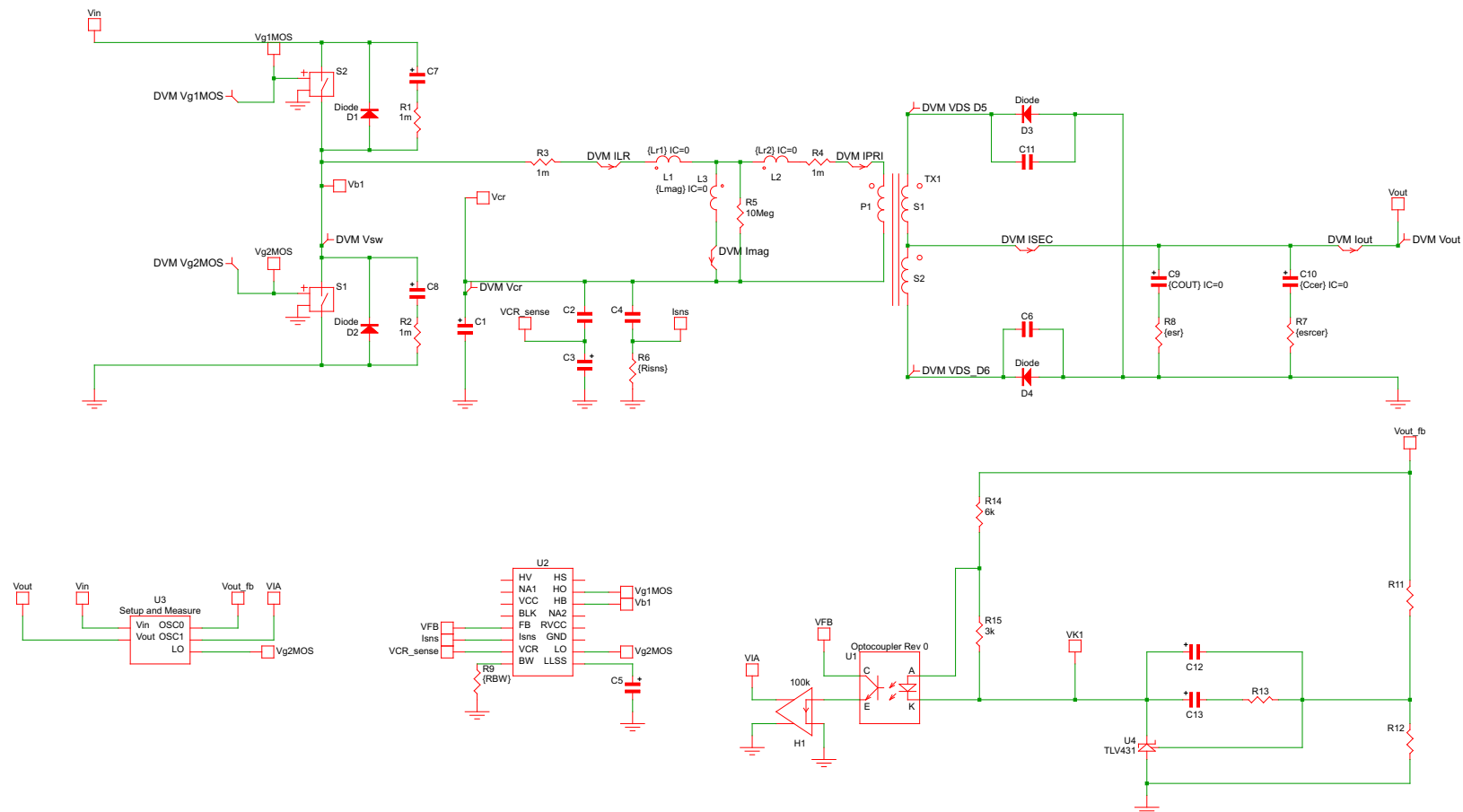


# UCC25640x Transient Simulation

Company	Texas Instruments
Title	UCC25640x
Author	
Notes	slusd90 - June 2019
Version	1.0 Date 7/27/2023



**Notes:**

1. This model is suitable for both UCC256403 and UCC256404. The IC version can be set through the parameter "IC\_ID" in the "command" window - press F11.
2. Transient analysis need to be performed before the AC analysis. In the setting of the POP analysis, need to select using the transient simulation results as the initial condition.
3. Block U3 includes the blocks for input voltage source, output load, and blocks needed for AC analysis.
4. R1 - R5 are placeholder for equivalent resistors for power switches and transformer. They are also helpful to accelerate the simulation speed.
5. A Pi type transformer model is used. L3 is used to represent the magnetizing inductance, L1 and L2 are used to represent the leakage inductance. TX1 is the ideal transformer. The transformer ratio needs to be typed in directly in the ideal transformer model TX1 in the schematic.
6. HV pin, VCC pin, BLK pin, BW pin, RVCC pin, HB pin, and HS pin are not emulated in this model.
7. Burst mode disable feature is currently not implemented in this model. If needs to disable burst, can set BMTD and BMTL to 0.2V.
8. The fault protection feature is not included in this model
9. The adaptive deadtime control feature is not included in this model. Fixed deadtime is set in the "command" window - press F11
10. The LLSS pin is only used for the soft start in this model. The initial voltage programming is realized by setting the "Vssinit" in the command window - press F11