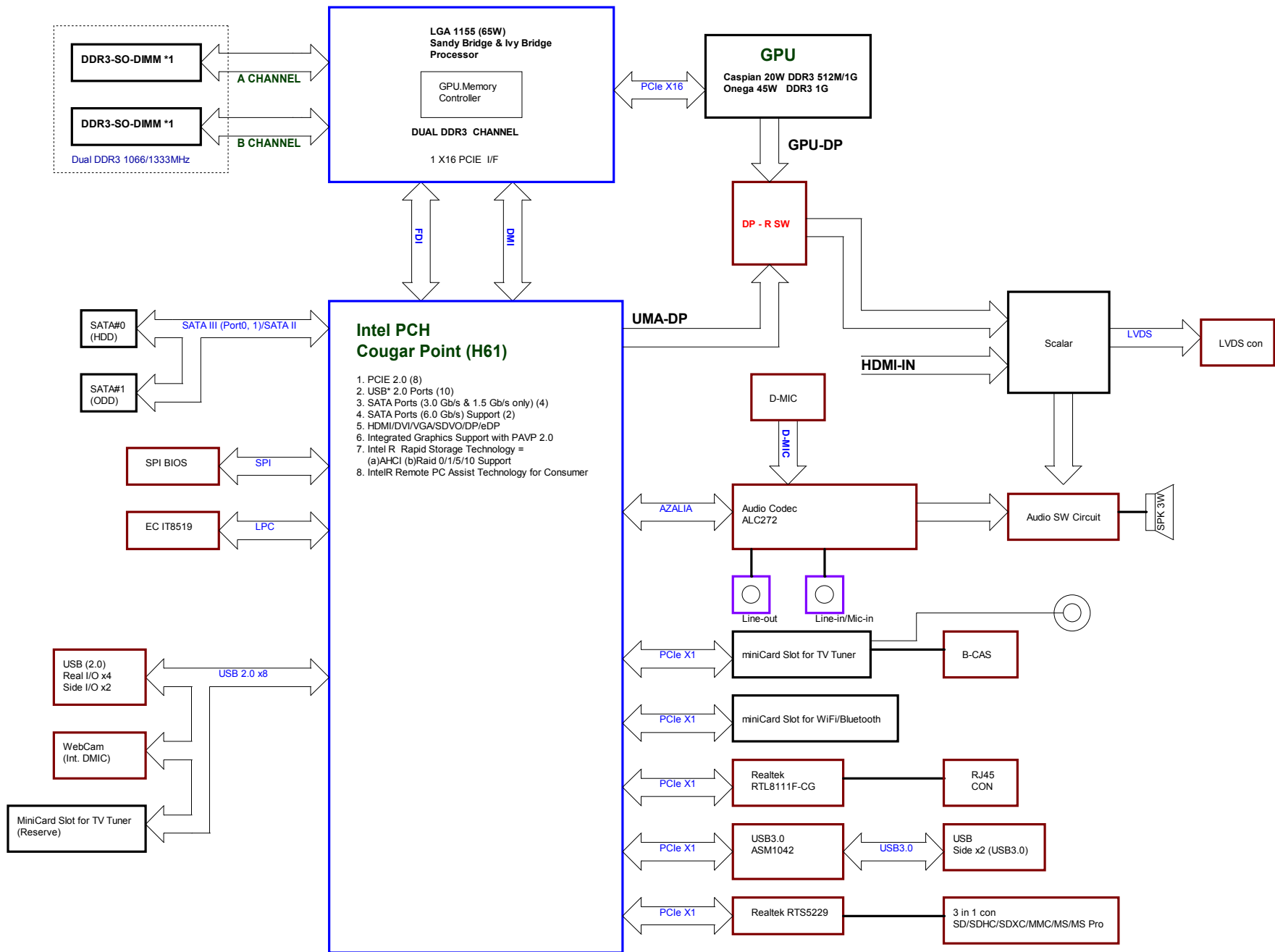


# Lenovo B320 Schematics

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System Power Button	LCD/HW TV Power Button	Brightness UP/Down Switch	Volume UP/Down Switch	BT Pair Switch	ODD Eject Button
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System Power LED	LCD/HW TV Power LED	WIFI LED	Blue tooth LED	HDD LED	ODD LED	Webcam LED
------------------	---------------------	----------	----------------	---------	---------	------------

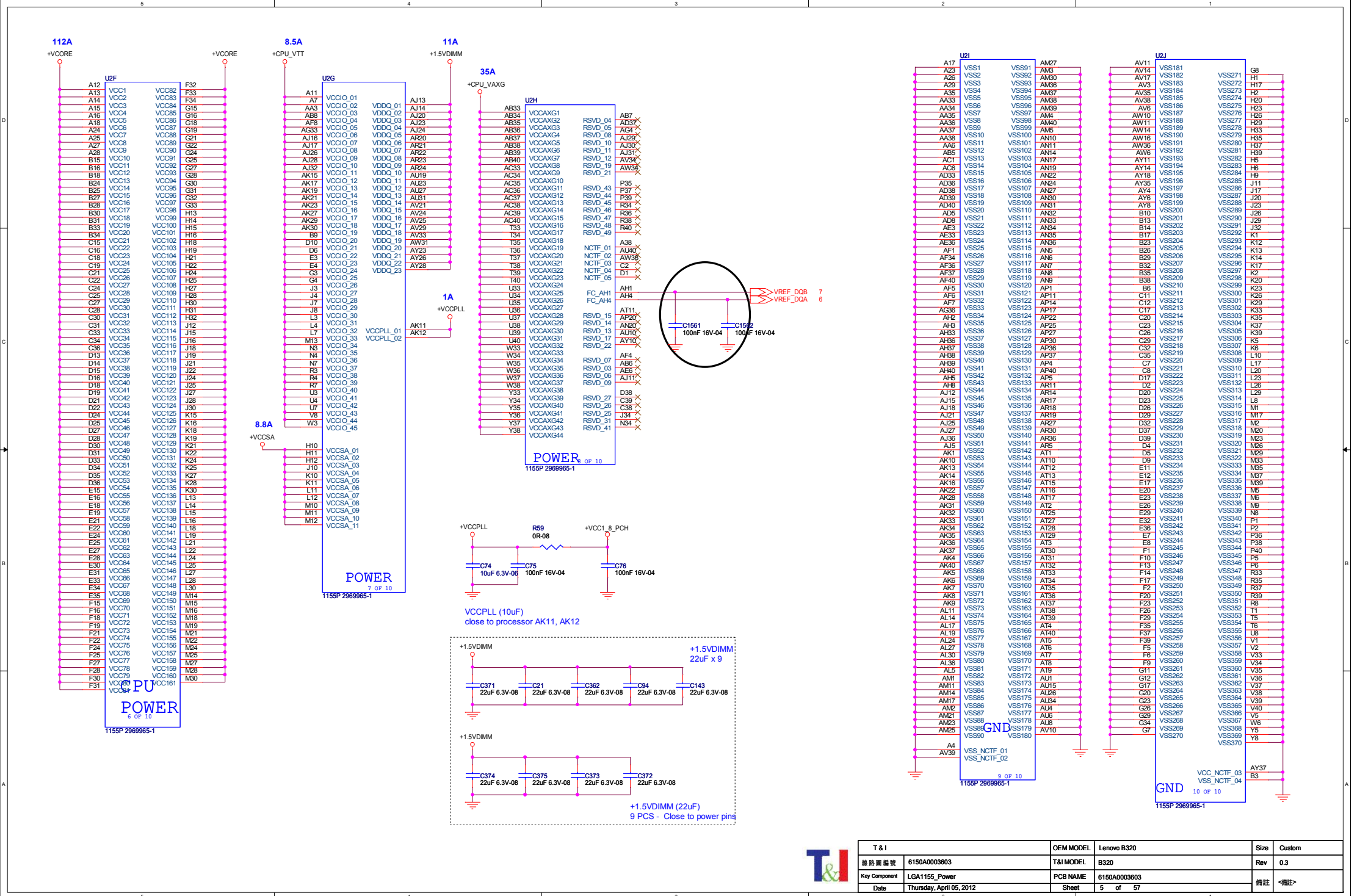


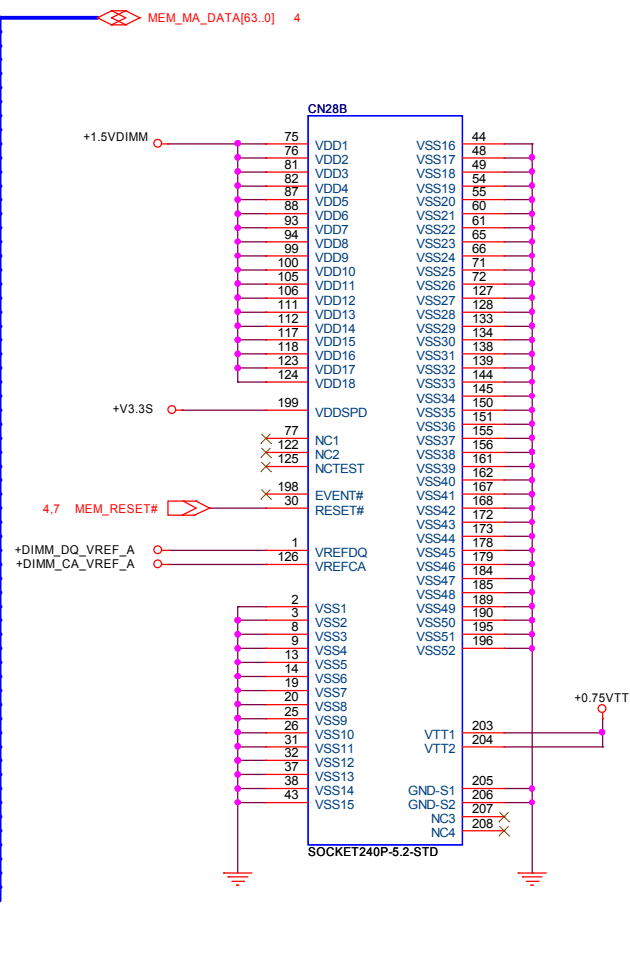
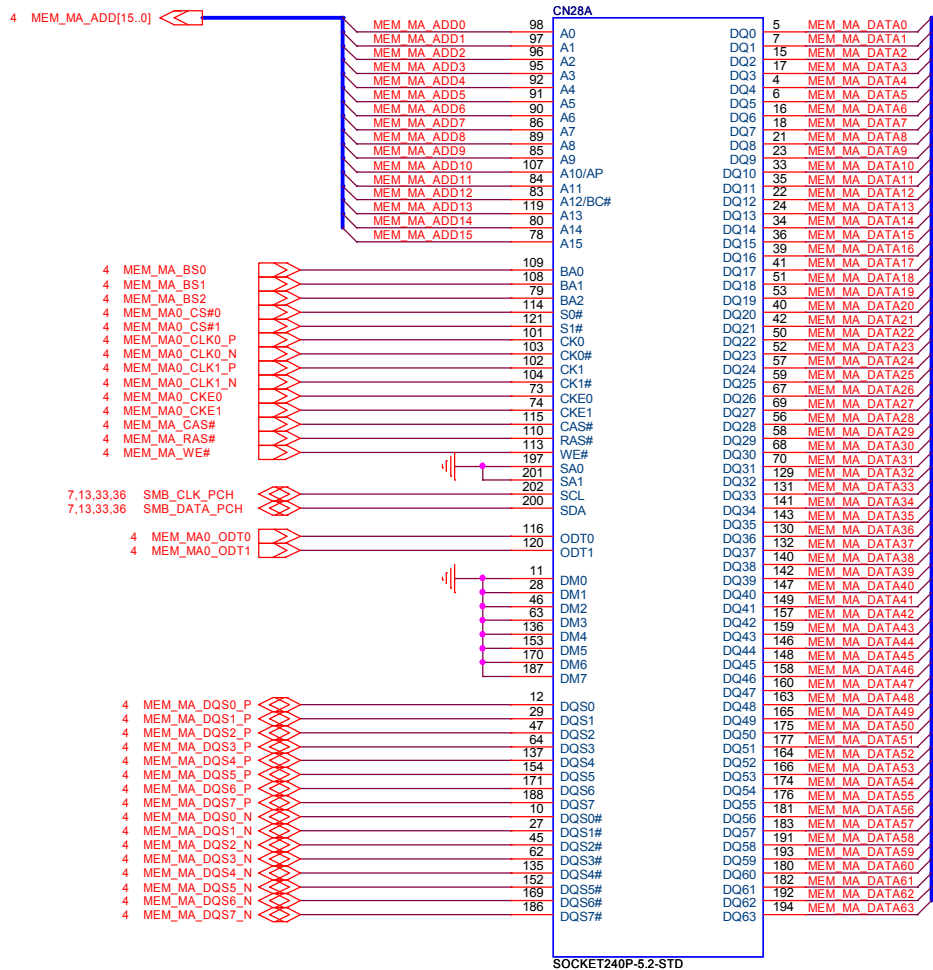
T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	BLOCK DIAGRAM	PCB NAME	6150A0003603	備註	<備註>
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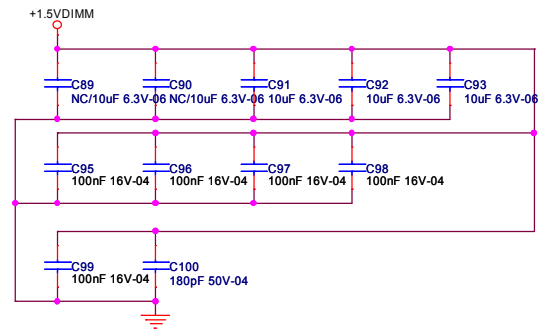
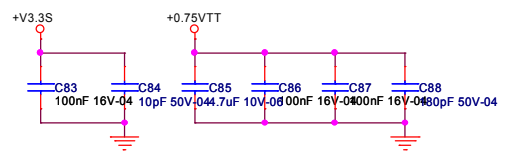
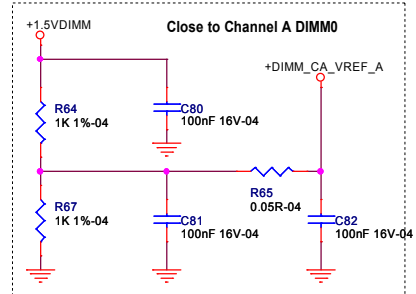
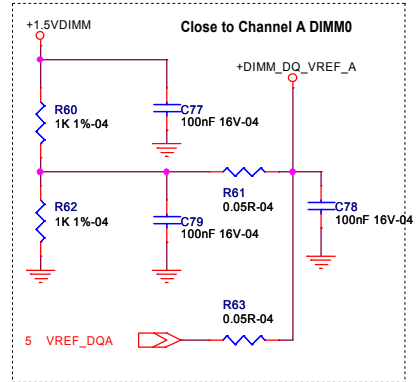
T & I		OEM MODEL	Lenovo B320	Size	Custom
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Key Component	LGA1155_DIMM A&B	PCB NAME	6150A0003603	備註	
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### Channel A DIMM0 (5.2mm)

Address : 00



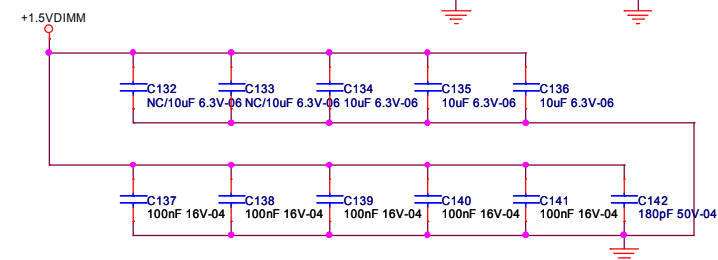
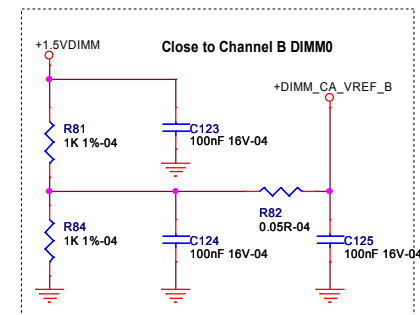
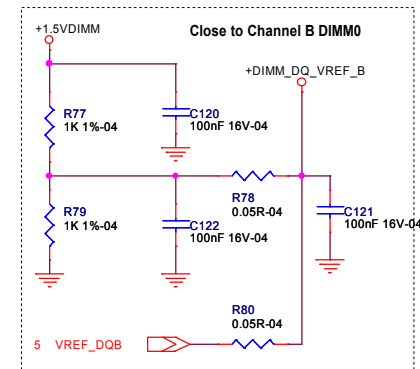
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線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	DDR3 DIMM MA-CH0 5.2mm	PCB NAME	6150A0003603	備註	<備註>
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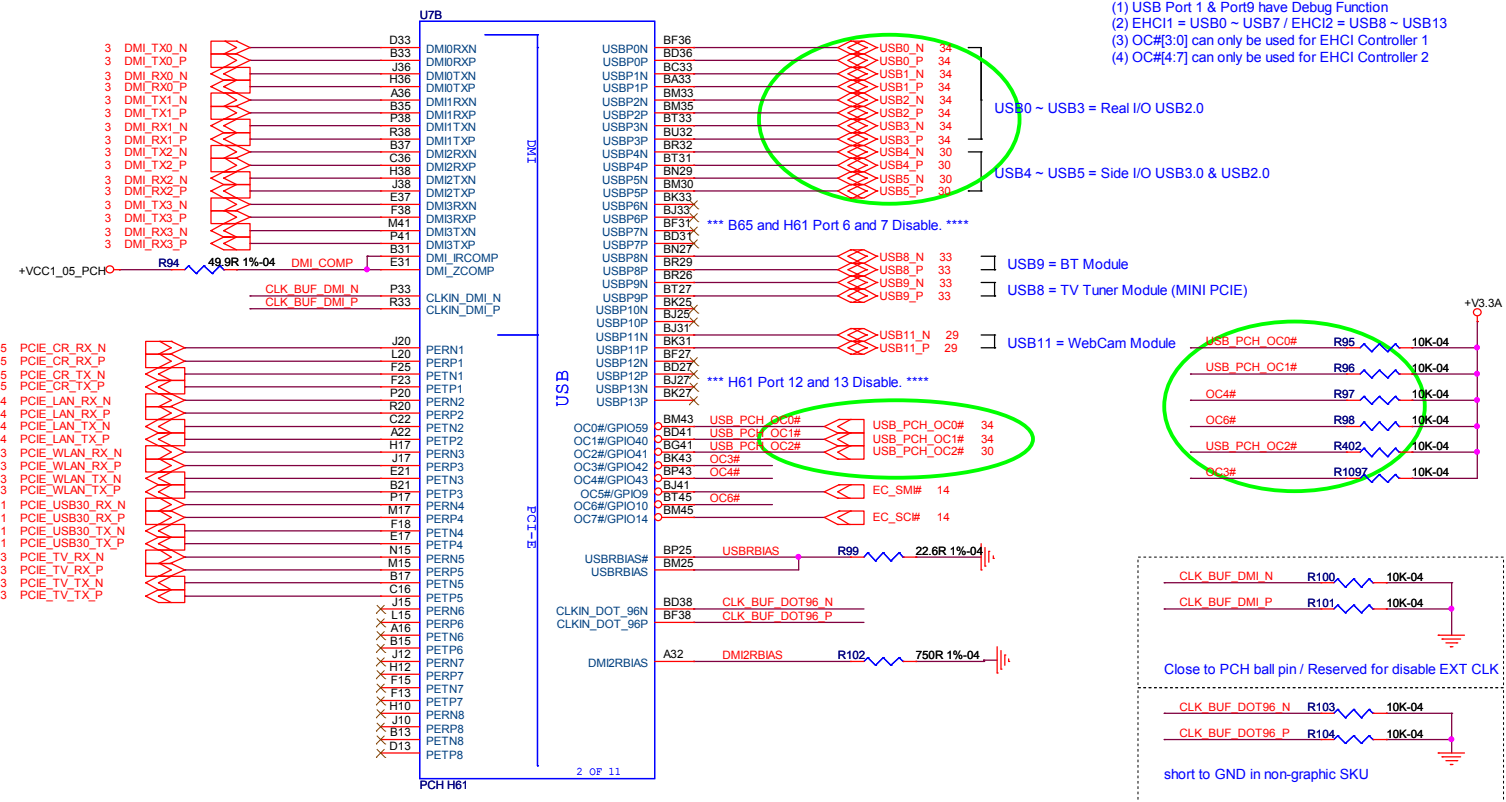
SOCKET240P-9.2-STD

## Channel B DIMM0 (5.2mm) Address : 10

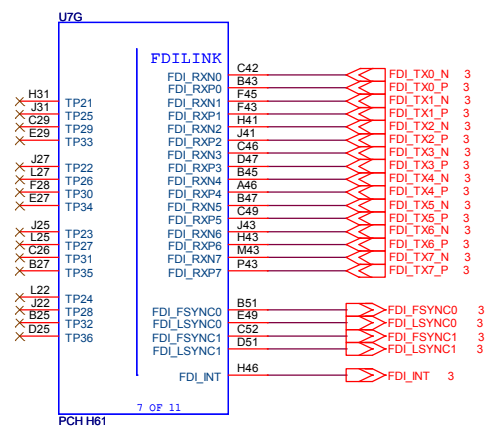


T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	DDR3 DIMM MB-CH0 5.2mm	PCB NAME	6150A0003603	備註	<備註>
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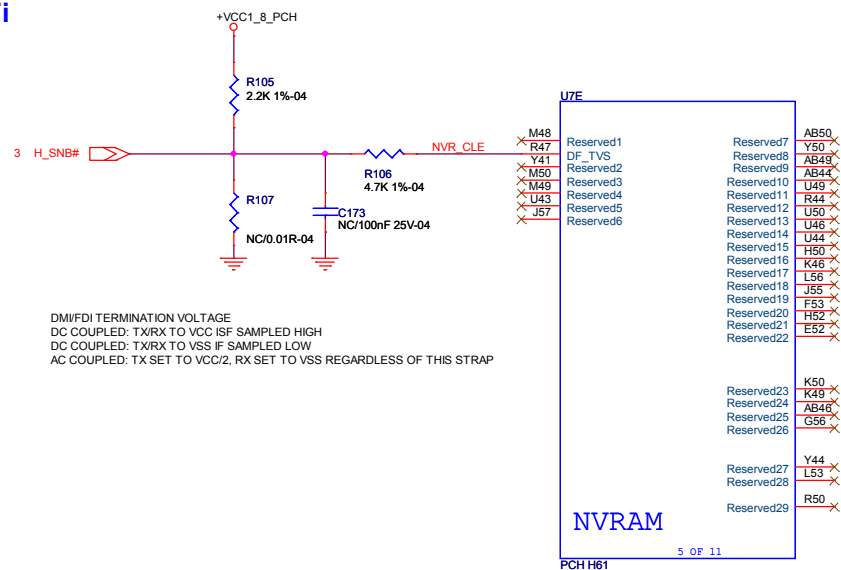
## PCH DMI / PCIE / USB



## PCH FDI



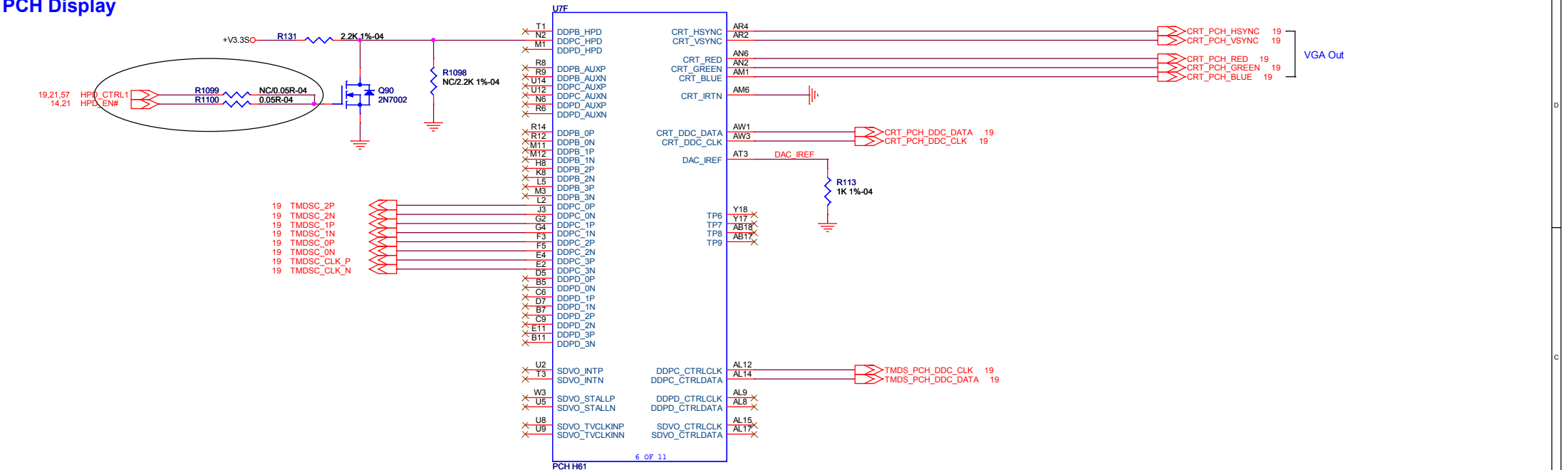
## PCH ONFi



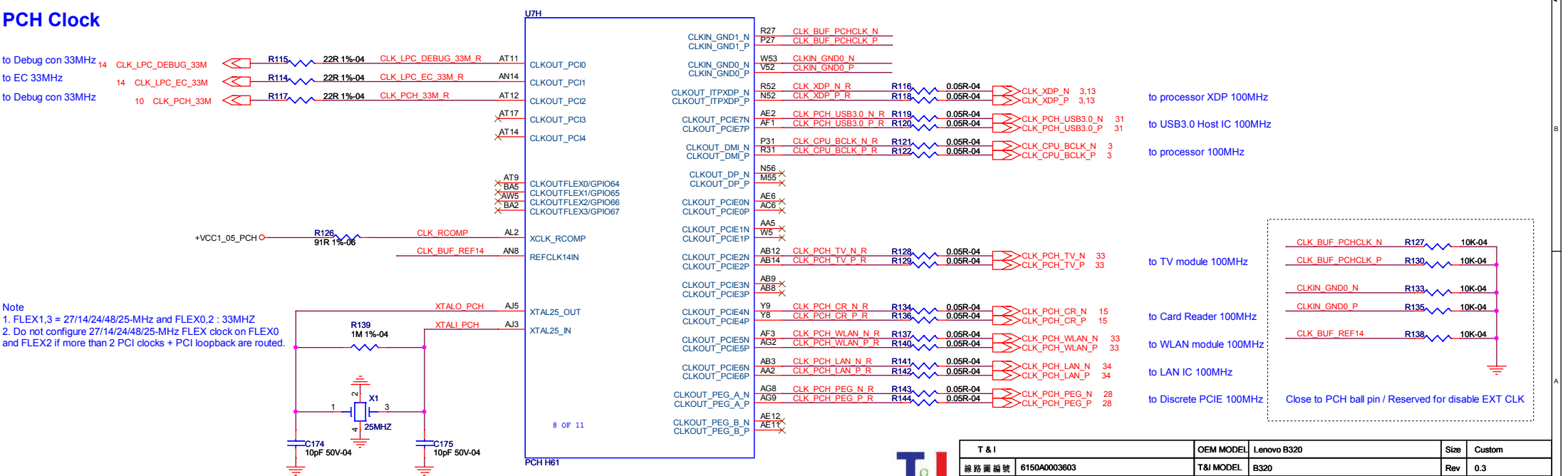
T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	PCB_FDI,DMI,USB,PCIE,NVRAM	PCB NAME	6150A0003603		
Date	Thursday, April 05, 2012	Sheet	8 of 57	備註	<備註>



PCH Display



PCH Clock



Note

- 1. FLEX1,3 = 27/14/24/48/25-MHz and FLEX0,2 : 33MHz
- 2. Do not configure 27/14/24/48/25-MHz FLEX clock on FLEX0 and FLEX2 if more than 2 PCI clocks + PCI loopback are routed.



