Vin : 5.5V to 36V

L15 Optional -- PA4342.103NLT

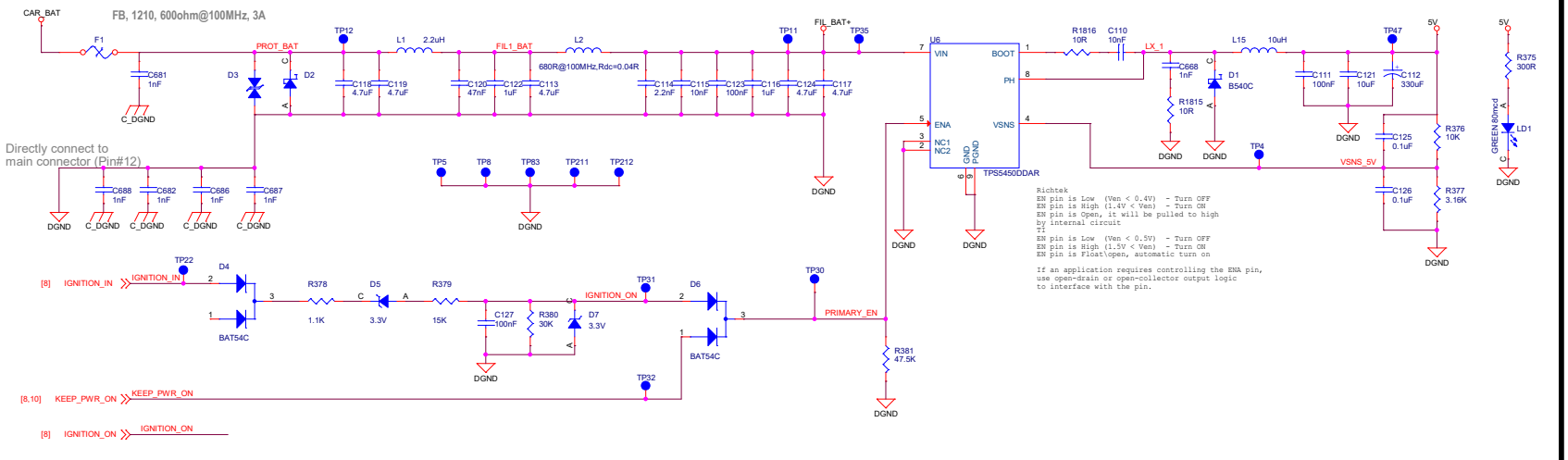
5.0849V = 1.221 X (1 + 10 / 3.16)

Vout = 5V 5A
500-kHz Switching Freq

3.16K => 5.0890V
3.24K => 4.9936V
3.23K => 5.005V

Vout : 5V 5A

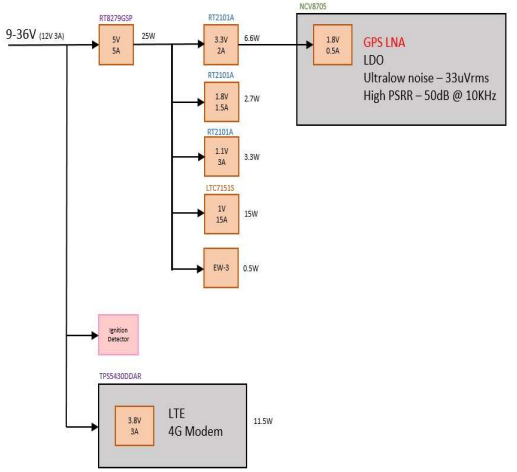
25W



Power Supply Sequence:

Temperature OK -> 5V
Power UP : 5 -> 3.3 -> 1 -> 1.8 -> 1.1 -> Reset
Power Down : 1.1 -> 1.8 -> 1 -> 3.3

LM3881 Simple Power Sequencer
3 Outputs



Vin : 5V

1V Current Measurment:
Peak 3.5A
Min 1.4A

3.8V to 17V Input
0.6V to 5.5V Output
Ven = 1.225V
VREG5 = 4.7V
PGOOD threshold 0.97V, 1.07V

1.006V = 0.6 X (1 + 10K +150 / 15K)

RC = 10mSec

soft-start time (TSS) = 10nF x 0.6V / 6uA

TPS56C215

Vout : 1V 12A

12W

800KHz Switching Freq

Forced Continuous
Conduction Mode
180K\51K 800KHz
Valley Current = 13.8A

FCCM mode
ILIM
1.2MHz

1.0V_SNS and GND_SNS wires from under Eye@4 Ball Point of load under EQ4

Vin : 5V

11.7654K => 1.8V

1.8028V = 0.827 X (1 + 11.8 / 10)

Rt = 85K < Rt < 700K
Fsw = 300KHz < Fsw < 2MHz

RT2101A

Vout : 1.8V 3A

5.4W

Vout = 1.8V 3A
1MHz Switching Freq

Vin : 5V

3.308V = 0.827 X (1 + 30 / 10)

RT2101A

Vout : 3.3V 3A

9.9W

Vout = 3.3V 3A
1MHz Switching Freq

Richtek \ TI
EN pin is Low (Ven < 1.18V) - Turn OFF
EN pin is High (1.25 < Ven) - Turn ON
EN pin is Open, it will be pulled to high by internal circuit

Vin : 5V

Replacment TPS54418RTER

1.0985V = 0.799 X (1 + 8.06 / 21.5)

TPS57114QRTERQ1

Vout : 1.1V 4A

4.4W

Vout = 1.1V 4A
1MHz Switching Freq

1.1V_SNS and 1.1V_GND_SNS wires from under LPDDR4 Ball Point of load under LPDDR4

BD9B300MUV pin 7 res to AVIN for 1MHz
BD9B300MUV pin 8 res to AVIN forces the device to operate in the fixed frequency PWM mode

Mobileye
Mobileye Vision Technologies
12 Hartom St., Jerusalem 91450
Tel: +972(0)2-541-7333
Fax: +972(0)2-541-7300
Site: www.Mobileye.com

Project:	Mobileye8			Board:	BRD000301
Project version:	5.6		Design:	Power	
Sheet:	2	of: 11	Classification:	Confidential	
Size:	A2	Document Number:	<Doc>		

	Name	Date	Signature
Designed:	Haim Giladi	Tuesday, June 29, 2021	
Checked:	Amir Goharian	<C. Date>	
Approved:		<A. Date>	