

DC-DC Boost Synchro Converter 2-Phase

$V_o=500V$ $I_o=10A$

Input : $V_{in}=250V$

Output : $V_o=500V$
 $I_o=10A$

Gate Drive : $V_d=10V$
 $R_{source}=5\Omega$
 $R_{sink}=2\Omega$

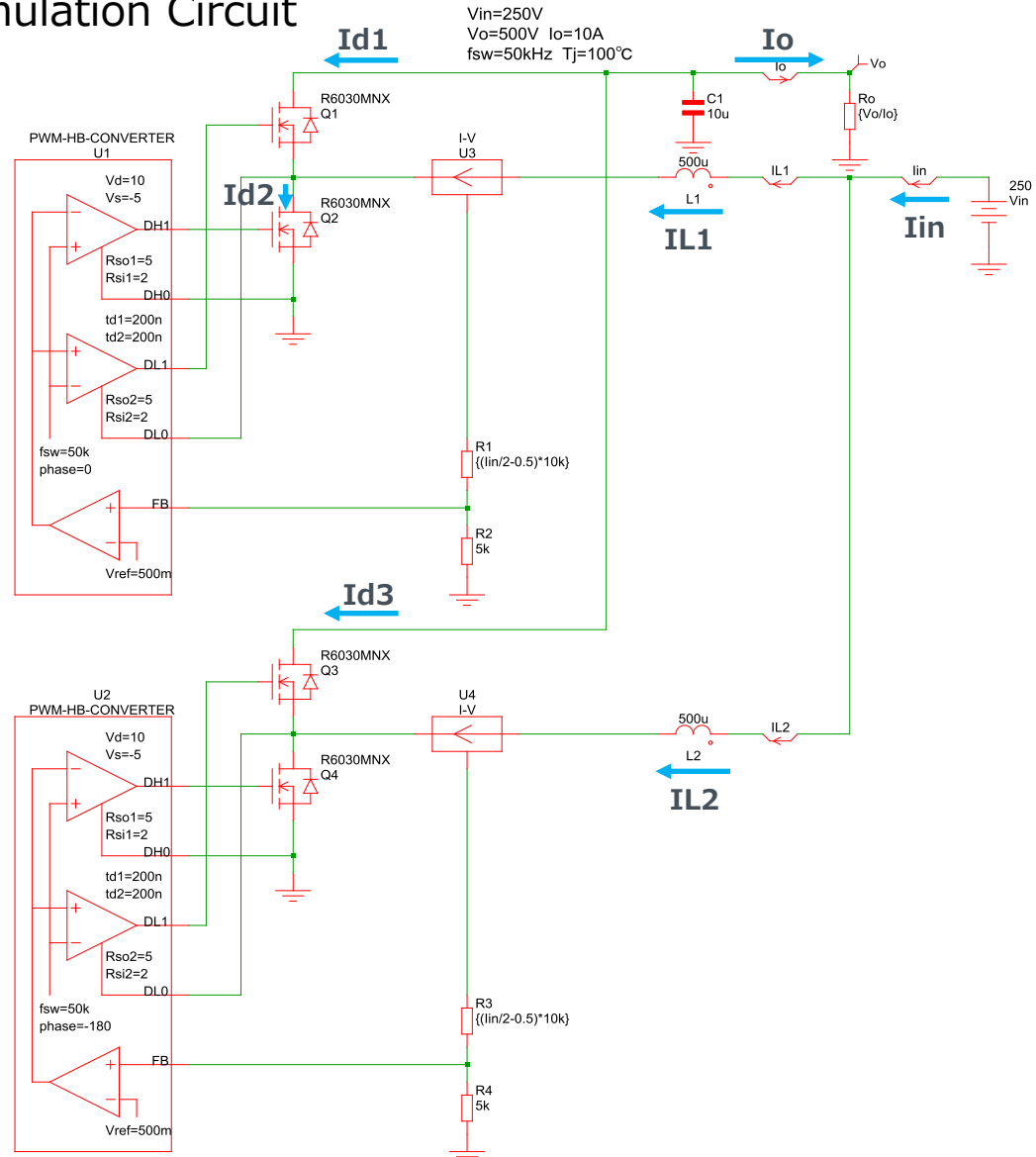
Q_1, Q_2, Q_3, Q_4 : R6030MNX
MOSFET(600V 30A)

