

ADS Model

Buck Converter

Sanken Electric Co., Ltd.

STR6A169HVD

Model Information

Model A macro model
Call Name MDC_STR6A169HVD_AD
Pin Assign 1:S/OCF 2: BA 3:AGND 4:FB/OLP 5:VCC 7:D/ST1 8:D/ST2
File List Model Library MDC_STR6A169HVD_AD01.lib
 Model Report MDC_STR6A169HVD_AD.pdf (this file)

Verified Simulator Version ADS 2020 update 2
Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version Rev.3.0 2021.01.25
- Product name STR6A169HVD
- Company name SANKEN ELECTRIC

[Characteristics listed]

- Characteristics V_{CC} , $V_{FB/OLP}$, $V_{D/ST}$, $V_{S/OCF}$

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

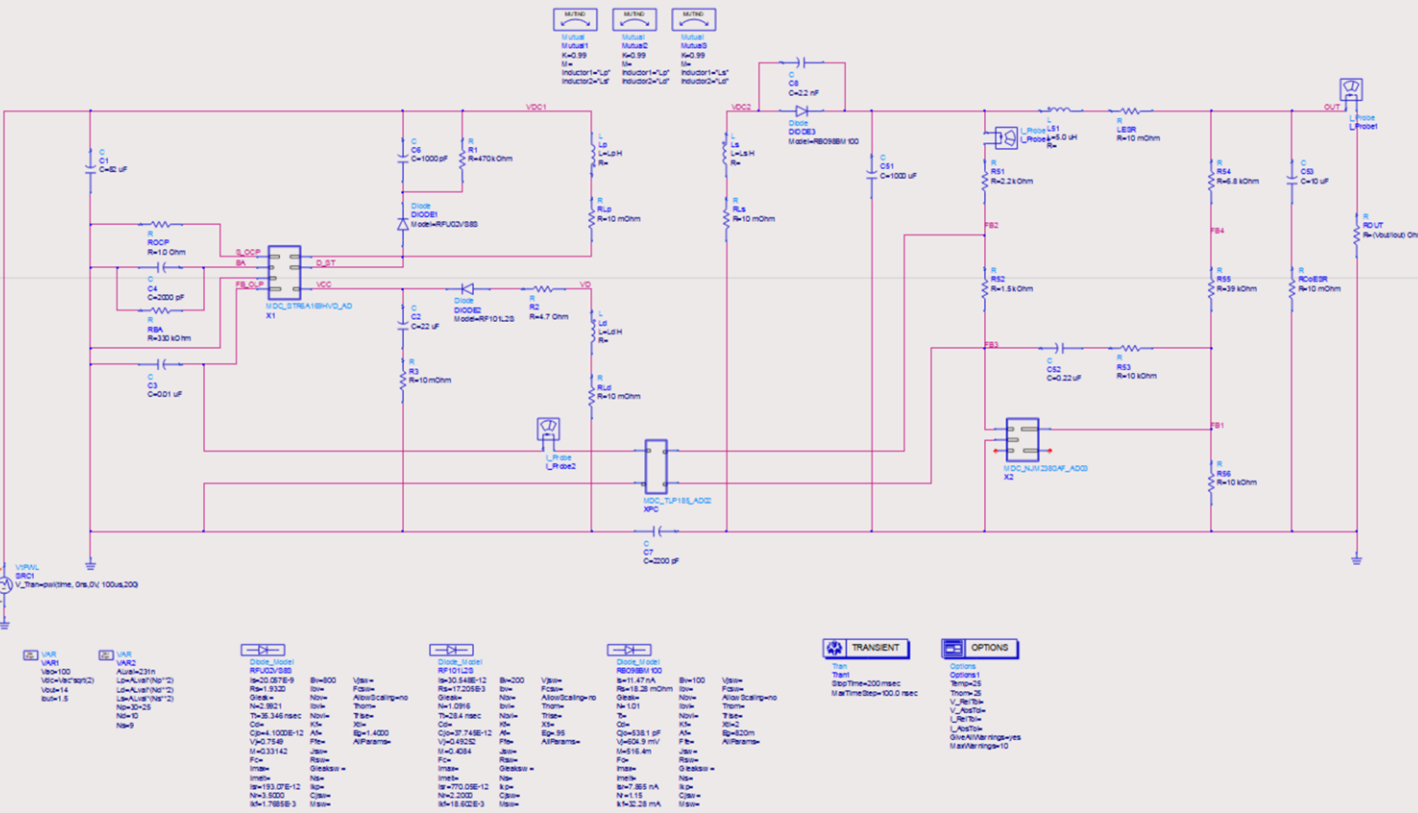
Switching Regulator

○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=2

