LTspice Model
PWM type DC/DC converter IC included MOSFET
ROHM Co., Ltd.
BM2P014T-Z

Model Information

Model A macro model
Call Name MDC_BM2P014T-Z_LT
Pin Assign 1:SOURCE 2:NC 3:GND 4:FB 5:VCC 6,7: DRAIN
File List Model Library MDC_BM2P014T-Z_LT01.lib
Model Report MDC_BM2P014T-Z_LT.pdf(this file)

Verified Simulator Version

Note

References
The information which was used for modeling is as follow:

[Data Sheet]
●Date/Version 2021.10.26 Rev.011
●Product name BM2P014T-Z
●Company name ROHM Co., Ltd.

[Characteristics listed]
●Characteristics Vuvlo1, Vuvlo2, Vuvlo3, Vchg1, Vchg2
Fsw1, Fsw2, Tss1-ss4, Dmax, Rfb, Vbst, Tleb

Simulation Condition
This table shows the range of evaluated simulation range that was not occurs any convergence problems in this area.

Item	Condition			Unit
	Min	Typ	Max	
Power Supply Voltage	8.9		26.0	V
Temperature		25.0		deg C

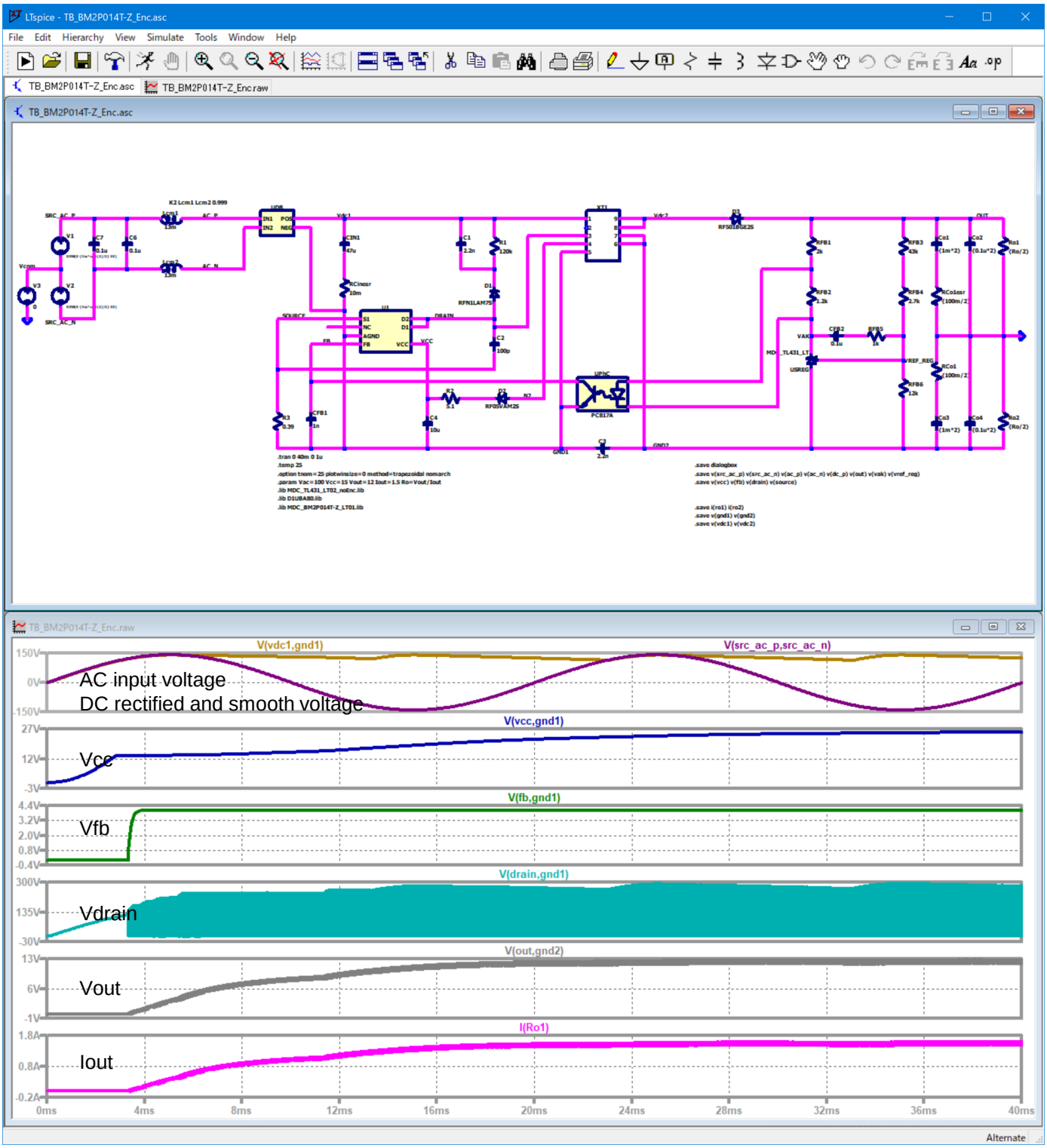
Switching Regulator

○ : Implemented
× : Not Implemented
— : Not applicable