L_1, L_2 : 500uH

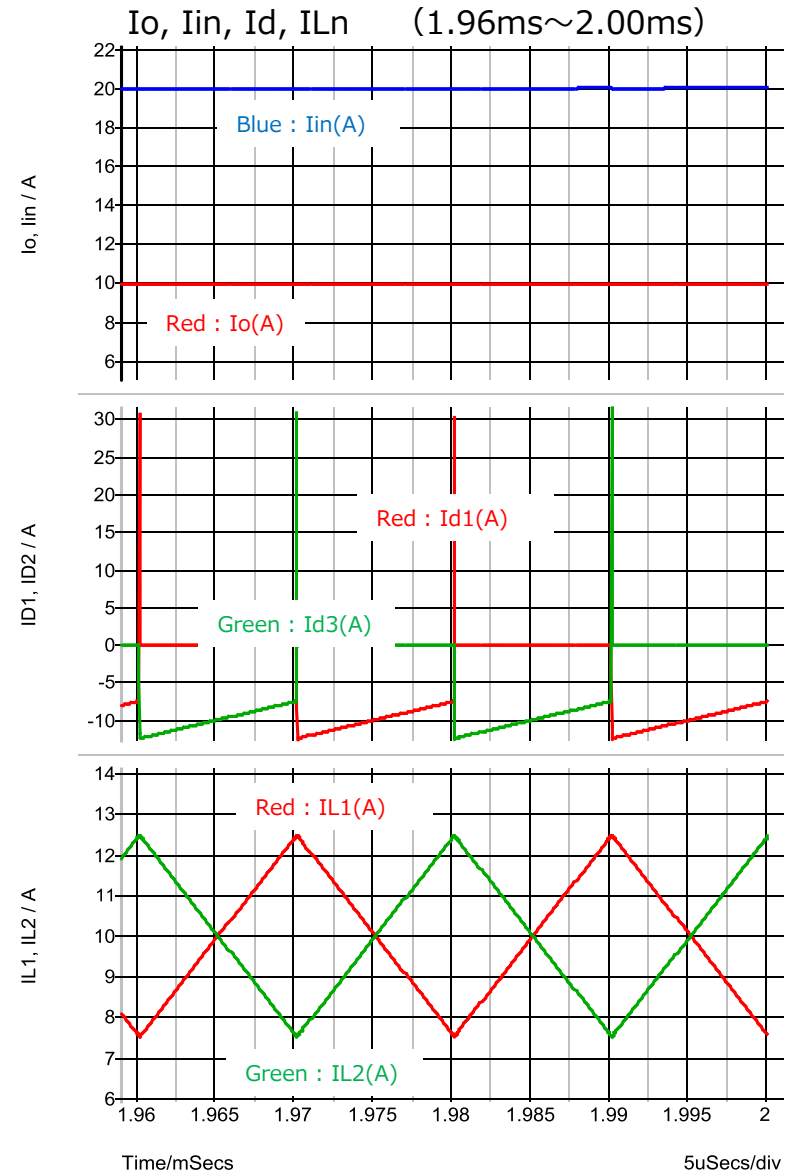
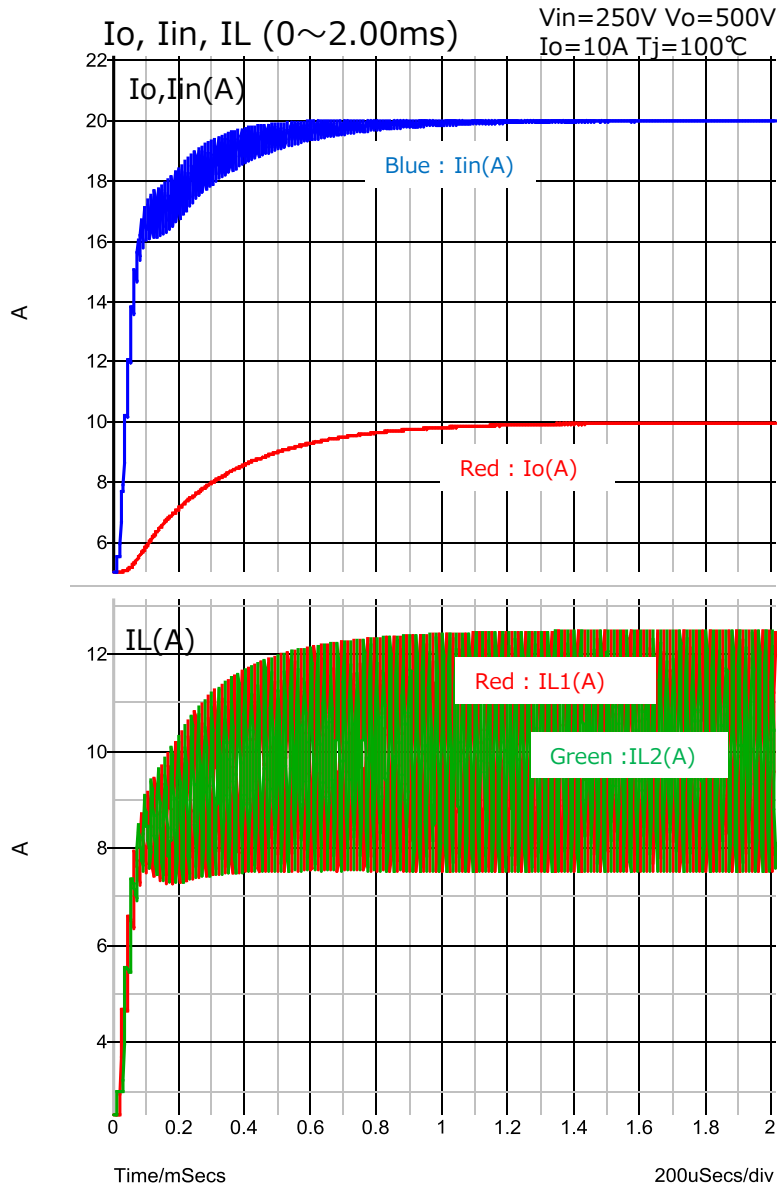
C_1 : 10uF

