

MODE:
 1. GND, DCM, Hiccup Disable;
 2. 1.0V, DCM, Hiccup Enable;
 3. 1.85V, CCM, Hiccup Enable;
 4. VCC, CCM, Hiccup Disable;

Cdith=10uA (Fmod*0.24V)
 22nF > 1894Hz (0Q for disable)

Fsw: [100KHz, 600KHz]
 Rt = [(1/Fsw) - 200nS] / 37pF
 => Fsw = 1 / [(Rt * 37pF) + 200nS]

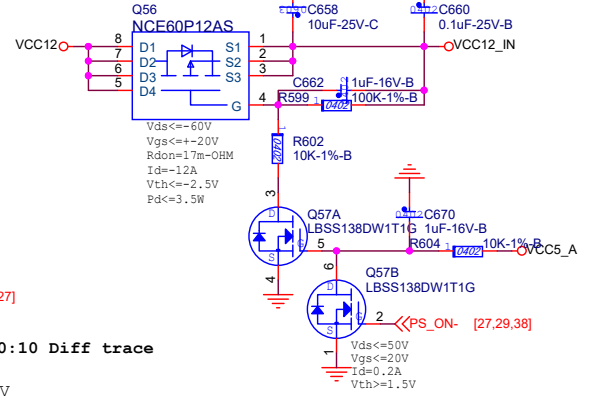
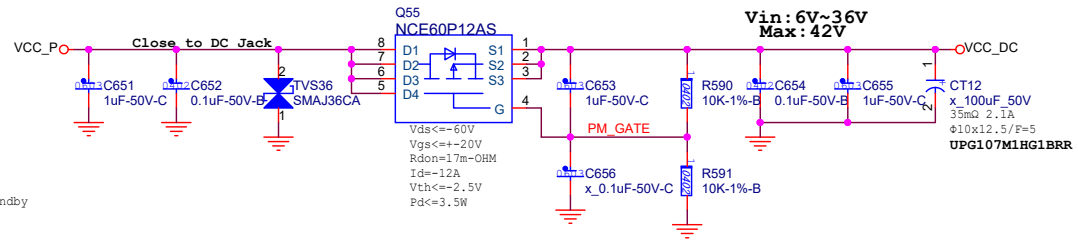
tss = Ccs * 0.8V / 5uA
 softstart = 47nF => 7.5ms

Vout:
 Vo = (Ru * 0.8 / Rd) + 0.8
 Rd = (1K, 100K)

64.9K => 380KHz
 84.5K => 300KHz

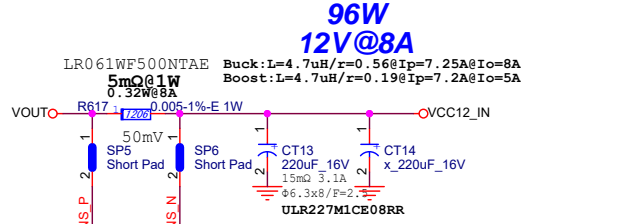
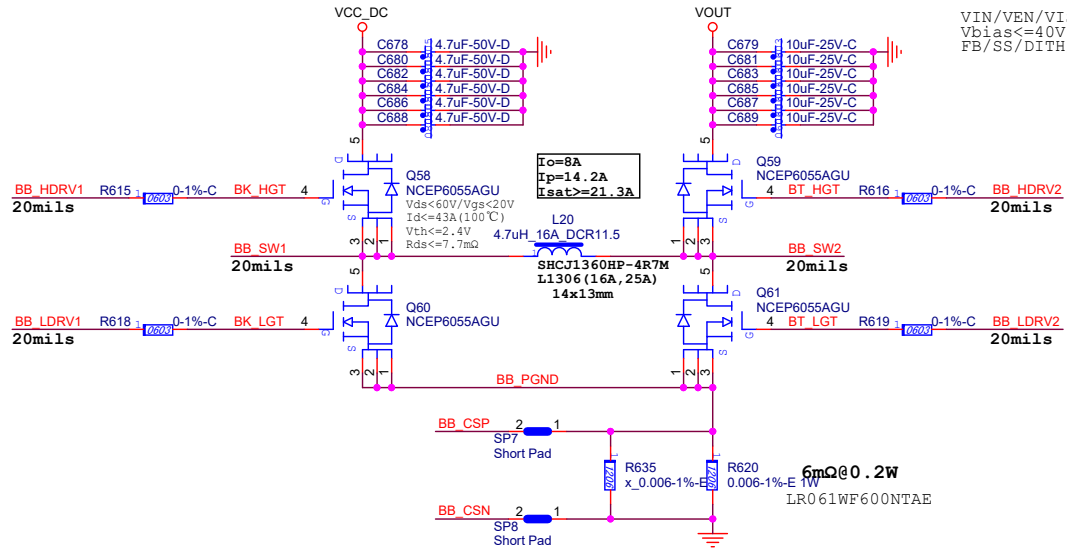
10:10 Diff trace

Vsns = [43mV, 57mV], Typical: 50mV



Vcs (BUCK, valley) = [53.2mV, 98mV], Typical: 76mV
 Vcs (Boost, peak) = [119mV, 221mV], Typical: 170mV
 LM5175QPWRQ1: Vcs (Boost, peak) = [114mV, 202mV], Typical: 160mV

Vo: 0.8V~55V



96W
 12V @ 8A

Buck: L=4.7uH/r=0.568Ip=7.25A@Io=8A
 Boost: L=4.7uH/r=0.198Ip=7.2A@Io=5A

6mΩ @ 0.2W
 LR061WF600NTAE