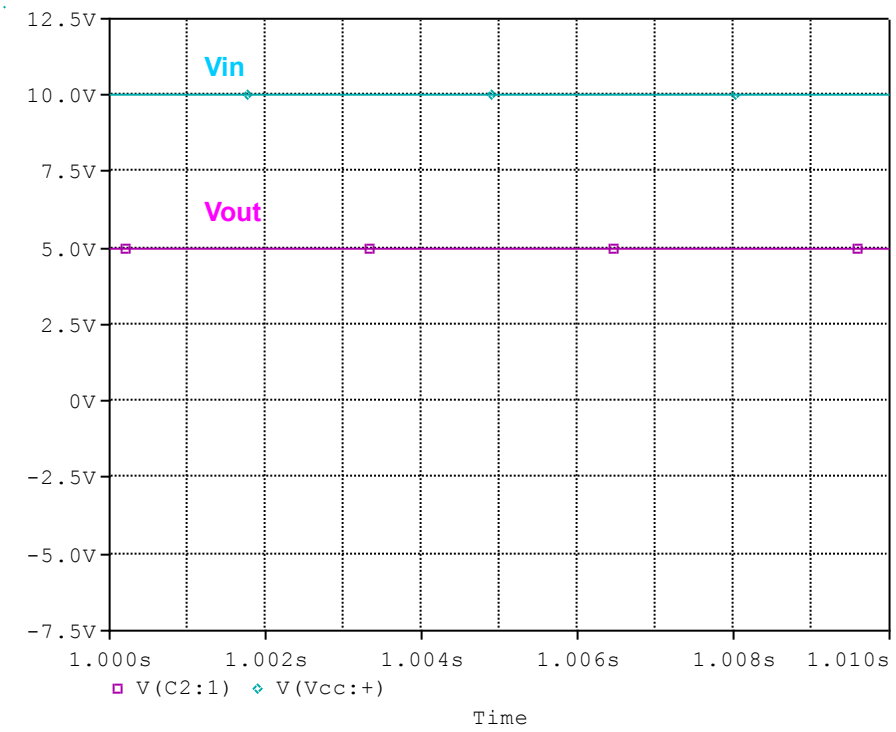
Device Modeling Report

COMPONENTS: Low Dropout Voltage Regulator
PART NUMBER: BA00ASFP
MANUFACTURER: ROHM

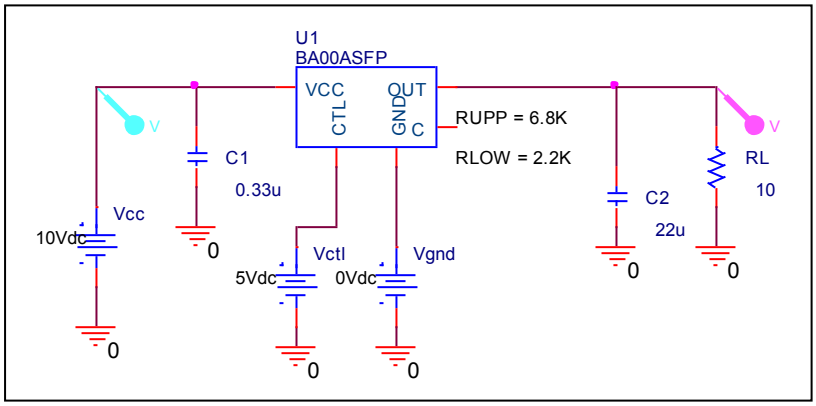
Bee Technologies Inc.

