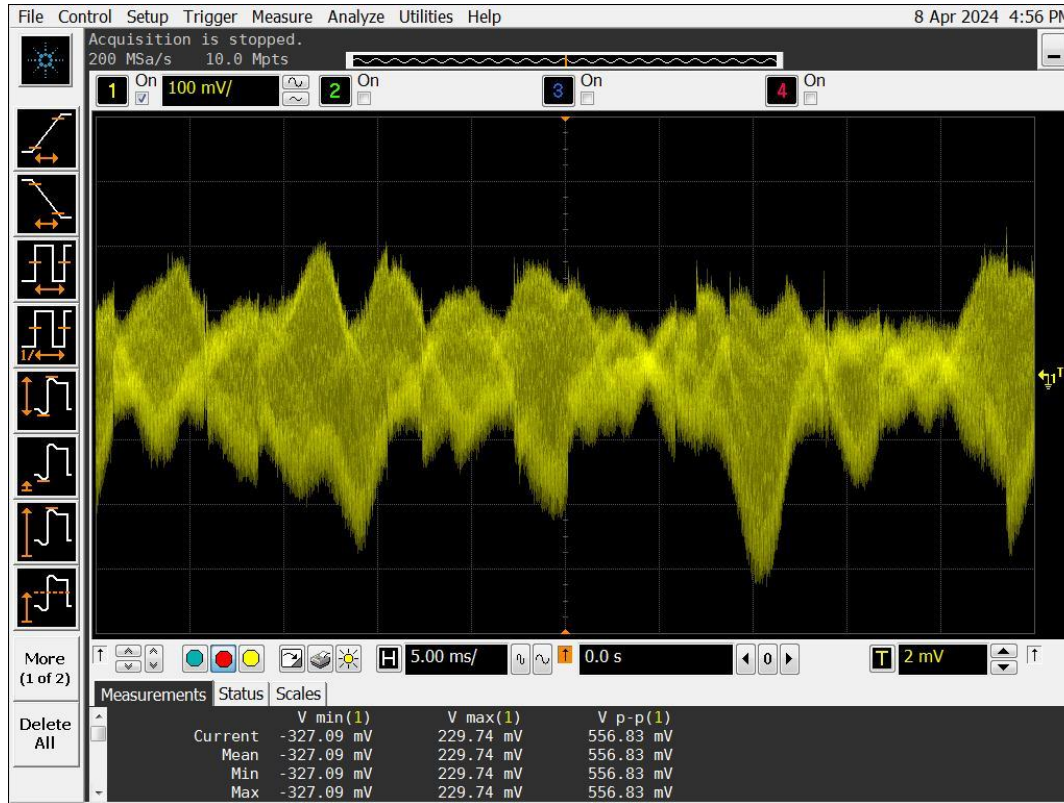
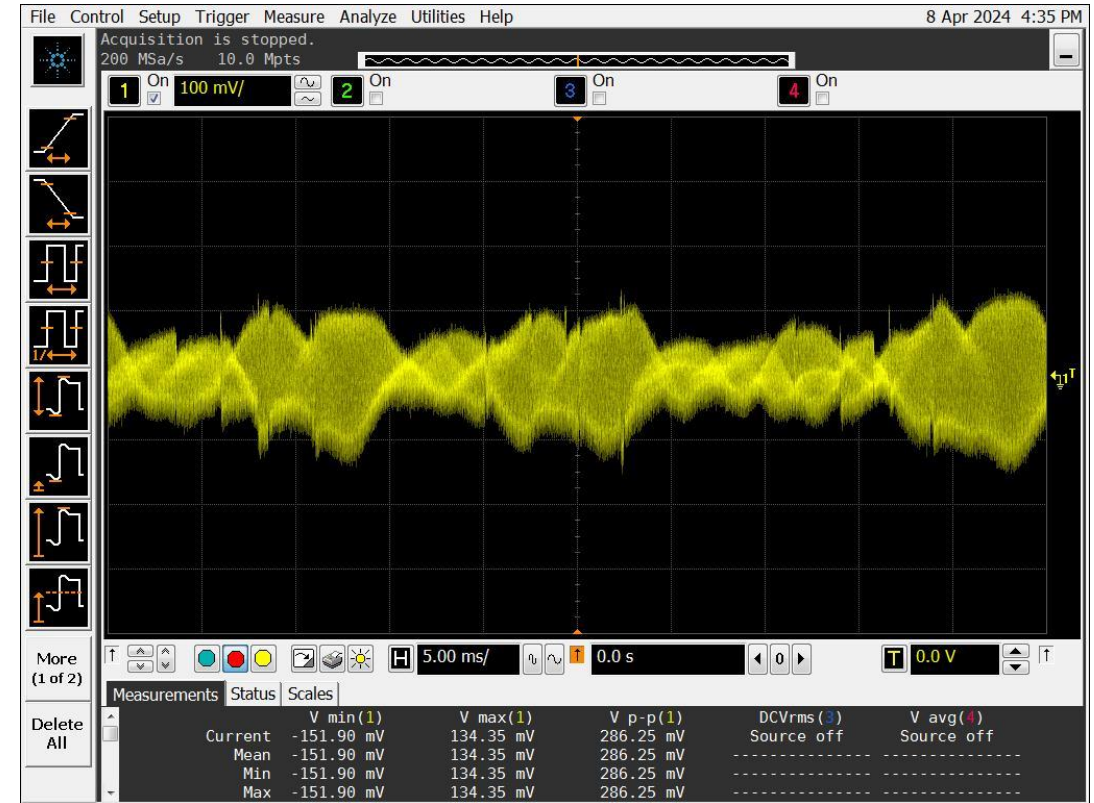


