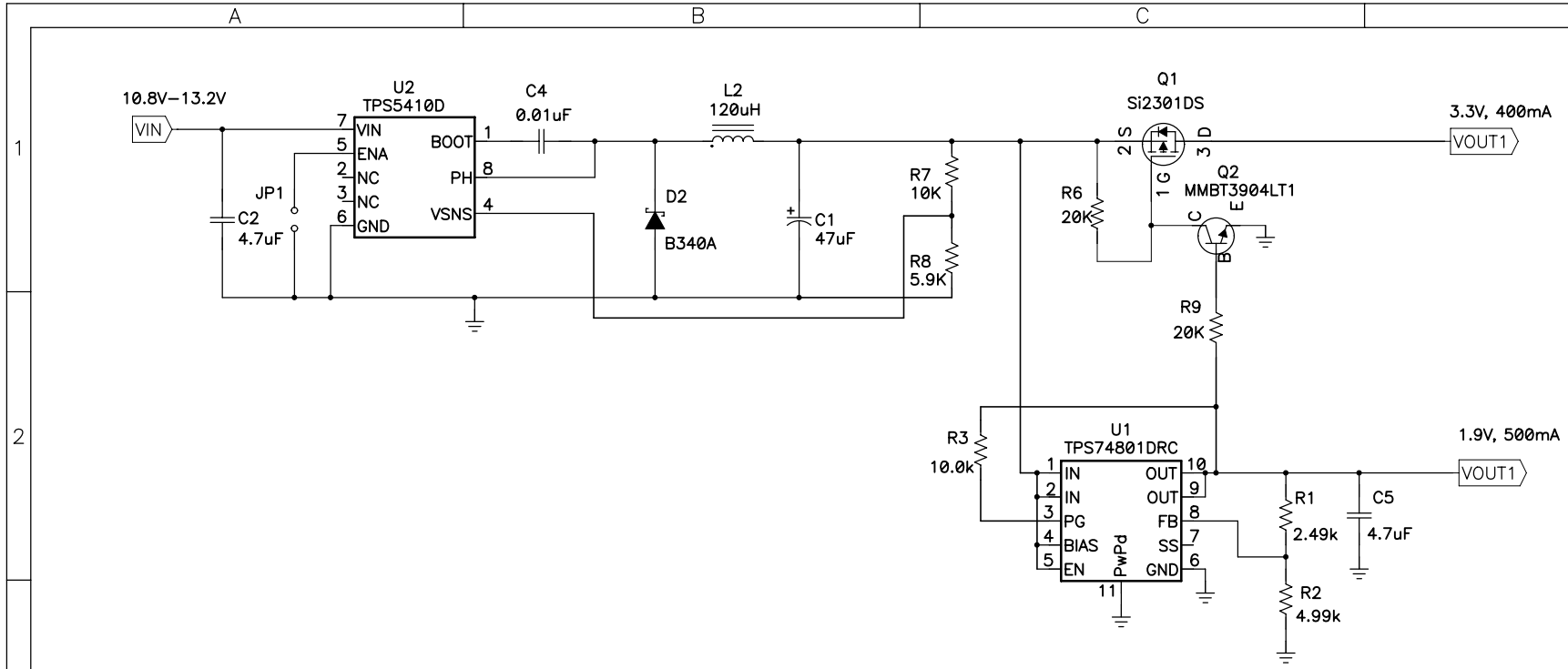

TEXAS INSTRUMENTS

Title: F2833x Power Reference Design		
Size: B	Number: PMP3780	Rev: A
Date: 07/14/08		Drawn by: K Ohn
Filename: PMP3780.sch		Sheet of