Output Voltage

Circuit Simulation Result



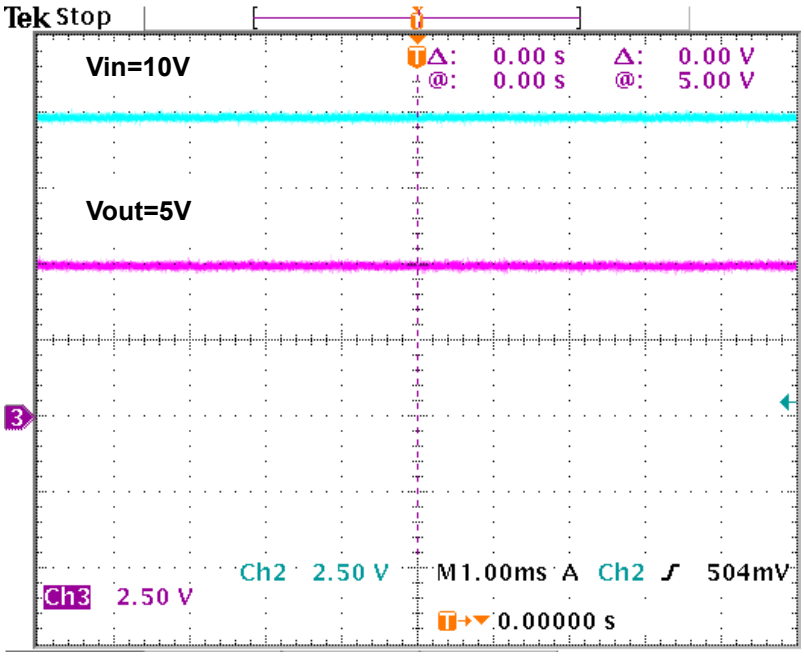
Evaluation circuit



Circuit Simulation Result

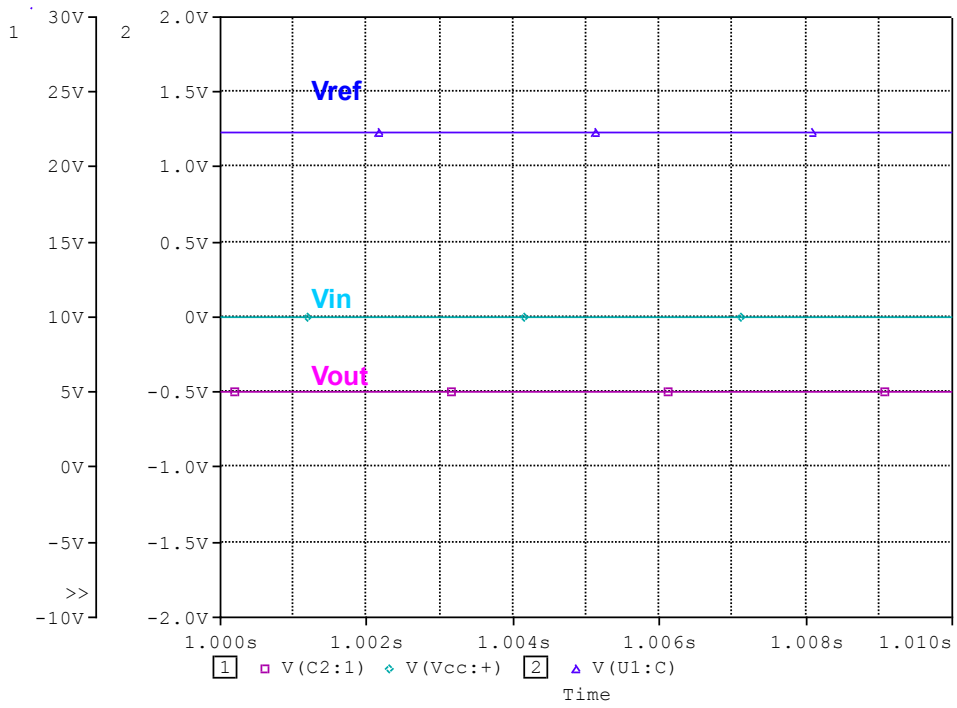
	Measurement	Simulation	Error
V(OUT)	5.000(V)	4.980(V)	-0.400(%)

