

ADS Model

CURRENT SENSOR

TAMURA CORPORATION

LA17P040S05

Model Information

Model A macro model
Call Name MDC_LA17P040S05_AD
Pin Assign 1:Vref 2:Vout 3:GND 4:Vcc 5-7:Primary input current(-) 8-10:Primary input current(+)
File List Model Library MDC_LA17P040S05_AD
 Model Report MDC_LA17P040S05_AD.pdf(this file)
Verified Simulator Version ADS 2023

Note

References

The information which was used for modeling is as follow:

[Data Sheet]

- Date/Version 4/2203
- Product name LA17P040S05
- Company name TAMURA CORPORATION

[Characteristics listed]

- Characteristics Linearity curve(Internal and External reference voltage)
 Frequency bandwidth
 Reaction time
 Response 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

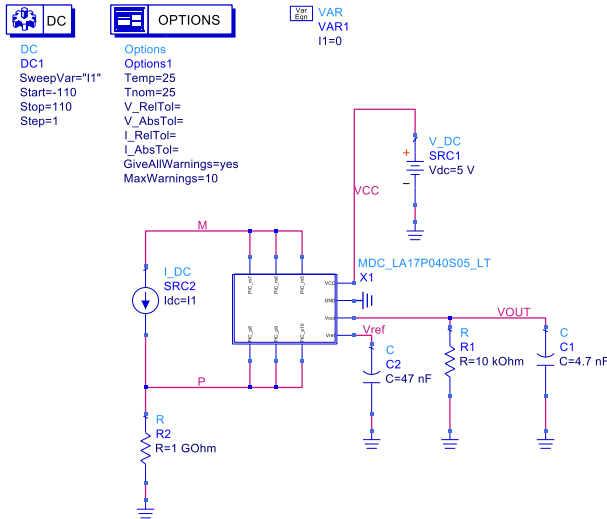
○ : Implemented
 × : Not Implemented
 — : Not applicable

Model Functions Table
RANK=1

Functions	RANK	Implemented
Linearity curve	1	○
Consumption current	1	○
Internal reference voltage	1	○
Frequency bandwidth	1	○
Reaction time	1	○
Response time	1	○

Linearity curve Testbench(Internal reference voltage)

Referred to Data Sheet



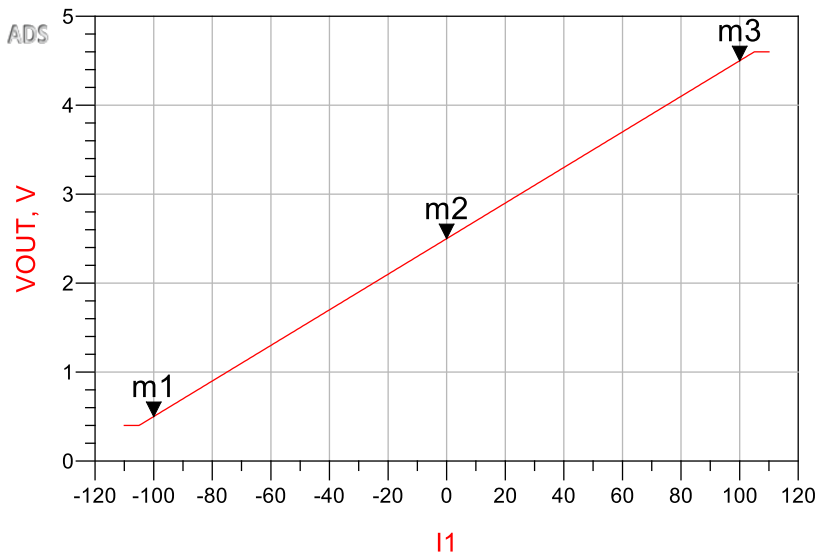
Simulation results are following.
 Explanatory notes — : simulated

Linearity curve(Internal reference voltage)

m1
 I1=-100.000
 VOUT=0.500

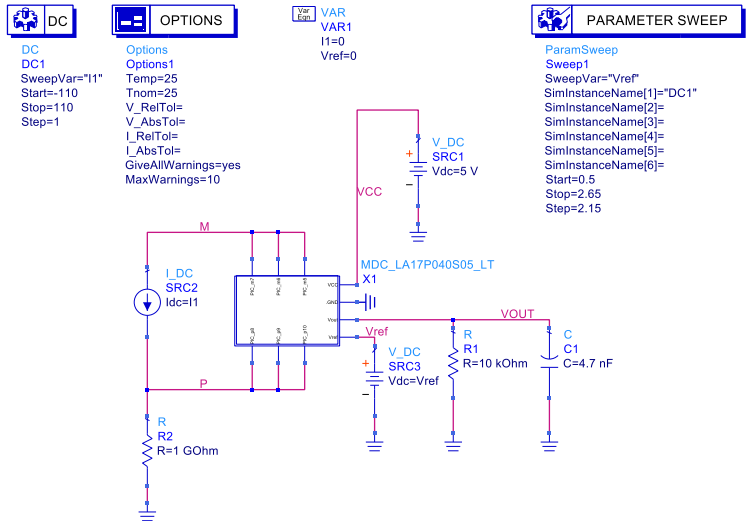
m2
 I1=0.000
 VOUT=2.500

m3
 I1=100.000
 VOUT=4.499



Linearity curve Testbench(External reference voltage)

