

TPS923655 questions

One of my customers is evaluating TPS923655 using TPS923655DMTREV.M.

4 pcs of the following LED are connected in series. So total LED Vf is about 48V.

Nichia LED: NV4W144ART

[https://led-ld.nichia.co.jp/api/data/spec/led/NV4W144ART-E\(4288E\)R70%20R8000%20R9050%20R9080.pdf](https://led-ld.nichia.co.jp/api/data/spec/led/NV4W144ART-E(4288E)R70%20R8000%20R9050%20R9080.pdf)

They want to turn the LED on during 15us.

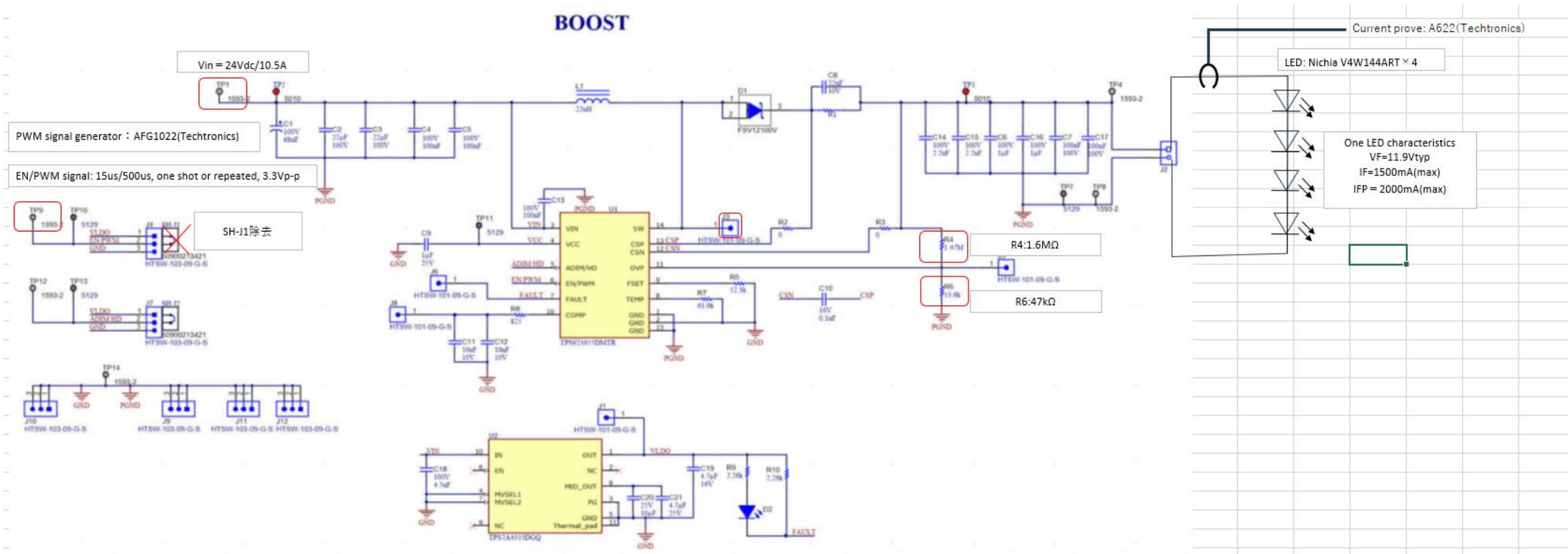
They tried it with the following schematic (Base on EVM schematic) but the LED was not turned on.

They want to know how to turn this LED on during 15us with 15us one shot pulse signal input to EN/PWM pin.

