LTspice Model
Intelligent Power Module
infineon
ICE5AR4780BZS

Model Information

Model　　　　A macro model
Call Name　　MDC_ICE5AR4780BZS_LT
Pin Assign　　1:VERR 2:FB 3:CS 4:GATE 5:DRAIN 7:VCC 8:GND
File List　　　Model Library　　MDC_ICE5AR4780BZS_LT01.lib
　　　　　　　　Model Report　　MDC_ICE5AR4780BZS_LT.pdf(this file)

Verified Simulator Version　　　　　LTspice

Note

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

　　　　　　　[Data Sheet]
　　　　　　　　●Date/Version　　　V2.3 2020-02-03
　　　　　　　　●Product name　　　ICE5AR4780BZS
　　　　　　　　●Company name　　　infineon

　　　　　　　[Characteristics listed]
　　　　　　　　●Characteristics　　　isolated PWM operation
　　　　　　　　　　　　　　　　　isolated Active Burst Mode
　　　　　　　　　　　　　　　　　Non-isolated PWM operation
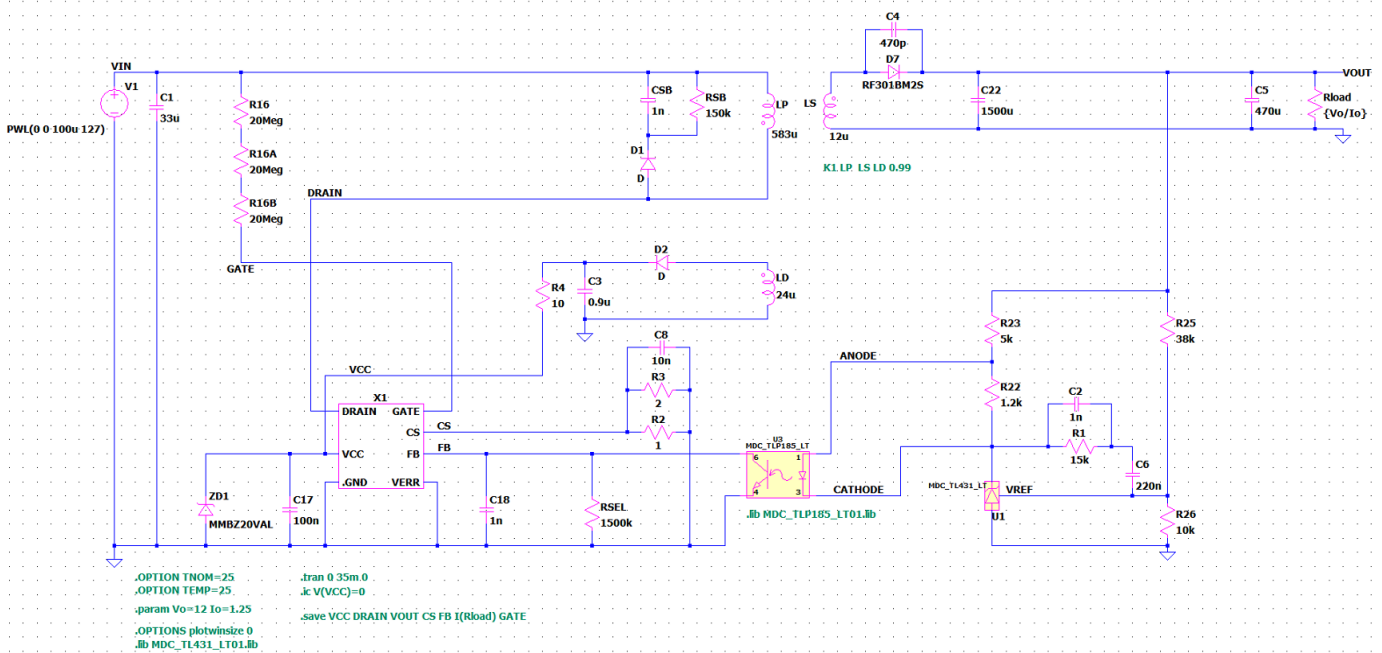　　　　　　　　　　　　　　　　　Non-isolated Active Burst Mode

