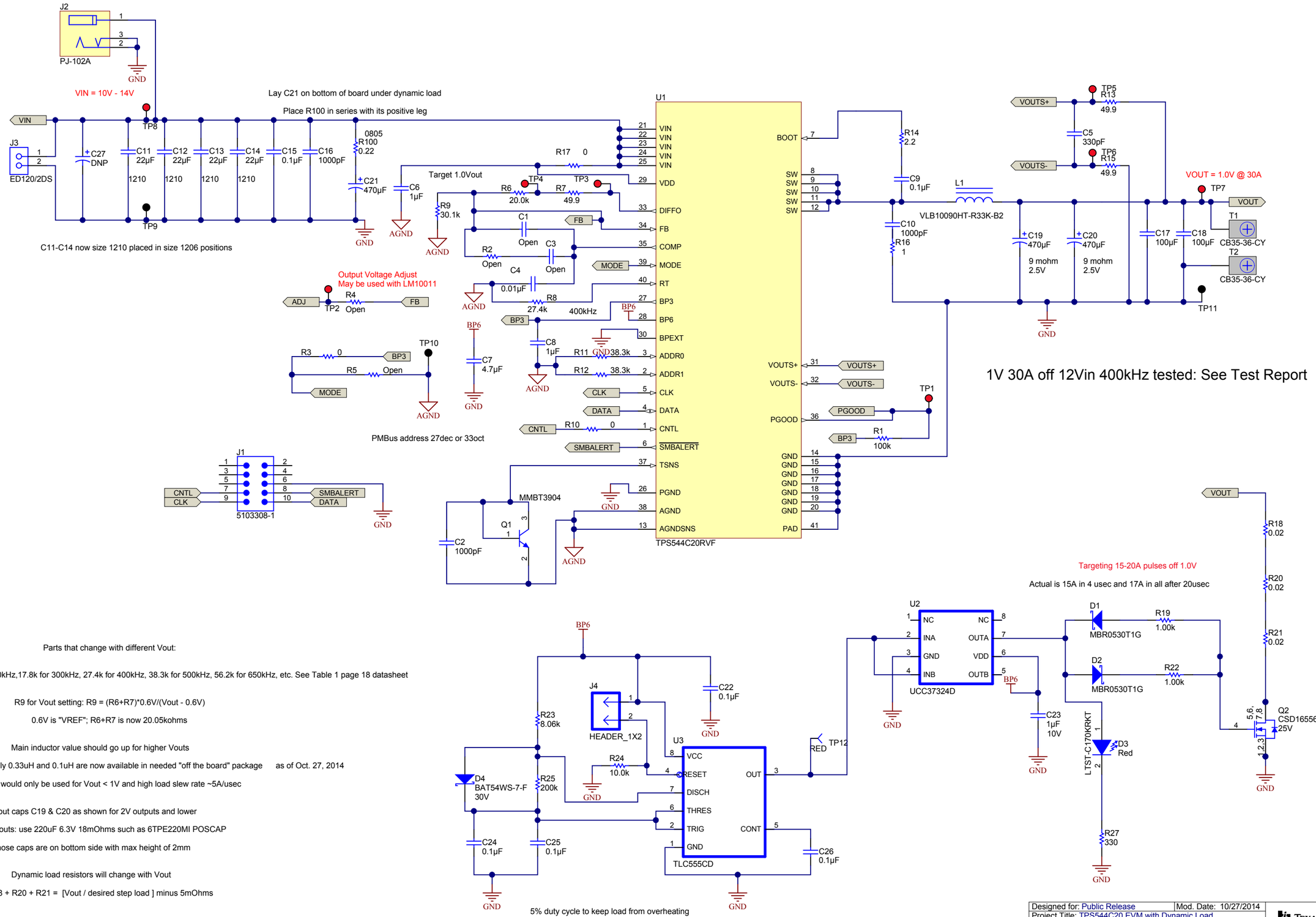
Revision History	
Revision	Notes

Designator
TPS544C20.SchDoc

Designator
Hardware PMP10364.SchDoc

		Designed for: Public Release	Mod. Date: 10/27/2014
		Project Title: TPS544C20 EVM with Dynamic Load	
Number: PMP10364	Rev: A	Sheet Title:	
SVN Rev: Version control disabled		Assembly Variant: 001	Sheet: 1 of 3
Drawn By:		File: Cover PMP10364.SchDoc	Size: B
Engineer: J Mandelcorn / C Sarli		Contact: http://www.ti.com/support	

TEXAS INSTRUMENTS
http://www.ti.com



Parts that change with different Vout:

R8: frequency setting: 10k for 250kHz,17.8k for 300kHz, 27.4k for 400kHz, 38.3k for 500kHz, 56.2k for 650kHz, etc. See Table 1 page 18 datasheet

R9 for Vout setting: R9 = (R6+R7)*0.6V/(Vout - 0.6V)

0.6V is "VREF"; R6+R7 is now 20.05kohms

Main inductor value should go up for higher Vouts

However, only 0.33uH and 0.1uH are now available in needed "off the board" package as of Oct. 27, 2014

0.1uH would only be used for Vout < 1V and high load slew rate ~5A/usec

Output caps C19 & C20 as shown for 2V outputs and lower

For higher Vouts: use 220uF 6.3V 18mOhms such as 6TPE220MI POSCAP

Those caps are on bottom side with max height of 2mm

Dynamic load resistors will change with Vout

R18 + R20 + R21 = [Vout / desired step load] minus 5mOhms

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H1
NY PMS 440 0025 PH

H2
NY PMS 440 0025 PH

H3
NY PMS 440 0025 PH

H4
NY PMS 440 0025 PH

H5
1902C

H6
1902C

H7
1902C

H8
1902C

H9
SJ-5303 (CLEAR)

H10
SJ-5303 (CLEAR)

H11
SJ-5303 (CLEAR)

H12
SJ-5303 (CLEAR)

DNP
FID1

DNP
FID2

DNP
FID3

PCB Number: PMP10364
PCB Rev: A

LBL1
PCB Label
Size: 0.65" x 0.20 "

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