Output Voltage **Reference**

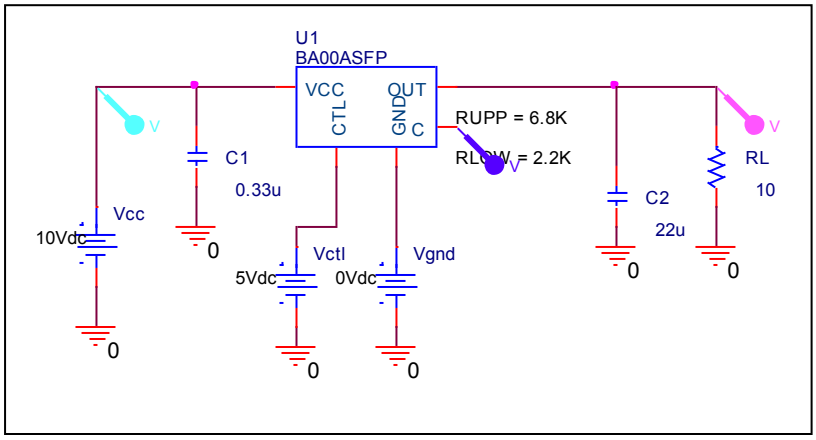


Reference Voltage

Circuit Simulation Result



Evaluation circuit

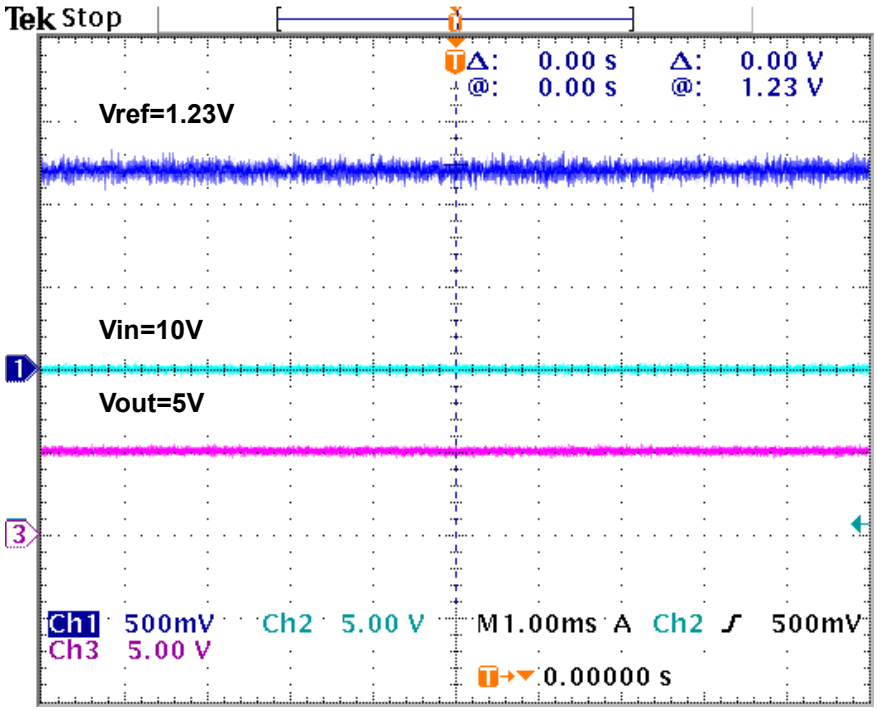


Circuit Simulation Result

	Measurement	Simulation	Error
Vref(V(C))	**1.230(V)**	**1.227(V)**	**0.244(%)**

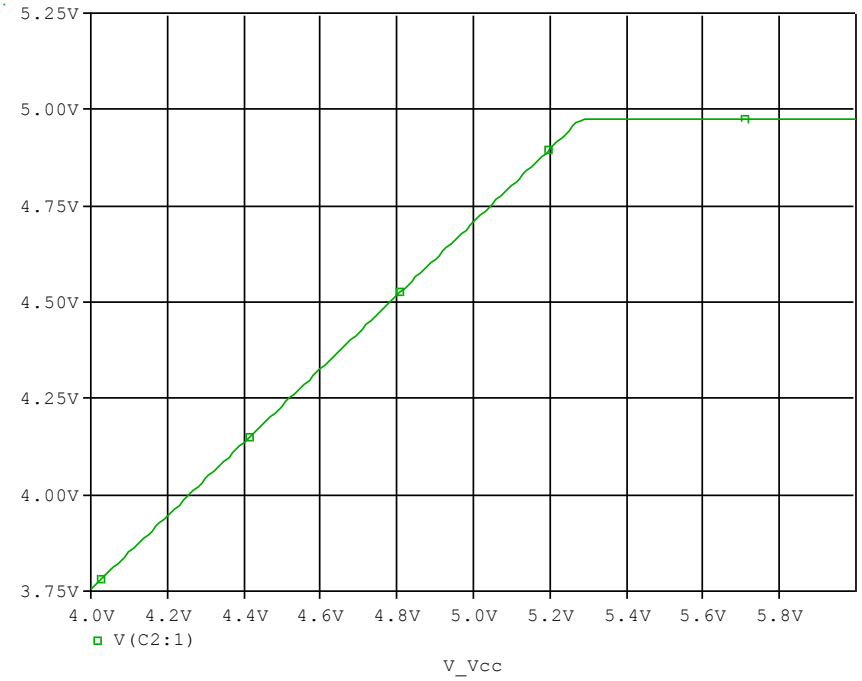
Reference Voltage

Reference

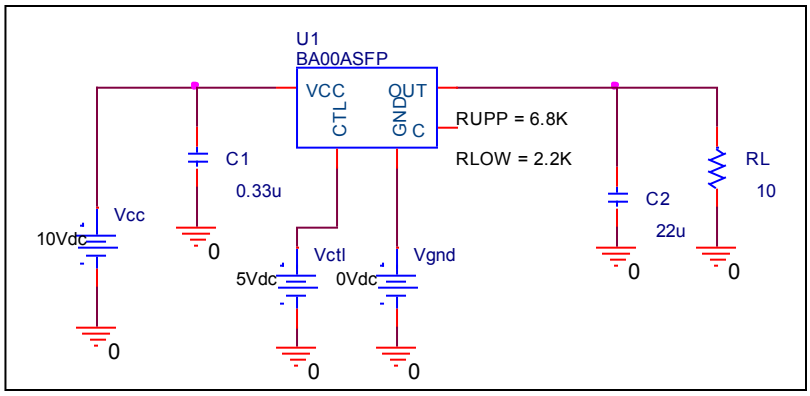


Dropout Voltage (Input-Output Voltage Differential)

