PSP E1000 LED Driver Circuit Component Replacement

Figuring out and repairing the LED driver circuit.

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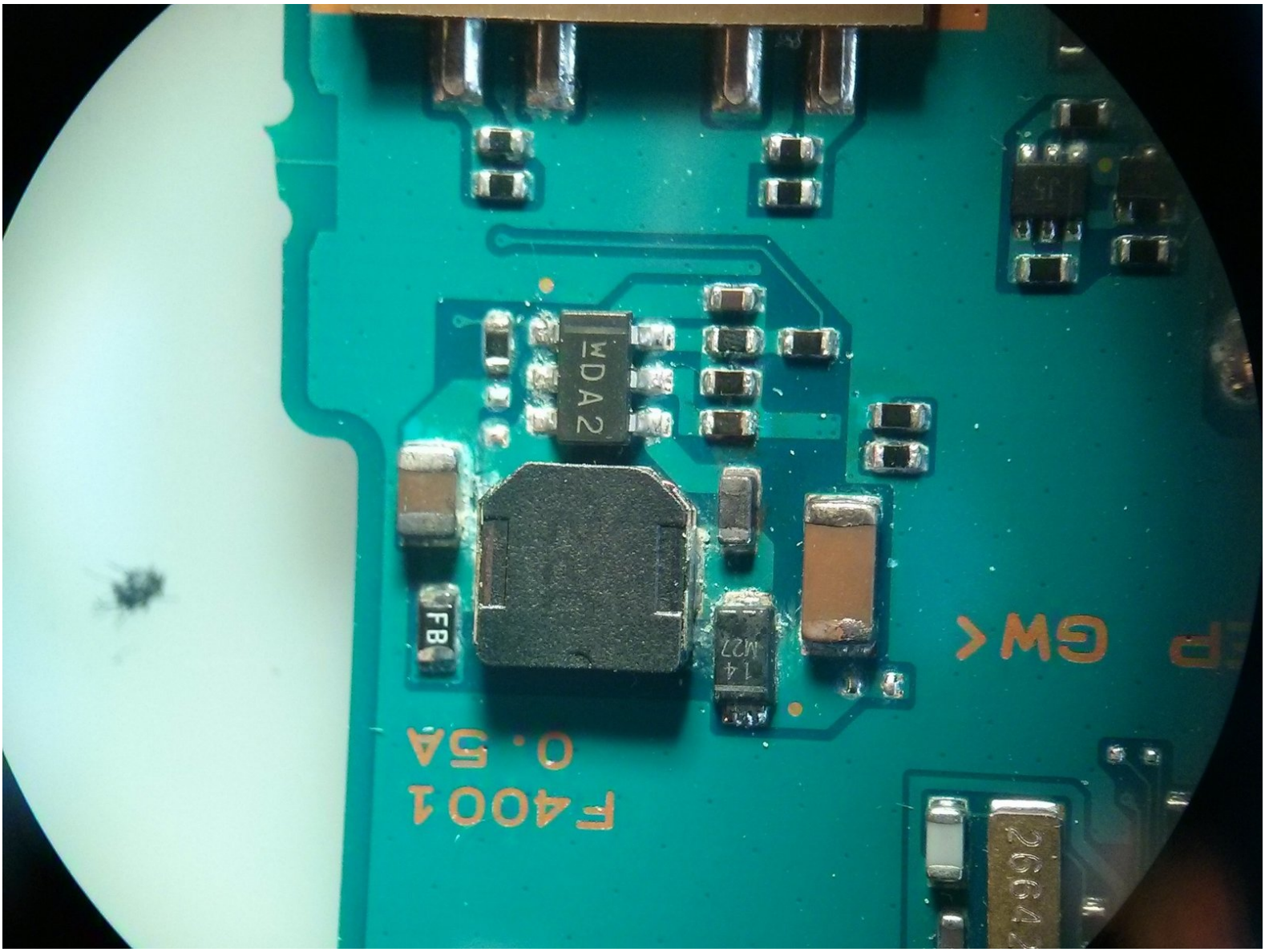


INTRODUCTION

My nephew brought me his PSP after watering it.

I found the PSP was working exept the LCD backlight.

So I disassambled the device and searched for water marks. I found the marks directly on the LED driver circuit. After cleaning and checking the 0.5A fuse (was OK) I dicided to find out the chip. It took me some time to find the correct chip. It was a TB62752AFUG LED driver. It's a step up converter with current output. It can deliver up to 40V.

