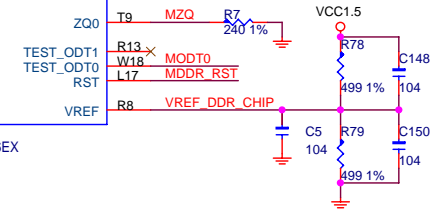


U1C		DRAM	
MD0	R10	MA0	L19
MD1	U11	MA1	N15
MD2	T11	MA2	U17
MD3	R11	MA3	U16
MD4	U14	MA4	N17
MD5	U15	MA5	T16
MD6	T14	MA6	L16
MD7	T15	MA7	R17
MDGM0	T13	MA8	M17
MDQS0N	U13	MA9	T17
MDQS0P	U12	MA10	T19
		MA11	P17
MD8	W10	MA12	P16
MD9	W11	MA13	P15
MD10	V10	MA14	N16
MD11	U10	MA15	P19
MD12	W14		
MD13	W15	BA0	L18
MD14	V16	BA1	N18
MD15	V15	BA2	N19
MDGM1	V13		
MDGS1N	W12		
MDGS1P	V11		

Voetex86EX

**ADD**



MD1	RP1	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

**DIFF-100**

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

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

**DIFF-100**

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**

MRAS	RP5	7	8	10x4	RMRAS
MCAS		5	6		RMCAS
MCS0		3	4		RMCS0
MWE		1	2		RMWE

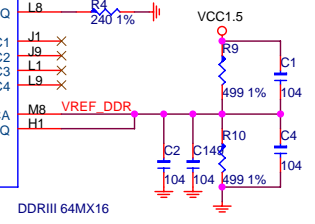
**DIFF-100**

MCK0N	R11	10	RMCK0N	R80	100
MCK0P	R12	10	RMCK0P		

Add 100R

U2		VCC1.5	
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	DM0
MA9	R3	A9	DQS0N
MA10	L7	A10/AP	DQS0P
MA11	L7	A11	
MA12	R7	A12/BC#	
MA13	N7	A13	DQU0
MA14	T7	A14	DQU1
MA15	M7	A15	DQU2
		BA0	DQU3
MBA0	M2	BA1	DQU5
MBA1	N8	BA2	DQU6
MBA2	M3	BA2	DQU7
		CAS	DMU
RMCAS	K3	RAS	DQSU
RMRAS	J3	WE	DQSU
RMWE	L3	CS	
RMCS0	L2	MCKE0	
MCKE0	K9	CKE	
MODT0	K1	ODT	
		RESET	
MDDR_RST	T2	CK	
		CK	
RMCK0P	J7		
RMCK0N	K7		

E3	RMD0
E7	RMD1
F2	RMD7
F8	RMD2
H3	RMD5
H8	RMD6
G2	RMD3
H7	RMD4
E7	RMDQM0
F3	RMDQS0P
G3	RMDQS0N
D7	RMD9
C3	RMD11
C8	RMD10
A7	RMD14
A2	RMD8
B8	RMD13
B	RMD12
A3	RMD15
D3	RMDQM1
C7	RMDQS1P
B7	RMDQS1N

