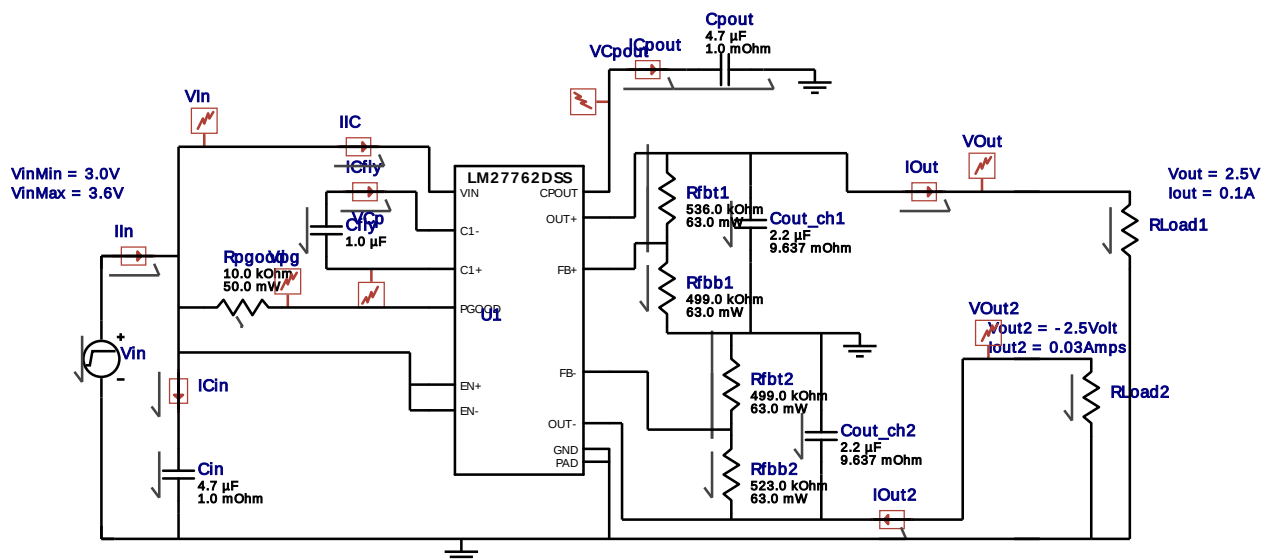


WEBENCH® Electrical Simulation Report



My Comments

No comments

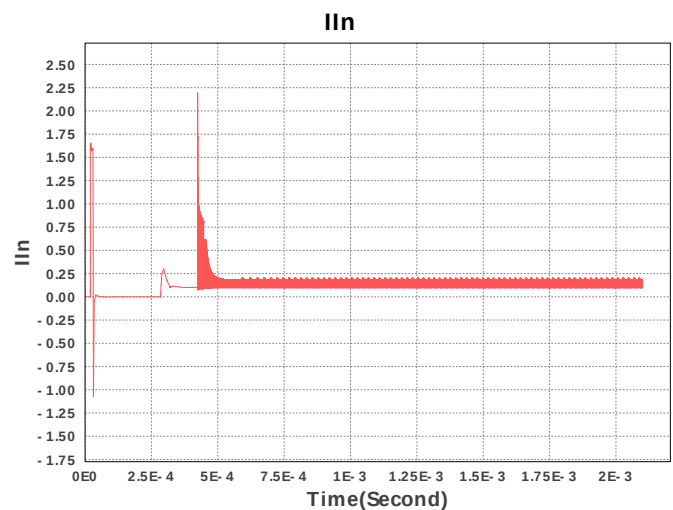