Circuit Simulation Result



Evaluation circuit

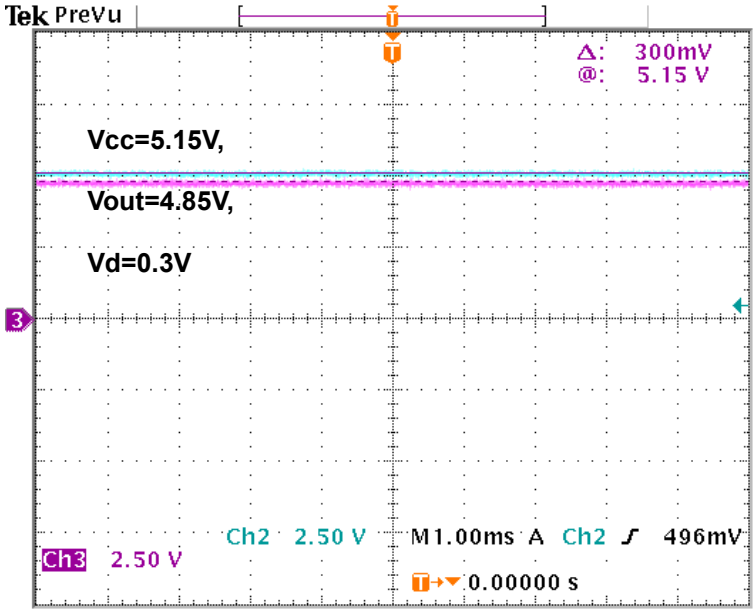


Circuit Simulation Result

	Measurement	Simulation	Error
Vd(|Vin-Vout|)	**0.300(V)**	**0.300V**	**0.000%**

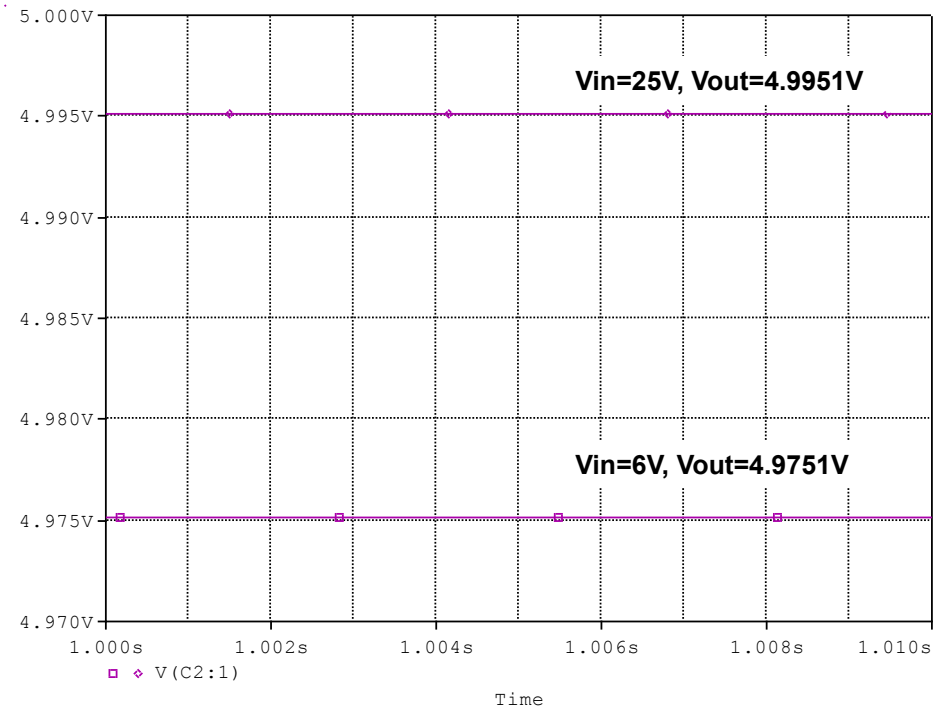
Dropout Voltage

Reference

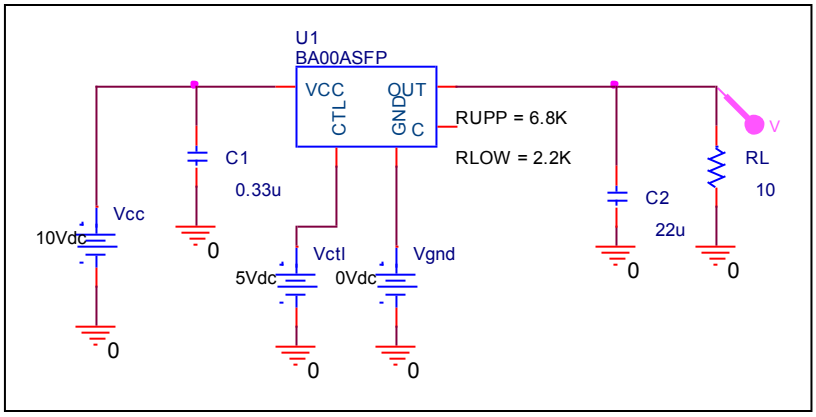


Line Regulation (Vcc=6→25V)

