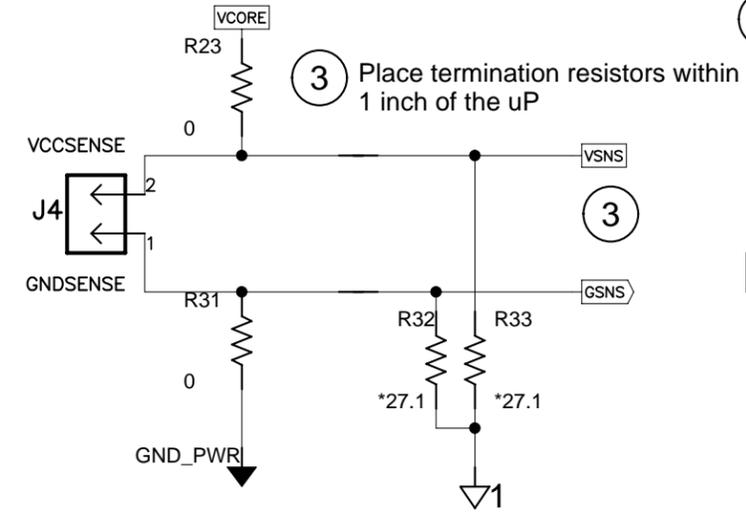
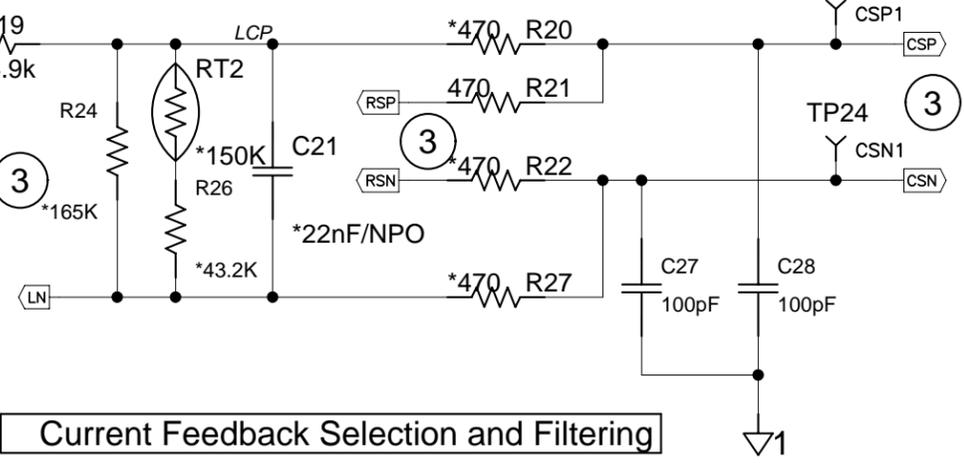


Differential Feedback Termination and Filtering



Current Feedback Selection and Filtering



Q1 Hi side losses at 10A out 300kHz:
 switching: 400mW est
 conducting: 200mW max

modify from Atom / Ciclon EVM

EEFSD0D331R with 7mOhms max used in actual model for C15, C16

Eight 10uF output caps on EVM
 see next page for last 3 caps

Update:
 L1, R8, R6, R10, C15
 add C16 and R34 and C6

Q3 lo side losses at 10A:
 650mW typical when hot

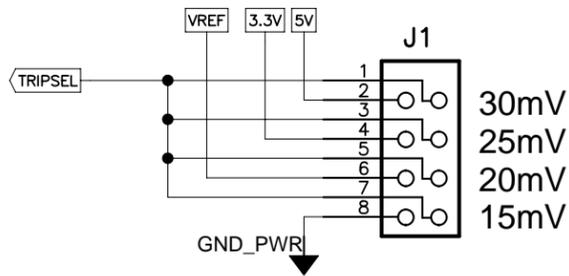
L1 at 10A: 1007mW
 Tested Aug 2-3:
 See Test report

Full load 14A
 Thermal max 10A
 Application settings:
 1.05Vout (VID5,2) to
 1.15Vout(VID4,3,2)
 300kHz for best efficiency

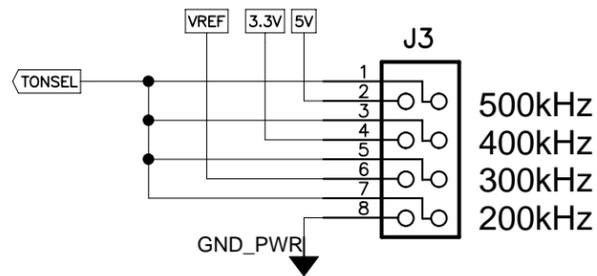
- Notes:
- 1 A "*" before a component value indicates this component is not populated in the standard configuration.
 - 2 These connections require Kelvin connections to the component.
 - 3 These connections are to be run as differential pairs.