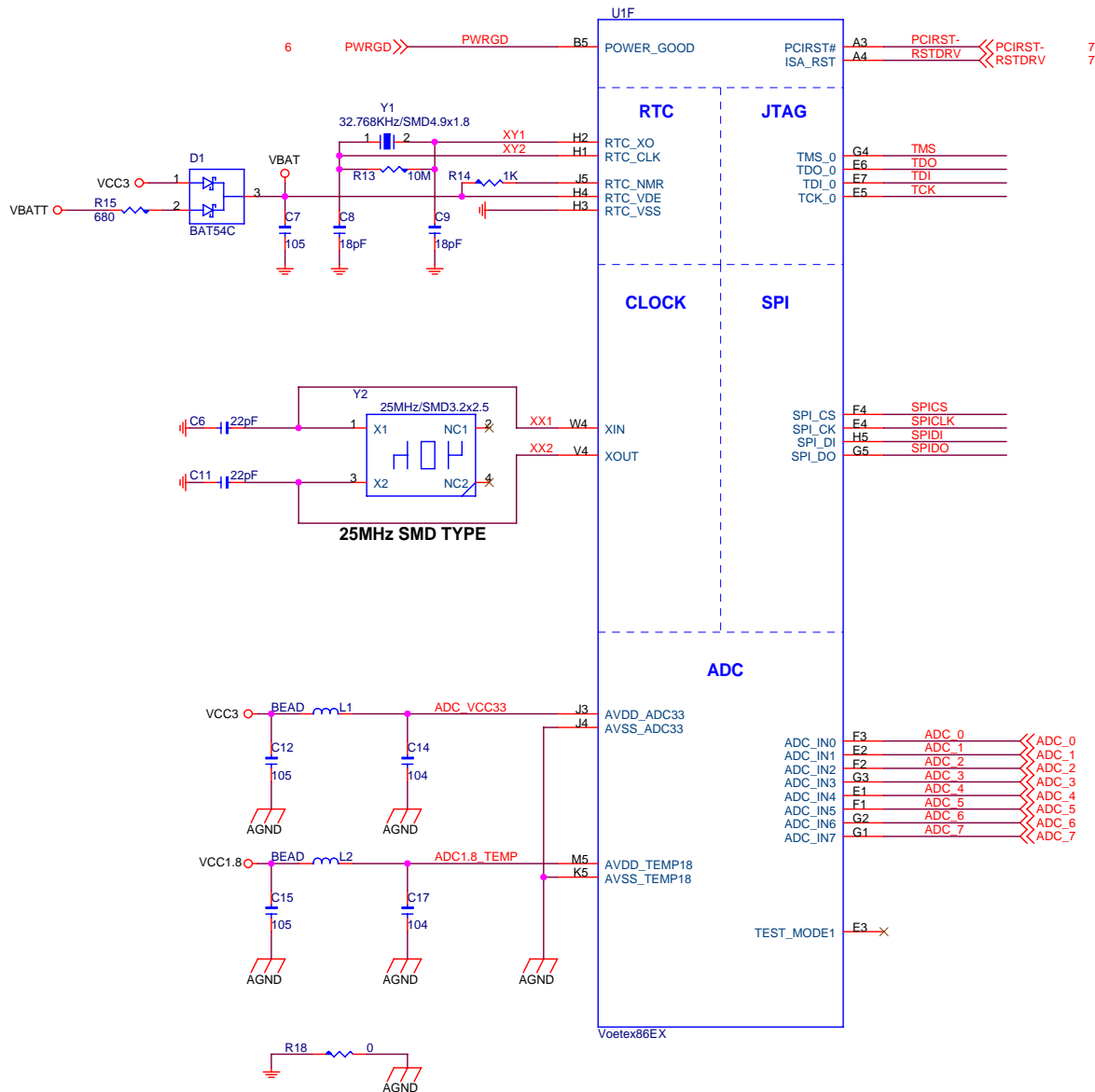


**Add**

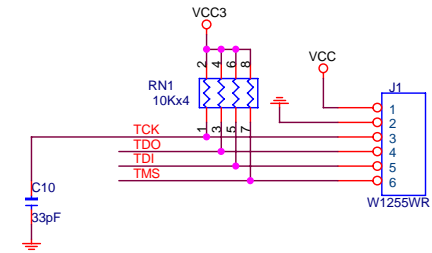
2013/08/14  
SOM128EX-KIT

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

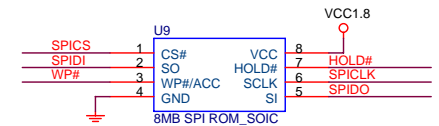
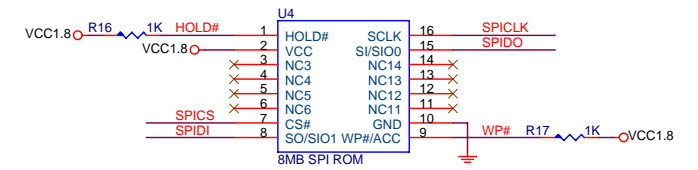
<b>DMP ELECTRONICS INC.</b>		
Title: Voetex86EX DDR-III Memory		