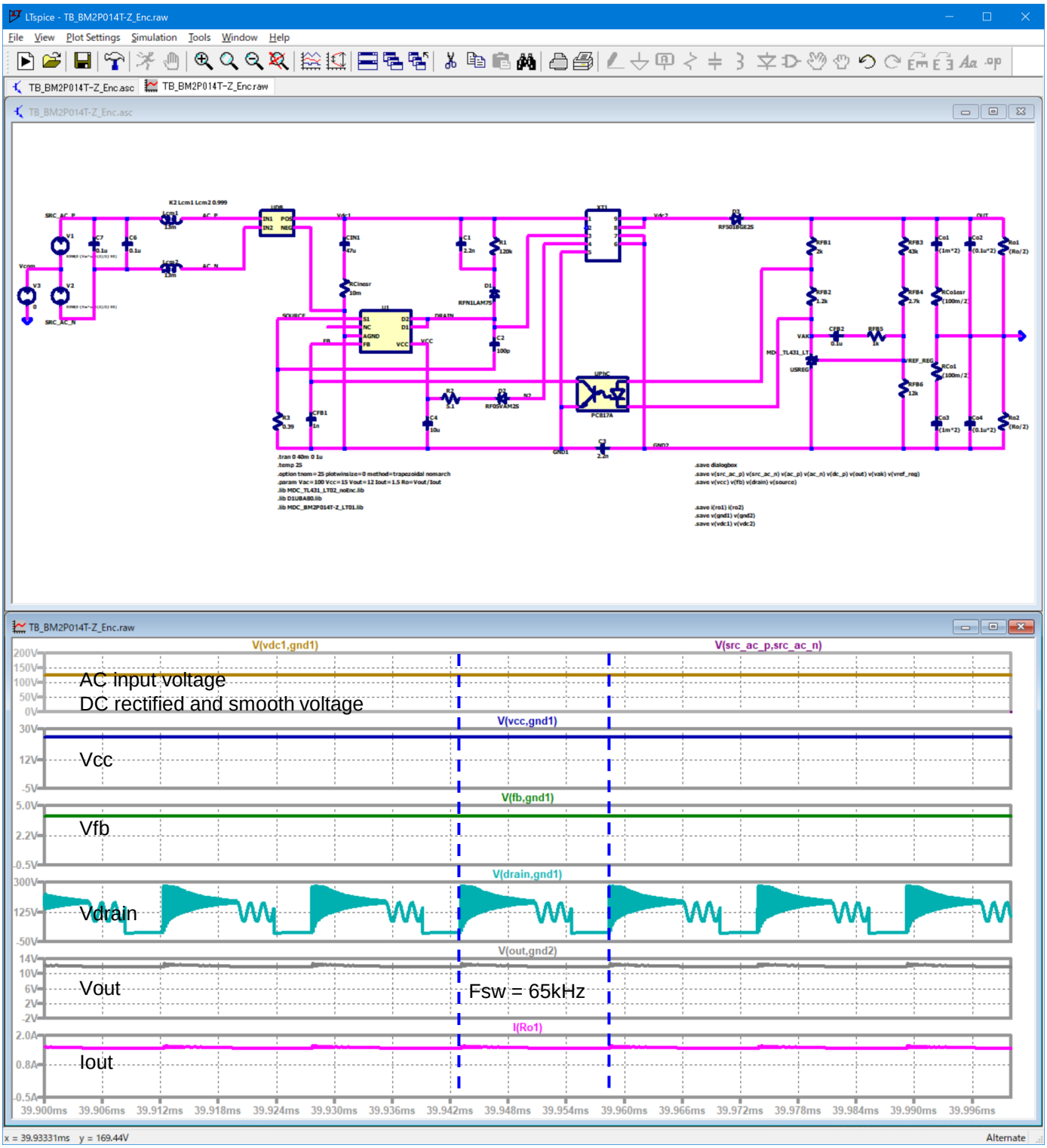
Model Functions Table

	RANK=1	
Functions	**RANK**	**Implemented**
Control Method(PWM,PFM)	1	○
Enable Function	1	○
Soft Start	1	○
Line Regulation	1	○
Load Regulation	1	○
UVLO	1	○
Line Transient	2	–
Load Transient	2	–
Light Load Current Mode	1	○
Spread Spectrum	2	–
Over Current Protection	1	○
Over Voltage Protection	2	–

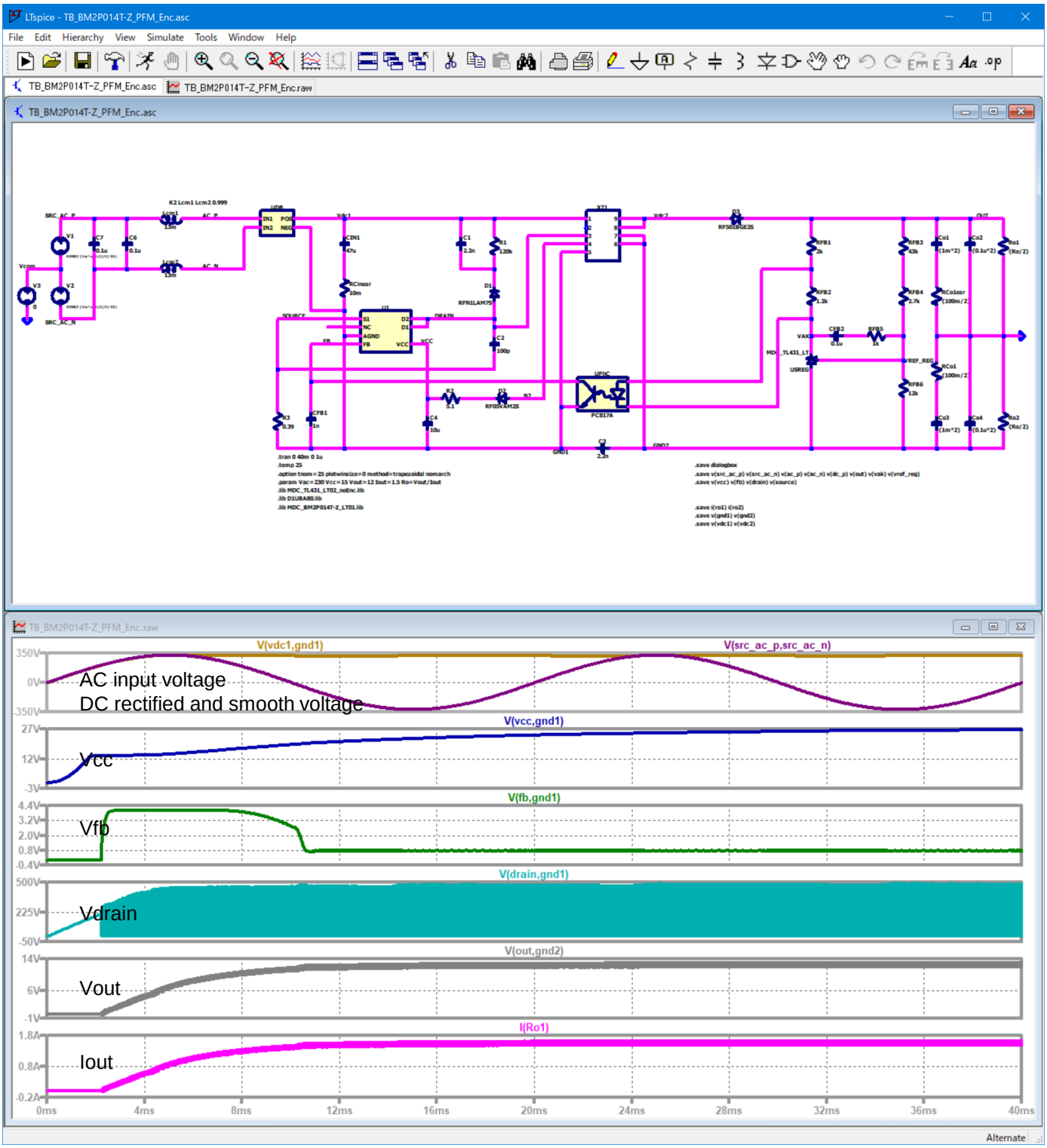
Testbench for PWM mode function (Vrms = 100rms, Vout = 12V, Iout = 1.5A)



