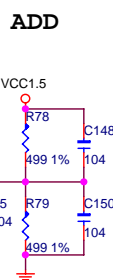


U1C		DRAM	
MD0	R10	MA0	L19
MD1	U11	MA1	N15
MD2	T11	MA2	U17
MD3	R11	MA3	U16
MD4	U14	MA4	N17
MD5	U15	MA5	T16
MD6	T14	MA6	L16
MD7	T15	MA7	R17
MDGM0	T13	MA8	M17
MDQS0N	U13	MA9	T17
MDQS0P	U12	MA10	M17
MA11		MA11	T19
MA12		MA12	P17
MA13		MA13	P16
MA14		MA14	N16
MA15		MA15	P19
BA0		MBA0	L18
BA1		MBA1	N18
BA2		MBA2	N19
MCS0		MCS0	V19
MCAS		MCAS	R14
MCRAS		MCRAS	T18
MCSO		MCSO	V18
MWE		MWE	P18
MCKE0		MCKE0	U19
MCKOP		MCKOP	W17
MCKON		MCKON	W16
CS0		CS0	R14
CS1		CS1	T18
RAS		RAS	P18
WE		WE	P18
CKE0		CKE0	U19
SDRAMCLKOP		SDRAMCLKOP	W17
SDRAMCLKON		SDRAMCLKON	W16



RP1		10x4		RMD1	
MD1	7	8	10x4	RMD1	
MD2	5	6		RMD2	
MD0	3	4		RMD0	
MD3	1	2		RMD3	
MD5	RP2	7	8	10x4	RMD5
MD7	5	6		RMD7	
MD4	3	4		RMD4	
MD6	1	2		RMD6	

R1		10		RMDQS0N	
MDQS0N	R1	10		RMDQS0N	
MDQS0P	R2	10		RMDQS0P	
MDQM0	R3	10		RMDQM0	

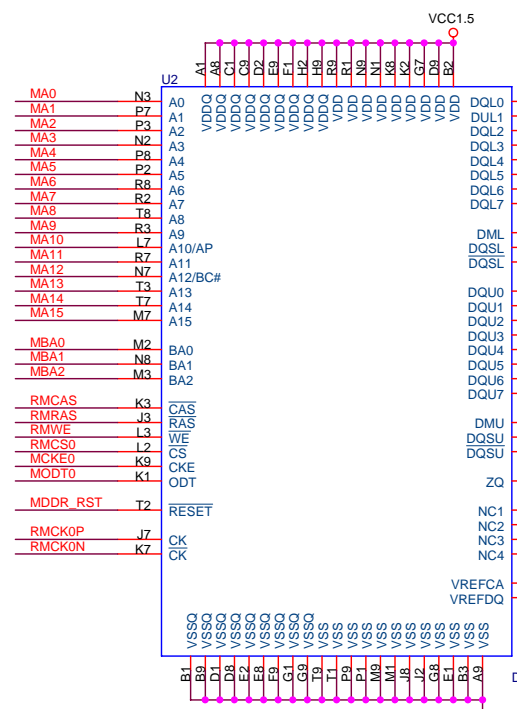
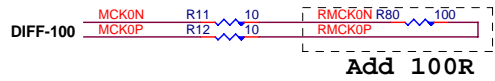
RP3		2		10x4		RMD9	
MD9	RP3	1	2	10x4		RMD9	
MD11	3	4				RMD11	
MD8	5	6				RMD8	
MD10	7	8				RMD10	
MD14	RP4	1	2	10x4		RMD14	
MD13	3	4				RMD13	
MD15	5	6				RMD15	
MD12	7	8				RMD12	

R6		10		RMDQS1N	
MDQS1N	R6	10		RMDQS1N	
MDQS1P	R5	10		RMDQS1P	
MDQM1	R8	10		RMDQM1	

Total Trace length under 1000mils with space 2W and line to line variance under 20mils

High byte to Low byte mismatch under 200mil

RP5		8		10x4		RMRAS	
MRAS	RP5	7	8	10x4		RMRAS	
MCAS	5	6				RMCAS	
MCSO	3	4				RMCSO	
MWE	1	2				RMWE	



U2		DRAM	
MA0	N3	A0	DQ00
MA1	P7	A1	DQ01
MA2	P3	A2	DQ02
MA3	N2	A3	DQ03
MA4	P8	A4	DQ04
MA5	P2	A5	DQ05
MA6	R8	A6	DQ06
MA7	R2	A7	DQ07
MA8	T8	A8	DQ08
MA9	R3	A9	DQ09
MA10	L7	A10	DQ10
MA11	L7	A11	DQ11
MA12	R7	A12	DQ12
MA13	T3	A13	DQ13
MA14	T7	A14	DQ14
MA15	M7	A15	DQ15
MBA0	M2	BA0	DQ16
MBA1	N8	BA1	DQ17
MBA2	M3	BA2	DQ18
RMCAS	K3	CAS	DQ19
RMRAS	J3	RAS	DQ20
RMWE	L3	WE	DQ21
RMCS0	L2	CS	DQ22
MCKE0	K9	CKE	DQ23
MODT0	K1	ODT	DQ24
MDDR_RST	T2	RESET	DQ25
RMCK0P	J7	CK	DQ26
RMCK0N	K7	CK	DQ27

