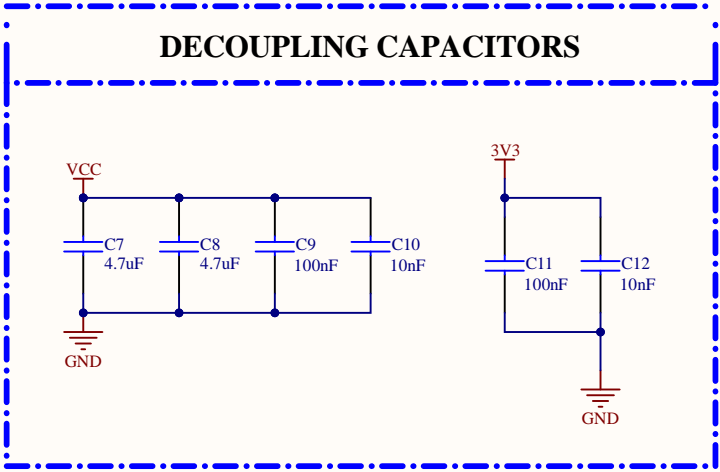
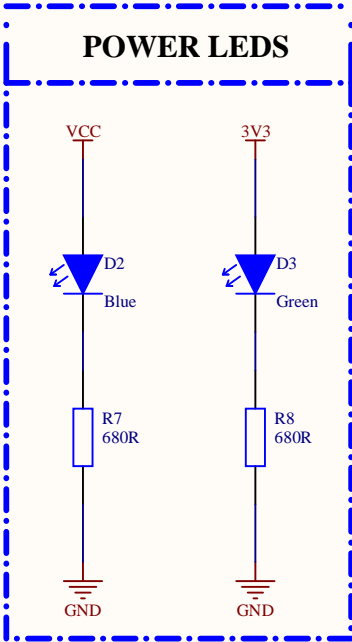
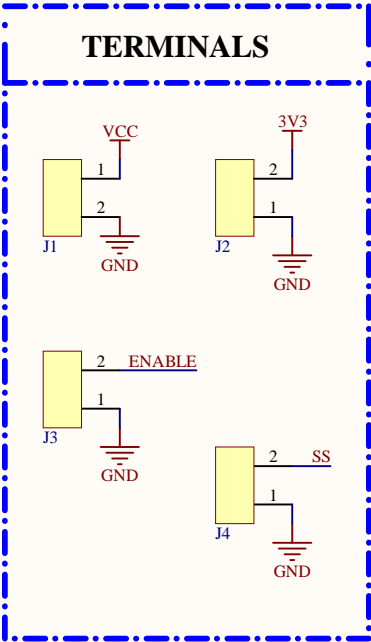