Size: DM205	Document Number: DM205	Rev: 0.6
Date: Wednesday, August 14, 2013	Sheet: 1	of 8



### JTAG



### SPI FLASH



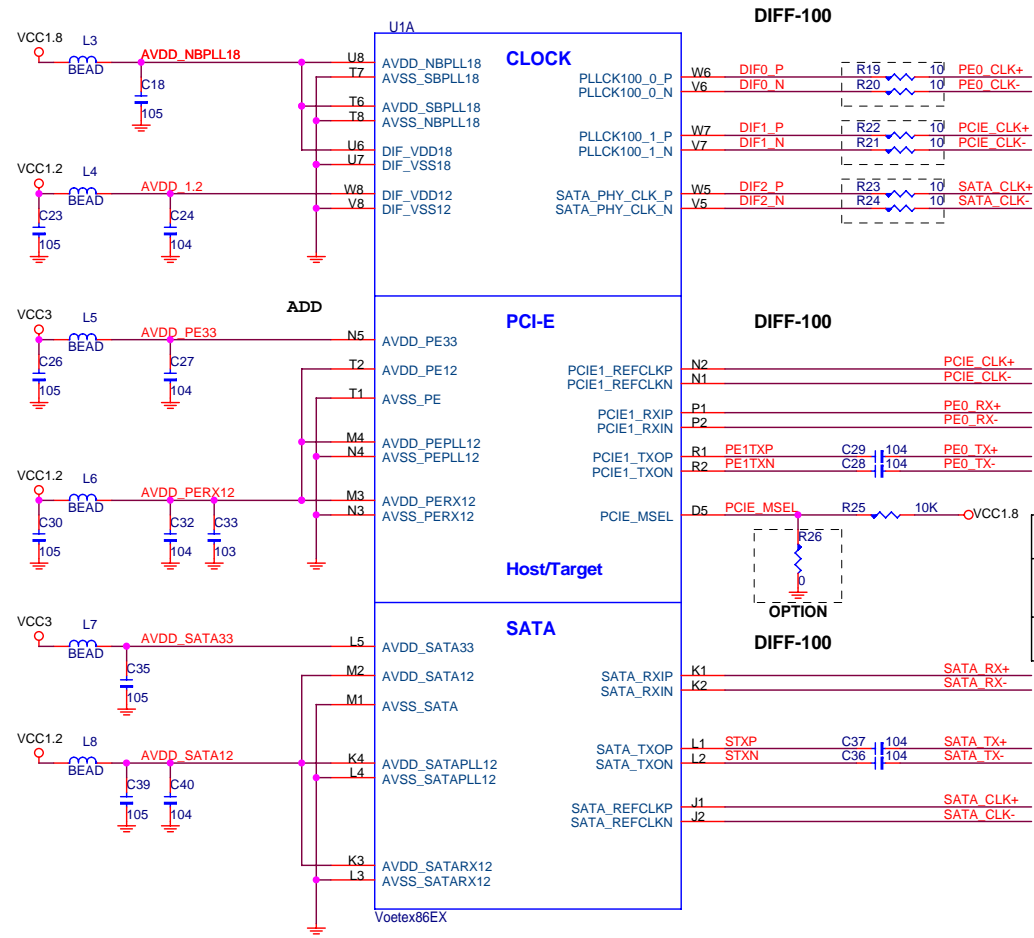
### strap pin

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

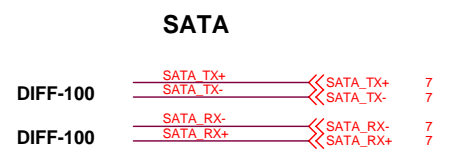
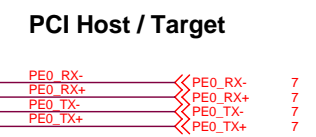
### DMP ELECTRONICS INC.

