

MODIFICATION RECOMMENDED –  
CORRECTS MANUFACTURING OR DESIGN DEFECTS

**4287A-02A**

# **S E R V I C E N O T E**

Supersedes:  
4287A-02

## Agilent 4287A RF LCR Meter

Serial Numbers: **JP1KG00000/JP1KG00242**

### "Power on test failed" Error Message due to RF Switch Failure

To Be Performed By: **Agilent-Qualified Personnel**

#### Parts Required:

P/N	Description	Qty.
04287-69553	A3 SOURCE BOARD	1
04287-69554	A4 RECEIVER BOARD	1
04287-85011	IC, Config ROM	1
04287-65007	Firmware Kit	1

## ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:			
<b>MODIFICATION RECOMMENDED</b>			
ACTION CATEGORY:	<input type="checkbox"/> IMMEDIATELY <input checked="" type="checkbox"/> ON SPECIFIED FAILURE <input type="checkbox"/> AGREEABLE TIME	STANDARDS: LABOR: 4.0 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 checked="" type="checkbox"/> RETURN <input type="checkbox"/> SCRAP <input type="checkbox"/> SEE TEXT
AVAILABILITY:	PRODUCT'S SUPPORT LIFE	AGILENT RESPONSIBLE UNTIL: DECEMBER 2004	
AUTHOR: TO	PRODUCT LINE: WN		
ADDITIONAL INFORMATION:			

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**Situation:**

GaAs RF switches on old A3 (04287-66503) and old A4 (04287-66504) boards of the 4287A may become faulty by possible humidity infiltration. When the failure is detected in the initial power-on test, "Power on test failed" error message is displayed.

**Solution/Action:**

When the power on test fails, perform modification (A) prior to modification (B), as described below:  
(A) Firmware update and A21U27 replacement to fix booting problem (This modification is described in Service Note 4287A-01A.)

(B) A3 and A4 board replacement to fix the "Power on test failed" message problem.

The procedure to perform both modification (A) and (B) is as follows:

- (1) Install firmware revision 1.31 or above into the 4287A using Firmware Kit (P/N 04287-65007). For the procedure, refer to installation manual in the kit.
- (2) Turn the 4287A power off and on (to reboot the 4287A).
- (3) Check that the firmware revision now is 1.31 or above.
- (4) Turn the 4287A off.
- (5) Remove the outer cover of the 4287A.
- (6) Remove A21 analog interface board from A20 motherboard.
- (7) Using an IC extractor, remove A21U27 (ROM) from IC socket on the A21.
- (8) Insert new ROM (P/N 04287-85011) into the IC socket for the A21U27.
- (9) Place the A21 on the A20.
- (10) Exchange the old type A3 and A4 boards with new A3 (P/N 04287-69553) and A4 (P/N 04287-69554) boards, which have humidity-resistive RF switches. Even if either the A3 or A4 board is faulty, exchange both the A3 and A4 to prevent possible problem with the same RF switch.
- (11) Restore the outer cover of the 4287A.
- (12) Turn the 4287A on. Check that no error message is displayed.
- (13) Perform the required adjustments and performance tests.

Note: Return only the old A3 and A4 boards for exchange program.