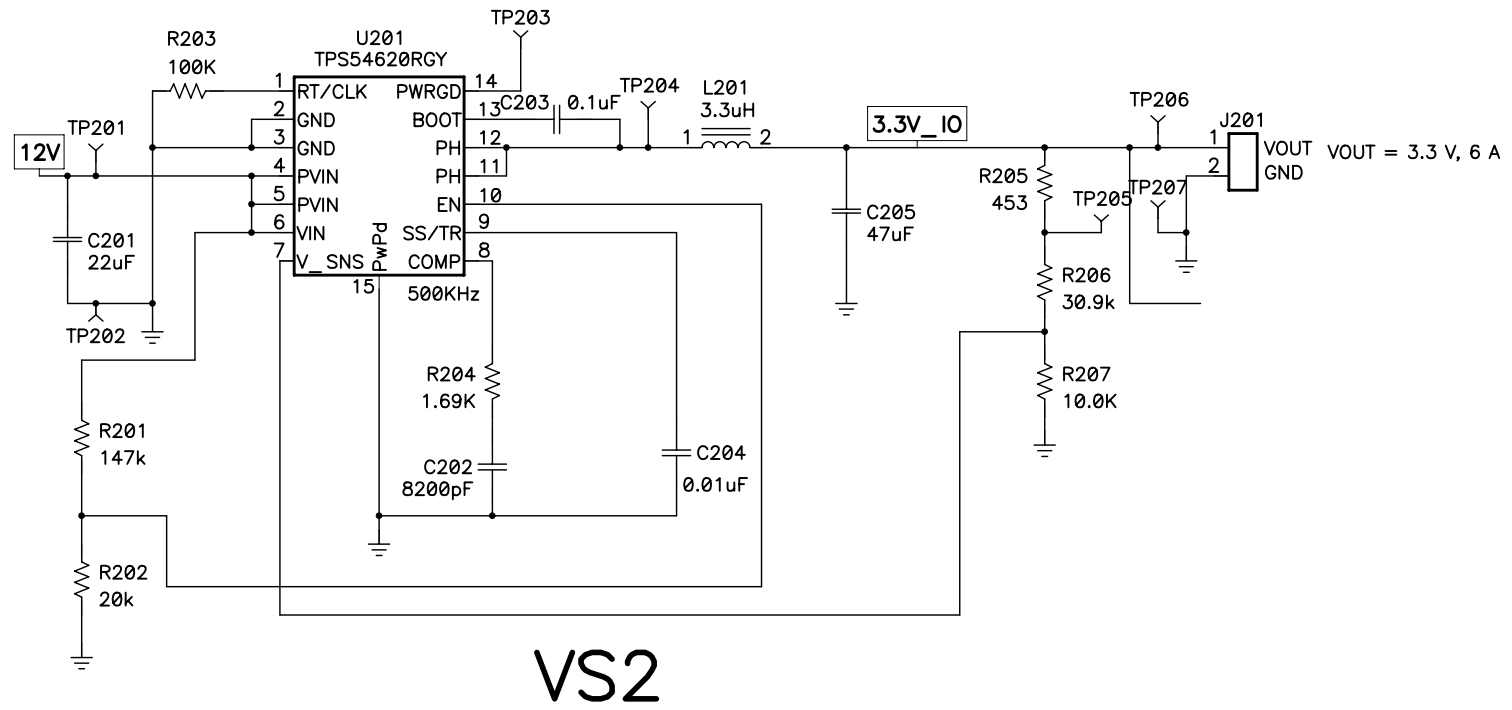


Taken from TPS54231EVM-372 or HPA372 E1

