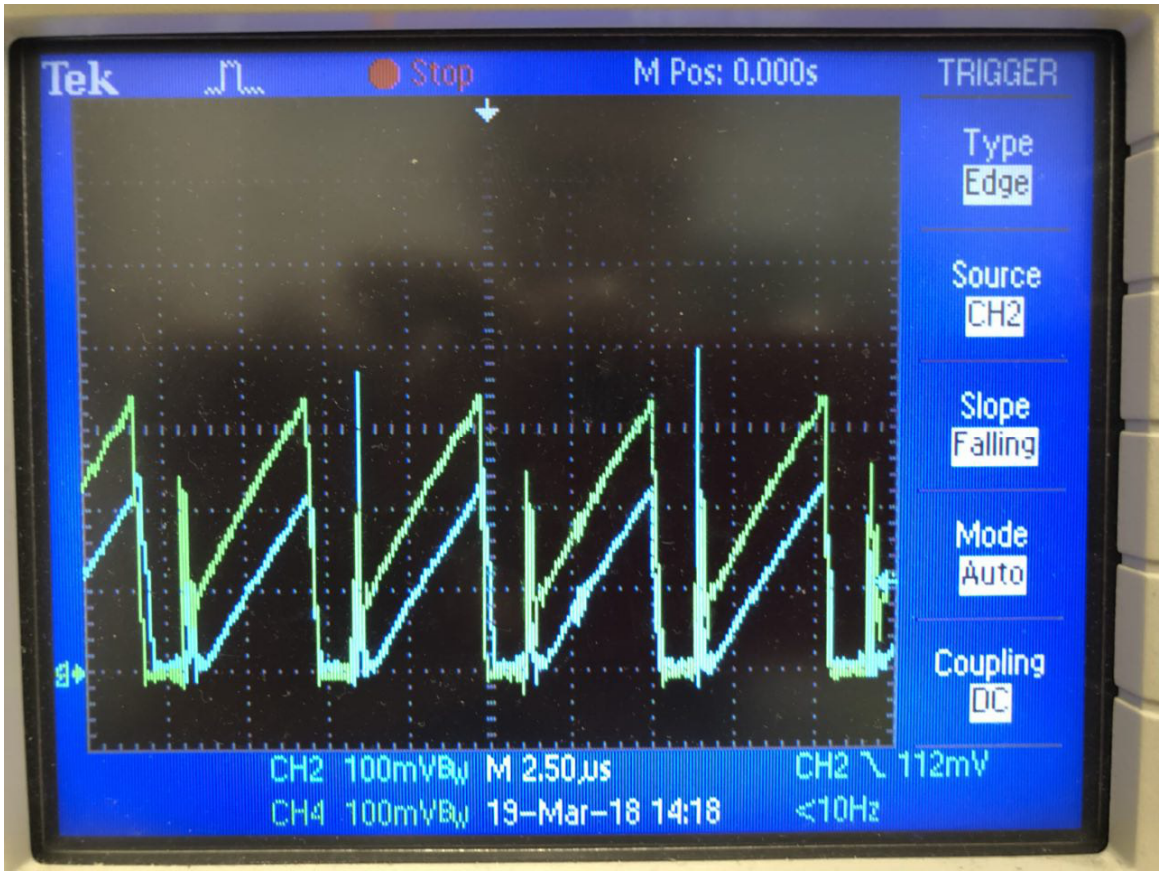

Figure 1 – CS signals (current sense transformers placed between input DC capacitors and each PSFB) from master and slave parts connected in interleaving configuration, total ouput current is 55 A. We can see there is no phase shift in inductor currents and current sharing is insufficient