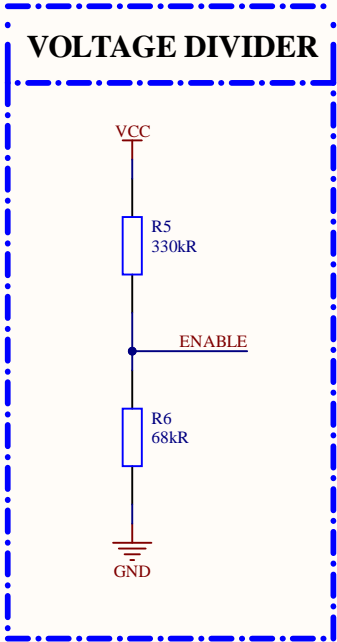
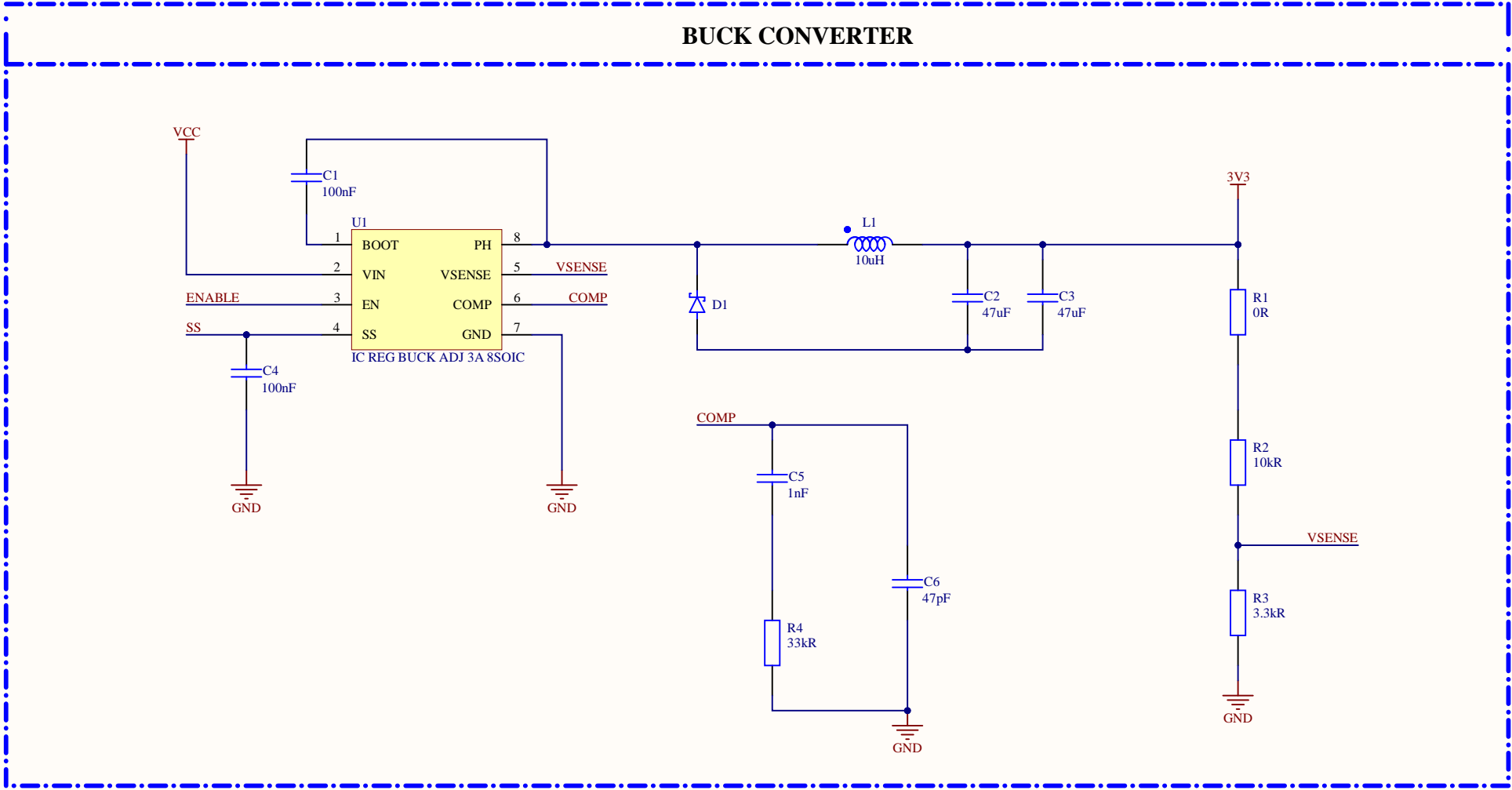