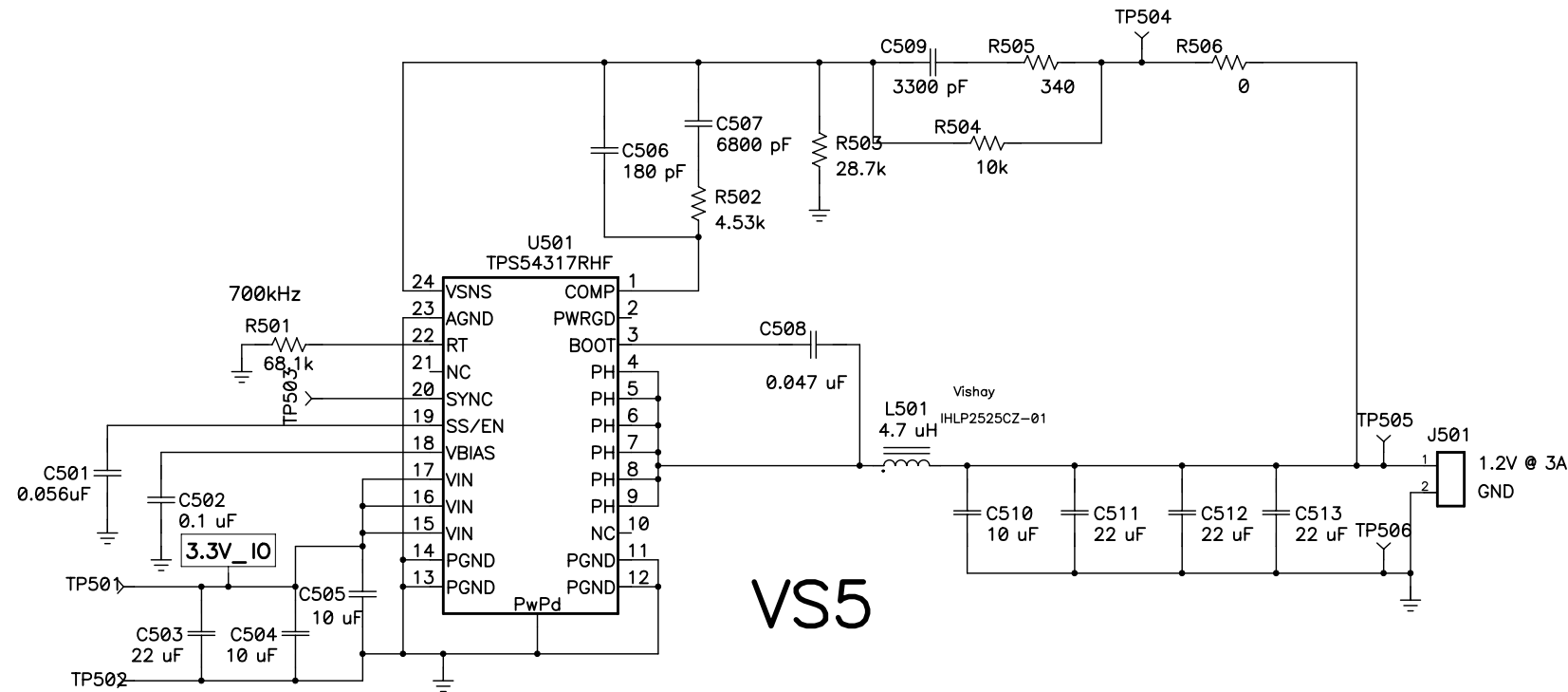
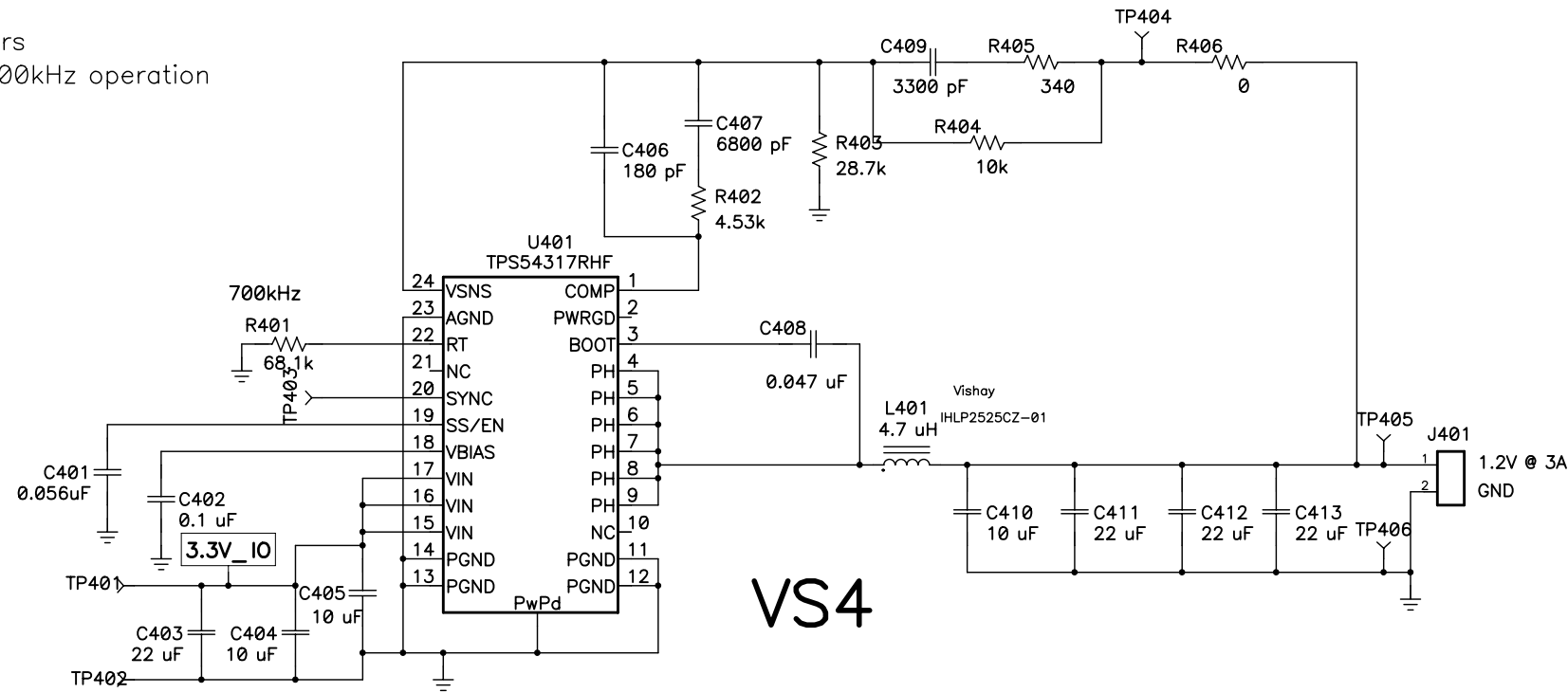