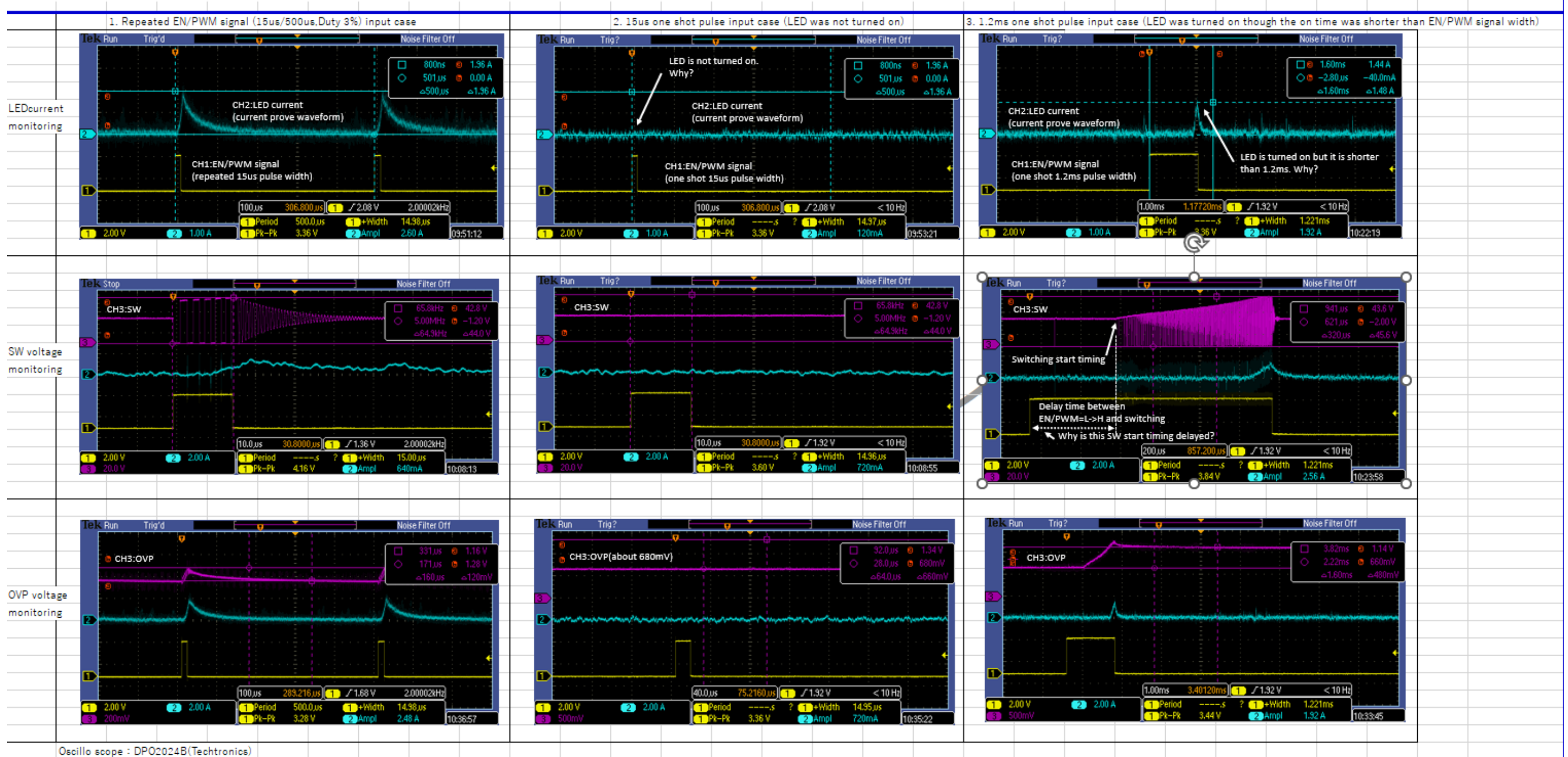
Could you please give me how to turn the LED on?

Also they have several questions like the follows. Could you please give me your answer to the questions described in waveforms and at the end of this file?

[Their evaluation schematic]



[Waveforms]



[Additional question]

Q. We think that the output voltage is clamped when OVP pin is reached to 1.1V.

But the device datasheet says that LED open load is detected when OVP voltage is 1.45V.

In LED open load case, the output voltage not clamped because LED current measured between CSP and CSN is zero?

EOF.