Referred to Data Sheet



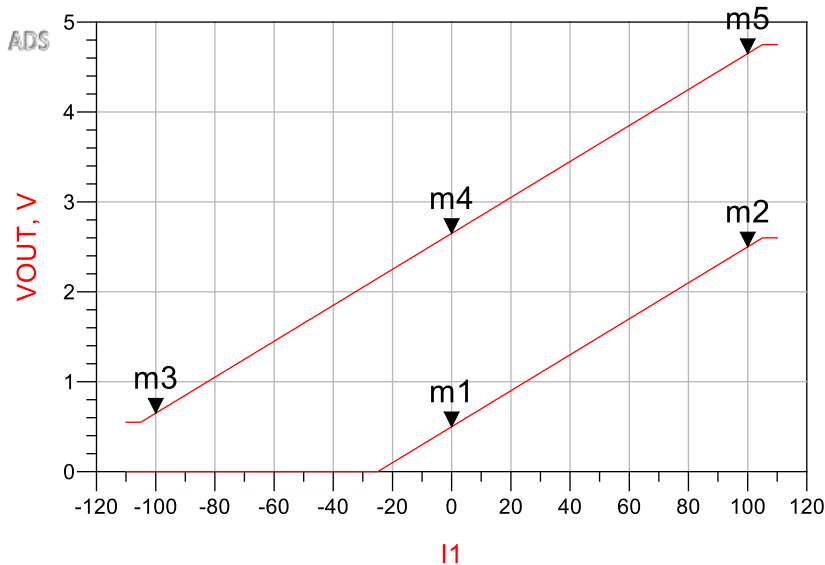
Simulation results are following.
 Explanatory notes — : simulated

Linearity curve(External reference voltage)