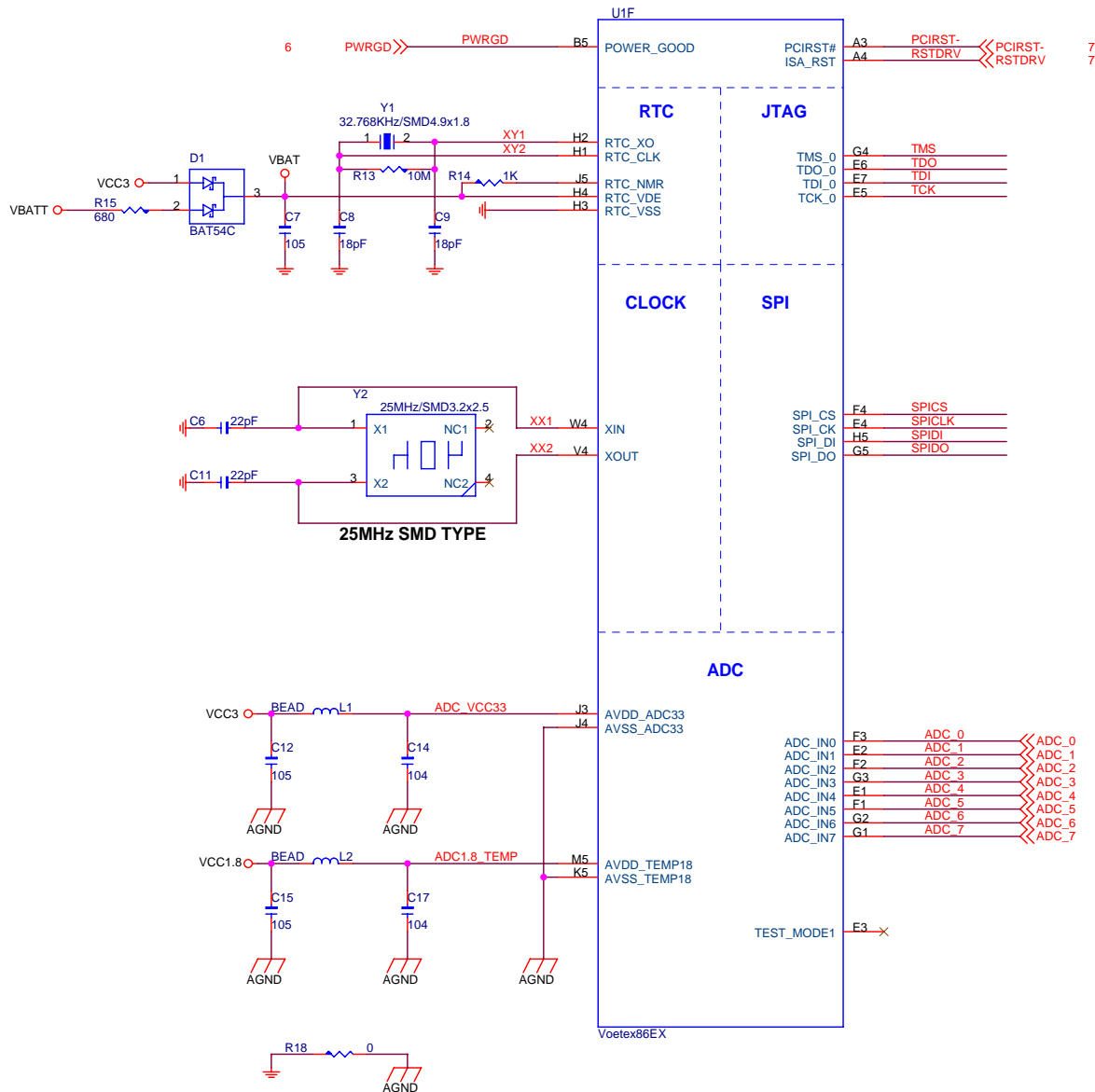
U2		DRAM	
E3	RMD0	DQ00	L8
F7	RMD1	DQ01	J1
E2	RMD7	DQ02	J9
F8	RMD2	DQ03	L1
H3	RMD5	DQ04	L1
H8	RMD6	DQ05	L9
G2	RMD3	DQ06	
H7	RMD4	DQ07	
E7	RMDQ0M0	DQ08	
F3	RMDQS0P	DQ09	
G3	RMDQS0N	DQ10	
D7	RMDQ9	DQ11	
C3	RMD11	DQ12	
C8	RMD10	DQ13	
A7	RMD14	DQ14	
A2	RMD8	DQ15	
B8	RMD13	DQ16	
B	RMD12	DQ17	
A3	RMD15	DQ18	
D3	RMDQ0M1	DQ19	
C7	RMDQS1P	DQ20	
B7	RMDQS1N	DQ21	

