

## Model Usage Notes:

### A. Features have been modelled

1. Soft start with programmable output voltage slew rate
2. Current Limit
3. Shutdown through EN pin

### B. Features have not been modelled

1. Multi-phase support
2. Power Good
3. AVS support with configurable slew-rate
4. Automatic mode control based on the loading (PFM or PWM mode) or Forced-PWM mode operation
5. External clock synchronization
6. Voltage Monitor
7. Operating Quiescent Current
8. Temperature dependent characteristics
9. Ground Pins have been tied to 0V internally and hence model does not support Inverting topologies.

### C. Application Notes

1. To observe startup behaviour select STEADY\_STATE parameter to 0  
To observe steady state behaviour select STEADY\_STATE parameter to 1
2. Parameter `FREQ_SEL` refers to `BUCK1_FREQ_SEL` bits (2 bits) of `FREQ_SEL` Register.
3. Parameter `BUCK_SEL` has been used to select the Bucks from 1 to 5.  
`BUCK_SEL=0` selects the Bucks=1-4 and `BUCK_SEL=1` selects the Buck=5
4. Parameter `MULTI_PHASE` =0 to set the model in single phase usecase and  
`MULTI_PHASE` =1 to set the model in multiphase usecase.
5. Parameter `SLEW_RATE` refers to `BUCK1_SLEW_RATE` bits (3 bits) of `BUCK1_CONF` Register.
  - a. `SLEW_RATE` =0 = 33.3mV/ $\mu$ s
  - b. `SLEW_RATE` =1 = 20mV/ $\mu$ s
  - c. `SLEW_RATE` =2 = 10mV/ $\mu$ s
  - d. `SLEW_RATE` =3 = 5mV/ $\mu$ s
  - e. `SLEW_RATE` =4 = 2.5mV/ $\mu$ s
  - f. `SLEW_RATE` =5 = 1.25mV/ $\mu$ s
  - g. `SLEW_RATE` =6 = 0.625mV/ $\mu$ s
  - h. `SLEW_RATE` =7 = 0.3125mV/ $\mu$ s
6. High EN signal, startup the model. Low EN signal, shutdown the model.