

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

E4916A-05

S E R V I C E N O T E

Supersedes:
None

Agilent E4916A Crystal Impedance / LCR Meter

Serial Numbers: JP1KD00792/JP1KD01065

Warning message of “W69 Out of Srch Range” due to defective A1 main board

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
E4915-66531	A1 Main Board	1
E4915-69531	A1 Main Board (rebuilt exchange)	1

ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION RECOMMENDED		
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY x ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 3.0 Hours
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE x SERVICE CENTER	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	USED PARTS: <input checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AGILENT RESPONSIBLE UNTIL: November 2004		
AUTHOR: HK PRODUCT LINE: WN		
ADDITIONAL INFORMATION:		

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Situation:

The E4916A equipped with old A1 Main board (P/N E4915-66521) may display a warning message of “W69 Out of Srch Range” when measuring a crystal resonator or filter at frequencies near 55 MHz. As a result, measurement is disabled. The PLL frequency synthesizer of the A1 Main board that fails in phase-lock causes this problem. To verify if the PLL is unlocked, check the source output signal at -5 dBm at 55 MHz by using a spectrum analyzer. Figure 1 shows an example of unlocked source signal on spectrum display compared to normal source signal (Figure 2).

Figure 1. Spectrum of unlocked source signal

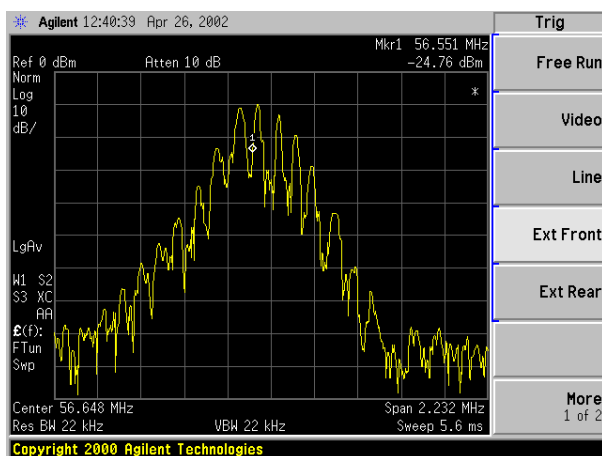
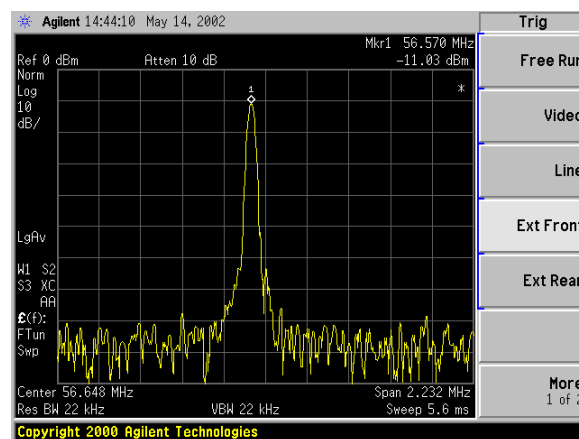


Figure 2. Spectrum of locked source signal



The same problem may occur in the following frequency ranges:

- 1.7MHz to 1.82MHz
- 3.5MHz to 3.75MHz
- 7MHz to 7.5MHz
- 14MHz to 15MHz
- 28MHz to 30MHz
- 54.5MHz to 58.5MHz
- 112MHz to 120MHz
- 180MHz to 192MHz

Solution/Action:

Replace the old A1 board with new A1 board (P/N E4915-69531).