Simulation Condition

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

Item	Condition	Unit
Temperature	25	deg C

Model Functions Table

Functions	Implemented
PWM operation	〇
VCC Pre Charge	〇
Soft Start	〇
Frequency reduction	〇
Leading Edge Blanking	〇
Slope compensation	〇
Non-isolated/isolated configuration	〇
Active Burst Mode(ABM)	〇
VCC under voltage protection(Auto restart)	〇

isolated PWM operation Testbench

Simulation results are following.
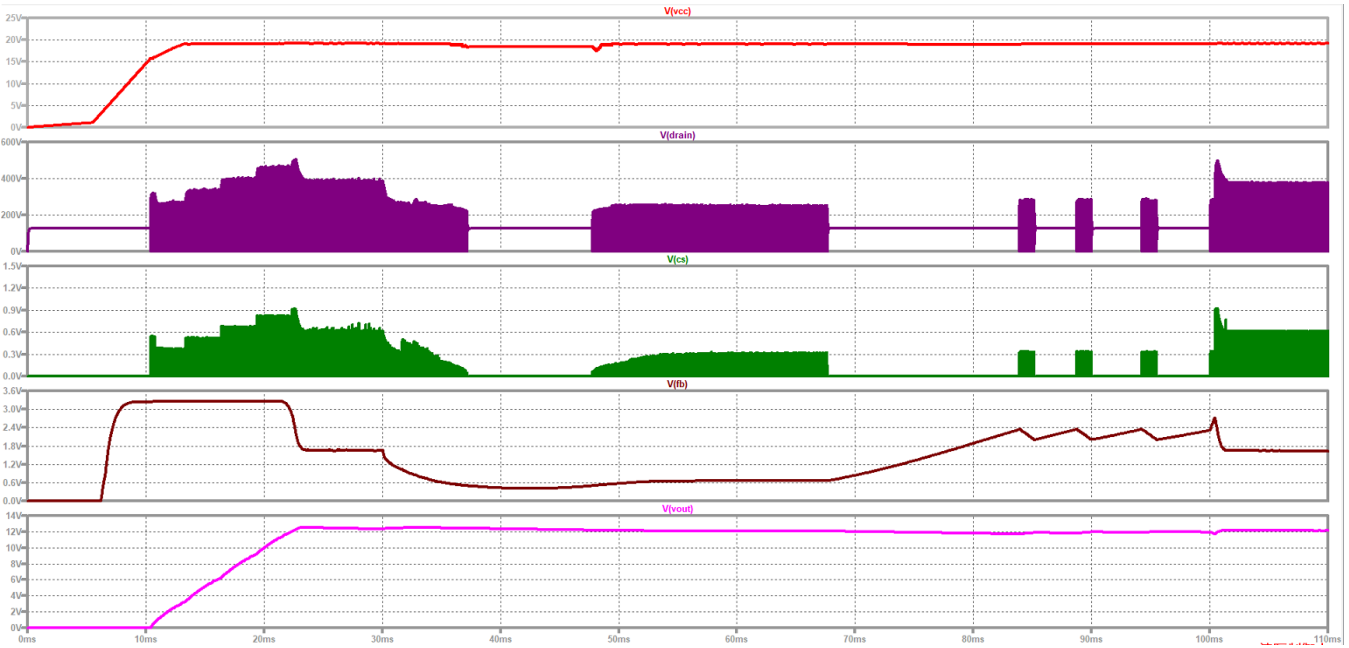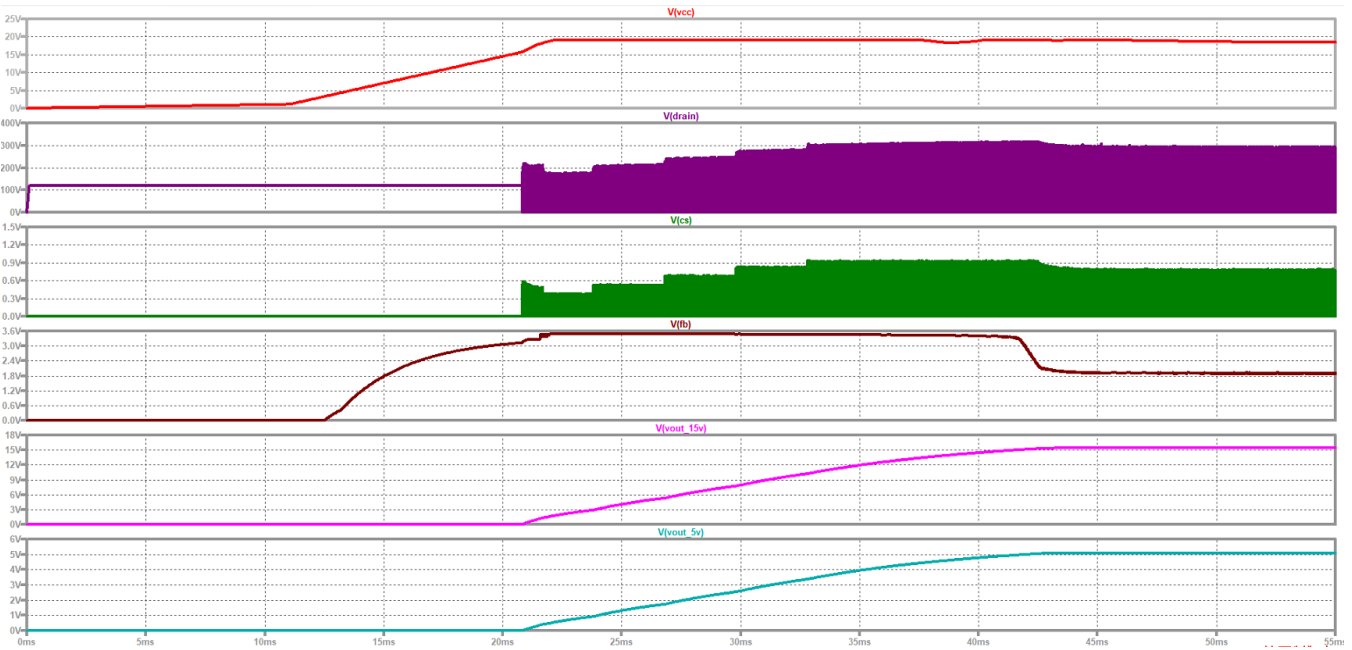Explanatory notes　 － : simulated

