N4903B-07 <u>S E R V I C E N O T E</u>

Supersedes: NONE

N4903B-C07 - Pattern Generator and Error Detector 150 Mb/s to 7 Gb/s. Includes built-in clock data recovery

Serial Numbers:

DE49100130, DE49100147, DE49100162, DE49100163, DE49100172, DE49100189, DE49100192, DE49100201, DE49100204, DE49100206, DE49100210, DE49100217, DE49100223, MY49100314, MY49100319, MY49100327, MY49100330, MY49100336, MY49100347, MY49100363, MY49100365, MY49100367, MY49100370, MY49100371, MY49100386, MY49100388, MY49100391, MY49100393, MY49100400, MY49100402, MY49100418, MY49100432, MY49100447, MY49100468, MY49100475, MY49100493, MY49100521, MY49100523, MY49101011, MY49101017, MY49101023, MY49101036, MY49101039, MY49101055, MY49101056, MY49101059, MY49101060, MY49101062, MY49101064, MY49101097

Due to a configuration problem the "External PLL" clock mode selection may be hidden in the product GUI.

Parts Required: P/N Description

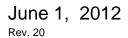
Qty.

NONE

ADMINISTRATIVE INFORMATION

SERVICE NOTE	CLASSIFICATION:			
	MODIFICATIO	DN RECOMMEND	ED	
ACTION CATEGORY:	XX ON SPECIFIED FAILURE [[]] AGREEABLE TIME	STANDARDS LABOR: 0.5 Ho	urs	
LOCATION CATEGORY:	[[]] CUSTOMER INSTALLABLE XX ON-SITE XX SERVICE CENTER [[]] CHANNEL PARTNER	SERVICE [[]] RETURN INVENTORY: [[]] SCRAP [[]] SEE TEXT	USED [[]] RETURN PARTS: [[]] SCRAP [[]] SEE TEXT	
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	NO CHARGE AVAILABLE UNTIL: 31-	Dec-2016	
[[]] Calibration Re XX Calibration No		AUTHOR: HK		
ADDITIONAL INF	NAL INFORMATION:			

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Situation:

Due to a configuration problem the N4903B with Option C07 (Data rate: 150 Mb/s to 7 Gb/s) may offer only 3 instead of 4 Pattern Generator (PG) clocking modes. The "External PLL" mode may be missing.

This can be easily checked by starting the BERT and going to the "PG – Bit Rate Setup" page in the GUI:

	В	ER: 0.000	4 -3 -2 -1 0 Elapsed 00:00:00	Add	Insert B A - Remote
r F	Manual Adjus it Rate E Value and Unit	Externa	Divider 1 IPLL SATA 2	Setup Multipl 1	ier Change
	622.0800	Mb/s	OC-12/STM-4	^	Add Preset
	780	Mb/s	UHS-II Lower Range		
	1.06250	Gb/s	FC1063		Delete Preset
	1.248	Gb/s	MIPI-HS Gear 1A		
	1.25	Gb/s	Gb Ethernet		Edit Preset
	1.456	Gb/s	MIPI-HS Gear 1B(26MHz Ref Clk)		
	1.4576	Gb/s	MIPI-HS Gear 1B		
	1.4592	Gb/s	MIPI-HS Gear 1B(19.2MHz Ref Clk)		
	1.5	Gb/s	SATA 1		
	1.56	Gb/s	UHS-II Upper Range	~	
	ttern Generati 000 Gb/s 2^23-1 I		sk Jitter/ Outputs 2,00000 Gb/s 2^22 1 ppps	Error	Sync Data Clock Loss Loss Loss

All 4 clock source mode must be visible: Internal, External, External PLL and 10 MHz Ref.

If "External PLL" is missing the unit is impacted by the configuration problem and must be fixed. The user is missing a valuable piece of functionality.

Use the tool and process described in the next chapter to correct the problem.

Solution/Action:

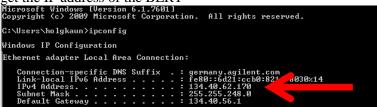
The BERT Downgrade tool is able to correct the problem.

