Buck/Boost Regulator

IC1
LTM8055

V_IN
SV_IN
I_IN
RUN
CTL
SS
SYNC
COMP
RT

V_OUT
I_OUT
CLKOUT
I_INMON
I_OUTMON
FB

LL   MODE   GND

V_IN

C_IN   C1   C2
4.7u   4.7u

GND

R3
36.5k

GND

R_FB1
R4   100k

R_FB2
R5
11k

GND

C_OUT
C3
22u

TPSC686M016R0200
C4

V_OUT

GND

Pinheaders

V_IN

7
6
5
4
3
2
1

7
6
5
4
3
2
1

P1
GND

V_OUT

7
6
5
4
3
2
1

7
6
5
4
3
2
1

GND   P2

LED Indicators

V_IN

R1   2k

LED1

GND

V_OUT

R2   2k

LED2
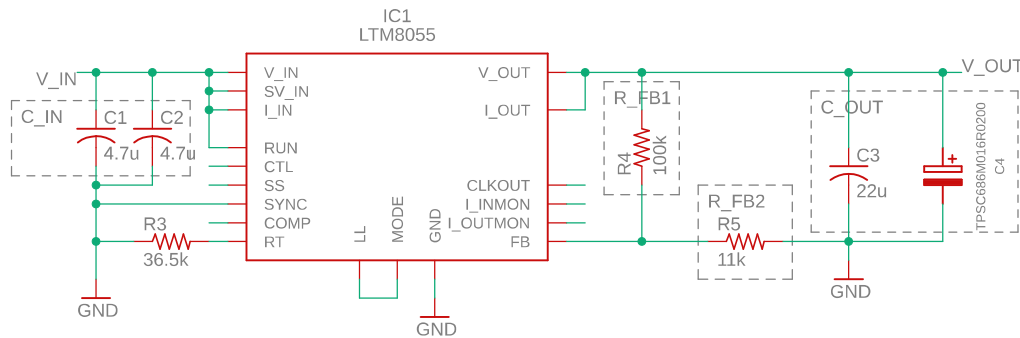
GND

Recommended Component Values and Configuration
For VIN RANGE : 5V to 36V, VOUT : 12V

C_IN -> C1, C2 : 4.7µF, 50V, X5R, 1210
C_OUT -> C3 : 22µF, 25V, X5R, 0805
C_OUT -> C4 : 68µF, 16V, 200mΩ, Electrolytic
  (Testing : 68µF, 16V, 200mΩ, Tantalum C Case TPSC686M016R0200)

Switching Frequency Determining Resistor
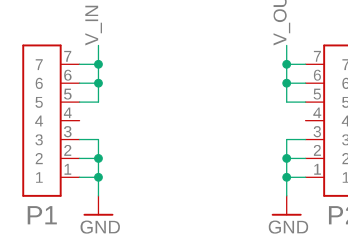R_T -> R3 : 36.5kΩ (Optimal Frequency : 600kHz)

Output Voltage Determining Resistance(R_FB1/R_FB2)
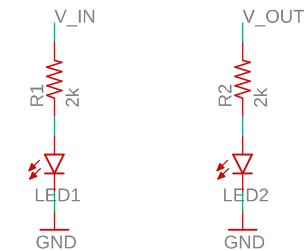R_FB1 -> R4 : 100kΩ
R_FB2 -> R5 : 11kΩ

Source : https://www.analog.com/media/en/technical-documentation/data-sheets/LTM8055-8055-1.pdf

Title: Buck-Boost Switch Mode Power Supply Module

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