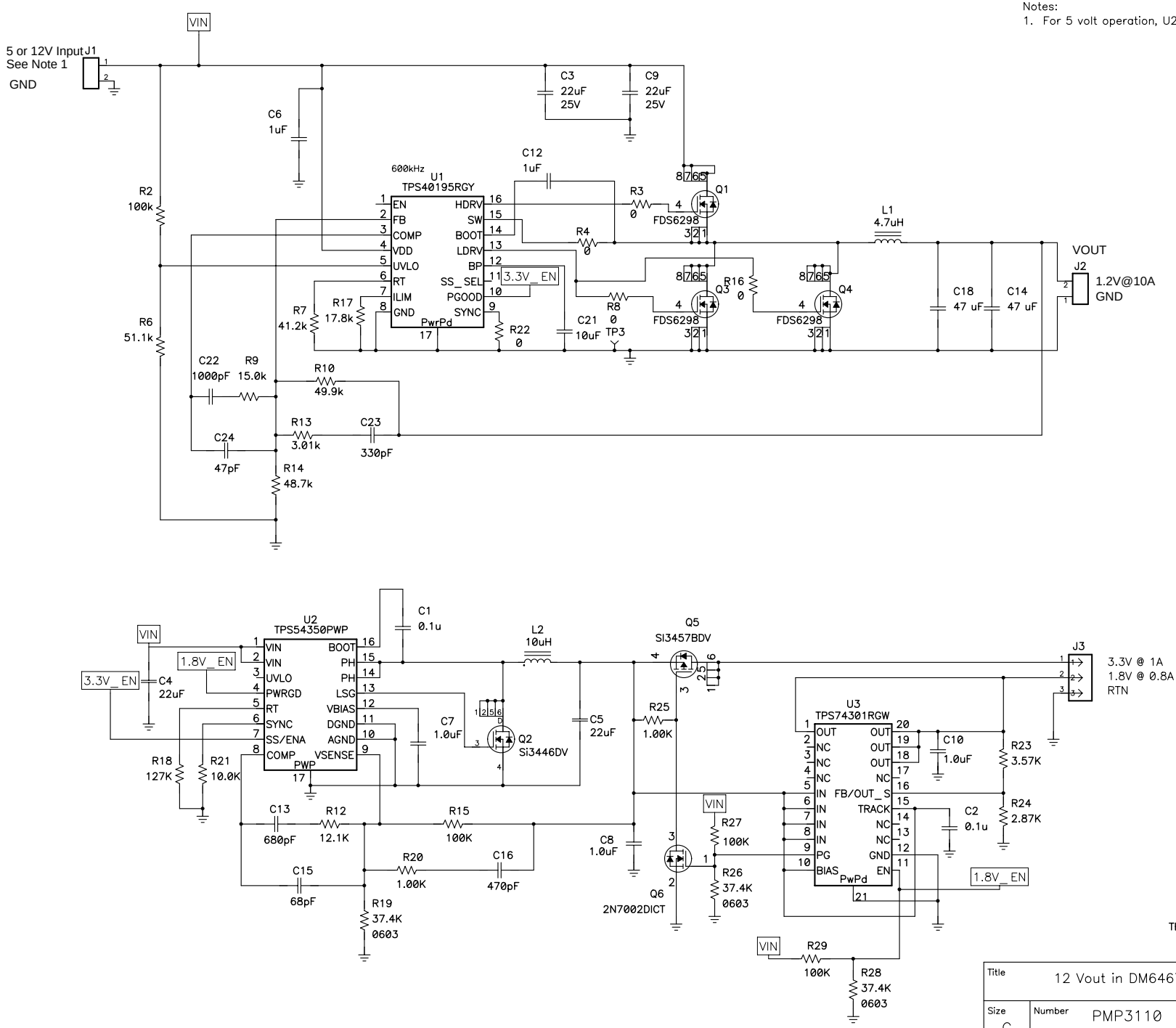
Notes:
1. For 5 volt operation, U2 should be TPS54550.
5 or 12V Input
See Note 1
GND
J1
VIN
C6
1uF
C3
22uF
25V
C9
22uF
25V
C12
1uF
600kHz
U1
TPS40195RGY
EN
FB
COMP
VDD
UVLO
RT
ILIM
GND
HDRV
SW
BOOT
LDRV
BP
SS_SEL
PGOOD
SYNC
PwrPd
R2
100k
R6
51.1k
R7
41.2k
R17
17.8k
R3
0
R4
0
R8
0
R22
0
C21
10uF
TP3
3.3V_EN
Q1
FDS6298
Q3
FDS6298
R16
0
Q4
FDS6298
L1
4.7uH
C18
47 uF
C14
47 uF
VOUT
J2
1.2V@10A
GND
C22
1000pF
R9
15.0k
R10
49.9k
R13
3.01k
C23
330pF
C24
47pF
R14
48.7k
U2
TPS54350PWP
VIN
VIN
UVLO
PWRGD
RT
SYNC
SS/ENA
COMP
BOOT
PH
PH
LSG
VBIAS
DGND
AGND
VSENSE
PWP
C1
0.1u
L2
10uH
1.8V_EN
3.3V_EN
C4
22uF
R18
127K
R21
10.0K
C7
1.0uF
Q2
Si3446DV
C5
22uF
Q5
SI3457BDV
R25
1.00K
J3
3.3V @ 1A
1.8V @ 0.8A
RTN
U3
TPS74301RGW
OUT
NC
NC
NC
IN
IN
IN
IN
PG
BIAS
OUT
OUT
NC
FB/OUT_S
TRACK
NC
NC
GND
EN
PwPd
C10
1.0uF
R23
3.57K
R24
2.87K
C2
0.1u
1.8V_EN
C13
680pF
R12
12.1K
R15
100K
C15
68pF
R20
1.00K
C16
470pF
R19
37.4K
0603
C8
1.0uF
Q6
2N7002DICT
R27
100K
R26
37.4K
0603
R29
100K
R28
37.4K
0603
TEXAS INSTRUMENTS
Title
12 Vout in DM6467 x 2
Size
C
Number
PMP3110
Rev
D
Date
12-28-2007
Drawn by
R Kollman
Filename
PMP3110_REV_D.sch
Sheet
1
of
1

