

Assignment

Design, simulate and contrast the Buck-Boost (+ input filter) and Cuk circuits by Matlab or PSPICE using the circuit parameters as follows:

- 1) power source $V_d=48V$;
 - 2) load $R_{load}=8\Omega$, rated voltage $=48V$, V_o 's ripple $< \pm 0.5V$ in the range of $\pm 50\%$ rated voltage, rated power $=288W$ @ $V_o=48V$;
 - 3) $f_s=15kHz$.
- 1)+ I_d required to be smooth, the ripple $< \pm 0.6A$ in the range of 50~100% rated power of 288W.