T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	PCH_DP, CLK BUFFER	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	9 of 57		





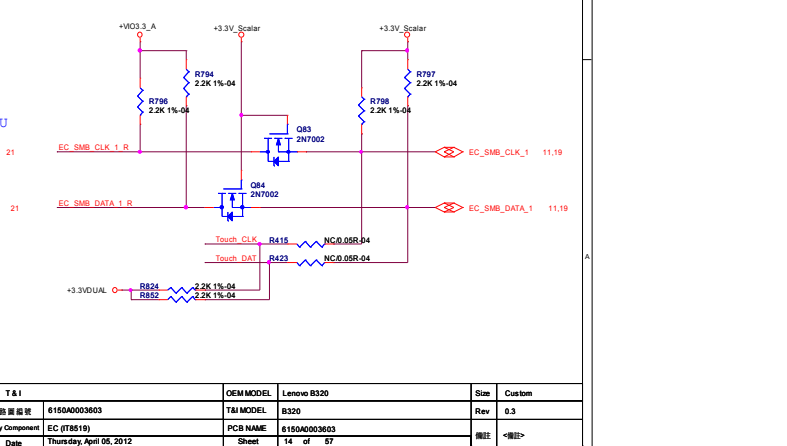
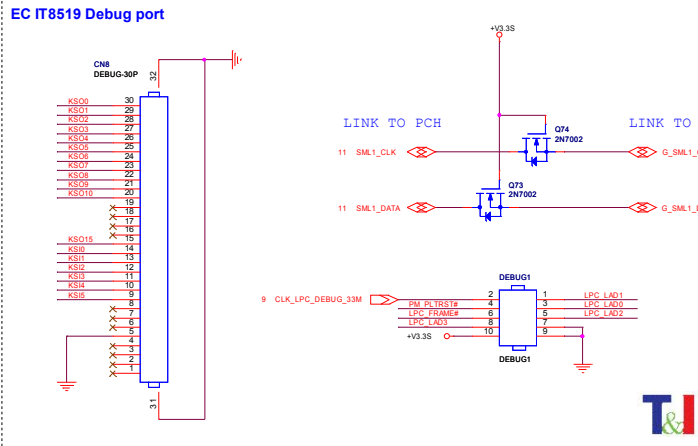
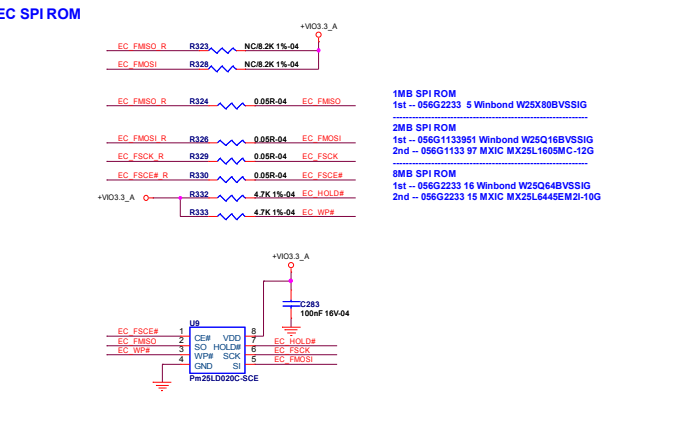
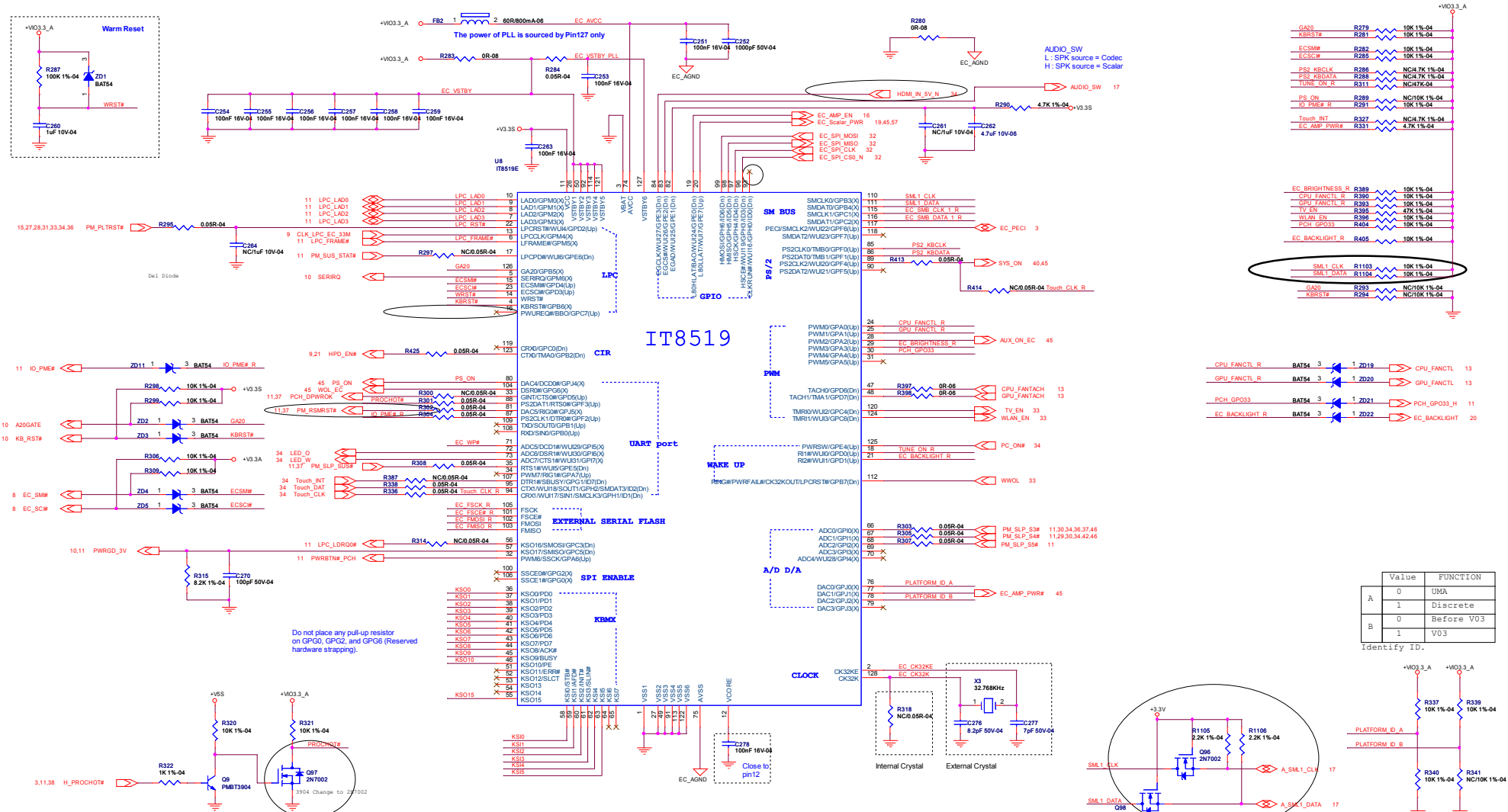


T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖面號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	PCH_PWR_GND	PCB NAME	6150A0003603		
Date	Thursday, April 05, 2012	Sheet	12 of 57	備註	<備註>

**Close to H2 Socket**

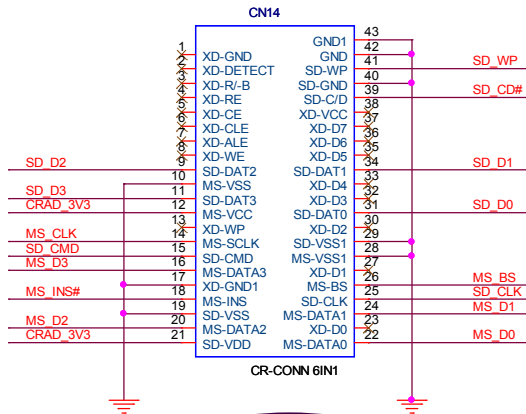


T & I		OEM MODEL	Lenovo B320	Size	Custom
維修單號碼	6150A0003603	TAI MODEL	B320	Rev	0.3
Key Component	XDP connect / FAN	PCB Name	6150A0003603		
Date	Thursday, April 05, 2012	Sheet	13 of 57	備註	<備註>



T & I	OEM MODEL	Lenovo B320	Size	Custom
TAI MODEL	B320		Rev	0.3
Key Component	EC (IT8519)	PCB NAME	B160A0003603	REV
Date	Thursday, April 05, 2012	Sheet	14 of 57	<前>

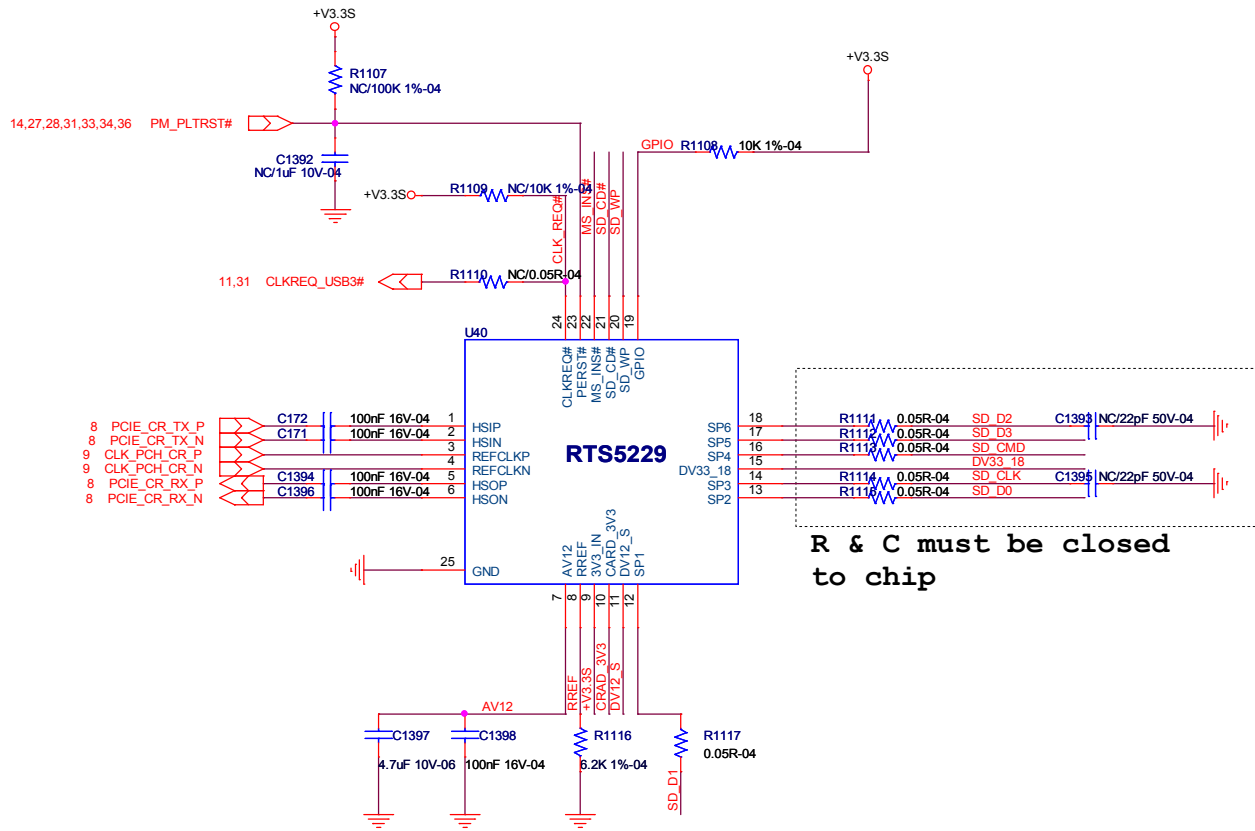
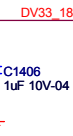
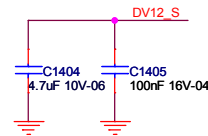
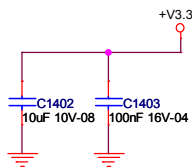
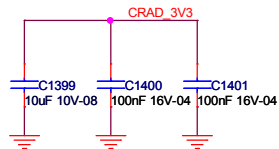




Share Pin

SP1	SD D1	MS D1
SP2	SD D0	MS D0
SP3	SD CLK	MS D0
SP4	SD CMD	MS D2
SP5	SD D3	MS D3
SP6	SD D2	MS CLK
SP7	SD_WP	MS_BS

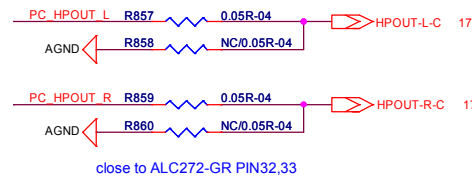
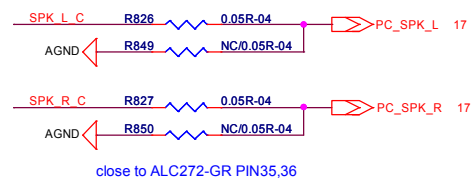
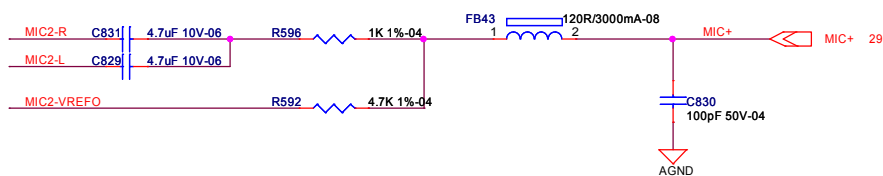
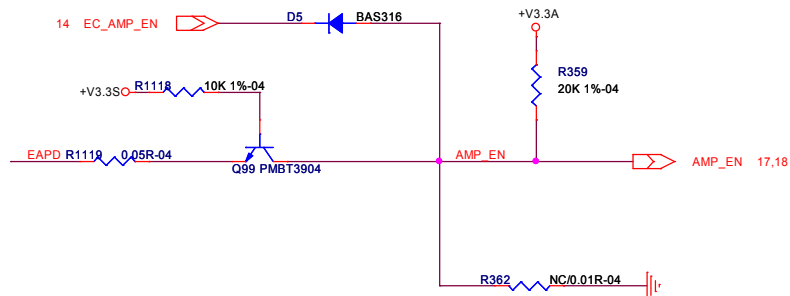
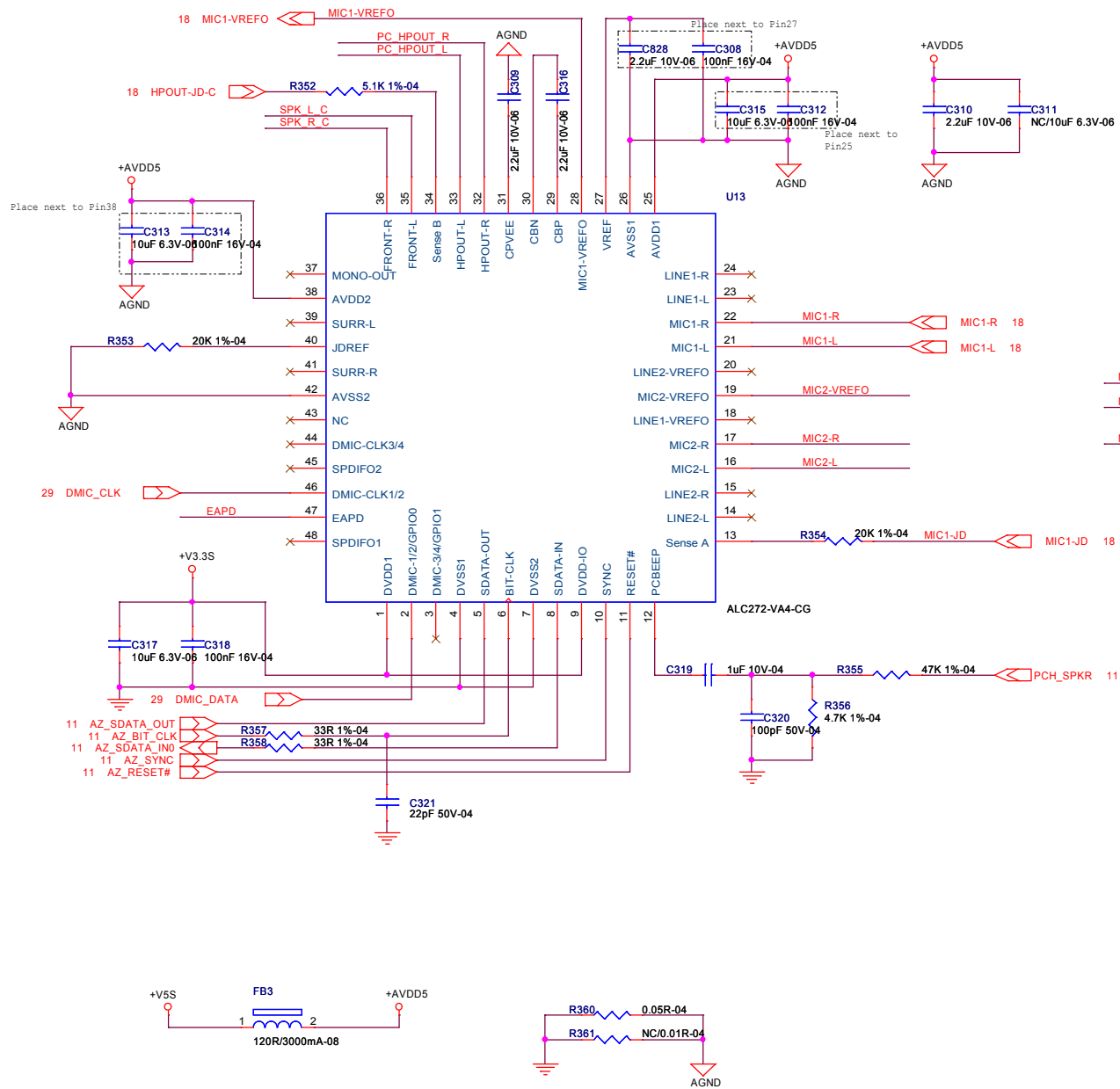
0224 based on vendor's request



R & C must be closed to chip



T & I	OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev 0.3
Key Component	Card Reader (RTS5229)	PCB NAME	6150A0003603	備註 <備註>
Date	Thursday, April 05, 2012	Sheet	15 of 57	

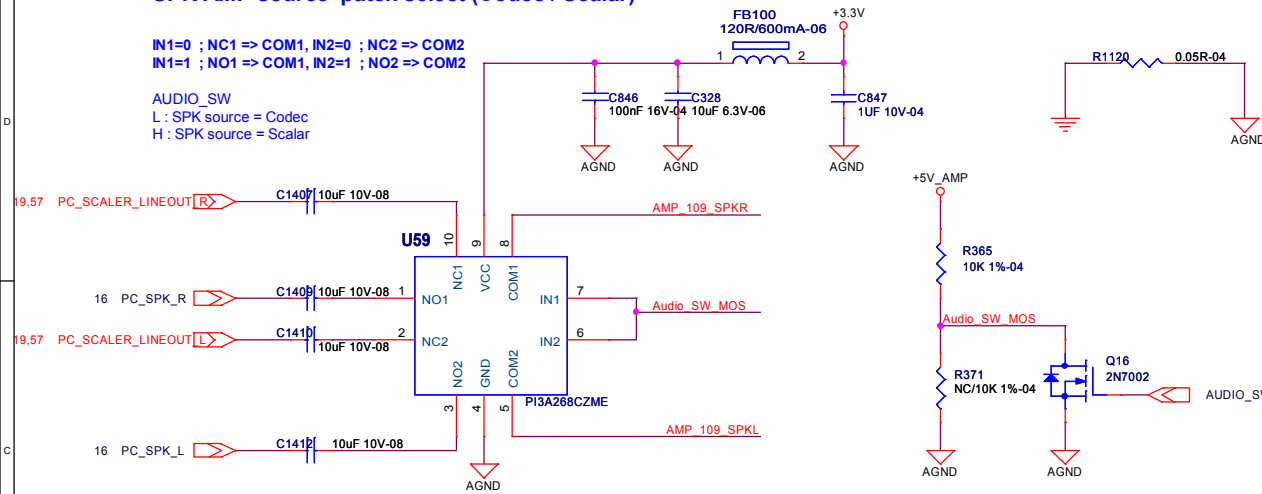


T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	Audio Codec (ALC272)	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	16 of 57		

## SPK AMP source patch select (Codec / Scalar)

IN1=0 ; NC1 => COM1, IN2=0 ; NC2 => COM2  
 IN1=1 ; NO1 => COM1, IN2=1 ; NO2 => COM2

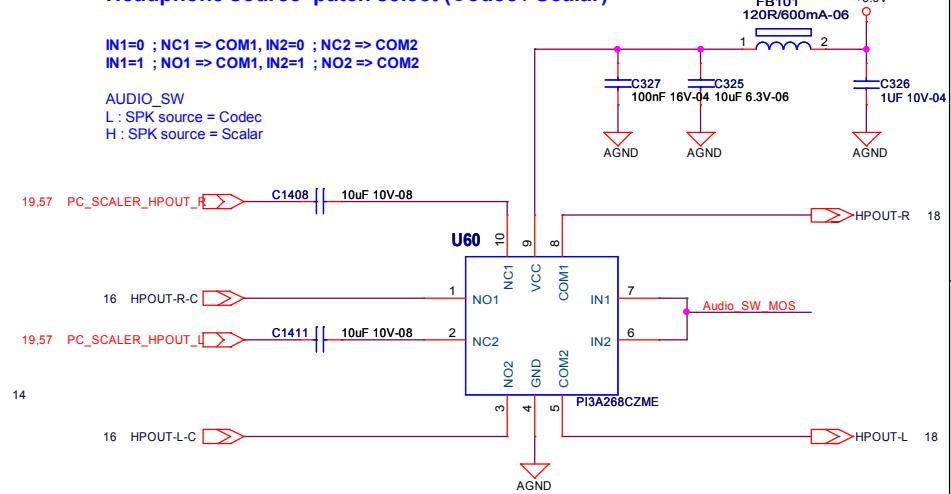
AUDIO\_SW  
 L : SPK source = Codec  
 H : SPK source = Scalar



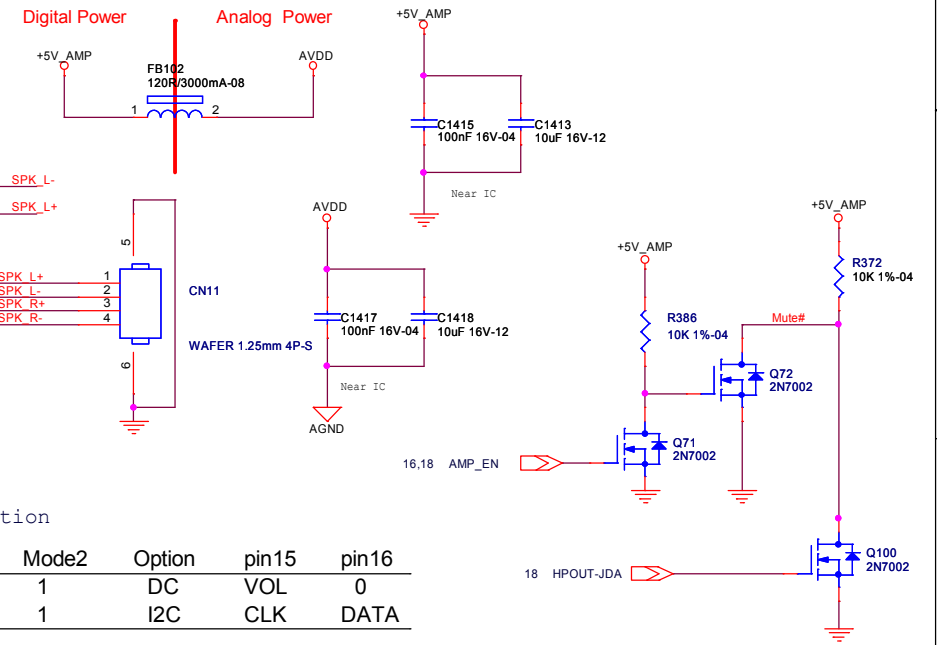
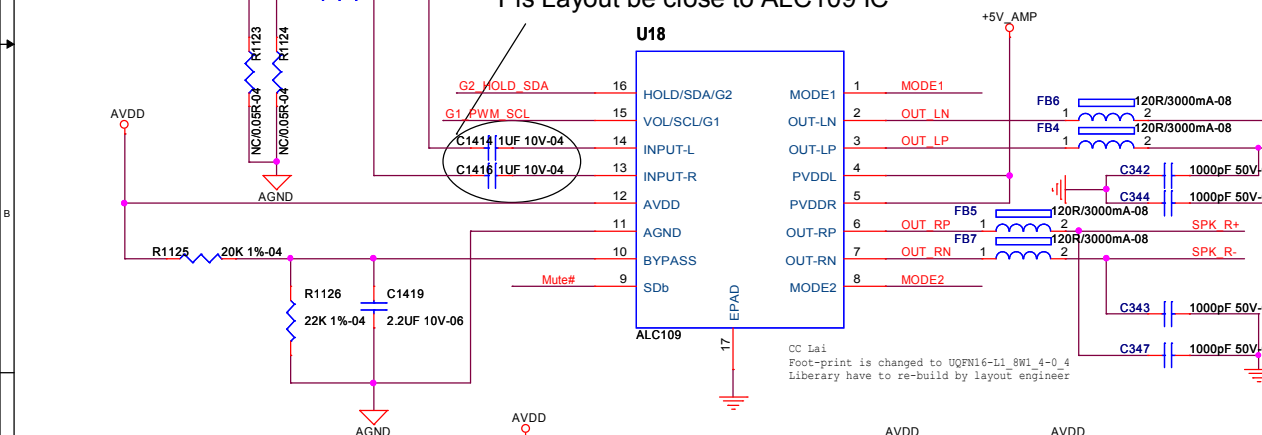
## Headphone source patch select (Codec / Scalar)