m3
 I1=-100.000
 VOUT=0.650
 Vref=2.650

m4
 I1=0.000
 VOUT=2.649
 Vref=2.650

m5
 I1=100.000
 VOUT=4.649
 Vref=2.650

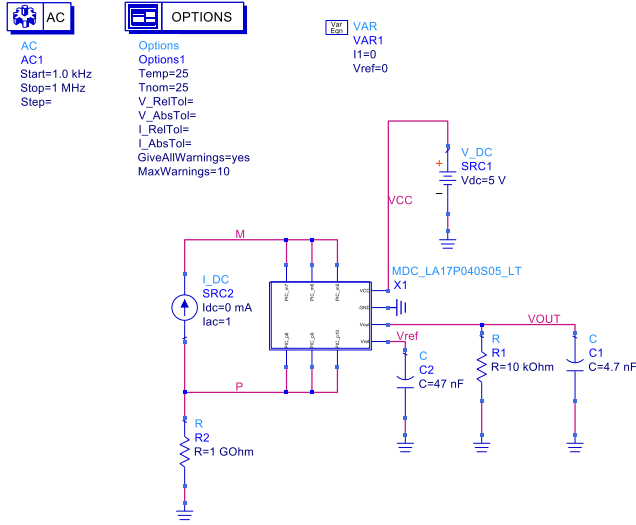


m2
 I1=100.000
 VOUT=2.500
 Vref=0.500

m1
 I1=0.000
 VOUT=0.500
 Vref=0.500

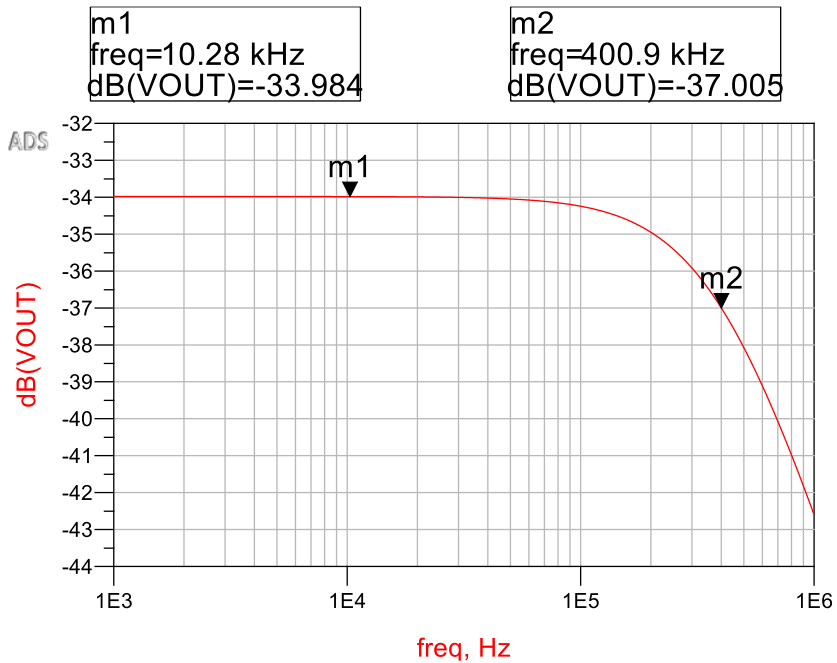
Frequency bandwidth Testbench

Referred to Data Sheet



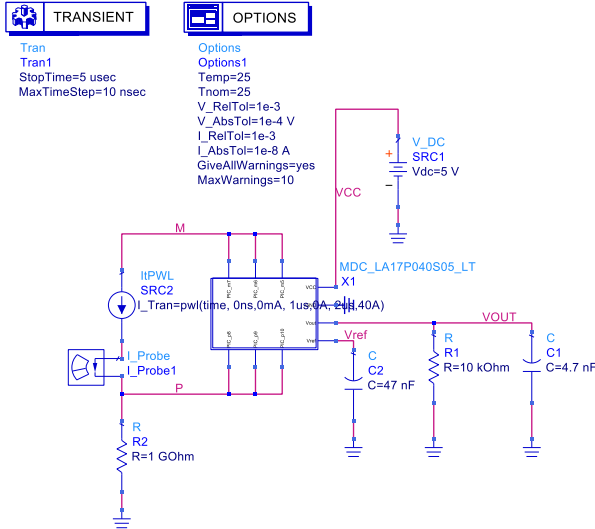
Simulation results are following.
 Explanatory notes — : simulated

Frequency bandwidth



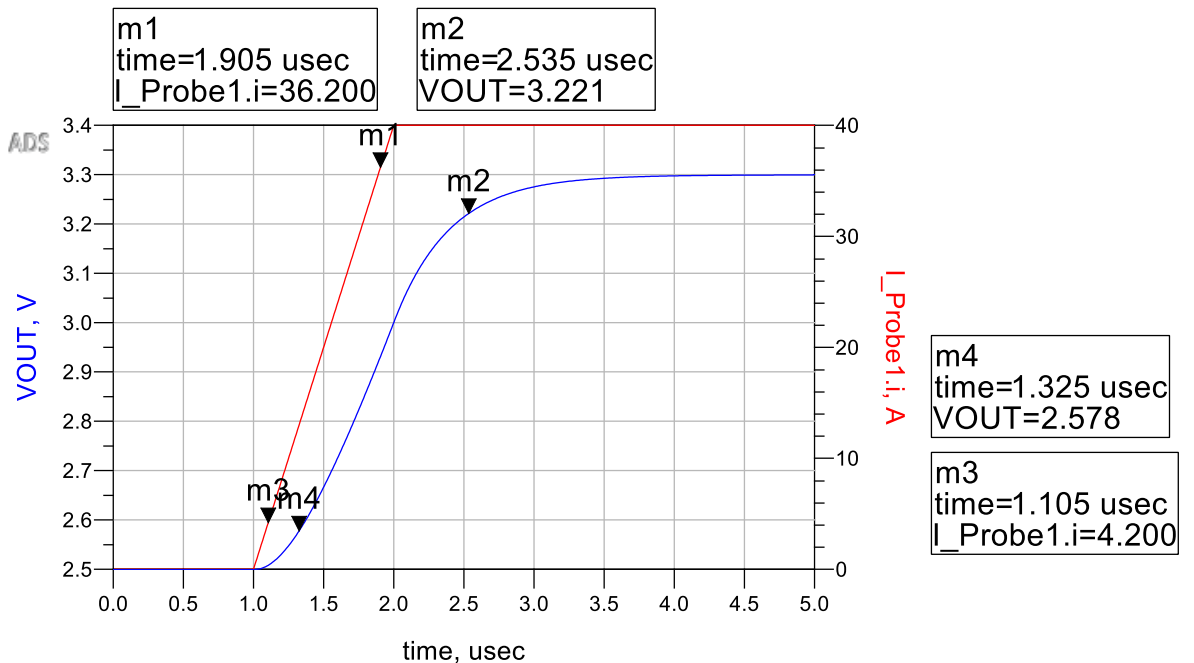
Reaction and Response time Testbench

Referred to Data Sheet



Simulation results are following.
 Explanatory notes — : simulated

Reaction and Response time



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