Add

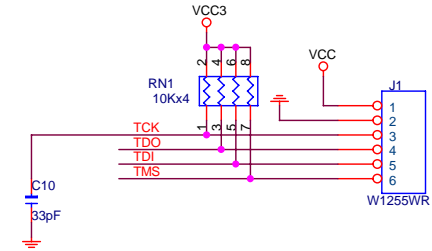
2013/08/14  
SOM128EX-KIT

PCB NO. DM205A  
SOM-128-EX  
VER:0.6

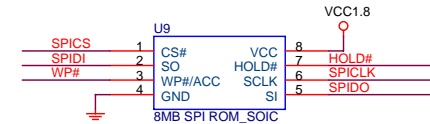
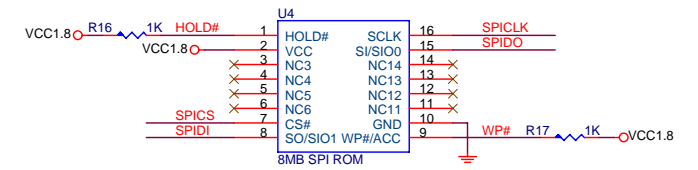
DMP ELECTRONICS INC.	
Title: Votex86EX DDR-III Memory	
Size: Document Number: DM205	Rev: 0.6
Date: Wednesday, August 14, 2013	Sheet: 1 of 8



### JTAG



### SPI FLASH



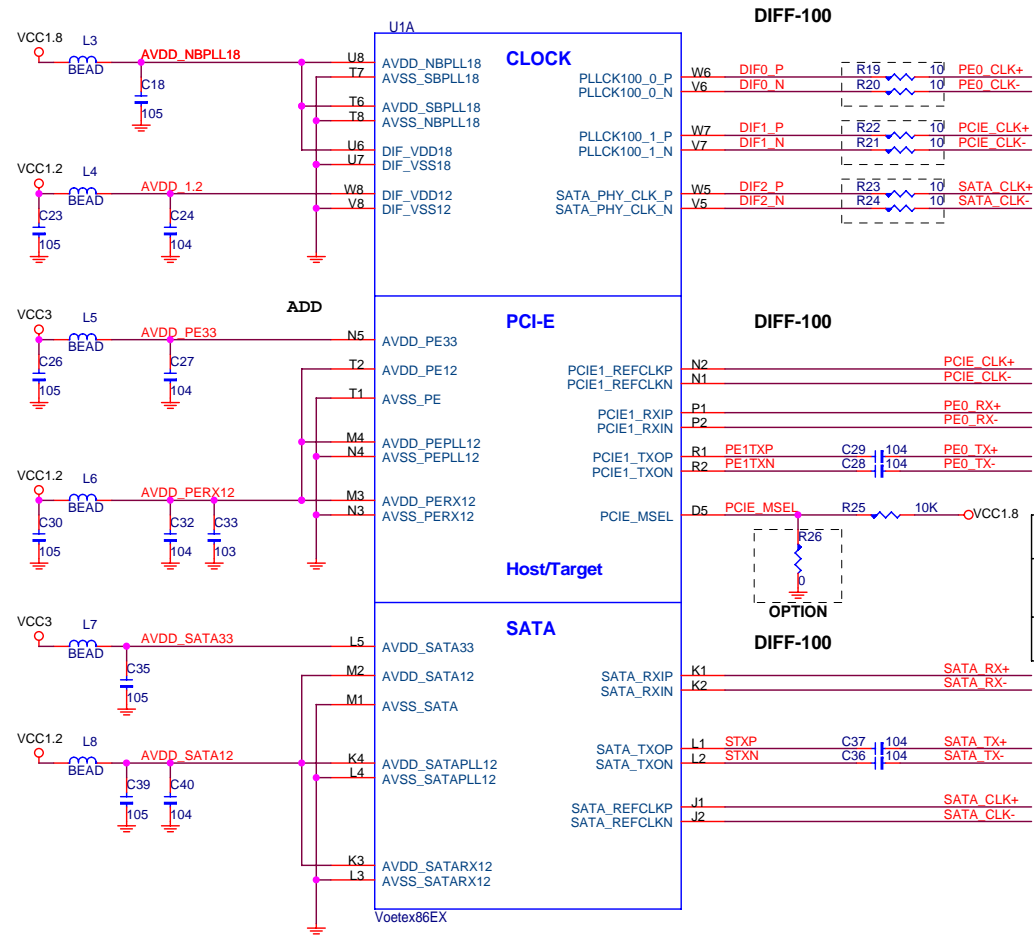
### strap pin

SPIDO	Boot Flash select	SPICS	Boot Mode Select
1 (High)	Hardware default	1 (High)	Normal boot (default)
* 0 (Low) (default)	from FLASH	* 0 (Low)	Fast boot

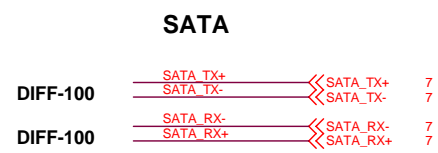
### DMP ELECTRONICS INC.