Title				TPS51610 EVM: 12Vin 14A out			
Size	Number			Rev			
				PMP5835			A
Date	Tue Aug 03, 2010			Drawn by	Josh Mandelcorn		
Filename	PMP5835_revA.sch			Sheet	1 of 3		

TRIPSEL 1 of 4 Selection Header

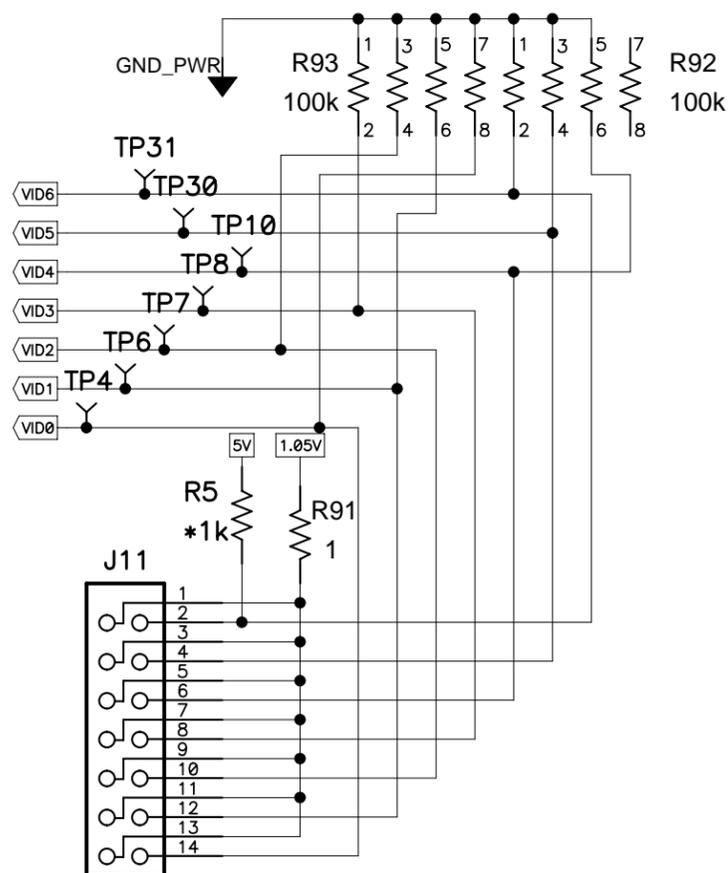


TONSEL 1 of 4 Selection Header



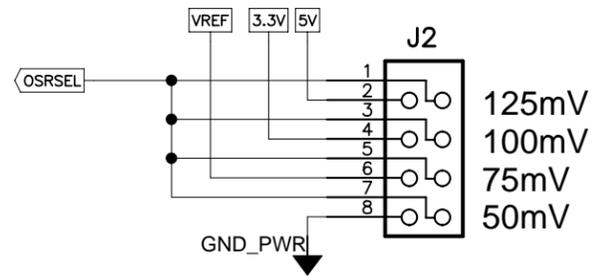
select TRIPSEL at MAX or 30mV
select TONSEL at 300kHz

