

TPS54KC23 SIMPLIS Transient Model Features and Limitations

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* Model Usage Notes:

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* A. Features have been modelled

- * 1. Output Voltage Setting
- * 2. Programmable Soft-Start
- * 3. Frequency and Operation Mode Selection with RMSEL
- * 4. Low-side FET Zero-Crossing
- * 5. Current Sense and Positive Overcurrent Protection(OCP)
- * 6. Low-side FET Negative Current Limit
- * 7. Power Good
- * 8. Over Voltage Protection (OVP)
- * 9. Under Voltage Protection (UVP)
- * 10. Output Voltage Discharge
- * 11. EN/VIN UVLO Protection
- * 12. BOOT functionality

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* 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.
- * 5. Hiccup or Latch-off

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* C. Application Notes

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- * 1. The parameter HAS_POP_ANALYSIS has been used to reach the steady state faster.

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