

# MUN3CAD03-JB EVB Guide

## DESCRIPTION:

The MUN3CAD03-JB power module series is non-isolated dc-dc converters that can deliver up to 3A of output current.

## ELECTRICAL SPECIFICATION:

Parameters	Symbol	Value	Unit
Input Voltage Range	VIN	2.5~5.5	V
Output Voltage	VOUT	0.6~4	V
Output Current	IOUT	3	A

## EVALUATION BOARD & EFFICIENCY:

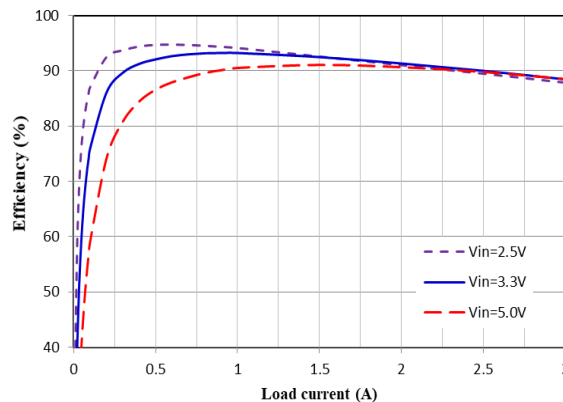
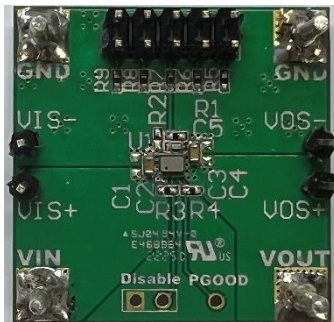


FIGURE 1 Efficiency V.S. Load Current (Vout=1.8V)

## QUICK START:

The module has an internal  $0.6V \pm 1.5\%$  reference voltage. The output voltage can be programmed by the dividing resistor ( $R_{FB\_T}$  and  $R_{FB\_B}$ ). The output voltage can be calculated by Equation 1, resistor choice may be referred to TABLE 1.

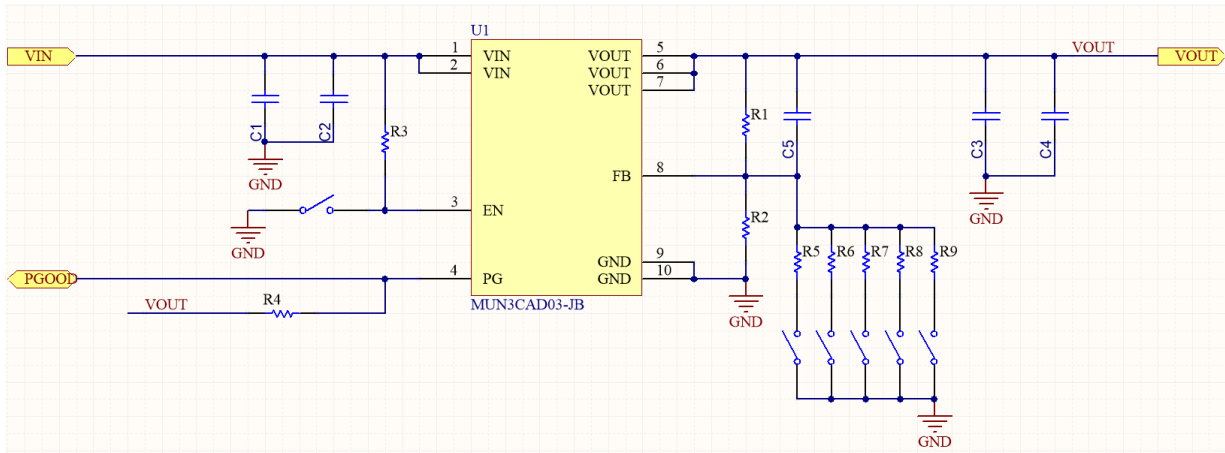
$$V_{OUT}(V) = 0.6 \times \left(1 + \frac{R_{FB\_T}}{R_{FB\_B}}\right) \quad (\text{EQ.1})$$