IN1=0 ; NC1 => COM1, IN2=0 ; NC2 => COM2  
 IN1=1 ; NO1 => COM1, IN2=1 ; NO2 => COM2

AUDIO\_SW  
 L : SPK source = Codec  
 H : SPK source = Scalar

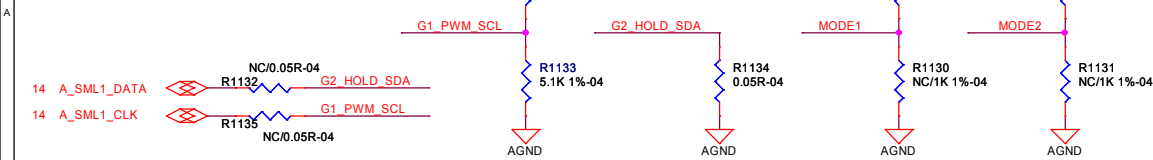


Pls Layout be close to ALC109 IC



## DC Volume Control

I2C control for ALC109



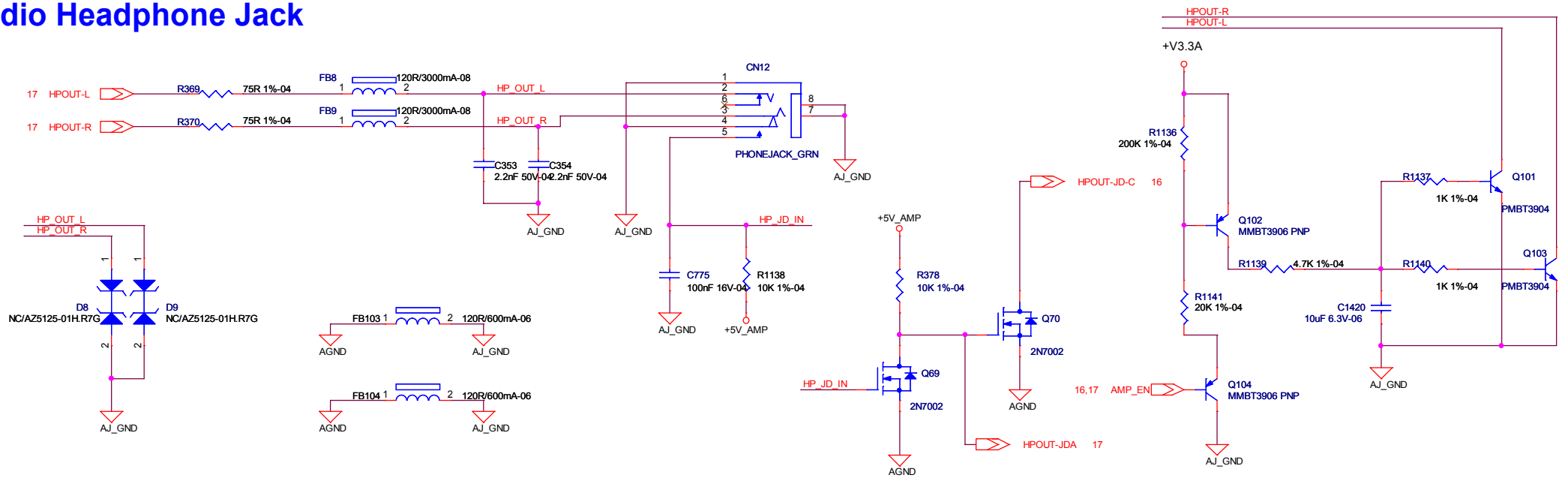
Mode selection

Mode1	Mode2	Option	pin15	pin16
1	1	DC	VOL	0
0	1	I2C	CLK	DATA

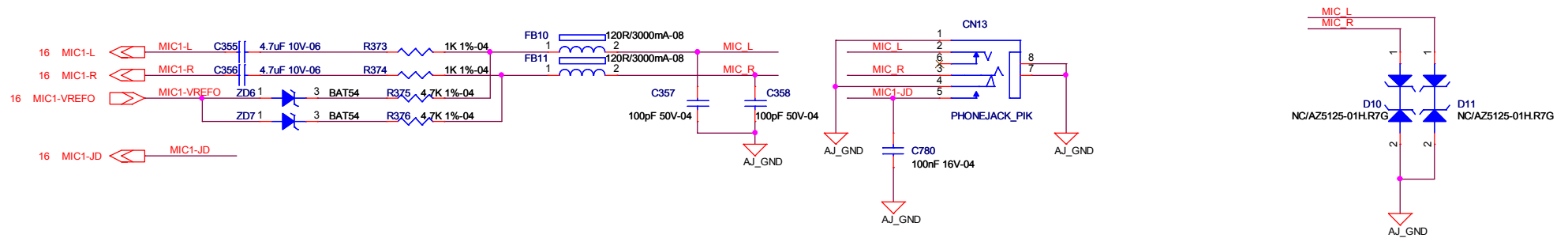


T & I	OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev
Key Component	Audio AMP / SW	PCB NAME	6150A0003603	備註
Date	Thursday, April 05, 2012	Sheet	17 of 57	<備註>

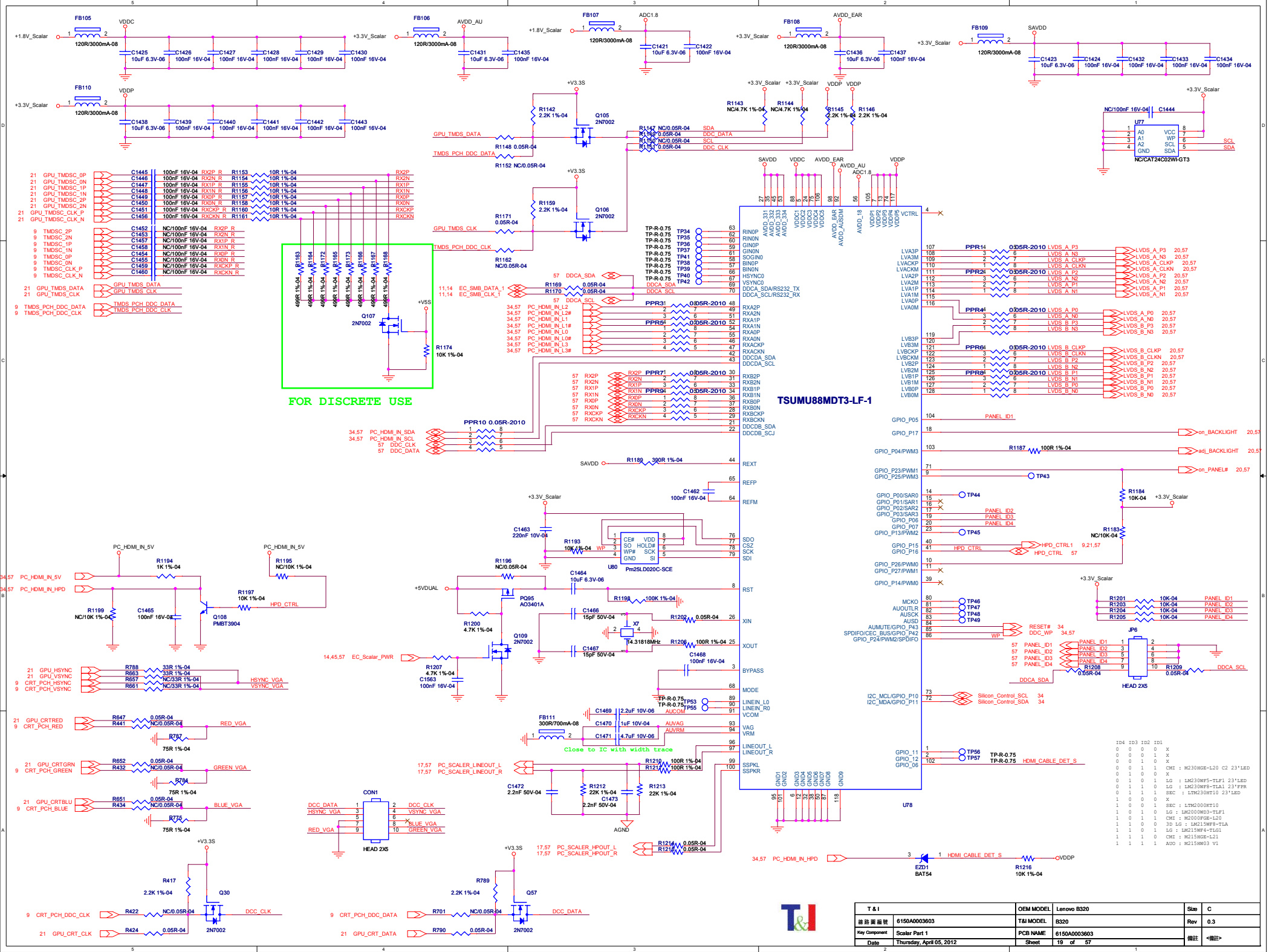
## Audio Headphone Jack



## Audio Mic Jack

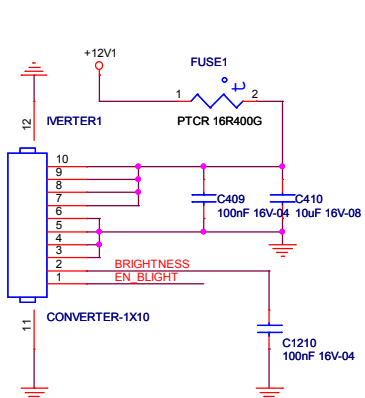


T & I		OEM MODEL	Lenovo B320	Size	B
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component		PCB NAME	Audio Conn		
Date	Thursday, April 05, 2012	Sheet	18 of 57	備註	<備註>

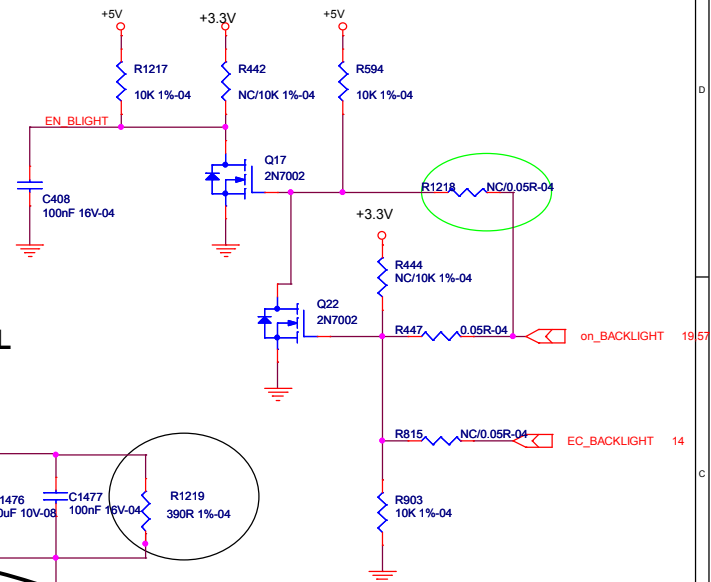


T & I		OEM MODEL	Lenovo B320	Size	C
機路圖編號		T&I MODEL	B320	Rev	0.3
Key Component	Scalar Part 1	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	19 of 57		

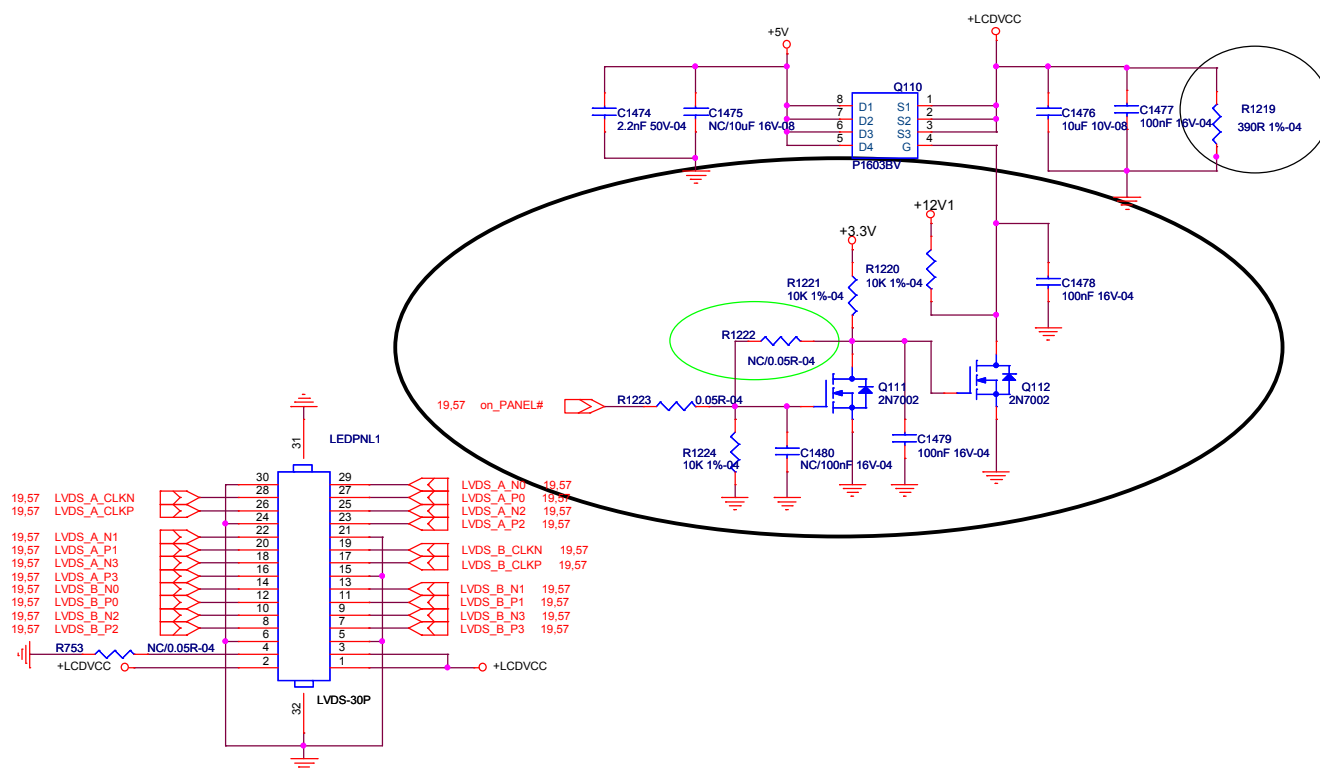
## BRIGHTNESS CONTROL



## BACKLIGHT ENABLE

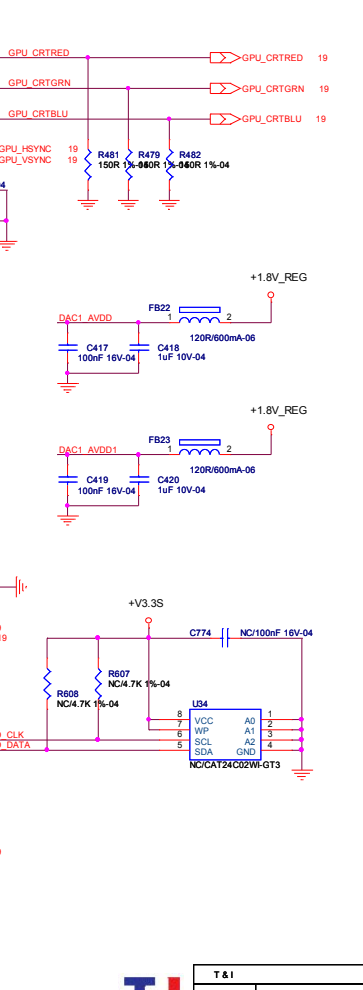
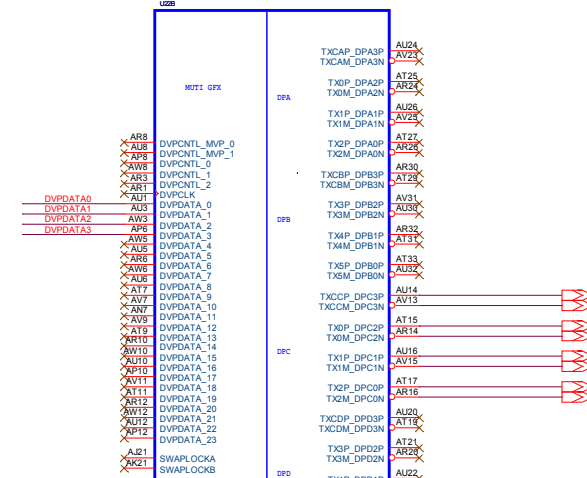


## PANEL VCC CONTROL

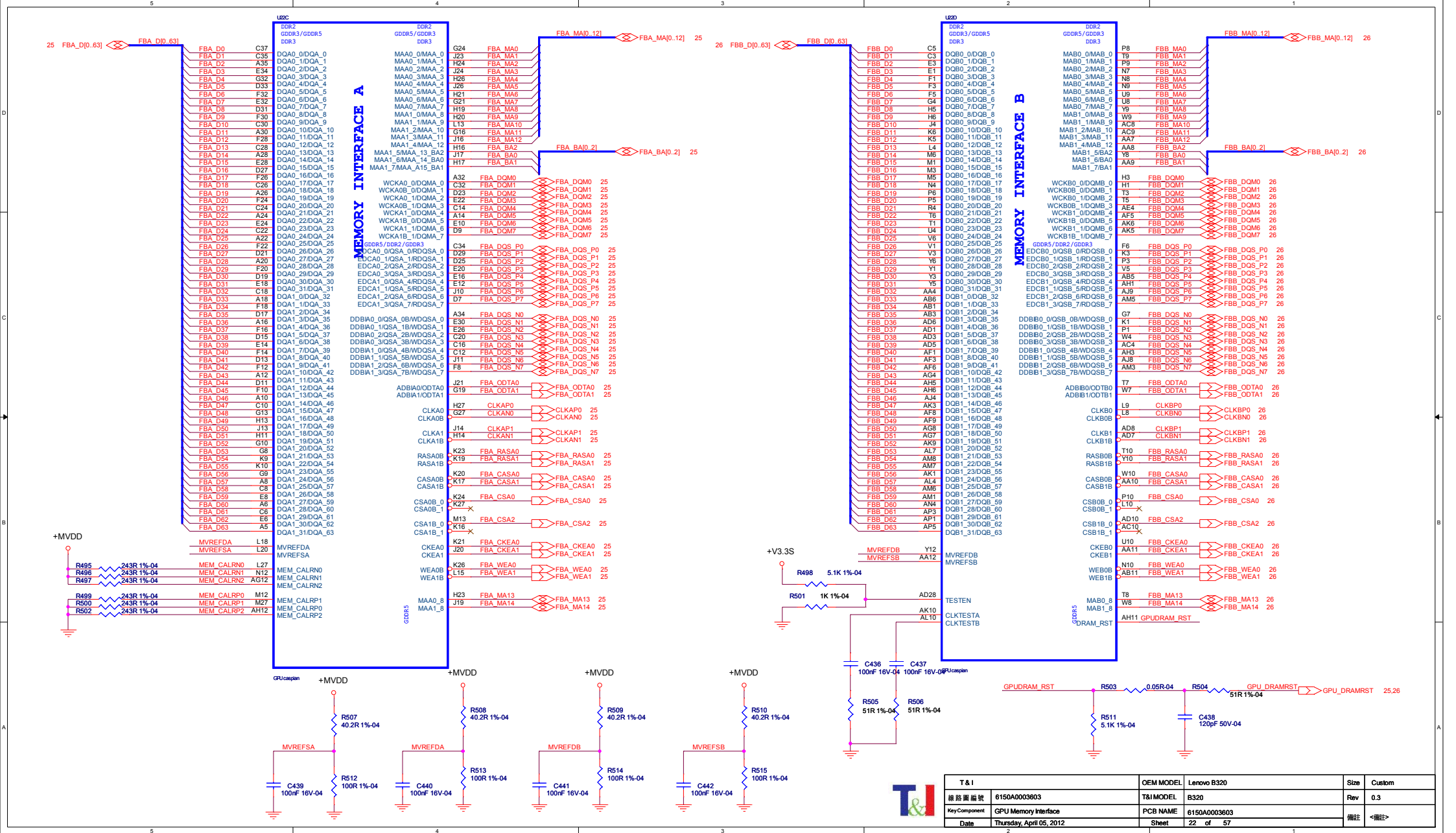


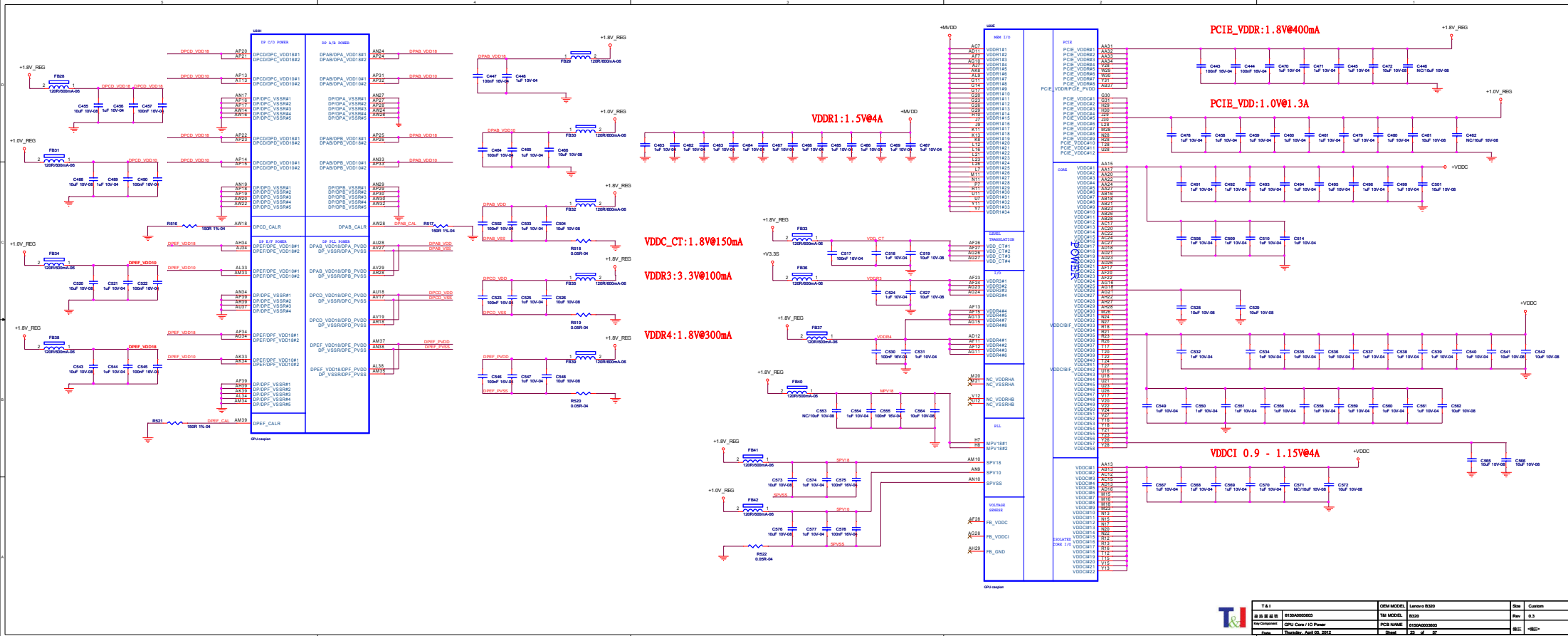
T & I		OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	Scalar Part 2	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	20 of 57		

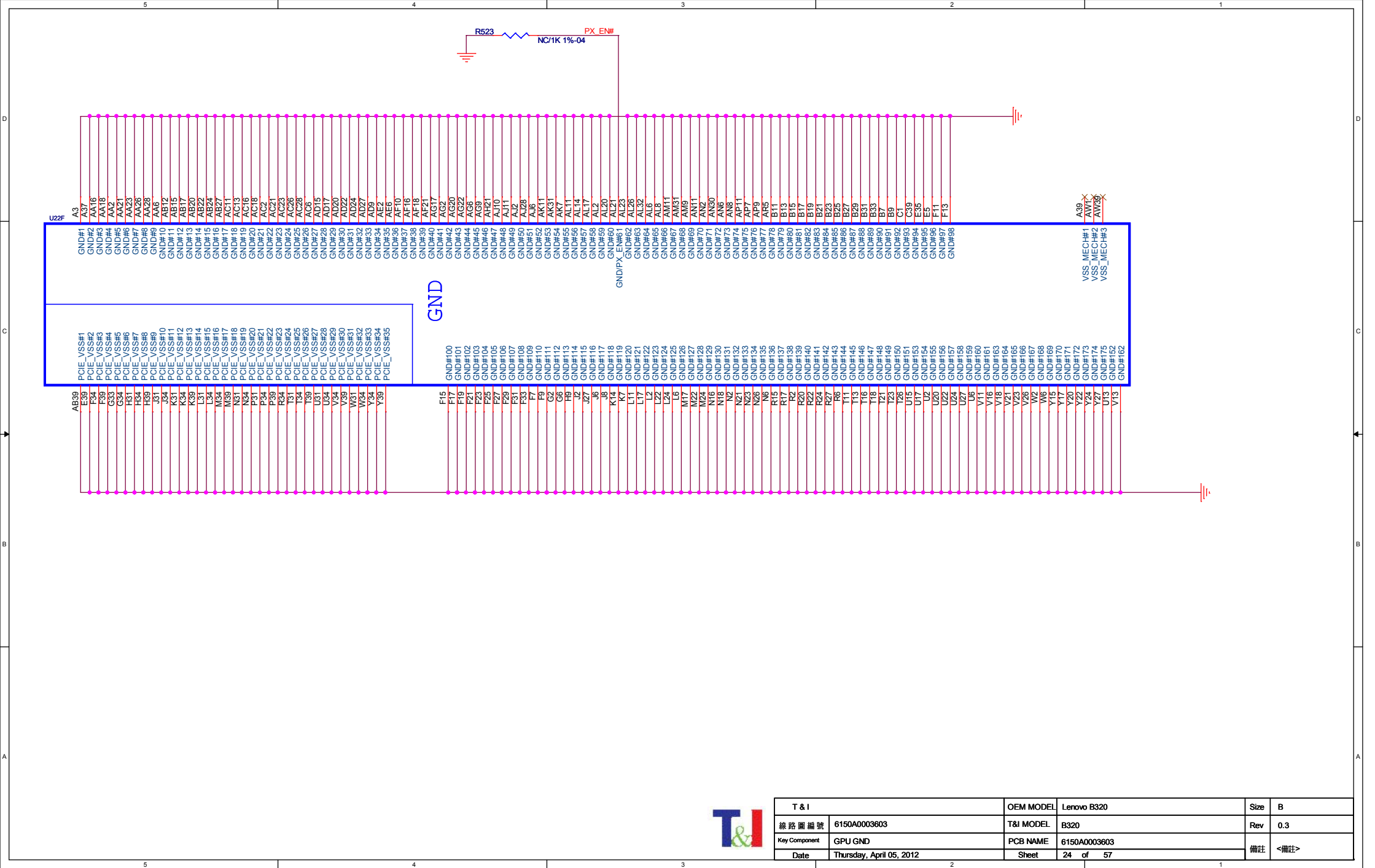




The diagram shows the SPI interface between the PM25LSD12C-SCE and the GROMCS/GROMSO. The PM25LSD12C-SCE is connected to the GROMCS/GROMSO via SPI. The PM25LSD12C-SCE has pins 1 (GROMCS), 2 (GROMSO), 3 (VDD), 4 (HOLD), 5 (GND), 6 (SCK), 7 (SI), and 8 (SO). The GROMCS/GROMSO has pins 1 (GROMCS), 2 (GROMSO), 3 (VDD), 4 (HOLD), 5 (GND), 6 (SCK), 7 (SI), and 8 (SO). A 100nF 16V-04 capacitor is connected between the VDD pins of both devices.

