

LMR54620 PSPICE Transient Model Features and Limitations

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* Model Usage Notes:
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* A. Features modelled
* 1. Programmable VOUT
* 2. Soft Start
* 3. PWRGD functionality
* 4. BOOT function
* 5. Programmable Frequency(RT)
* 6. Input UnderVoltage LockOut(UVLO)
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* B. Features have not been modelled
* 1. Operating Quiescent Current
* 2. The SS_TR to VSENSE matching
* 3. Minimum VIN for valid PWRGD output
* 4. Minimum SS_TR voltage for PWRGD
* 5. Internal PLL for the RT_CLK pin
* 6. Switchover from RT mode to CLK mode
* 7. Temperature dependent characteristics
* 8. Ground pins have been tied to 0V internally. Therefore, this model cannot be used for inverting topologies.
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* C. Application Notes
* 1. The parameter SS has been used to reach the steady state faster.
*    Keep SS = 0 to observe startup behaviour.
*    Keep SS = 1 and appropriate IC on Inductor and capacitor to observe for faster Steady state.
* 2. The internal PLL for the RT_CLK pin has not been modeled and hence the switchover from RT mode to CLK
*    mode has not been modeled. However the model can operate in RT mode and CLK mode depending on the
*    resistor or clock signal connected to the RT_CLK pin.
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