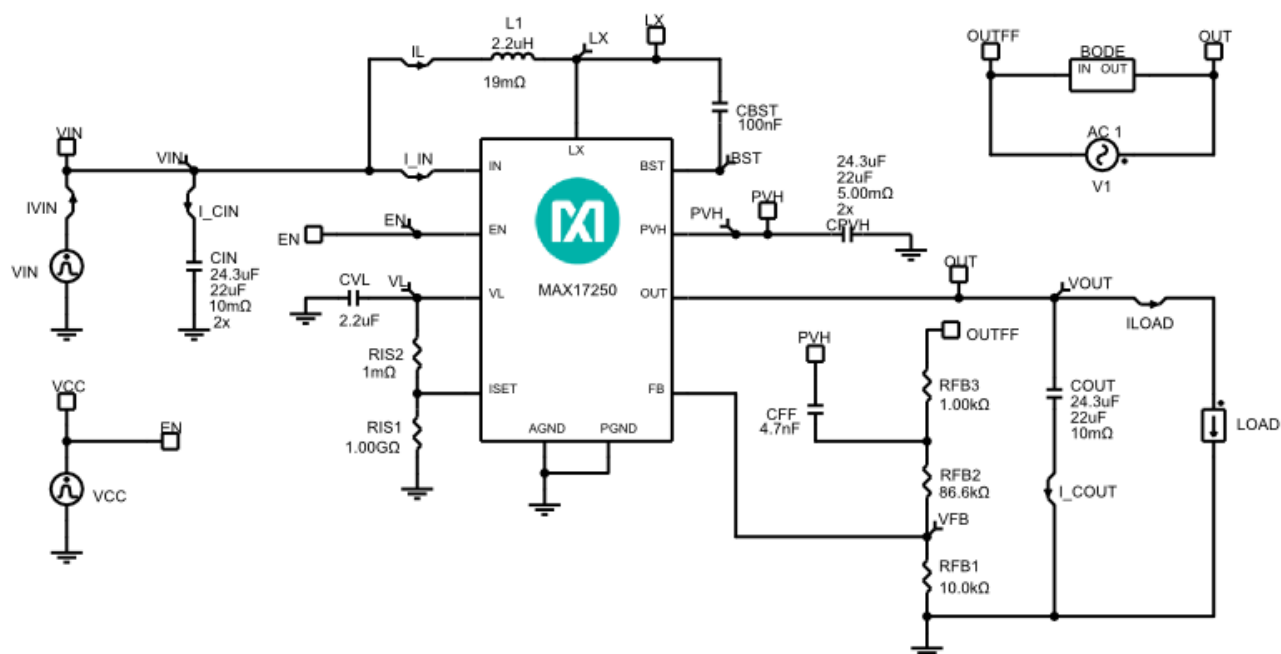


1.0

Parameter	Value
Value	WLP
Minimum Input Voltage	6.2V
Maximum Input Voltage	8.2V
Nominal Input Voltage	7.2V
Output Voltage	12V
Output Current	500mA
BOM Priority	Cost
Ambient Temperature	25°C



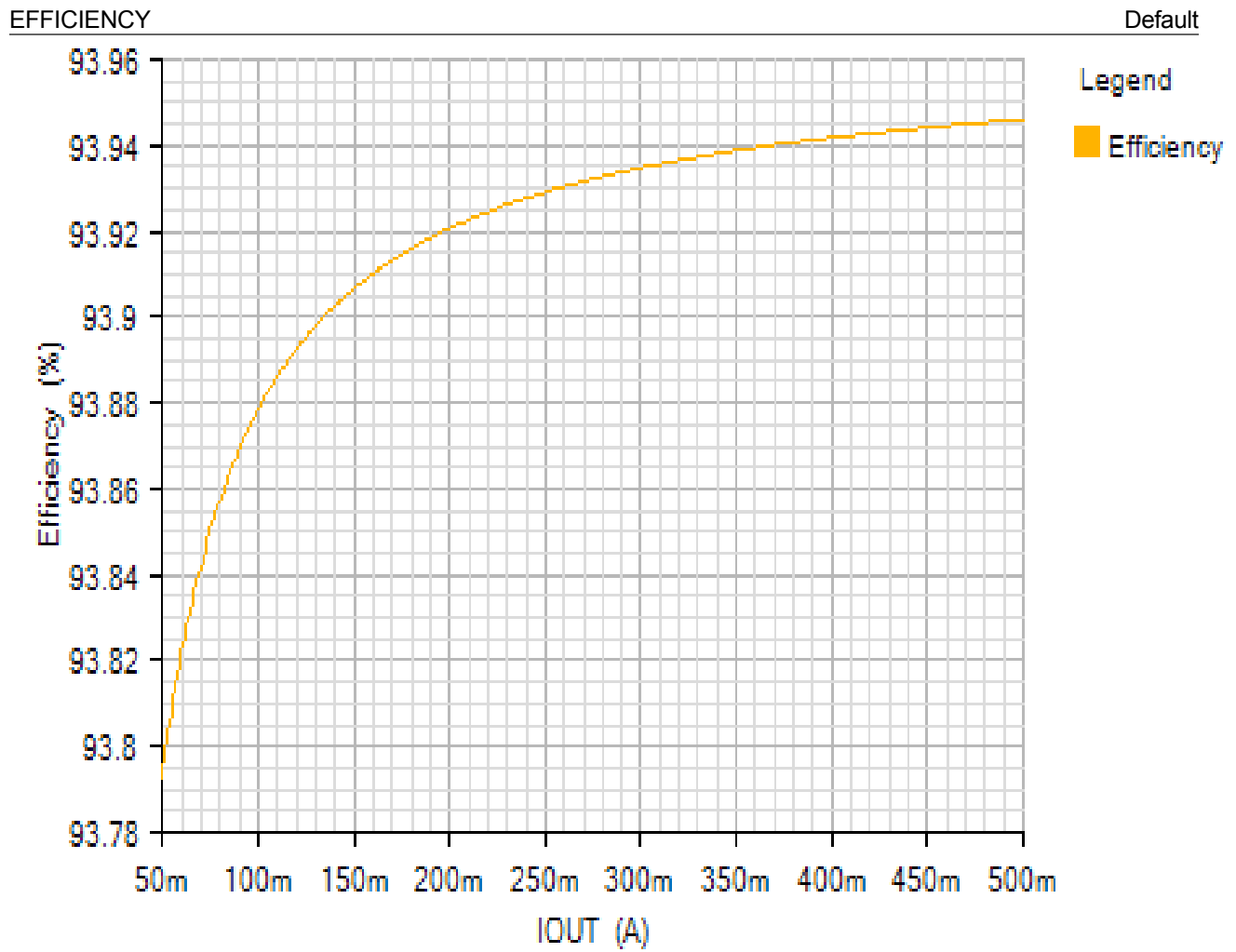
Note: If the current level (starting current for Load Steps) is too low, AC, Steady State and Load Step analyses may fail due to PFM mode operation.

## BOM

Ref	Qty	Part Number	Manufacturer	Description
U1	1	MAX17250	User-Defined	IC
CBST	1	<a href="#">06035C104KAT2A</a>	AVX	Cap Ceramic 0.1uF 50V X7R 10% Pad SMD 0603 125°C T/R
CFF	1	<a href="#">04023C472KAT2A</a>	AVX	Cap Ceramic 0.0047uF 25V X7R 10% Pad SMD 0402 125°C T/R
CIN	2	<a href="#">GRM32ER71E226ME15</a>	Murata	Cap Ceramic 22uF 25V 1210 125C
COUT	1	<a href="#">GRM32ER71E226ME15</a>	Murata	Cap Ceramic 22uF 25V 1210 125C
CPVH	2	<a href="#">GRM32ER71E226ME15</a>	Murata	Cap Ceramic 22uF 25V 1210 125C
CVL	1	<a href="#">C1608X7R1A225K080AC</a>	TDK	Cap Ceramic 2.2uF 10V X7R 10% Pad SMD 0603 125°C T/R
L1	1	<a href="#">SPM6530T-2R2M</a>	TDK	Inductor Power Shielded Wirewound 2.2uH 20% 100KHz Metal 8.2A 19mOhm DCR T/R
RFB1	1	<a href="#">CPF0603F10KC1</a>	TE Connectivity	Res Thin Film 0603 10K Ohm 1% 0.063W(1/16W) ±50ppm/°C Epoxy Pad SMD T/R
RFB2	1	<a href="#">NTR06F8662CTRF</a>	NIC Components	Res Thin Film 0603 86.6K Ohm 1% 0.063W(1/16W) ±25ppm/°C Epoxy Pad SMD T/R
RFB3	1	<a href="#">CPF0603F1K0C1</a>	TE Connectivity	Res Thin Film 0603 1K Ohm 1% 0.063W(1/16W) ±50ppm/°C Epoxy Pad SMD T/R