TABLE 1 Resistor values for common output voltages

VOUT	1.0V	1.2V	1.8V	2.5V	3.3V
$R_{FB\_T}$ (Ohm)	100k	100k	100k	100k	100k
$R_{FB\_B}$ (Ohm)	150k	100k	49.9k	31.6k	22.1k

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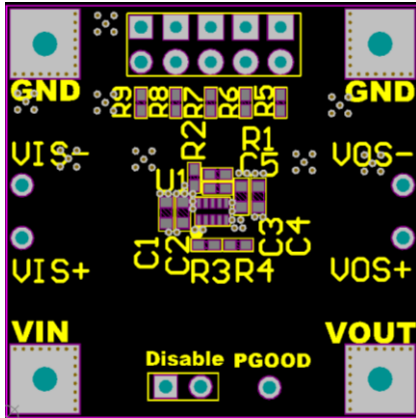
## EVALUATION BOARD & SCHEMATIC:



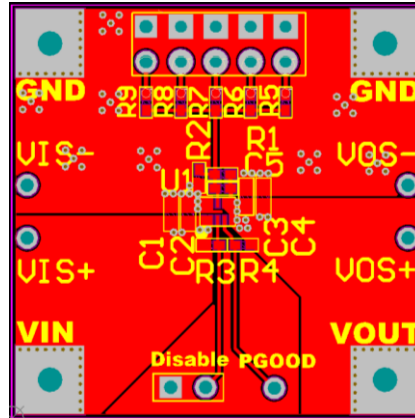
## BILL OF MATERIALS:

COUNT	REF DES	DESCRIPTION	PART NUMBER	MFR
2	C2,C3	MLCC,22uF/6.3V/0603/X6S	GRM188C80J226ME15D	Murata
1	C5	MLCC,120pF/50V/0402/NPO	CC0402JRNPO9BN121	YAGEO
4	R1,R3,R4,R6	Resistor,100k Ohm,±1%,0402	Std	Cyntec
1	R5	Resistor,150k Ohm,±1%,0402	Std	Cyntec
1	R7	Resistor,49.9k Ohm,±1%,0402	Std	Cyntec
1	R8	Resistor,31.6k Ohm,±1%,0402	Std	Cyntec
1	R9	Resistor,22.1k Ohm,±1%,0402	Std	Cyntec
1	U1	Power module, 2.5*2.0*1.3mm	MUN3CAD03-JB	Cyntec

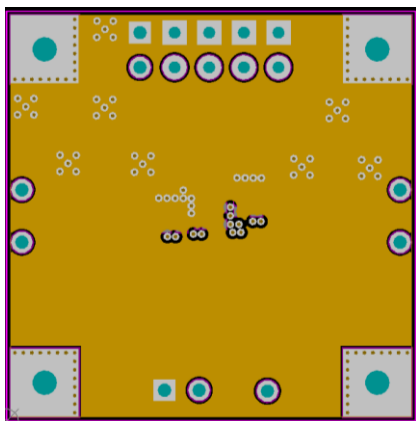
## PRINTED CIRCUIT BOARD LAYOUT:



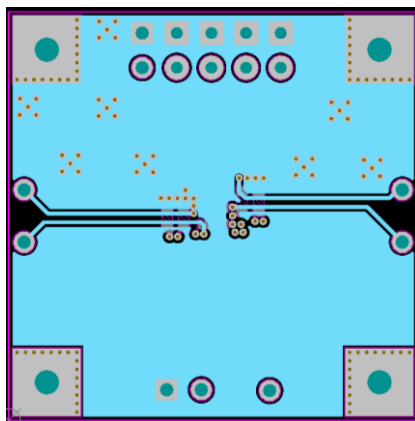
Top Component Side



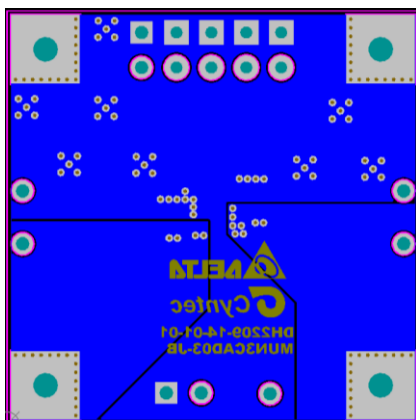
Top Layer



Mid1 Layer



Mid2 Layer



Bottom Layer