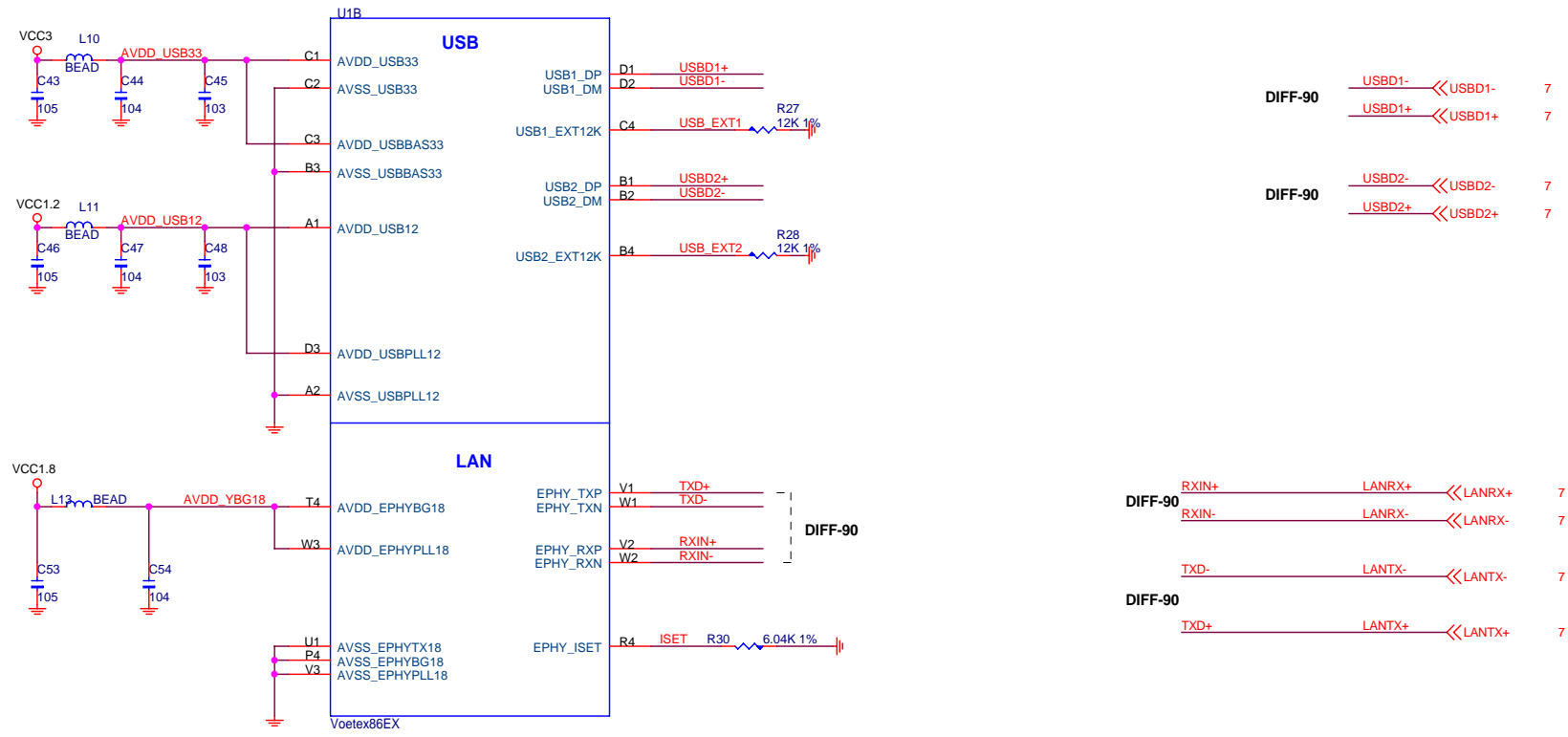


Title		
PWGOOD,RTC,SATA,CLOCK,SPI,ADC		
Size	Document Number	Rev
	DM205	0.6
Date:	Wednesday, August 14, 2013	Sheet 2 of 8