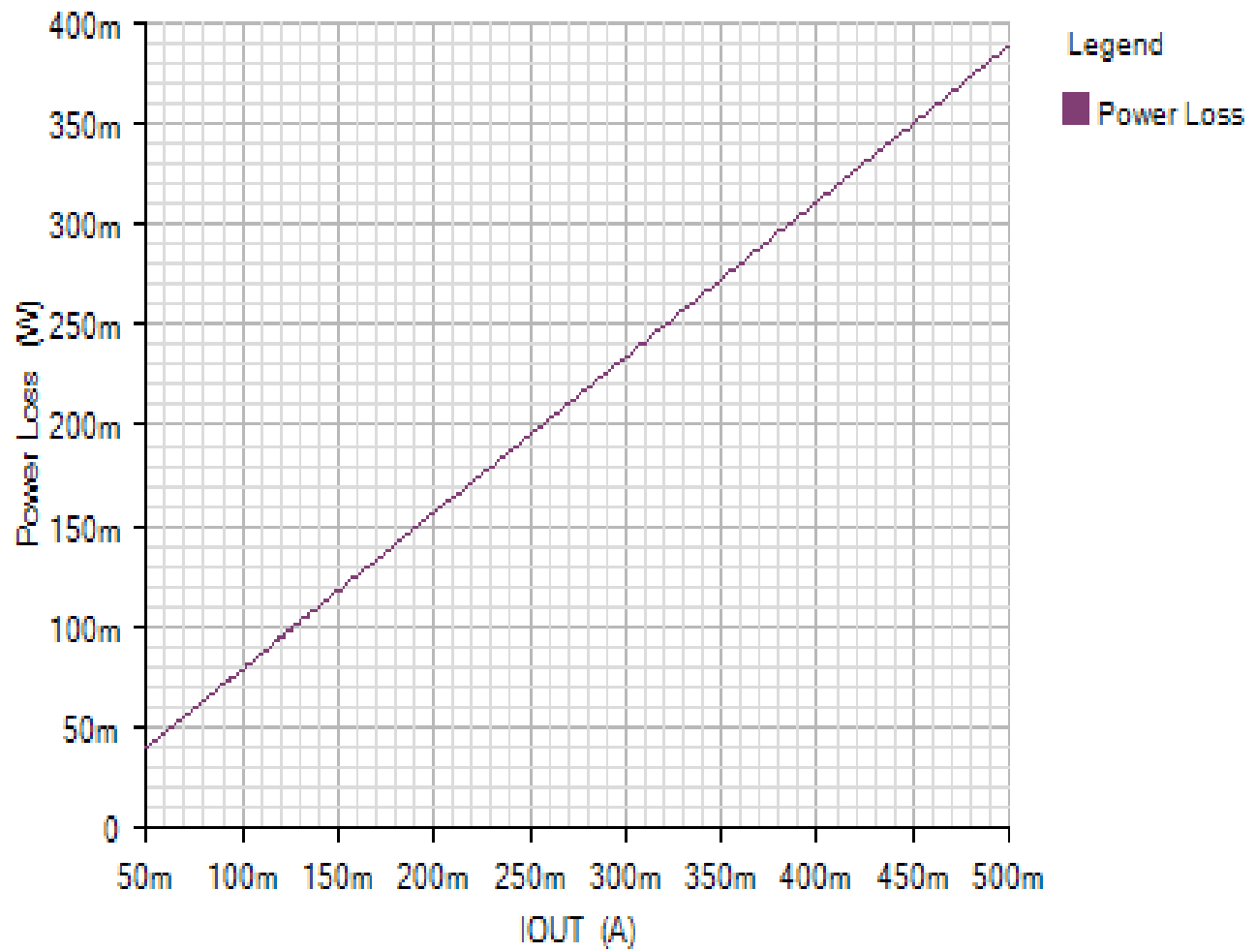
## Simulation Results

**Efficiency - Wed Jan 02 2019 13:57:54**



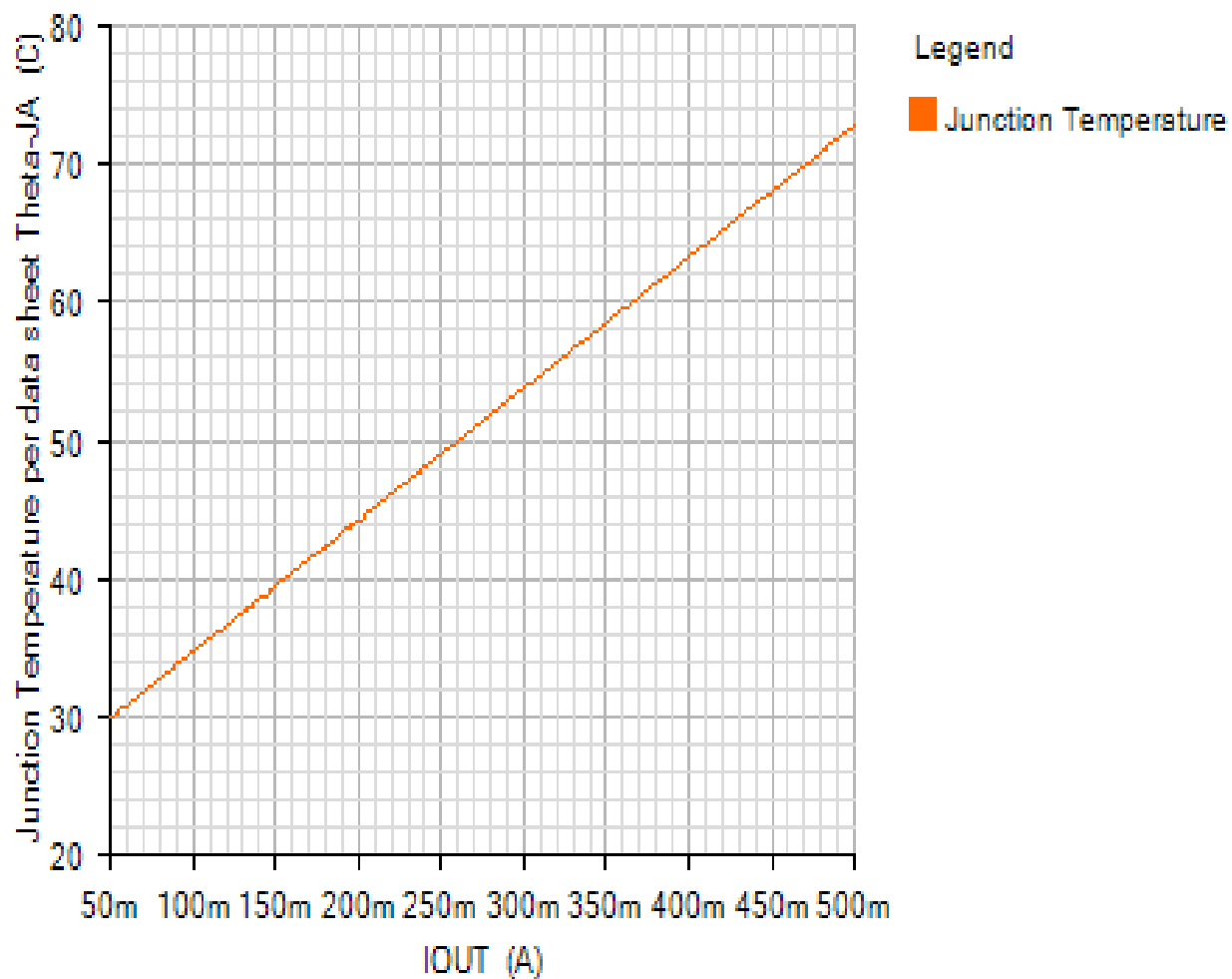
POWER\_LOSS

Default

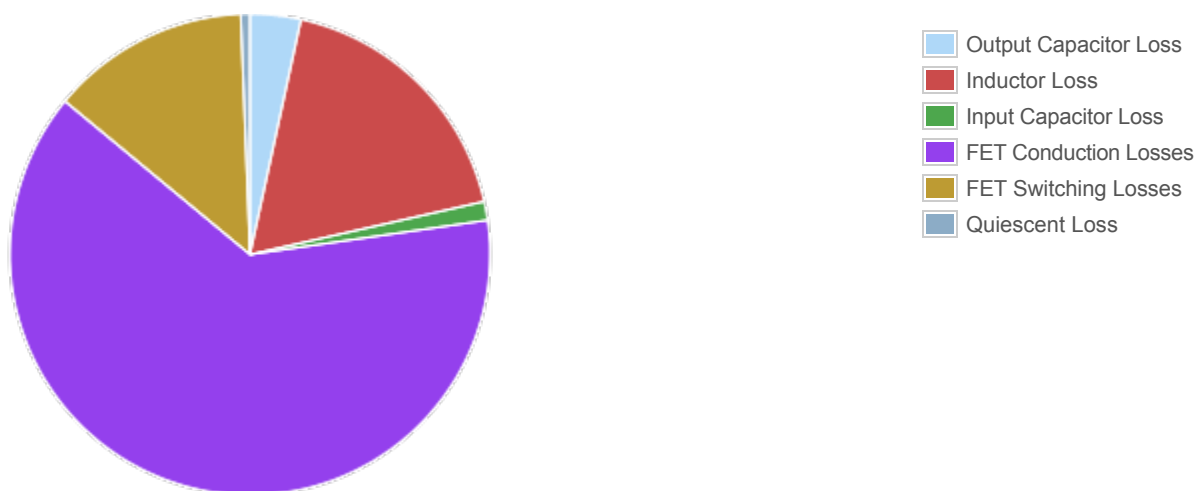


## JUNCTION\_TEMPERATURE

Default



## Losses



Component

Loss (W)

