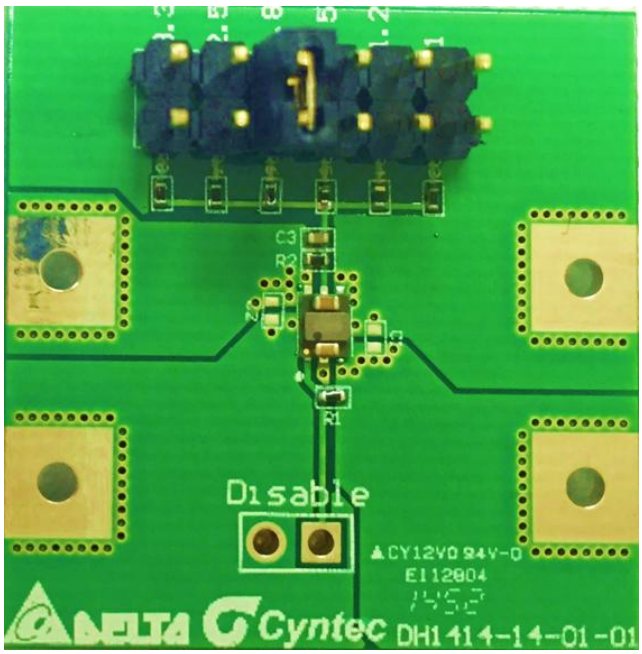
DESCRIPTION:

The evaluation board is for the MUN3CAD01-SC, high efficiency DC/DC power module. The evaluation board is generates a +1.8V output voltage at load currents up to 1A from a 2.7V and 5.5V input voltage range. Output setting resistor R3 to R8 can be adjusted for evaluating different output voltage. The MUN3CAD01-SC switches at 3.0MHz and achieve up to 93% efficiency with the supplied components.

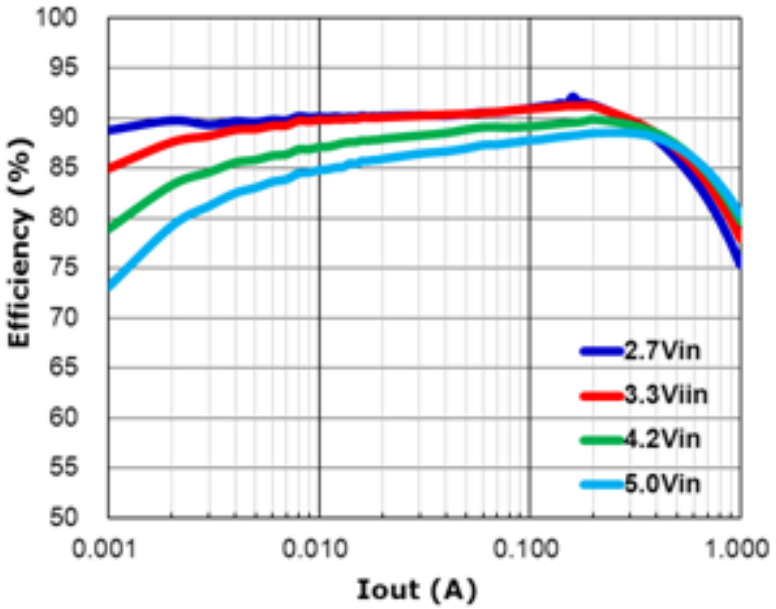
ELECTRICAL SPECIFICATION:

Parameters	Symbol	Value	Unit
Input Voltage Range	VIN	2.7~5.5	V
EN Voltage Range	EN	1.5~5.5	V
Output Voltage	VOUT	1.8	V
Output Current	IOUT	1	A

EVALUATION BOARD:



EFFICIENCY:



QUICK START:

The output voltage of this board is preset to 1.8V.

