

TPS62135 SIMPLIS Model Features and Limitations

Model Usage Notes:

A. Features have been modelled

1. Output Voltage Setting
2. Adjustable Soft-Start
3. Forced PWM or PWM/PFM operation
4. Enable UVLO
5. Automatic Efficiency Enhancement (AEE) mode
6. HICCUP Overcurrent Protection
7. Active Output Discharge
8. Power Good
9. AC analysis (Loop response)

B. Features have not been modelled

1. Operating Quiescent Current
2. Shutdown Current
3. Temperature dependent characteristics
4. Ground Pins have been tied to 0V internally and hence model does not support Inverting topologies.

C. Application Notes

1. The parameter STEADY_STATE has been used to reach the steady state faster.
Keep STEADY_STATE = 0 to observe startup behaviour.
Keep STEADY_STATE = 1 and appropriate IC on Inductor and capacitor to observe for faster Steady state and this is must to run POP/AC analysis.
2. The parameter VOUT has also been used to reach the steady state faster.
Keep VOUT = Output Voltage as per testbench.
This parameter is only applicable when STEADY_STATE=1
3. To view only Steady State results, please run POP analysis by keeping STEADY_STATE = 1 and appropriate initial conditions as described above.