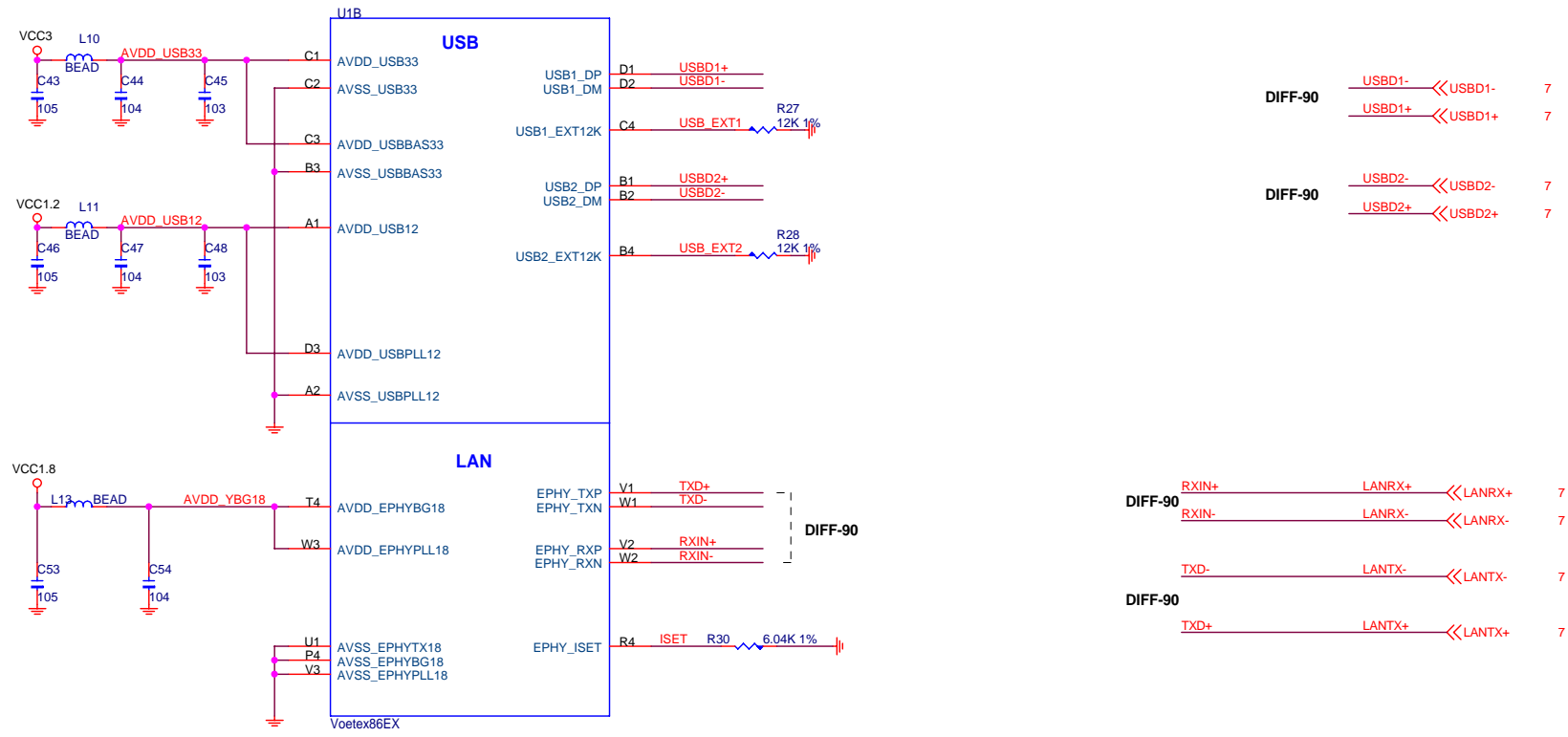


Title		
PWGOOD,RTC,SATA,CLOCK,SPI,ADC		
Size	Document Number	Rev
	DM205	0.6
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PCIE_MSEL	PCie select
1 (High) (default)	PCie Host
0 (Low)	PCie Target





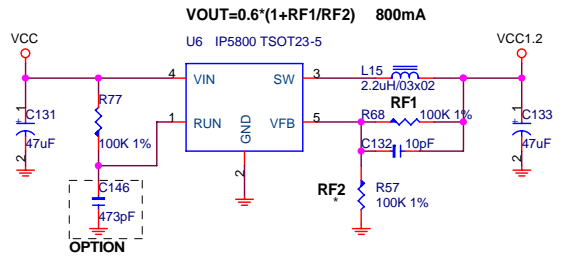
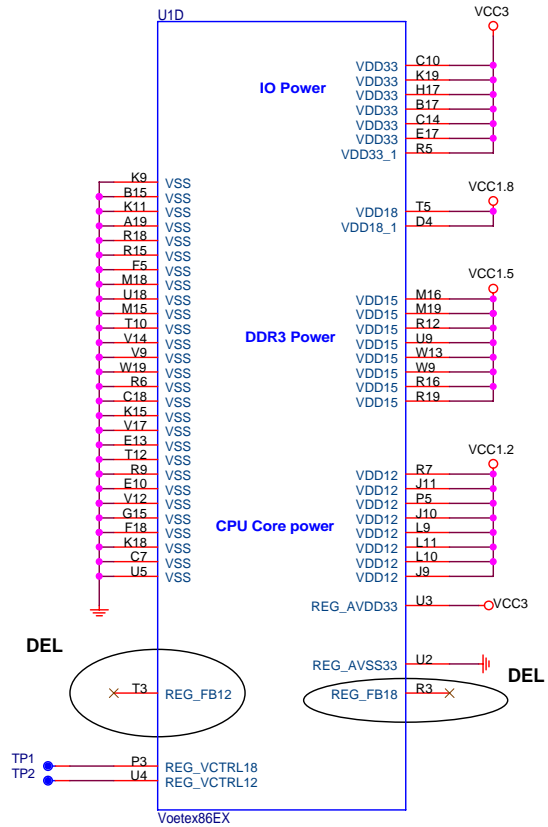
<b>DMP ELECTRONICS INC.</b>		
Title: USB , LAN		
Size: DM205	Document Number: DM205	Rev: 0.6
Date: Wednesday, August 14, 2013	Sheet: 4	of 8