Customer board vs. EVM

Vout ripple voltage



Customer board
556.83mVp-p

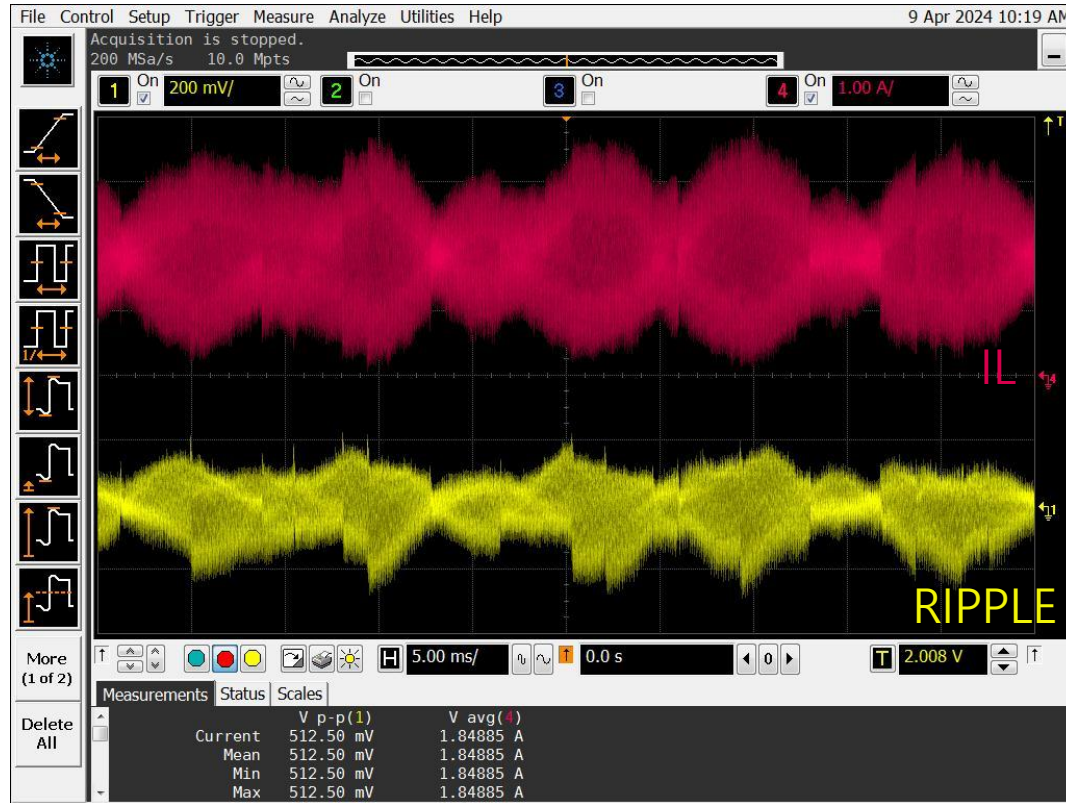


EVM
286.25mVp-p

Based on the ripple voltage of customer board and EVM, the inductor