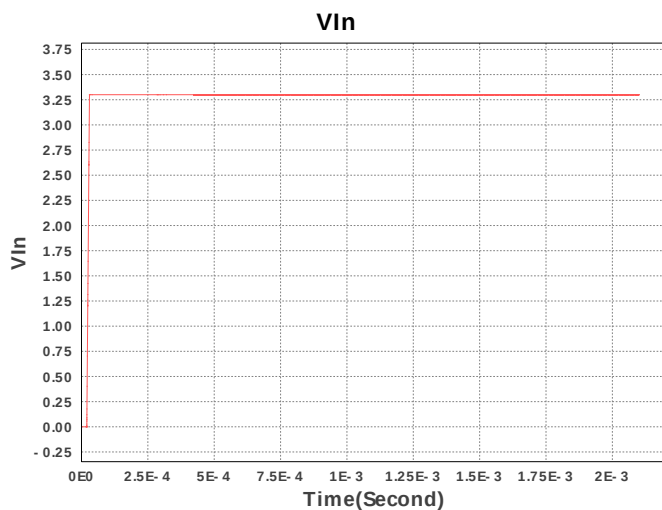
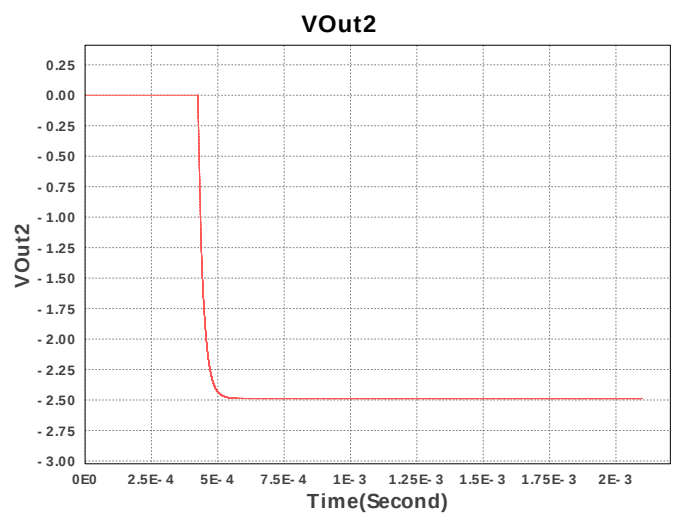
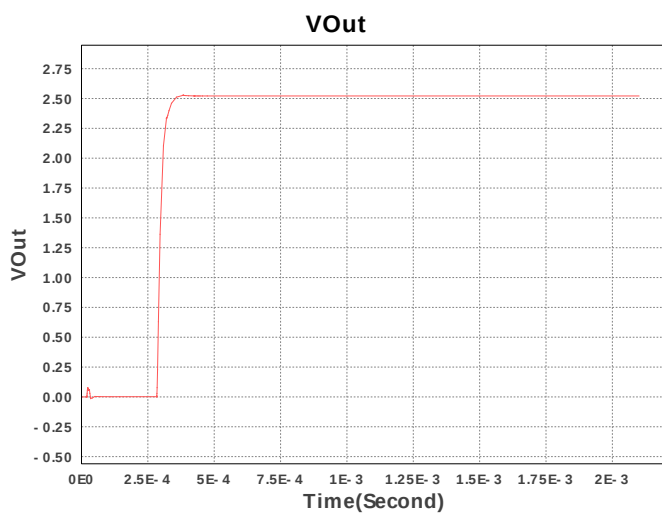
Electrical BOM