COMPONENTS:

-CAP CER 0.1UF 50V X7R1206
-CAP CER 0.1UF 50V X7R 1206
-CAP CER 4.7UF 25V X5R 1206
-CAP CER 1nF 1206
-CAP CER 47PF 50V C0G/NPO 1206
-CAP CER 4.7uF 10% 0805
-CAP CER 10nF 1206
-Res Thick Film 1206 0 Ohm 5 Molded SMD Paper T/R
-RES 10K OHM 5% 1/4W 1206
-RES 3.3K OHM 5% 1/4W 1206
-SMD Chip Resistor, 33 kOhm, ±1%, 250 mW, 1206 [3216 Metric], Thick Film, General Purpose
-RES 330K OHM 5% 1/4W 1206
-RES 68K OHM 5% 1/4W 1206

-Rectifier Diode Schottky 40V 3A 2-Pin SMA T/R
-Connector, Terminal Block; Wire Receptacle; 2 Pos.; 16 30 AWG, 0.197 in. CL; Std
-10uH 10X10 4.8A SMD Güç Bobini SR1004
-3.5V to 28V Input, 3A, 570kHz Step-Down Converter with Eco-mode 8-SOIC-40 to 150

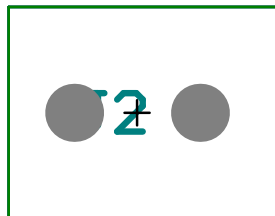
DOSYA ADI / FILE NAME	TANIM / DESCRIPTION		
BlockDiagram.SchDoc	28V Input, 3V3 3A Output, Step-Down DC-DC Converter		
Aslı Kurt	HAZIRLAYAN / PREPARED BY		
	Aslı Kurt		
YAYIN TARİHİ / REL. DATE		BOYUT / SIZE	SAYFA / SHEET
18.10.2024		A3	2 / 3



DOSYA ADI / FILE NAME PowerConnections.SchDoc		TANIM / DESCRIPTION 28V Input, 3V3 3A Output, Step-Down DC-DC Converter		
Aslı Kurt		HAZIRLAYAN / PREPARED BY Aslı Kurt		
		YAYIN TARİHİ / REL. DATE 18.10.2024	BOYUT / SIZE A3	SAYFA / SHEET 3 / 3