Filename: PMP3110_REV_D_bom.xls
Date: 06/20/2008

PMP3110_REV_D BOM

COUNT	RefDes	Value	Description	Size	Part Number	MFR
2	C1, C2	0.1u	Capacitor, Ceramic, 0.1uF, 50V, X7R, 0603		Std	Std
1	C12	1uF	Capacitor, Ceramic, 0603, 6.3V	0603	Std	Std
1	C13	680pF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	TDK
2	C14, C18	47 uF	Capacitor, Ceramic, 1210, 6.3V, X5R	1210	Std	Std
1	C15	68pF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	TDK
1	C16	470pF	Capacitor, Ceramic, 50V, X7R, 15%	0603	Std	TDK
1	C21	10uF	Capacitor, Ceramic, xxx-uF, 6.3-V, X5R	0603	std	std
1	C22	1000pF	Capacitor, Ceramic, 0603, X7R	0603	Std	Std
1	C23	330pF	Capacitor, Ceramic, NPO, 0603	0603	Std	Std
1	C24	47pF	Capacitor, Ceramic, 0603	0603	Std	Std
2	C3, C9	22uF	Capacitor, Ceramic, 1210, 25V, X7R	1210	C3225X5R1E226K	TDK
2	C4, C5	22uF	Capacitor, Ceramic, 16V, X7R, 15%	1210	Std	TDK
1	C6	1uF	Capacitor, Ceramic, 25V, X7R	0805	std	std
3	C7, C8, C10	1.0uF	Capacitor, Ceramic, 16V, X7R, 15%	0603	Std	TDK
1	J1	ED1609-ND	Terminal Block, 2-pin, 15-A, 5.1mm	0.40 x 0.35	ED1609	OST
1	J2		Terminal Block, 2-pin, 15-A, 5.1mm	0.40 x 0.35	ED1609	OST
1	J3	PTC36SAAN	Header, Male 3-pin, 100mil spacing, (36-pin strip)	0.100 inch x 3	PTC36SAAN	Sullins
1	L1	4.7uH	Inductor, SMT, 12A, 15-milliohm	0.51 x 0.51 inch	IHLP5050EZER4R7M01	Vishay
1	L2	10uH	Inductor, SMT, 2.5-A, 129-milliohm	0.255 x 0.270 inch	IHLP2525BDER100M01	Vishay
3	Q1, Q3, Q4	FDS6298	MOSFET, N-ch, 30-V, 13-A, 9.0-milliOhms	SO8	FDS6298	Fairchild
1	Q2	Si3446DV	MOSFET, N-ch, 20-V,5-A, 45-milliOhms	TSOP-6	Si3446DV	Vishay
1	Q5	SI3457BDV	MOSFET, Pch, -30V, -5A , 54milliOhms	TSOP-6	SI3457BDV	Vishay
1	Q6	2N7002DICT	MOSFET, N-ch, 60-V, 115-mA, 1.2-Ohms	SOT23	2N7002DICT	Vishay-Liteon
1	R10	49.9k	Resistor, Chip, 0603, 1%	0603	Std	Std
1	R12	12.1K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R13	3.01k	Resistor, Chip, 0603	0603	Std	Std
1	R14	48.7k	Resistor, Chip, 0603, 1%	0603	Std	Std
3	R15, R27, R29	100K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R16	0	Resistor, Chip, 1/16W, yy%	0603	Std	Std
1	R17	17.8k	Resistor, Chip, 0603, 1%	0603	Std	Std
1	R18	127K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
3	R19, R26, R28	37.4K	Resistor, Chip, 34.8, 0603	0603	Std	Std
1	R2	100k	Resistor, Chip, 0603, 1%	0603	Std	Std
2	R20, R25	1.00K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R21	10.0K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R22	0	Resistor, Chip, 0603, 1%	0603	Std	Std
1	R23	3.57K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R24	2.87K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
3	R3, R4, R8	0	Resistor, Chip, xx-Ohms, 1/16-W, yy%	0603	Std	Std
1	R6	51.1k	Resistor, Chip, 0603, 1%	0603	Std	Std
1	R7	41.2k	Resistor, Chip, 0603, 1%	0603	Std	Std
1	R9	15.0k	Resistor, Chip, 0603, 1%	0603	Std	Std
1	TP3	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
1	U1	TPS40195RGY	IC, 4.5V to 20V Sync buck controller with sync and pgood	QFN-16	TPS40195RGY	TI
1	U2	TPS54350PWP	IC, Mid-Vin, 3-A Swift Regulator	PWP16	TPS54350PWP	TI
1	U3	TPS74301RGW	IC, 1.5a LDO With Programmable Sequencing	QFN-20	TPS74301RGW	TI

Notes:
1. These assemblies are ESD sensitive, ESD precautions shall be observed.
2. These assemblies must be clean and free from flux and all contaminants.
   Use of no clean flux is not acceptable.
3. These assemblies must comply with workmanship standards IPC-A-610 Class 2.
4. Ref designators marked with an asterisk ('**') cannot be substituted.
   All other components can be substituted with equivalent MFG's components.

PMP3110 Power-on Sequencing
This design meets the low-to-high power-on sequencing as required by the DM6467.