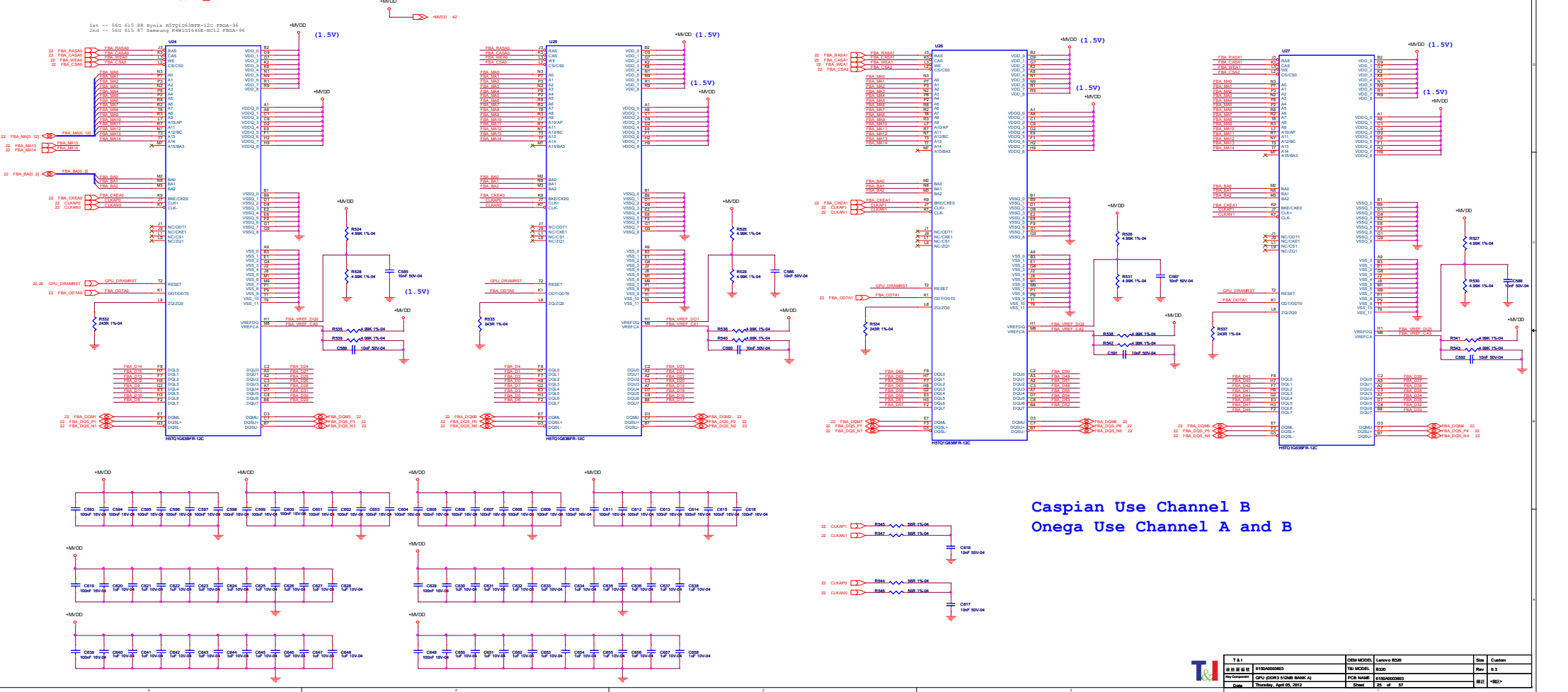






T & I		OEM MODEL	Lenovo B320	Size	B
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	GPU GND	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	24 of 57		

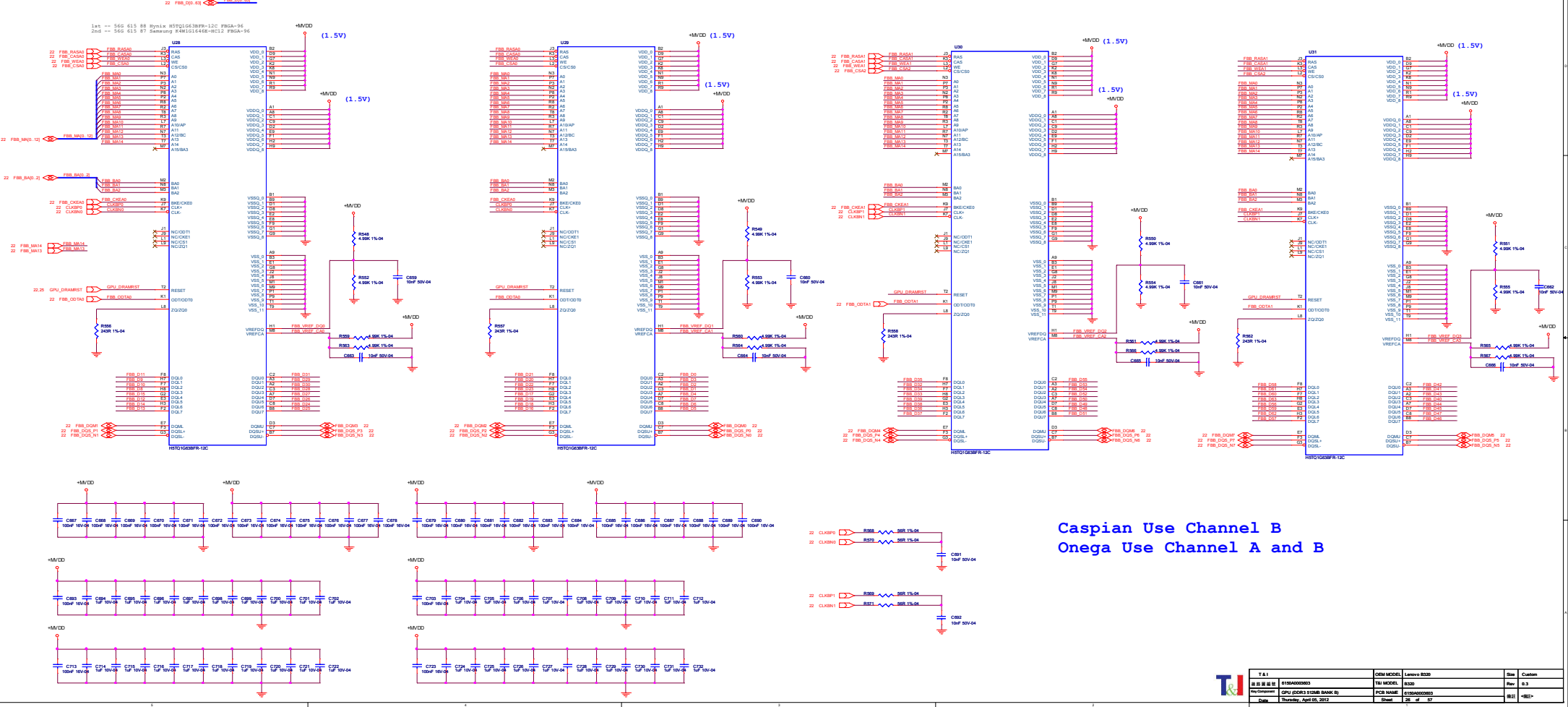
## CHANNEL A




Caspian Use Channel B  
Onega Use Channel A and B

T & I		OEM MODEL	Lenovo R330	Size	Custom
機序圖編號		T&I MODEL	R330	Rev	0.3
Key Component	GPU (GDR3 512MB BANK A)		PCB NAME	6150A0000903	備註
Date	Thursday, April 05, 2012		Sheet	23 of 57	

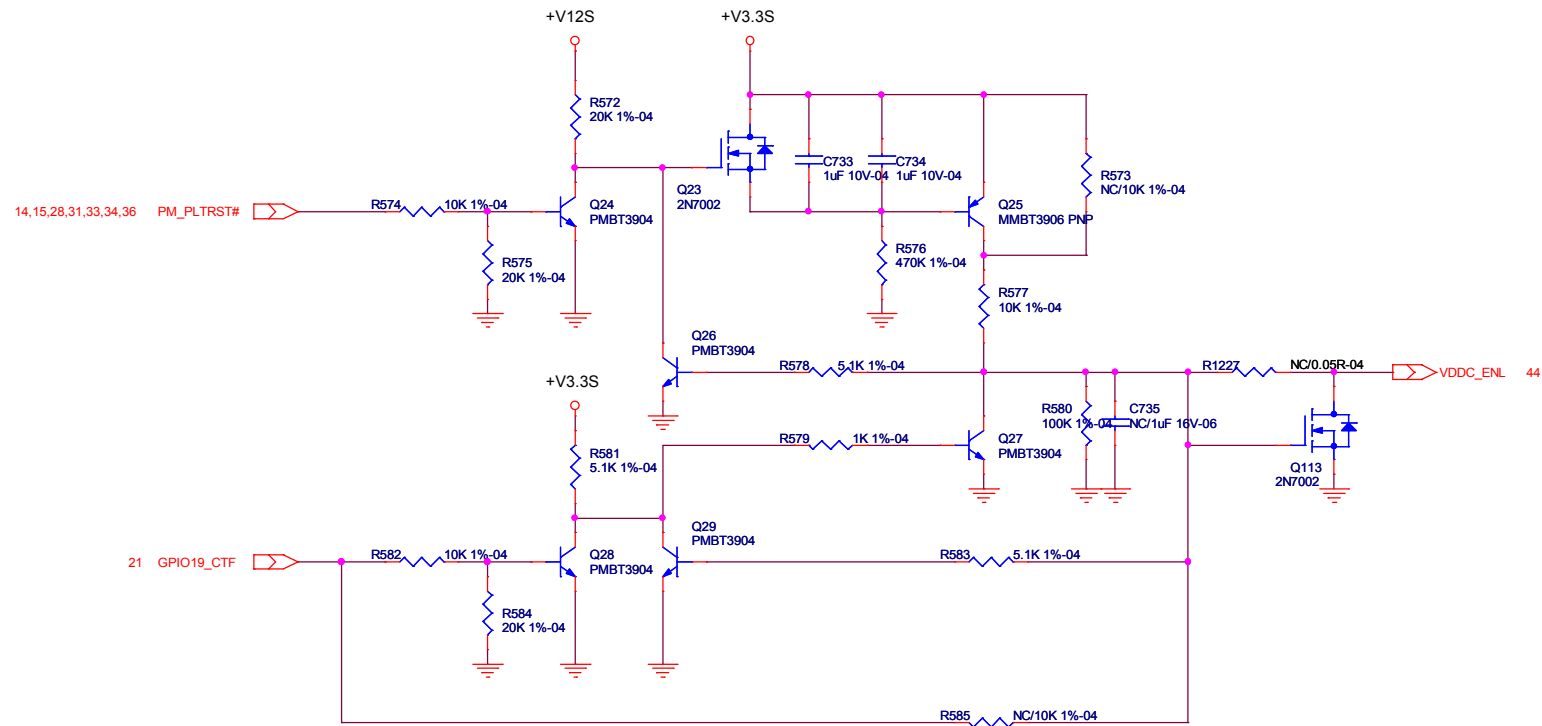
## CHANNEL B



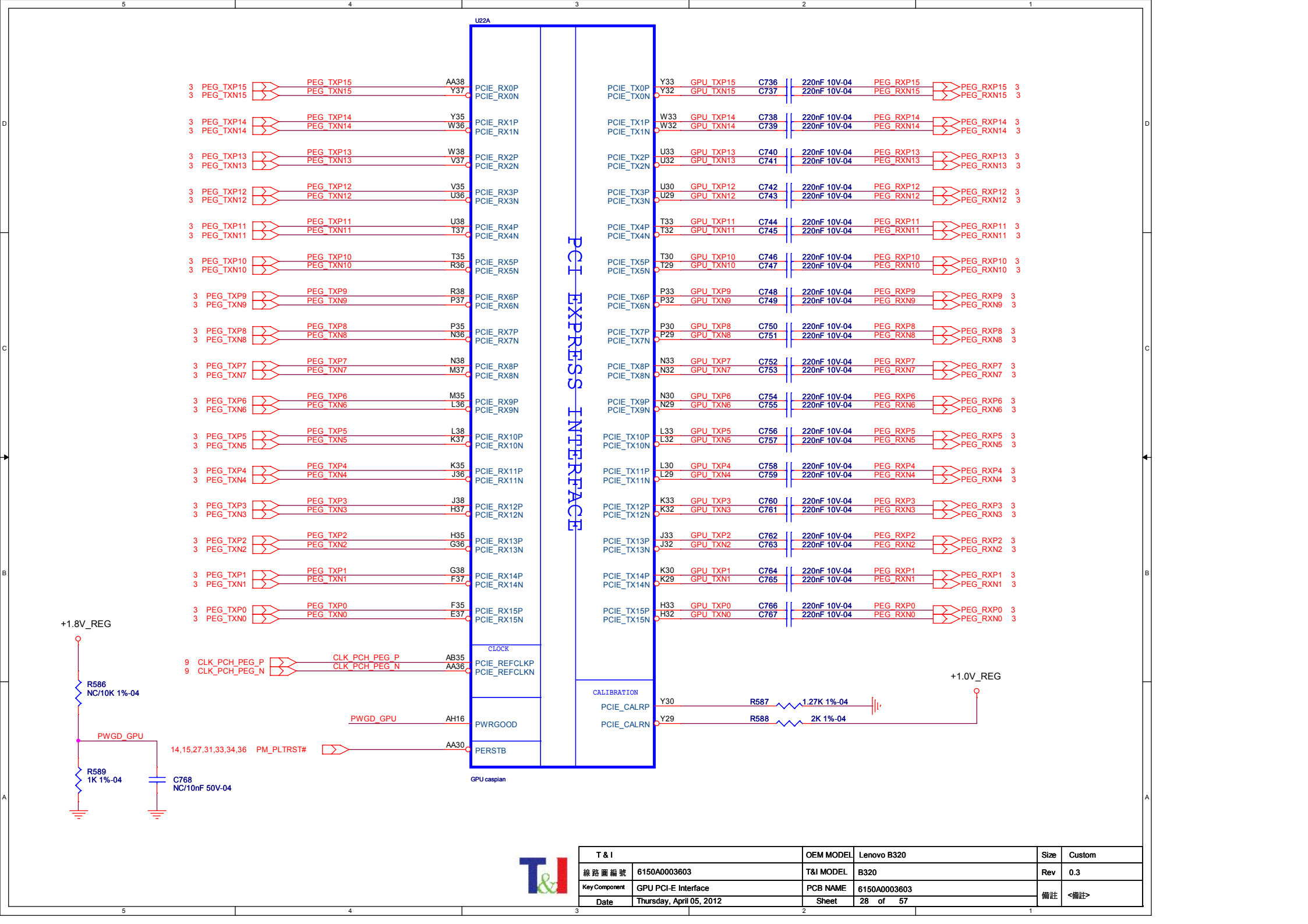
Caspian Use Channel B  
Onega Use Channel A and B

 Key Components	TSI	OEM MODEL			Lenovo R320	Size	Custom	
	硬盘型号	6150A0003603	TSI MODEL			R320	Rev	0.3
	GPU (DDR3 12GB BANK 8)	PCB NAME			6150A0003603	备注	*«前»*	
	Date	Thursday, April 05, 2012	Sheet	26 of 57				

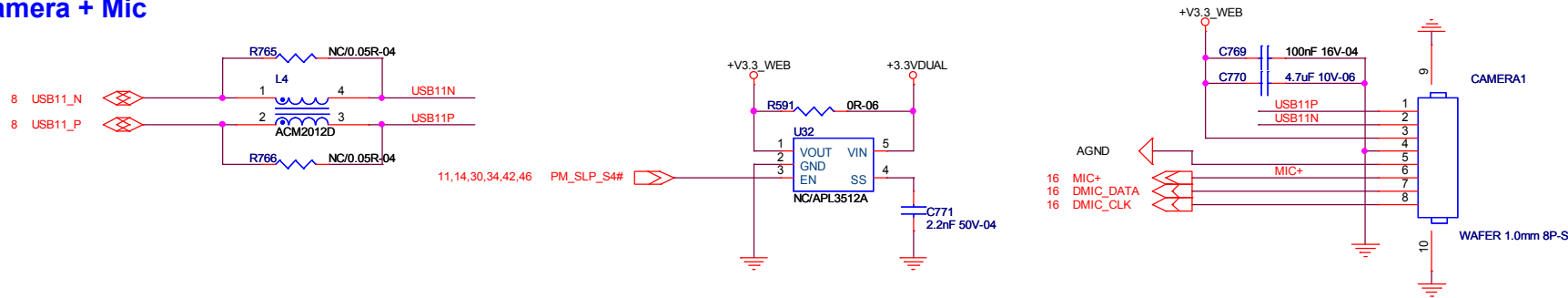




T & I		OEM MODEL	Lenovo B320	Size	B
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	GPU CTF	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	27 of 57		



Camera + Mic

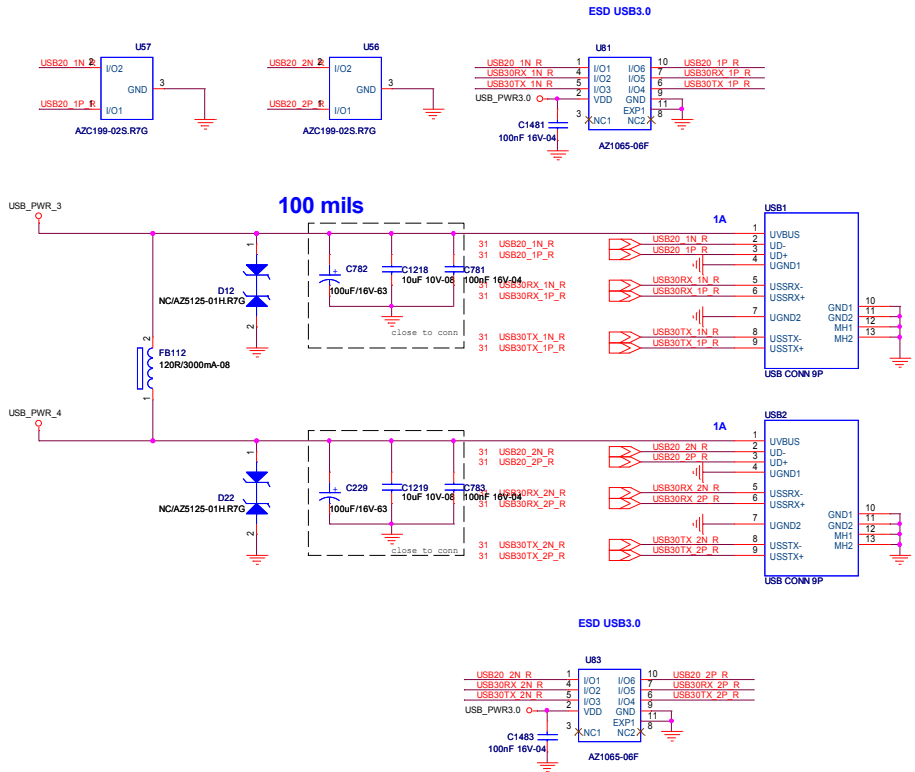
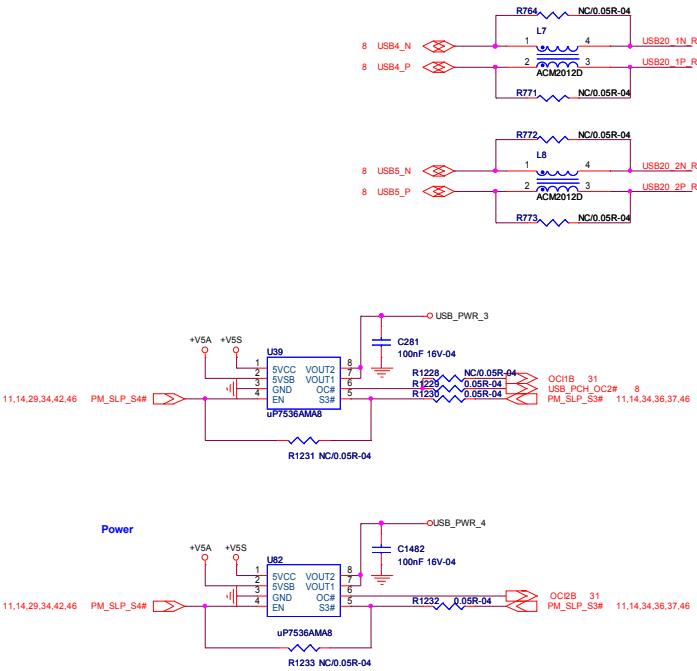


BT

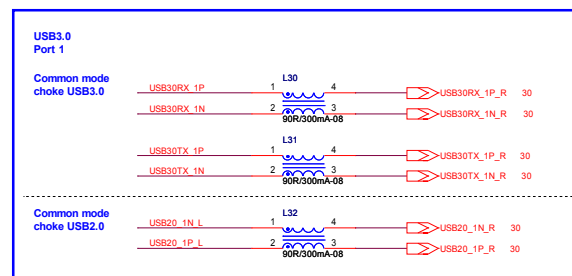


T & I		OEM MODEL	Lenovo B320	Size	B
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	Webcam, BT, Touch Pad	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	29 of 57		

SIDE USBx2 2.0&3.0 Co-Lay

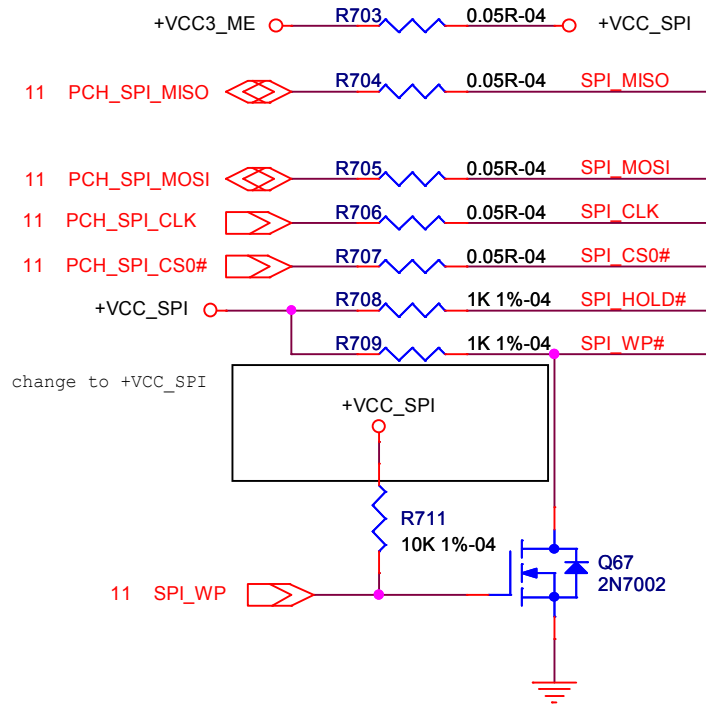


T & I		OEM MODEL	Lenovo B320	Size	C
線路圖編號		T&I MODEL	B320	Rev	0.3
Key Component		PCB NAME	6150A0003603	備註	
Date	Thursday, April 05, 2012	Sheet	30 of 57		



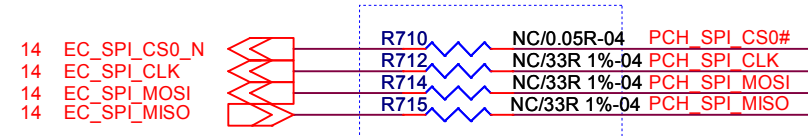
T & I		OEM MODEL	B320	Size	C
線路圖編號		TAI MODEL	B320	Rev	1.0
Key Component	06 DB USB3.0	PCB NAME	715G4690-T0D-000-0060		
Date	Thursday, April 05, 2012	Sheet	31 of 57		
			備註 <備註>		