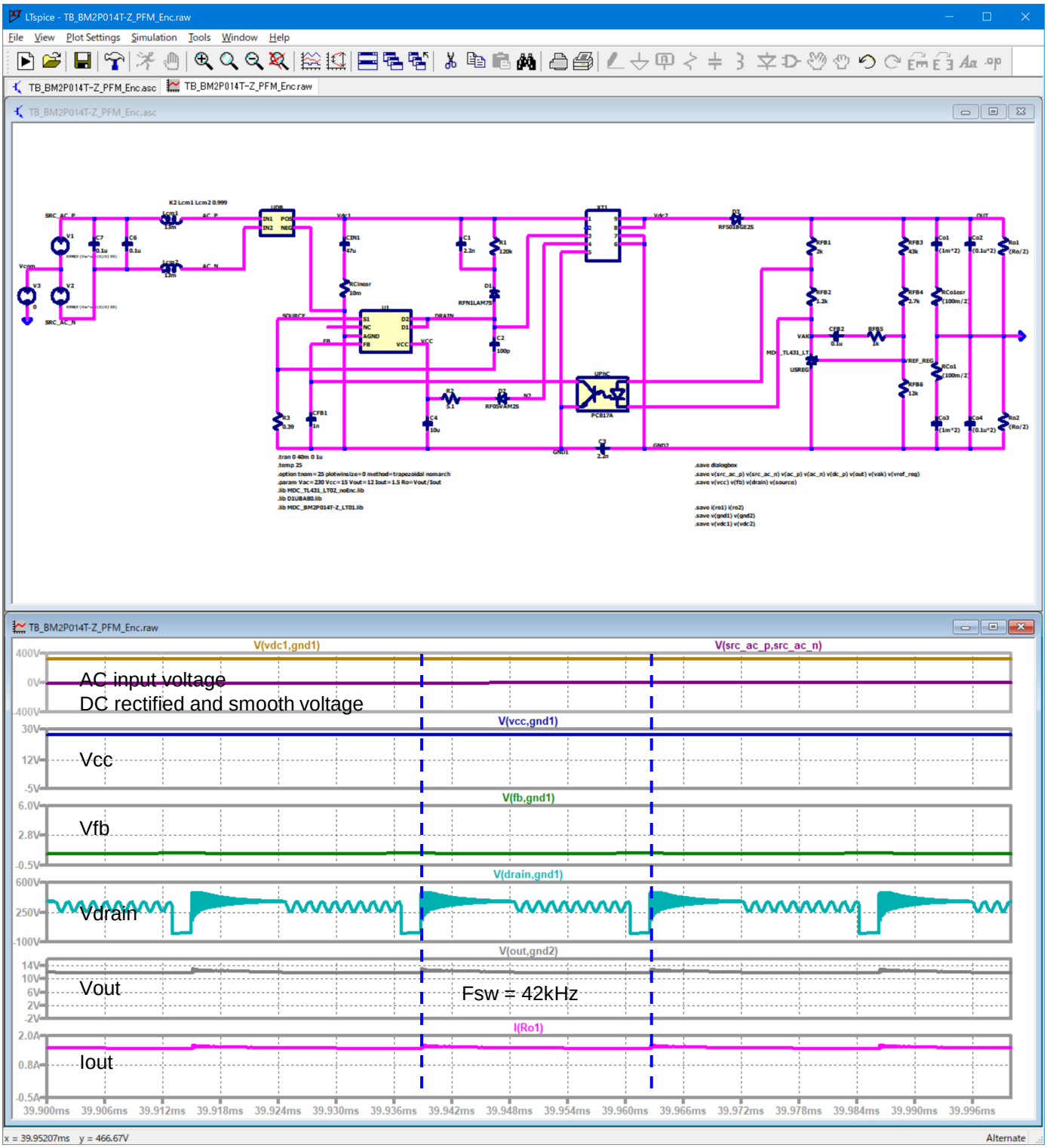
Testbench for PWM mode function (Vrms = 100Vrms, Vout = 12V, Iout = 1.5A)