Circuit Simulation Result



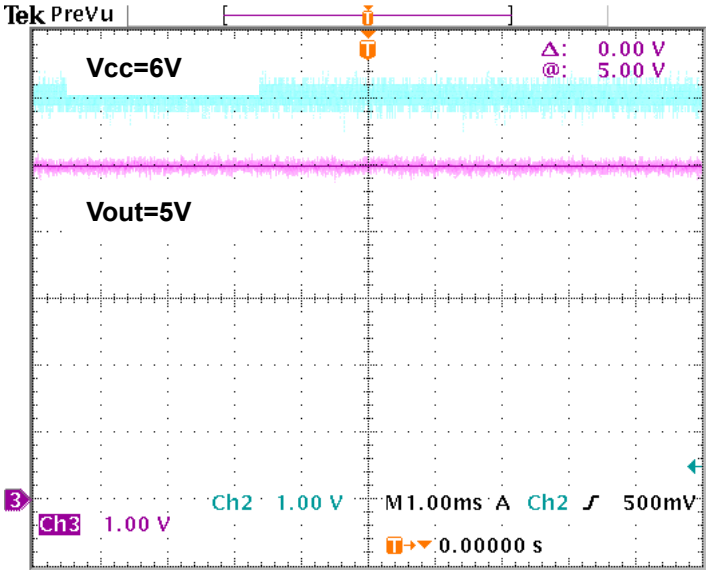
Evaluation circuit

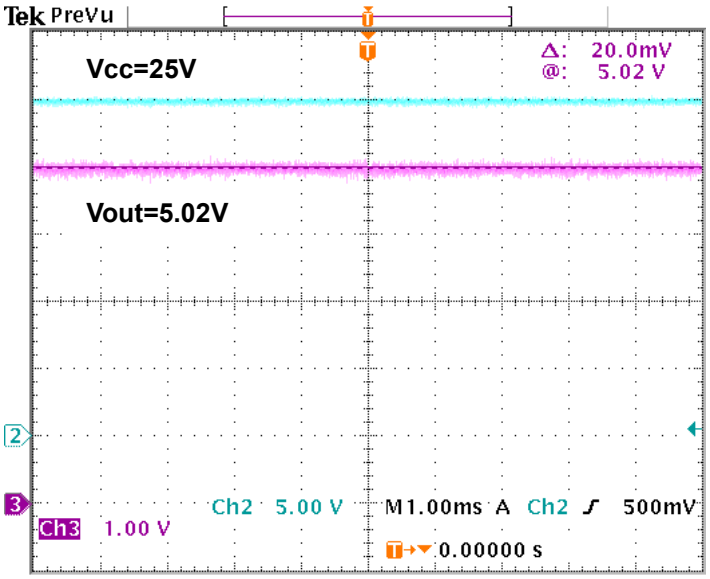


Circuit Simulation Result

	Measurement	Simulation	Error
Reg.l	**20m(V)**	**19.959m(V)**	**0.205(%)**

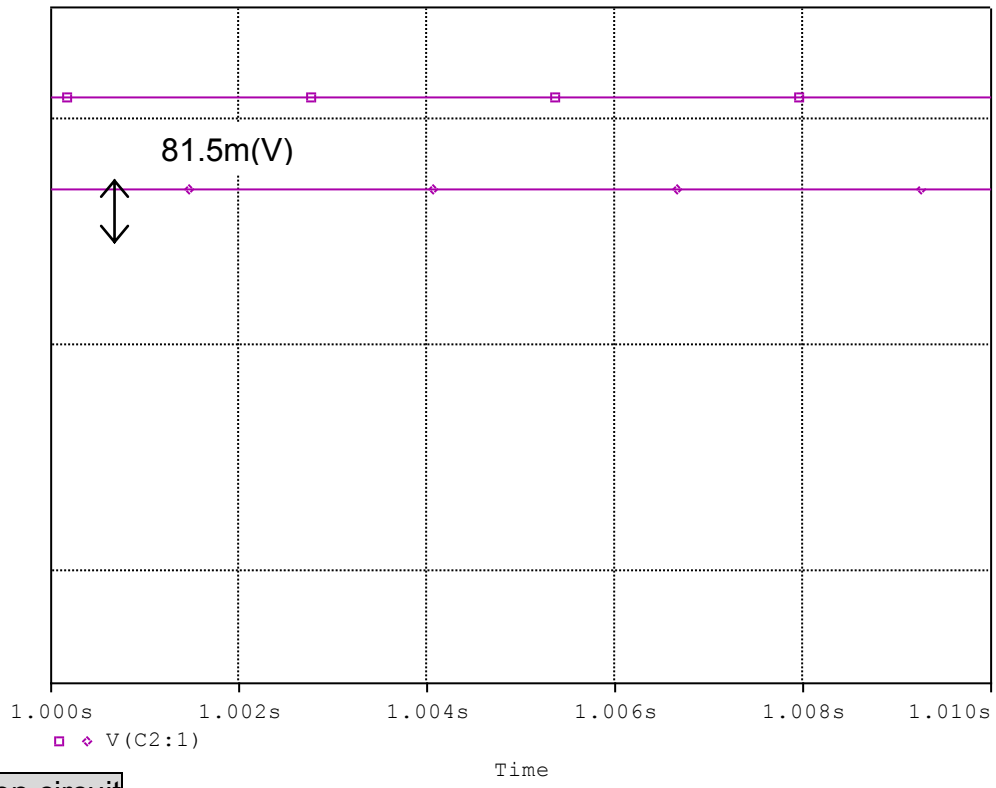
Line Regulation (Vcc=6→25V) Reference



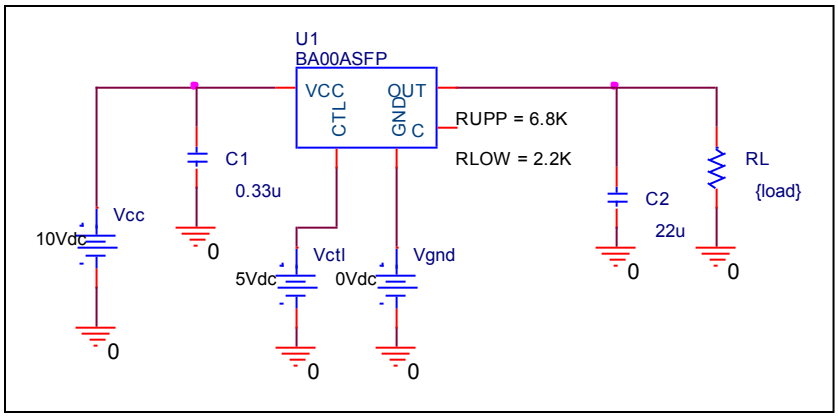


Load Regulation (Io=5mA→1A)