current is expected to swing similarly between customer board and EVM. What do you think of it?

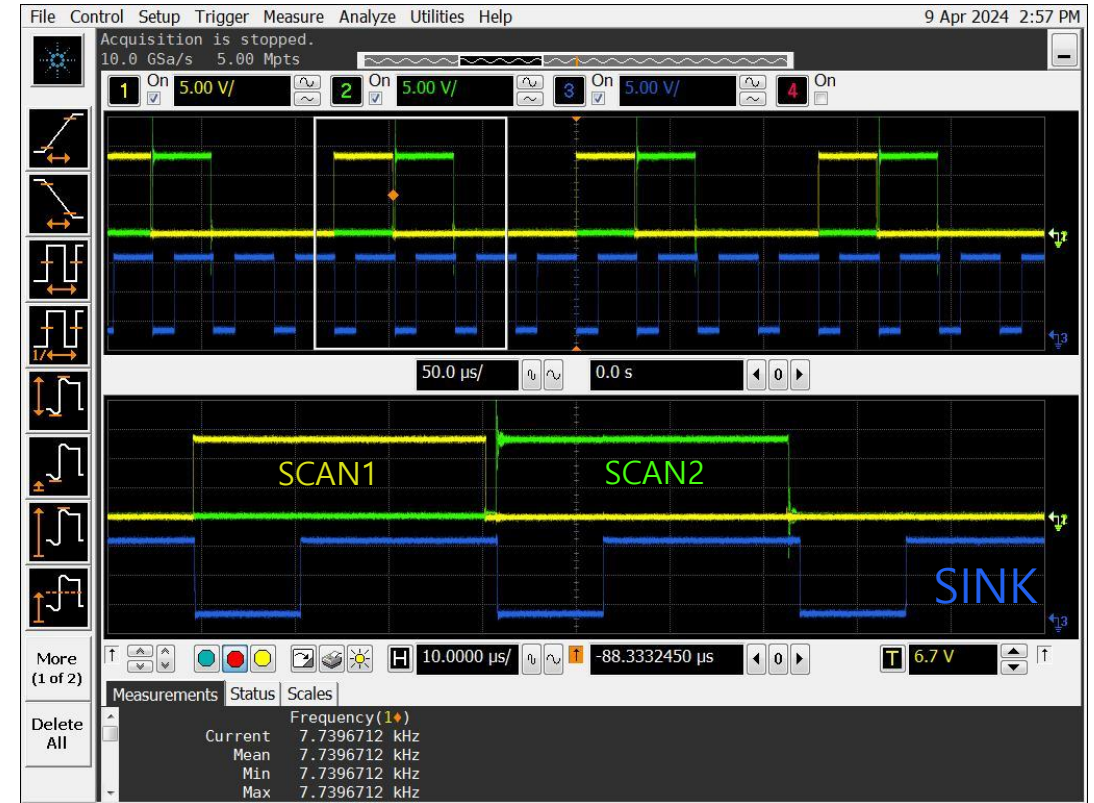
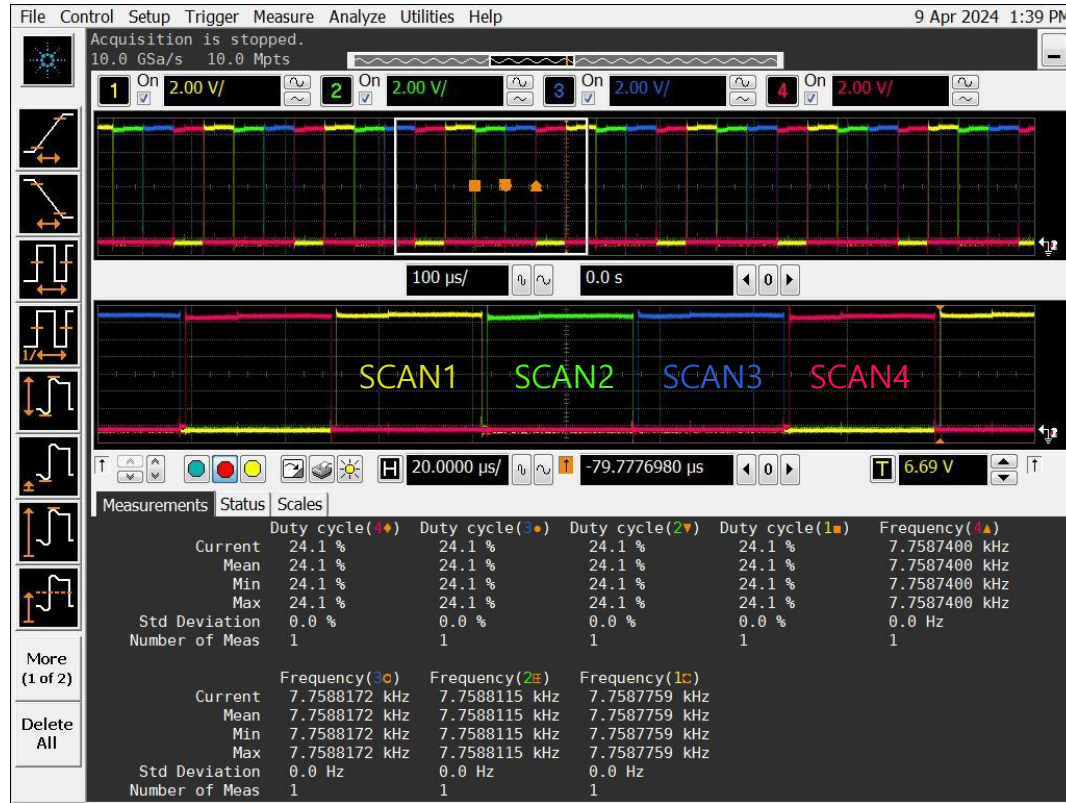
Customer board

