typically have 0.5 ps or less of RJ_{RMS} on the analyzer clock output.
- Units with this problem typically have 1 ps or more of RJ_{RMS} on the analyzer clock output.

There is no expected impact to performance when:

- Operating at other data rates.
- "SYS CLK" or "CLK IN" is selected as the analyzer clock source.

Solution/Action:
A board level hardware modification (M8062-66804 Mod 6) exists which fixes this problem. This modification is to be performed at the Factory only.

This modification is to be performed on all listed units sent to the Factory for calibration or repair, even if the failure symptom is not observable. Implementation of this modification is to be performed at the expense of the Factory. The customer may be charged for failures found on incoming test which are not related to this modification.

It is necessary to run full performance verification after this modification has been performed.

Revision History:

Date	Service Note Revision	Author	Reason for Change
12 April 2016	01	MM	As Published