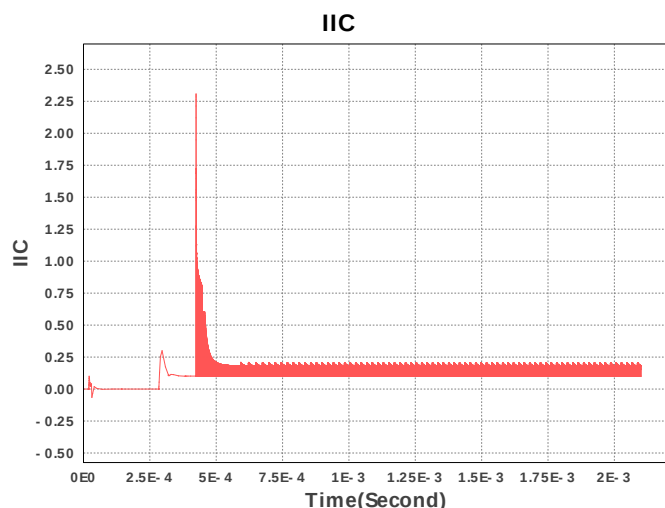
#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
1.	Cfly	Panasonic	ECPU1C105MA5 Series= ECPU(A)	Cap= 1.0 μ F VDC= 16.0 V IRMS= 0.0 A	1	NA	1210 15 mm ²
2.	Cin	MuRata	GRM155R60J475ME87D Series= X5R	Cap= 4.7 μ F ESR= 1.0 mOhm VDC= 6.3 V IRMS= 0.0 A	1	\$0.02	0402_065 3 mm ²
3.	Cout_ch1	MuRata	GRM188R60J225KE19D Series= X5R	Cap= 2.2 μ F ESR= 9.637 mOhm VDC= 6.3 V IRMS= 1.323 A	1	\$0.02	0603 5 mm ²
4.	Cout_ch2	MuRata	GRM188R60J225KE19D Series= X5R	Cap= 2.2 μ F ESR= 9.637 mOhm VDC= 6.3 V IRMS= 1.323 A	1	\$0.02	0603 5 mm ²
5.	Cpout	MuRata	GRM155R60J475ME87D Series= X5R	Cap= 4.7 μ F ESR= 1.0 mOhm VDC= 6.3 V IRMS= 0.0 A	1	\$0.02	0402_065 3 mm ²
6.	Rfbb1	Vishay-Dale	CRCW0402499KFKED Series= CRCW..e3	Res= 499.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
7.	Rfbb2	Vishay-Dale	CRCW0402523KFKED Series= CRCW..e3	Res= 523.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
8.	Rfbb1	Vishay-Dale	CRCW0402536KFKED Series= CRCW..e3	Res= 536.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²
9.	Rfbb2	Vishay-Dale	CRCW0402499KFKED Series= CRCW..e3	Res= 499.0 kOhm Power= 63.0 mW Tolerance= 1.0%	1	\$0.01	0402 3 mm ²

#	Name	Manufacturer	Part Number	Properties	Qty	Price	Footprint
10.	Rpgood	Yageo America	RC0201FR-0710KL Series= ?	Res= 10.0 kOhm Power= 50.0 mW Tolerance= 1.0%	1	\$0.01	0201 2 mm ²
11.	U1	Texas Instruments	LM27762DSSR	Switcher	1	\$0.79	DSS0012B 12 mm ²

Simulation Parameters

#	Name	Parameter Name	Description	Values
1.	Cfly	IC	Initial Condition	0 V
2.	Cout_ch1C		Initial Condition	0 V
3.	Cout_ch2C		Initial Condition	0 V
4.	RLoad1 R		Load resistance	25.0 Ohm
5.	RLoad2 R		Load Resistance	83.33333333333334 Ohm





Design Inputs

#	Name	Value	Description
1.	Iout	100.0 mA	Maximum Output Current
2.	VinMax	3.6 V	Maximum input voltage
3.	VinMin	3.0 V	Minimum input voltage
4.	Vout	2.5 V	Output Voltage
5.	base_pn	LM27762	Base Product Number
6.	source	DC	Input Source Type
7.	Ta	30.0 degC	Ambient temperature

Operating Values

#	Name	Value	Category	Description
1.	BOM Count	11	General	Total Design BOM count
2.	FootPrint	56.0 mm ²	General	Total Foot Print Area of BOM components
3.	Frequency	2.0 MHz	General	Switching frequency
4.	Pout	324.96 mW	General	Total output power
5.	Total BOM	\$0.0	General	Total BOM Cost
6.	Efficiency	68.499 %	Op Point	Steady state efficiency
7.	IC Tj	38.984 degC	Op Point	IC junction temperature
8.	ICThetaJA	62.2 degC/W	Op Point	IC junction-to-ambient thermal resistance
9.	IOUT_OP	100.0 mA	Op Point	Iout operating point
10.	VIN_OP	3.6 V	Op Point	Vin operating point
11.	Vout OP	2.489 V	Op Point	Operational Output Voltage
12.	Vout p-p	710.758 μV	Op Point	Peak-to-peak output ripple voltage
13.	Vout2 OP	-2.499 V	Op Point	Operational Voltage 2
14.	Vout2 p-p	213.227 μV	Op Point	Peak-to-peak output voltage ripple channel 2
15.	IC Pd	144.444 mW	Power	IC power dissipation
16.	Total Pd	144.444 mW	Power	Total Power Dissipation

Design Assistance

- 1.
2. **LM27762** Product Folder : <http://www.ti.com/product/LM27762> : contains the data sheet and other resources.

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