PCIE_MSEL	PCie select
1 (High) (default)	PCie Host
0 (Low)	PCie Target





DIFF-90  
 USBD1- << USBD1- 7  
 USBD1+ << USBD1+ 7

DIFF-90  
 USBD2- << USBD2- 7  
 USBD2+ << USBD2+ 7

DIFF-90  
 RXIN+ << LANRX+ << LANRX+ 7  
 RXIN- << LANRX- << LANRX- 7

DIFF-90  
 TXD- << LANTX- << LANTX- 7  
 TXD+ << LANTX+ << LANTX+ 7

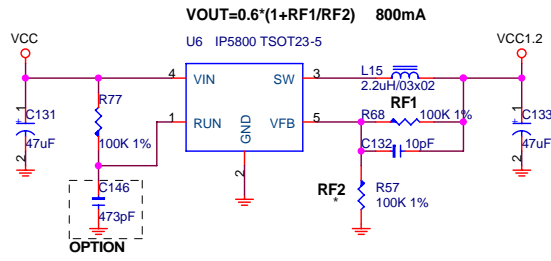
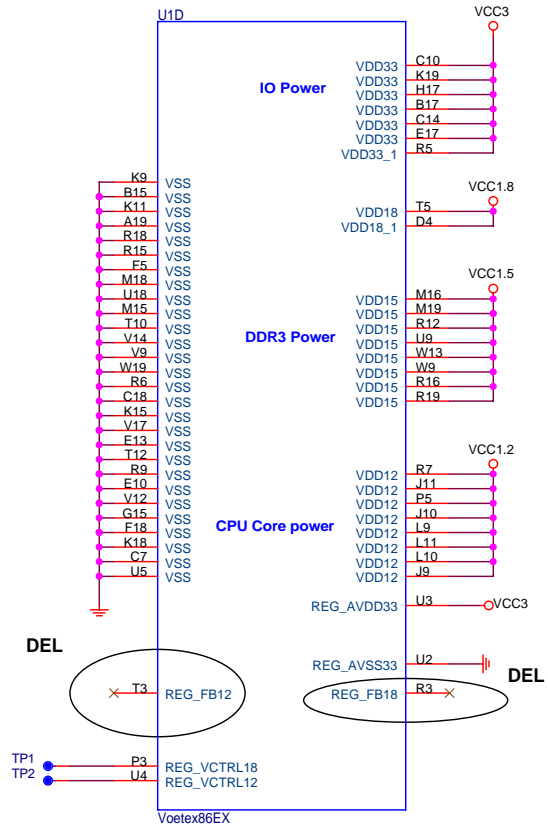
<b>DMP ELECTRONICS INC.</b>		
Title USB , LAN		
Size	Document Number DM205	Rev 0.6
Date:	Wednesday, August 14, 2013	Sheet 4 of 8

		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 -
-7	GP47 << GP47 << A16	GP47/AP47/RP47/CTS5#	CTS10#/RP97/AP97/GP97	A5 GP97 << GP97	7 -

