**Date:** 15.04.2019

**Attendees:** Mesut Uğur, Furkan Karakaya

**Location:** Electrical Machines Laboratory

**Target:** V1.3 Gate Driver Board (#1)

**Test type:** Double Pulse Test

**Aims before the test:**

**1.** To apply the remaining DPTs for load bottom case.

**2.** To observe and investigate the secondary peaks on Vgs

**3.** To apply DPTs with load top case to verify the design before inverter tests.

**Conditions:** All-phases, 22 Ohm Ron, 2 Ohm Roff. 0-300V VDC. Load: Stage-2

**Steps:**

**1.** The remaining DPTs are applied by observing Vds (turn-off) and Vgs (false-turn-on region) separately. The load is connected to bottom switch and Vds and Vgs are observed from the bottom switch for all tests.

**2.** The weird peaks which had emerged 100ns after the top switch turn-off are investigated. They seem to be absent and it is concluded that they are measurement noise or such.

**3.** DPTs are applied with load connected to top switch for all phases, from 0V to 300V.

**4.** Phase-B is indirectly tested for isolation, and no problem occured.

**What to do next:**

**1.** Inverter tests will be applied.

**Results:**

**1. Vds Overshoot**









**2. Vgs False-Turn-On**







**3. Load top case**