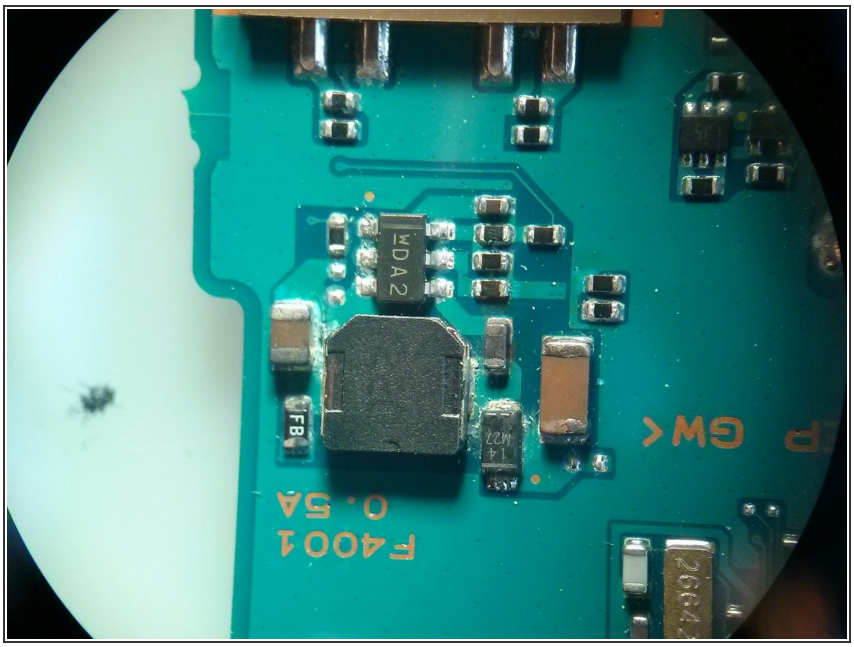
Because I cound not find out, which device was broken, I ordert all part (exept the resistors) reworked them.

After reassabling the whole device, the backlight was working fine again and my nephew was happy.

PARTS:

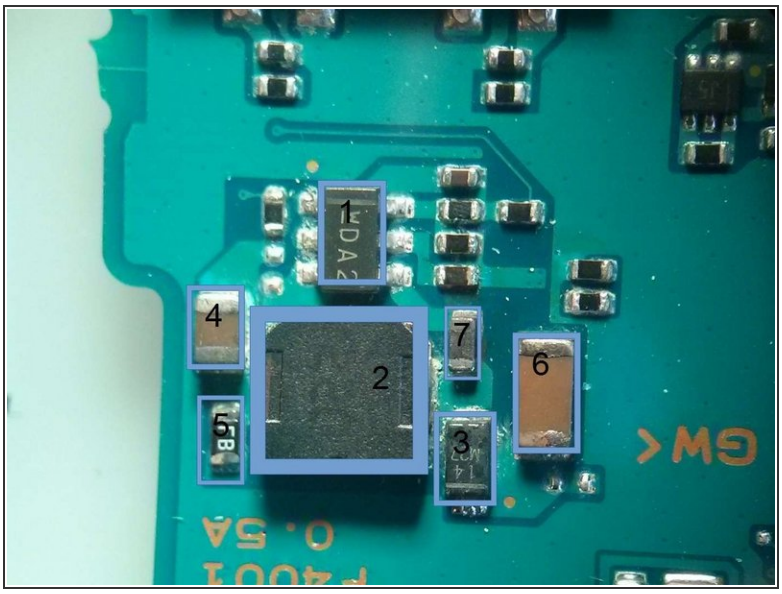
- TB62752AFUG (1)
- CDPH45D13FHF-220MC (1)
- 742792609 (1)
- MSS1P4-M3/89A (1)
- 2.2uF/6.3V/X5R/0805 (1)
- 1.0uF/50VX5R/1206 (1)

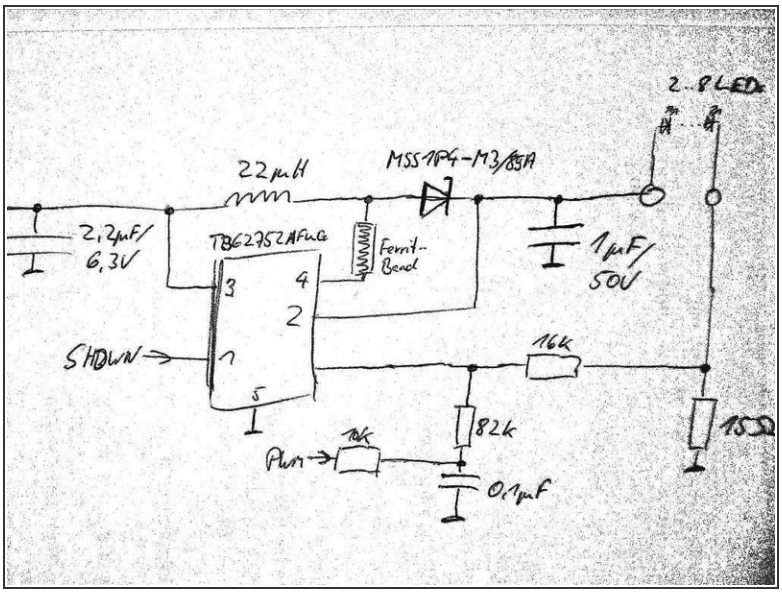
Step 1 — Backlight electronic after water damage



- this picture was made after cleaning

Step 2





- it took me some time to find the right chip:
  - 1 - TB62752AFUG
  - 2 - Inductor 22µH/0.66A
  - 3 - MSS1P4-M3/89A
  - 4 - 2.2µF / 6,3V
  - 5 - Fuse 0.5A 0603
  - 6 - 1.0µF / 50V
  - 7 - Ferrite bead 30Ohm/3A