isolated PWM operation
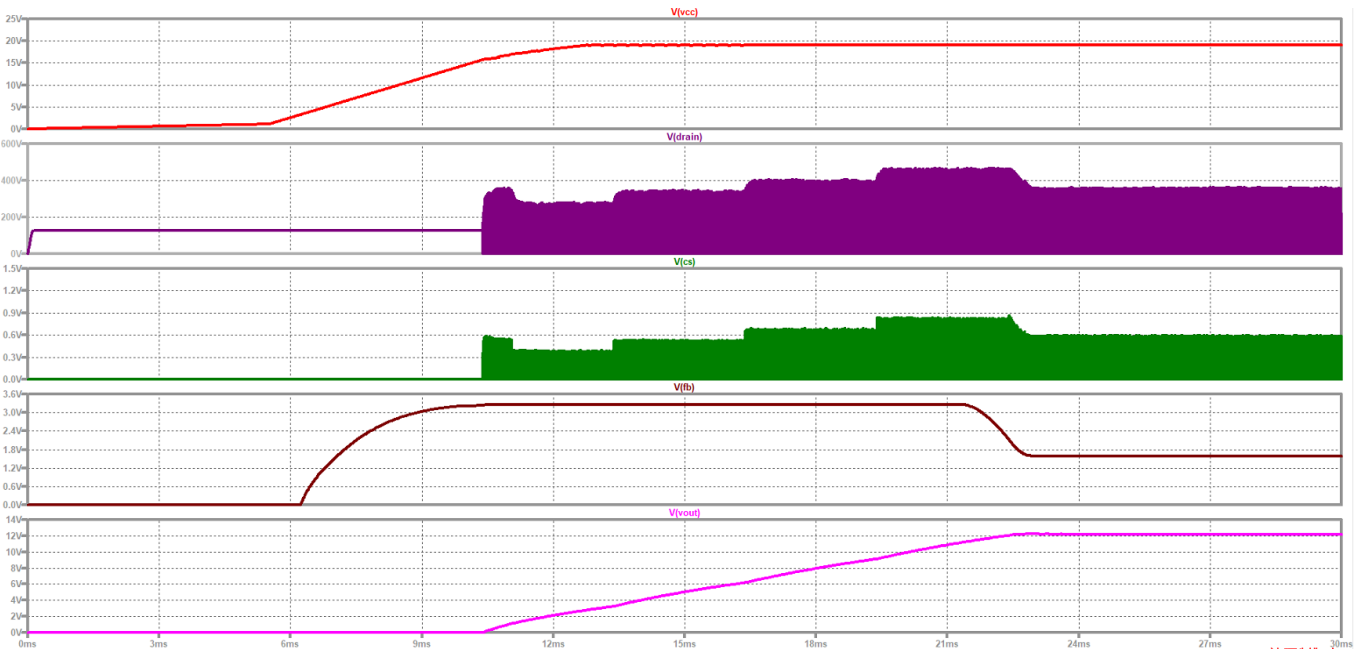
isolated Active Burst Mode Testbench
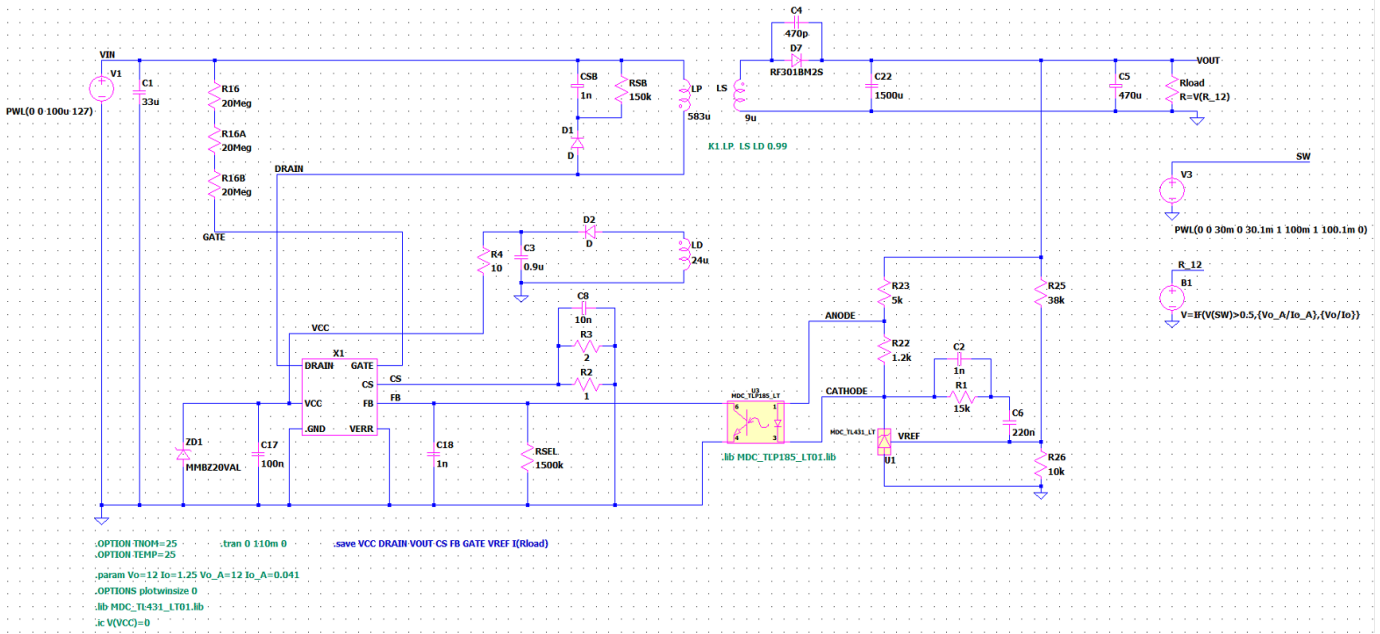
Simulation results are following.
Explanatory notes ― : simulated