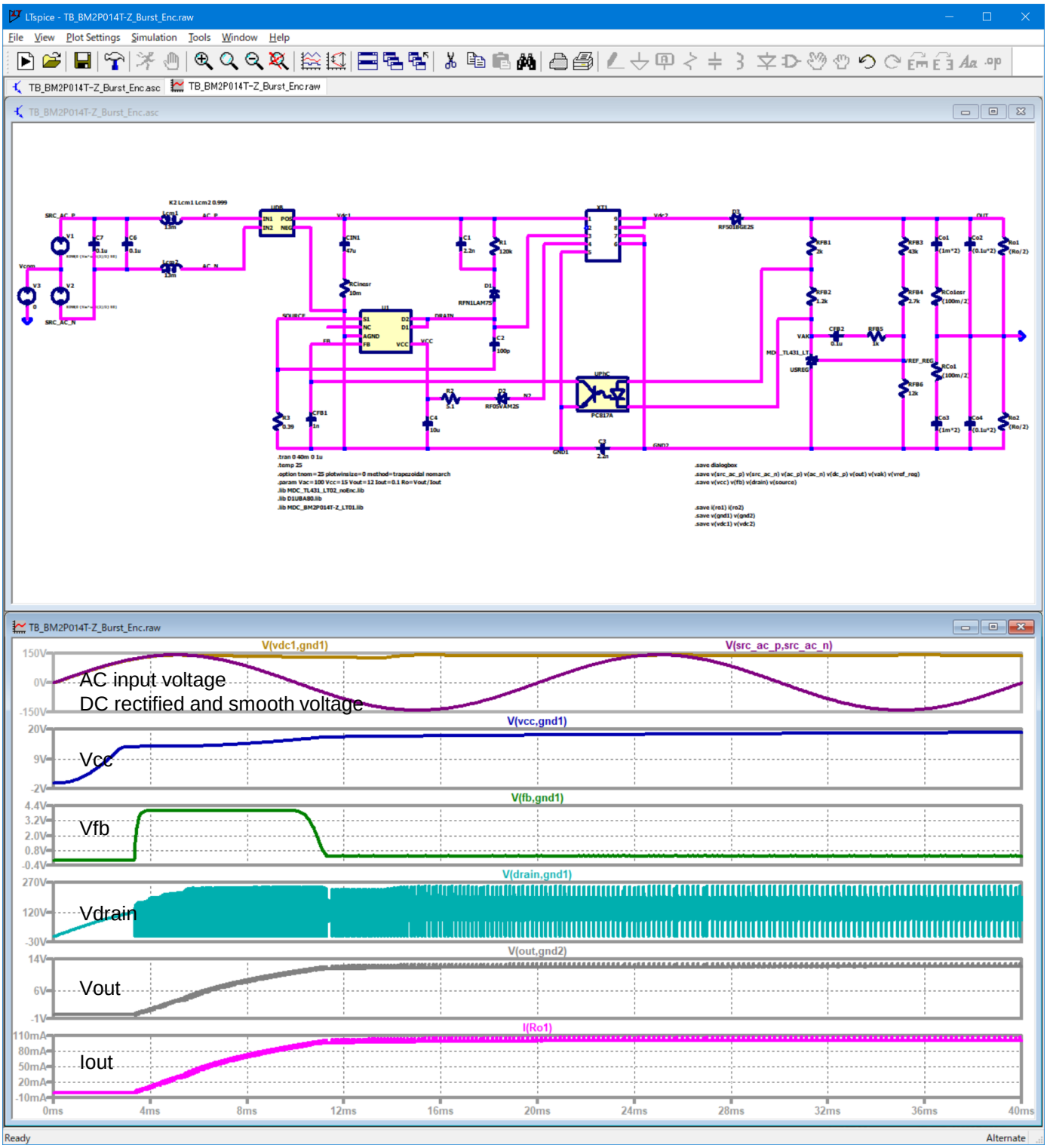
Testbench for PFM mode function (Vrms = 230rms, Vout = 12V, Iout = 1.5A)