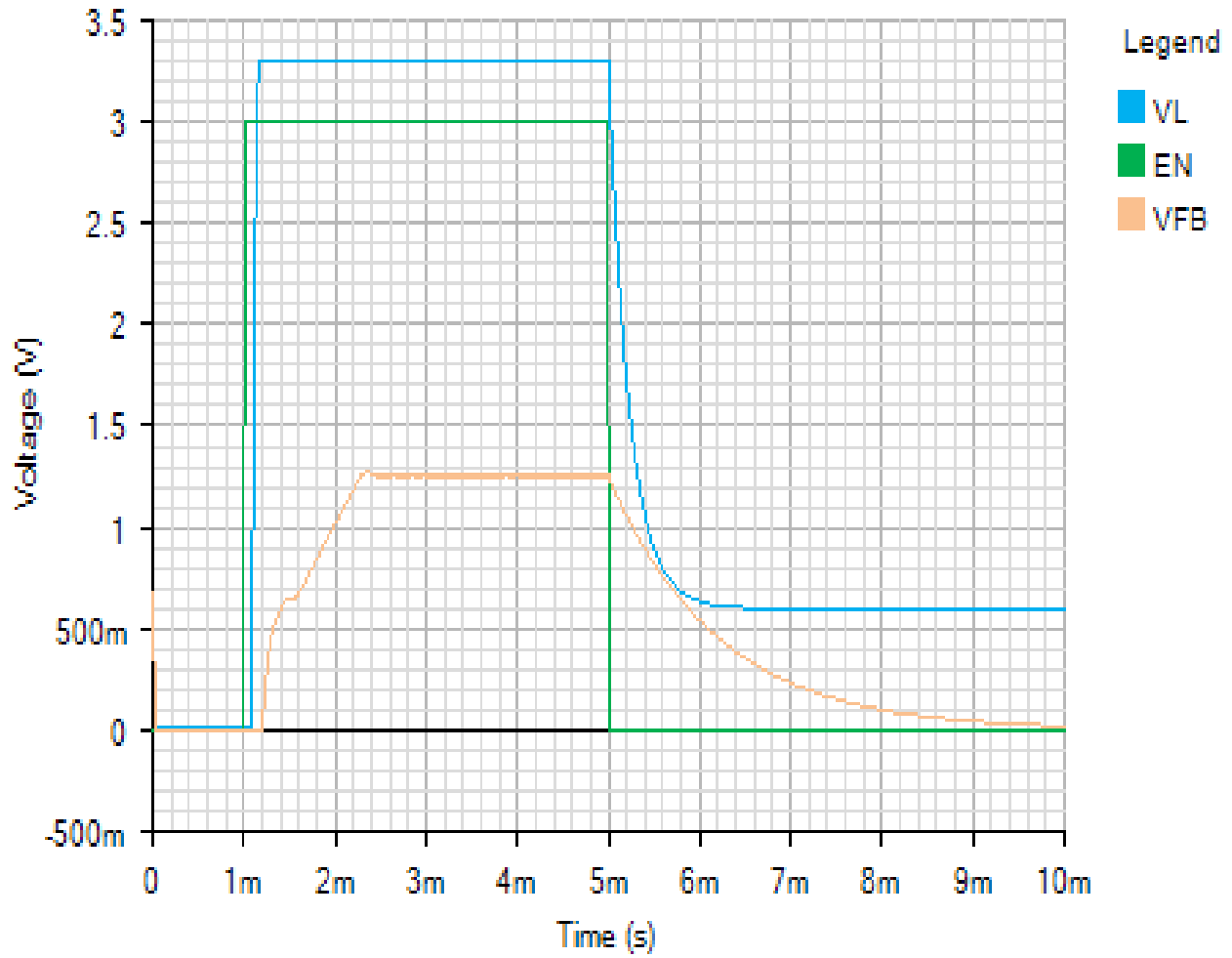
% of total

Component	Loss (W)	% of total
Output Capacitor Loss	0.010568	3.4
Inductor Loss	0.05591	18.1
Input Capacitor Loss	0.003894	1.3
FET Conduction Losses	0.195972	63.3
FET Switching Losses	0.041468	13.4
Quiescent Loss	0.00191	0.6
Total	0.309722	100

