Model FeaturesandLimitations

A. Features that have been modelled

1. Configurable Slew Rate
2. Integrated Current Sense
3. Configurable Current Regulation
4. Proportional Load Current Output on IPROPI pin
5. UVLO, Logic Level, Tri-level logic
6. Protection and diagnostic features with configurable fault reaction (latched or retry)
    a. Load diagnostics in the Off-state and On-state
    b. Voltage monitoring on supply VM
    c. Over current protection
    d. Over temperature protection
    e. Fault indication on nFAULT pin
7. Current IVMQ and IVMS in Sleep and Standby state
8. Temperature dependency on RDSON of integrated Power FETs
9. SPI interface Register Bits functionality

B. Model Limitations and Features that haven't been modelled

1. Spread Spectrum clocking for low EMI
2. EC parameters from Table 7.5.8 [AI_ERR, AI_ERR_M, OffsetIPROPI, BWIPROPI]
3. SPI interface PINs (nSCS,SDI,SCLK,SDO) functionality
4. VCP – Charge Pump Voltage Pin

C. Model Parameter(s)

1. Temp_Amb: Sets the ambient temperature from -40C to 125C
2. EN_OLA: Sets the device OLA Enable/Disable option
3. OCP_RETRY: Sets the device Retry/Latch-Off on detection of OCP event
4. OCP_SEL: Selects the current limit options
5. OLA_RETRY: Sets the device Retry/Latch-Off on detection of OLA event
6. S_DIAG: Selects the DIAG 4 level options
7. S_ITRIP: Selects the VITRIP 8 level options
8. S_SR: Selects the SR 8 level options
9. TOCP_SEL: Selects the deglitch time for OCP 4 level options
10. TOFF: Selects the Fixed-TOFF for current regulation with 4 level options
11. VMOV_SEL: Selects the VMOV thresholds with 4 level options
12. VMOV_RETRY: Sets the device Retry/Latch-Off on detection of VMOV event
13. TSD_RETRY: Sets the device Retry/Latch-Off on detection of TSD event