VIN 36-48VDC

GND

VOUT 12V 10A

GND

F1

F2

TP 7

TP 6

TP 5

TP 2

C2 68uf 100V

C11 270 uF 16 V

GND

C1 1 uF

GND

L1 10uH

D2

Q3

Q2

Q1

C10 0.1uF

D1

VCC

C8 22uf 25V

GND

VCC 9.3-15V

TP 1

U1

Vin

BOOST

TG

SW

BG

BGRTN

GND

Vcc

DRVcc

MODE/SYNC

fSET

COMP

FB

Imax

INV

RUN/SS

LTC3703EGN

C9 10uF

VCC

C7 1uF

R7 10

R3 10K

R1 31.6K

C4 470pF

R2 18K

C3 0.1uF

R8 330

R10 330

GND

Q4

R9 330

GND

D3

LED Enable

Q5

R11 500

VCC

External Enable/Disable: In

J3

GND

C5 1000pF

R4 8.6K

R6 113K

C6 2200pF

R5 100

R12 330

D4

POWER GOOD LED

J1

Fault/Power_Good: out

Title: 12V 10A Power Supply

Number | Rev
220812 | 1.0

Drawn by
Nithin Paleethara Ajayan

Date: 28-August-2022

Filename: up_test.dch

Sheet: 1

Sl.No	Manufacture / Part Number	Quantity	RefDes	Value
1	SML-LX0805USBC-TR	1	D3	LED Enable
2	SML-LX0805USBC-TR	1	D4	POWER GOOD LED
3	SI7456DP-T1-E3	5	Q1,Q2,Q3,Q4,Q5	
4	RF	1	R7	10
5	Rc2	1	R5	100
6	Rc1	1	R3	10K
7	R4	1	R4	8.6K
8	R1	1	R6	113K
9	R_SET	1	R1	31.6K
10	R_MAX	1	R2	18K
11	R_DIS_L	1	R11	500
12	R_DIS, R_PGL	4	R8,R9,R10,R12	330
13	MBR1100	1	D2	
14	LTC3703EGN	1	U1	LTC3703EGN
15	EMK325BJ106KN-T	1	C9	10uF
16	EMK212BJ105MGHT	1	C7	1uF
17	EMK107BJ104MAHT	1	C10	0.1uF
18	EEUFS2A680L	1	C2	68uf 100V
19	CKG45KX7R2A105M290JH	1	C1	1 uf
20	CDRH125NP-100MC	1	L1	10uH
21	BAS19	1	D1	
22	794120-1	1	J3	External Enable/Disable: In
23	794120-1	1	J1	Fault/Power_Good: out
24	0MIN010.VPGLO	1	F2	
25	0678L9100-02	1	F1	
26	06033C222MAT2A	1	C6	2200pF
27	06033A471KAT2A	1	C4	470pF
28	06031C104KAT2A	1	C3	0.1uF
29	06031C102KAT2A	1	C5	1000pF
30	865080442004	1	C8	22uf 25v
31	860080374010	1	C11	270 µF 16 V