GND

VOUT



C11

C12

C2

C3

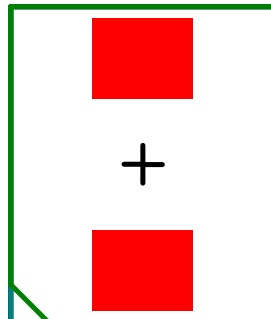


D3

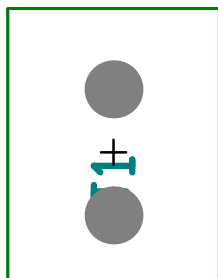
R8



L1



GND



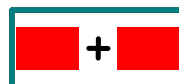
VIN

D2



R7

EN GND SS GND



D1

TP_1

C1



C7

C8

C9

C10

C5

C4

C3

C2

C1

C0

C7

C8

C9

C10

C5

C4

C3

C2

C1

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C11

C12

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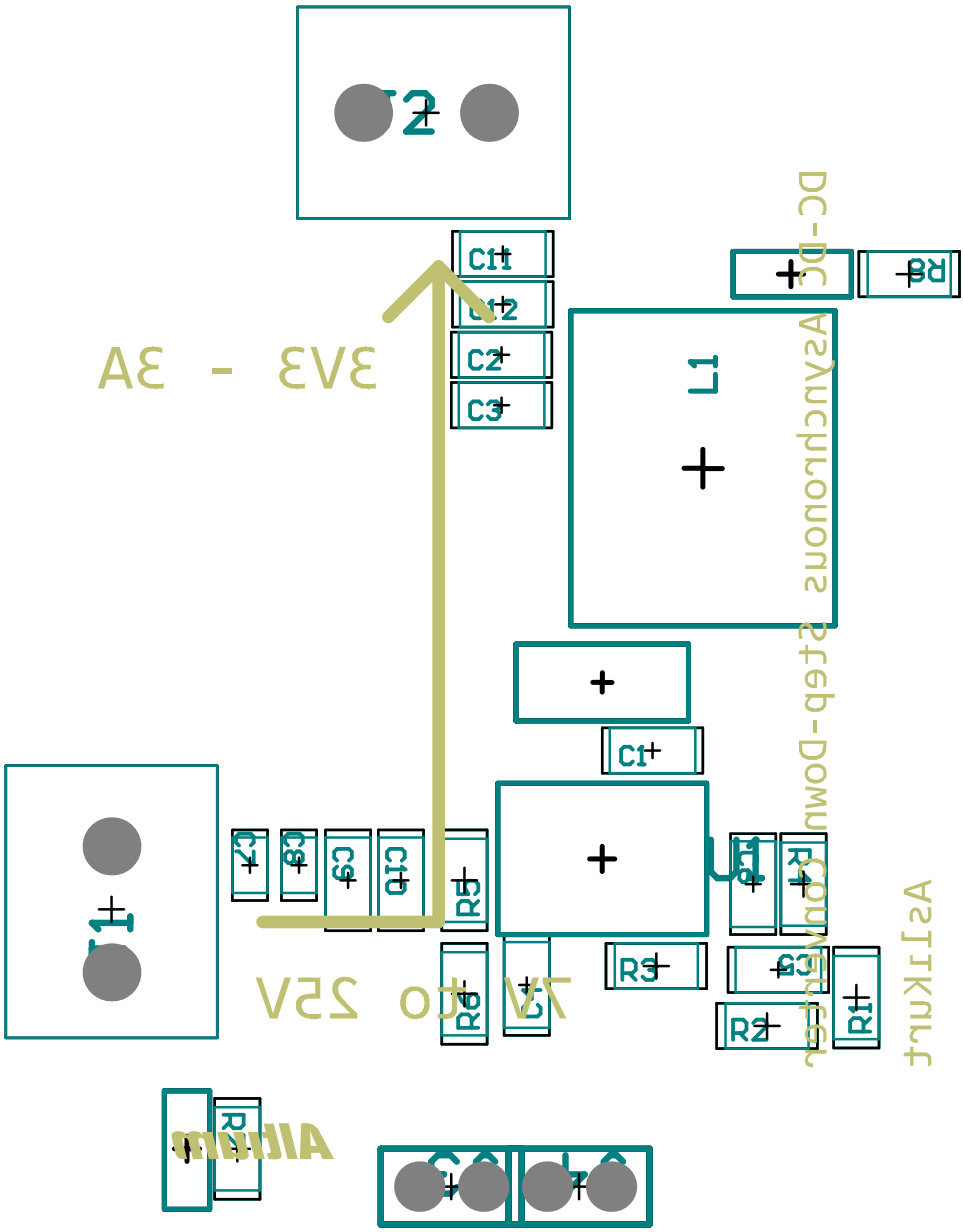
C6