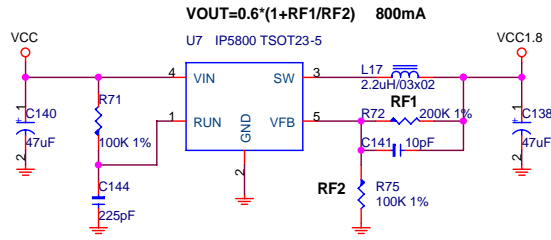
Port 0 - Part 9

Voetex86EX

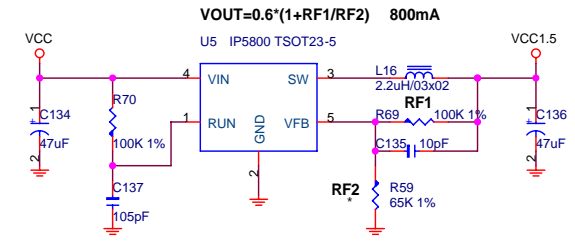
<b>DMP ELECTRONICS INC.</b>		
Title GPIO ,RICH IO, COM		
Size	Document Number DM205	Rev 0.6
Date:	Wednesday, August 14, 2013	Sheet 5 of 8



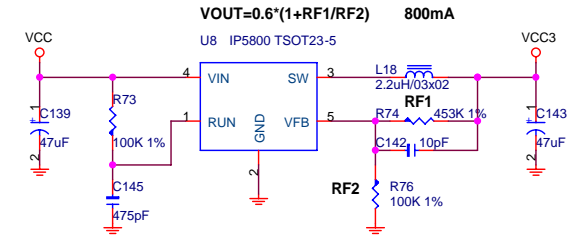
**(VCORE)  
VCC 1.2V**



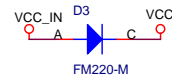
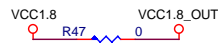
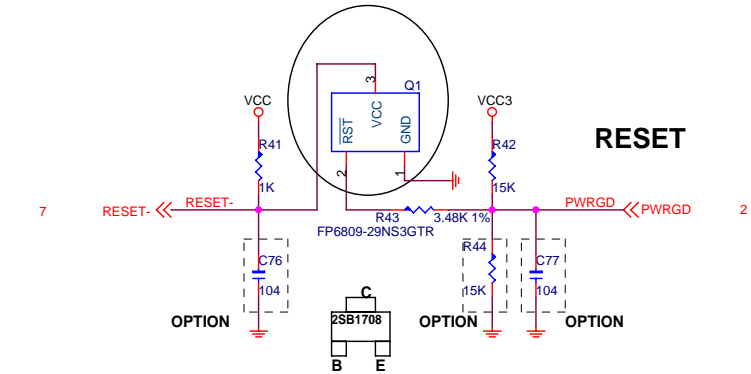
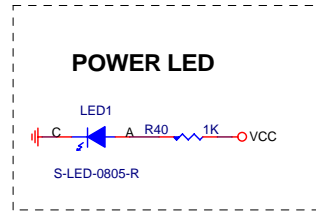
**VCC 1.8V**