Start Up - Wed Jan 02 2019 13:57:54

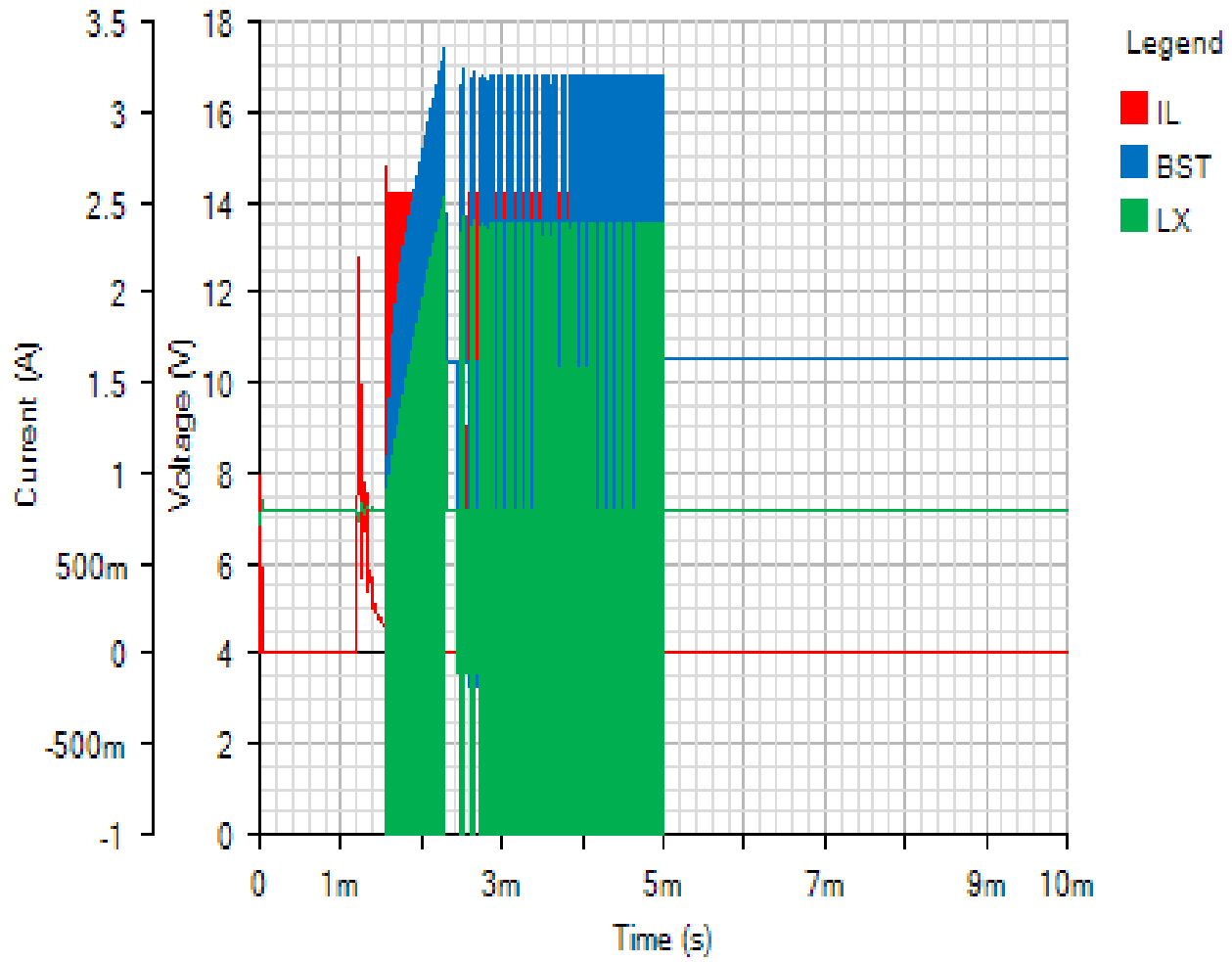
IC

Default



SWITCHING

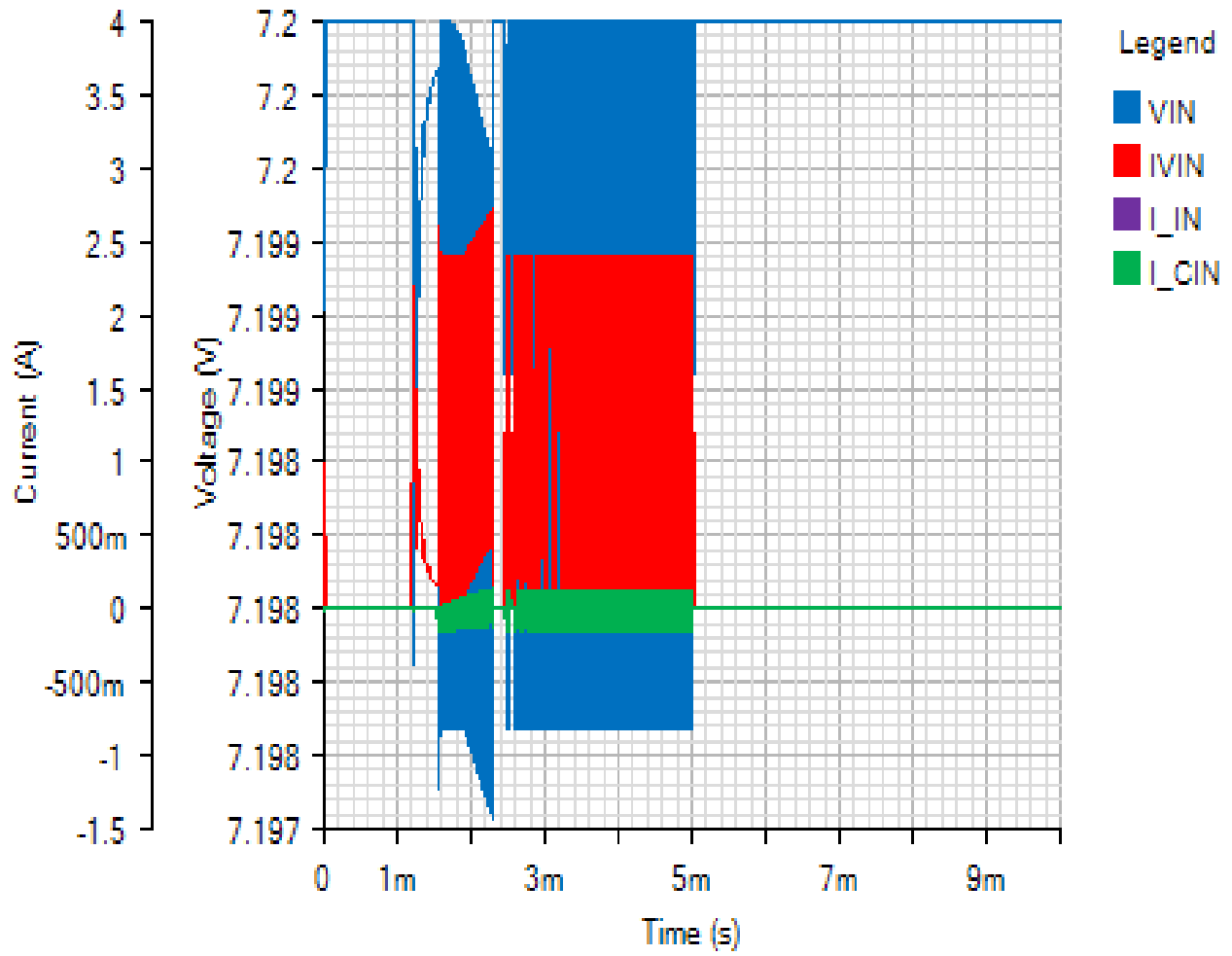
Default





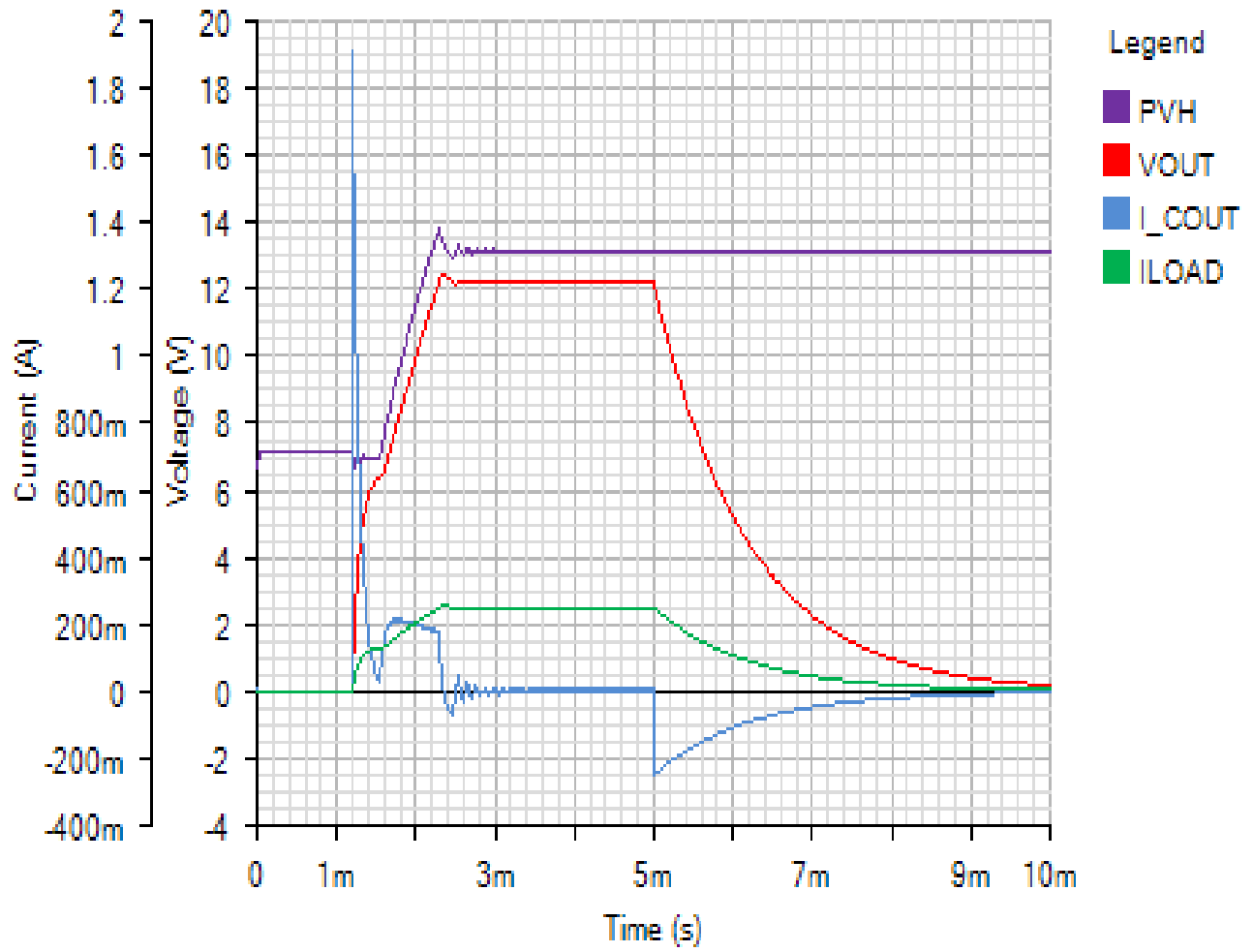
INPUT

Default



OUTPUT