C7

C8

C9

C10



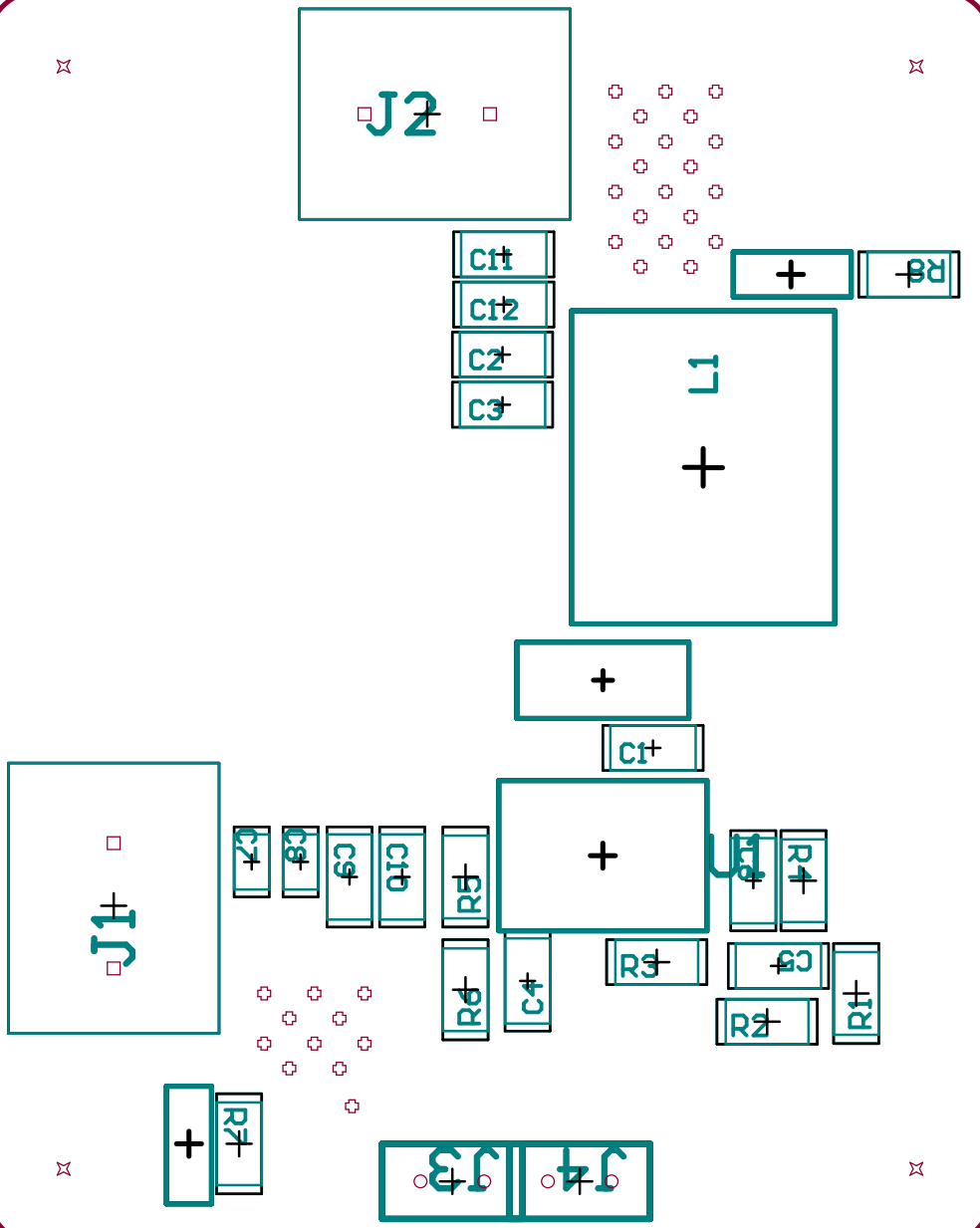
3V3 - 3V

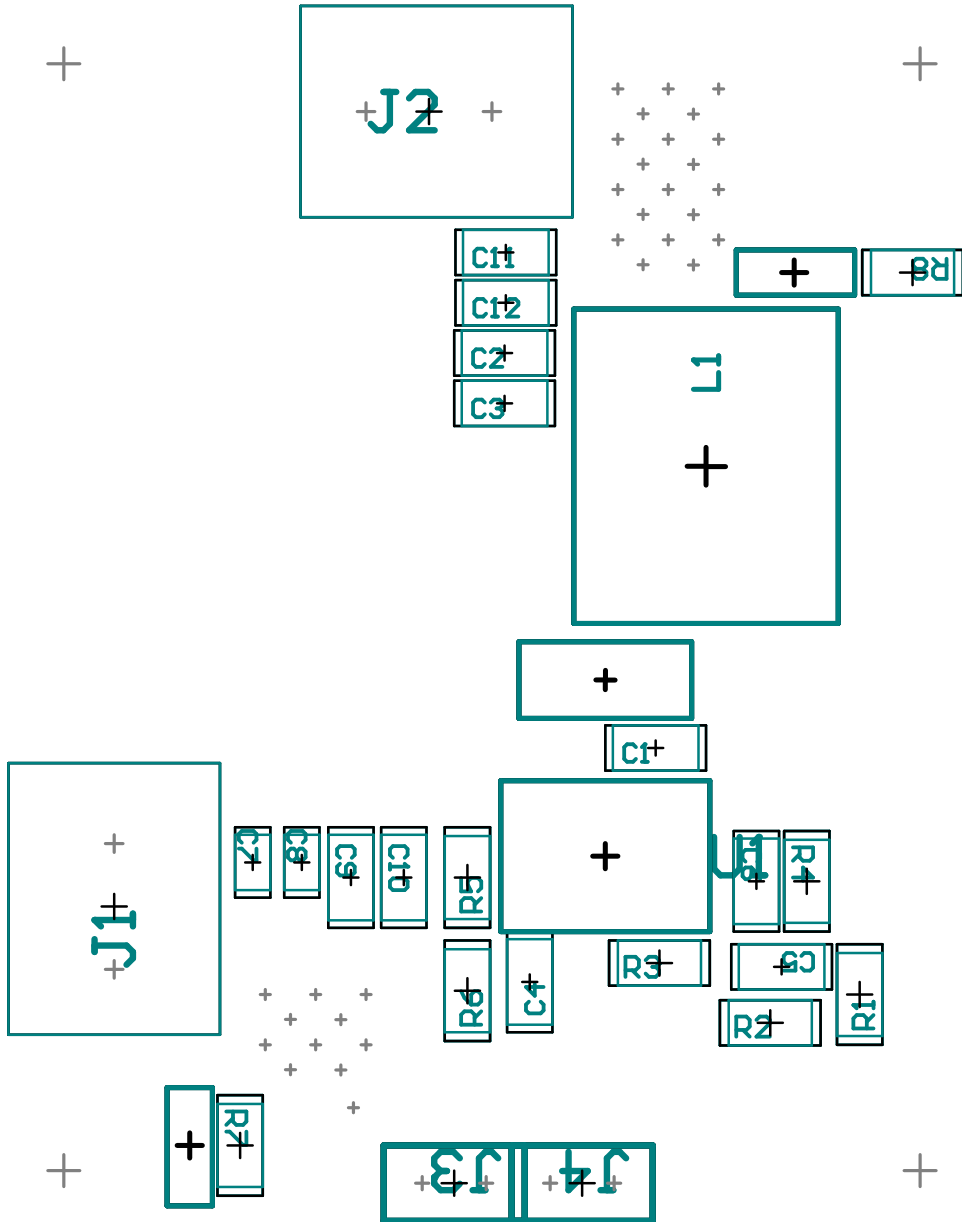
VA to 52A

DC-DC Asynchronous Step-Down Converter

Asynchronous

Asynchronous





Comment	Description	Designator	Footprint	LibRef	Quantity
C1206C104J5RAC7800	CAP CER 0.1uF 50V X7R 1206	C1, C4, C9, C11	CAP_1206	CAP CER 100nF 1206	4
GMC31X5R476M25NT	CAP CER 47uF 25V X5R 1206	C2, C3	CAP_1206	CAP CER 47uF 1206	2
C3216C0G2J102J085A	CAP CER 1nF 1206	C5	CAP_1206	CAP CER 1nF 1206	1
C1206C470J5GAC7800	CAP CER 47pF 50V C0G/NP0 1206	C6	CAP_1206	CAP CER 47pF 1206	1
CL21A475KAQNNNE	CAP CER 4.7uF %10 0805	C7, C8	CAP_0805	CAP CER 4.7uF 0805	2
C3216C0G2J103J160A	CAP CER 10nF 1206	C10, C12	CAP_1206	CAP CER 10nF 1206	2
B340AE-13	Rectifier Diode Schottky 40V 3A 2-Pin SMA T/R	D1	SMA	B340A	1
150120BS75000	Led, Blue, 470 Nm, 3.2 V, 30 Ma, 145 Mcd Rohs Compliant: Yes Wurth Elektronik 150120BS75000	D2	LED_BLUE_1206	LED BLUE 1206	1
150120GS75000	WL-SMCW SMT Mono-Color Chip LED Waterclear	D3	LED_GREEN_1206	LED GREEN 1206	1
