

# LTspice Model

## Monolithic Sample-and-Hold Circuits

### Monolithic Power Systems, Inc.

## MPM3510AGQV-Z

### Model Information

**Model** A macro model  
**Call Name** MDC\_MPM3510AGQV-Z\_LT  
**Pin Assign** 1:FB 2:VCC 3:AGND 4-6:SW 7-9:OUT 11:BST 12,13:PGND 15:IN 16:EN 17:PG 10,14:NC  
**File List** Model Library MDC\_MPM3510AGQV-Z\_LT01.lib  
 Model Report MDC\_MPM3510AGQV-Z\_LT.pdf(this file)  
**Verified Simulator Version** LTspice version XVII

### Note

### References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Unknown
- Product name MPM3510AGQV-Z
- Company name Monolithic Power Systems, Inc.

[Characteristics listed]

- Characteristics HS, LS switch-on resistance  
Oscillator frequency  
Feedback voltage  
Soft-start time

### Simulation Condition

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

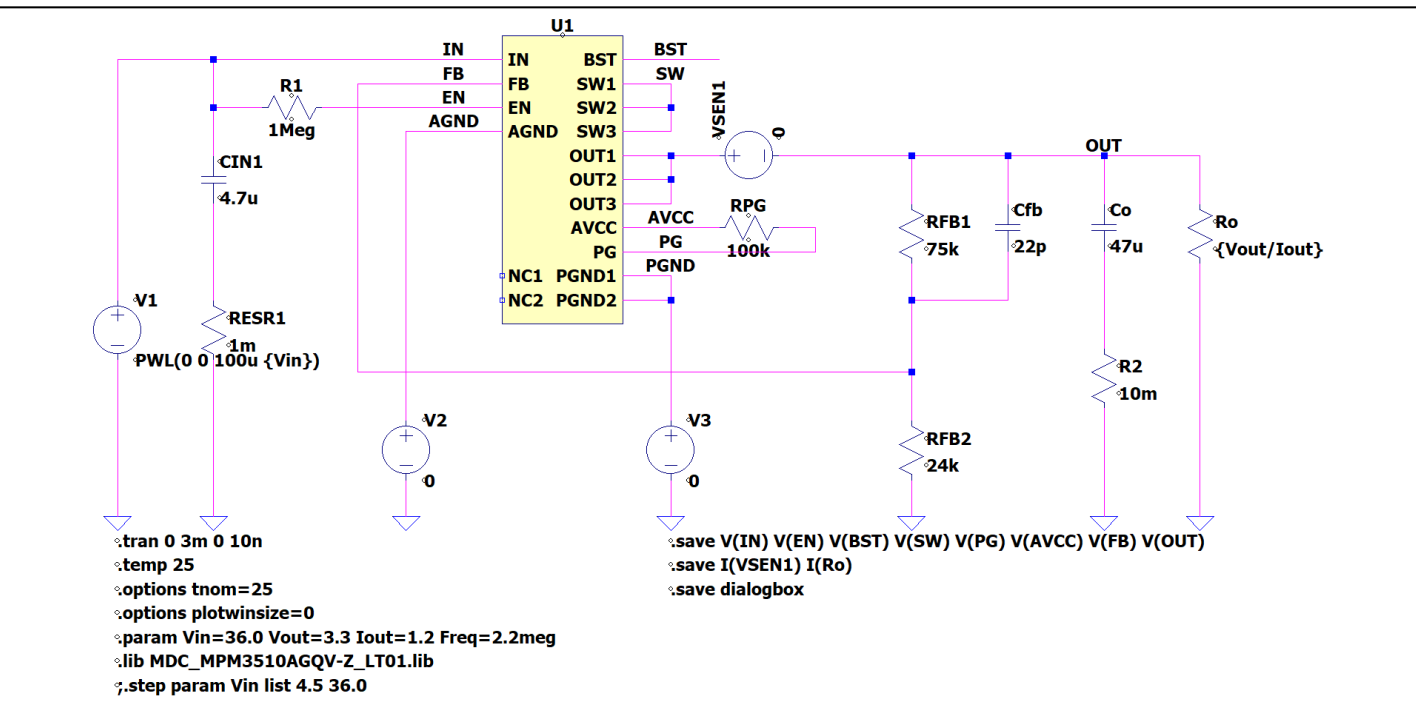
Item	Condition	Unit
Temperature	25	deg C

**Model Functions Table**

Functions	Implemented
Fixed 1.15MHz Switching Frequency	○
800kHz to 2MHz Frequency Sync	○
Power-Save Mode for Light Load	○
Power Good Indicator	○
Under-Voltage Lockout (UVLO)	○