$T_j=100^\circ C$

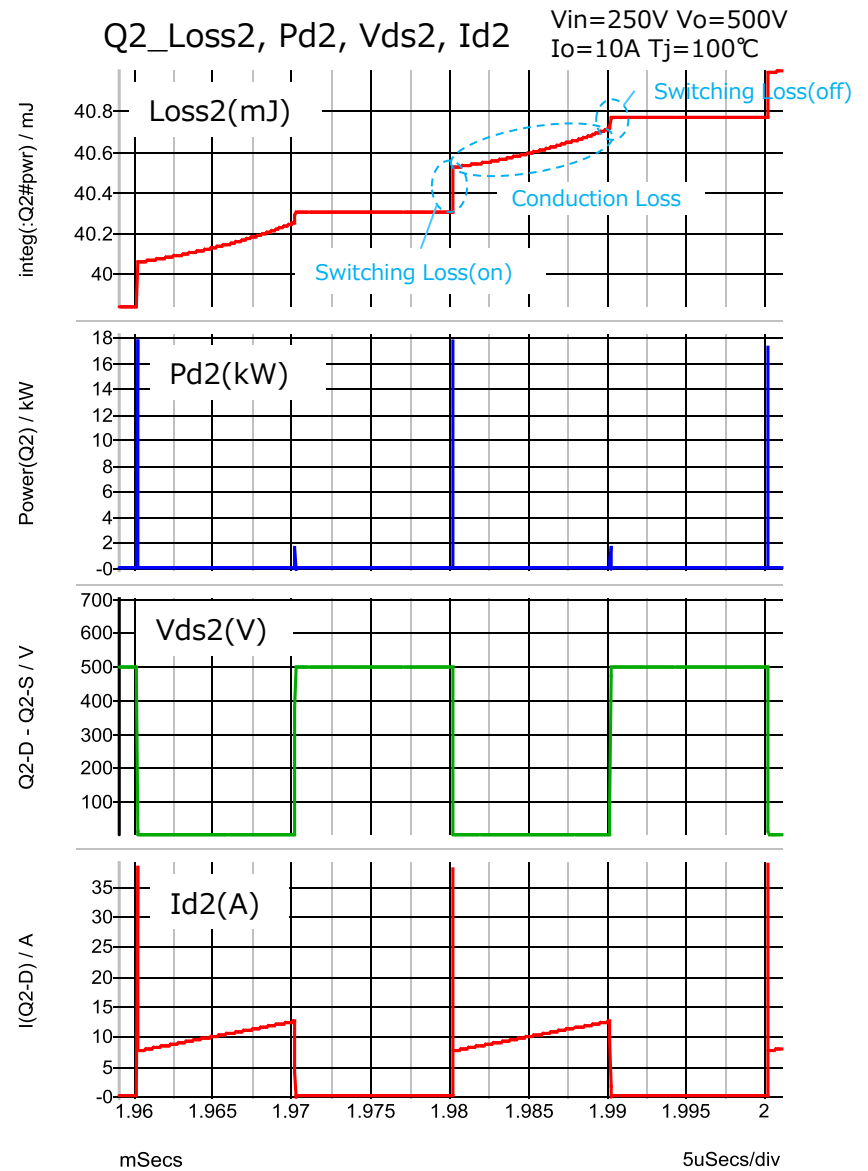
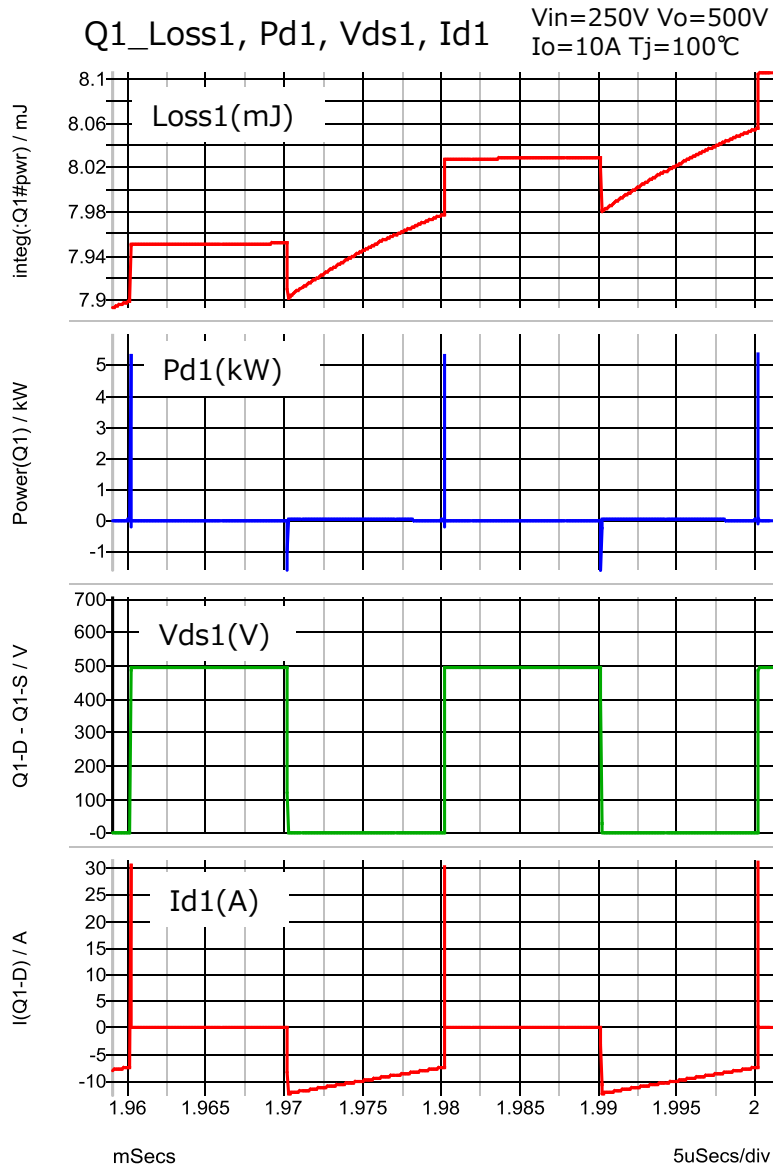
DC-DC Boost Synchro Converter 2-Phase $V_o=500V$ $I_o=10A$ Simulation Circuit



Simulation Waveform 1



Simulation Waveform 2



Efficiency, Power Dissipation

