

Using a USB charger and bq25570 at the same time.

Suggestion- Pullup the /EN pin to the VUSB of the external powersupply(USB). When a valid VUSB is present it will charge the battery and disable the bq25570. The PFET between VSTOR and VBAT is off.

Note that minimum EN high voltage (to disable the chip) has to be atleast as high as VBAT-0.2. USB will be ~5V and a completely charged battery will be around ~4.2V.

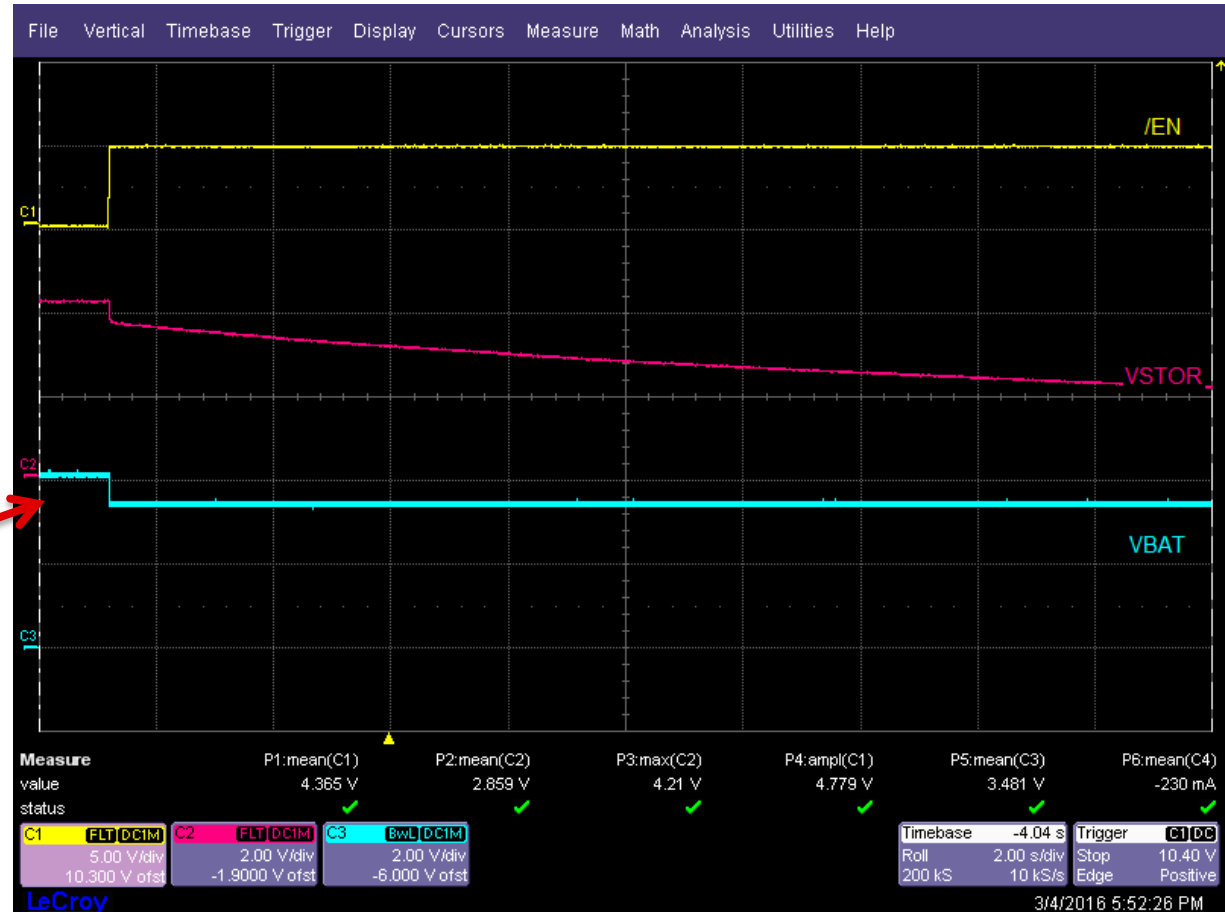
Abs_Max on EN pin is 5.5V

ENABLE THRESHOLDS				
$\overline{\text{EN}}(\text{H})$	Voltage for $\overline{\text{EN}}$ high setting. Relative to VBAT.	VBAT = 4.2V	VBAT – 0.2	V
$\overline{\text{EN}}(\text{L})$	Voltage for $\overline{\text{EN}}$ low setting	VBAT = 4.2V	0.3	V