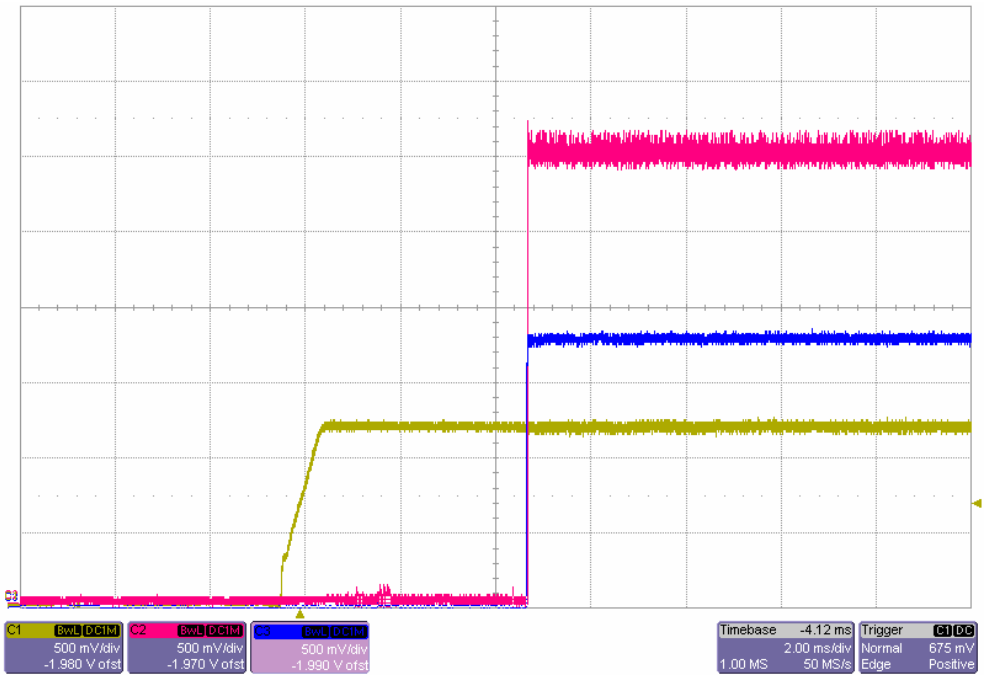

Fig. 1 Power-on Sequencing

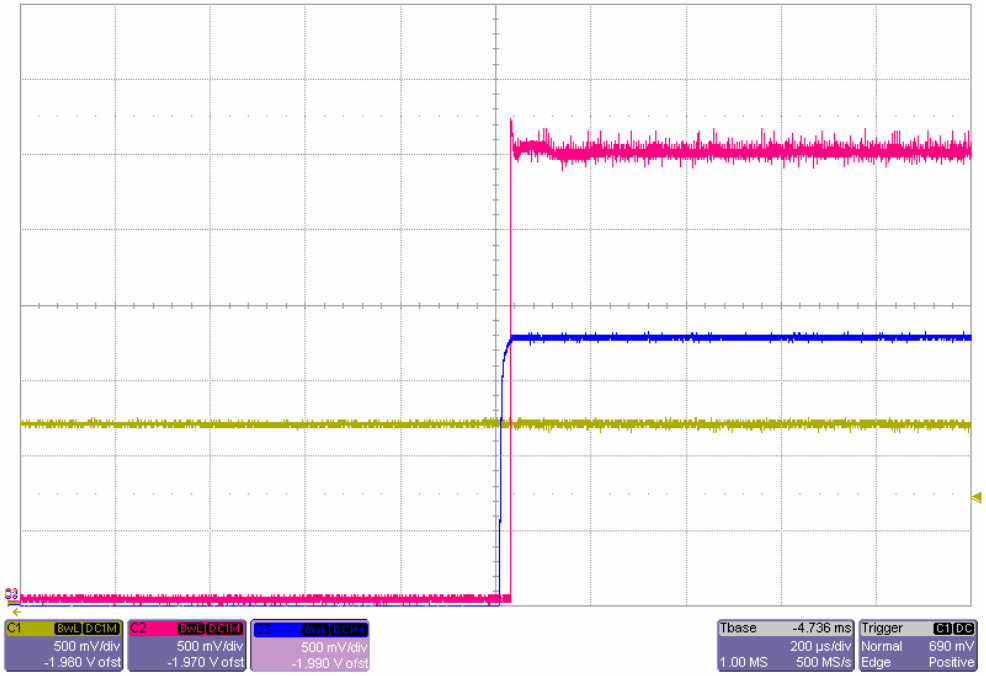

Fig. 2 Power-on Sequencing (zoomed in). Shows that 1.8V rises before 3.3V