

Project History

REV	ECO#	DESCRIPTION	DATE
0.1		First version created by Milan Marjanovic	
1.0		Changed conections on matting socket J5 Filter Choke L1 changed value	18.Apr.2019

LABEL3

0.5"


0.313"

02-00001  
Rev. 2  
JIT0416

LABEL Assy Very Small

Drawn By:  
M Marjanovic

Engineer:  
M Marjanovic

 **MICROCHIP**

PartNumber:  
TBD


Project Title  
**00132 4SW Buck Boost 20W**

Sheet Title  
**History**

Size  
B

Sch #:03-00132  
Revision:1

Date: 29/04/2019 13:17:05  
Sheet 1 of 3

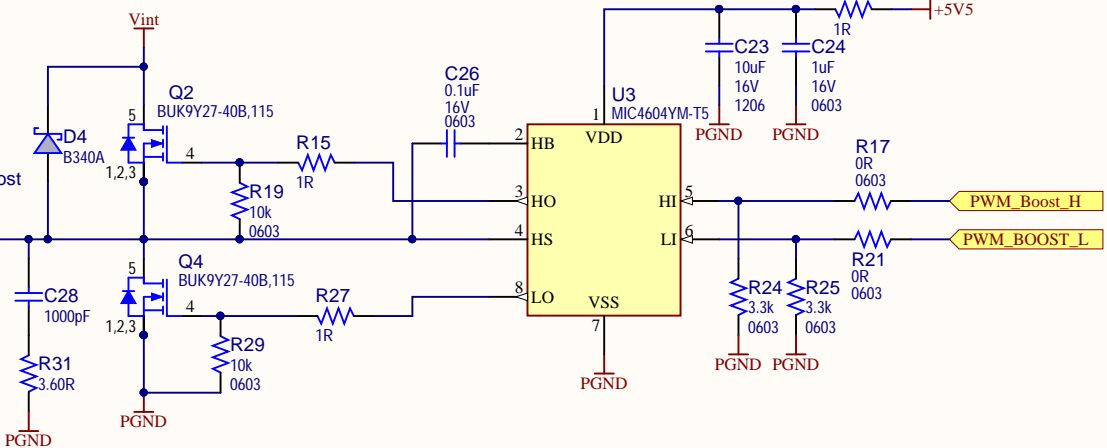
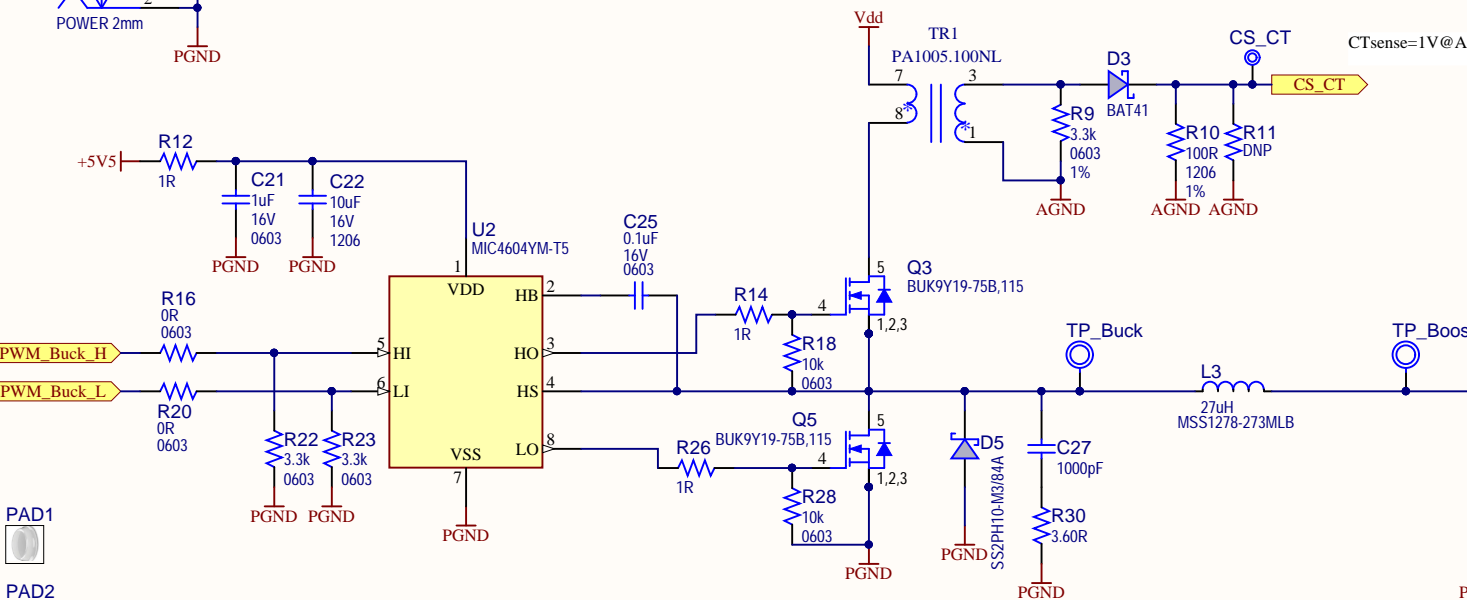
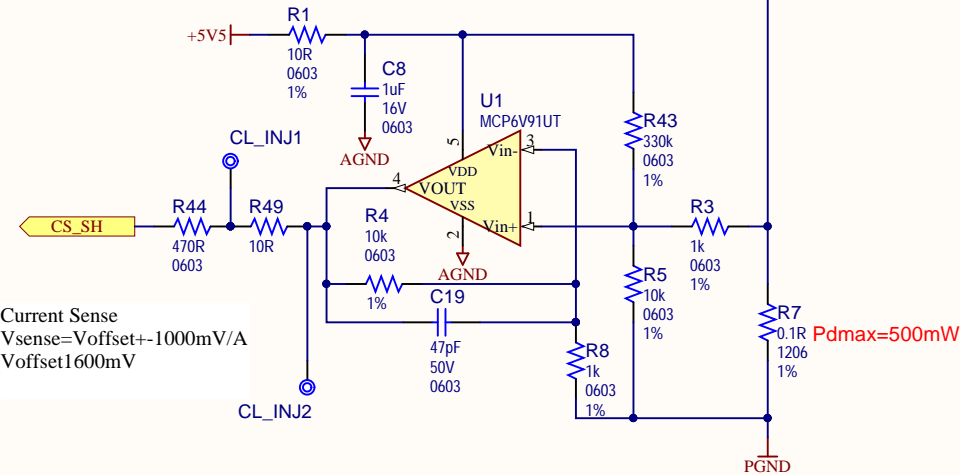
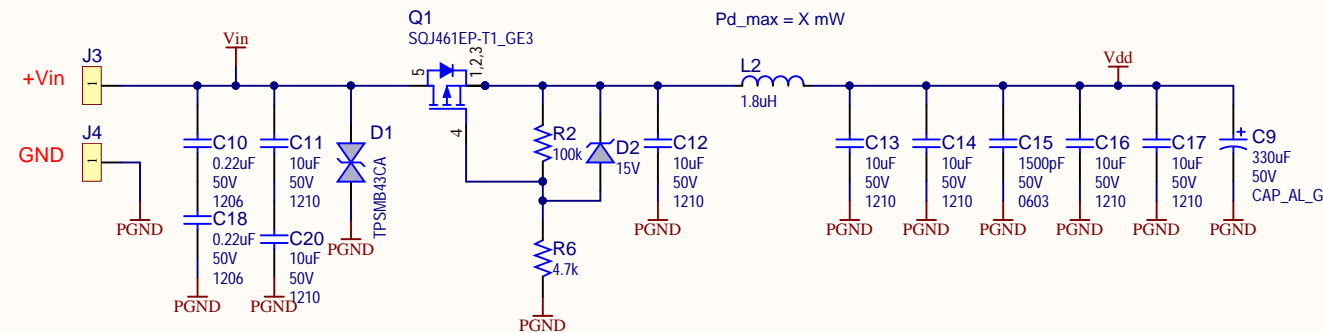
*Designed with*  
  
Altium.com

File: D04-00132 1.0\_History.SchDoc

8V<Uin<18V; 55Vpeak for 1sec  
Vout=0V...20V  
Pout=20W, Iout=1A  
Eta94%  
Ploss=1.5W

