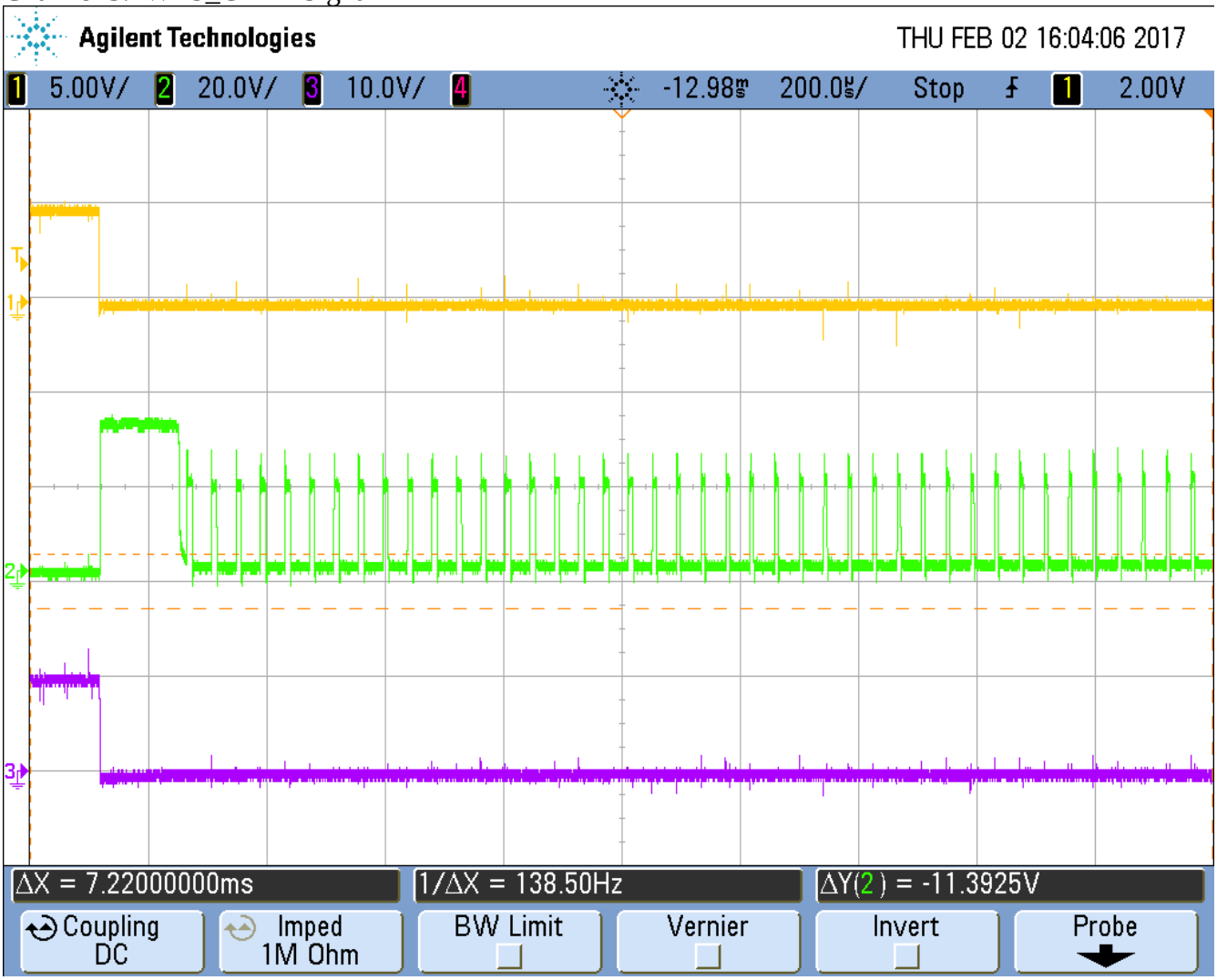
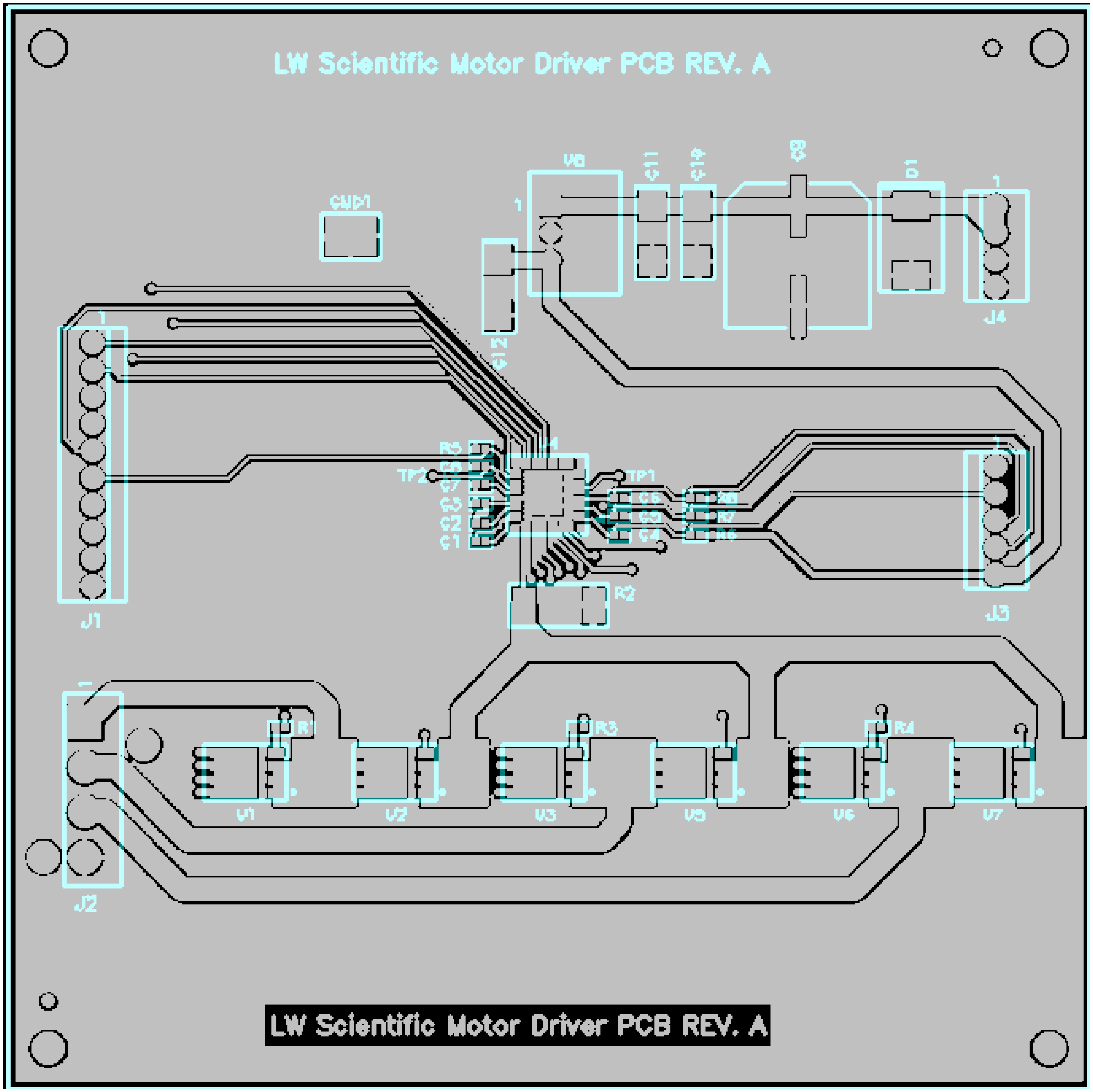
Measuring the GHx and GLx of the same phase
Channel 1: Hallout Signal
Channel 2: WHS_GATE signal
Channel 3: WLS_GATE Signal

