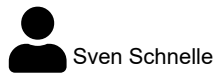


Mute This Topic (<https://groups.io/g/HP-Agilent-Keysight-equipment/ft/91906365?csrf=5513314409256117711&mute=1&p=Created%2C%2C%2C20%2C2%2C0%2C0>)

E14418B hangs after few seconds Date (<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/91906365?p=Created%2C%2C%2C20%2C2%2C0%2C0>)



Jun 21 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127320>)

Hi List,

i recently bought a used E4418B power meter (it was advertised as not working). Powering it up i was happy to see that it was booting + working. I was even able to measure the power reference signal, but than it suddenly stopped working. Power cycling it, and it was now only running for a few seconds. I left it for a few minutes disconnected from mains, and after reconnecting it it worked again for 20-30s. When it stops working and i power cycle it without a longer pause it will only work for less than 3s.

Probing the processor showed that it will cease all bus activity when it stops working. I checked the Reset and Clock signals to the MC68332A, and both are ok. I also replaced the 4 128kx8 SRAM chips but that didn't help. Anyone seen that behaviour before?

I'm tempted to swap the MC68332A, but not sure whether that's really the issue. I hope it's not the flash or the CPLD on the board.

Thanks
Sven

Reply

Like

More

Lothar baier <Lothar@texasmicrowave.com>

Jun 21 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127321>)

There a few things you should try first ,
The first thing is to change the lithium battery on the CPU board , I have seen those meters acting up if the battery runs low or is dead .
Next do a general reset , if I remember correctly you press and hold the first or second (memory is kinda dim) button right next to the display and turn the unit on , this will reset the unit in a default state .
You can also try to update the firmware to the latest revision as there was one revision that was flaky .

Sent from Mail (<https://go.microsoft.com/fwlink/?LinkId=550986>) for Windows

Show quoted text

Reply

Like

More



Sven Schnelle

Jun 21  (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127322>)

"Lothar baier" <Lothar@texasmicrowave.com> writes:

The first thing is to change the lithium battery on the CPU board,
I have seen those meters acting up if the battery runs low or is dead.

Ok, good to know. I forgot to mention that, the battery is indeed empty. The meter shows a warning during startup, and it measure 0V. I noted there's a service note to fix excessive drain, haven't checked yet whether that modification was already done.

Next do a general reset , if I remember correctly you press and hold the first or second (memory is kinda dim) button right next to the display and turn the unit on , this will reset the unit in a default state .

Will do. Thanks for the hint, i wasn't expecting that an empty battery could cause such issue. I already ordered a new battery, but will test with a Power supply whether it works with a full 'battery'.

You can also try to update the firmware to the latest revision as there was one revision that was flaky .

I'm afraid that i'll brick the unit, as it might crash during the firmware update. But it looks like there's even a (unpopulated) BDM (Background debug module, similar to JTAG) connector on the PCB for debugging, so there might be a way to recover. Maybe i'll even try to solder that connector and see whether i can connect a debugger and check whether the CPU is running, or where it is hanging.

Thanks,
Sven

 Reply

 Like

 More



Paul Bicknell (/g/HP-Agilent-Keysight-equipment/profile/@Paul_B)

Jun 21 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127325>)

Hi Steve

I assume you are talking about a E4418 assuming that is so Lothar is quite correct in fact going back a few years I had the same problem that you are suffering I asked on this sit only to find another 4418 in the USA with the same problem

That was to go on the bench for repair that afternoon 6 hours' time difference I replaced the battery and fixed the fault then posted the fix onto this site and we had repaired 2 meters within the day

Ok All the information is on this site including the modification to stop the meter discharging a new cell within 6 months

Best of luck I found getting the PCB out was the biggest problem on working on this meter don't forget the PCB's that must be removed before disassembly it is a mother Daughter arrangement (Main and sub PCB)

Paul south coast UK

Show quoted text

Reply

Like

More



Razvan

Jun 22 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127338>)

This should go without saying, but have you checked the voltages? This kind of issue where it works for a bit and then it stops, usually indicates that heat plays a role in this, which should immediately make you think "capacitors!". Did you rule out power supply issues? How about local power supplies?

Cheers,
Razvan

Show quoted text

Reply

Like

More



Sven Schnelle

Jun 22 (<https://groups.io/g/HP-Agilent-Keysight-equipment/message/127341>)

"Razvan" <razvan@cojotech.com> writes:

This should go without saying, but have you checked the voltages? This kind of issue where it works for a bit and then it stops, usually indicates that heat plays a role in this, which should immediately make you think "capacitors!". Did you rule out power supply issues? How about local power supplies?

I connected it to a HP6623A power supply but it was still acting up. +5V measured 5.2V, +/-12V where a bit lower (11.8V).

On eevblog someone was wondering what the input voltage to the 'second stage' SMPS is: I measured about 16V in my unit.

Reply

Like

More

← (<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/91924336?p=%2C%2C%2C20%2C0%2C0%2C0%3A%3A%2C%2C%2C0%2C0%2C0%2C91924336>)

→ (<https://groups.io/g/HP-Agilent-Keysight-equipment/topic/91930232?p=%2C%2C%2C20%2C0%2C0%2C0%3A%3A%2C%2C%2C0%2C0%2C0%2C91930232>)