CPU mode, DNP R5

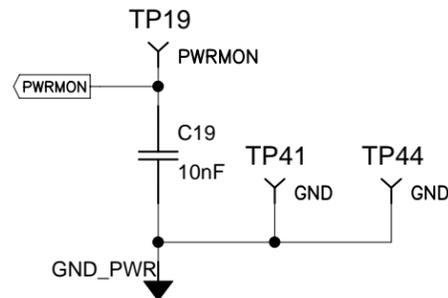


Manual VID Setting
Open = LO

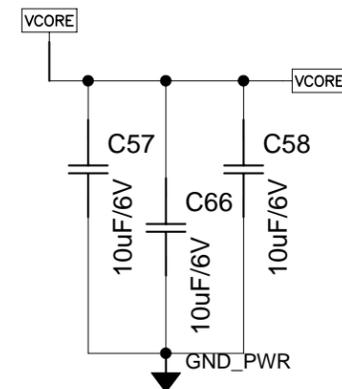
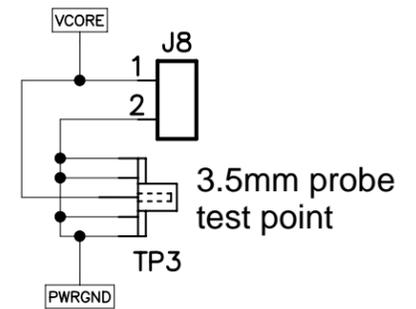
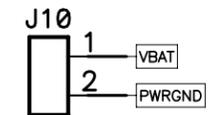
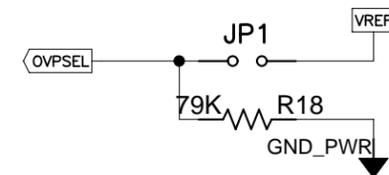
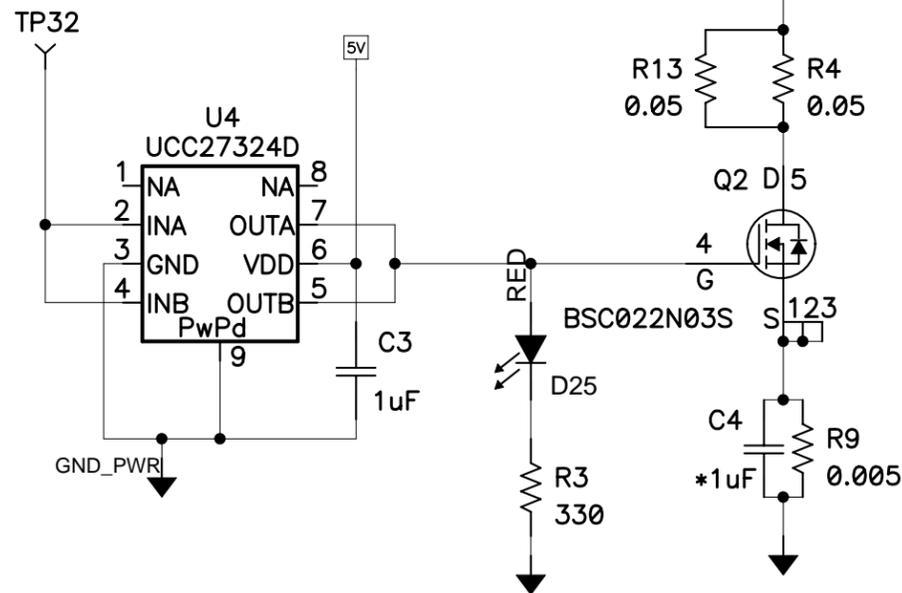
OSRSEL 1 of 4 Selection Header



POWERMON Termination



R12 and R13 piggybacked upon R7, R4 to get close to 10A dynamic step load



remaining 10uF output caps not shown on page 1

Title				TPS51610 EVM: 12Vin 14A out	
Size	Number			Rev	A
Date			Tue Aug 03, 2010	Drawn by	Josh Mandelcorn
Filename			PMP5835_revA.sch	Sheet	2 of 3