Inductor current, ripple voltage



■ Buck-Boost(TPS552892)

Buck-boost output's backlight load

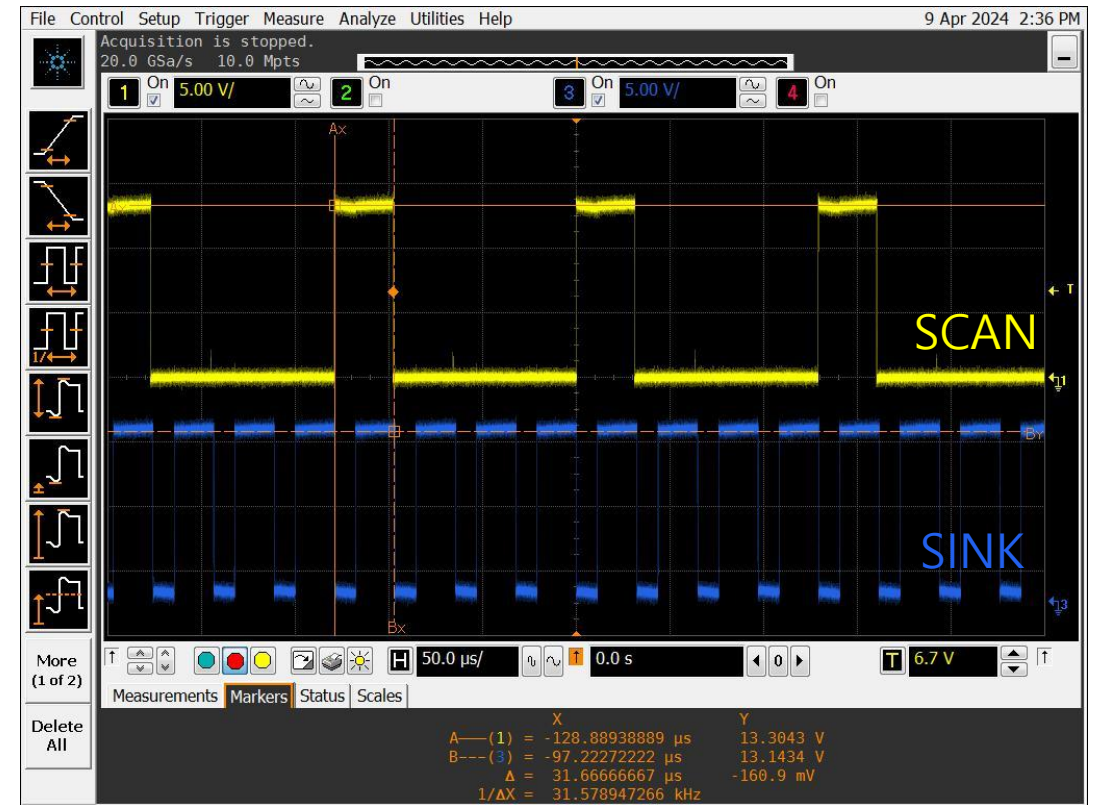
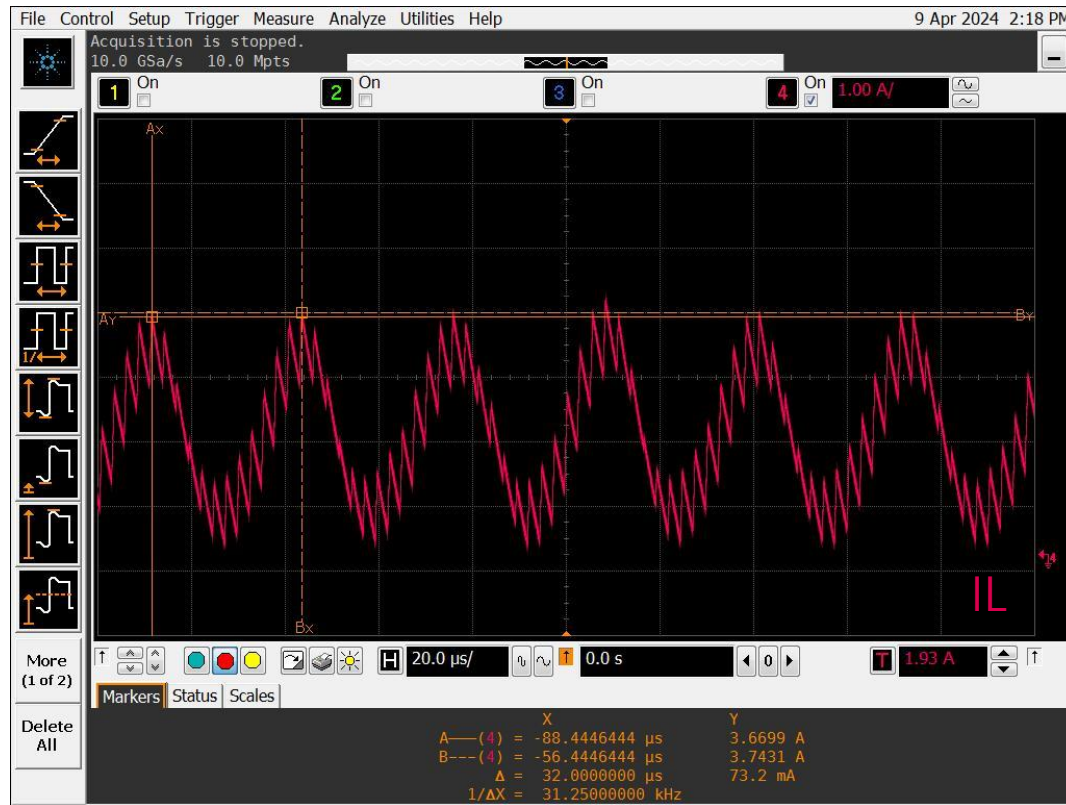