		U1E			
		<b>GPIO-P08051A-P0/RICH IO-P0/COM1</b>		<b>COM6/RICH IO-P5/8051A-P5/GPIO-P5</b>	
-7	GP00 << GP00 << C8	GP00/AP00/RP00/DCD1#	DCD6#/RP50/AP50/GP50	D14 GP50 << GP50	7 -
7	GP01 << GP01 << D7	GP01/AP01/RP01/SOUT1	SOUT6#/RP51/AP51/GP51	A15 GP51 << GP51	7 -
7	GP02 << GP02 << B8	GP02/AP02/RP02/RTS1#	RTS6#/RP52/AP52/GP52	B14 GP52 << GP52	7 -
7	GP03 << GP03 << A8	GP03/AP03/RP03/RI1	RI6#/RP53/AP53/GP53	A14 GP53 << GP53	7 -
7	GP04 << GP04 << C9	GP04/AP04/RP04/SIN1	SIN6#/RP54/AP54/GP54	D13 GP54 << GP54	7 -
7	GP05 << GP05 << E9	GP05/AP05/RP05/DTR1#	DTR6#/RP55/AP55/GP55	E12 GP55 << GP55	7 -
7	GP06 << GP06 << D8	GP06/AP06/RP06/DSR1#	DSR6#/RP56/AP56/GP56	C13 GP56 << GP56	7 -
-7	GP07 << GP07 << E8	GP07/AP07/RP07/CTS1#	CTS6#/RP57/AP57/GP57	D12 GP57 << GP57	7 -
		<b>GPIO-P18051A-P1/RICH IO-P1/COM2</b>		<b>COM7/RICH IO-P6/8051A-P6/GPIO-P6</b>	
-7	GP10 << GP10 << H19	GP10/AP10/RP10/DCD2#	DCD7#/RP60/AP60/GP60	B13 GP60 << GP60	7 -
7	GP11 << GP11 << H18	GP11/AP11/RP11/SOUT2	SOUT7#/RP61/AP61/GP61	A13 GP61 << GP61	7 -
7	GP12 << GP12 << H16	GP12/AP12/RP12/RTS2#	RTS7#/RP62/AP62/GP62	A12 GP62 << GP62	7 -
7	GP13 << GP13 << G19	GP13/AP13/RP13/RI2#	RI7#/RP63/AP63/GP63	E11 GP63 << GP63	7 -
7	GP14 << GP14 << G18	GP14/AP14/RP14/SIN2	SIN7#/RP64/AP64/GP64	B12 GP64 << GP64	7 -
7	GP15 << GP15 << G17	GP15/AP15/RP15/DTR2#	DTR7#/RP65/AP65/GP65	C12 GP65 << GP65	7 -
7	GP16 << GP16 << H15	GP16/AP16/RP16/DSR2#	DSR7#/RP66/AP66/GP66	D11 GP66 << GP66	7 -
-7	GP17 << GP17 << G16	GP17/AP17/RP17/CTS2#	CTS7#/RP67/AP67/GP67	C11 GP67 << GP67	7 -
		<b>GPIO-P28051A-P2/RICH IO-P2/COM3</b>		<b>COM8/RICH IO-P7/8051A-P7/GPIO-P7</b>	
-7	GP20 << GP20 << F19	GP20/AP20/RP20/DCD3#	DCD8#/RP70/AP70/GP70	A11 GP70 << GP70	7 -
7	GP21 << GP21 << E19	GP21/AP21/RP21/SOUT3#	SOUT8#/RP71/AP71/GP71	B11 GP71 << GP71	7 -
7	GP22 << GP22 << F17	GP22/AP22/RP22/RTS3#	RTS8#/RP72/AP72/GP72	A9 GP72 << GP72	7 -
7	GP23 << GP23 << E18	GP23/AP23/RP23/RI3#	RI8#/RP73/AP73/GP73	A10 GP73 << GP73	7 -