Filename: PMP3780_bom.xls
Date: 07/14/2008

PMP3780 BOM

Count	RefDes	Value	Description	Size	Part Number	MFR
1	C1	47uF	Capacitor, Tantalum, 16V	7343 (D)	TPSD476M016R0200	AVX
1	C2	4.7uF	Capacitor, Ceramic, 50V, X5R, 20%	1812	C4532X5R1H475MT	TDK
1	C4	0.01uF	Capacitor, Ceramic, 50V, X7R, 10%	603	C1608X7R1H103K	TDK
1	C5	4.7uF	Capacitor, Ceramic, 6.3V, X5R, 10%	603	C1608X5R0J475K	TDK
1	D2	B340A	Diode, Schottky, 3A, 40V	SMA	B340A	Diodes Inc
1	JP1	PTC36SAAN	Header, 2 pin, 100mil spacing, (36-pin strip)	0.100 inch x 2	PTC36SAAN	Sullins
1	L2	120uH	Inductor, SMT, 2.3A, 130milliohm	0.484 x 0.484 inch	MSS1260-683MLB	Coilcraft
1	Q1	Si2301DS	MOSFET, P-ch, -20V, -2.3A, 130 milliohms	SOT23	Si2301DS	Vishay
1	Q2	MMBT3904LT1	Bipolar, NPN, 40-V, 200-mA, 0.350-W	SOT23	MMBT3904LT1	On Semi
1	R1	2.49k	Resistor, Chip, 1/16W, 1%	603	Std	Std
1	R2	4.99k	Resistor, Chip, 1/16W, 1%	603	Std	Std
1	R3	10.0k	Resistor, Chip, 1/16W, 1%	603	Std	Std
1	R6	20k	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std
1	R7	10k	Resistor, Chip, 10K-Ohms, 1/16-W, 1%	603	Std	Std
1	R8	5.9k	Resistor, Chip, 5.9K-Ohms, 1/16-W, 1%	603	Std	Std
1	R9	20k	Resistor, Chip, 20K-Ohms, 1/16-W, 1%	603	Std	Std
1	U1	TPS74801DRC	IC, 1.5A LDO Regulator with Soft-Start	SON-10	TPS74801DRC	TI
1	U2	TPS5410D	IC, Switching Step-Down Regulator, vvV, yyA,	SO8	TPS5410D	TI

1 Power Up

The figure below shows the startup waveforms. The outputs voltages shown are at full load. (1.9-V=1.00V/div, 3.3-V=1.00V/div, 2ms/div)

