Problem 10.1

Consider a continuous conduction mode buck converter to be operated under peak current mode control. The converter parameters are $f_{sw} = 500$ kHz, $L = 16$ µH, $C = 800$ µF, and $V_{out,ref} = 24$ V. What is the smallest magnitude of compensating ramp that will yield stable dynamics for the ripple instability over an input voltage range of $36$ V < $V_{in}$ < $75$ V?


Problem 10.2  KSV Prob. 4.6

Problem 10.3  KSV Prob. 4.7

Problem 10.4  KSV Prob. 4.8