Channel 1: Hallout Signal
Channel 2: WHS_GATE signal
Channel 3: WLS_GATE Signal

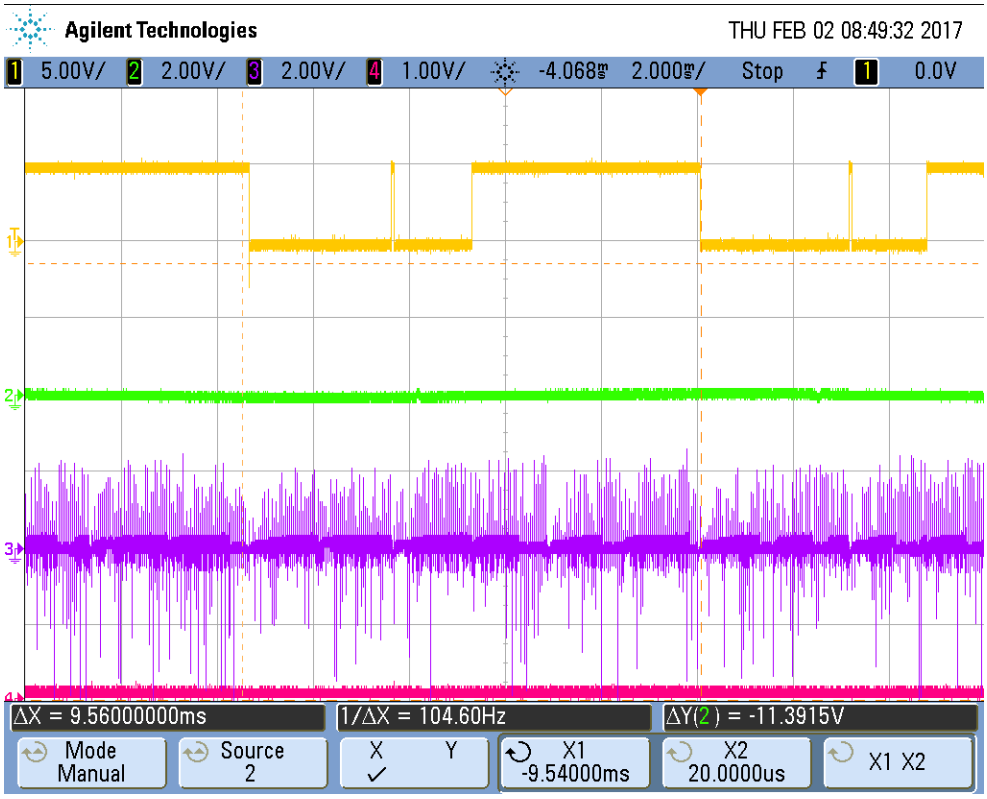


Channel 1: Hallout Signal
Channel 2: WHS_GATE signal
Channel 3: WLS_GATE Signal


LW Scientific Motor Driver PCB REV. A
GND1
U8
C11
C14
D1
J4
J1
TP2
TP1
J3
R2
R1
R3
R4
V1
V2
V3
V5
V6
V7
J2
LW Scientific Motor Driver PCB REV. A