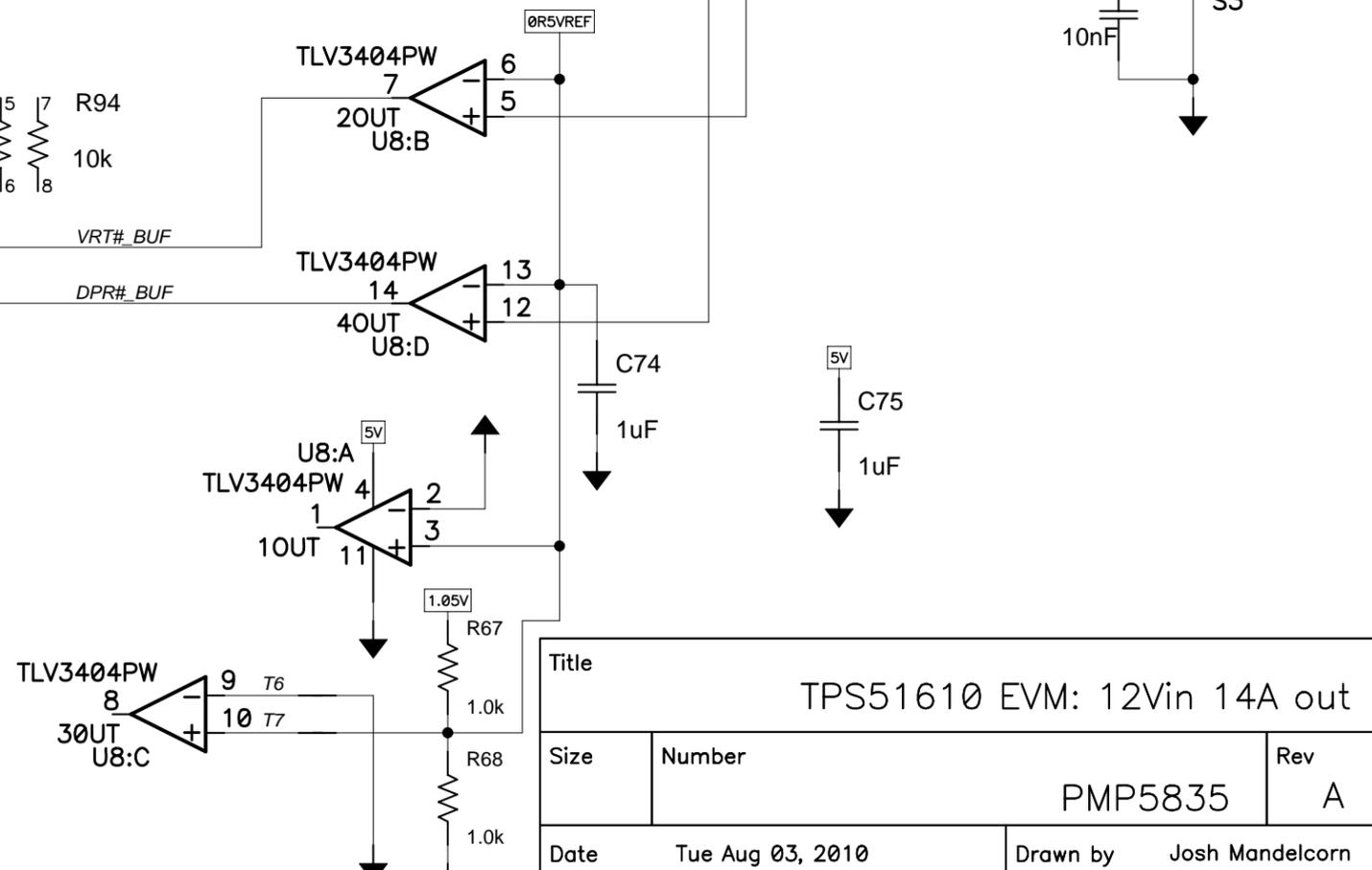
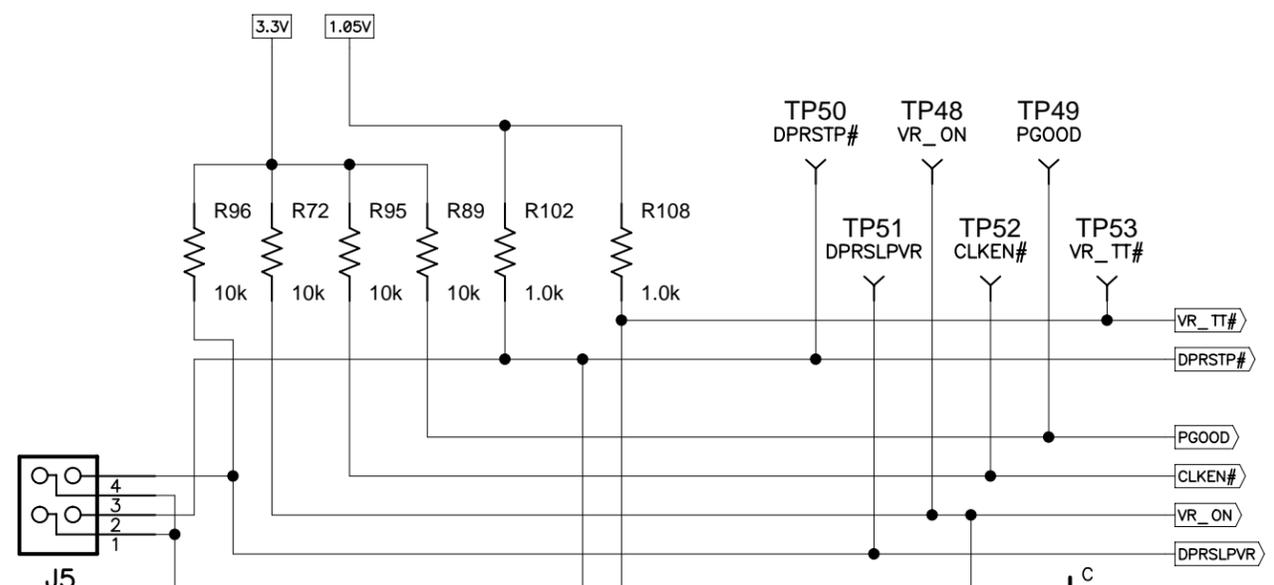
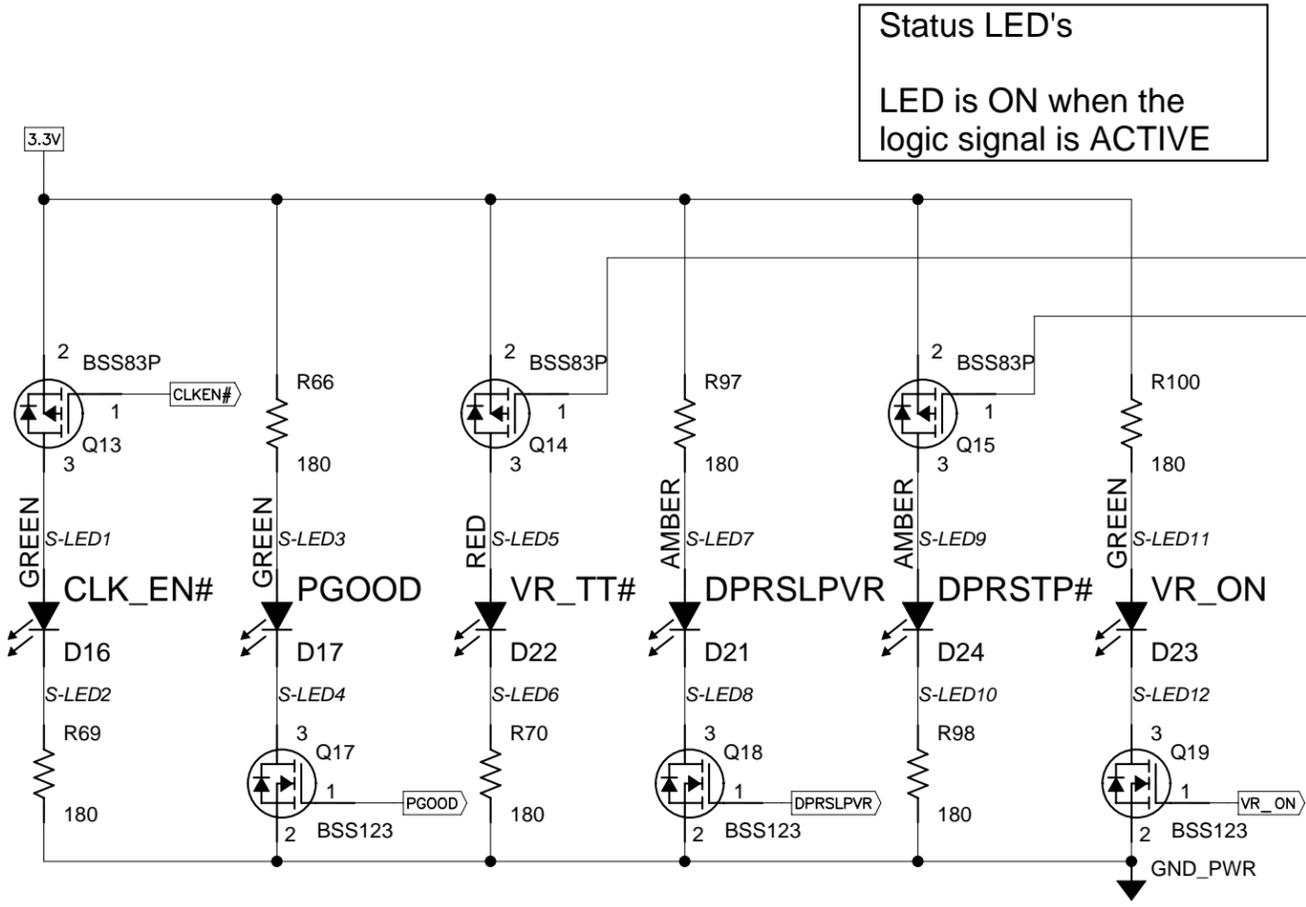
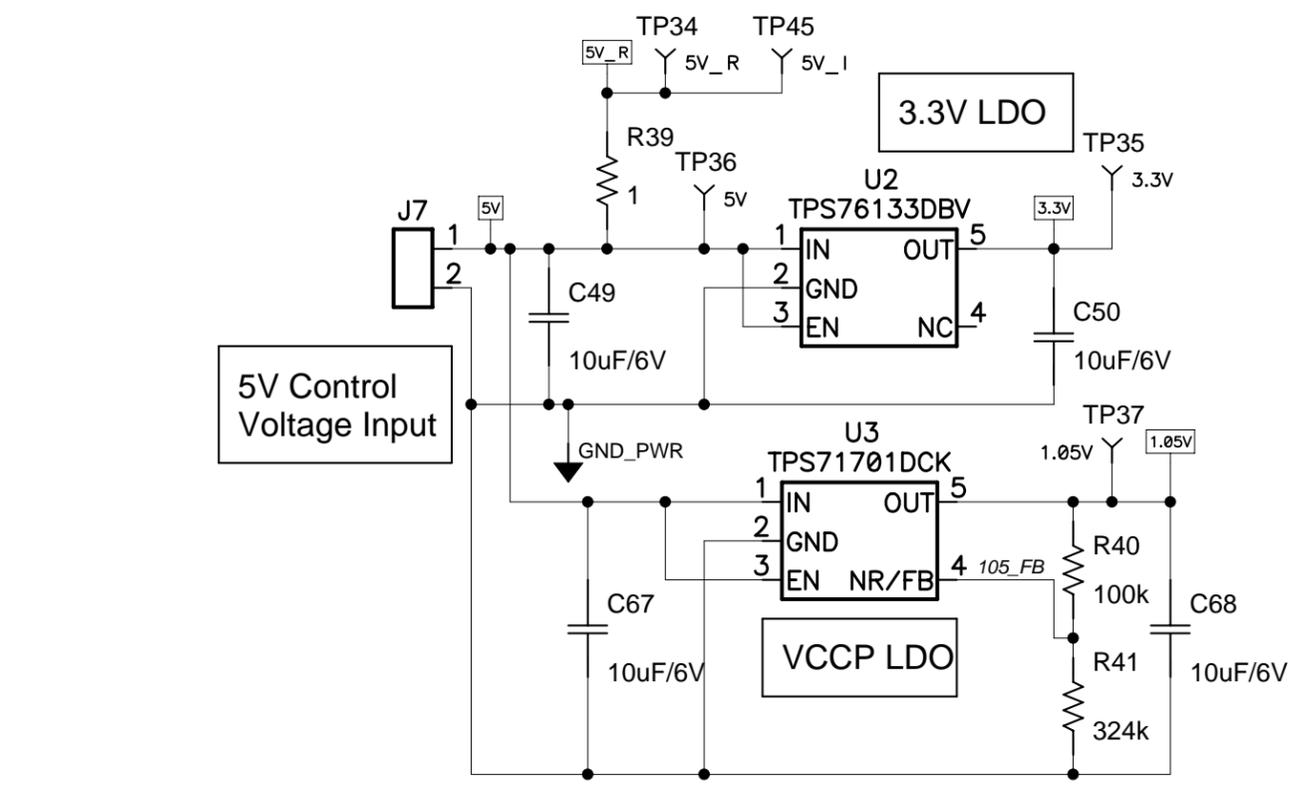
Logic Signal Termination and Manual Control

5V Control Voltage Input

3.3V LDO

VCCP LDO

Status LED's
LED is ON when the logic signal is ACTIVE



Title			TPS51610 EVM: 12Vin 14A out		
Size	Number	Rev		A	
Date		Tue Aug 03, 2010		Drawn by Josh Mandelcorn	
Filename		PMP5835_revA.sch		Sheet 3 of 3	

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