It is available here:

\\wbbnps03\ftp_support\PL24-Support\BERT_Serial\N4903B\Software\Tools\ DowngradeSerialNumToolSetup_v5.06.zip

Please use the following steps:

- 1. You need to install the tool on a desktop or laptop PC (WinXP SP3 or Win7 SP1 64bit system) that has a network connection or a GPIB interface card.
- 2. You need to connect the BERT either to the LAN or use a GPIB connection
 - a. When using the LAN you have to find out the IP address of the unit. Start a DOS command prompt window (Start \rightarrow Run \rightarrow cmd) and use the command "ipconfig" to get the IP address of the BERT



In addition you must switch off the Windows firewall (or create an exception rule) because the tool will require a socket connection using port 5025.

nected to la BER: 0.000 Error Add -3 -2 -1 0 Ela PG - Bit Rate External PLL Si >> Edit File)ivider Multiplier Change >> Set Date and Time External Instrument(s) >> Minimize GUI 057 Pattern >> Output Window R Setup >> Touchscreen Off ED Setup

Ref Clk)

Iz Ref Clk)

>> Change GPIB Address

>> On Screen Keyboard

>> Self Test .

>> Licenses

>> Web Control

Analysi:

XX Jitter

Results

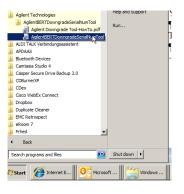
Utility Help

b. When using a GPIB connection you can change the address here:

3. "Preset Instrument State" button on the front panel to reset unit to factory default settings.

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4. Then start the tool via the windows start menu:



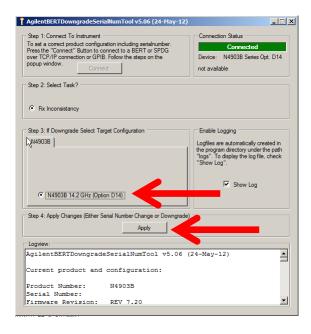
5. Press the "Connect" button and enter either the IP address or the GPIB address of the BERT.

Step 1: Connect To In To set a correct produ Press the "Connect" E	radeScrialNumTool v5.06 (24-May-12) strument ct configuration including setialnumber. ution to connect to a BERT or SPDG on or GPIB. Follow the steps on the Connect	Connection Status
C Change Serial Nu		Number:
Step 3: If Downgrac	Please Select: © use LAN (TCP/IP) © use GPIB Connect your device to the network, set up and deactivate the windows finaval. After to select the IP Address of the Device to cont be something like 134.40.61.70 or localhost [156.140.233.166	hat enter or igure. This can
Step 4: Apply Chan	OK	

6. The tool will show the following window in case the inconsistency in the internal data tables is detected:

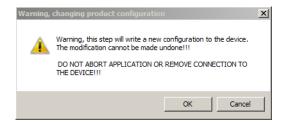
AgilentBERTDowngradeSerialNumTool v5.06 (24-May-12)	
Step 1: Connect To Instrument To set a correct product configuration including setainumber. Press the "Connect" Butin to connect to a BERT or SPDG over TCP/IP connection or GPIB. Follow the steps on the popup window	Connection Status Connected Device: N4903B Series not available
Step 2: Select Task? PG_ExternalClockPLLHode C Change Setial N ATTENTION!! The tool found an inconsisteny in the table of the BERT that must be fixed Step 3: If Downgrade N4903B	I. e inconsistency pally created in
Fix D	Abort log file, check
Step 4: Apply Changes (Ether Serial Number Change or Downgrade)	
Logview:	
AgilentBERTDowngradeSerialNumTool v5.06 (Current product and configuration: Product Number: N4903B Serial Number:	24-May-12)
Firmware Revision: REV 7.20	

7. Press "Fix" in the window above. The tool then will show the following window.



Check the checkbox next to your BERT type and press "Apply" to start the correction process.

The tool will show the following window as "last exit". Please confirm with "OK".



8. The following window confirms that everything is ok.



9. Now re-enable the Windows firewall and reboot the BERT and check whether you get all 4 selection in the following window:

