

CSD19531Q5A Inductive Load test:

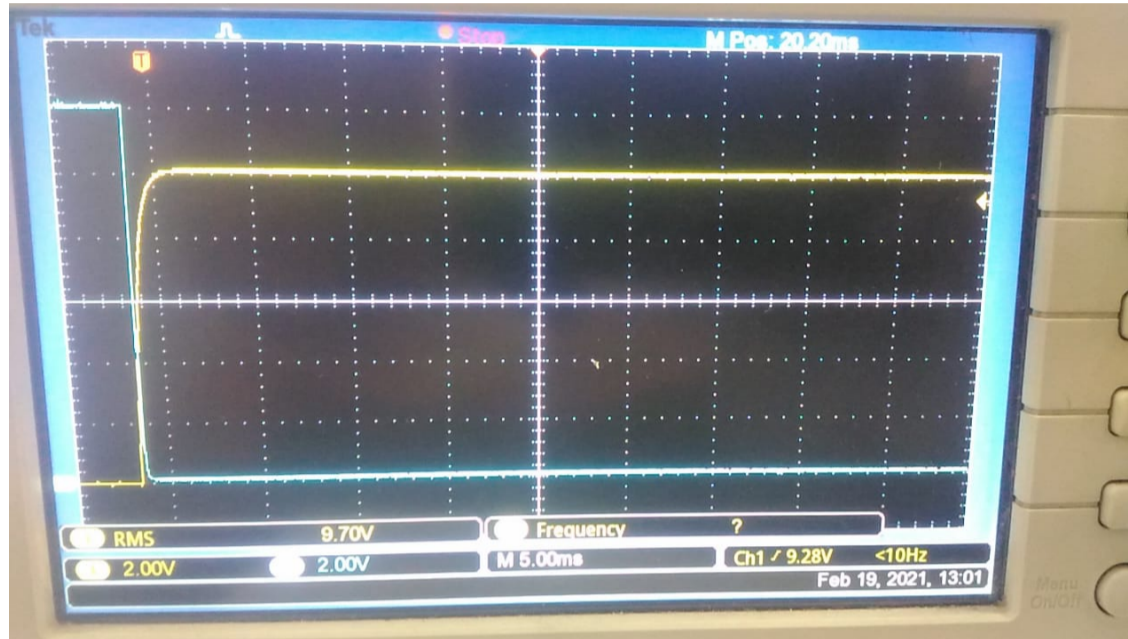
Test setup:

- Load bank of 12V 5A each Lamps in series of 5.
- CRO Probes connected across VDS (Blue) and VGS (Yellow).
- Gate Voltage when ON = 10V
- Supply Voltage varied from 12V ~ 55V

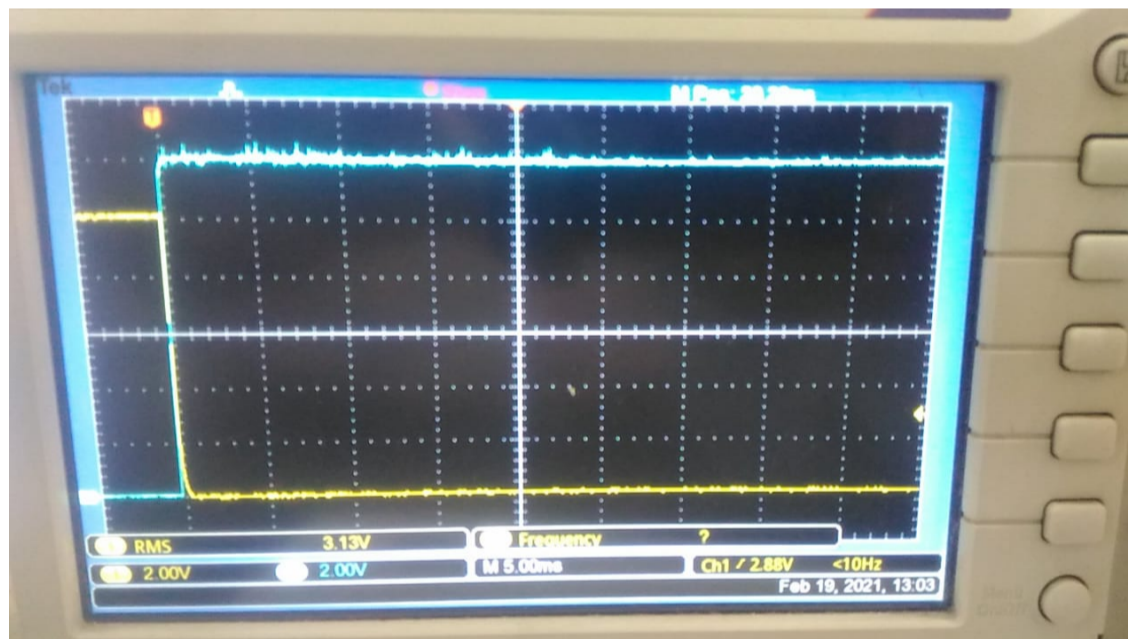
1. Supply Voltage 12V Test:

Observation (MOSFET ON):

- Current through mosfet 2.15A.
- VDS = 15mV



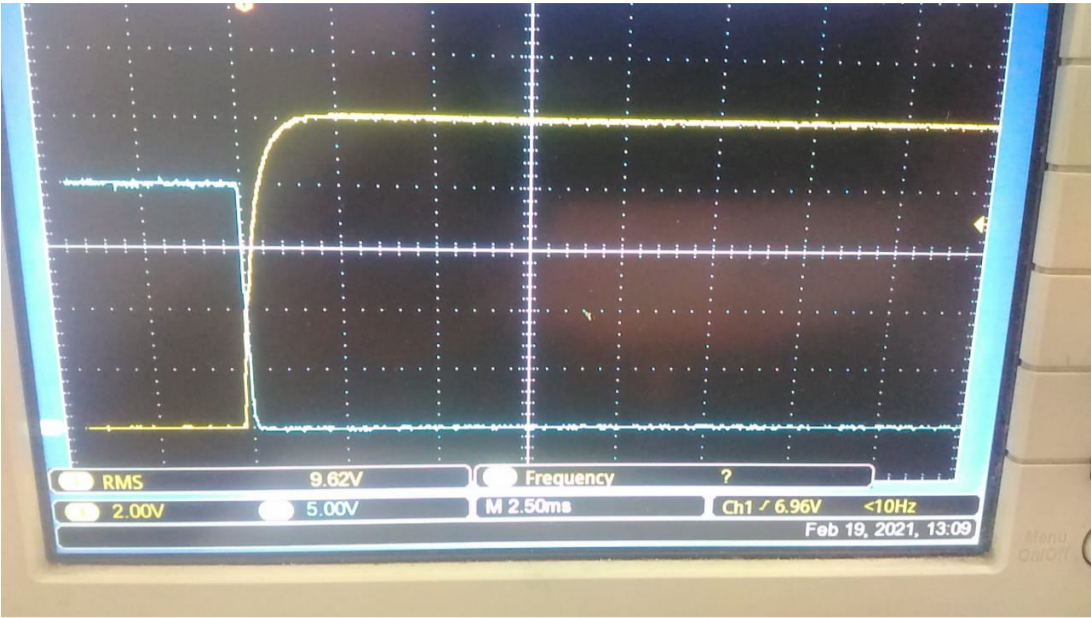
Observation (MOSFET OFF):



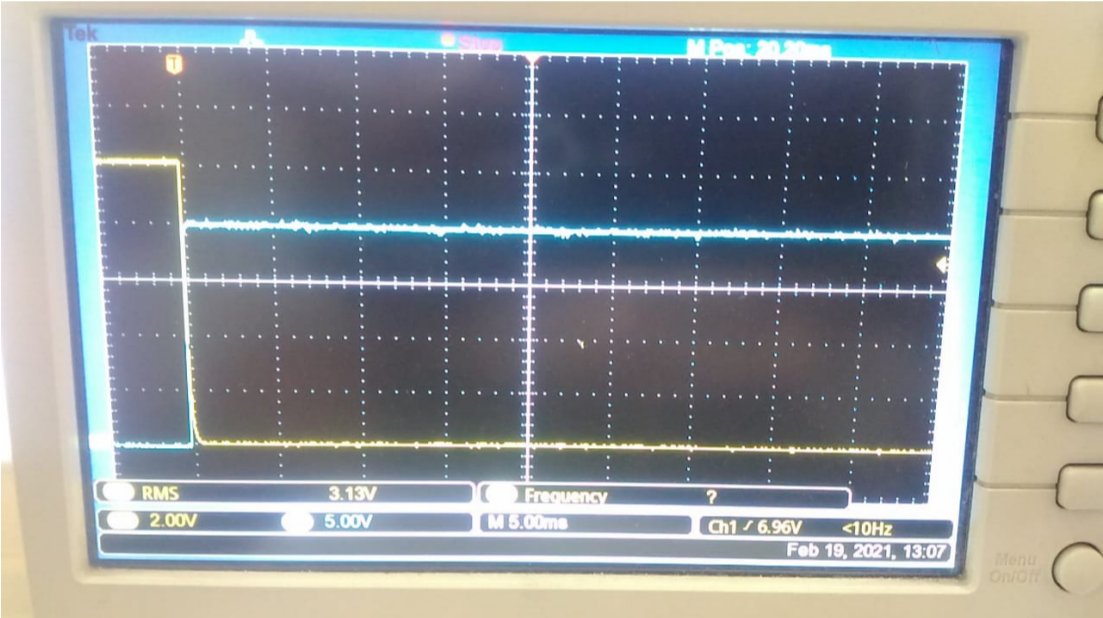
2. Supply Voltage 20V Test:

Observations (MOSFET ON):

- Current through mosfet 2.76A
- VDS = 20mV



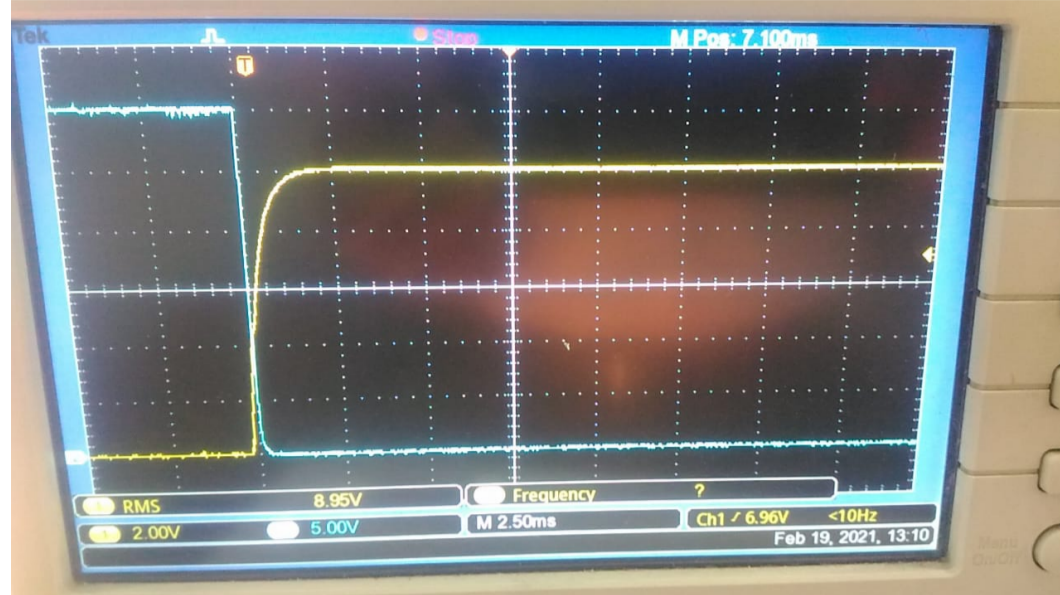
Observations (MOSFET OFF):



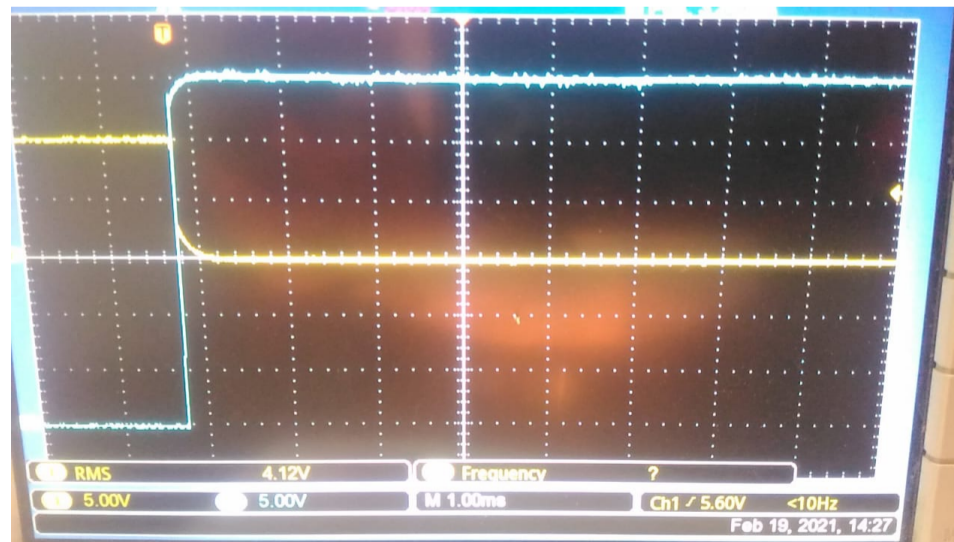
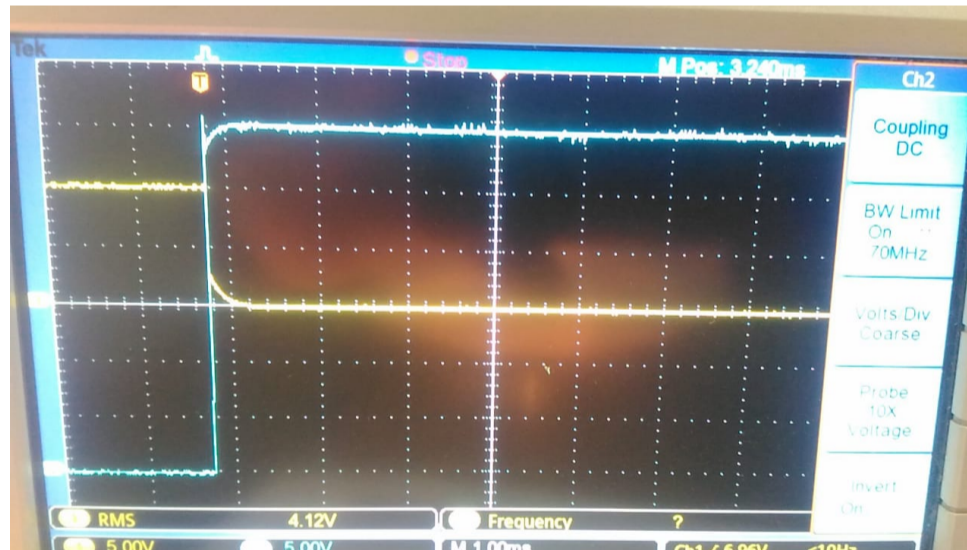
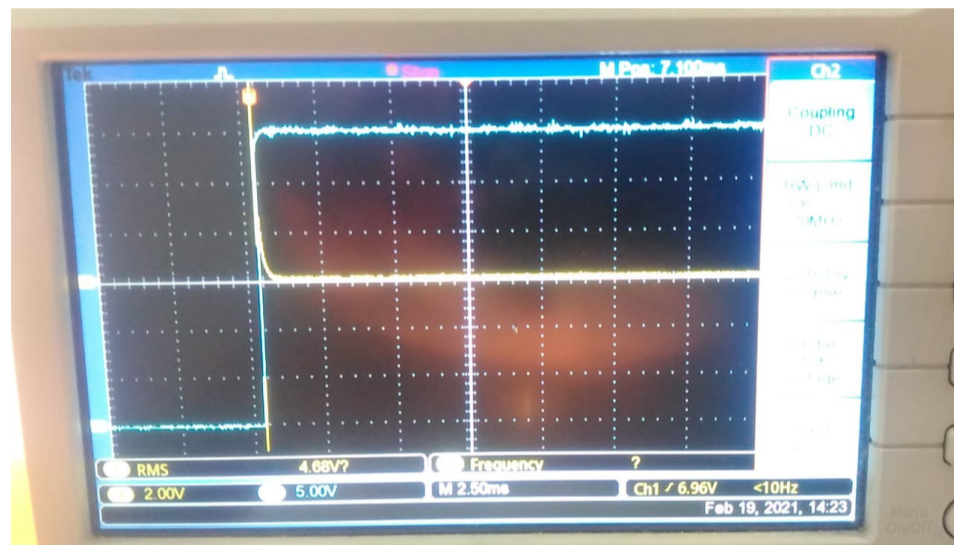
3: Supply Voltage 30V Test:

Observations (MOSFET ON):

- Current through mosfet 3.42A
- $V_{DS} = 25\text{mV}$



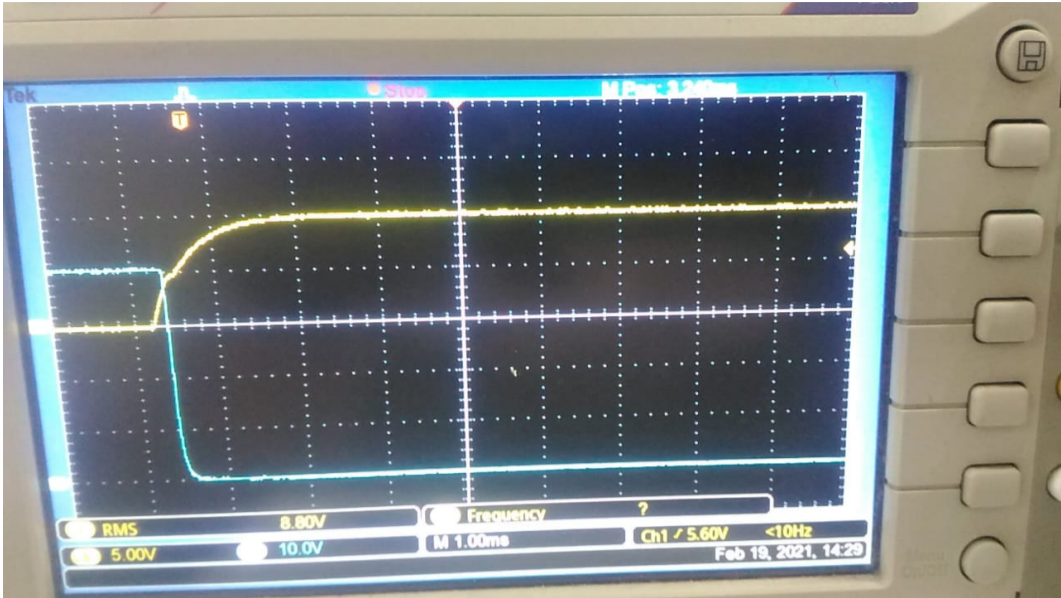
Observations (MOSFET OFF): (Capture 1),(capture 2), (Capture 3)



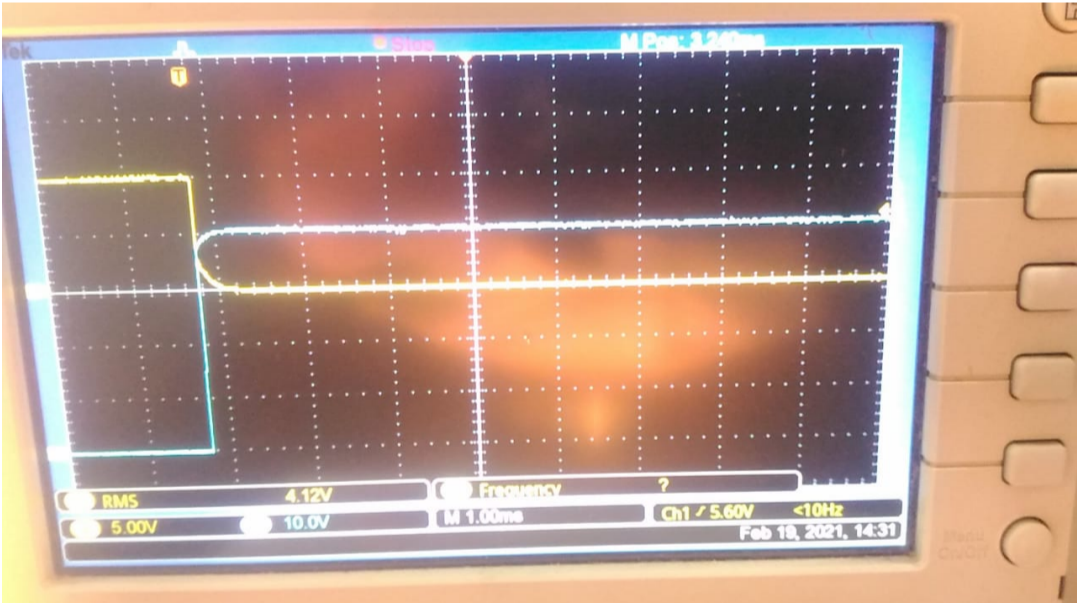
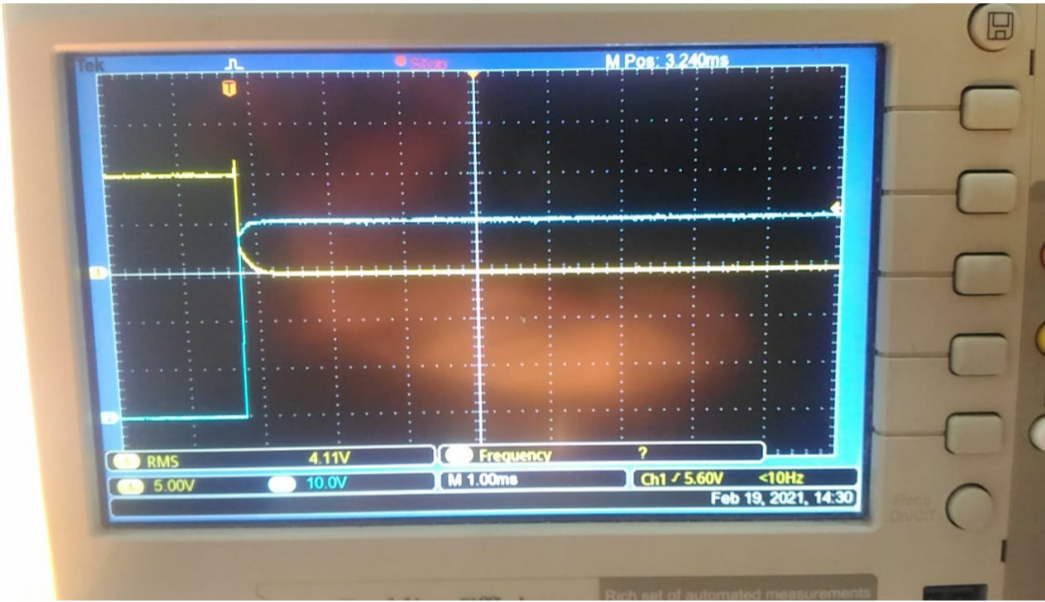
3. Supply Voltage 40V Test:

Observation (MOSFET ON):

- Current through mosfet 4.04A
- VDS = 30mV



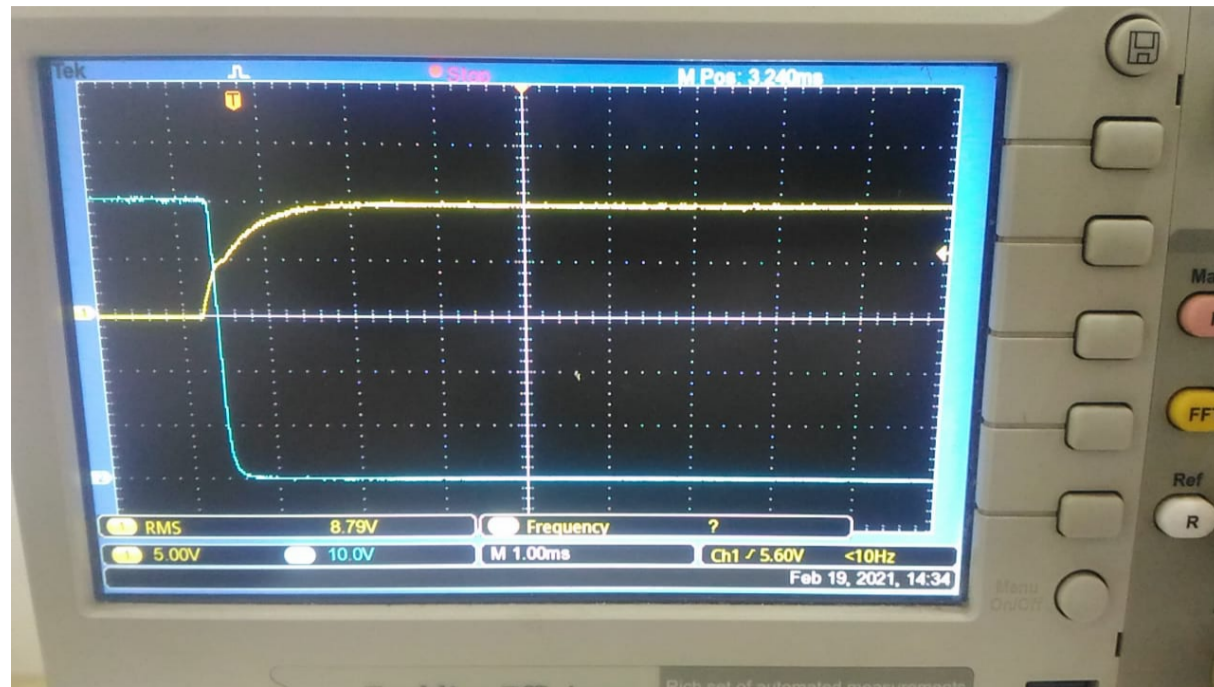
Observations (MOSFET OFF): (capture 1), (capture2)



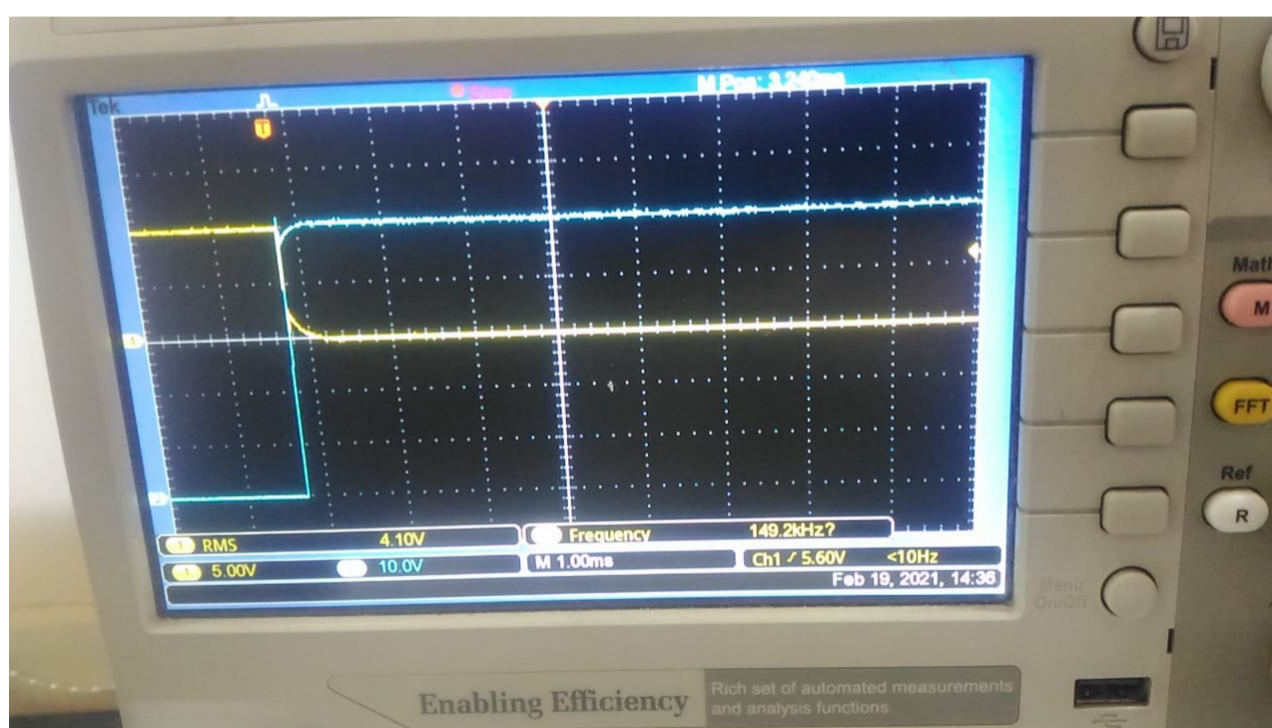
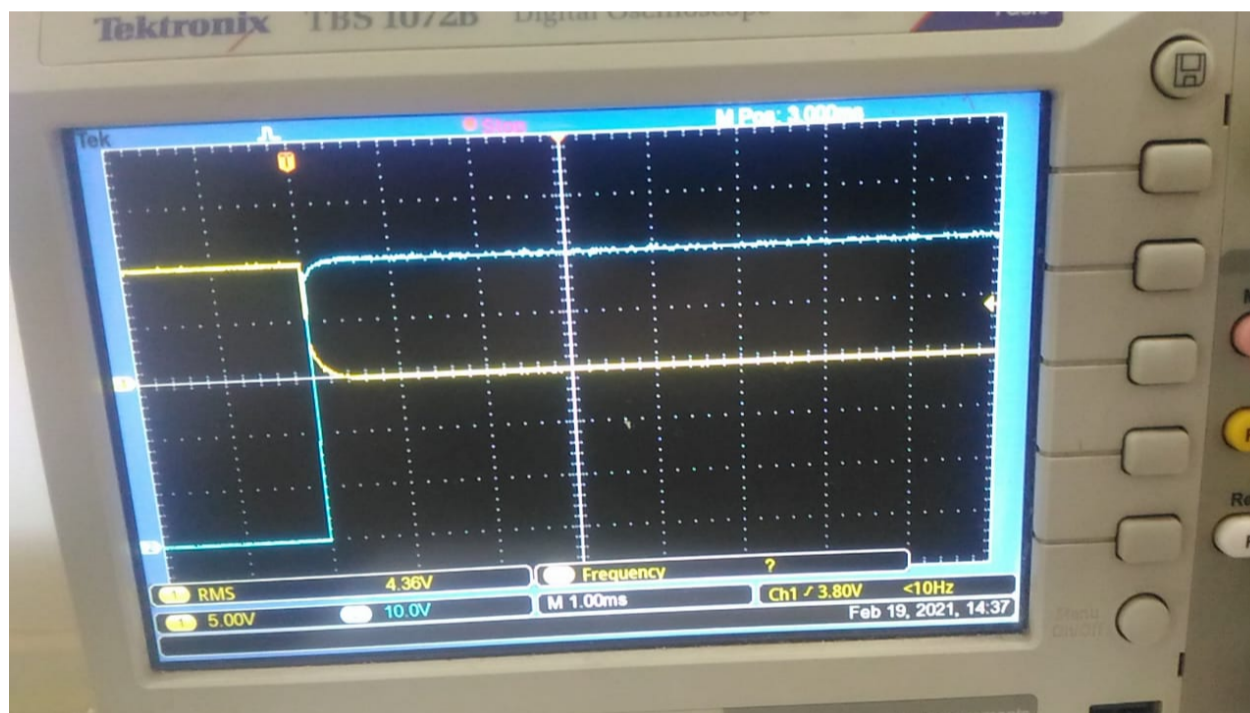
4. Supply Voltage 50V & 52.5V Test:

Observations (MOSFET ON):

- Current through mosfet 4.57A
- VDS = 35mV



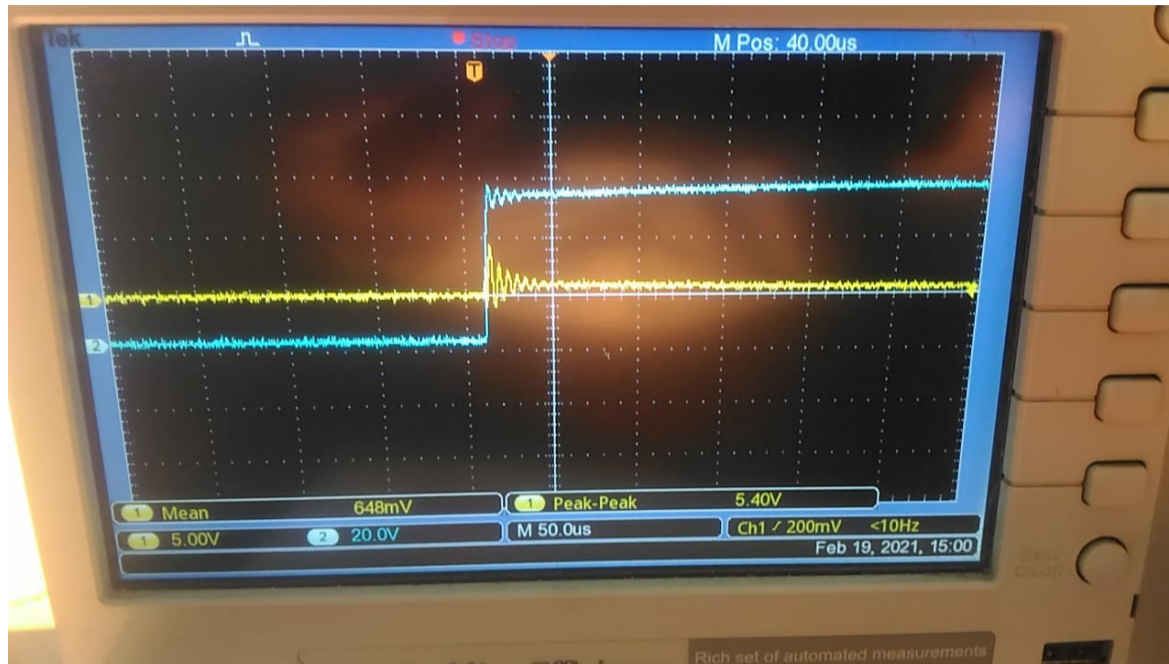
Observations (MOSFET OFF): (capture 1, capture 2)



5. Supply Voltage 55V Test: (MOSFET FAILED HERE)

Observations (MOSFET ON):

- current through mosfet 4.49A
- $V_{DS} = 1.96V$
- Instant Mosfet Drain and Source Short noticed.



6. Mosfet Turn OFF at 52.5V (time zoomed):