# BIOS SPI ROM

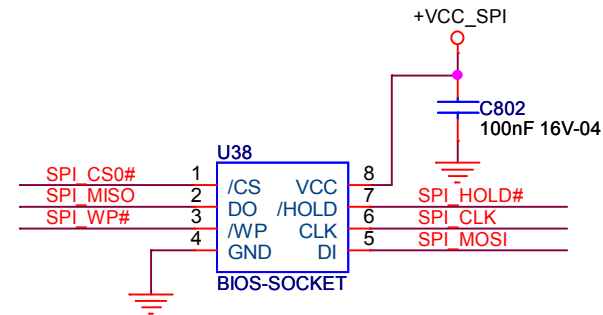


## 8MB SPI ROM

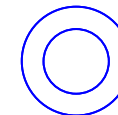
1st -- 056G2233 16 Winbond W25Q64BVSSIG  
2nd -- 056G2233 15 MXIC MX25L6445EM2I-10G



## EC HSPI



U38A



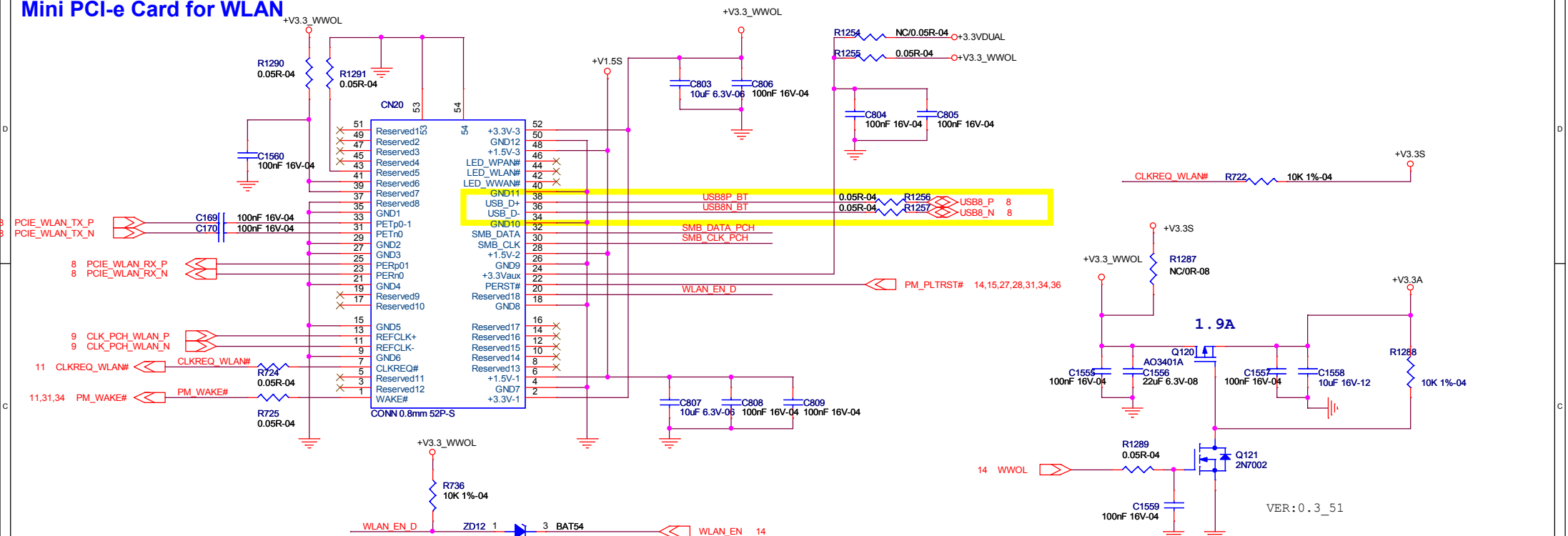
MX25L6406EM2I-12G



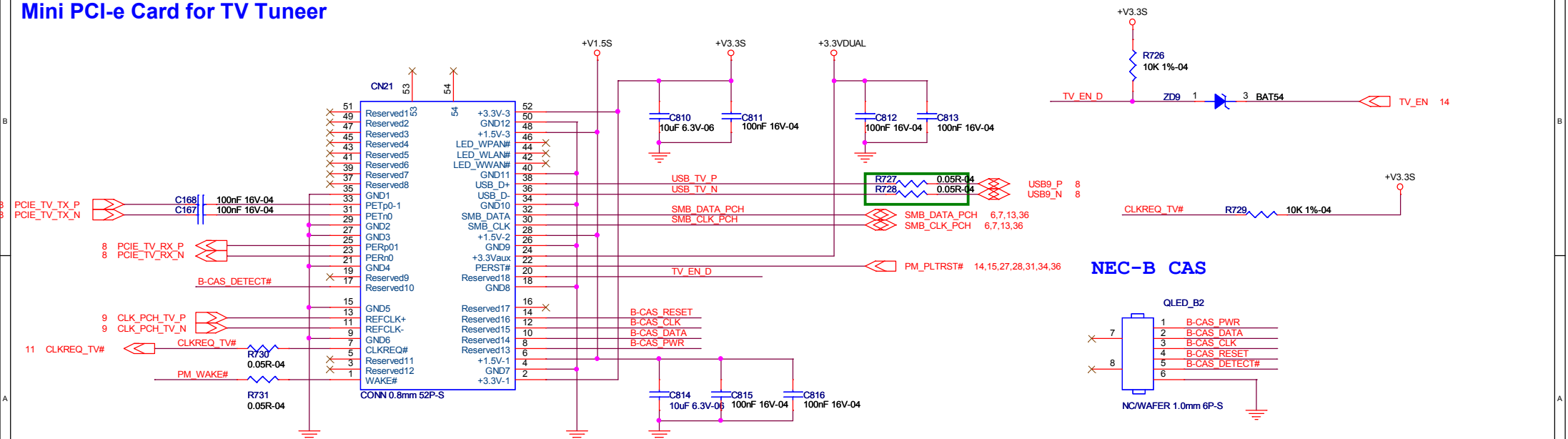
T & I		OEM MODEL	Lenovo B320	Size	A
線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
Key Component	SPI ROM SYS	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	32 of 57		




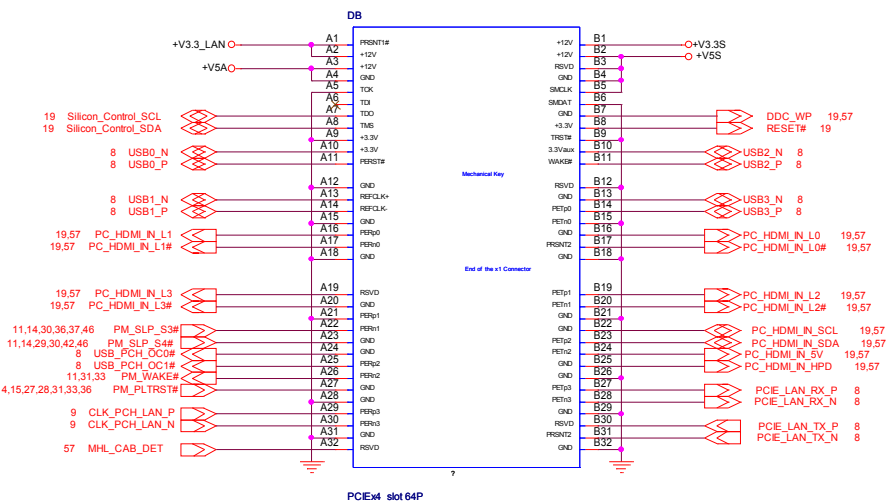
## Mini PCI-e Card for WLAN



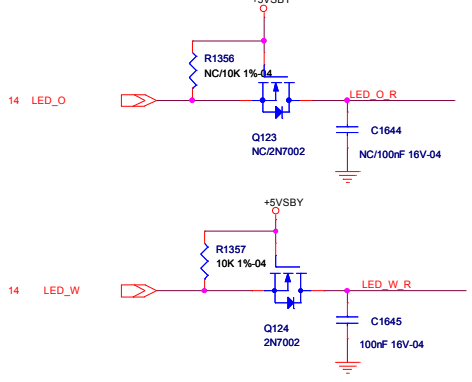
## Mini PCI-e Card for TV Tuner



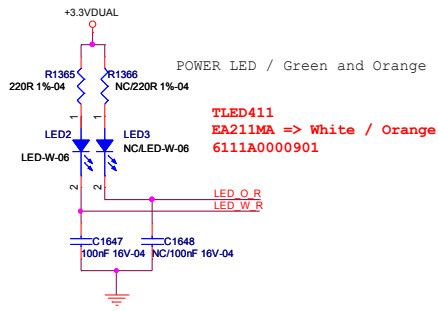
	T & I		OEM MODEL	Lenovo B320	Size	Custom
	線路圖編號	6150A0003603	T&I MODEL	B320	Rev	0.3
	Key Component	Mini-PCI-Express x 2	PCB NAME	6150A0003603	備註	<備註>
	Date	Thursday, April 05, 2012	Sheet	33 of 57		



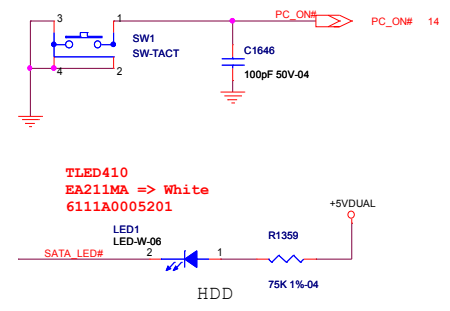
# FUNCTION LED CONN



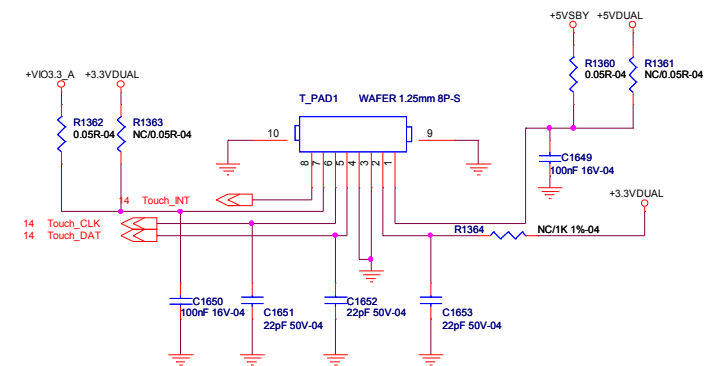
# PC PWM



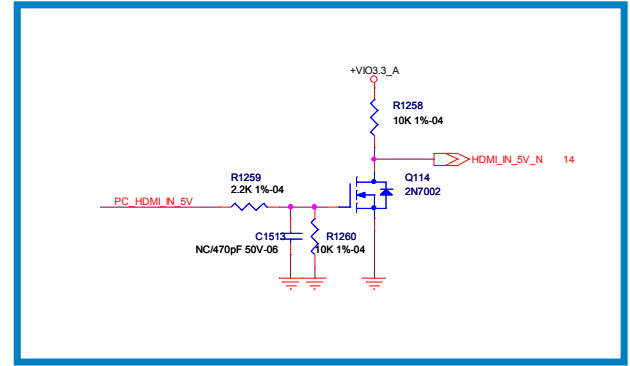
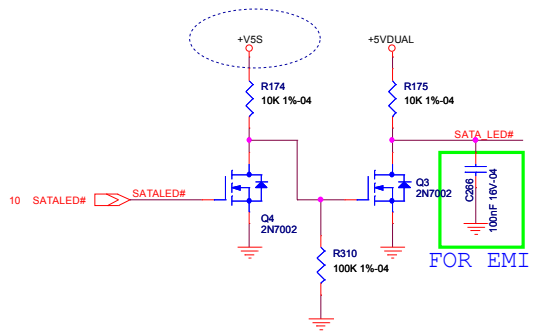
TSW2 need to be confirmed



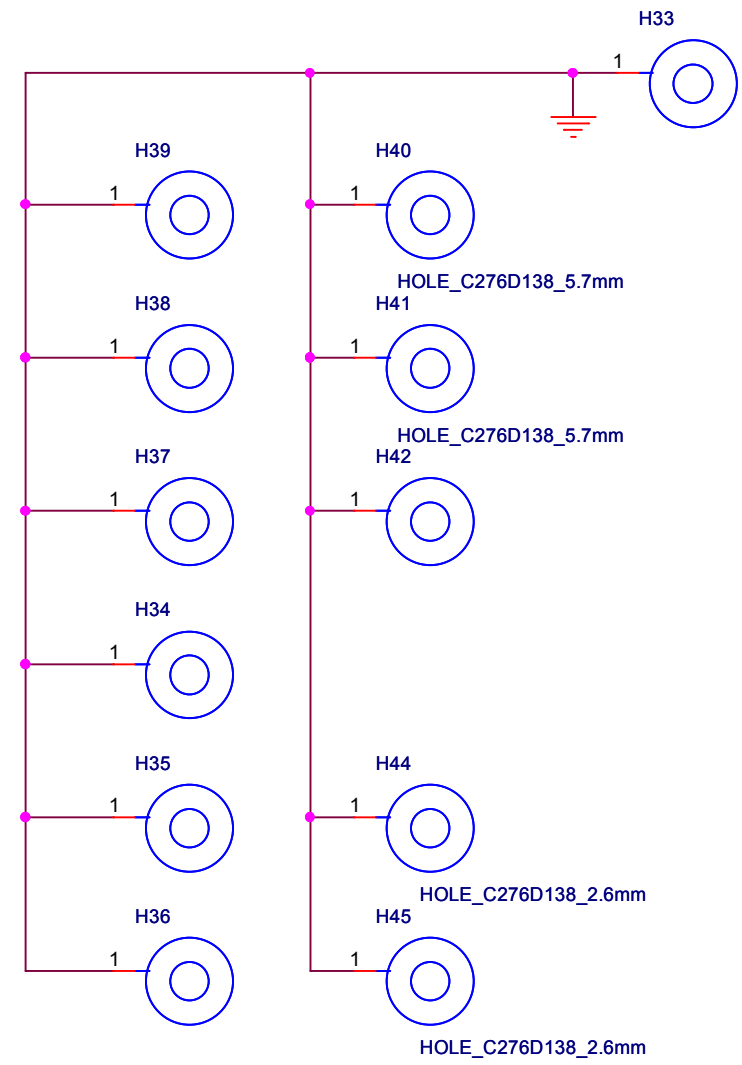
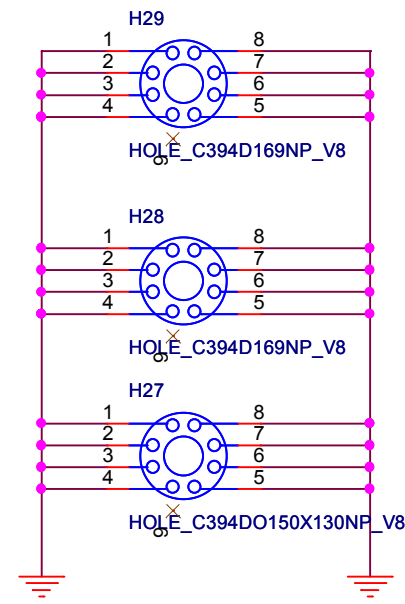
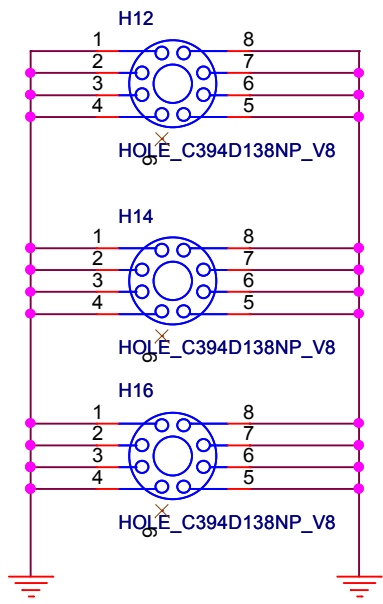
# FUNCTION TOUCH PAD CONN



# MA10

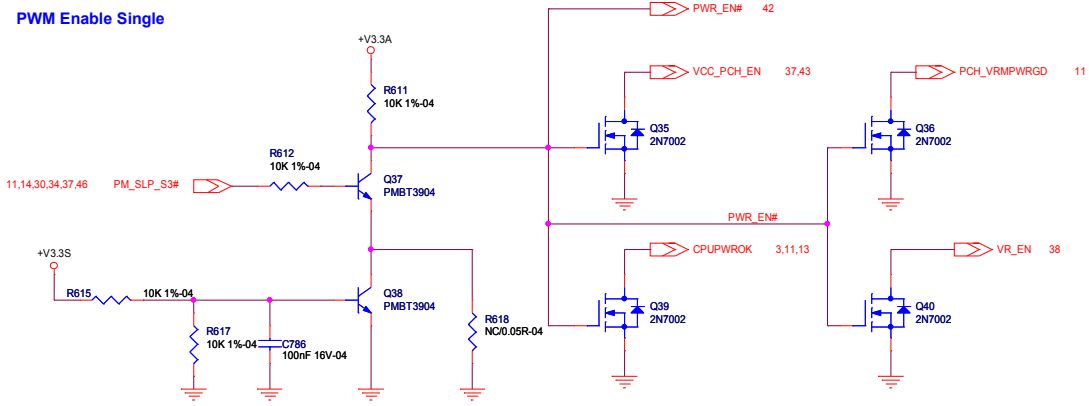


T & I	OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev
Key Component	DB, PC_ON, TK, FL	PCB NAME	6150A0003603	備註
Date	Thursday, April 05, 2012	Sheet	34 of 57	<備註>

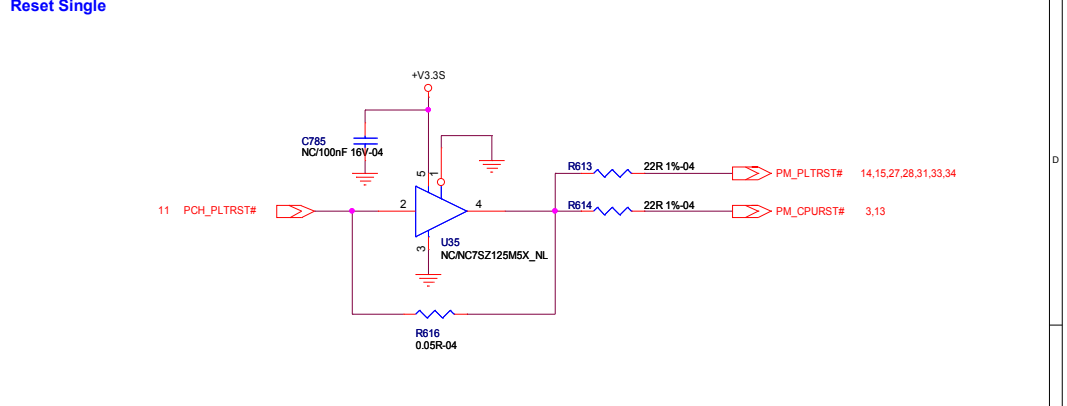


T & I		OEM MODEL	Lenovo B320		Size	A
線路圖編號	6150A0003603	T&I MODEL	B320		Rev	0.3
Key Component	Screw	PCB NAME	6150A0003603		備註	<備註>
Date	Thursday, April 05, 2012	Sheet	35 of 57			

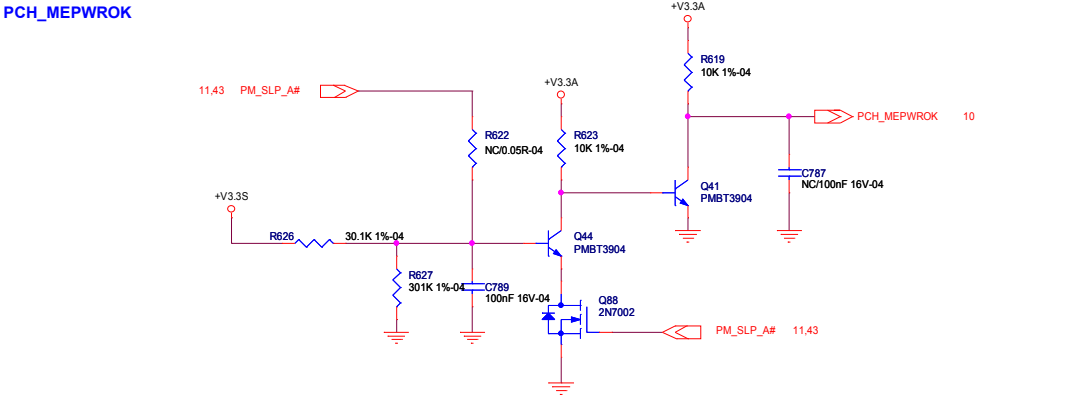
PWM Enable Single



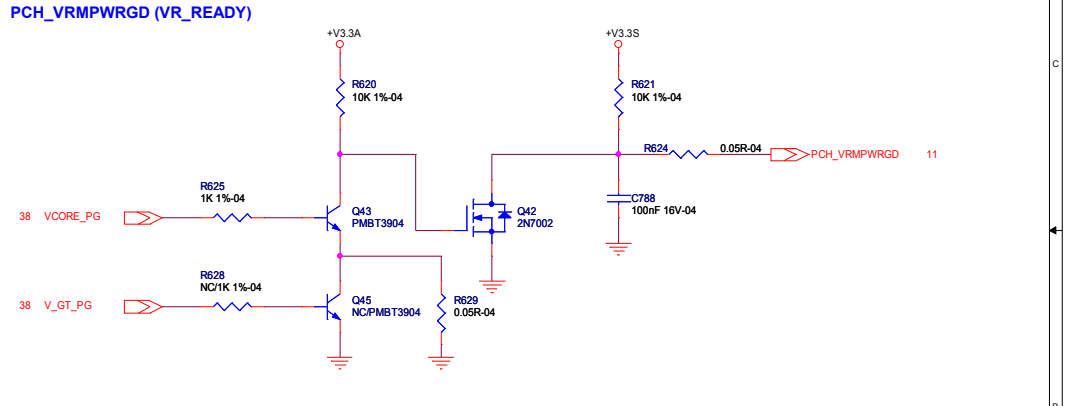
Reset Single



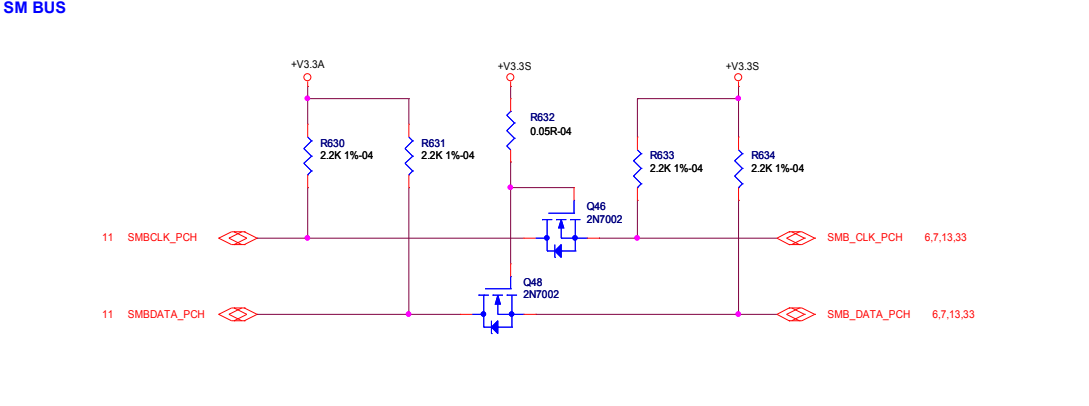
PCH\_MEPWROK



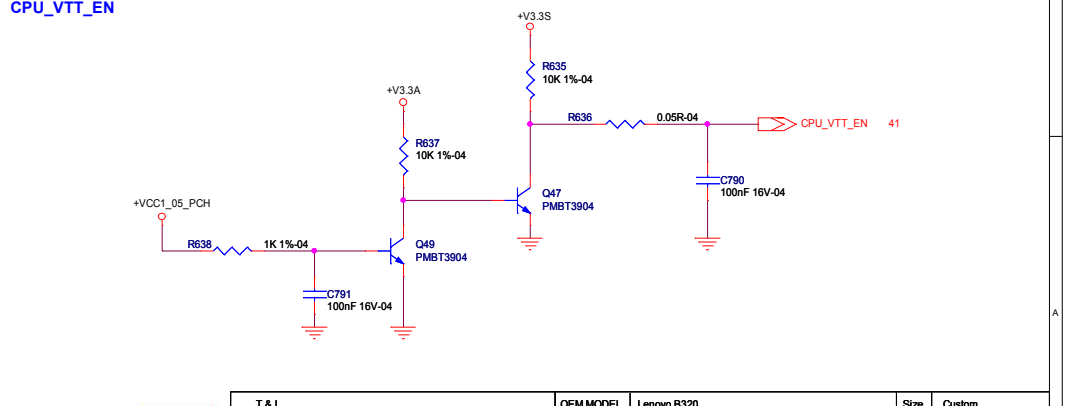
PCH\_VRMPWRGD (VR\_READY)