7	GP24 << GP24 << F16	GP24/AP24/RP24/SIN3	SIN8#/RP74/AP74/GP74	B9 GP74 << GP74	7 -
7	GP25 << GP25 << E16	GP25/AP25/RP25/DTR3#	DTR8#/RP75/AP75/GP75	B10 GP75 << GP75	7 -
-7	GP26 << GP26 << E15	GP26/AP26/RP26/DSR3#	DSR8#/RP76/AP76/GP76	D10 GP76 << GP76	7 -
7	GP27 << GP27 << F15	GP27/AP27/RP27/CTS3#	CTS8#/RP77/AP77/GP77	D9 GP77 << GP77	7 -
		<b>GPIO-P38051A-P3/RICH IO-P3/COM4</b>		<b>COM9/RICH IO-P8/8051A-P8/GPIO-P8</b>	
-7	GP30 << GP30 << D19	GP30/AP30/RP30/DCD4#	DCD9#/RP80/AP80/GP80	L15 GP80 << GP80	7 -
7	GP31 << GP31 << C19	GP31/AP31/RP31/SOUT4#	SOUT9#/RP81/AP81/GP81	K16 GP81 << GP81	7 -
7	GP32 << GP32 << D18	GP32/AP32/RP32/RTS4#	RTS9#/RP82/AP82/GP82	K17 GP82 << GP82	7 -
7	GP33 << GP33 << B19	GP33/AP33/RP33/RI4#	RI9#/RP83/AP83/GP83	J19 GP83 << GP83	7 -
7	GP34 << GP34 << D17	GP34/AP34/RP34/SIN4	SIN9#/RP84/AP84/GP84	J18 GP84 << GP84	7 -
7	GP35 << GP35 << D16	GP35/AP35/RP35/DTR4#	DTR9#/RP85/AP85/GP85	J16 GP85 << GP85	7 -
7	GP36 << GP36 << C17	GP36/AP36/RP36/DSR4#	DSR9#/RP86/AP86/GP86	J15 GP86 << GP86	7 -
-7	GP37 << GP37 << C16	GP37/AP37/RP37/CTS4#	CTS9#/RP87/AP87/GP87	J17 GP87 << GP87	7 -
		<b>GPIO-P48051A-P4/RICH IO-P4/COM5</b>		<b>COM10/RICH IO-P9/8051A-P9/GPIO-P9</b>	
-7	GP40 << GP40 << D15	GP40/AP40/RP40/DCD5#	DCD10#/RP90/AP90/GP90	C6 GP90 << GP90	7 -
7	GP41 << GP41 << E14	GP41/AP41/RP41/SOUT5	SOUT10#/RP91/AP91/GP91	B7 GP91 << GP91	7 -
7	GP42 << GP42 << B18	GP42/AP42/RP42/RTS5#	RTS10#/RP92/AP92/GP92	D6 GP92 << GP92	7 -
7	GP43 << GP43 << A18	GP43/AP43/RP43/RI5#	RI10#/RP93/AP93/GP93	B6 GP93 << GP93	7 -
7	GP44 << GP44 << C15	GP44/AP44/RP44/SIN5	SIN10#/RP94/AP94/GP94	C5 GP94 << GP94	7 -
7	GP45 << GP45 << A17	GP45/AP45/RP45/DTR5#	DTR10#/RP95/AP95/GP95	A7 GP95 << GP95	7 -
7	GP46 << GP46 << B16	GP46/AP46/RP46/DSR5#	DSR10#/RP96/AP96/GP96	A6 GP96 << GP96	7 -
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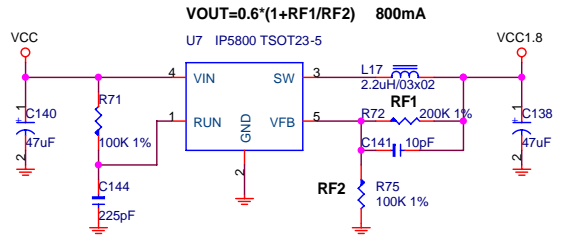
Port 0 - Part 9