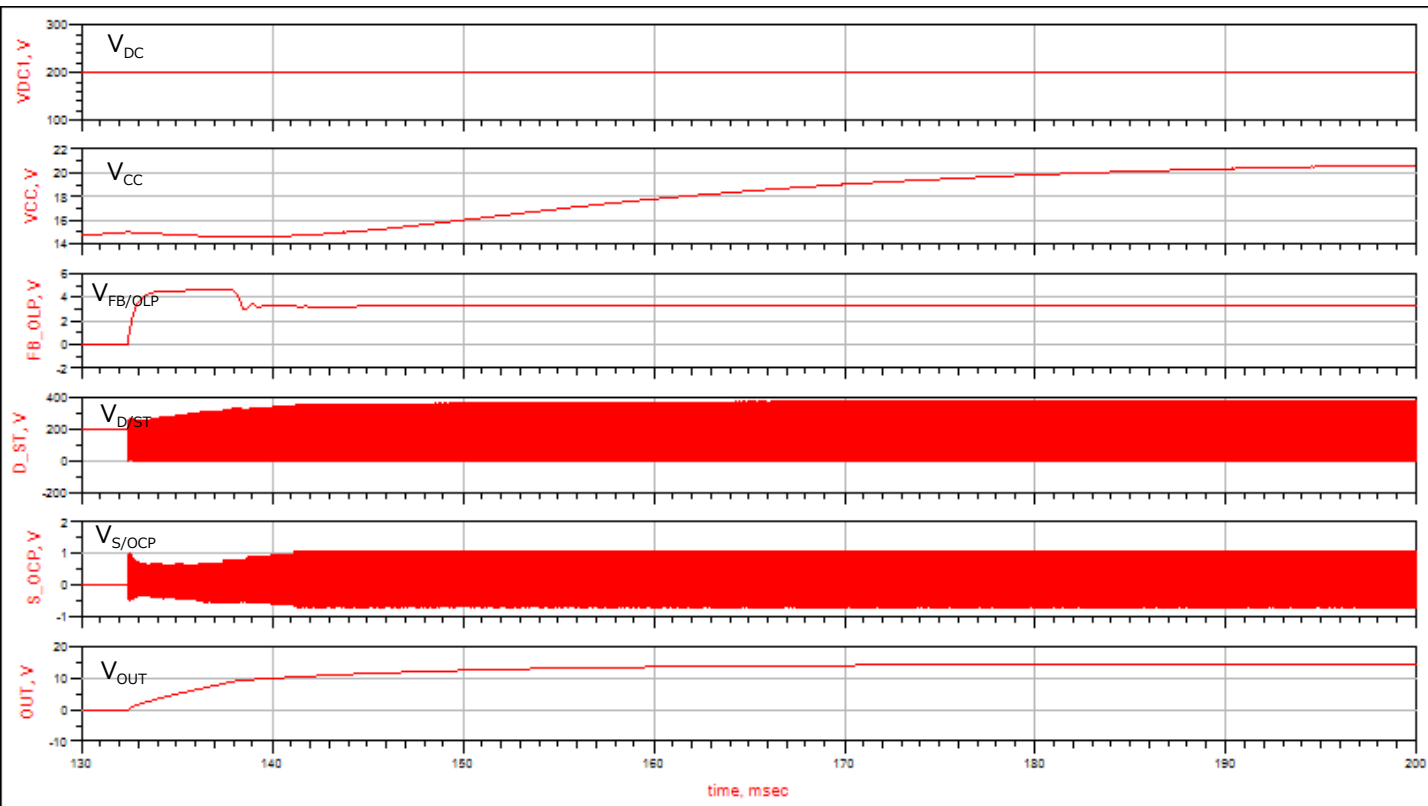
Functions	RANK	Implemented
Control Method(PWM,PFM)	1	○
Enable Function	1	—
Soft Start	1	○
Line Regulation	1	—
Load Regulation	1	—
Synchronous External Oscillation	1	—
UVLO	1	○
Line Transient	2	—
Load Transient	2	—
Light Load Current Mode	2	○
Spread Spectrum	2	—
Over Current Protection	2	○
Over Voltage Protection	2	○
Forard/Flyback Other Device in Circuit	3	—
Brown IN/OUT Function	—	—
ZT Pin OVP Function	—	—

Power supply circuit (Vac = 200V, Vout = 14V, Iout = 1.5A) Testbench
 Referred to Data Sheet



Simulation results are following.
Explanatory notes — : simulated

Power supply circuit ($V_{ac} = 200V$, $V_{out} = 14V$, $I_{out} = 1.5A$)



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