5V & 3.3V\_I/O

Texas Instruments

Title		
9 outputs off 12V + DDR3		
Size	Number	Rev
C	PMP4915	A
Date	May 28, 2009	Drawn by Josh Mandelcorn
Filename	PMP4915_REVA.SCH	Sheet 1 of 4

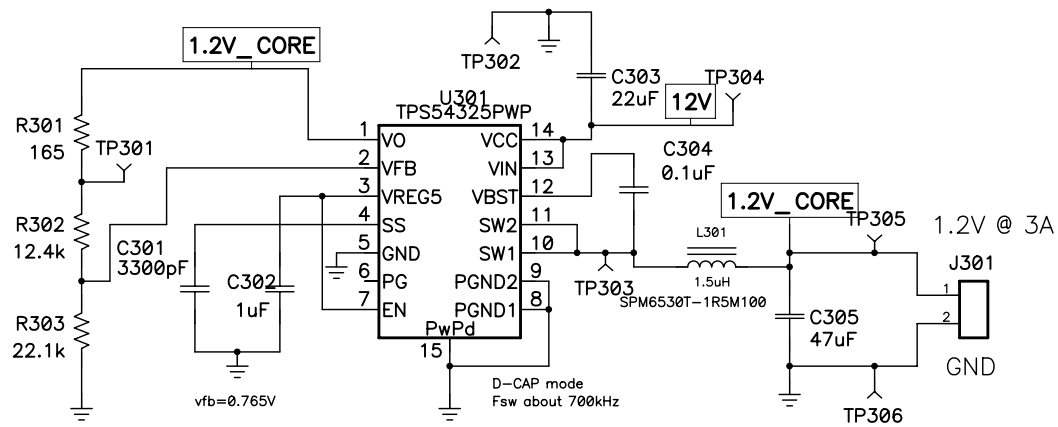
For channels on this page  
all external component values  
follow those in SLVA284  
except for timing resistors  
which are here set for 700kHz operation



GTP Core (x2)

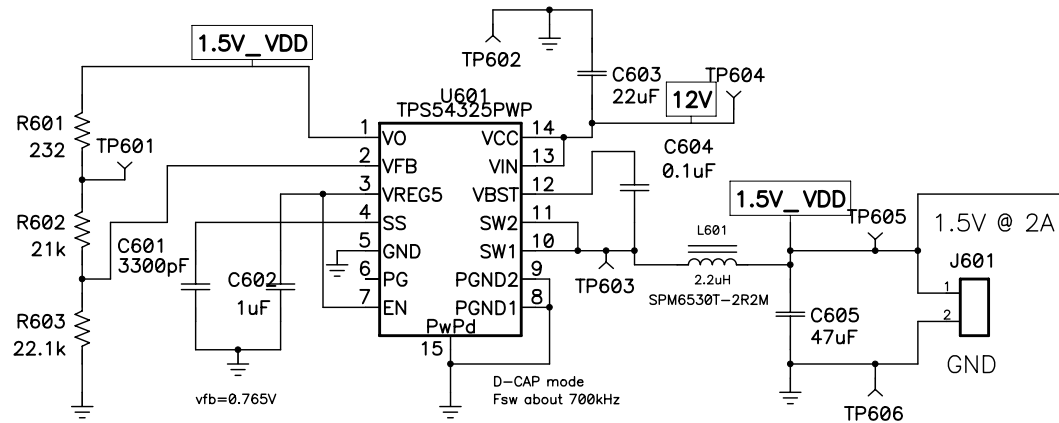
Texas Instruments

Title <b>9 outputs off 12V + DDR3</b>		
Size C	Number <b>PMP4915</b>	Rev <b>A</b>
Date May 28, 2009	Drawn by Josh Mandelcorn	
Filename PMP4915_REVA.SCH	Sheet 2 of 4	