SM BUS



CPU\_VTT\_EN



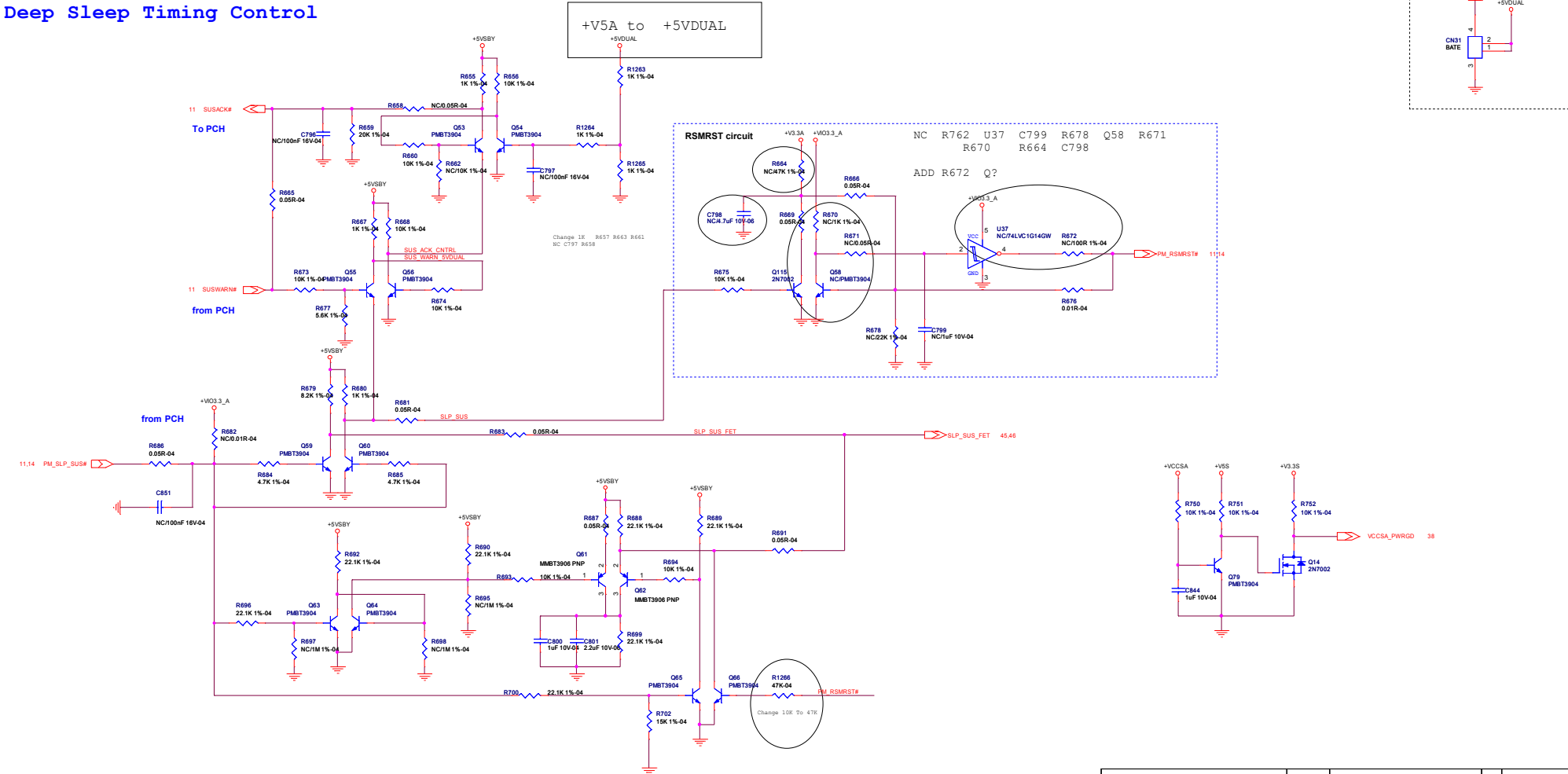
T & I	OEM MODEL	Lenovo B320	Size	Custom
線路圖編號	6150A0003603	T&I MODEL	B320	Rev
Key Component	Controller 1	PCB NAME	6150A0003603	備註
Date	Thursday, April 05, 2012	Sheet	36 of 57	<備註>

PCH\_DPWR0K

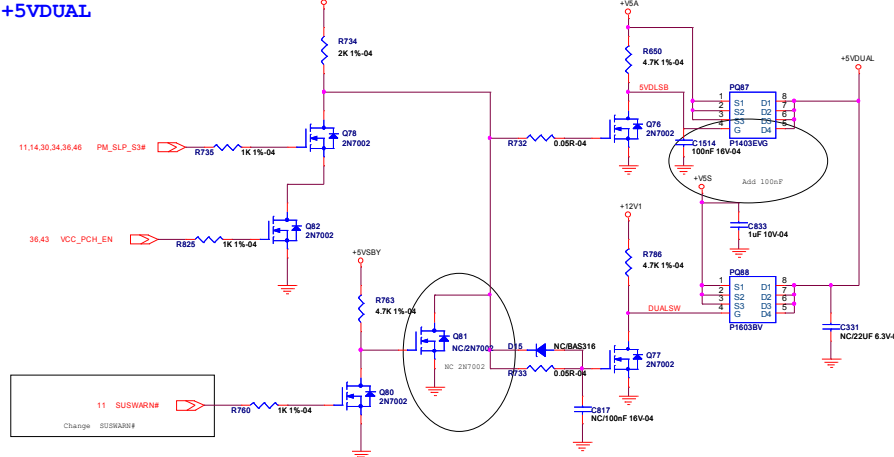
This is an input signal to the PCH from power monitoring circuit to indicate that all deep sleep power rail, VcdDSW3\_3 is stable on the platform. Connect to VcdDSW3\_3 power rail monitoring circuit on mother board. For platform not supporting deep sleep connect directly to RSMRST#. The DSW rails must be stable for at least 10 ms before DPWR0K is asserted to PCH.

MD04

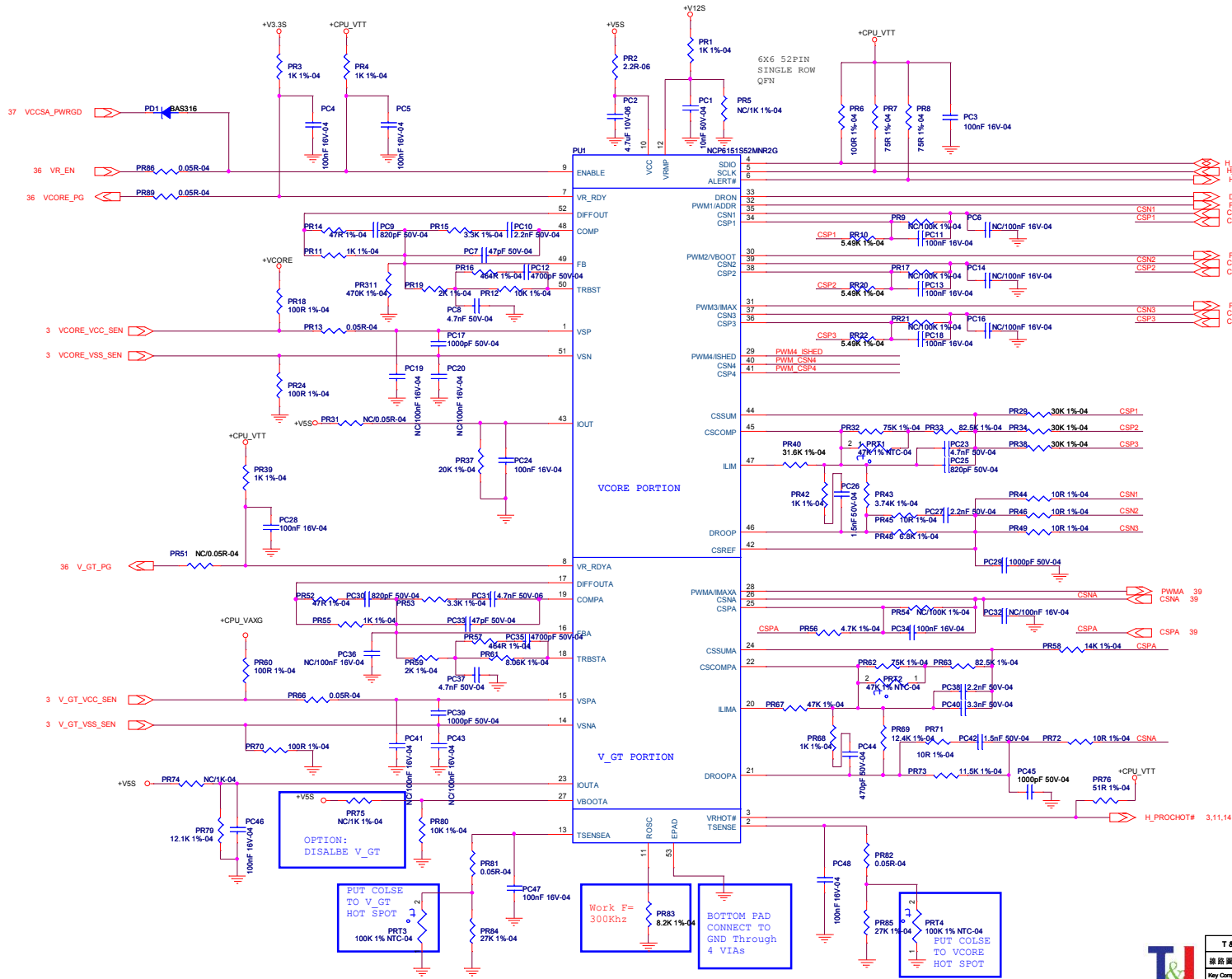
Deep Sleep Timing Control



+SVDUAL

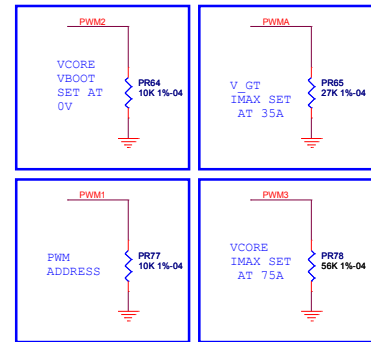


T & I	OEM MODEL	Lenovo B320	Size	Custom
控制器型号	TAI MODEL	B320	Rev	0.3
Key Component	Controller 2, +SVDUAL	PCB NAME	6150A0003603	DATE
Date	Thursday April 05, 2012	Sheet	37 of 57	<前>



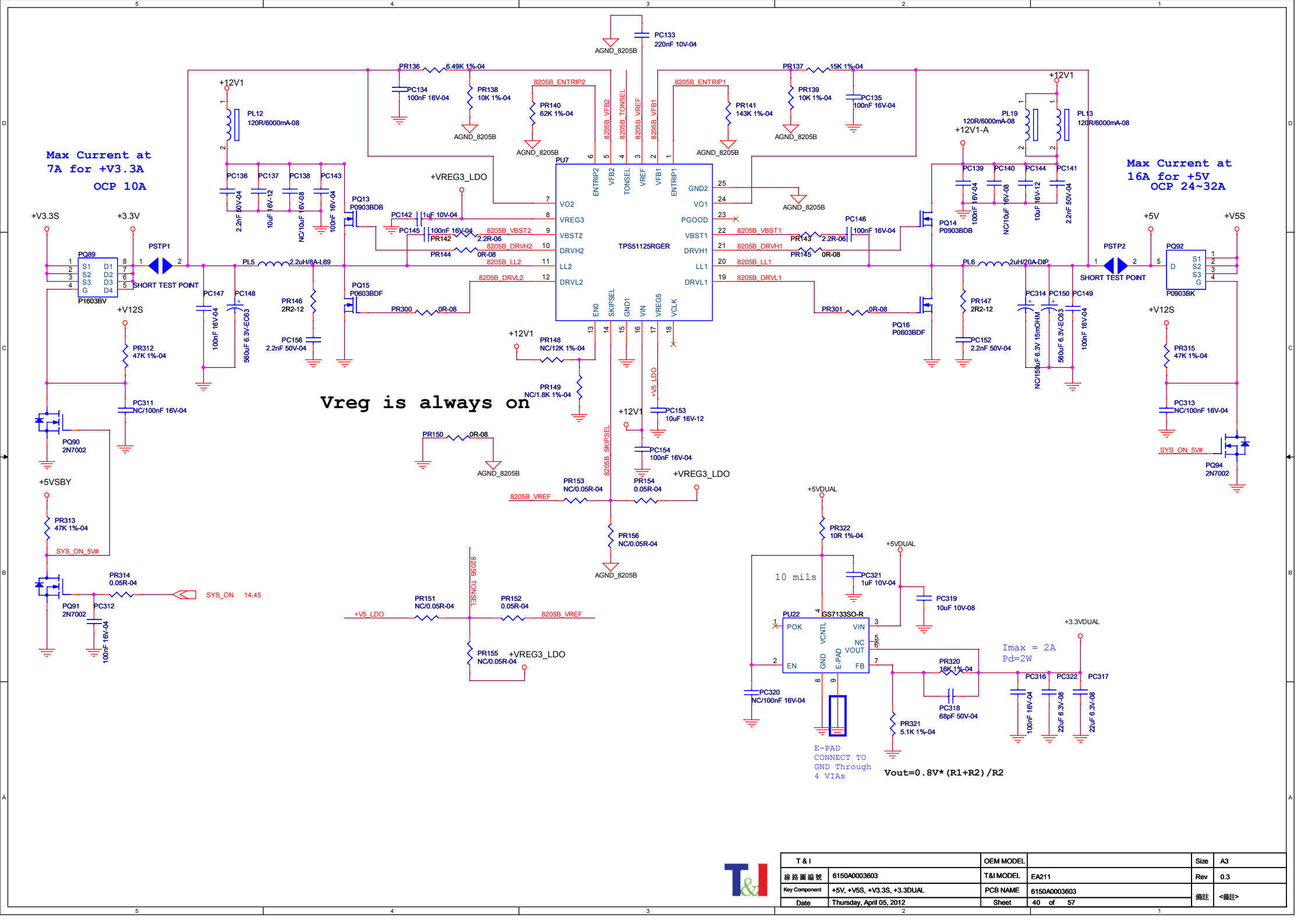
PWM ADDRESS		
RESISTOR VALUE	SVID ADDRESS FOR VCORE RAIL	SVID ADDRESS FOR V_GT RAIL
10K	0000	0001
25K	0010	0011
45K	0100	0101
70K	0110	0111
95K	1000	1001
125K	1010	1011
165K	1100	1101

BOOT VOLTAGE	
RESISTOR VALUE	BOOT VOLTAGE
10K	0V
25K	0.9V
45K	1.0V
70K	1.1V
95K	1.2V
125K	1.35V
165K	1.5V

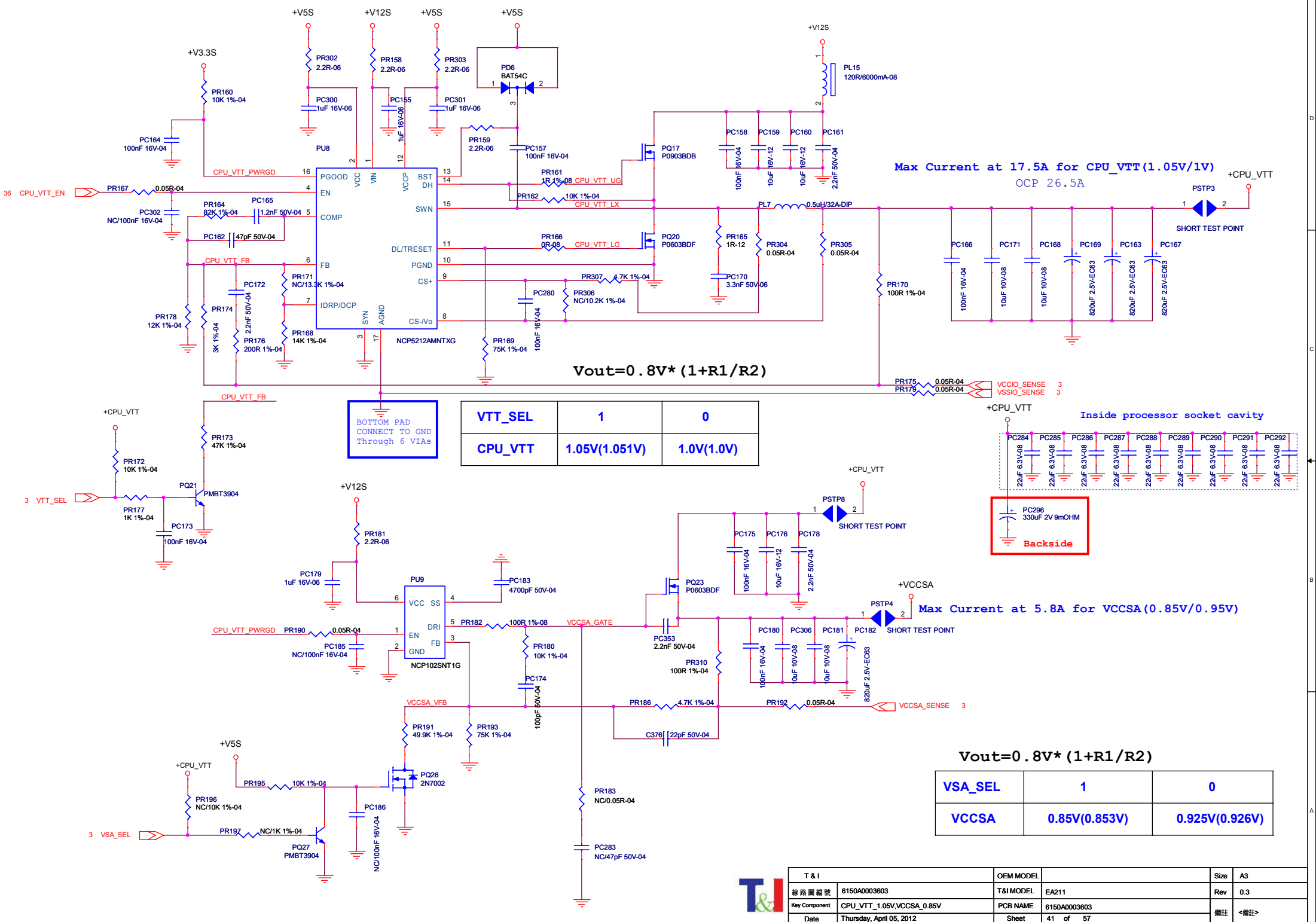


T & I		OEM MODEL	Size	Custom
總代理商	6150A0003603	T&I MODEL	EA211	Rev 0.3
Key Component	Sugar Bay-CPU 112	PCB NAME	6150A0003603	備註 <備註>
Date	Thursday, April 05, 2012	Sheet	38 of 57	





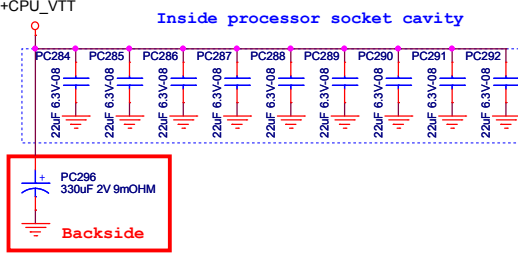




Max Current at 17.5A for CPU\_VTT(1.05V/1V)  
OCP 26.5A

$$V_{out} = 0.8V * (1 + R1/R2)$$

VTT_SEL	1	0
CPU_VTT	1.05V(1.051V)	1.0V(1.0V)

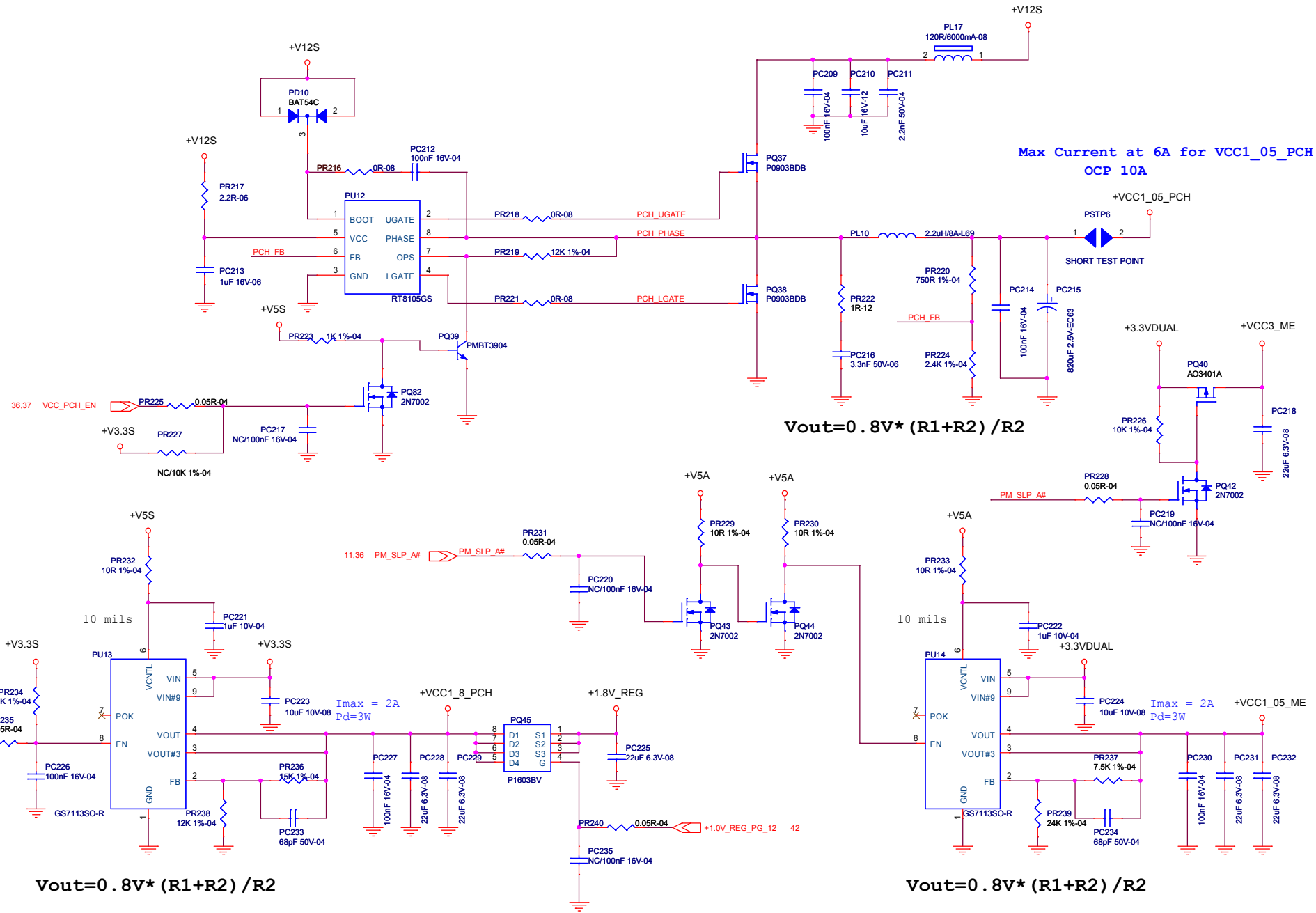


$$V_{out} = 0.8V * (1 + R1/R2)$$

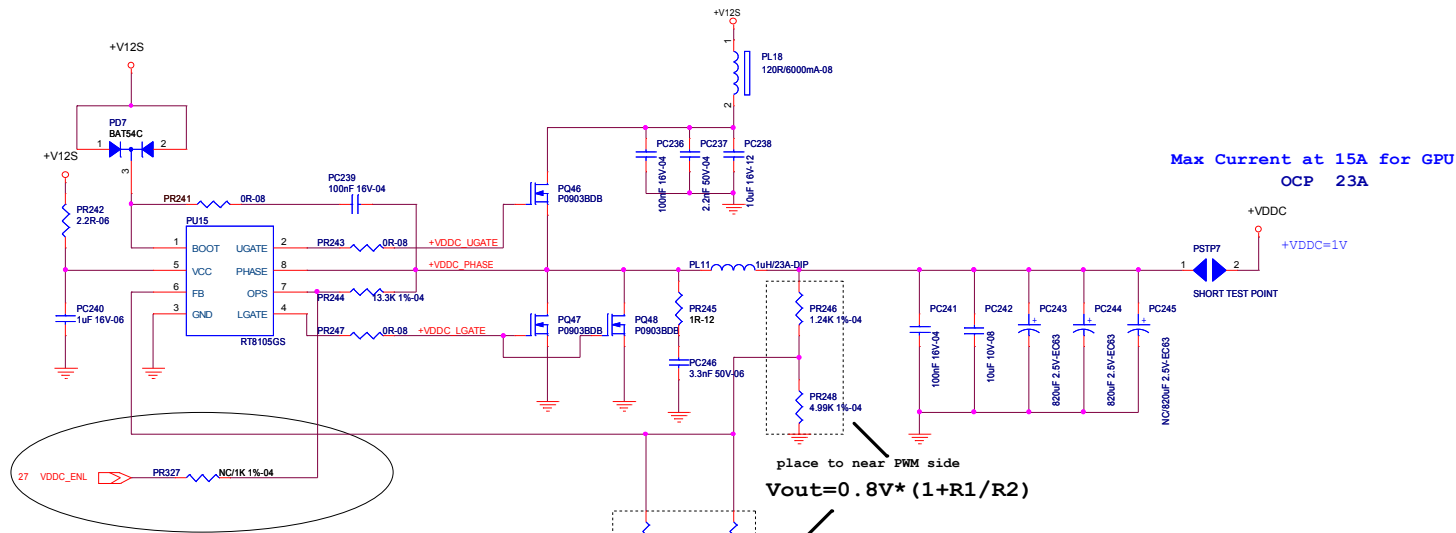
VSA_SEL	1	0
VCCSA	0.85V(0.853V)	0.925V(0.926V)

T & I	OEM MODEL	Size	A3
線路圖編號	T&I MODEL	Rev	0.3
Key Component	PCB NAME	備註	<備註>
Date	Sheet	41 of 57	

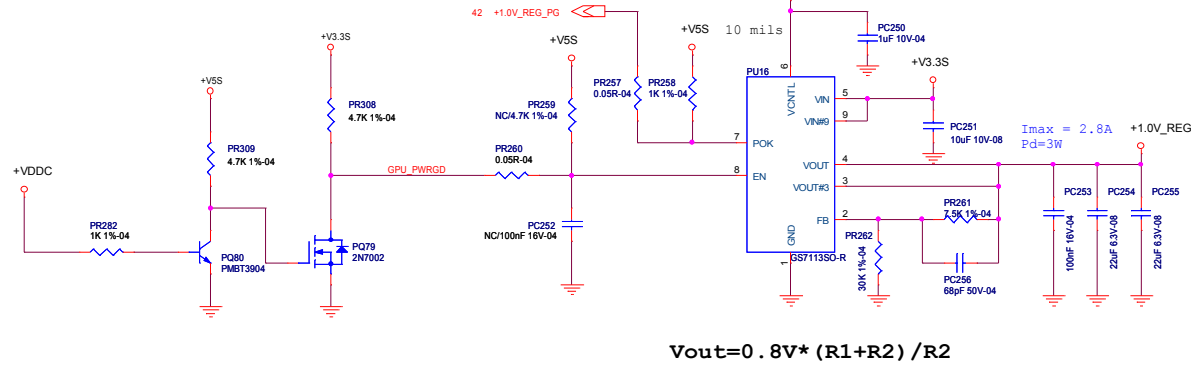
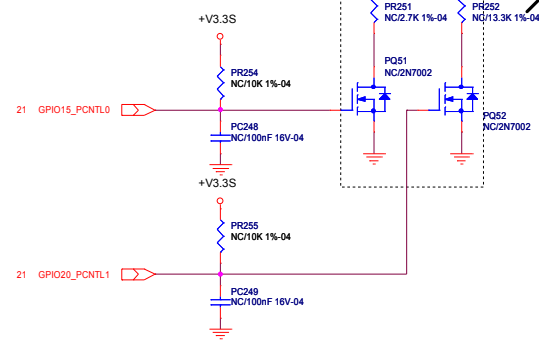