Circuit Simulation Result



Evaluation circuit

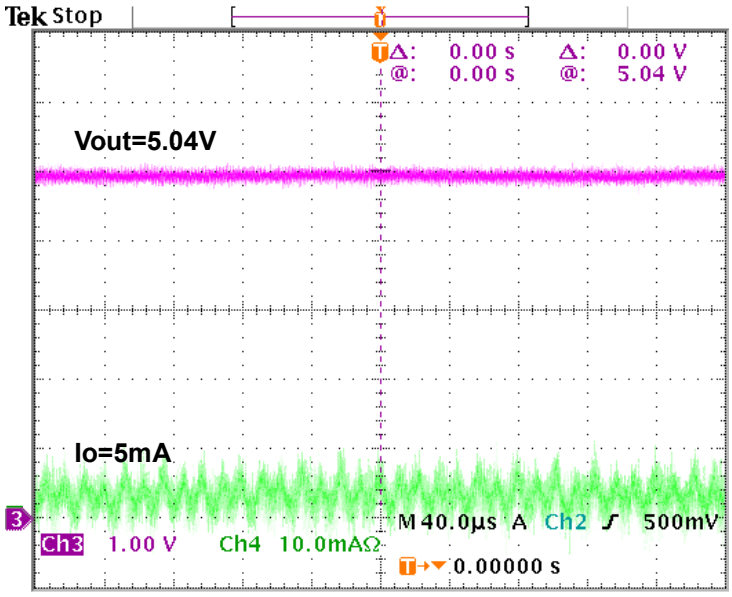


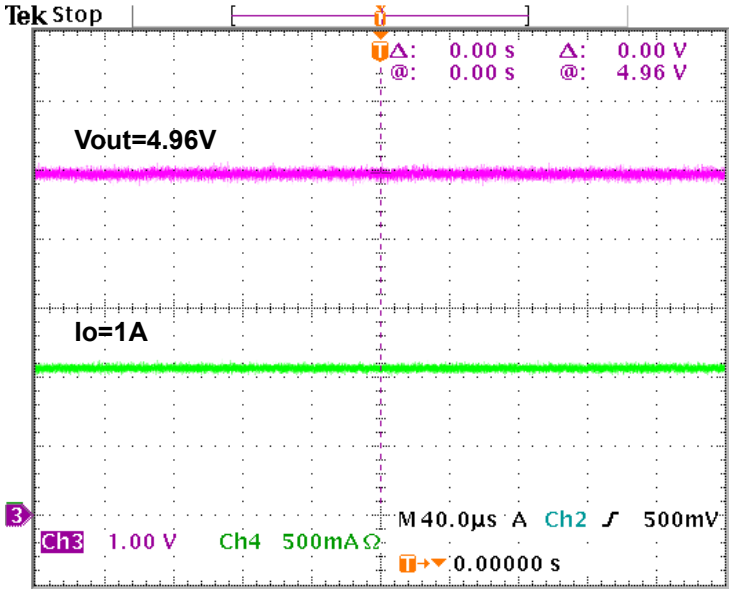
Circuit Simulation Result

	Measurement	Simulation	Error
Reg.L	**80.000m(V)**	**81.500m(V)**	**1.875(%)**

Load Regulation (Io=5mA→1A)