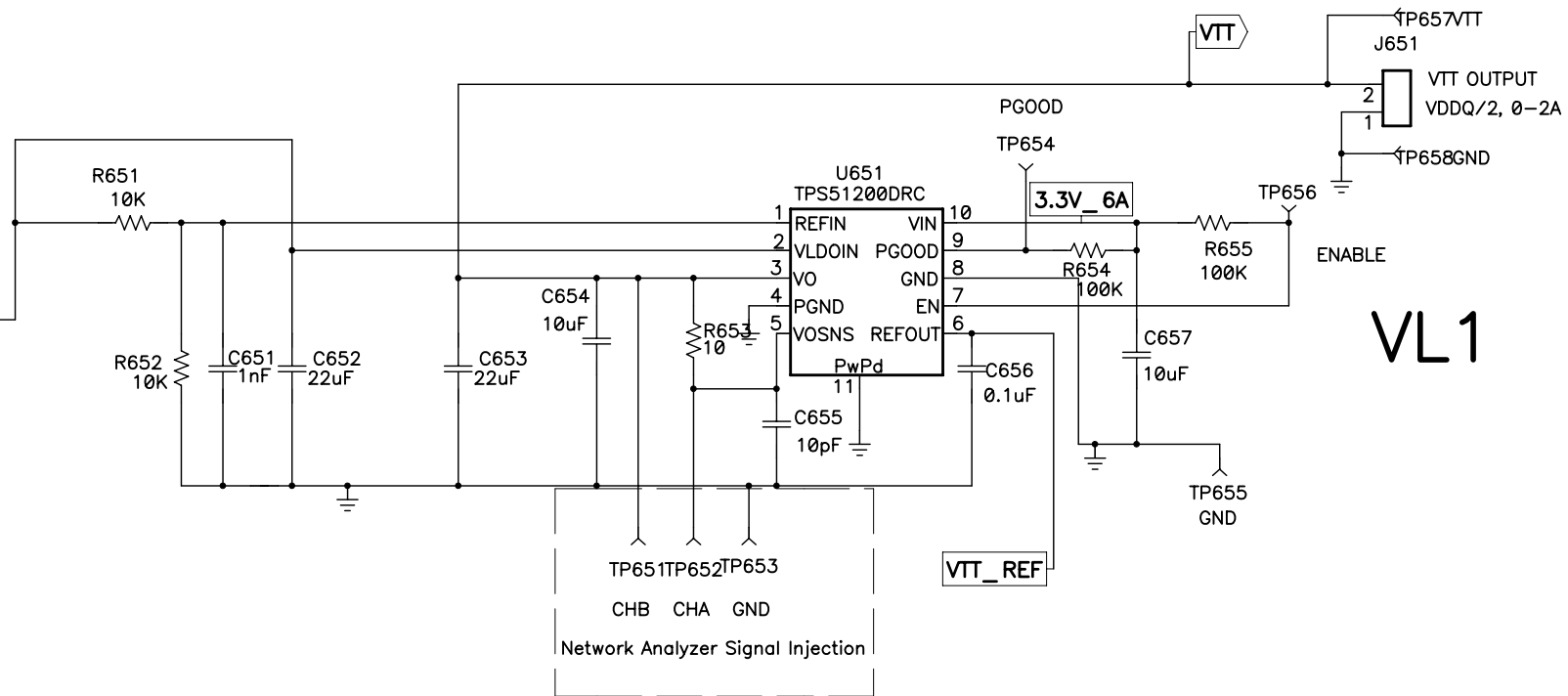


### VS3

Taken from TPS54325EVM or HPA473



### VS6

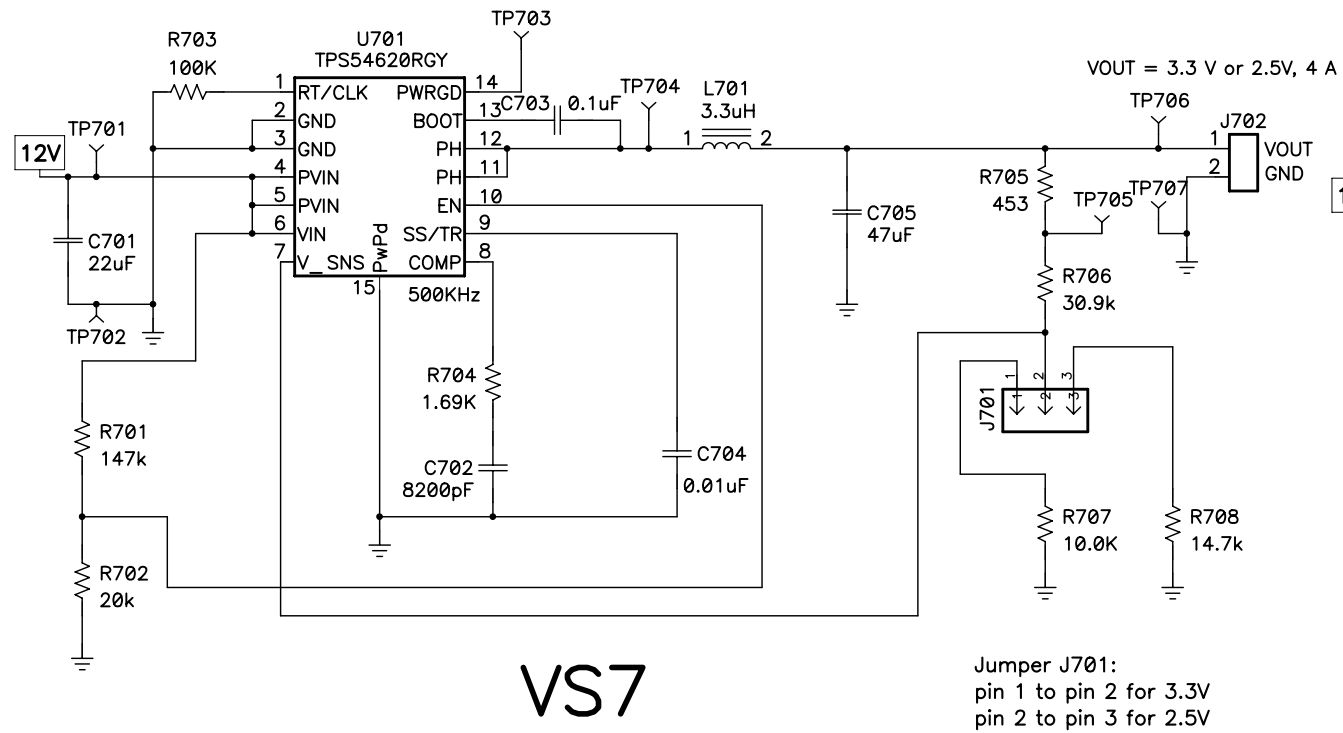


### VL1

Texas Instruments