282836-2	Connector, Terminal Block; Wire Receptacle; 2 Pos.; 16-30 AWG; 0.197 in. CL; Sd	J1, J2	TERMINAL	2x1 TERMINAL 5mm	2
2x1 Male Header 2.54mm		J3, J4	2x1 Male Header 2.54mm	2x1 Male Header 2.54mm	2
SRI1004	10uH 10X10 4.8A-SMD Güç Bobini - SRI1004	L1	IND_1010	IND 10uH	1
PMR18EJPJ000	Res Thick Film 1206 0 Ohm 5% Molded SMD Paper T/R	R1	RES_1206	RES 0 OHM 1206	1
RC1206JR-0710KL	RES 10K OHM 5% 1/4W 1206	R2	RES_1206	RES 10K OHM 1206	1
RC1206JR-073K3L	RES 3.3K OHM 5% 1/4W 1206	R3	RES_1206	RES 3K3 OHM 1206	1
RES33KOHM5% 1/4W 1206	SMD Chip Resistor, 33 kOhm, 1/2 5%, 250 mW, 1206 [3216 Metric], Thick Film, General Purpose	R4	RES_1206	RES 33K OHM 1206	1
RES330KOHM5% 1/4W 1206	RES 330K OHM 5% 1/4W 1206	R5	RES_1206	RES 330K OHM 1206	1
RES68KOHM5% 1/4W 1206	RES 68K OHM 5% 1/4W 1206	R6	RES_1206	RES 68K OHM 1206	1
RC1206FR-07680RL	SMD Chip Resistor, 680 Ohm, 1/2 1%, 250 mW, 1206 [3216 Metric], Thick Film, General Purpose	R7, R8	RES_1206	RES 680 OHM 1206	2
IC REG BUCK ADJ 3A 8SOIC	3.5V to 28V Input, 3A, 570kHz Step-Down Converter with Eco-mode 8-SOIC -40 to 150	U1	SOIC8_PAD	TPS54331DR	1

