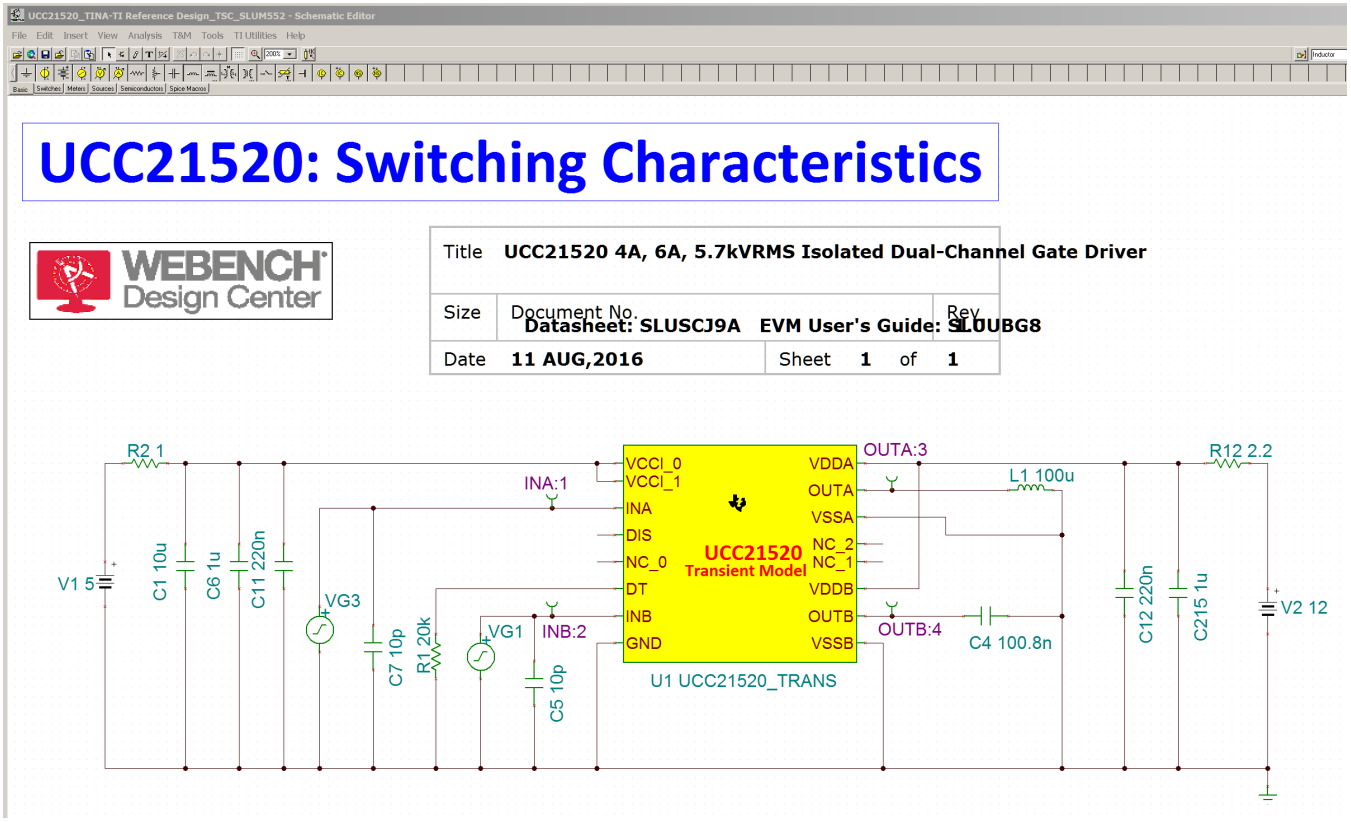
<u>Using Texas Instruments TINA and TSC_SLUM552 file (UCC21520 Evaluation Board Circuit)</u>

<u>DEMONSTRATION</u> of the UCC21520 Switching Characteristics [using WEBENCH Design Center]

This simulator software is free from Texas Instruments after registering.

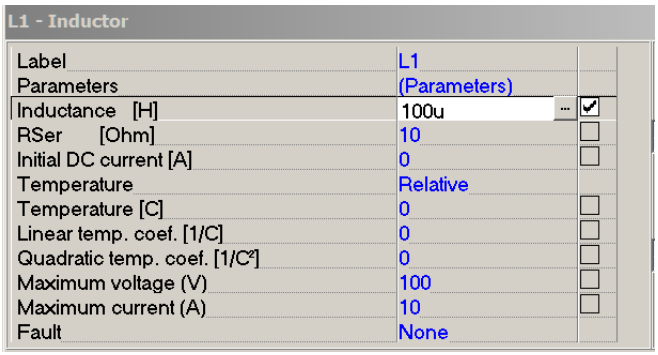
The circuit file of the Evaluation Board, with the IC (UCC21520) already in the circuit diagram, is also available from TI.
Simply; file | open | change the values!