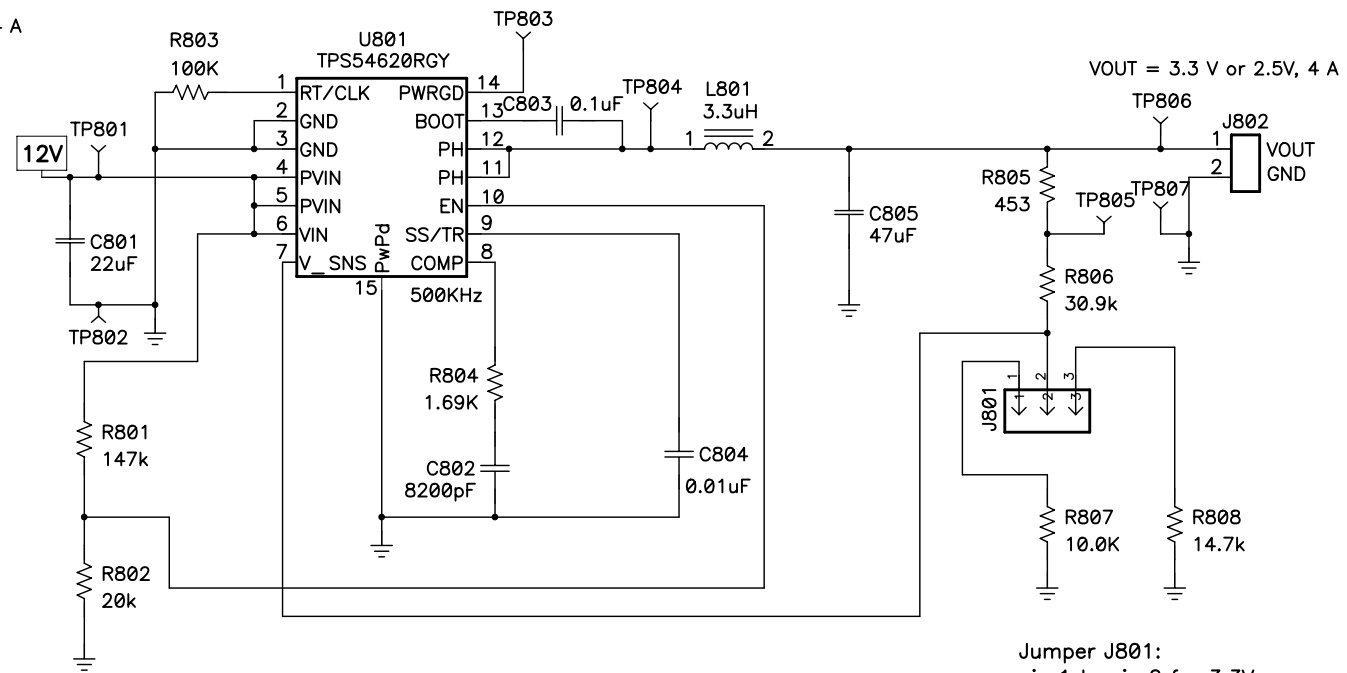
Title		
9 outputs off 12V + DDR3		
Size	Number	Rev
C	PMP4915	A
Date	May 28, 2009	Drawn by Josh Mandelcorn
Filename	PMP4915_REVA.SCH	Sheet 3 of 4

