Test setup:

Vcc (measured between TP 4 & TP 6): **4.7 V** (MM4 in user reference manual)

Supply current drawn: **16 mA** (MM1 in user reference manual)

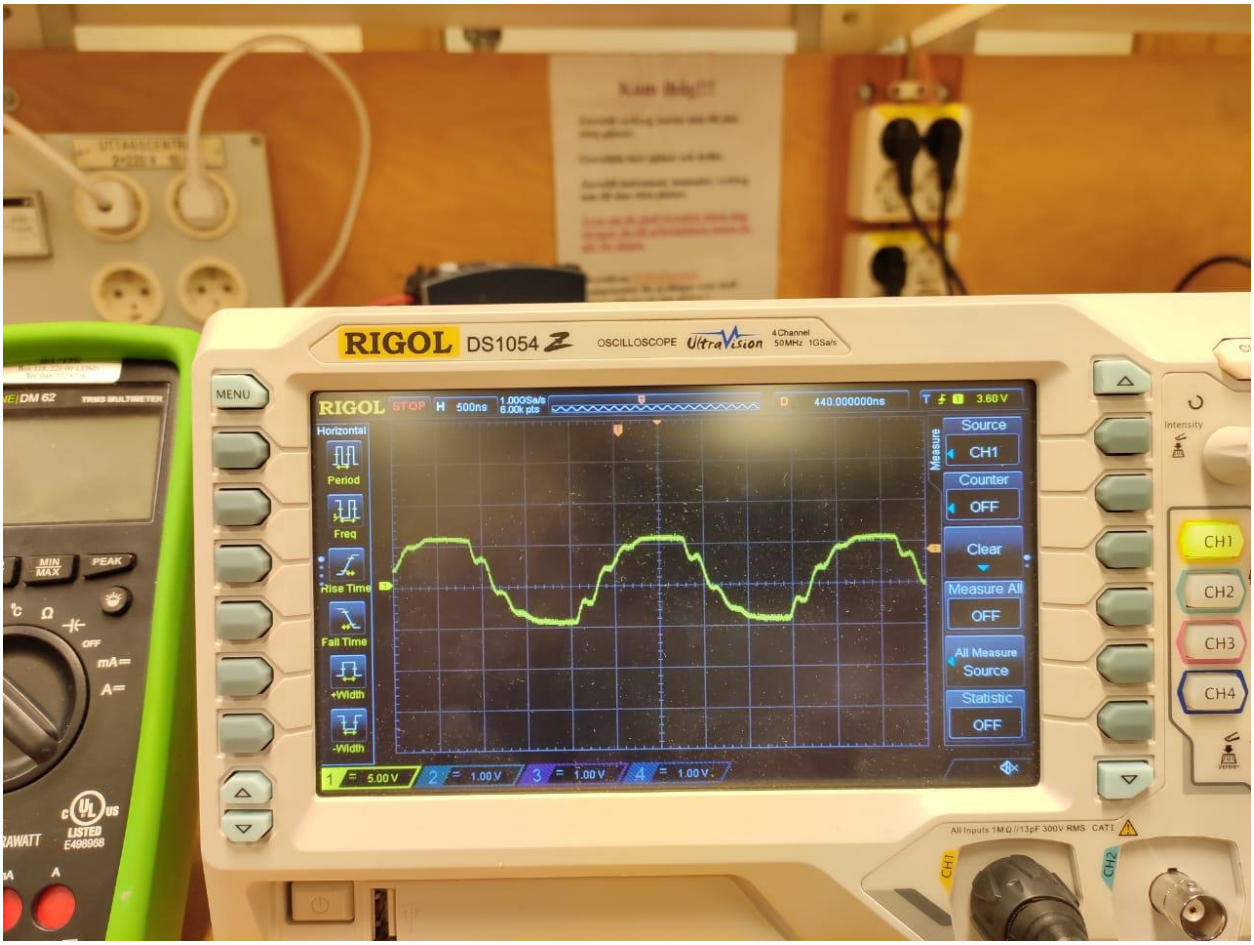
VEE=-3.9 V (measured between TP 3 & TP 2)

VDD=0 V (measured between TP 1 & TP 2)

Enable signal, measured at pin 5 of U1 & U3= 4 V

Supply voltage, measured between pin 2 & pin 4 of U1 & U3=5 V

Voltage swing measured between Pin 3 & Pin 1 of T2, transformer



5 V swing at T2, as seen from the scope reading above.

The same 5 V swing is absent at T1, it's just few mVs.

Hence U1 is faulty in driving T1, what do you guys think?

Measured quantity	Old board	New board	Values in ref manual
Vcc	4.94 V	4.933 V	4.65-5 V
Icc	23.4 mA	24.67 mA	35-72 mA
VDD	0.39 V	1.9 V	15.7-16.7 V
VEE	4.13 V	2.9 V	4.5-5.2 V
Voltage swing of T1	few mVs	~2V	5 V
Voltage swing of T2	~5 V	~4V	5 V

Only the old boards VEE is within acceptable limits, do you guys think changing the transformer driver IC SN6505B will make both the gate driver work?