Schematic:

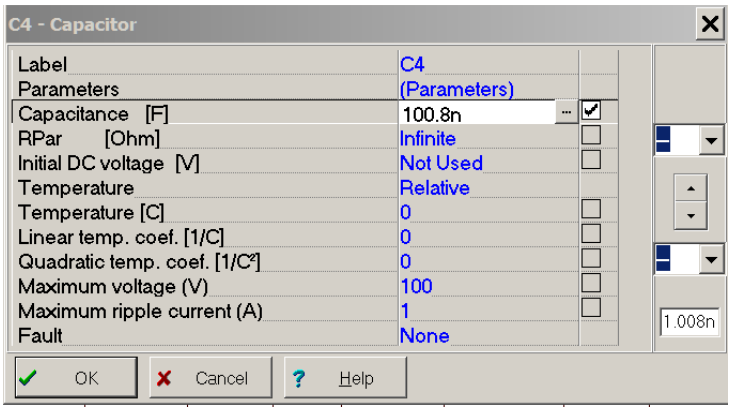


Transient Simulation NOTES:

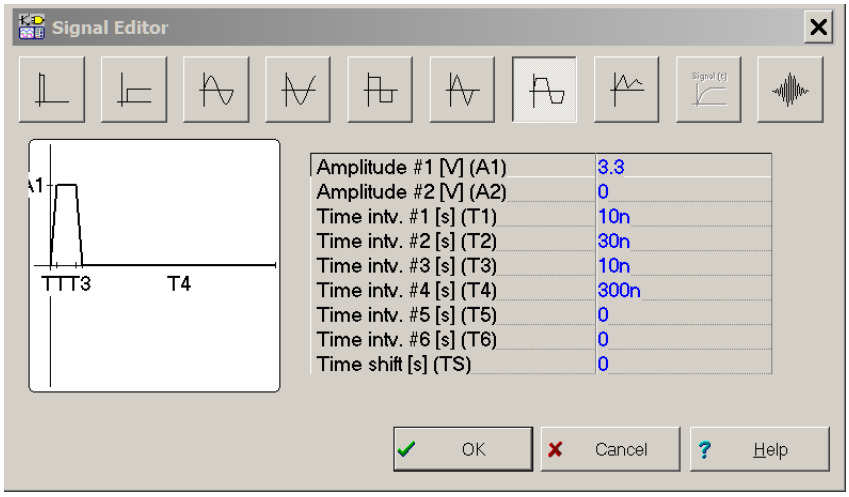
- OUTA (OUTA:3) load is L1 100uH inductor



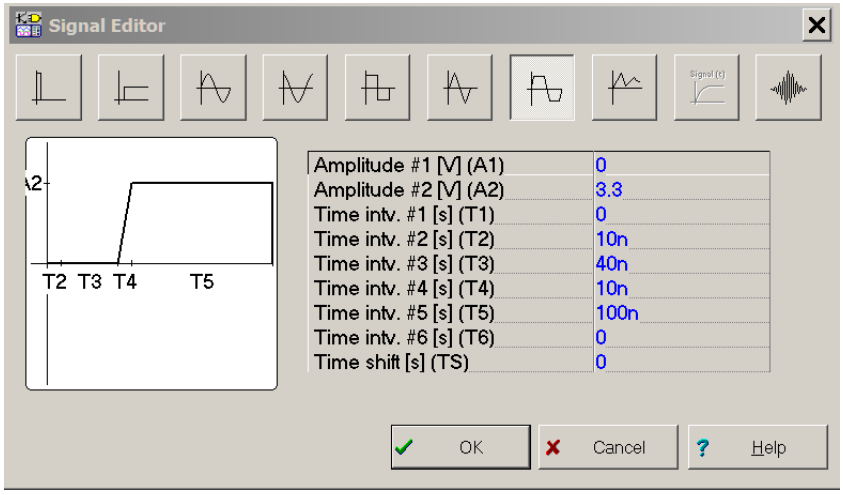
OUTB (OUTB:4) load is C4 100.8nF



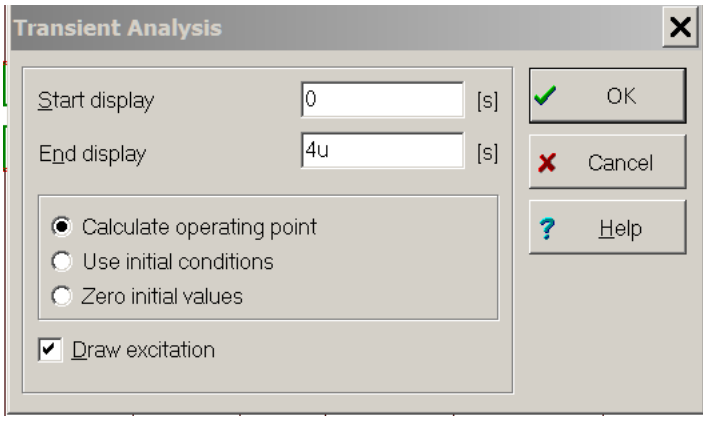
- VG3 (INA:1)



