

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

86130A-12A

S E R V I C E N O T E

Supersedes:
86130A-12

86130A BitAlyzer Error Performance Analyzer

Serial Numbers: [0000A00000 / 9999Z99999]

Incorrect frequency or high jitter when using internal clock source may require replacement of A2 Pattern Generator or A2A1 Pattern Generator Clock Path Assembly.

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
86130-69015	Pattern Generator – Refurbished	1
OR		
86130-69002	Clock Path Bd – Refurbished	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
MODIFICATION RECOMMENDED			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 1.0 Hours + CAL	
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY: <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT	USED PARTS: <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: 26 Jan 2007	
AUTHOR: RBS PRODUCT LINE: 8F			
ADDITIONAL INFORMATION:			

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Situation:

The A2A1 Clock Path Assembly may require replacement to resolve data and clock amplifier output performance degradation when using the internal clock source (synthesizer). A defective A2A1 assembly may cause excessive jitter on the data amplifiers, or may result in a doubling of the output frequency (e.g. set 1.0GHz, and displayed frequency is 2.0GHz).

This problem is ONLY evident when using the internal clock source since the prescaler/divider IC (U2, P/N 1GC1-4210) on A2A1 is bypassed when using an external clock source.

Solution/Action:

1. **Confirm the instrument behavior is due to a defective A2A1 assembly.**
 - a. Problem is never evident when using external clock source.
 - b. Frequency doubling problem goes away when using internal clock source above 1.5GHz
2. **Once confirmed**, replace A2A1 (Clock Path Assy) and re-calibrate A2 (Pattern Generator) assembly. Alternatively, you may replace A2 Pattern Generator (install the CAL file supplied with the unit) and run the 86130A Performance Verification tests.

NOTE: A2A1 U2 (1GC1-4210) is reworked in the factory. It requires special soldering techniques to ensure good ground-plane bonding on the IC underside.