Core & DDR3



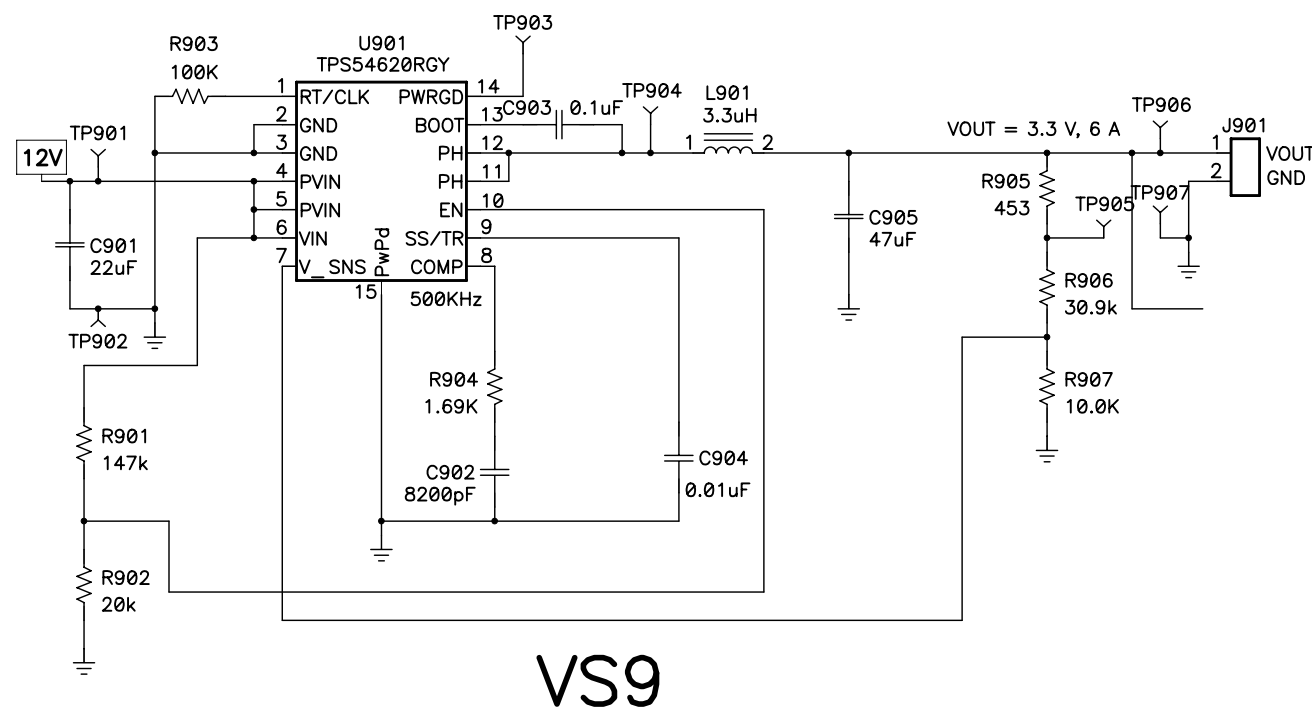
VS7

Jumper J701:  
pin 1 to pin 2 for 3.3V  
pin 2 to pin 3 for 2.5V



VS8

Jumper J801:  
pin 1 to pin 2 for 3.3V  
pin 2 to pin 3 for 2.5V



VS9

Circuits on this page modified from HPA374 E3

FMC channels

Texas Instruments

Title <b>9 outputs off 12V + DDR3</b>		
Size C	Number <b>PMP4915</b>	Rev <b>A</b>
Date May 28, 2009	Drawn by Josh Mandelcorn	
Filename PMP4915_REVA.SCH	Sheet 4 of 4	