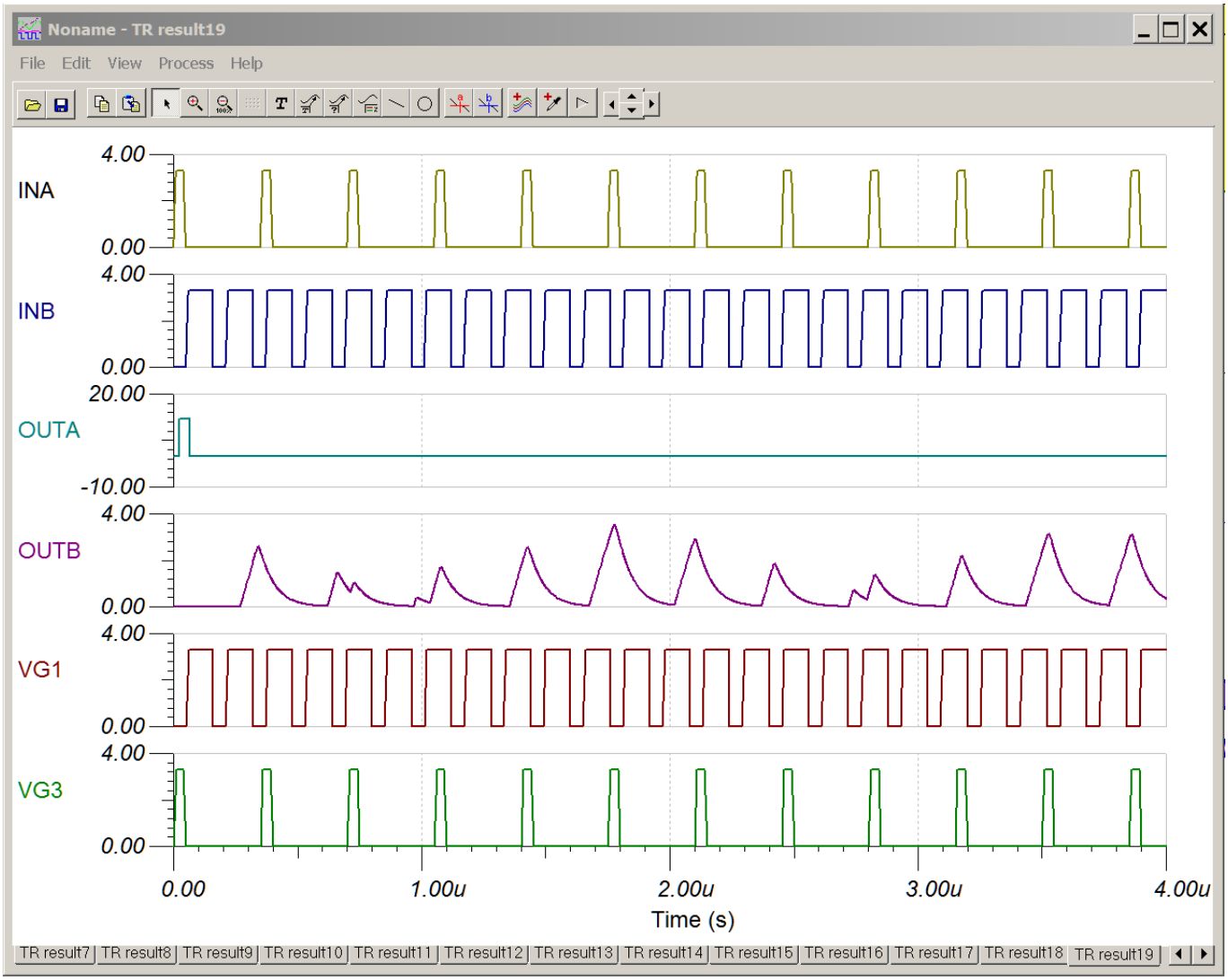
- VG1 (INB:2)



- Transient Analysis



Transient Analysis simulation WAVEFORMS



Note: OUTB doesn't seem to "like" the 100.8nF C4.
OUTA seems ok with a 100uH @ 10 ohm internal resistance

SiC MOSFET spice files are easily added to this circuit, as well as other devices, etc., as required.

This only a quick demonstration of what can be done using one of the many "free" simulation packages with very little time, effort, learning curve, and no expense!

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