LED driver scan frequency : 7.75kHz

LED driver scan channels : 4ch, LED driver quantity : 6ea

LED driver sink channels : 24ch, Total sink channels : 144ch

■ Buck-Boost(TPS552892)

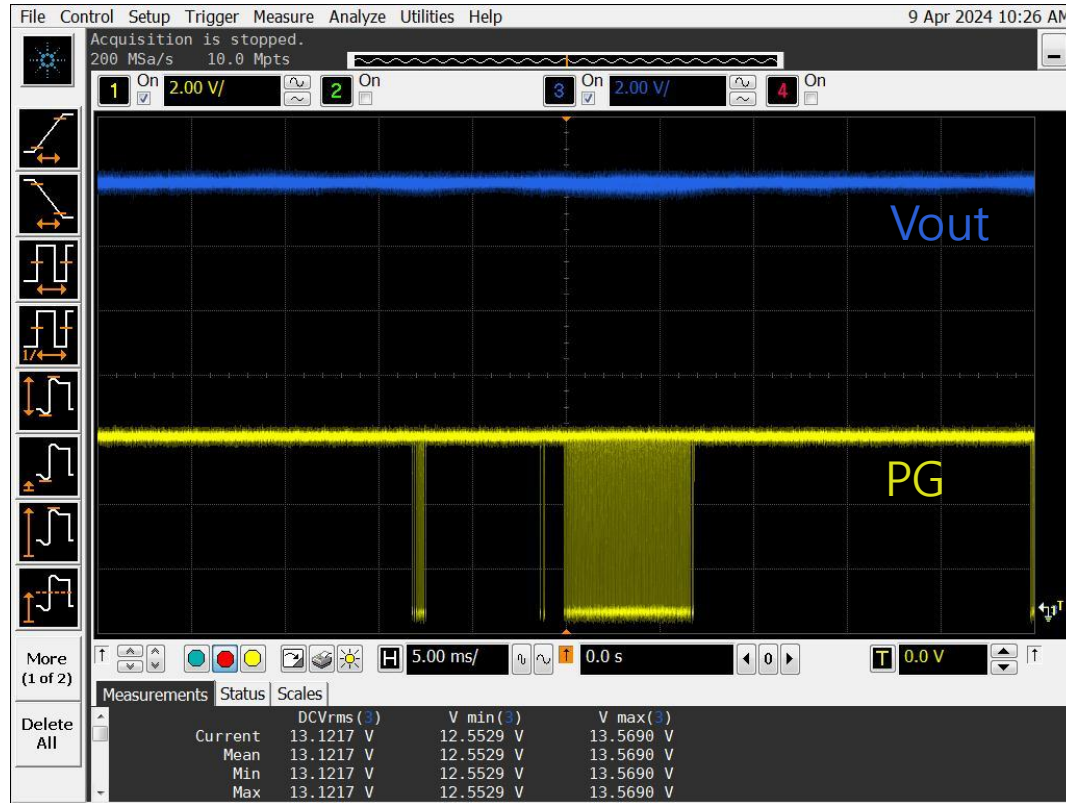


IL swing frequency : 31.2kHz, LED driver scan1 frequency : 7.75kHz

In one scan operation, there is one sink operation of 31.5kHz. It seems that the frequency of this sink operation effects on TPS552892. Is it right?

