

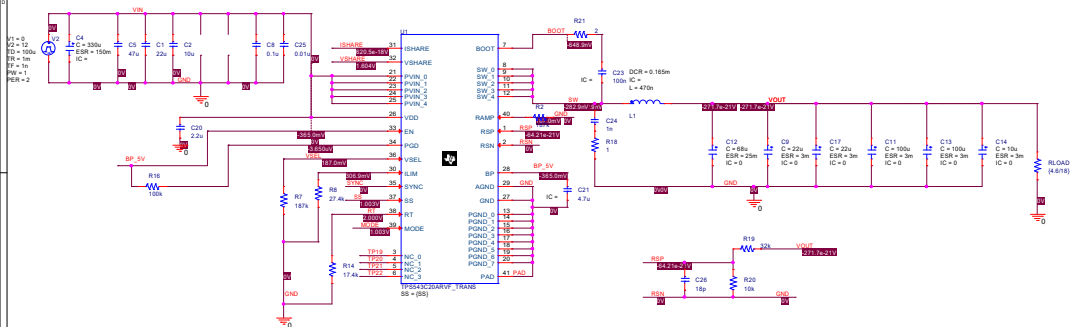
TPS543C20A STARTUP SIMULATION



TPS543C20A 1 Vin to 16 Vin, 40-A Buckable, Synchronous Step-down SMPS		
Document Number	Revised	Rev
TPS543C20A	SLU000	EVM: SLU000
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PARAMETERS

SS = 0



Application Notes

1. The TPS543C20A model is encrypted and will only run in PSPICE Versions 15.7 and up.
2. The design is similar to the EVM schematic and has been designed for the same input voltage, output load and output voltage conditions.
3. This model has been corner tested for an input voltage range of 4V to 16V and a load current range of 1mA to 40A.
4. The testbench has been configured VIN = 12V, VOUT = 0.9V and Iload = 40A.
5. The parameter SS has been used to reach the steady state faster. Keep SS = 0 to observe startup behaviour and SS = 1 for faster Steady state.
6. IC conditions needed at VOUT and Inductor for steady state simulation. Kindly give steady state Vout as IC on VOUT node and steady state Load Current as IC on inductor.
7. The operating quiescent current have not been modeled.
8. Thermal shutdown characteristics of the part have not been modeled.
9. The simulation runs for 5.5ms and takes approximately 54 minutes to run on a 4 core 2.8GHz machine.