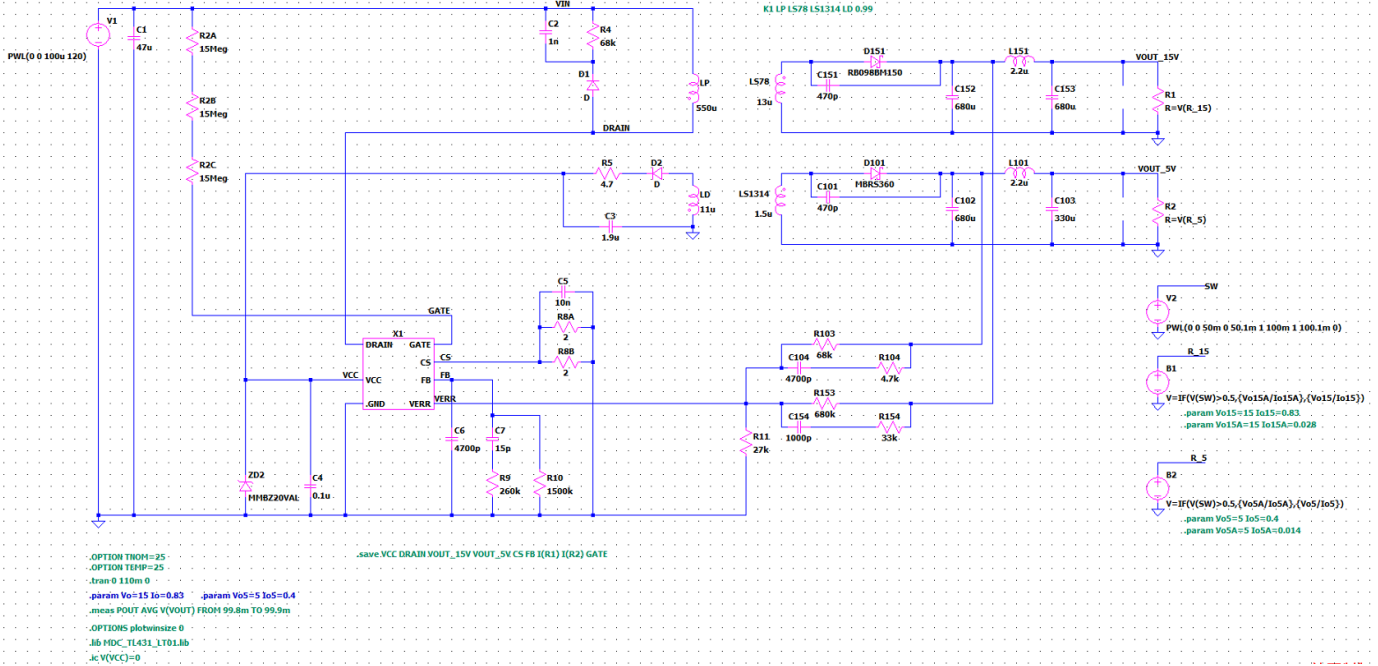## isolated Active Burst Mode

Non-isolated PWM operation Testbench
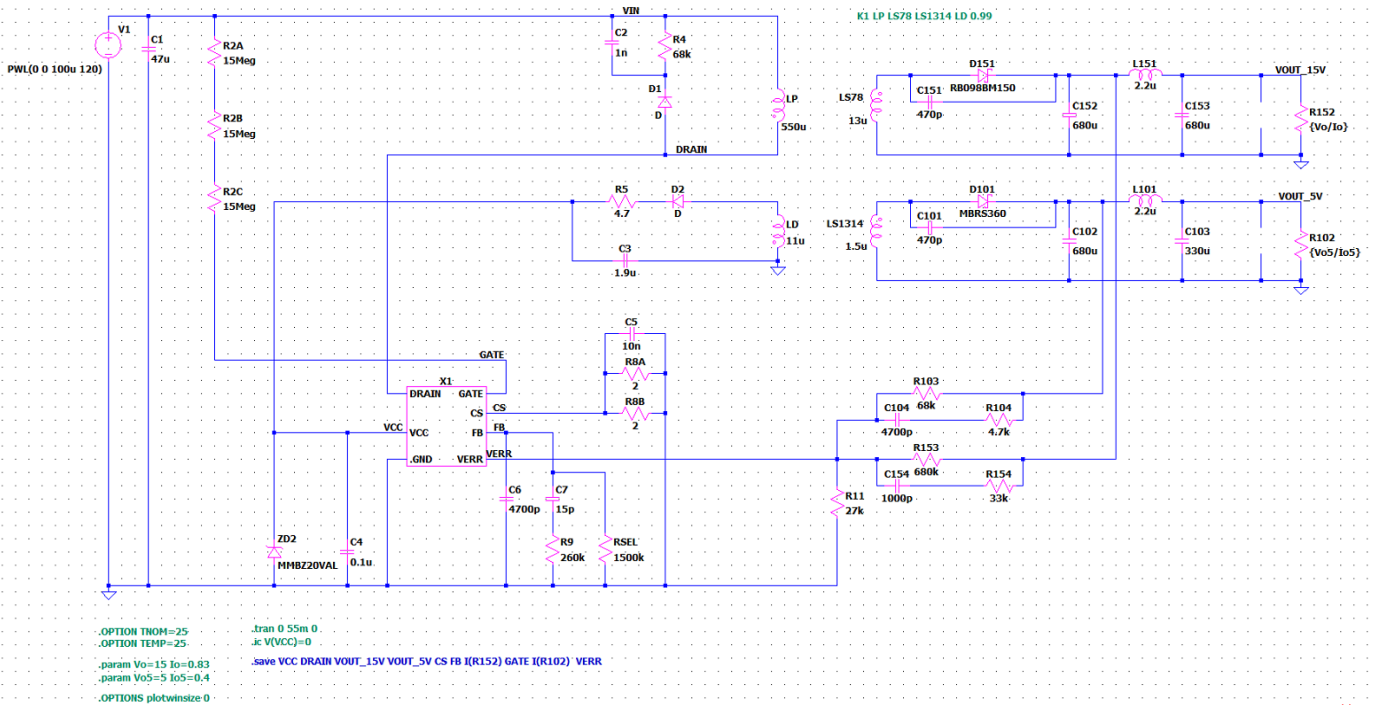
Simulation results are following.
Explanatory notes　　—　: simulated
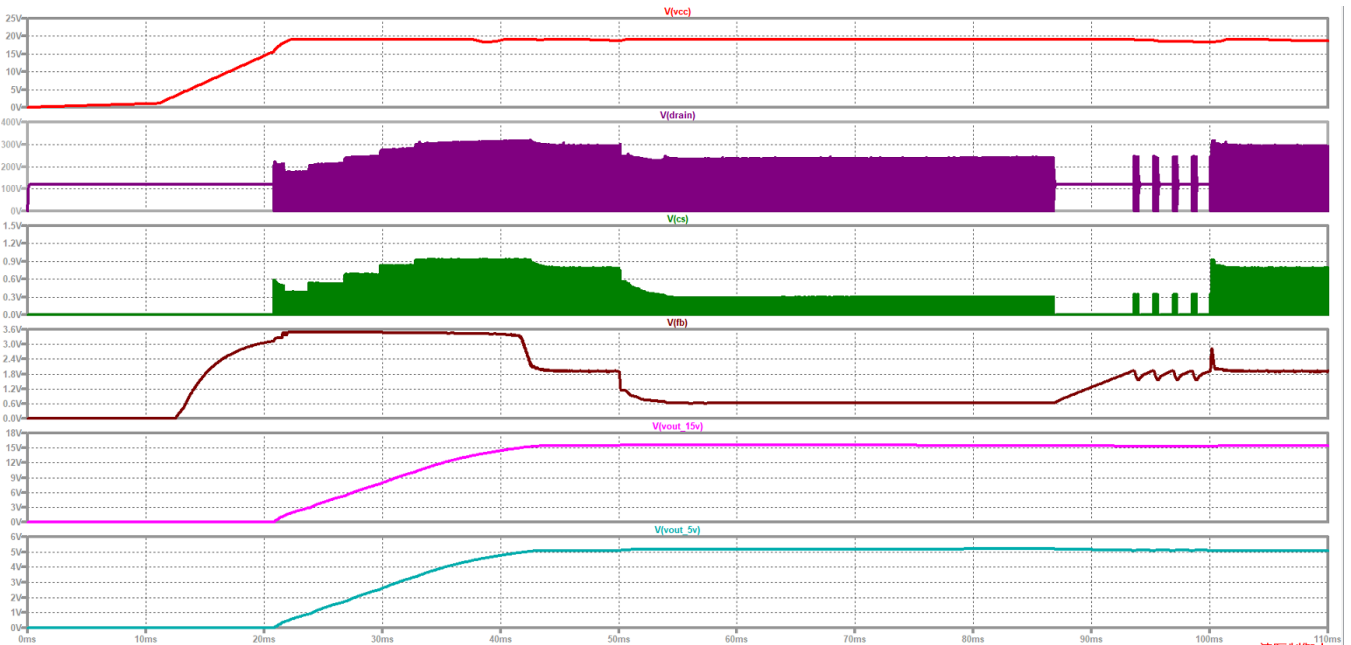
Non-isolated PWM operation

Non-isolated Active Burst Mode Testbench

Simulation results are following.
Explanatory notes　　—　: simulated

Non-isolated Active Burst Mode

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Modeling Design Technology

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