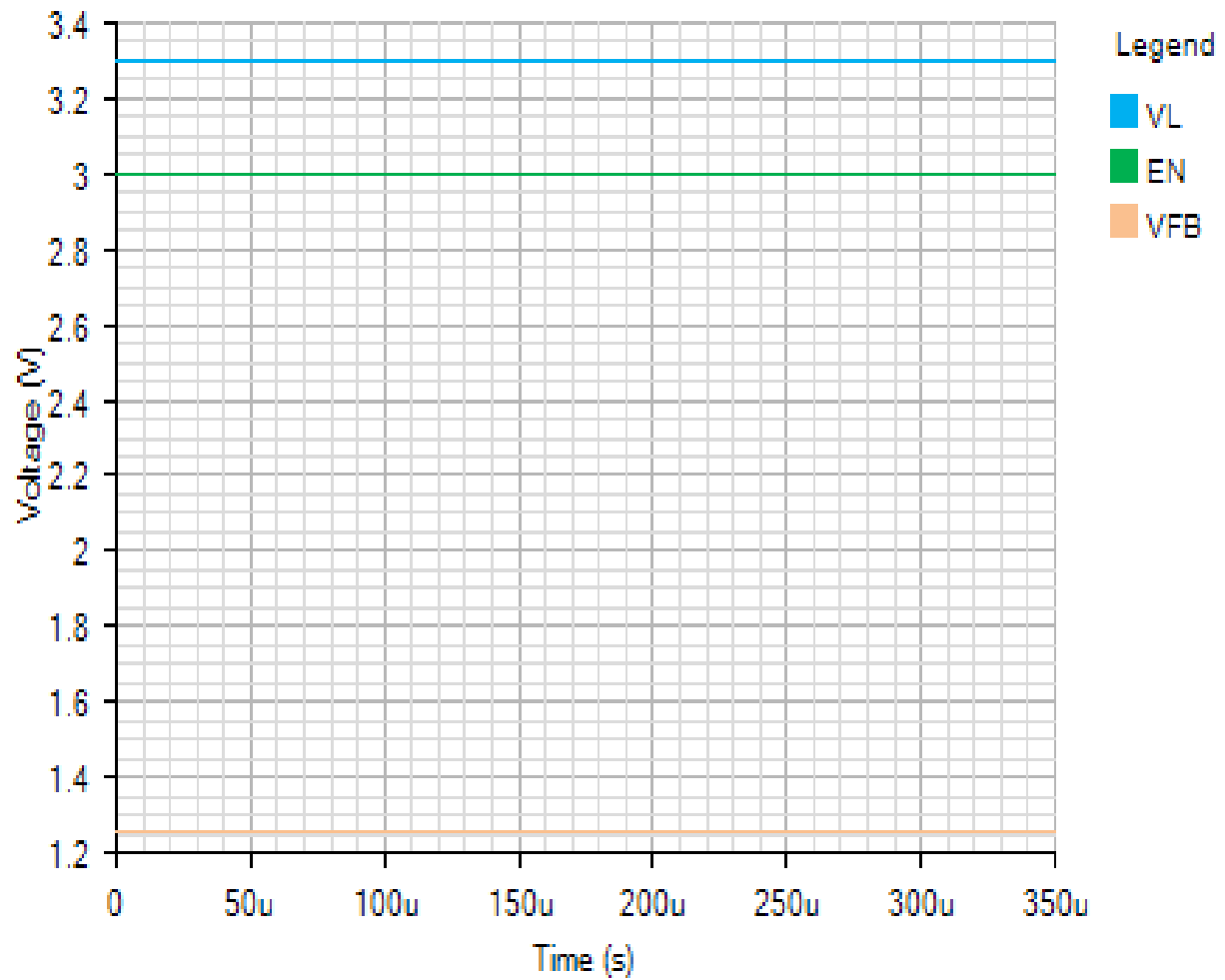
Default



Line Transient - Wed Jan 02 2019 13:57:54

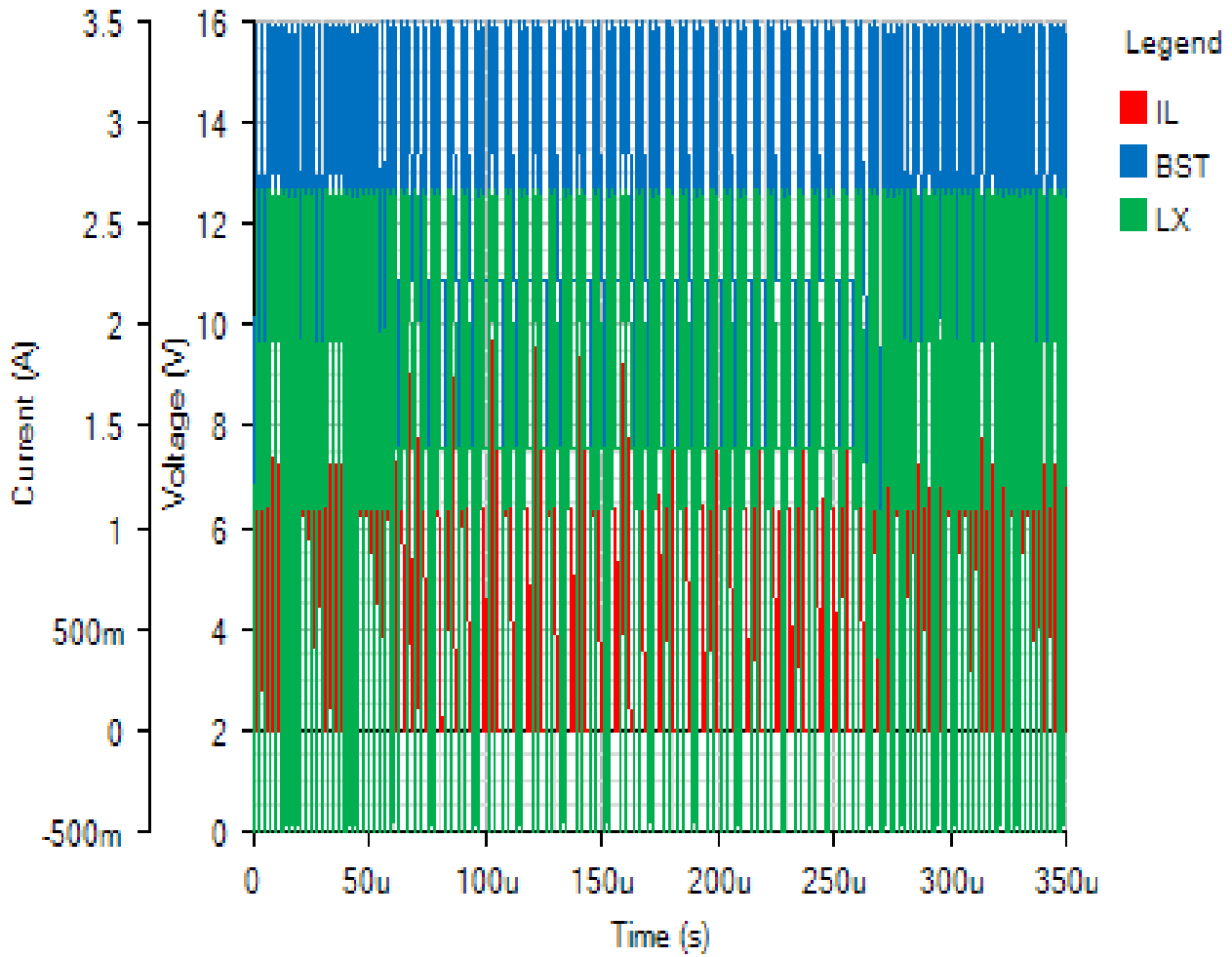
IC

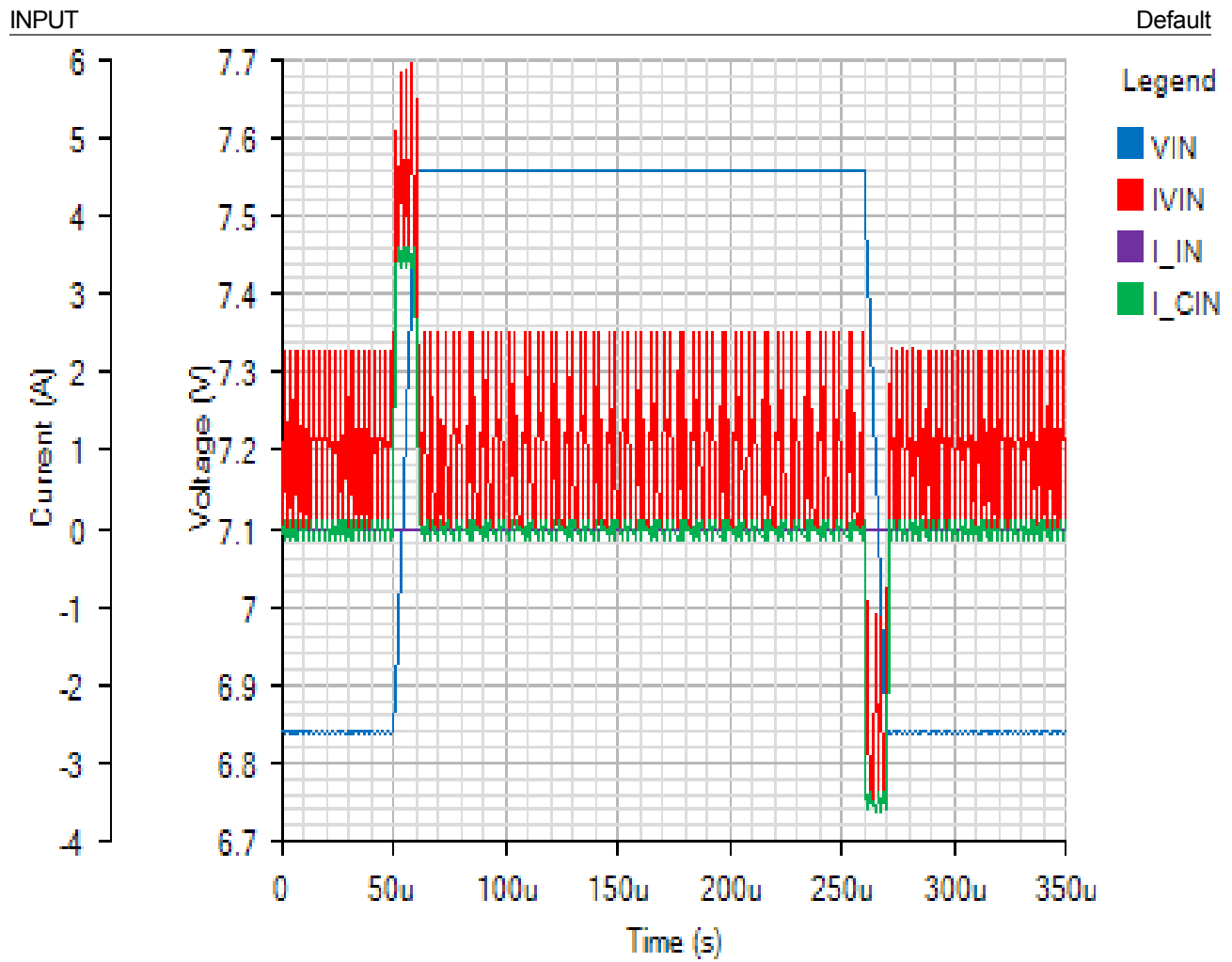
Default



SWITCHING

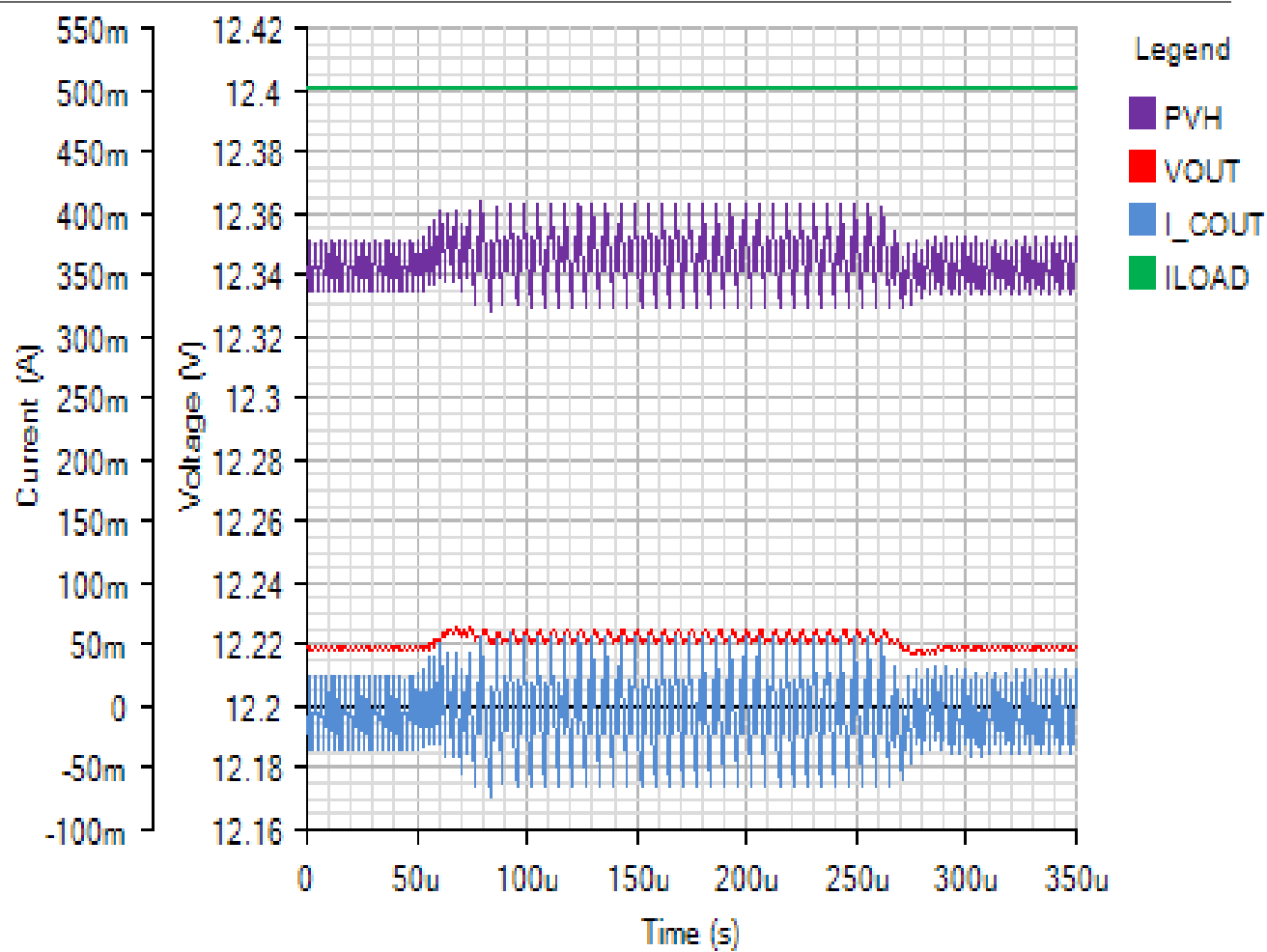
Default