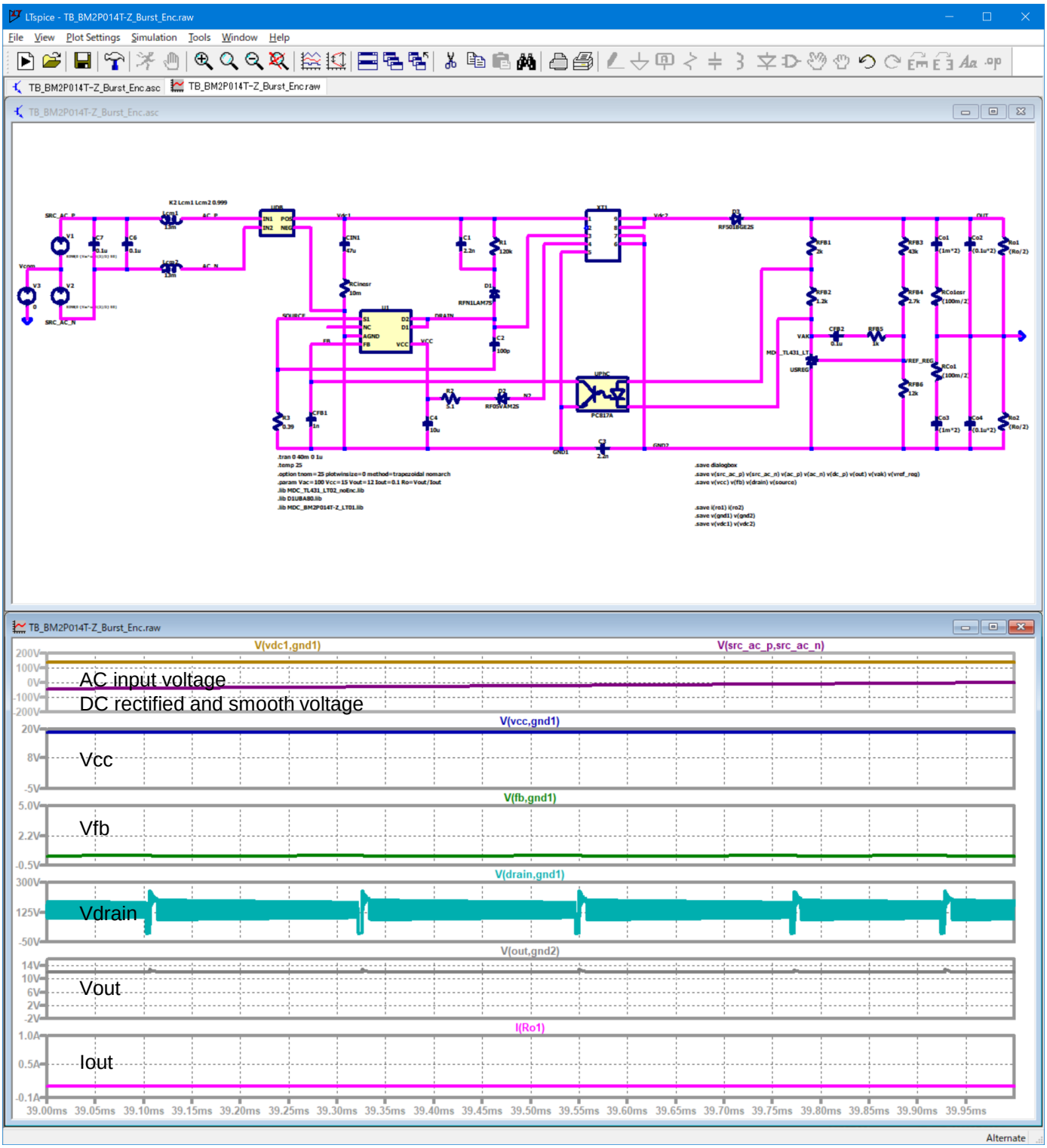
Testbench for PFM mode function (Vrms = 230Vrms, Vout = 12V, Iout = 1.5A)