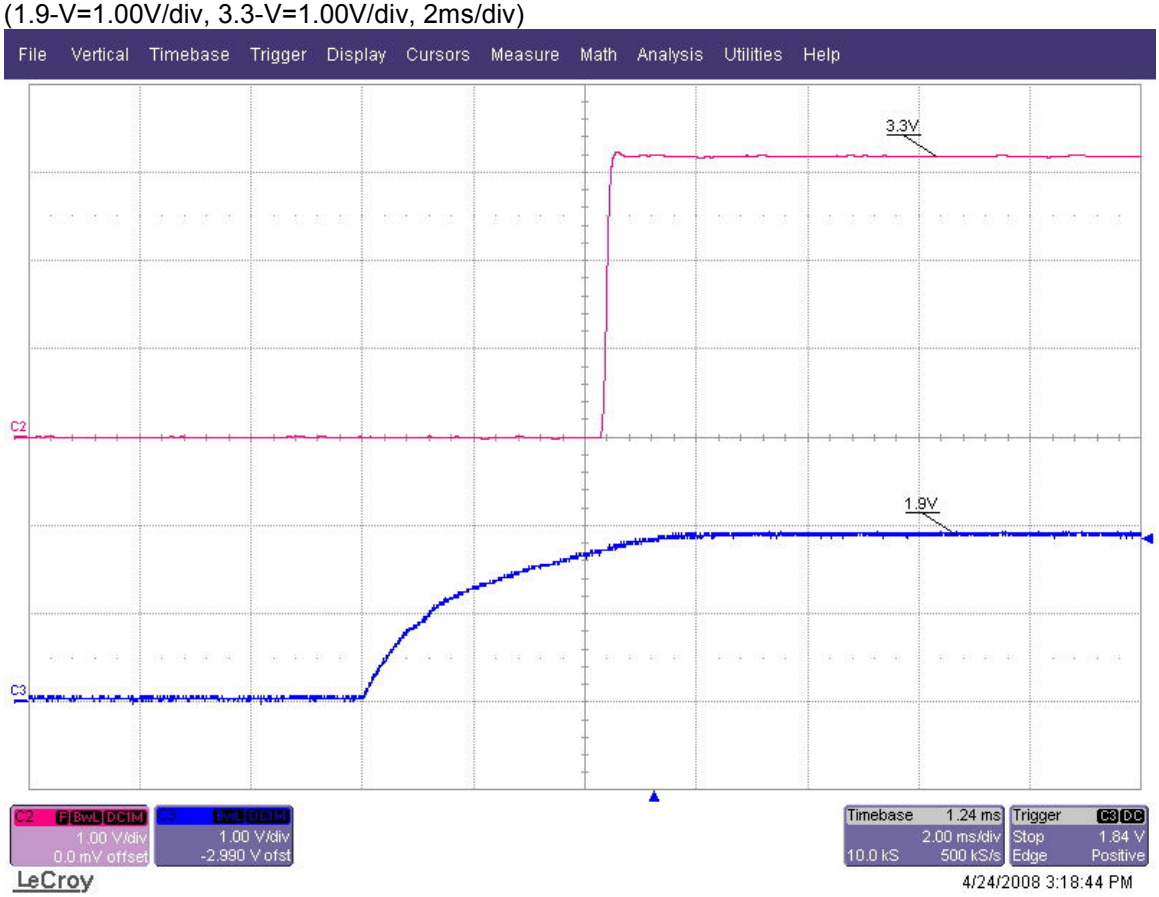

Figure 1. Power Up with 12-V Input

2 Power Down

The figure below shows the power down waveforms. The outputs voltages shown are at full load. (1.9-V=1.00V/div, 3.3-V=1.00V/div, 1ms/div)

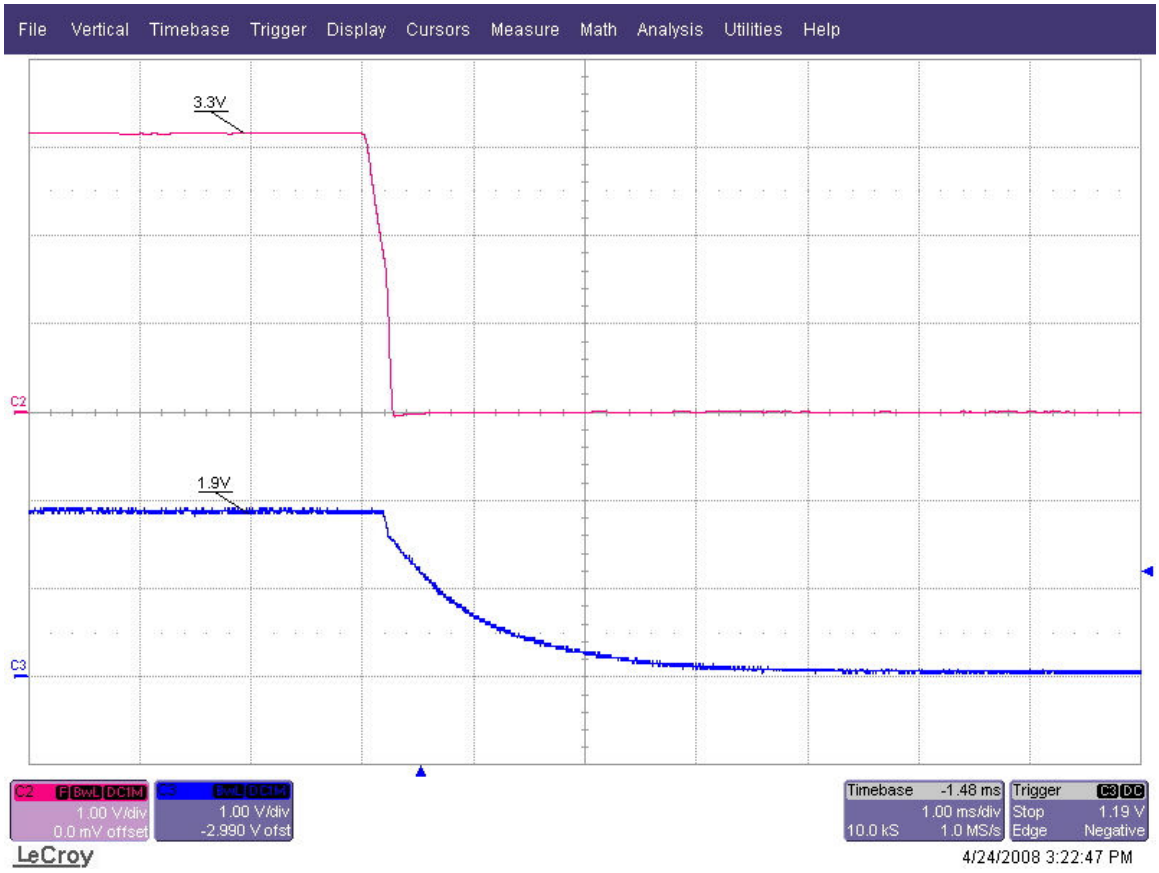

Figure 3. Power Down with 12-V Input

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