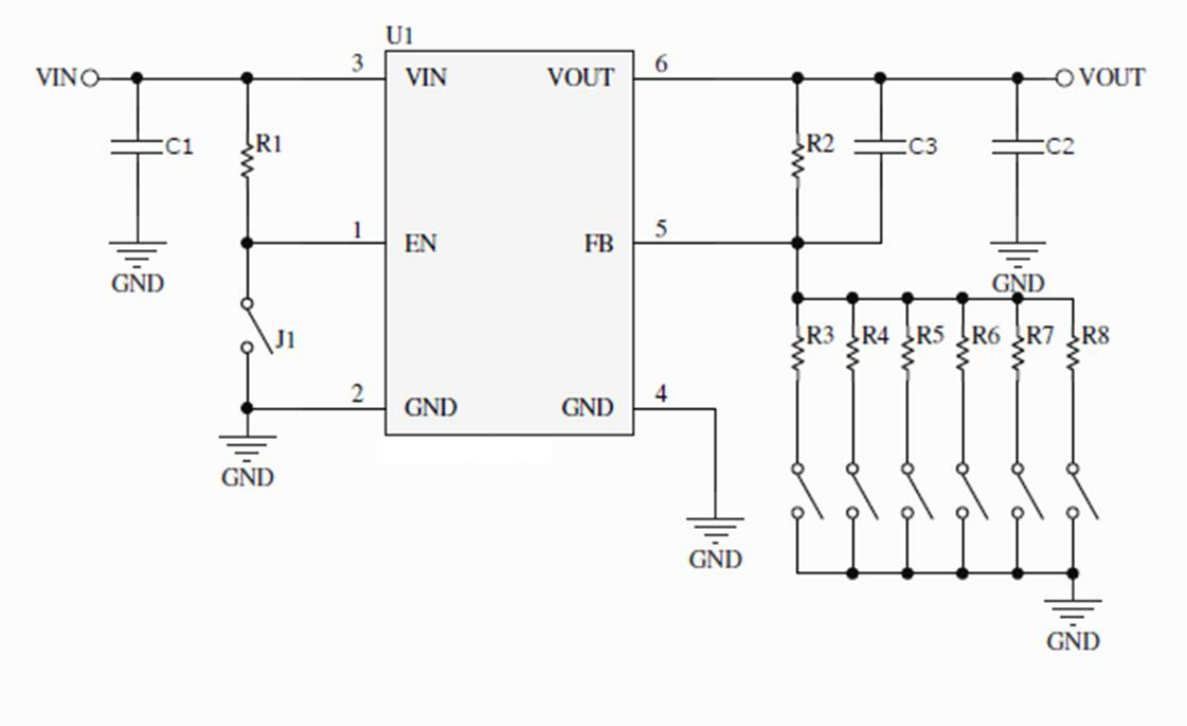
The output voltage VOUT can be programmed by varying Rx. Calculate the new value using the formula:

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

TABLE 1: OUPUT VOLTAGE SETTING

Vout (V)	Internal Resistor (kΩ)	Rx (kΩ)
1.0	100(1%)	R3: 150(1%)
1.2	100(1%)	R4: 100(1%)
1.5	100(1%)	R5: 66.5(1%)
1.8	100(1%)	R6: 49.9(1%)
2.5	100(1%)	R7: 31.6(1%)
3.3	100(1%)	R8: 22.1(1%)

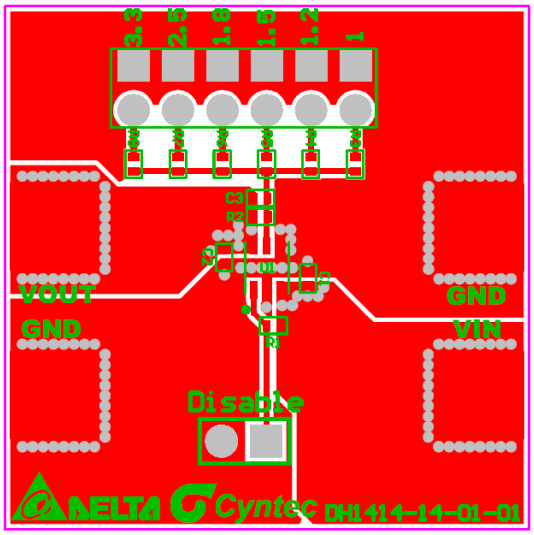
EVALUATION BOARD SCHEMATIC:



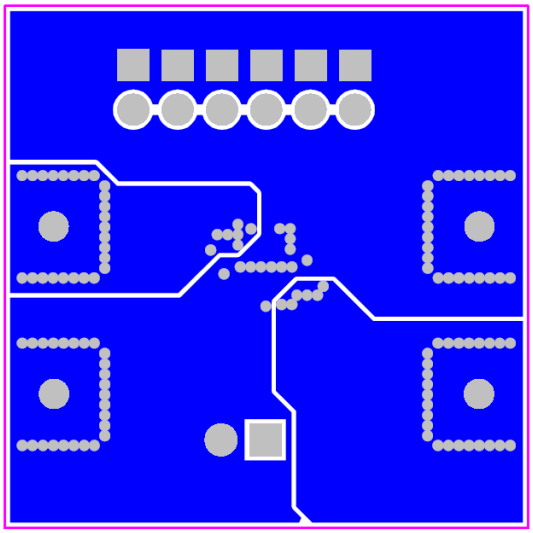
BILL OF MATERIALS:

Qty	Ref.	Value	Description	Package	Manufacture
0	C1	DNP	-	-	-
0	C2	DNP	-	-	-
1	C3	100pF	Ceramic Cap	0201	Murata
1	R1	100kohm	Chip Resistor	0201	Cyntec
1	R2	100kohm	Chip Resistor	0201	Cyntec
1	R3	150kohm	Chip Resistor	0201	Cyntec
1	R4	100kohm	Chip Resistor	0201	Cyntec
1	R5	66.5kohm	Chip Resistor	0201	Cyntec
1	R6	49.9kohm	Chip Resistor	0201	Cyntec
1	R7	31.6kohm	Chip Resistor	0201	Cyntec
1	R8	22.1kohm	Chip Resistor	0201	Cyntec
1	J1	-	jumper connector	-	-

PRINTED CIRCUIT BOARD LAYOUT:



Top Layer



Bottom Layer