Design Rules Verification Report

Filename : C:\Users\asli\Desktop\GITHUB\Buck_Converter\Buck_Converter\Buck_Convert

Warnings 0
Rule Violations 0

Warnings	
Total	0

Rule Violations	
Clearance Constraint (Gap=0.2mm) (All),(All)	0
Short-Circuit Constraint (Allowed=No) (All),(All)	0
Un-Routed Net Constraint ((All))	0
Modified Polygon (Allow modified: No), (Allow shelved: No)	0
Width Constraint (Min=0.16mm) (Max=50mm) (Preferred=10mm) (All)	0
Power Plane Connect Rule(Direct Connect)(Expansion=0.508mm) (Conductor Width=0.254mm) (Air Gap=0.254mm)	0
Minimum Annular Ring (Minimum=0.15mm) (All)	0
Hole Size Constraint (Min=0.15mm) (Max=6.3mm) (All)	0
Hole T o Hole Clearance (Gap=0.254mm) (All),(All)	0
Minimum Solder Mask Sliver (Gap=0.254mm) (All),(All)	0
Silk T o Solder Mask (Clearance=0.2mm) (IsPad),(All)	0
Silk to Silk (Clearance=0.3mm) (All),(All)	0
Net Antennae (Tolerance=0mm) (All)	0
Height Constraint (Min=0mm) (Max=25.4mm) (Preferred=12.7mm) (All)	0
Total	0