Voetex86EX

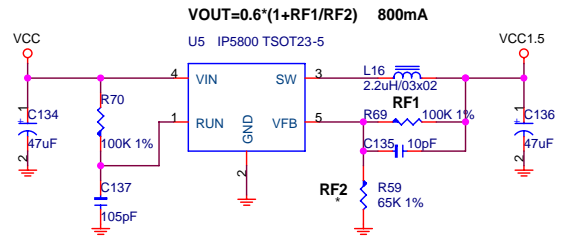
<b>DMP ELECTRONICS INC.</b>		
Title: GPIO ,RICH IO, COM		
Size: DM205	Document Number: DM205	Rev: 0.6
Date: Wednesday, August 14, 2013	Sheet: 5	of 8



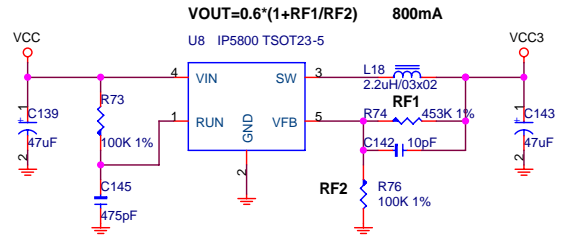
**(VCORE)  
VCC 1.2V**



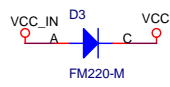
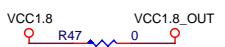
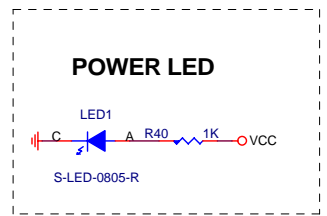
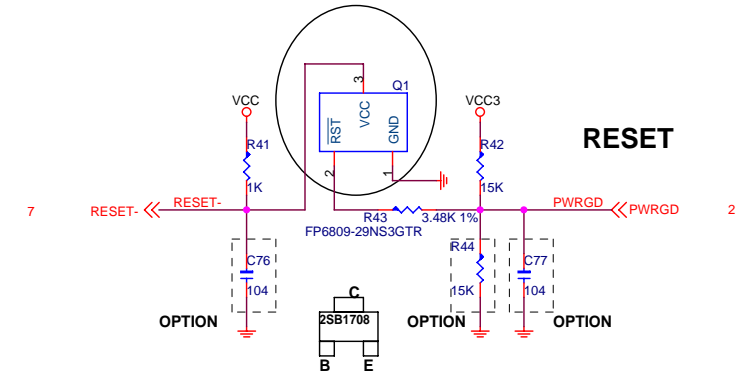
**VCC 1.8V**



**VCC 1.5V**

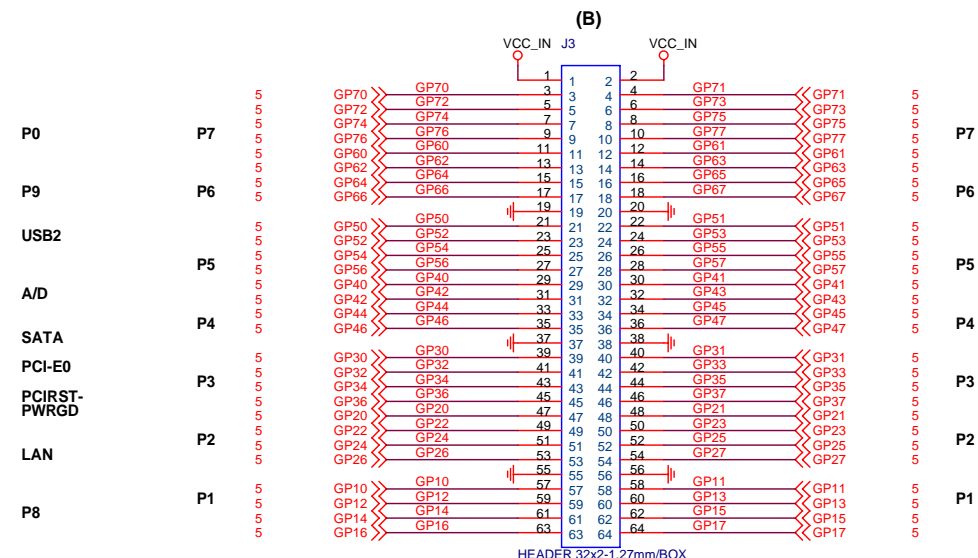
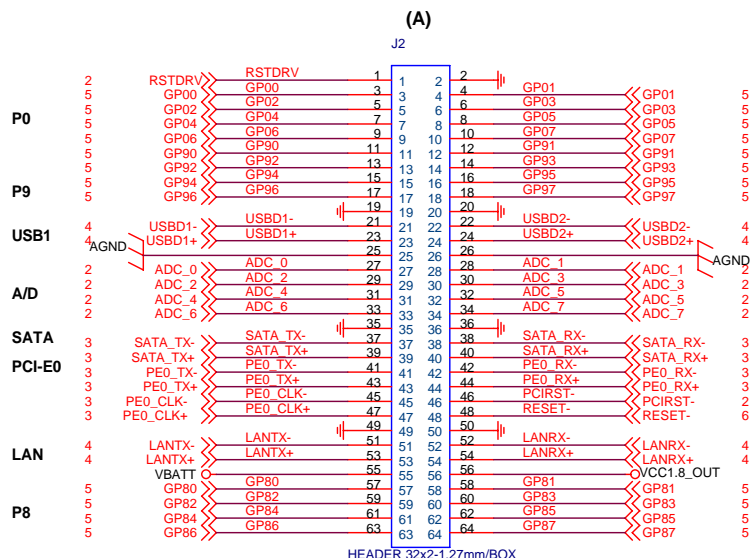


**VCC 3.3V**



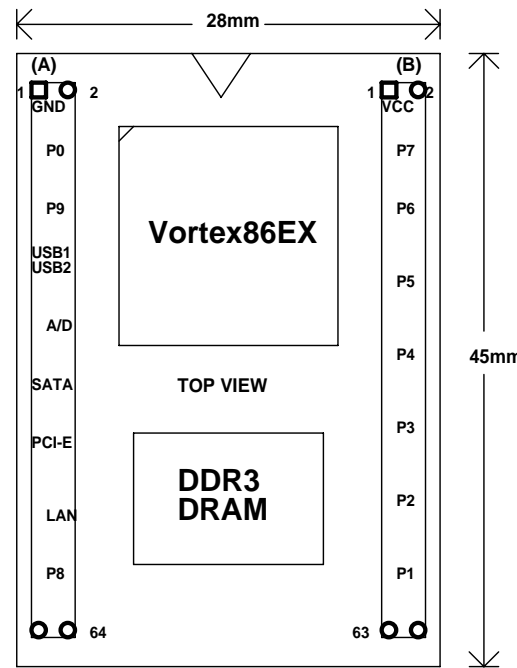
Power Sequence: +5V=>+1.2V/+1.5V=>1.8V=>3.3V