Vin>Vout-- Buck mode only  
Vout>Vin--Buck Mode and Boost mode

Controller:  
Fsw=350kHz  
Buck: DFmax=92%, Tmin=200ns  
Boost: DFmax=80% Tmin=200ns  
Peak current or average current mode  
RHPZ\_min 17kHz  
RHPZ @ 13.8V 50kHz

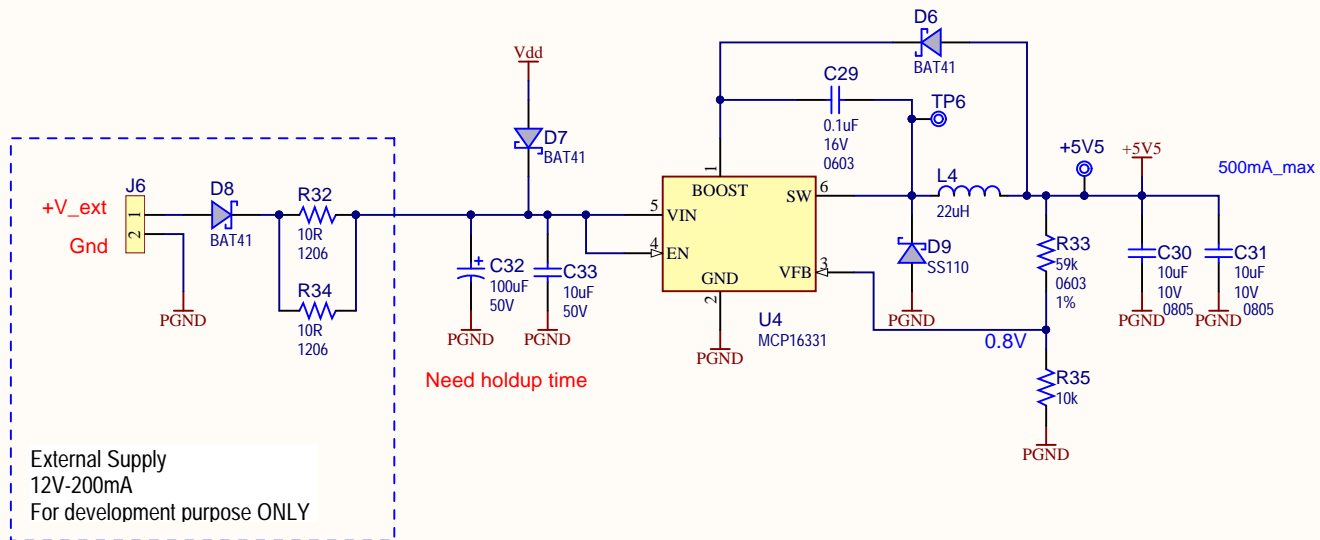




PAD1  
PAD2  
PAD3  
PAD4  
PAD5

Topology can be reduced to 3&half switches  
1A range of output current can be covered by  
diode rectifier  
This will simplify stage and reduce the costs  
Demonstrator shall have place holder for  
MOSFET and HB driver

Vin>Vout-- Buck mode only  
Vout>Vin--Buck Mode and Boost mode

Drawn By: M Marjanovic		MICROCHIP	
Engineer: M Marjanovic			
PartNumber: TBD		Project Title 00132 4SW Buck Boost 20W	
Sheet Title Power Stage		Designed with Altium	
Size B	Sch #03-00132	Date: 29/04/2019 13:17:05	
	Revision:1	Sheet 1 of 3	
File: D01_00132 Power Stage R1.SchDoc			



Drawn By: M Marjanovic		 <b>MICROCHIP</b>	
Engineer: M Marjanovic			
PartNumber: TBD	Project Title <b>00132 4SW Buck Boost 20W</b>		
Sheet Title <b>Auxiliary</b>		Designed with  <a href="http://Altium.com">Altium.com</a>	
Size A	Sch #03-00132	Date: 29/04/2019 13:17:05	
	Revision: 1	Sheet 2 of 3	
File: D02_00132 Auxiliary R1.SchDoc			