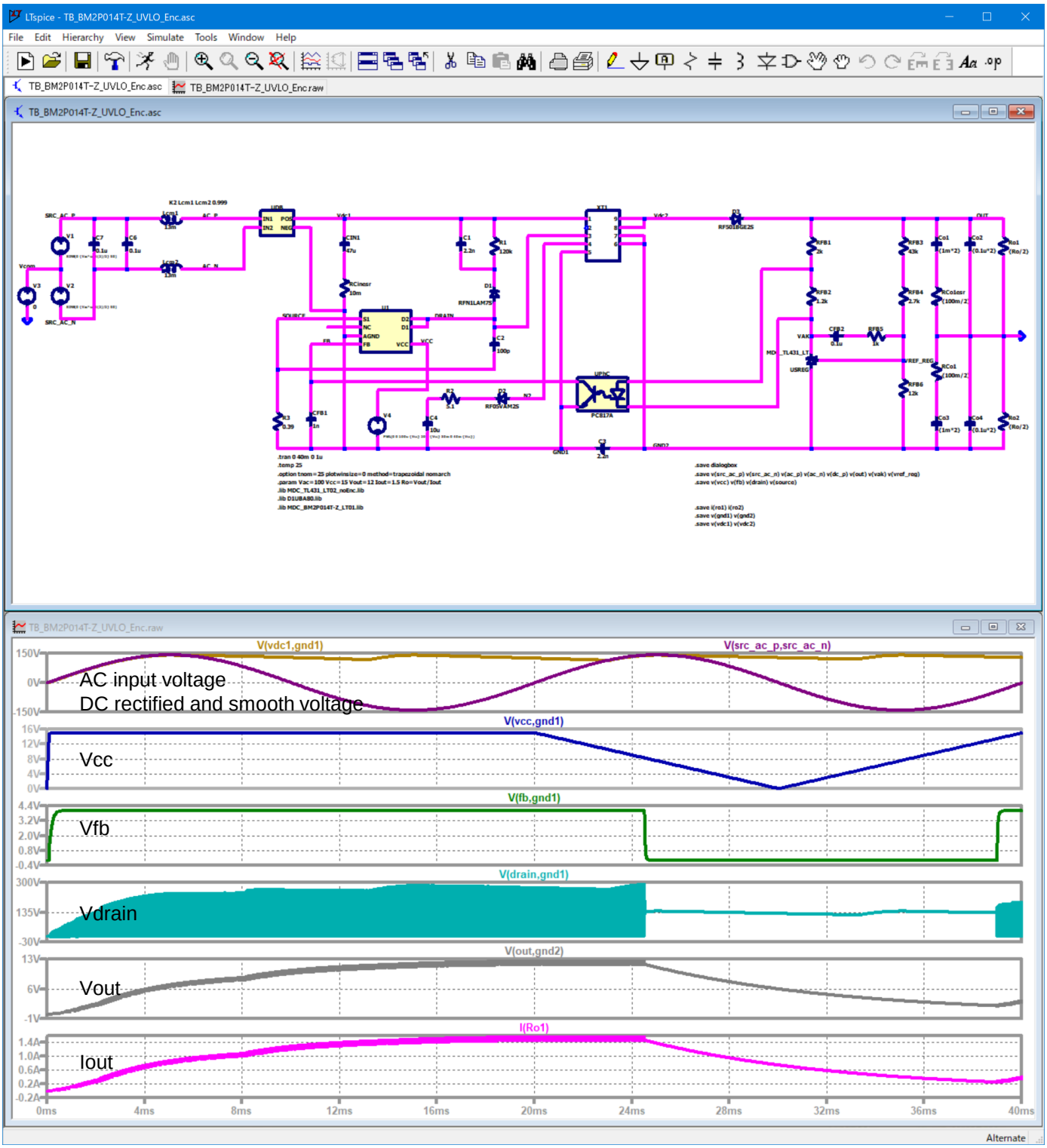
Testbench for Burst mode function (Vrms = 100Vrms, Vout = 12V, Iout = 0.1A)



Testbench for Burst mode function (Vrms = 100rms, Vout = 12V, Iout = 0.1A)



Testbench for UVLO mode function (Vrms = 100rms, Vout = 12V, Iout = 1.5A)



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