E5071C-19
S E R V I C E N O T E

Supersedes: NONE

E5071C - ENA Series Network Analyzer, 9 kHz to 20 GHz

Serial Numbers: MY46100001 to MY46199999, SG46100001 to SG46199999

Boot up failure (2 LED issue) due to condensation

**Parts Required:** 

P/N Description Qty.

E5071-62001 CPU Mother Board Assembly 1

# ADMINISTRATIVE INFORMATION

SERVICE NOTE CLASSIFICATION:		
MODIFICATION AVAILABLE		
ACTION CATEGORY::	AGREEABLE TIME	[[]] PERFORMANCE ENHANCEMENT [X] SERVICE / RELIABILITY ENHANCEMENT
LOCATION CATEGORY:	[[]] CUSTOMER INSTALLABLE [X] ON-SITE [X] SERVICE CENTER [[]] CHANNEL PARTNERS	AVAILABILITY: End of support
[[]] Calibration Required [X] Calibration NOT Required		PRODUCT LINE: WN AUTHOR: jm
ADDITIONAL INFORMATION:		

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# **Situation:**

When front power switch was pushed after power toggle switch on the rear ATX power supply was turned on, E5071C looks to start with two LED's on the rear panel lighting and fans inside E5071C rotating. But after a few seconds, LED's and fans stop. No BIOS POST screen, OS selection screen nor Windows come out. E5071C is not able to start.

 $Figure \hbox{-} 1 and \ Figure \hbox{-} 2: Just \ after \ power \ button \ on \ the \ rear \ ATX \ power \ supply \ is \ turned \ on, \ no \ LED \hbox{'s}$ 

on the rear panel with all fans stopping.

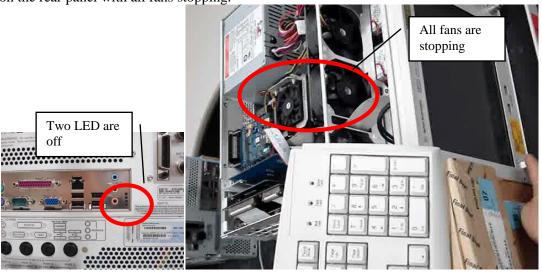
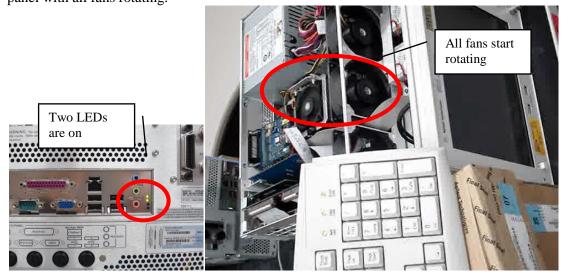


Figure-3 and Figure-4: Just after power switch on the front panel is turned on, two LED on the rear panel with all fans rotating.



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## **Solution/Action:**

If this symptom disappears when you heat up the instrument, Agilent considers it as condensation issue

### First Solution:

Ask Customer to follow the Operating Environments requirements.

# **Operating environment**

Temperature +5 °C to +40 °C

Error-corrected temperature range 23 °C (+/-5 °C) with < 1 °C deviation from calibration temperature

Humidity 20% to 80% at wet bulb temperature < +29 °C (non-condensation)

Altitude 0 to 2,000 m (0 to 6561 feet)

Vibration 0.21 G maximum, 5 Hz to 500 Hz

### Second Solution:

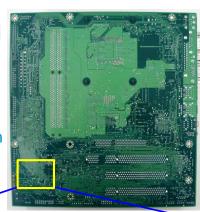
Coat with Epoxy resin on the RTC circuit in the CPU mother board by SSU.

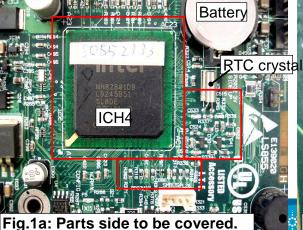
1. The area which should be covered by epoxy resin is as follows.

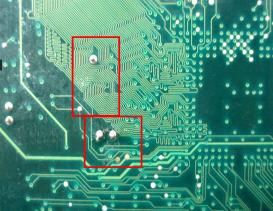


# Area which should be covered by epoxy resin

Area which is sensitive to water and thus which should be covered by epoxy is shown here.





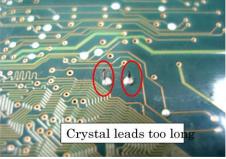


: Parts side to be covered. Fig.1b: Circuit side to be covered.

### 2. Pre-conditioning

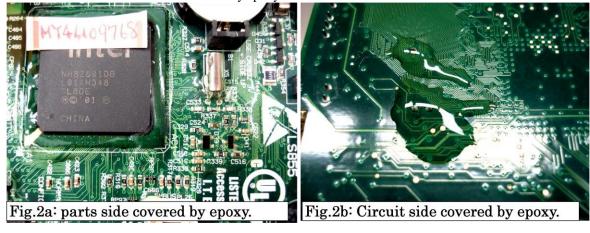
- 2-1. Clean the RTC circuit area of the board.
- 2-2. PC cleaner, isopropyl-alcohol or its equivalent and a brush are recommended to use.
- 2-3. Cut crystal leads short on the bottom side not to stick out from epoxy, if they are too long.

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- 2-4. Dry up the PC board.
- 2-5. Apply epoxy resin to the PC board as described at Step 1.

  Two part epoxy adhesive, cure time is around five to ten minutes.
- 2-6. Cure PC Board in accordance with the description of the epoxy resin.
- 2-7. Finished outlook of the board covered by epoxy resin is shown below.



The recommended epoxy resin is as follows.



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