■ Buck-Boost(TPS552892)

Power Good



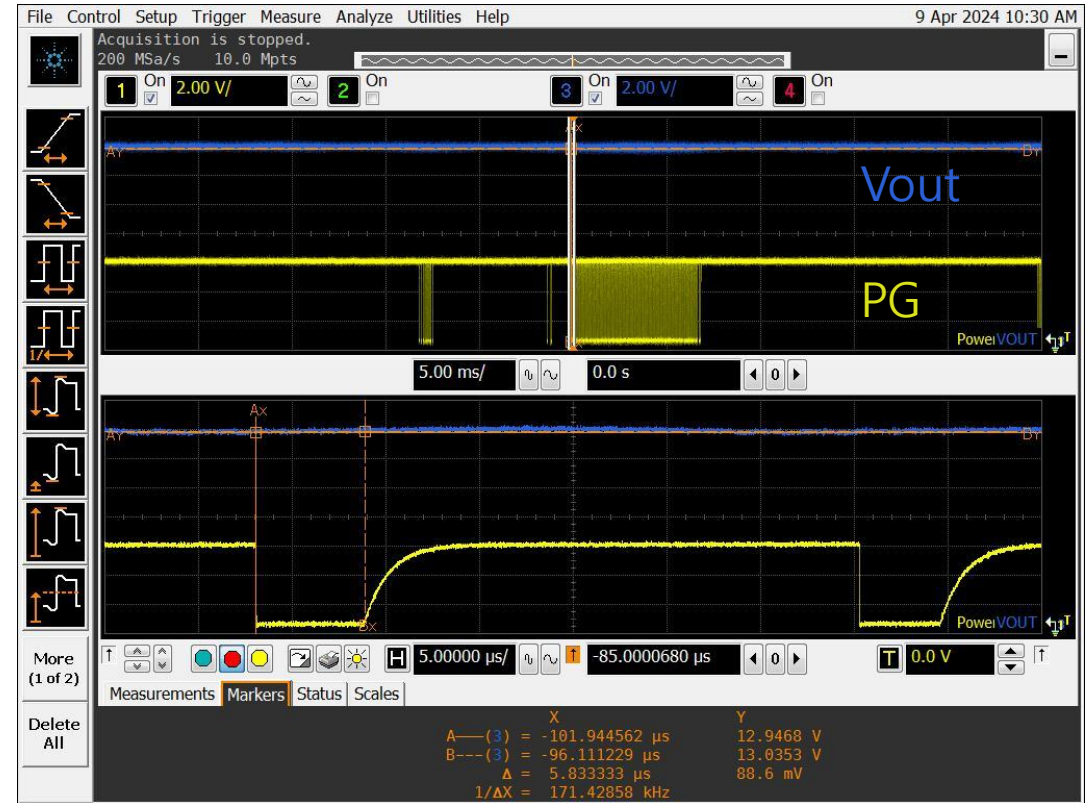
7.3.16 Power Good

The TPS552892-Q1 integrates a power-good function. The power-good output consists of an open-drain NMOS, requiring an external pullup resistor connect to a suitable voltage supply like VCC. The PG pin goes high after VOUT reaches 95% of the target output voltage. When the output voltage drops below 90% of the target output voltage, the PG pin goes low.

PG Low condition : $13.2 \times 0.9 = 11.88\text{V}$

PG High condition : $13.2 \times 0.95 = 12.54\text{V}$

-> PG operation above is not normal. Please check and let me know the reason why.



Ref. voltage	A point	B point
13.2V	12.94V	13.03V
	98.03%	98.71%