OUTPUT

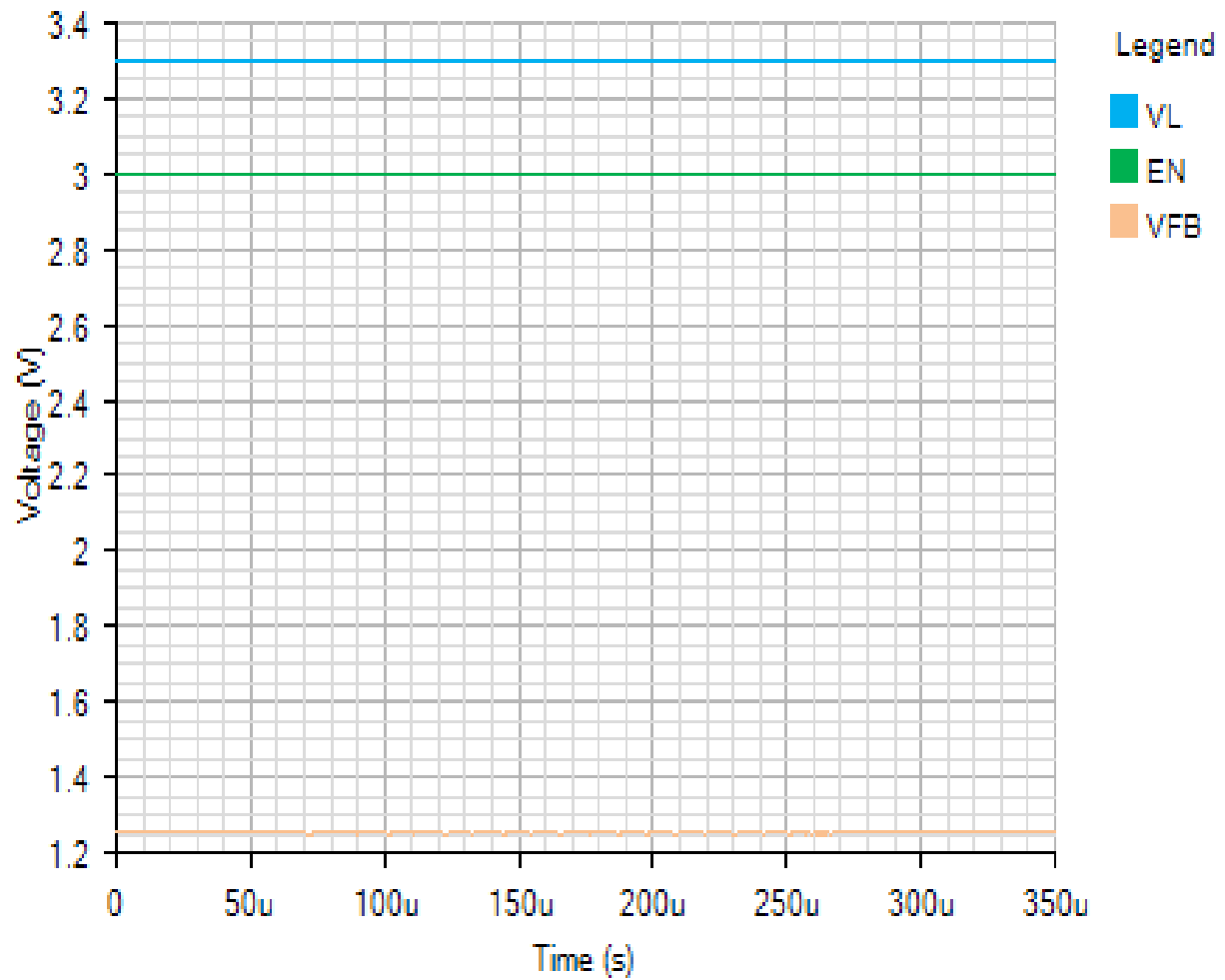
Default



Load Step - Wed Jan 02 2019 13:57:54

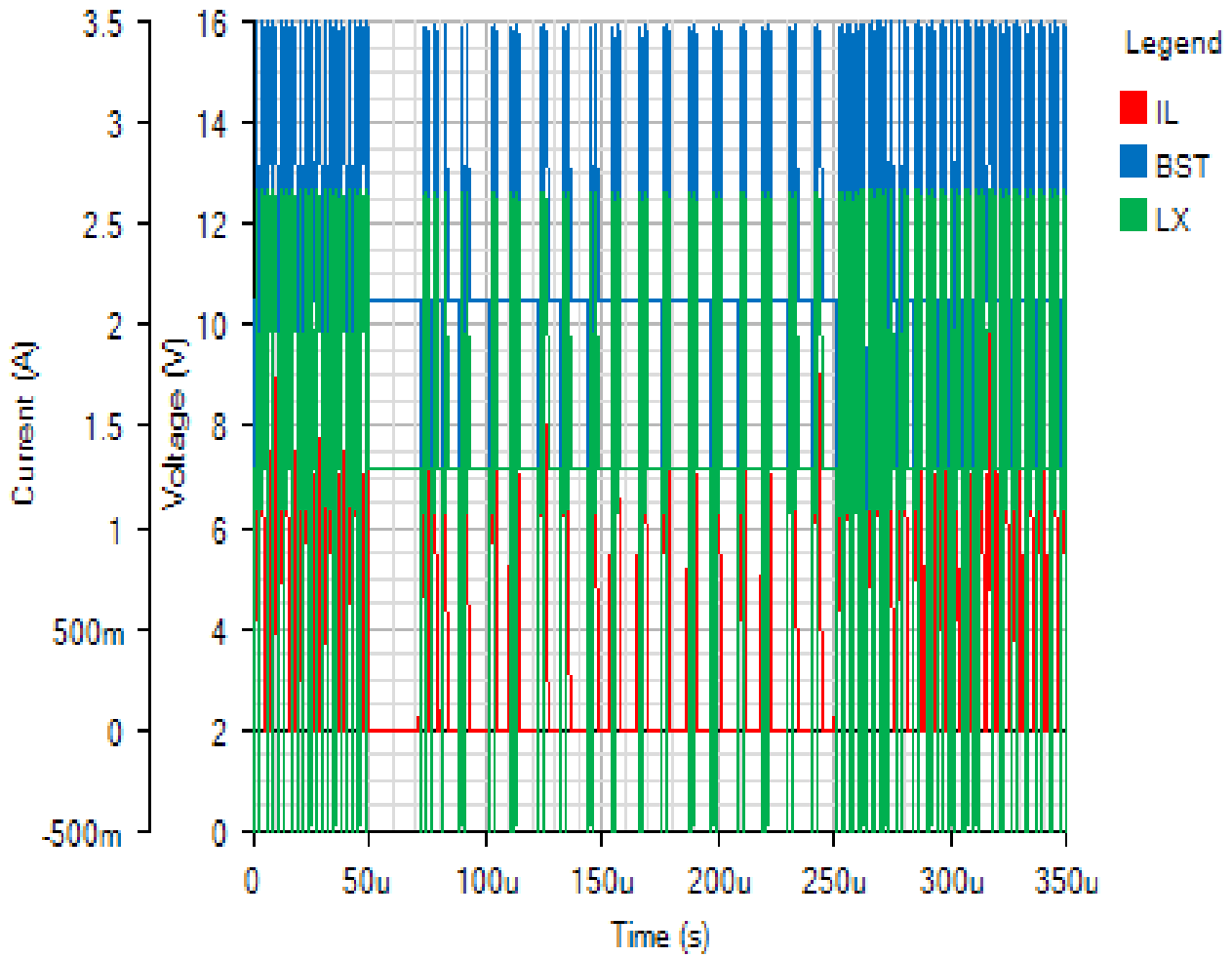
IC

Default



SWITCHING

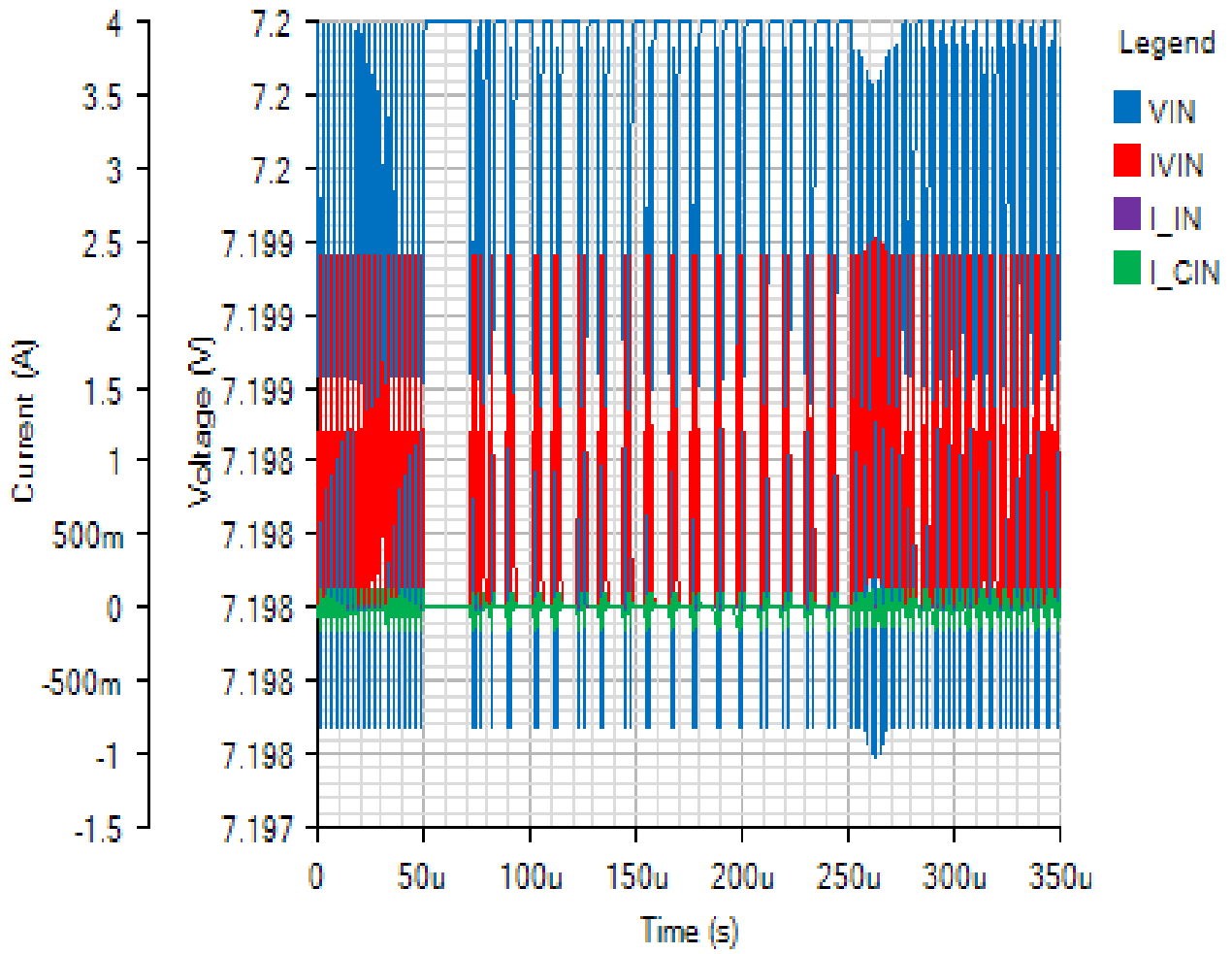
Default





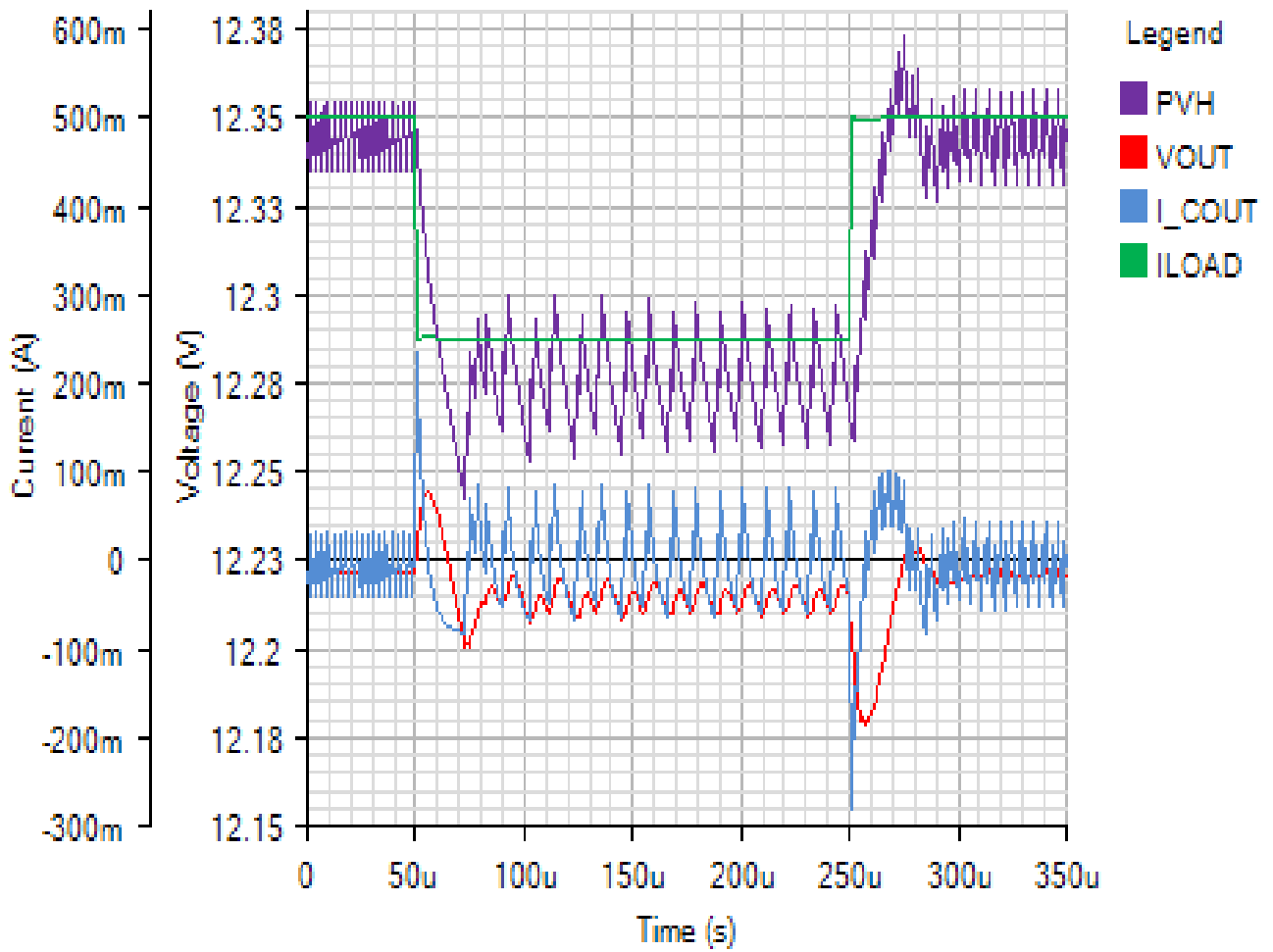