<b>DMP ELECTRONICS INC.</b>		
Title: DC TO DC		
Size: Document Number	DM205	Rev: 0.6
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HEADER 32x2-1.27mm/BOX

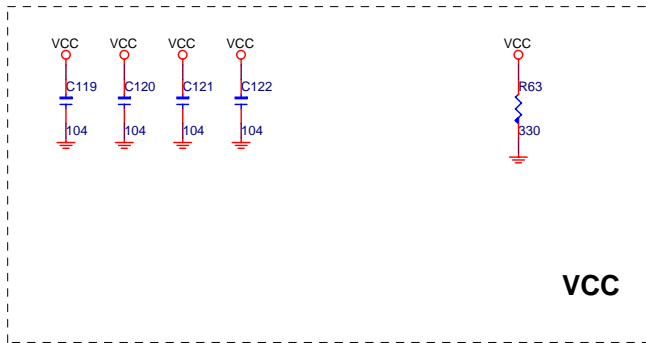
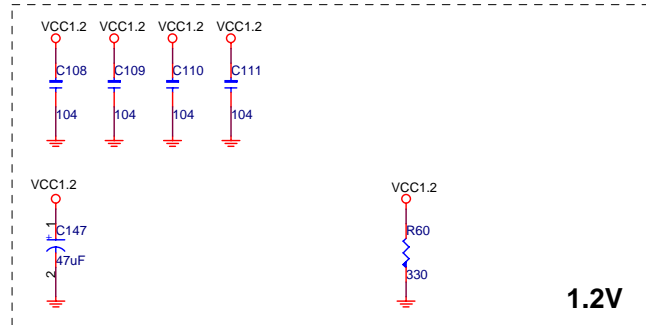
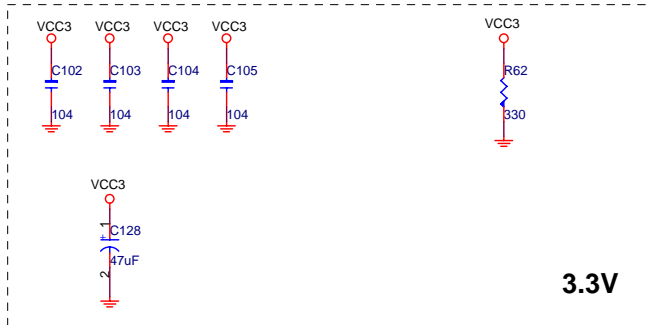
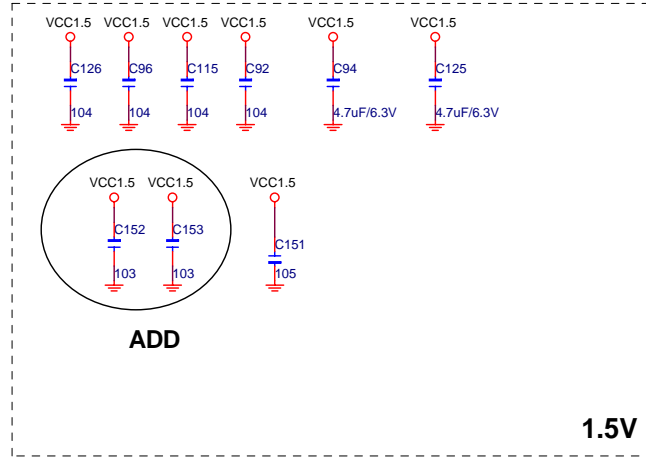
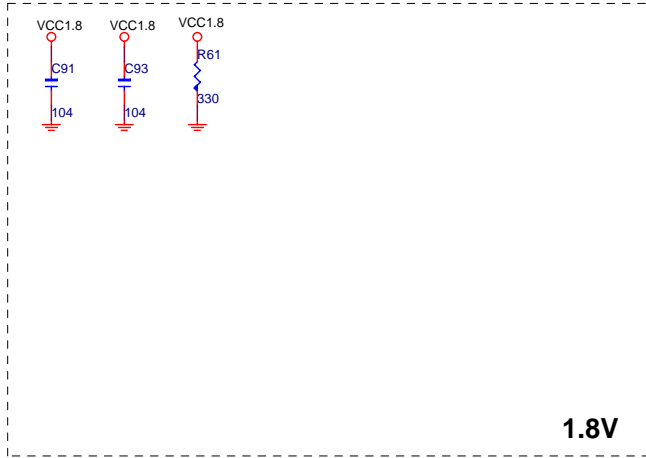
HEADER 32x2-1.27mm/BOX



SOM-128-EX

<b>DMP ELECTRONICS INC.</b>		
Title: SOM-128-EX		
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# BYPASS



- FM1  
FM40S
- FM2  
FM40S
- FM3  
FM40S
- FM4  
FM40S
- FM5  
FM40S
- FM6  
FM40S

**DMP ELECTRONICS INC.**

Title BY PASS		
Size	Document Number DM205	Rev 0.6
Date:	Wednesday, August 14, 2013	Sheet 8 of 8