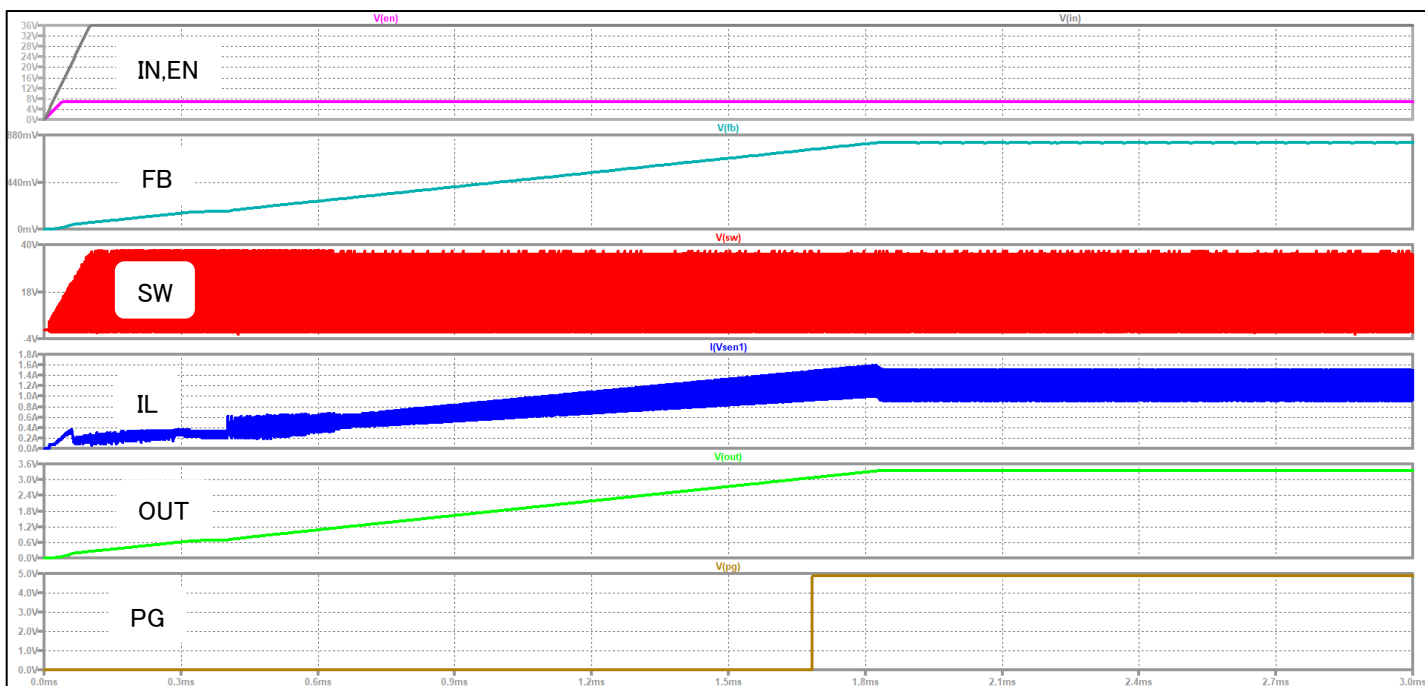
Fixed 1.15MHz Switching Frequency (VOUT = 3.3V, IOUT = 1.2A ) Testbench

Referred to Data Sheet



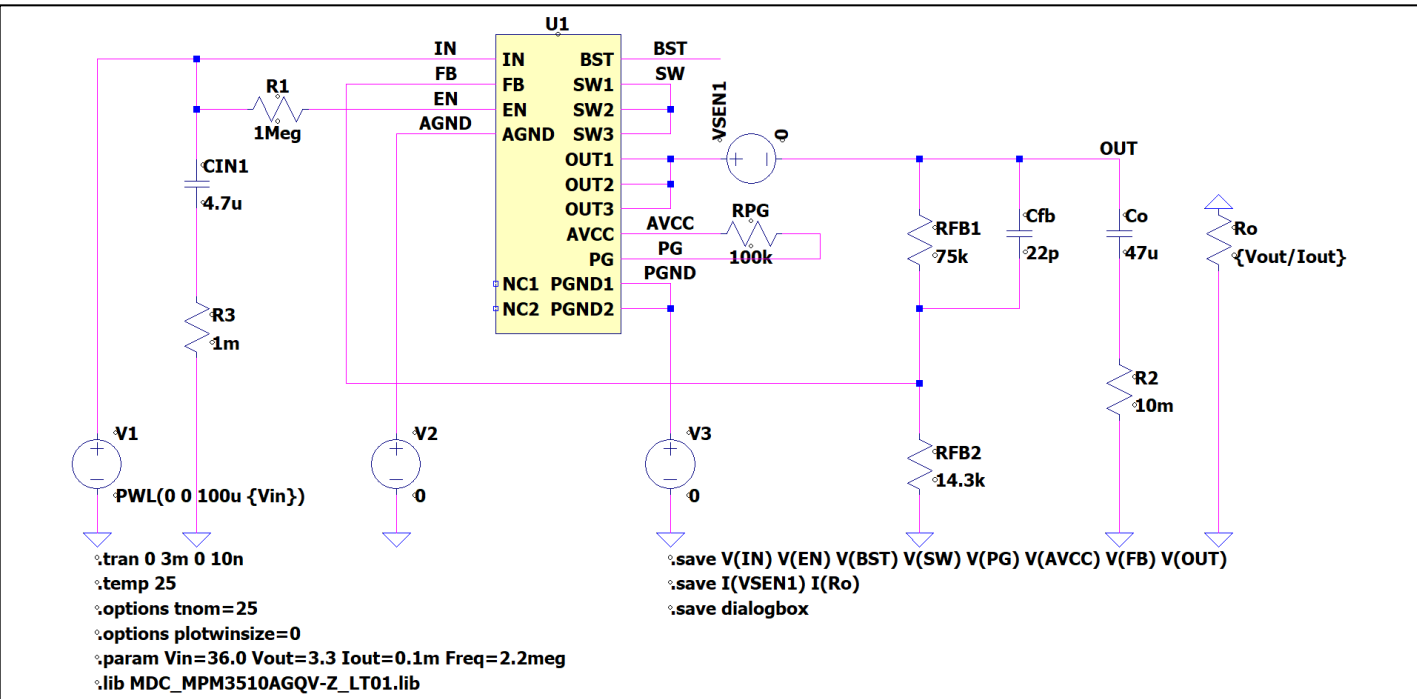
Simulation results are following.  
Explanatory notes — : simulated