INPUT

Default



OUTPUT

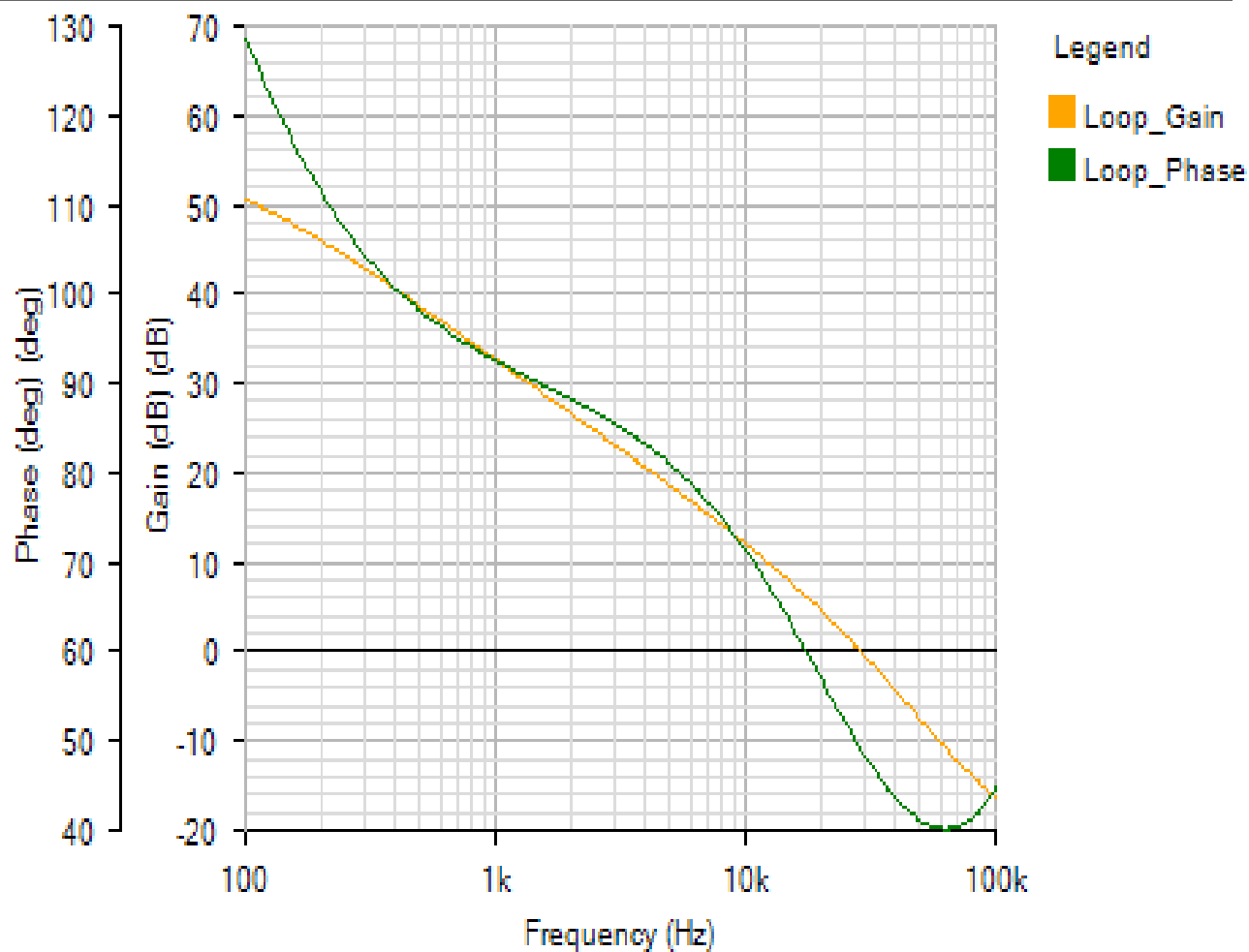
Default



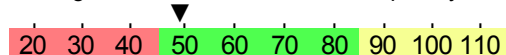
AC Loop - Wed Jan 02 2019 13:57:54

BODE

Default



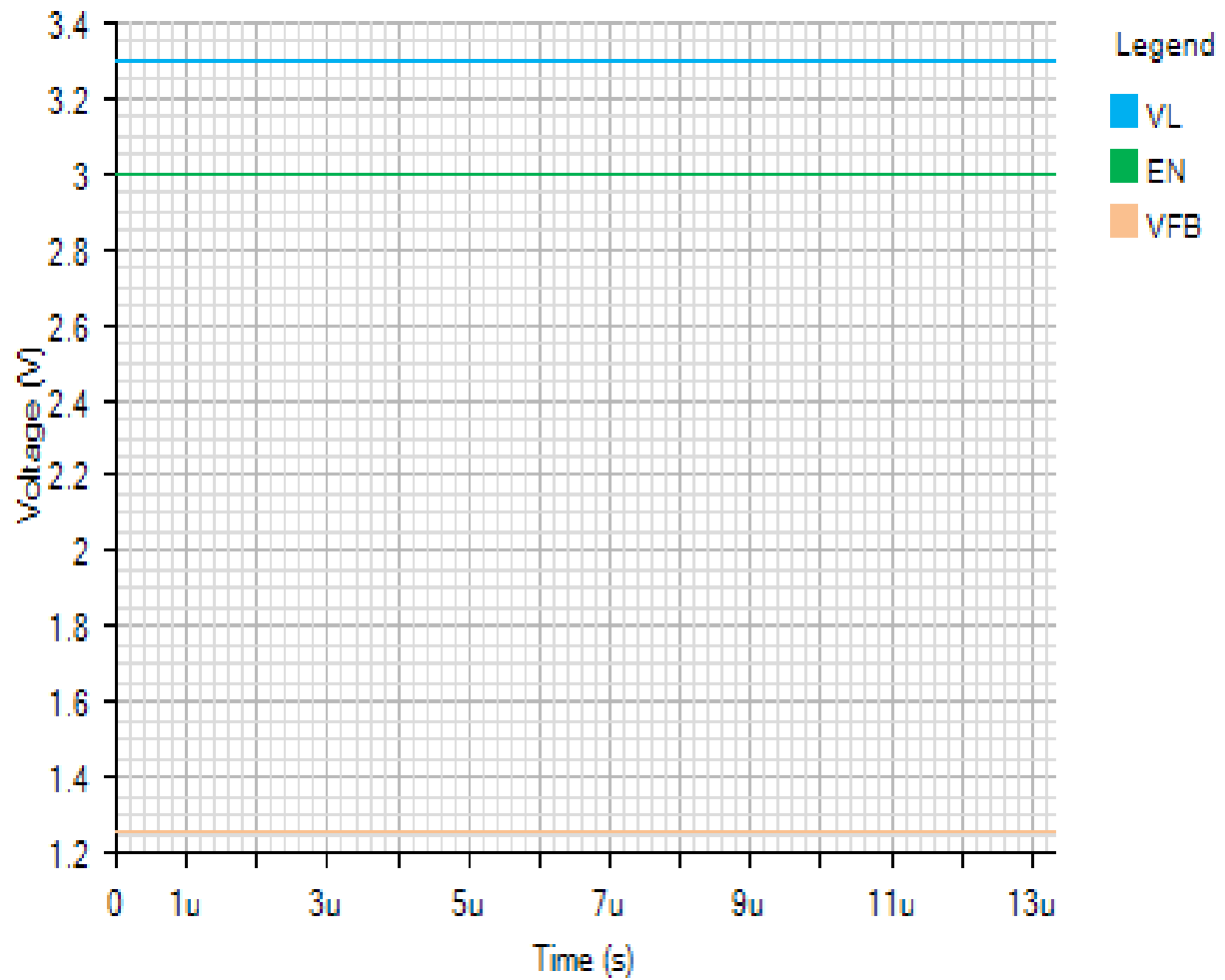