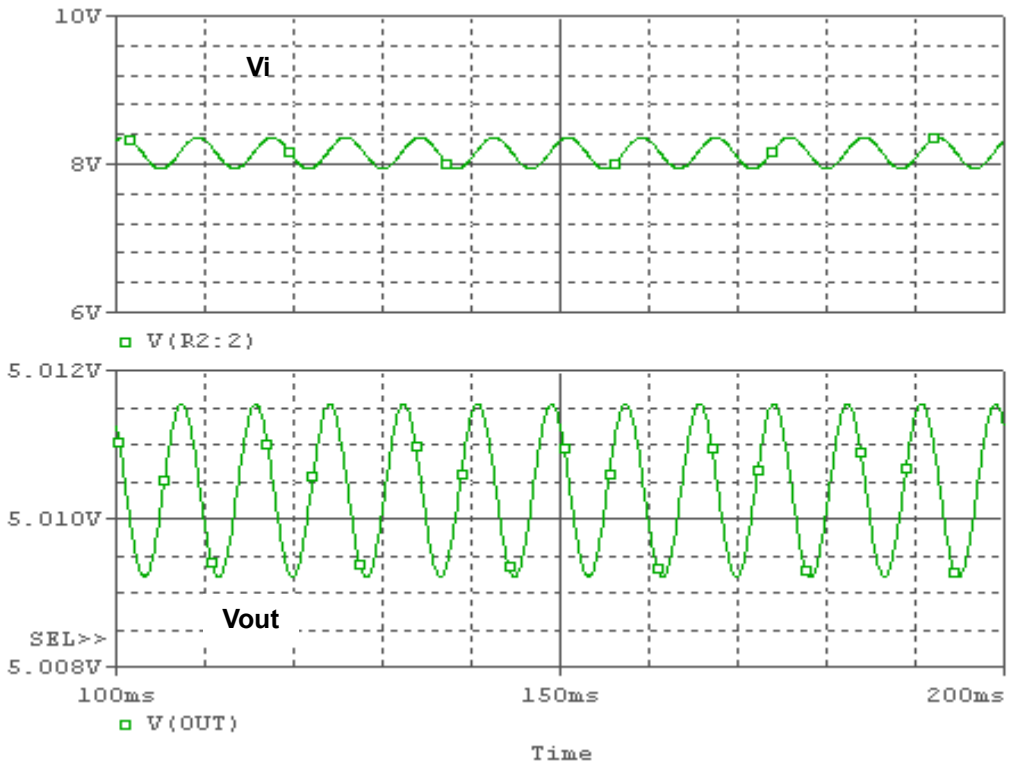
Reference



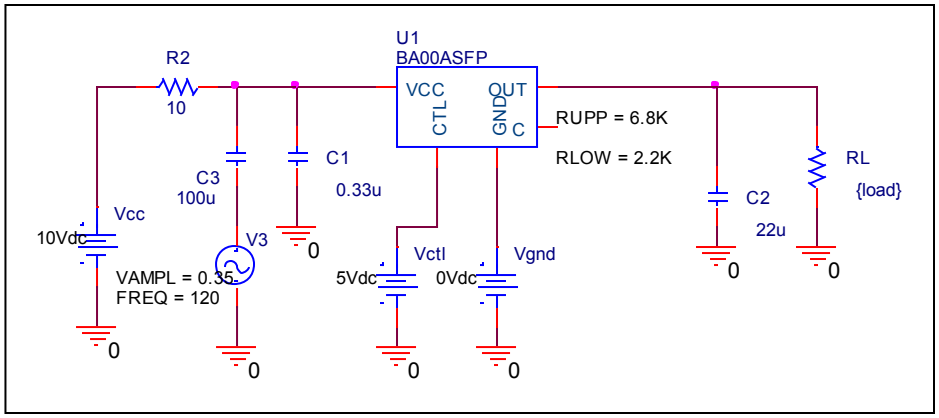


Ripple Rejection

Circuit Simulation Result



Evaluation circuit

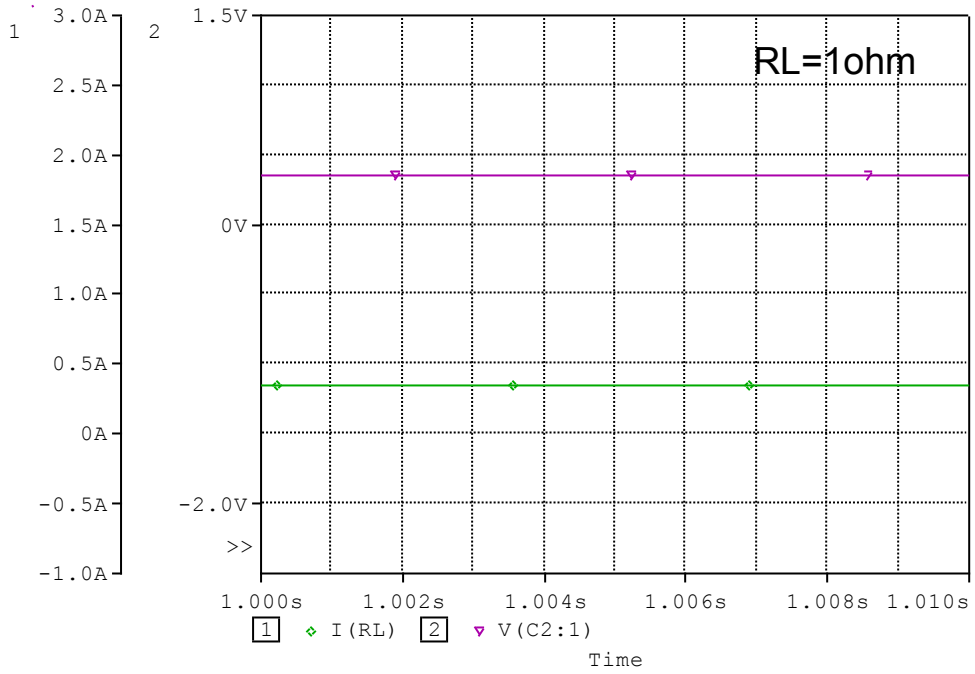


Circuit Simulation Result

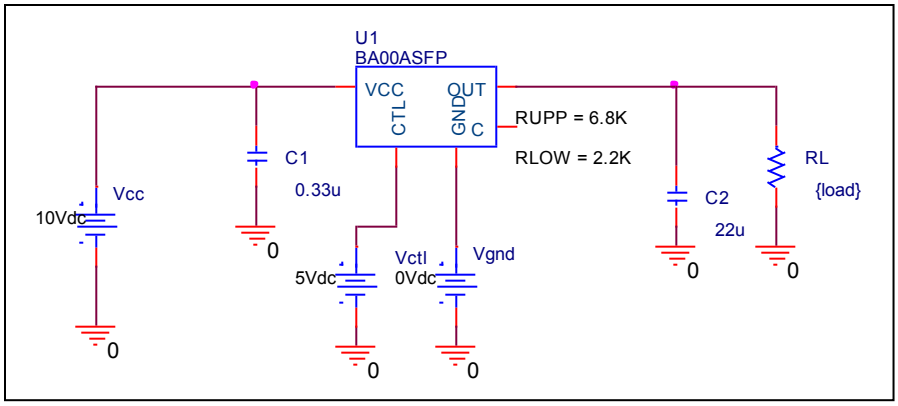
	Measurement	Simulation	Error
R.R.	**45.000(dB)**	**45.093(dB)**	**0.207(%)**