**Fixed 1.15MHz Switching Frequency (VOUT = 3.3V, IOUT = 1.2A ) Testbench**



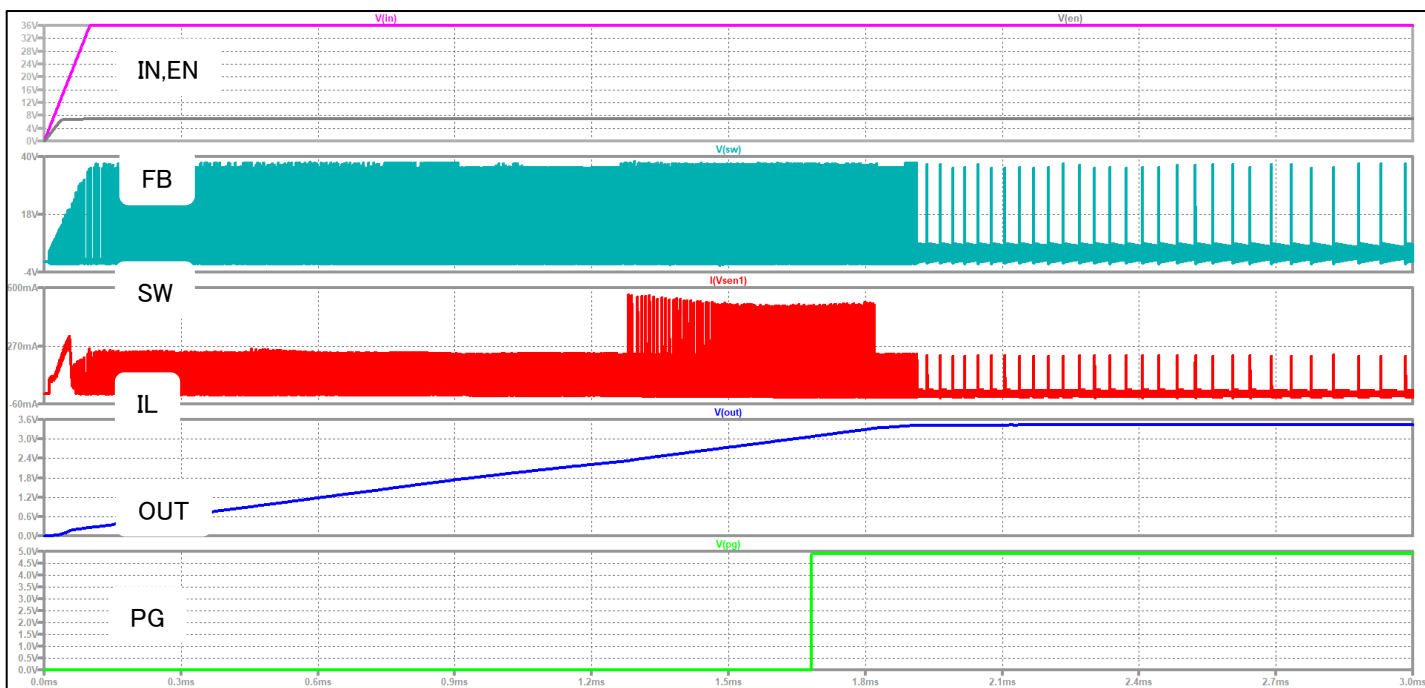
Power Save Mode (VOUT = 3.3V, IOUT = 0A ) Testbench

Referred to Data Sheet



Simulation results are following.  
Explanatory notes — : simulated

**Power Save Mode (VOUT = 3.3V, IOU = 0A ) Testbench**



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MoDeCH Inc.

Head Office

Location: 5-15 Yokoyama-cho, Hachioji-Shi, Tokyo 192-0081, Japan

Tel:+81-42-656-3360

E-Mail:[model-on-support@modech.co.jp](mailto:model-on-support@modech.co.jp)

URL:<http://www.modech.com/en/>