Phase Margin: 49.14° at a crossover frequency of 29kHz



Steady State - Wed Jan 02 2019 13:57:54

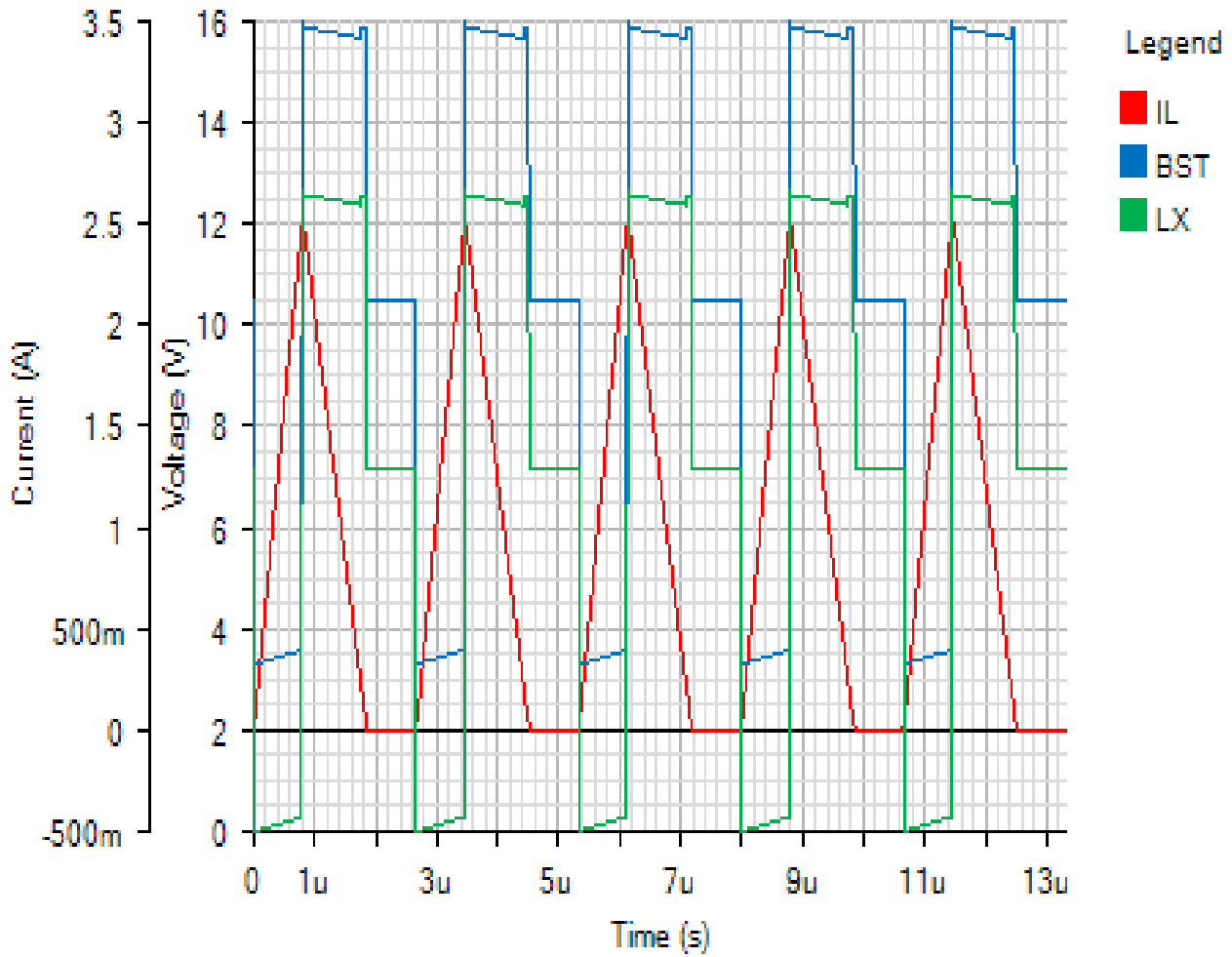
IC

Default



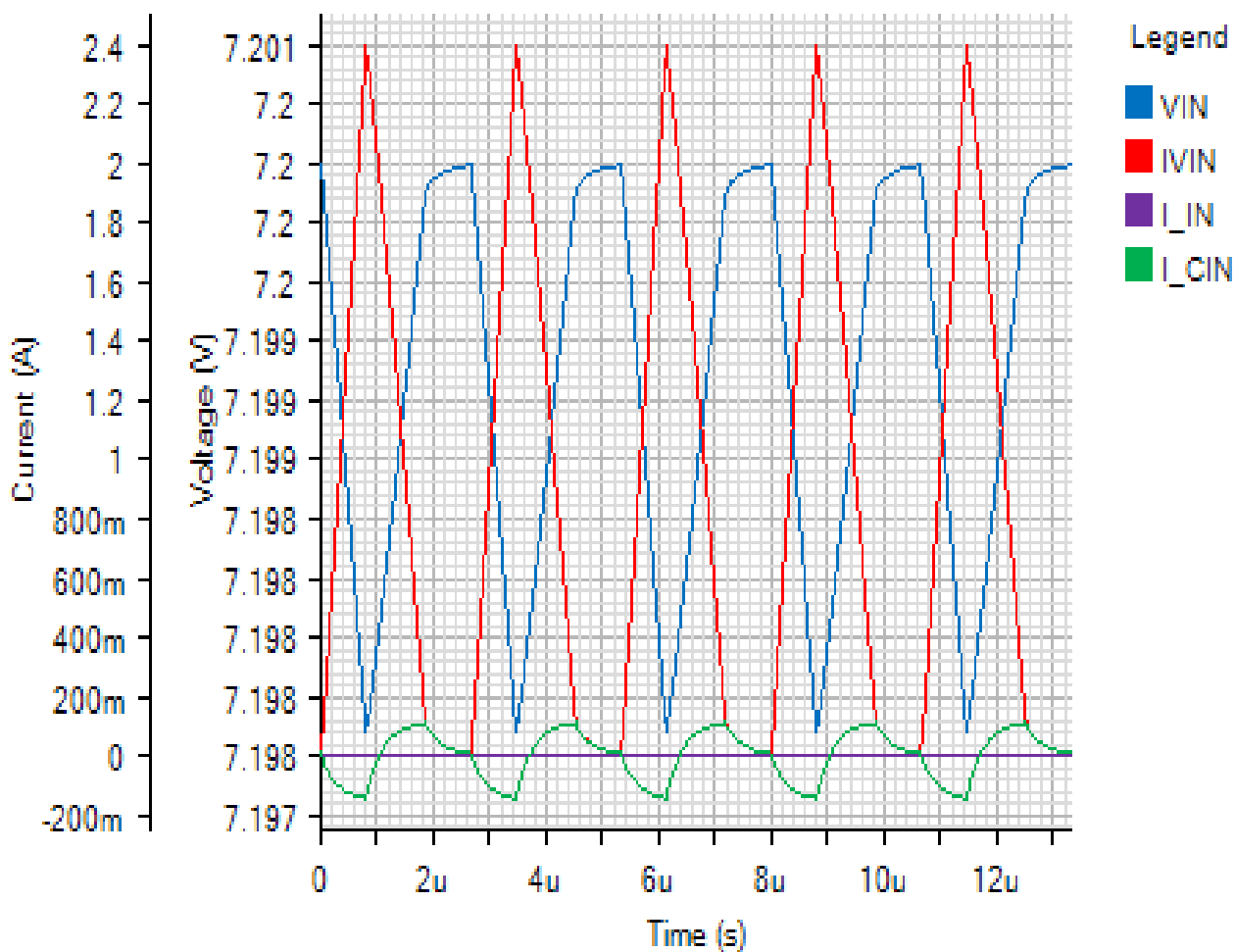
SWITCHING

Default



INPUT

Default



OUTPUT

Default