Output Load Current Characteristics

Circuit Simulation Result



Evaluation circuit

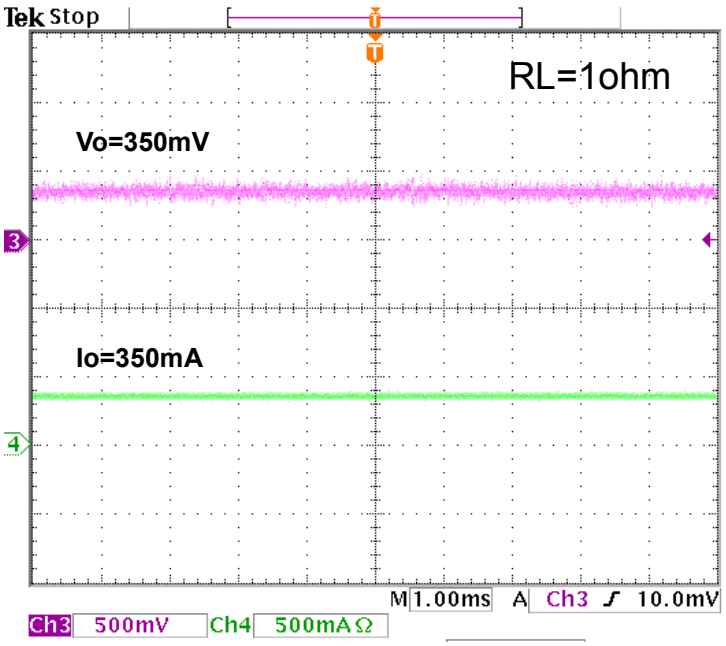


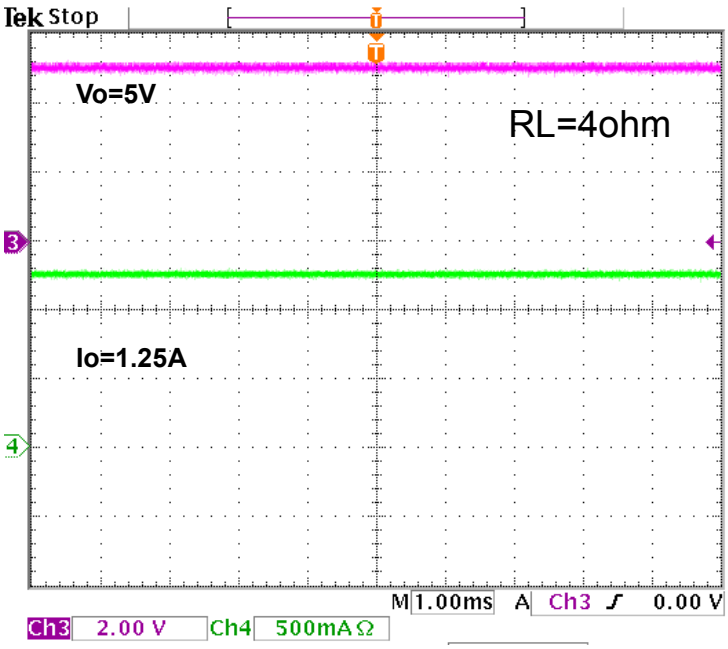
Circuit Simulation Result

	Measurement	Simulation	Error
Ios (RL=1ohm)	350.00m(A)	351.100m(A)	0.314(%)
Io (RL=4ohm)	1.250(A)	1.230(A)	1.600(%)

Output short circuit current

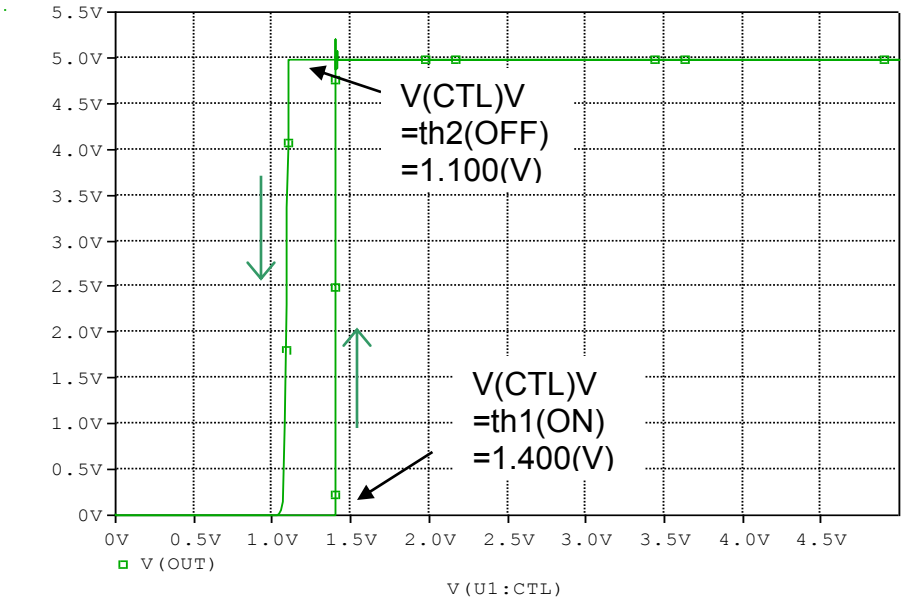
Reference



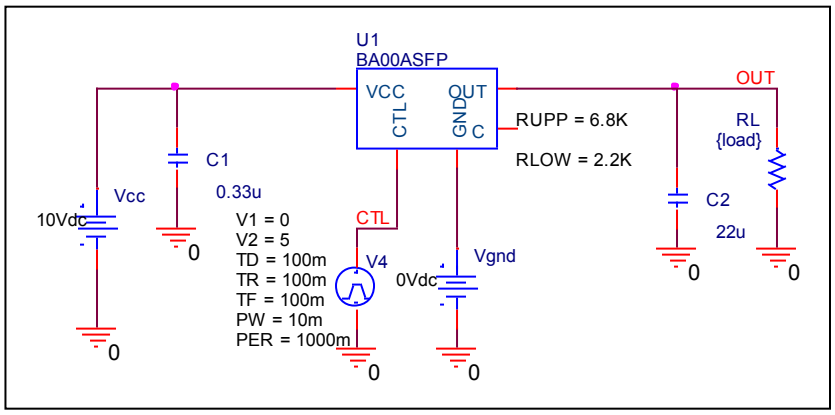


CTL ON and OFF

Circuit Simulation Result



Evaluation circuit



Circuit Simulation Result

	Measurement	Simulation	Error
Vth1(ON)	**1.400(V)**	**1.400(V)**	**0.000%**
Vth2(OFF)	**1.100(V)**	**1.100(V)**	**0.000%**