T & I	OEM MODEL	Size	A3
線路圖編號	6150A0003603	T&I MODEL	EA211
Key Component	VCC1_05_PCH, ME, VCC1_8_PCH	PCB NAME	6150A0003603
Date	Thursday, April 05, 2012	Sheet	43 of 57
		備註	<備註>

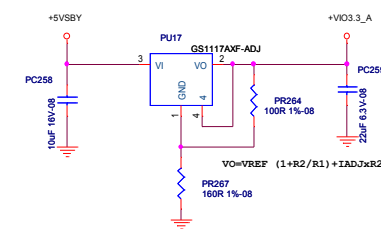
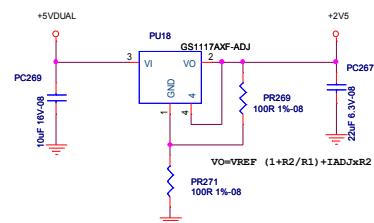
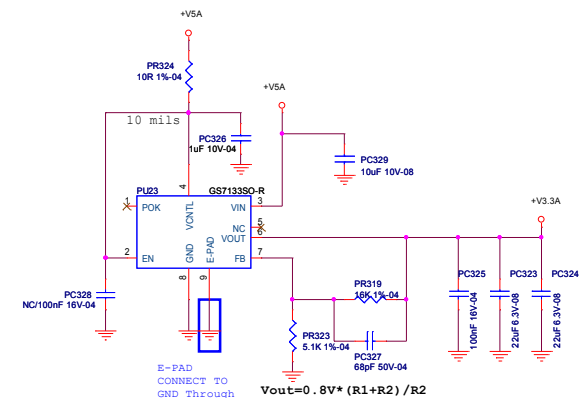
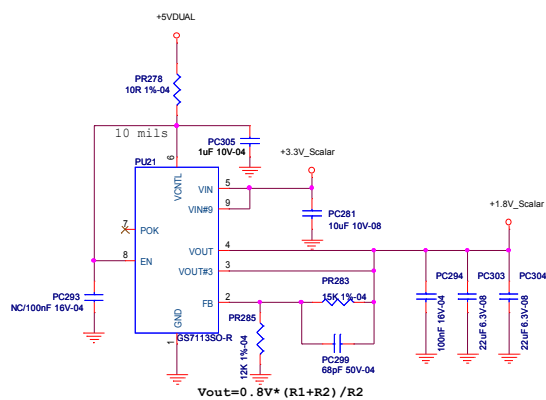
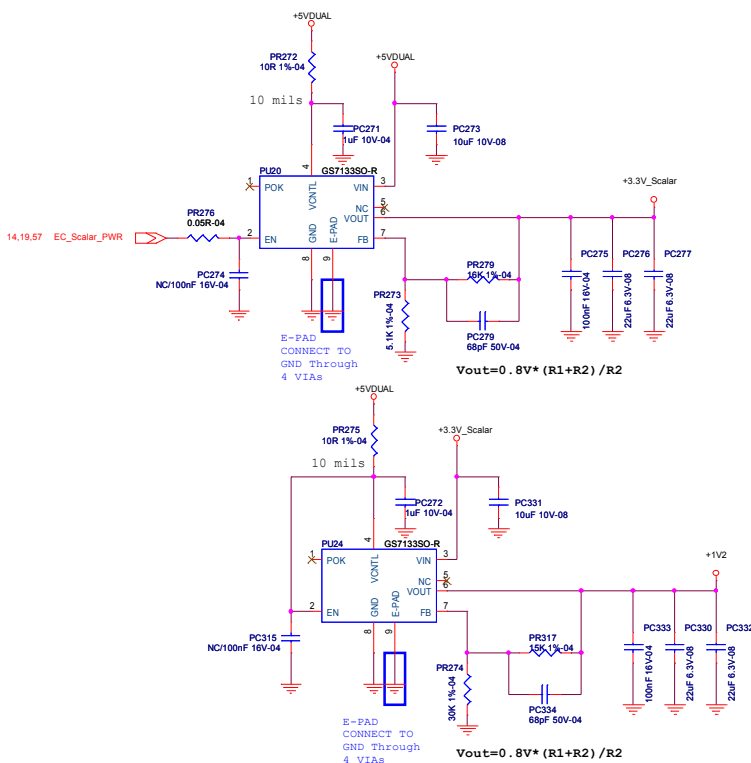
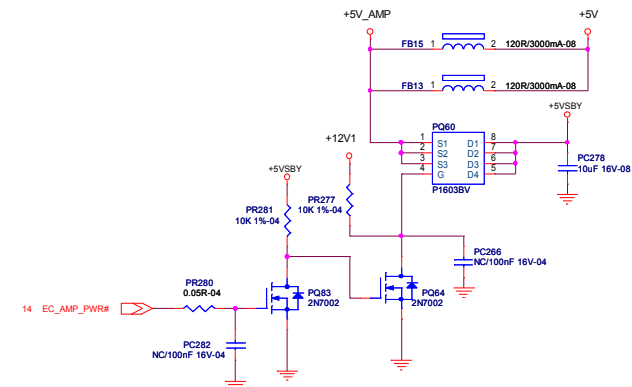
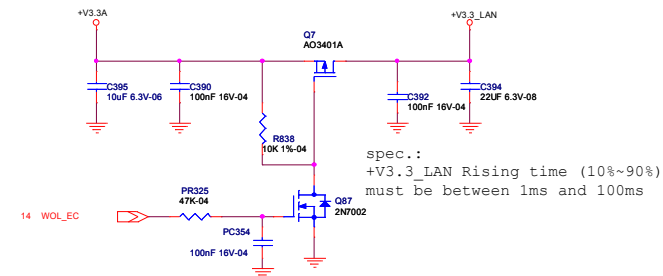
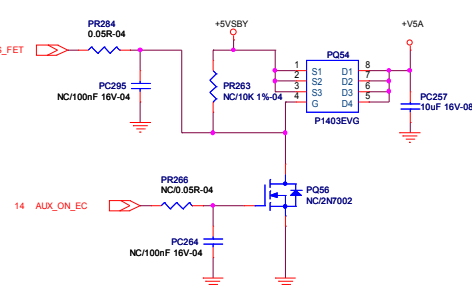
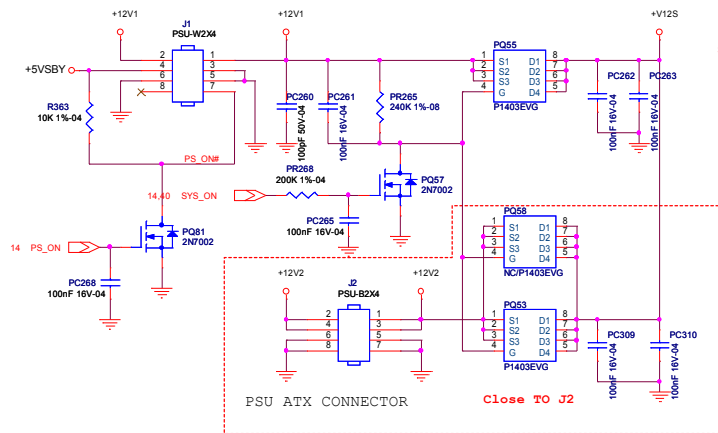


PCNTL0	PCNTL1	GPU (計算値)
0	0	0.9V
0	1	0.975V
1	0	1.0V

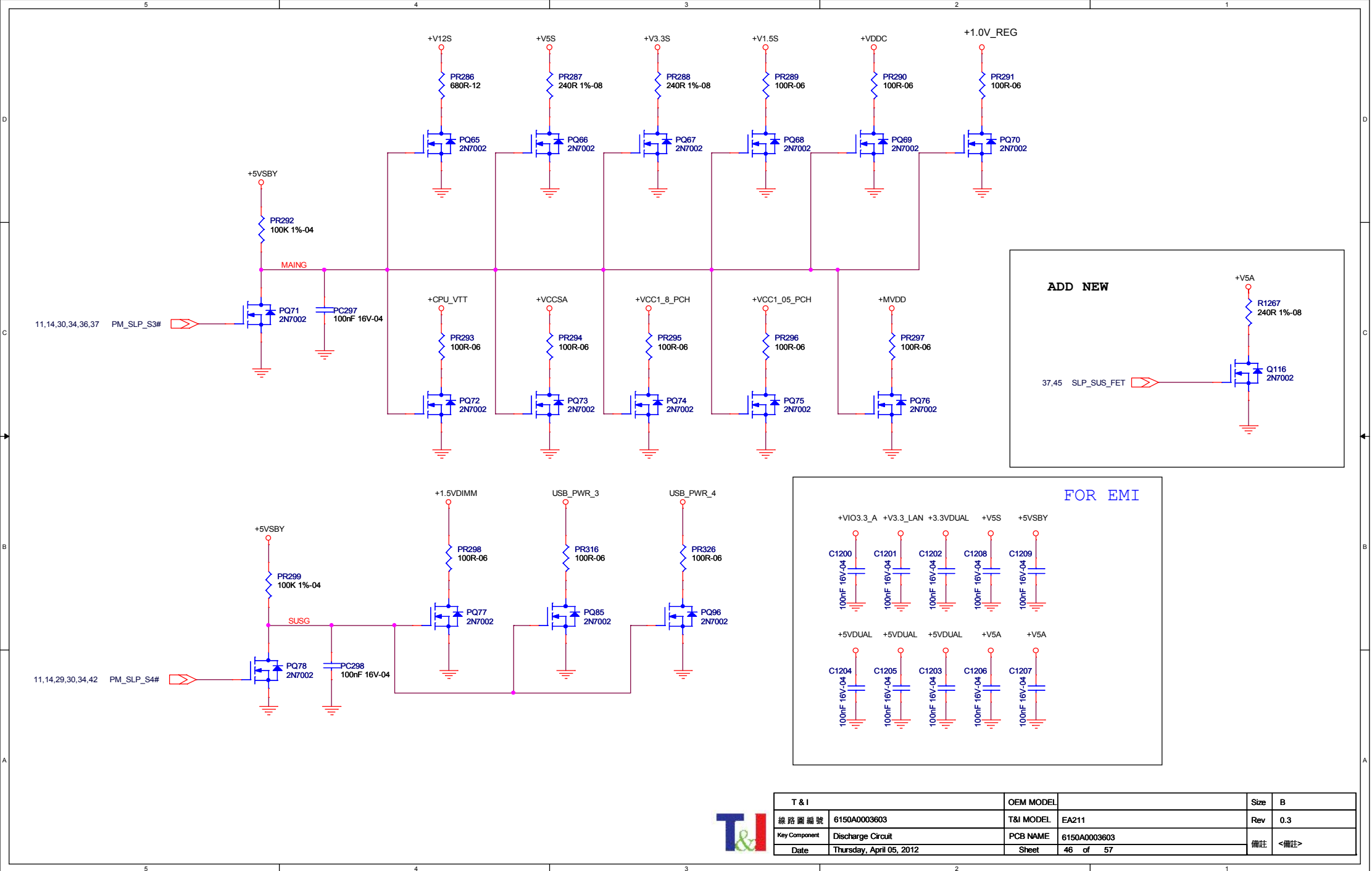


T & I	OEM MODEL	Size	Custom
6150A0003603	T&I MODEL	EA211	Rev 0.3
Key Component	PCB NAME	6150A0003603	備註
Date	Thursday, April 05, 2012	Sheet 44 of 57	<備註>

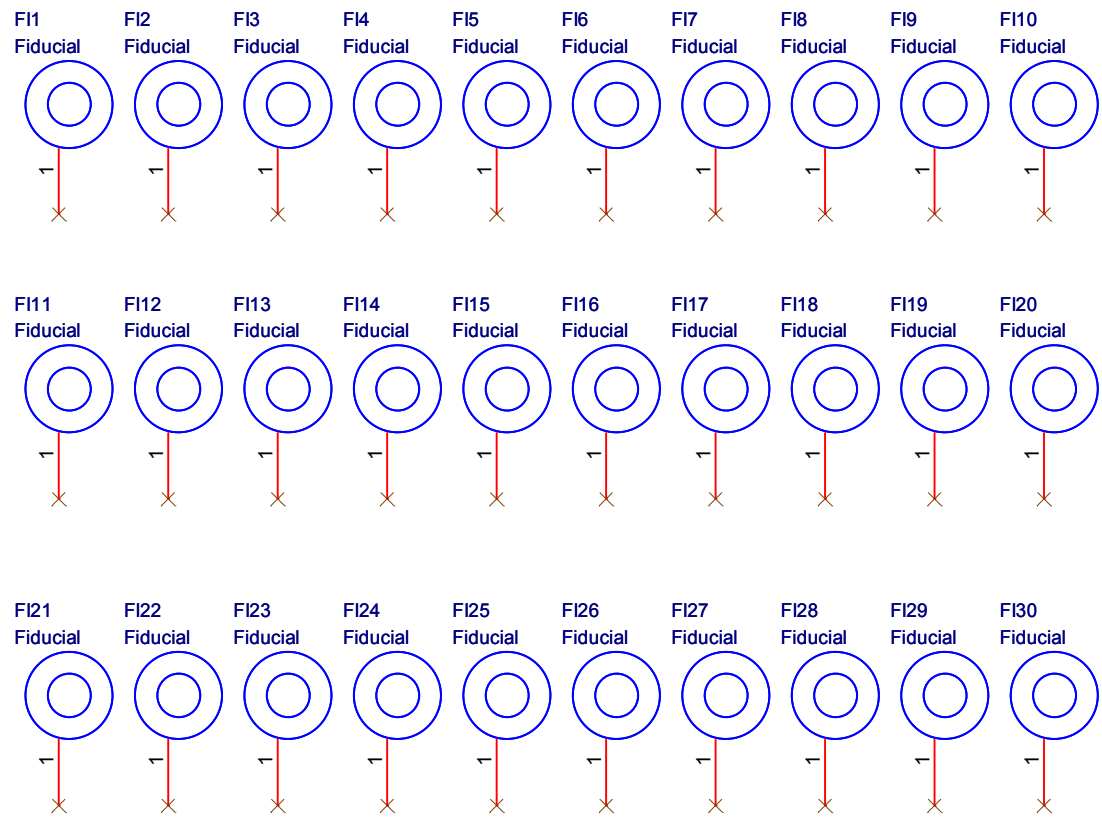
## PSU ATX CONNECTOR



T & I		OEM MODEL	Size	C
線路圖編號	6150A0003603	T&I MODEL	EA211	Rev 0.3
Key Component	+V12S, OTHER SWITCH, ATX	PCB NAME	6150A0003603	
Date	Thursday, April 05, 2012	Sheet	45 of 57	備註 <備註>



T & I		OEM MODEL		Size	B
線路圖編號	6150A0003603	T&I MODEL	EA211	Rev	0.3
Key Component	Discharge Circuit	PCB NAME	6150A0003603	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	46 of 57		

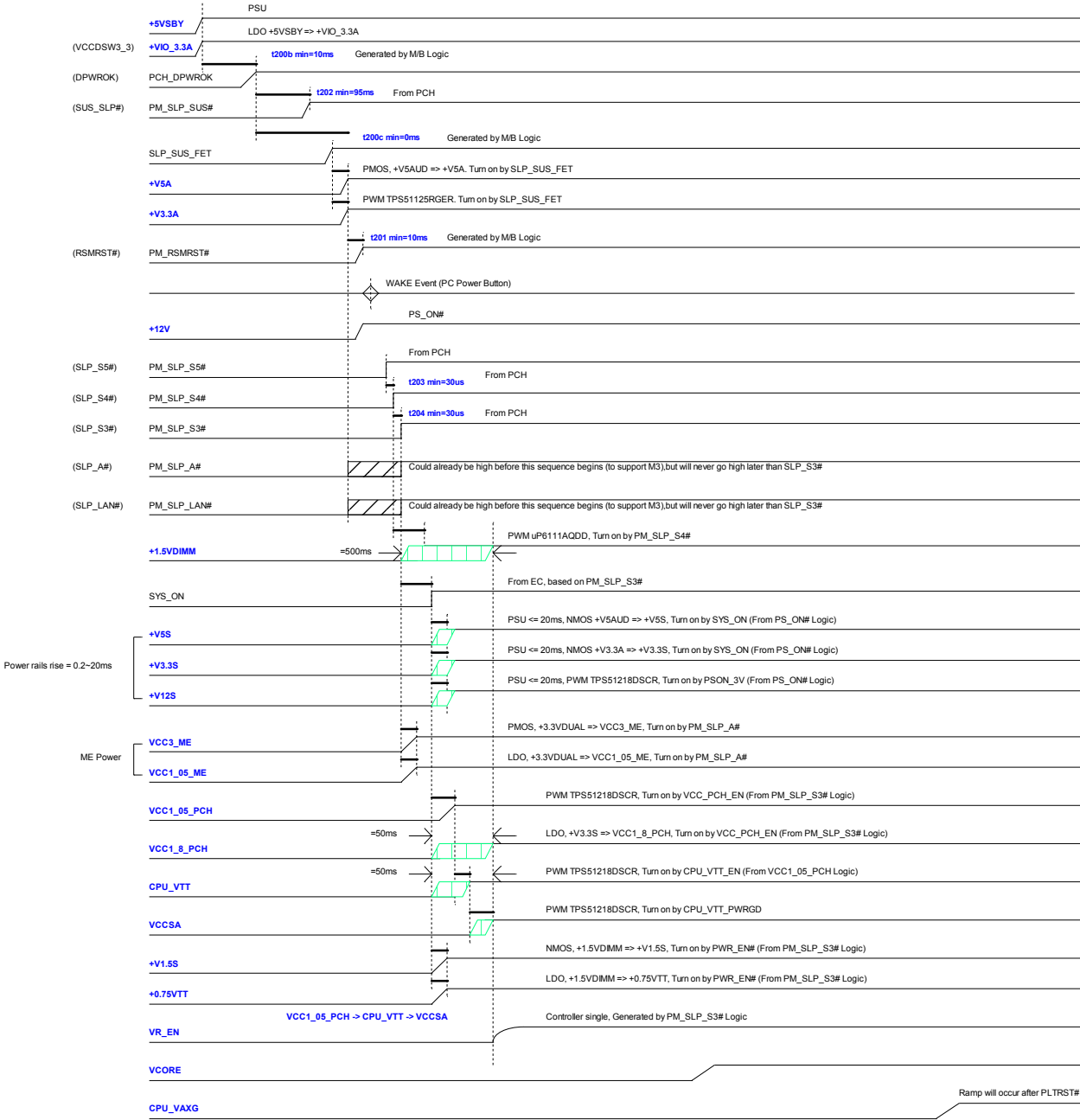


T & I		OEM MODEL	<Title>	Size	A
線路圖編號	<線路圖編號>	T&I MODEL	<Doc>	Rev	<RevCode>
Key Component	<Key Component>	PCB NAME	<PCB name>	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	47 of 57		

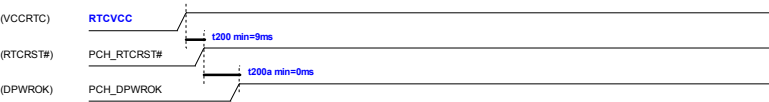




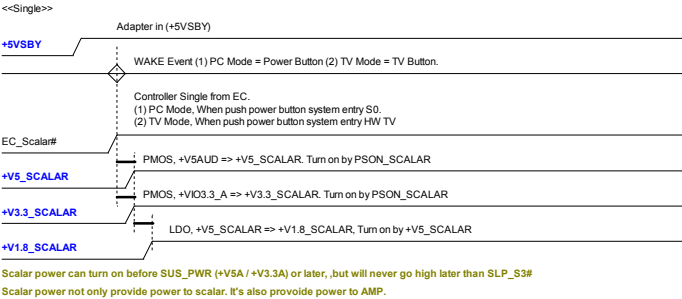
System Power



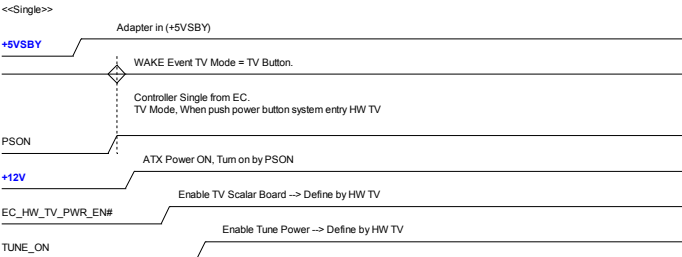
RTC Power



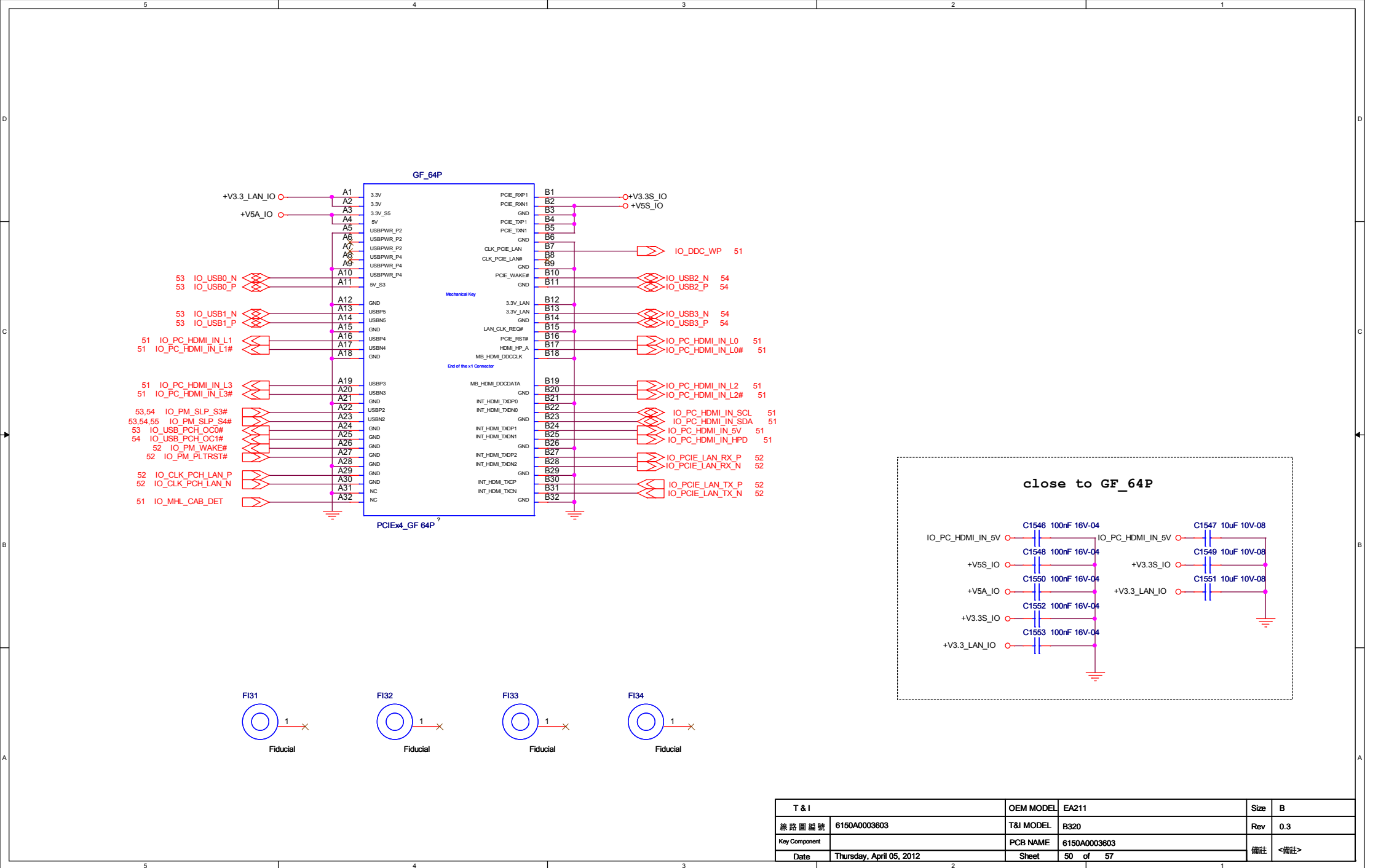
Scalar Power



TV Power

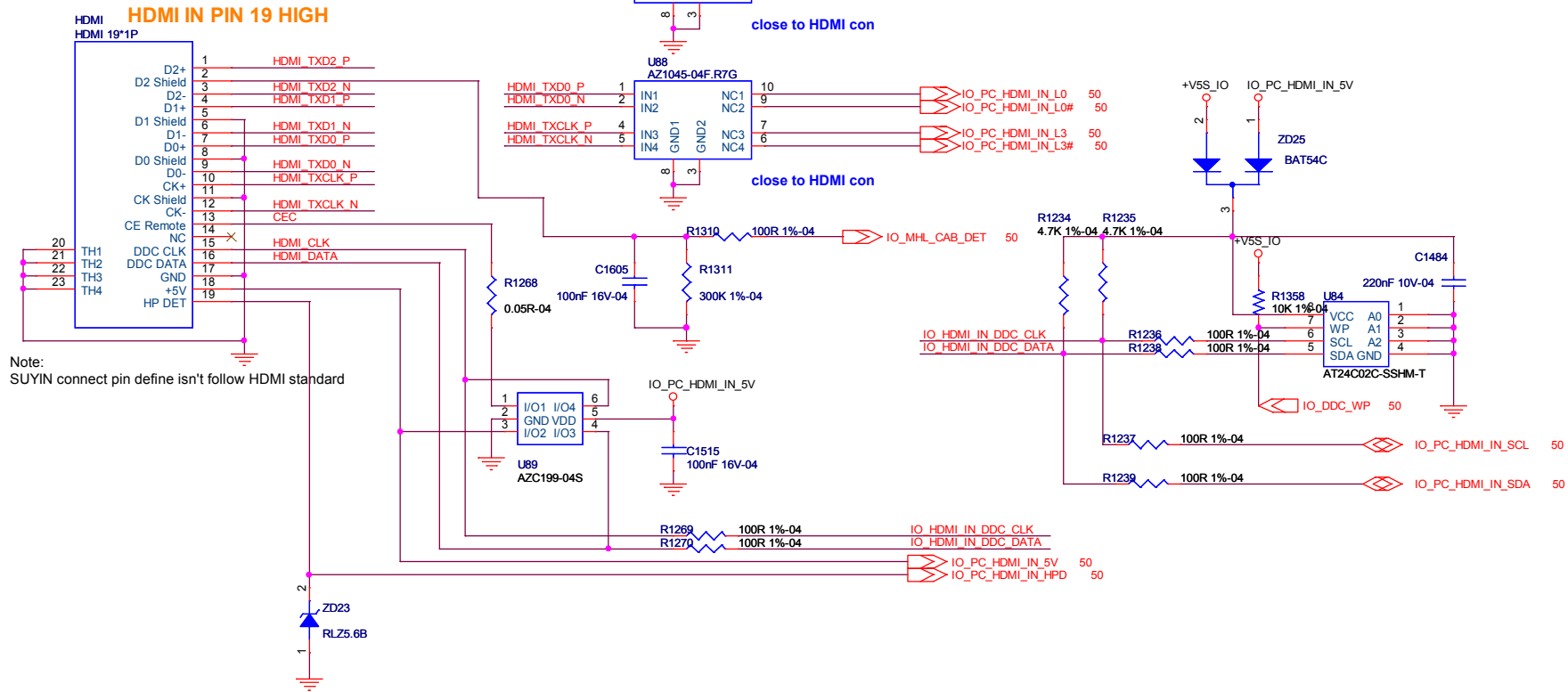


T&I	OEM MODEL	Lenovo B320	Size	Custom
6150A0003603	TAI MODEL	B320	Rev	0.3
Power Sequence	PCB NAME	6150A0003603	Sheet	49 of 87
Date	Thursday, April 05, 2012			



