

MODIFICATION RECOMMENDED –
CORRECTS MANUFACTURING OR DESIGN DEFECTS

4288A-04A

S E R V I C E N O T E

Supersedes:
4288A-04

4288A 1 kHz/1 MHz Capacitance Meter

Serial Numbers: MY41100631 – MY41101699

The specification of D factor at 1MHz becomes out of specification because of the wrong linearity

To Be Performed By: Agilent-Qualified Personnel

Parts Required:

P/N	Description	Qty.
04288-69511	A1 Main Board (Exchange Board)	1
(or 04288-66511	A1 Main Board	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: 1.5 Hours	
LOCATION CATEGORY:	<input type="checkbox"/> CUSTOMER INSTALLABLE <input type="checkbox"/> ON-SITE <input checked="" type="checkbox"/> SERVICE CENTER	SERVICE INVENTORY: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT	USED PARTS: <input type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: June 2008	
AUTHOR: jm		PRODUCT LINE: WN	
ADDITIONAL INFORMATION:			

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Situation:

There are some units among the indicated serials that are not satisfied with the specification of D factor at 1MHz because of the wrong linearity

Solution/Action:

The symptoms (the wrong linearity) can be confirmed as below.

- 1) Turn on the unit and connect 100pF of 16380A directly to the unit.
 - 2) Warm up more than 30 minutes.
 - 3) Press Blue-[.] key and choose Yes to reset the unit
 - 4) Press [Freq] and choose 1MHz.
 - 5) Press Blue-[Auto/Hold], [1], [0], [0], and [Eng->] then “Range=100pF” will be displayed.
Press [Enter] to set 100pF range.
 - 6) Press Blue-[Meas Time] to set average, press [6], [4] and [Enter].
 - 7) Here, confirm the settings as below.
“FREQ : 1MHz” and “LVL :1000mV” are displayed at the right side of the LCD.
Press [Show Setting], then “AVE : 64” is displayed.
Press [Show Setting], then “RNG : 100pF” is displayed.
And the left bottom of the LCD, there indicated that “Meas Time” is “Long”.
 - 8) Record the measured value of D.
 - 9) Press Blue-[Auto/Hold], [2],[2],[0], and [Eng->] then “Range=220pF” will be displayed.
Press [Enter] to set 220pF range.
 - 10) Confirm “RNG : 220pF” is displayed at the right side of the LCD.
 - 11) Record the measured value D.
 - 12) Calculate the difference between the D of 8) and 11).
- If the difference is more than 100 ppm, the unit should be repaired.

Procedures:

Replace the old A1 board of **04288-66501** or **04288-69501** by **04288-66511** or **04288-69511**.

Post Repair Procedure:

- Adjustment
 - All Adjustment items
- Verification
 - Power on Self-Test
 - All Performance Test
 - Internal Test
 - External Test

Retrofit Time:

Total time: 1.5 hours

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