PMP4915\_REVA BOM

COUNT	RefDes	Value	Description	Size	Part Number	Mfr
1	C101	10uF	Capacitor, Ceramic, 16V, X7R, 20%	1210	Std	Std
1	C102	0.01uF	Capacitor, Ceramic, 50V, X7R, 10%	0603	Std	Std
1	C103	0.1 uF	Capacitor, Ceramic, 16V, X7R, 10%	0603	Std	Std
1	C104	0.015uF	Capacitor, Ceramic, 16V, X7R, 10%	0603	Std	Std
1	C105	1000 pF	Capacitor, Ceramic, 16V, X7R, 10%	0603	Std	Std
1	C106	47 pF	Capacitor, Ceramic, 16V, X7R, 10%	0603	Std	Std
2	C107, C108	47 uF	Capacitor, Ceramic, 6.3V, X5R, 20%	1210	Std	std
6	C201, C303, C603, C701, C801, C901	22uF	Capacitor, Ceramic, 16V, X7R, 20%	1210	Std	Std
4	C202, C702, C802, C902	8200pF	Capacitor, Ceramic, 50V, X7R, 10%	0603	Std	Std
4	C203, C703, C803, C903	0.1uF	Capacitor, Ceramic, 50V, X7R, 10%	0603	Std	Std
4	C204, C704, C804, C904	0.01uF	Capacitor, Ceramic, 25V, X7R, 10%	0603	Std	Std
4	C205, C705, C805, C905	47uF	Capacitor, Ceramic, 6.3V, X5R, 10%	1210	Std	Std
2	C301, C601	3300pF	Capacitor, Ceramic, Low Inductance, 50V, X7R, 10%	0603	std	std
2	C302, C602	1uF	Capacitor, Ceramic, Low Inductance, 16V, X7R, 20%	0603	std	std
2	C304, C604	0.1uF	Capacitor, Ceramic, Low Inductance, 16V, X7R, 20%	0603	std	std
2	C305, C605	47uF	Capacitor, Ceramic, 6.3V, X5R, 20%	1210	Std	std
2	C401, C501	0.056uF	Capacitor, SMD, 0603, X7R, 16V, 10%	0603	std	std
2	C402, C502	0.1 uF	Capacitor, Ceramic, 25V, X7R, 10%	0603	GRM39X7R104K25	muRata
8	C403, C411, C412, C413, C503, C511, C512, C513	22 uF	Capacitor, Ceramic, 6.3V, X5R, 20 %	1210	std	TDK
4	C404, C410, C504, C510	10 uF	Capacitor, Ceramic, 6.3V, X5R, 20 %	1210	std	TDK
2	C405, C505	10 uF	Capacitor, Ceramic, 16-V, X7R, 20%	1210	C3225X7R1E106K	TDK
2	C406, C506	180 pF	Capacitor, Ceramic, 50V, C0G, 5%	0603	C1608C0G1H181JB	TDK
2	C407, C507	6800 pF	Capacitor, Ceramic, 50-V, X7R, 10%	0603	std	std
2	C408, C508	0.047 uF	Capacitor, Ceramic, 50-V, X5R, 10%	0603	C1608X5R1H473KB	TDK
2	C409, C509	3300 pF	Capacitor, Ceramic, 50V, X7R, 10%	0603	std	TDK
1	C651	1nF	Capacitor, Ceramic, 50V, X7R, 10%	0603	Std	Std
2	C652, C653	22uF	Capacitor, Ceramic, 6.3V, X5R, 20%	0805	Std	Std
2	C654, C657	10uF	Capacitor, Ceramic, 6.3V, X5R, 20 %	0805	GRM40yyyyxxKvV	muRata
1	C655	10pF	Capacitor, Ceramic, 50V, NPO	0603	Std	Std
1	C656	0.1uF	Capacitor, Ceramic, Low Inductance, 16V, X7R, 20%	0603	Std	Std
1	D101	B240A	Diode, Schottky, 3A, 40V	SMA	B340A	Diodes Inc
4	J101, J102, J301, J601		Terminal Block, 2-pin, 15-A, 5.1mm	0.40 x 0.35"	ED1609	OST
5	J201, J651, J702, J802, J901	ED555/2DS	Terminal Block, 2-pin, 6-A, 3.5mm	0.27 x 0.25 inch	ED555/2DS	OST
2	J401, J501		Terminal Block, 2 pin, 6A, 3.5mm	0.27 x 0.25	ED1514	OST
2	J701, J801	PTC36SAAN	Header, Male 3-pin, 100mil spacing, (36-pin strip)	0.100 inch x 3	PTC36SAAN	Sullins
1	L101	10 uH	Inductor, SMT, 3.9A, 35 milliohm	0.402 x 0.394 inch	MSS1038-103NL	Coilcraft
4	L201, L701, L801, L901	3.3uH	Inductor, SMT, 7.8A, 10.4milliohm	0.402 sq inch	CDRH105RNP-3R3NC	Sumida
1	L301	1.5uH	Inductor, SMT, 11A, 10.67 milliohm	0.256 x 0.280 inch	SPM6530T-1R5M100	TDK
2	L401, L501	4.7 uH	Inductor, SMT, 5.5A, 40milliohm	0.255 x 0.270 inch	IHLP2525CZ-01	Vishay
1	L601	2.2uH	Inductor, SMT, 8.2A, 19 milliohm	0.256 x 0.280 inch	SPM6530T-2R2M	TDK
3	R101, R401, R501	68.1k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R102, R105, R404, R504	10k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R103	29.4k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R104	49.9	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R106	1.91k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R201, R701, R801, R901	147k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R202, R702, R802, R902	20k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R203, R703, R803, R903	100K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R204, R704, R804, R904	1.69K	Resistor, Chip, 1/16W, 1%	0603	Std	Std