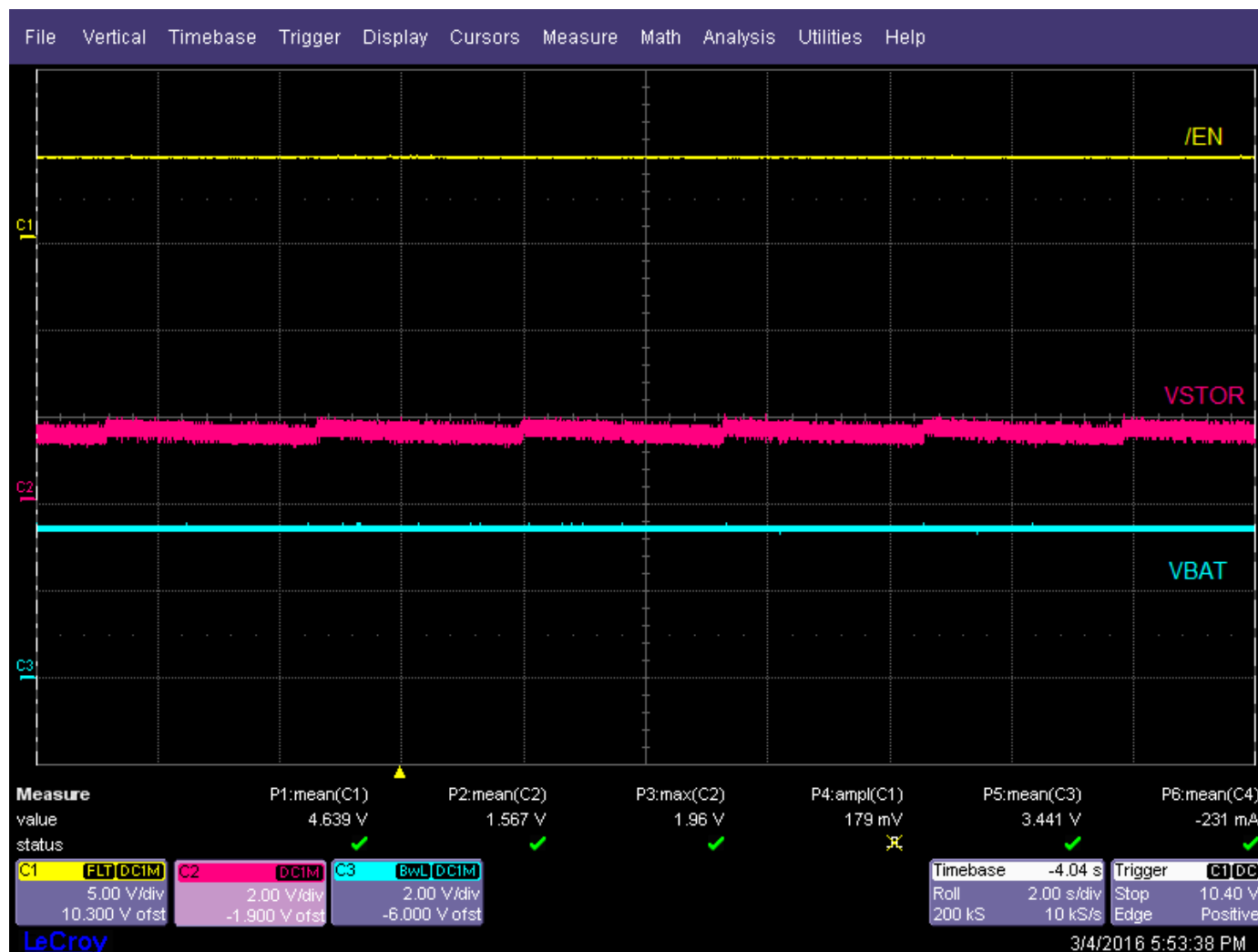
Driving EN pin high with an external supply(mimicks USB)

$V_{BAT} = 3.5V$
 $V_{IN}(BQ25570) = 0.1V$
 $V_{/EN} = 5V$

Transition from
charging the battery to
disconnect



After EN is high for a while



Supply on EN is removed, resumes charging from the harvester