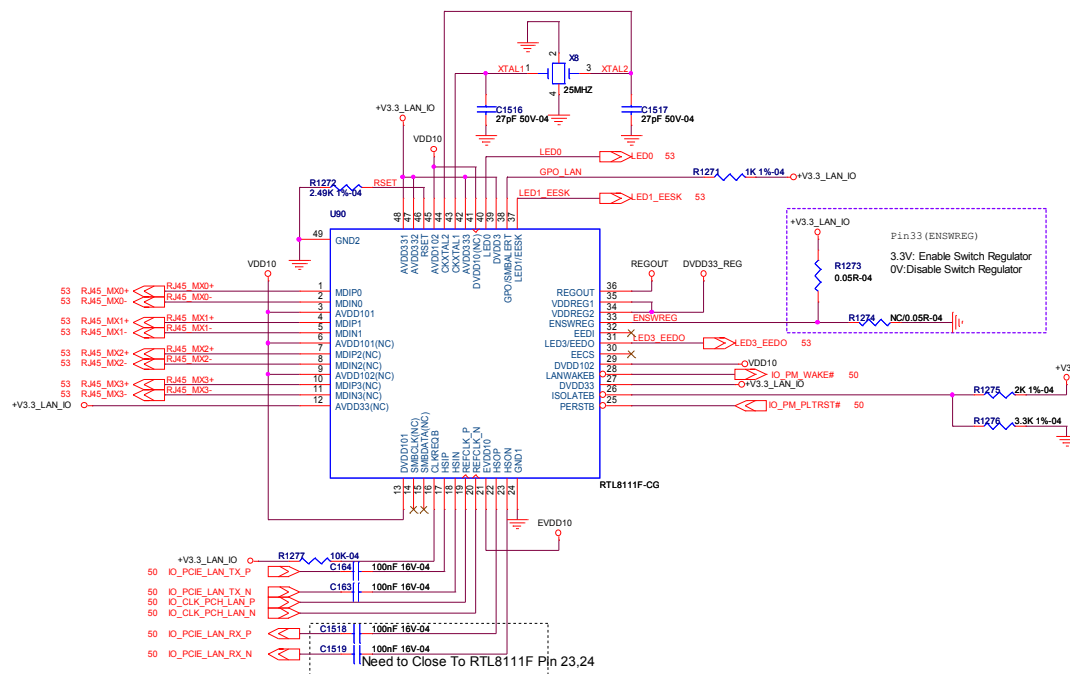
# Scalar Input HDMI

## HDMI IN PIN 19 HIGH

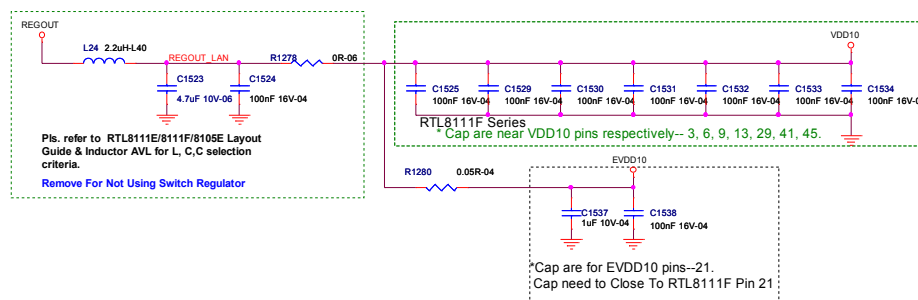
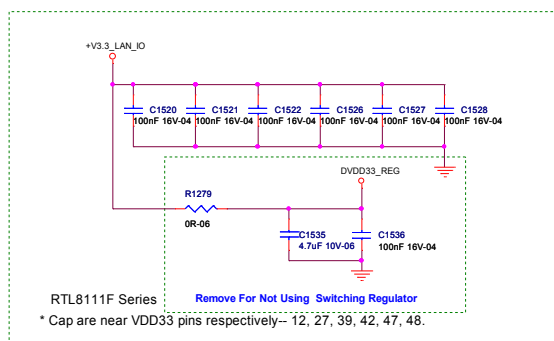


T&I (TPV-INVENTA TECHNOLOGY CO., LTD)	OEM MODEL	CA202M	Size	B
Circuit diagram NO.	<Circuit diagram NO.>	T&I MODEL	CA202M	Rev
Key Component	Scalar_Input / Detect 1/3	PCB NAME	715G4993-M0A-000-0060/6150A0008201	remark
Date	Thursday, April 05, 2012	Sheet	51 of 57	<remark>

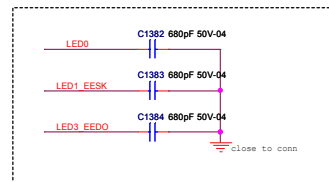
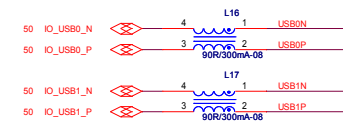
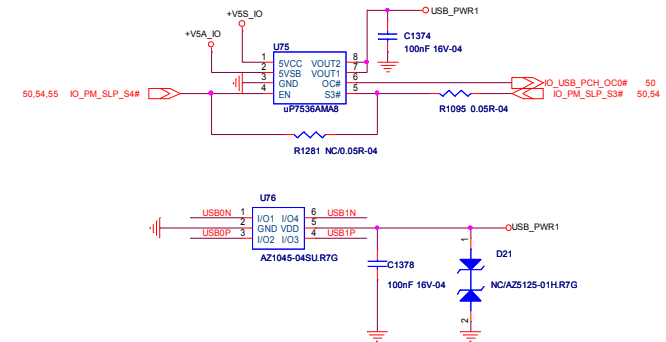
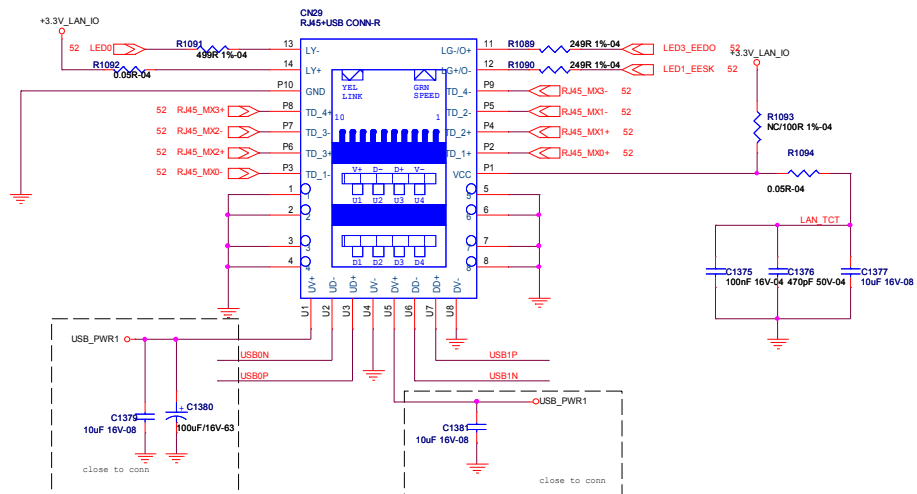
Ivan0302 Change from RTL8111E to 8111F, and connector

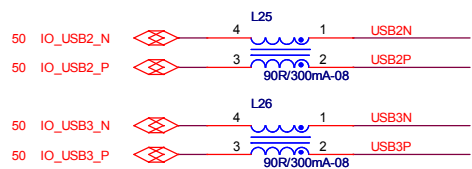
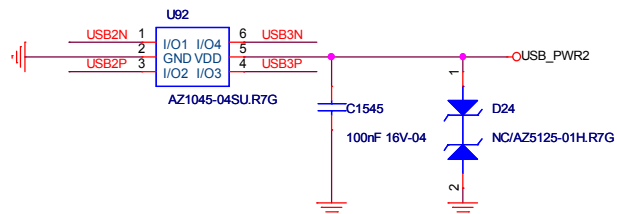
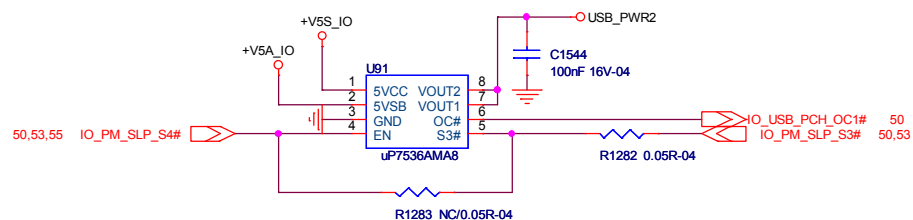
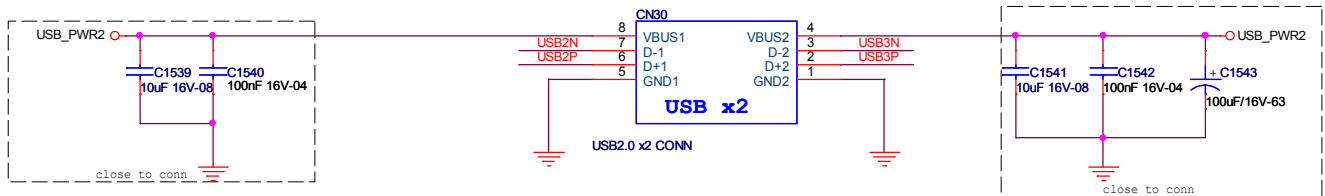


```
spec.:
+V3.3_LAN Rising time (10%~90%)
must be between 1ms and 100ms
```

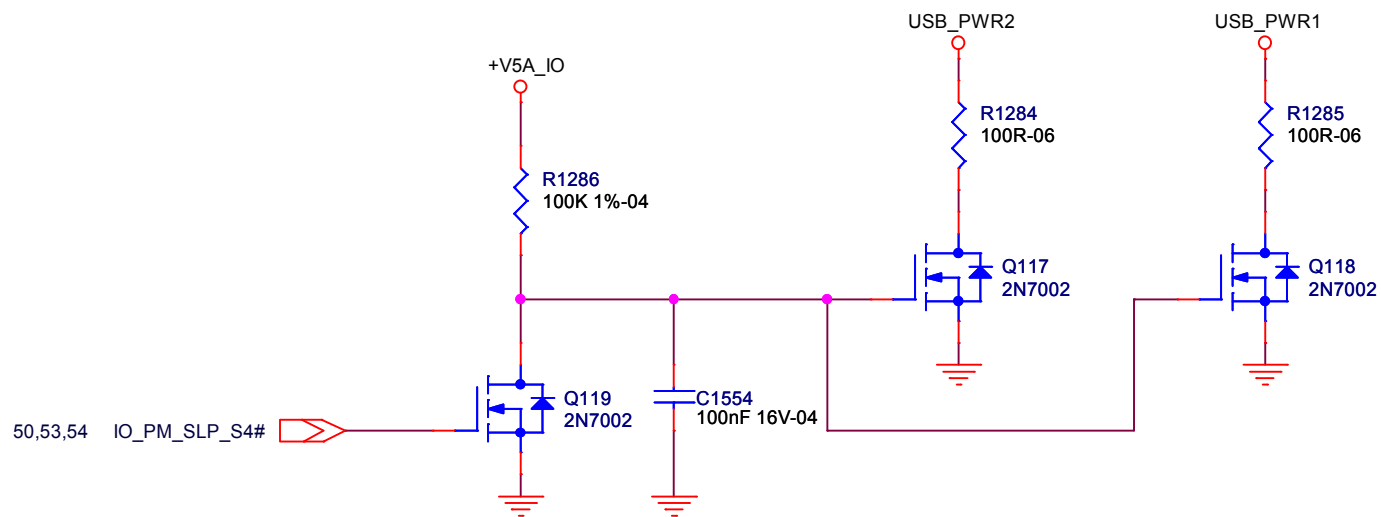


## RJ-45 CONNECTOR





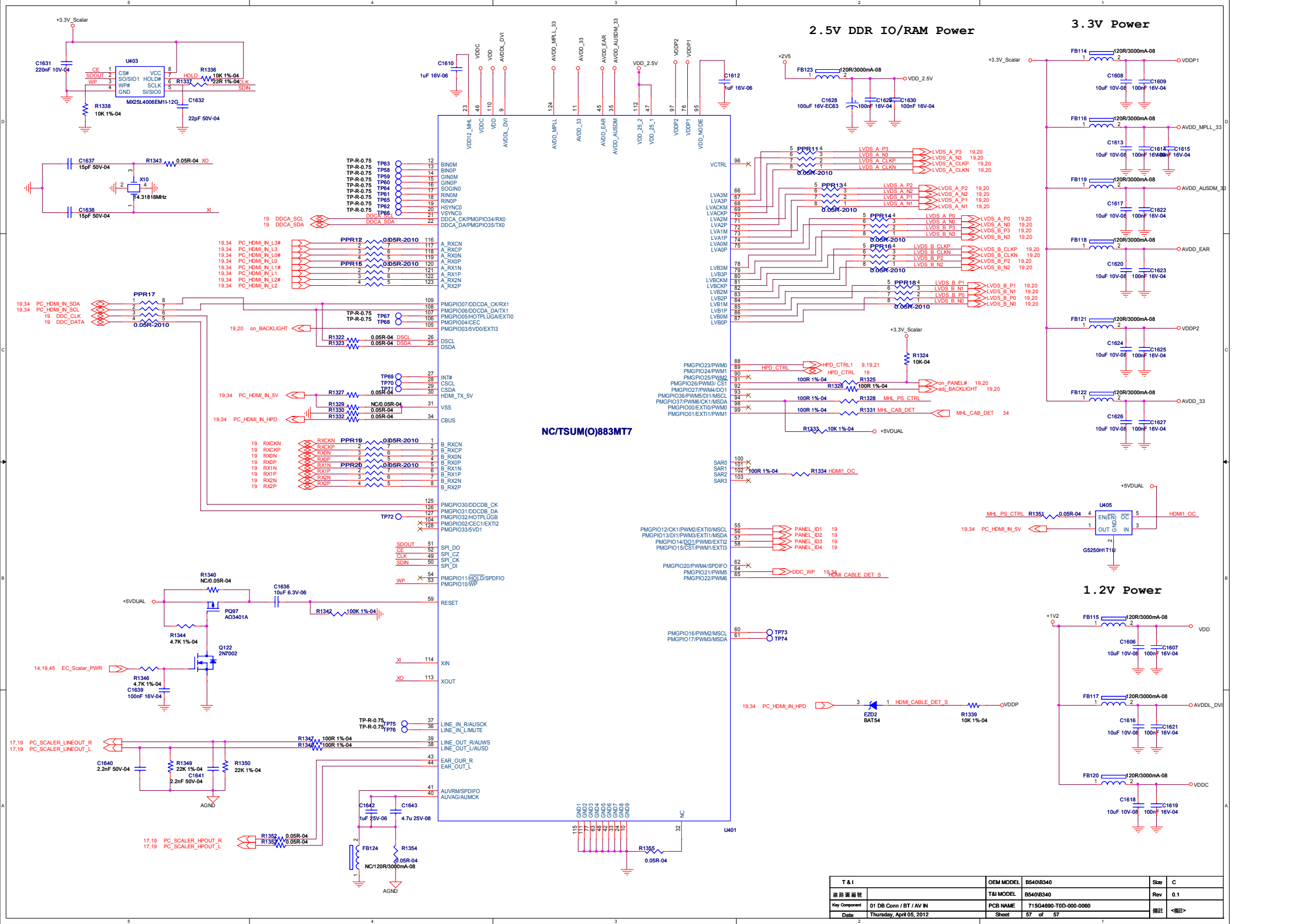
T & I		OEM MODEL	EA211	Size	B
線路圖編號		T&I MODEL	EA211	Rev	1.0
Key Component	DB USB2.0 x2	PCB NAME	715G4690-T0D-000-0060	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	54 of 57		



T & I		OEM MODEL	B540\B340	Size	A
線路圖編號		T&I MODEL	B540\B340	Rev	1.0
Key Component	01 DB Conn / BT / AV IN	PCB NAME	715G4690-T0D-000-0060	備註	<備註>
Date	Thursday, April 05, 2012	Sheet	55 of 57		

Symbol	Description	Reason	Page	Note	Symbol	Description	Reason	Page	Note
MA01	C J1,J2	Change PSU Power from 1 conn to 2 conn. From Lenovo request	47	Version 02	MC1	C Change Power Solution	Change +3.3VDUAL,+V3.3A,+3.3V_Scalar Power Solution	42,47	Version 03
MA02	C PR283,PR285,PR279,PR273	LDO Voltage divider value mistake. Change PR283 to 15K, PR285 to 12K,PR279 to 47K,PR273 to 15K	47		MC2	A Q82,R825	Add VCC_PCH_EN,Q82,R825 to solve S3 issue	39	
MA03	A R372	Add R372 10K to reserve pull high mute#	19		MC3	A R402	USB_PCH_OC4# add R402 to +V3.3A	10	
MA04	C R359	Change R359 NC to 20K to solve always mute	18		MC4	C SYS_ON from P94 to P89	Change SYS_ON from P94 to P89 of the EC	16	
MA05	C R352	Change R352 39.1k to 5.1K to slove HP plug in detect	18		MC5	A PCH_GPO33_H to EC	Add PCH_GPO33_H to EC Pin 30, add ZD21,R404	13,16	
MA06	A PQ81	ADD PQ61 and change PS_ON# to PS_ON to solve EC didn't supply 5V tolerance	16,47		MC6	C Touch Panel I2C	Change Touch Panel I2C signal to EC Pin 94 an 95	16	
MA07	C Power Plan	Change Power Plan from +5VSBY to +V5A for solve Power on resume reset error.	39		MC7	C Audio SW Schematic	Change Audio SW solution	19	
MA08	C Power Plan	Change Power Plan from +V5A to +5VSBY to follow demo board	39		MC8	C Power plan	Change Power Plan from +3.3V_Scalar to +3.3VDUAL	35	
MA09	C PCIe Port	Change PCIe Port. Lan <-> CR to solve PCIe can't used	10		MC9	A Scalar EDID circuit	Add Scalar EDID circuit	21	
MA10	C Power Plan	Change R174,R220 to solve LED flash when AC plug in	35		MC10	A Q30,Q34	Add Q30,Q34 to solve leakage	21	
MA11	A R223	Add R223 10K to solve USB output OD	35		MC11	A ZD22,EC_BACKLIGHT	Add EC_BACKLIGHT control LCD backlight and ZD22 to solve leakage	16,22	
MA12	A PR282	Add PR282 1K. Design mistake for RJT control	46		MC12	A C284,C341	Add C284,C341 for Levono schematic review	15	
MA13	C PR207	Change PR207 from 0ohm to 1K. Design mistake for RJT control	44		MC13	A Q59,Q61	Add Q59,Q61 for protection design	15	
MA14	D PR208,PQ61	Detect PR208,PQ61. Logic design mistake	44		MC14	A discharge circuit	Add PR316,PQ85 for USB power discharge circuit	48	
MA15	C PR250	Change PR250 from 0ohm to 1K. Design mistake for RJT control	46		MC15	A PM_SLP_S3#	Add PM_SLP_S3# to DB1 conn	35	
MA16	A R594,Q17 C R442,R602	To sovlve VDD power enable inverter	22		MC16	A D17,D18	Add D17,D18 for protection design	15	
MA17	C PR234	To pull high enable signal	45		MC17	C LAN Power circuit	Changel +V3.3_LAN Power solution	47	
MA18	A PQ82,PQ84 C PR227, D PQ41,PQ39	Add PQ82,PQ84 and Change PR227 NC to 10K to pull +V3.3#	45		MC18	A IR_SEL# circuit	Add Q75,Q85,Q86,R410 for control IR source	35	
MA19	A PQ83, D PQ63	Change RJT to FET to control power enable	47		MC19	A R438	Add R438 bypass from EC_HW_TV_PWR_EN_R to EC_HW_TV_PWR_EN	16	
MA20	C Power Plan	Change Power Plan from +V3.3A to +V3.3# to solve leakage	12		MC20	A TV_LCDVCC	Add TV_LCDVCC to HW/TV connector (TVS2)	22	
MA21	C Power Plan	Change Power Plan from +V3.3A to +V103.3A to solve leakage	14		MC21	C TVS1 and TVS2 conn	Modify TVS1 and TVS2 CONN and Pin define	36	
MA22	C Power Plan	Change Power Plan from +V3.3A to +V103.3A to solve leakage	13		MC22	C VCC1_05_ME to +V3.3#	Change VCC1_05_ME to +V3.3# to solve Power off Sequence (t232) Add Q88.	38	
MA23	C SATA Conn	Change SATA Conn from ME Request.	12		MC23	A R820	Add R820 on GPU XTAL for fine tune	23	
MA24	A R131	Add R131 to + V3.3# TO enable DDPC HPD	11		MC24	A R900	Add R900 to pull high TV_ON# for non-HW TV SKU.	16	
MA25	A R785,Q74,Q73	Add Protect Circuit FOR PCH SMBUS_1 and GPU Thermal IC SMBUS to EC	16,23		MC25	C AMP Solution	Change AMP Solution.	36	
MA26	A R810,C852	Add RC delay on PM_RSMRST#	13		MC26	D DB2 C DB1	Detect DB2 combine to DB1 for Assembly request.	35	
MA27	C C189,C190	Change C189,C190 NC to 1UF	13		MC27	A R902	Change R444 to NC and Add R902 to pull low to solve power on flash.	22	
MA28	C Q6	Change PMBT3904 to 2N7002	13		MC28	A CN29,C905,C906	ADD HW TV Fan.	15	
MA29	C CN26	Change WAFER 2.0MM 4P to WAFER 1.25MM 4P	15		MC29	C Conn PC_FWM1	Change conn to prevent make mistake.	35	
MA30	C CN7	Change CN7 to NC	15		MC30	A Q90,R345,Q91	Add Discrete and UMA HPD Pin control	11	
MA31	C R314	Change R314 OR to NC	16		MC31	A R425	Add HPD_EN# to control Discrete and UMA HPD	16	
MA32	C CN10,CN15,CN19,CN8	Change CN10,CN15,CN19,CN8 to NC	16,23,33		MC32	A R824,R852	Add R824 and R852 Pull +3.3VDUAL	16	
MA33	C NET Name	Change TV_ON to TV_ON#	16,36		MC33	A Bypass R	Add Bypass Resistance	18	
MA34	A ZD12,ZD15,ZD16,ZD17 ZD18,ZD19,ZD20	Add ZD12 BAT54 to solve leakage of electricity	16		MC34	A C329,C330,C1216,C1217	Add C329,C330,C1216,C1217 from TV_HPOUT to SW	19	
MA35	A R312	Add R312 10K pull high +V103.3_A	16		MC35	A Discrete DVI	Add Discrete DVI to Internal scalar	21	
MA36	C NET Name	Change SMB_CLK_VGA to EC_SMB_CLK_1, Change SMB_DATA_VGA to EC_SMB_DATA_1	16		MC36	A JP4	Add JP4 to setup Internal scalar panel ID	21	
MA37	A R794,R795,R796,R797 R798,Q83,Q84	Add Protect Circuit FOR EC SMBUS_1 to HW/TV and Touch Board	16		MC37	A R364	Add R364 Pull GND	35	
MA38	C NET Name	Change EC_HW_TV_PWR_EN to TUNE_ON	35		MC38	A R830,R832	Add R830 and R832 Bypass Resistance	36	
MA39	C NET Name	Change GS_DSUB_SCL to EC_SMB_CLK_1. Change GS_DSUB_SDA to EC_SMB_DATA_1.	21		MC39	A D15,C817	Add D15 and C817, RC Delay Function	39	
MA40	A ZD13,ZD14	Add ZD13,ZD14 BAT54 to solve leakage of electricity	21		MC40	A C331	Add C331	39	
MA41	C DB1,DB2	Modify 2x32 Pin Header to 2x26 and 2x8 SPEC	35		MD01	A R910, R911	Reserve system flash on board scalar function.	13,21	Version 04
MA42	C IVERTER1	Change CONN SPEC FOR ME Issue	22		MD02	A R912, R913	To Slove EC can't link with HW TV.	16,36	
MA43	C Power Plan	Change Power Plan from +V58 to +5VSBY to solve leakage of electricity	48		MD03	C TVP1 conn	TVP1 conn change +12V1 to GND	36	
MA44	A R237,R212	SETTING LED PANEL and MIC	13						
MA45	C +3.3V_LAN Solution	Change +3.3V_LAN Power Solution	47						
MA46	C POWER SOLUTION	Change 1117 to APL5930	47						
MA47	A R840,R841	Add R840 and R841 to GND	13						
MA48	A R397,R398	Add R397 and R398	16						
MA49	A HW/TV ID SET Circuit	Add HW/TV Scalar board strap ID setting	16						
MA50	C CN12,CN13 JACK SPEC	Change CN12 and CN13 JACK SPEC	20						
MA51	A Discrete RGB Circuit	Add Discrete RGB to Internal Scalar Circuit (DEL)	21						
MA52	A R803,R805	Add R803 and R805 for Touch reset pin option	35						
MA53	A OP_Circuit for Audio	Add OP Circuit for HW/TV Scalar Lineout on PC_MB	36						
MA54	C C787	Change C787 100nF to NC	38						
MA55	C +3.3VDUAL Solution	Change +3.3VDUAL Power Solution	42						





T & I		OEM MODEL	B540/B340	Size	C
總路圖編號		T&I MODEL	B540/B340	Rev	0.1
Key Component		PCB NAME	715G4690-T0D-000-0060	備註	<備註>
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