**VCC 1.5V**

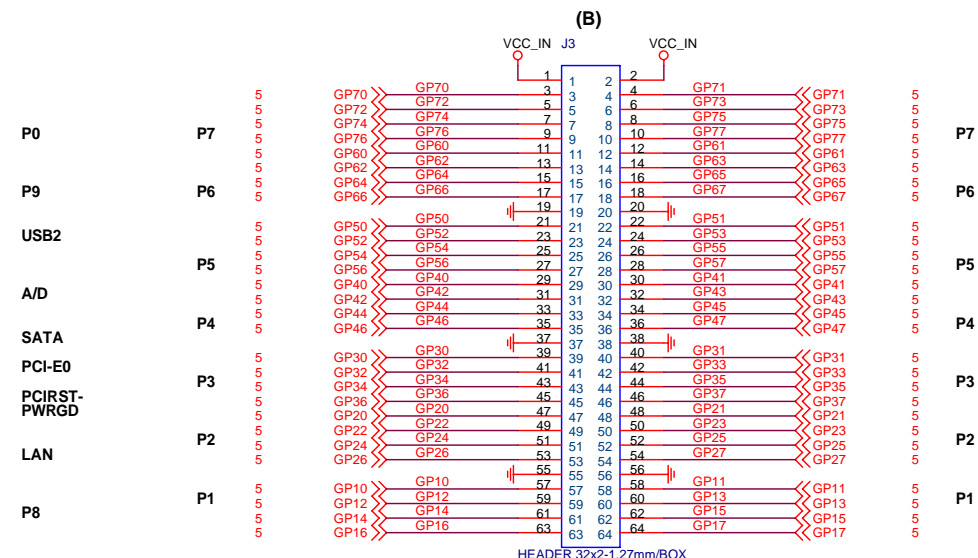
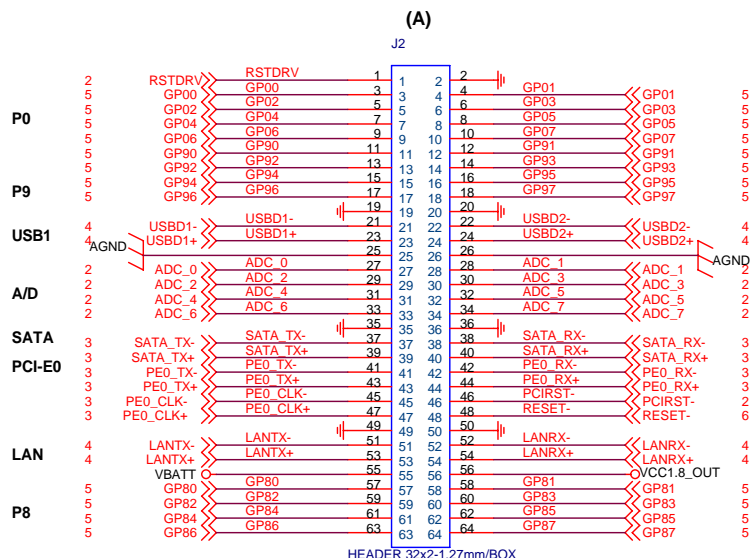


**VCC 3.3V**



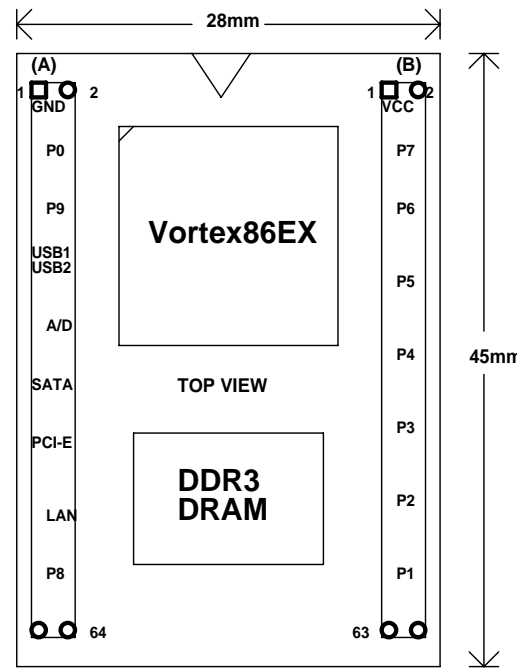
Power Sequence: +5V=>+1.2V/+1.5V=>1.8V=>3.3V

