43521A-04B

S E R V I C E N O T E

Supersedes:
43521A-04A

43521A Downconverter

Serial Numbers: JP1KG00101 to JP1KG00387

Degradation of phase noise measurement due to the incorrect local signal frequency

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
43521-66501	A1 BOARD	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION: **MODIFICATION RECOMMENDED**			
ACTION CATEGORY:	[ ] IMMEDIATELY X ON SPECIFIED FAILURE [ ] AGREEABLE TIME	STANDARDS: LABOR: 2.0 Hours	
LOCATION CATEGORY:	[ ] CUSTOMER INSTALLABLE [ ] ON-SITE X SERVICE CENTER	SERVICE INVENTORY: [ ] RETURN [ ] SCRAP X SEE TEXT	USED PARTS: [ ] RETURN X SCRAP [ ] SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: August 2009	
AUTHOR: TO	PRODUCT LINE: WN		
ADDITIONAL INFORMATION:			

Agilent Technologies

May 23, 2007

Situation:
The A1 main board of the 43521A uses a resonator to lock the LO Output frequency at 600 MHz. Because of variation in internal resistance of the resonator, some resonators might be damaged by large power consumption due to their high internal resistance. When the resonator becomes faulty, the 43521A cannot output 600 MHz frequency exactly at the LO Output connector, and the phase noise measurement becomes degraded.
This problem was fixed with the current A1 board.

Solution/Action:
Check the 600 MHz output on the A1 board in accordance with “600 MHz OSC Troubleshooting” in Chapter 4, 43521A Service Manual. If the measured frequency of the J4 connector of the A1 board is out of 600 MHz +/- 64 kHz, replace the A1 with a new one, and perform required adjustments and performance tests.