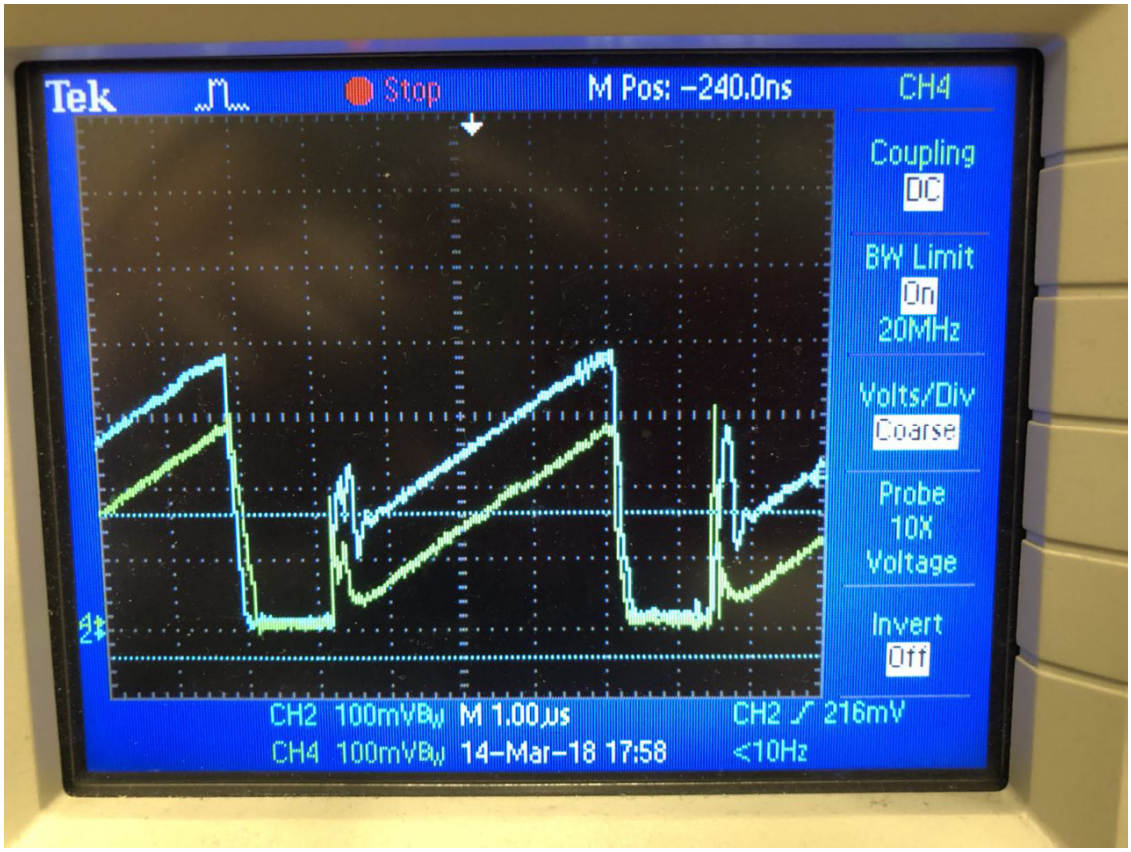

Figure 2 – CS signals, total ouput current is 70 A

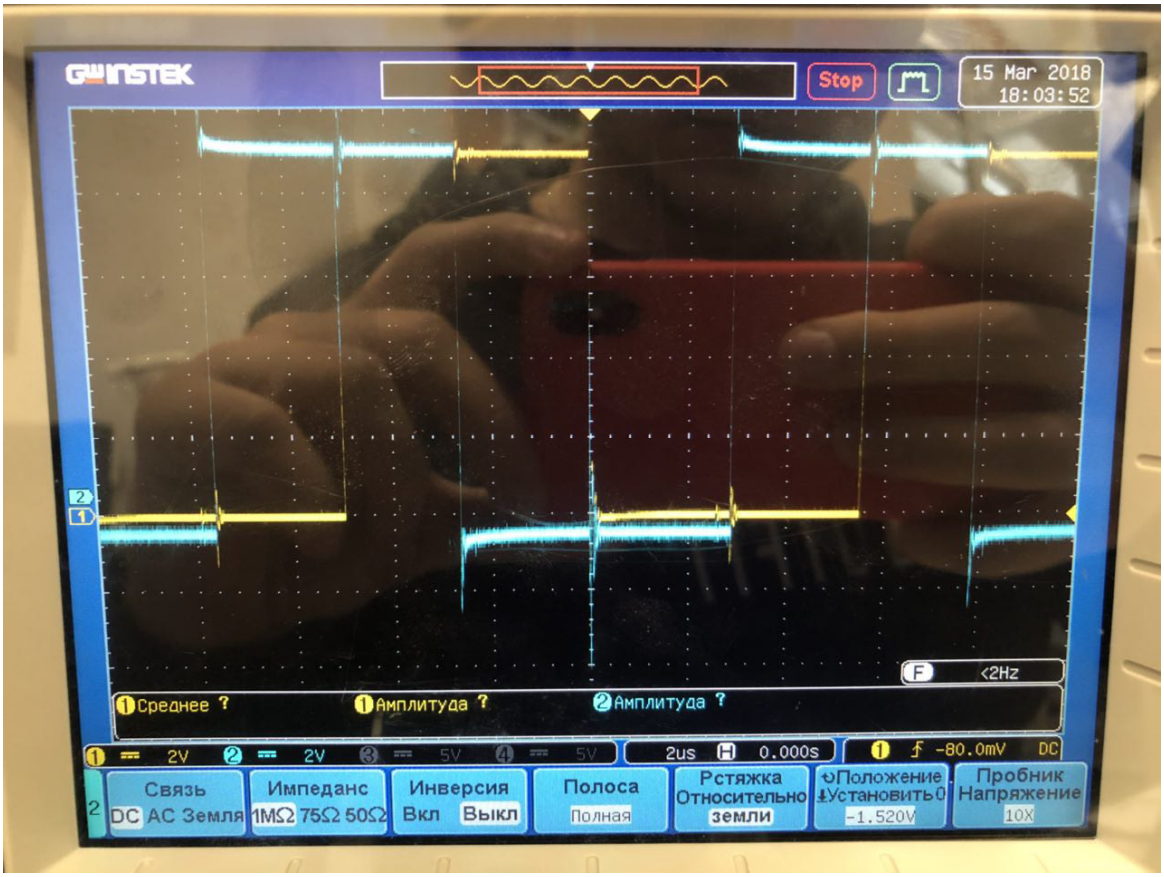

Figure 3 – PWMAmaster and PWMAslave when control board is extracted. We can see 90 degrees phase shift between master and slave signals

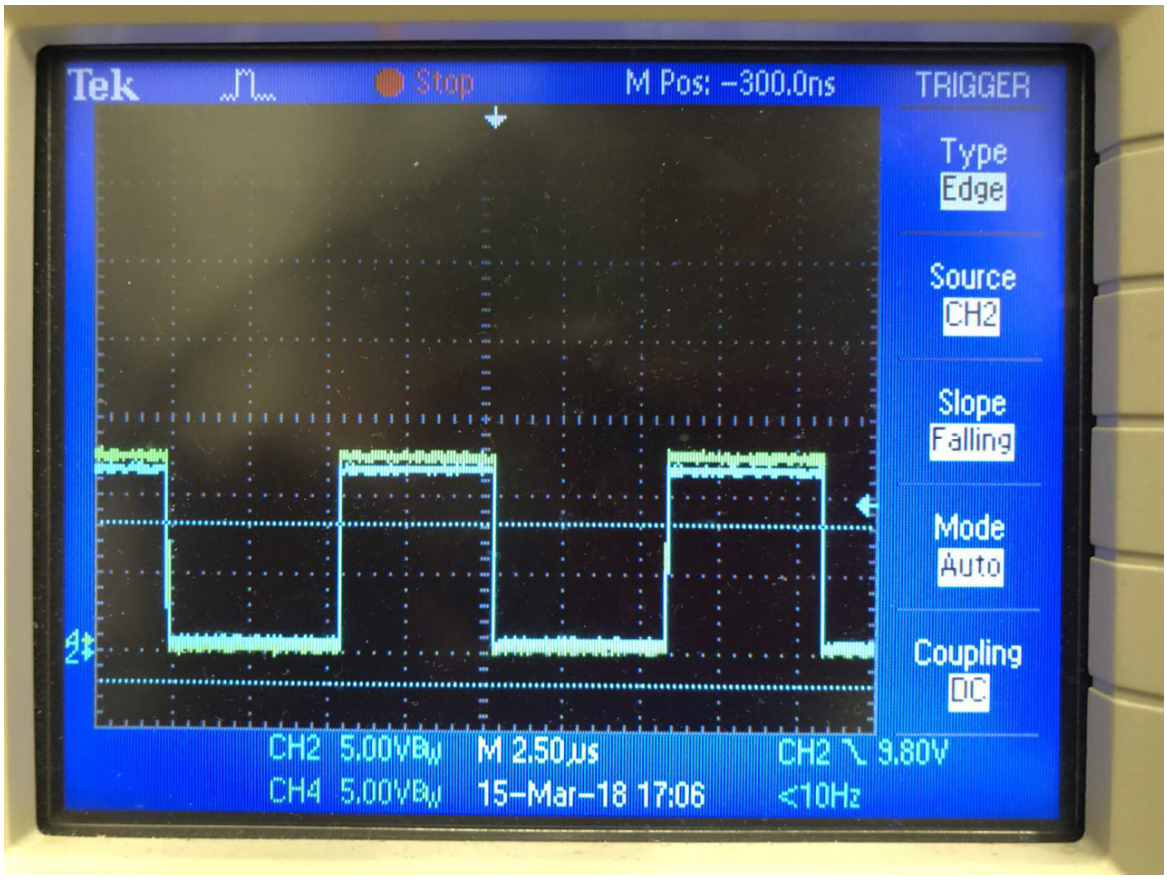

Figure 4 – PWMAmaster and PWMAslave when control board is connected to the power board. We can see there is no 90 degrees phase shift between master and slave signals

Figure 5 – CS signal of master converter when it works alone on 81 A load

Figure 6 – CS signal of slave converter when it configured as master and works alone on 81 A load

Figure 7 – CS signal of master and slave converter when they configured as masters (sync wire is disconnected) and work together on 81 A load. Phase shift between converters are constantly changes because each converter has its own Rt (slightly different due to dispersion of resistance) and they are not synchronized. We can see current sharing is very bad