4	R205, R705, R805, R905	453	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R206, R706, R806, R906	30.9k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
4	R207, R707, R807, R907	10.0K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R301	165	Resistor, Chip, 1/16W, 1%	0603	std	std
1	R302	12.4k	Resistor, Chip, 1/16W, 1%	0603	std	std
2	R303, R603	22.1k	Resistor, Chip, 1/16W, 1%	0603	std	std
2	R402, R502	4.53k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R403, R503	28.7k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R405, R505	340	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R406, R506	0	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R601	232	Resistor, Chip, 1/16W, 1%	0603	std	std
1	R602	21k	Resistor, Chip, 1/16W, 1%	0603	std	std
2	R651, R652	10K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	R653	10	Resistor, Chip, 1/16W, 5%	0603	Std	Std
2	R654, R655	100K	Resistor, Chip, 1/16W, 1%	0603	Std	Std
2	R708, R808	14.7k	Resistor, Chip, 1/16W, 1%	0603	Std	Std
1	SH651		Short jumper			
	Switcher W/ Integrated FET*	TI	HTSSOP-14			
	TP101, TP103, TP104, TP201, TP204, TP205, TP206, TP301, TP304, TP305, TP401, TP403, TP404, TP405, TP501, TP503, TP504, TP505, TP601, TP604, TP605, TP701, TP704, TP705, TP706, TP801, TP804, TP805, TP806, TP901, TP904, TP905, TP906, TP102, TP105, TP202, TP203, TP207, TP302, TP306, TP402, TP406, TP502, TP506, TP602, TP606, TP702, TP703, TP707, TP802, TP803, TP807, TP902, TP903, TP907					
33	TP504, TP505, TP601, TP604, TP605, TP701, TP704, TP705, TP706, TP801, TP804, TP805, TP806, TP901, TP904, TP905, TP906	5000	Test Point, Red, Thru Hole Color Keyed	0.100 x 0.100 inch	5000	Keystone
22	TP102, TP105, TP202, TP203, TP207, TP302, TP306, TP402, TP406, TP502, TP506, TP602, TP606, TP702, TP703, TP707, TP802, TP803, TP807, TP902, TP903, TP907	5001	Test Point, Black, Thru Hole Color Keyed	0.100 x 0.100 inch	5001	Keystone
2	TP303, TP603	5015	5015	Test Point, SMT	Keystone	0.105 x 0.040 inch
4	TP651, TP652, TP654, TP656	5012	Test Point, White, Thru Hole	0.125 x 0.125 inch	5012	Keystone
3	TP653, TP655, TP658	5011	Test Point, Black, Thru Hole	0.125 x 0.125 inch	5011	Keystone
1	TP657	5010	Test Point, Red, Thru Hole	0.125 x 0.125 inch	5010	Keystone
1	U101	TPS54231D	IC, DC-DC Converter, 28V, 2A	SO-8	TPS54231D	TI
4	U201, U701, U801, U901	TPS54620RGY	TPS54620RGY	IC, 1.6V-17V Synchr	TI	3.5mm x 3.3mm QFN14
2	U301	TPS54325PWP	IC, 3-A Output Single Sync. Step-Down		TPS54325PWP	
2	U401, U501	TPS54317RHF	IC, IFET Power Controller, AdjV, 3A	QFN-24	TPS54317RHF	TI
1	U651	TPS51200DRC	IC, Sink/Source DDR Termination Regulator	DRC	TPS51200DRC	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.

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