<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

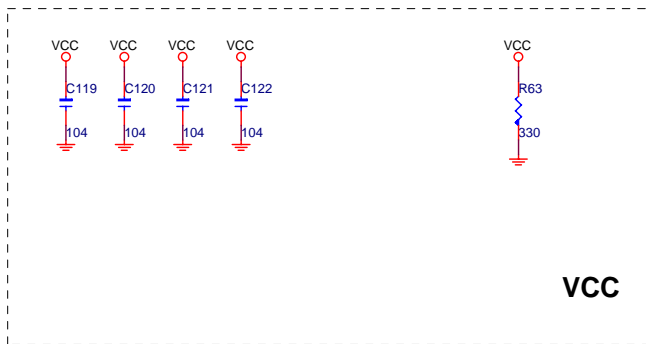
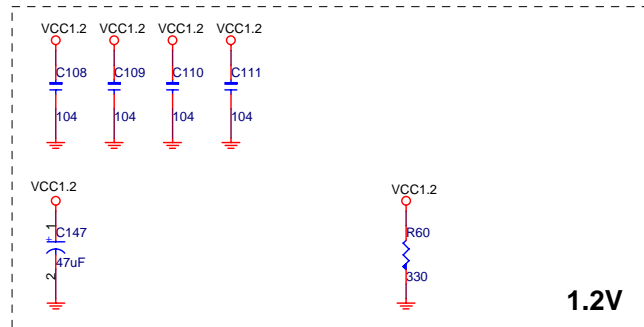
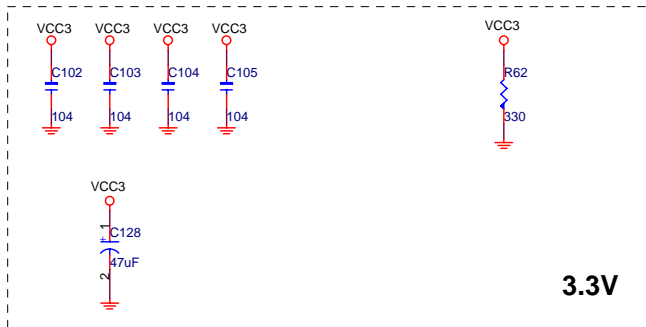
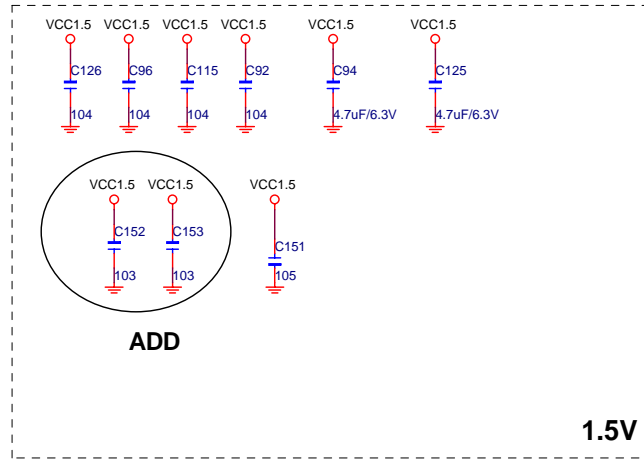
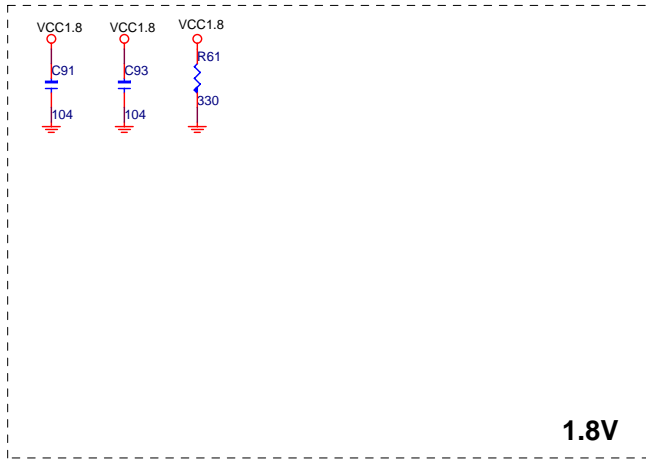
HEADER 32x2-1.27mm/BOX



SOM-128-EX

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



**DMP ELECTRONICS INC.**

Title		
BY PASS		
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	DM205	0.6
Date:	Wednesday, August 14, 2013	Sheet 8 of 8