Comparing signals derived from the DRV8307EVM board

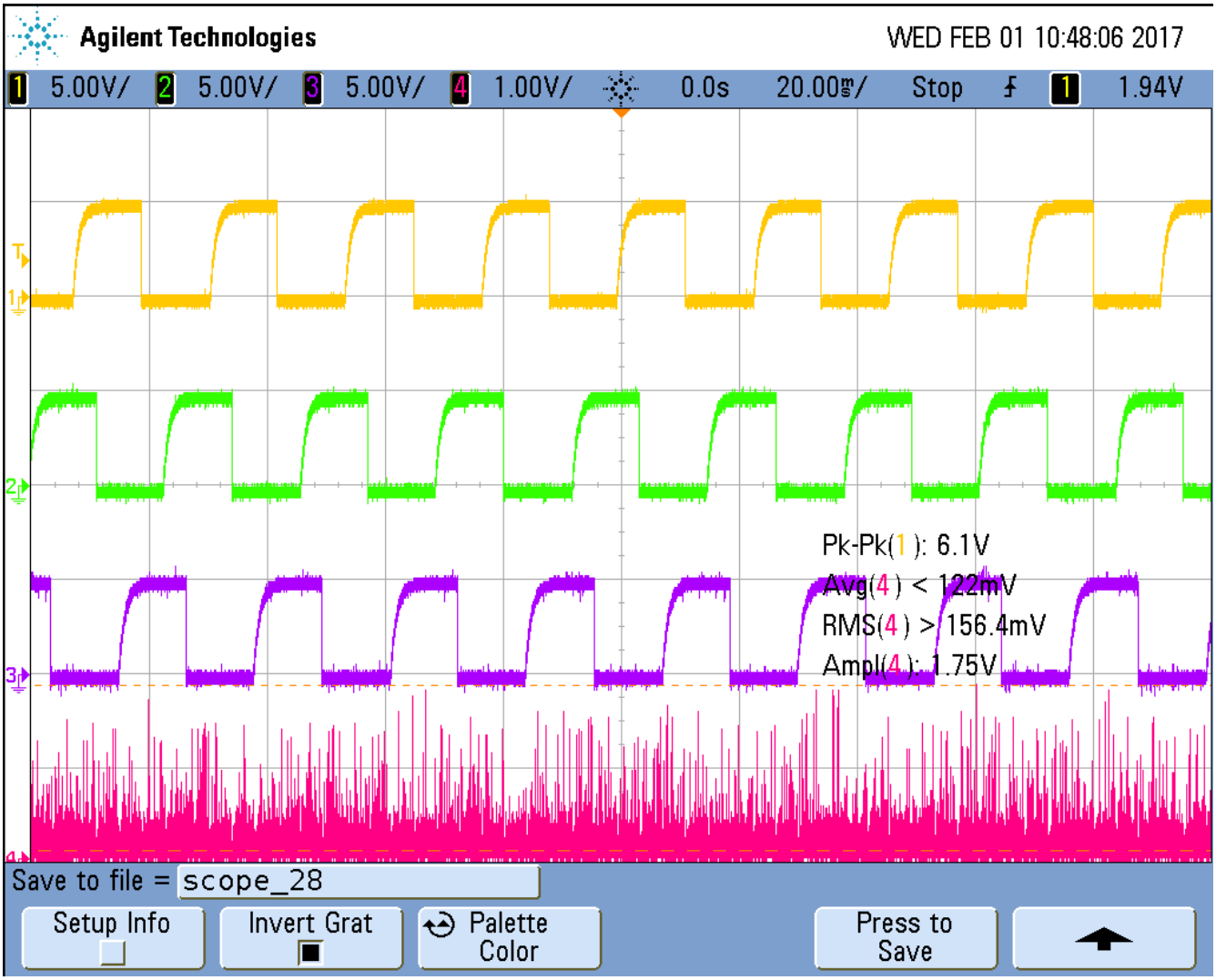
Channel 1: Hallout Signal
Channel 3: Isense signal



Motor Drive Signals for Verification

Channel 1: U Hall Sensor
Channel 2: V Hall Sensor
Channel 3: W Hall Sensor
Channel 4: U Motor Drive

Channel 1: U Hall Sensor
Channel 2: V Hall Sensor
Channel 3: W Hall Sensor
Channel 4: Isense



Note that the Isense average as measured by the scope is around 122mV. To me it looks like at least 250mV average and I believe the DRV8307 is hitting current limit and want allow any greater rpm.

I currently have a .028 ohm resistor for the Isense signal, which means the limit should be set for around 9 amp. I'm only getting to about 1.3 amps measured on my power supply.

Also, I'm getting regular current spike at 1.8V, which equates to 64 amps of current. Is this expected? I think this is causing both my .028 ohm resistor and the MOSFETS to run hot.