

MUN12AD03-SM EVB Guide

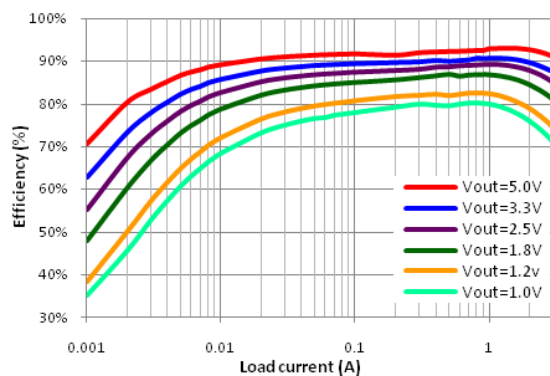
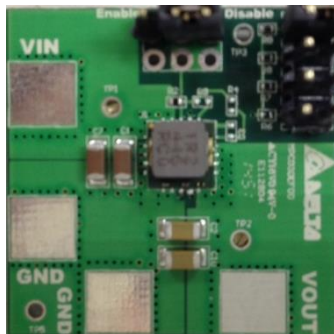
DESCRIPTION:

The evaluation board is for the MUN12AD03-SM, high efficiency DC/DC power module. The evaluation board generates a +5.0V output voltage at load currents up to 3A. Output setting resistor R_x can be adjusted for evaluating different output voltage. The MUN12AD03-SM switches at 1MHz and achieve up to 93% efficiency with the supplied components.

ELECTRICAL SPECIFICATION:

Parameters	Symbol	Value	Unit
Input Voltage Range	VIN	4.5~16	V
Output Voltage	VOUT	5.0	V
Output Current	IOUT	3	A

EVALUATION BOARD & EFFICIENCY::



QUICK START:

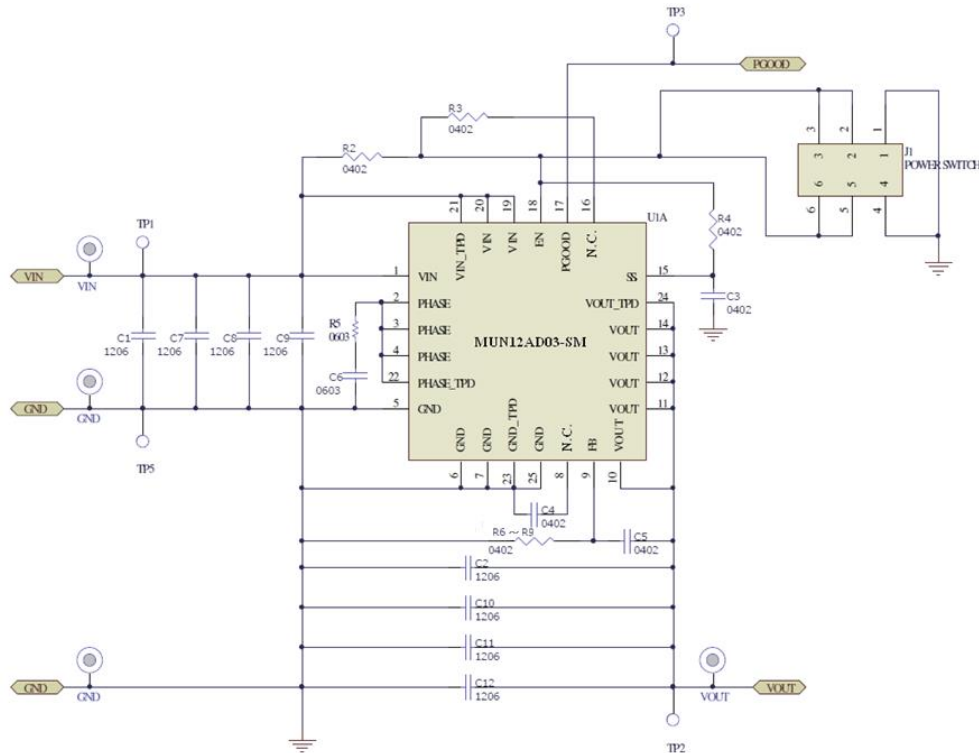
The output voltage VOUT can be programmed by varying R_x ($R_6 \sim R_9$).

$$VOUT(V) = 0.6 \times \left(1 + \frac{100k}{R_x} \right)$$

Vout	1.0V	1.2V	1.8V	2.5V	3.3V	5.0V
R_x (Ohm)	150k	100k	49.9k	31.6k	22.1k	13.7k

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EVALUATION BOARD SCHEMATIC:

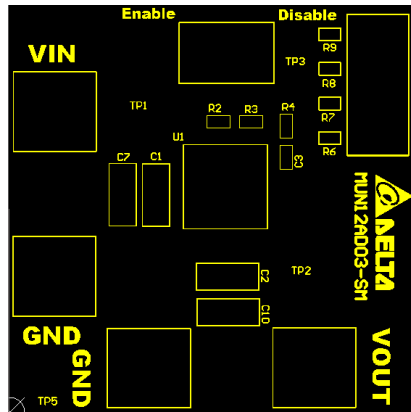


BILL OF MATERIALS:

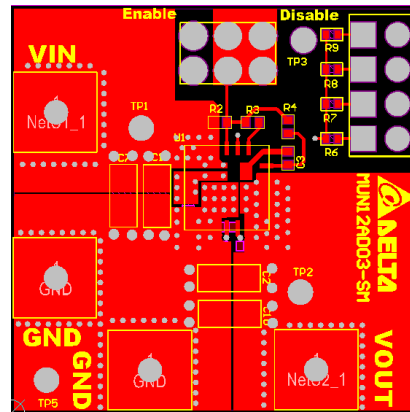
Qty	Function	Ref.	Value	Vendor
2	Input Cap	C1,C7	22uF/16V/X5R/1206	Murata
-	Input Cap	C8,C9	DNP	-
2	Output Cap	C2,C10	47uF/10V/X5R/1206	Murata
-	Output Cap	C11,C12	DNP	-
1	Enable	R2	100k/0402	Cyntec
1	Enable	Switch	-	-
-	Compensation	C5	DNP	-
-	N.C.	R1,R3,R4,C4	DNP	-
-	Soft-start	C3	DNP	-
-	Snubber	R5,C6	DNP	-
1	Module	U1	MUN12AD03-SM	Cyntec

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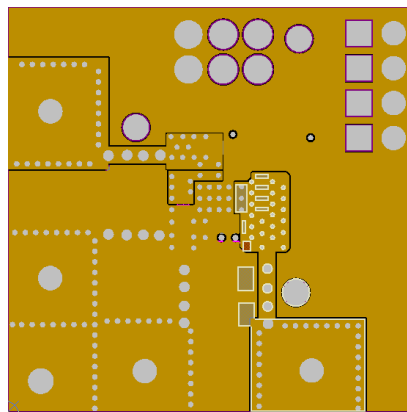
PRINTED CIRCUIT BOARD LAYOUT:



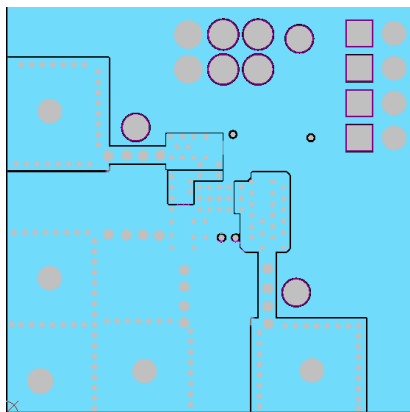
Top Component Side



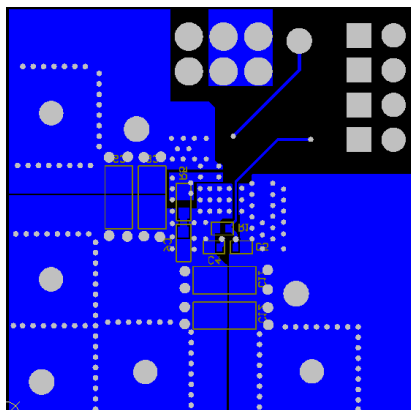
Top Layer



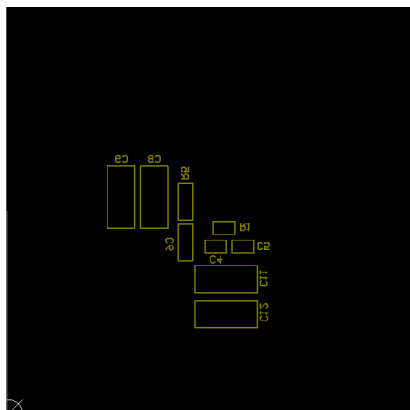
Mid1 Layer



Mid2 Layer



Bottom Layer



Bottom Component Side