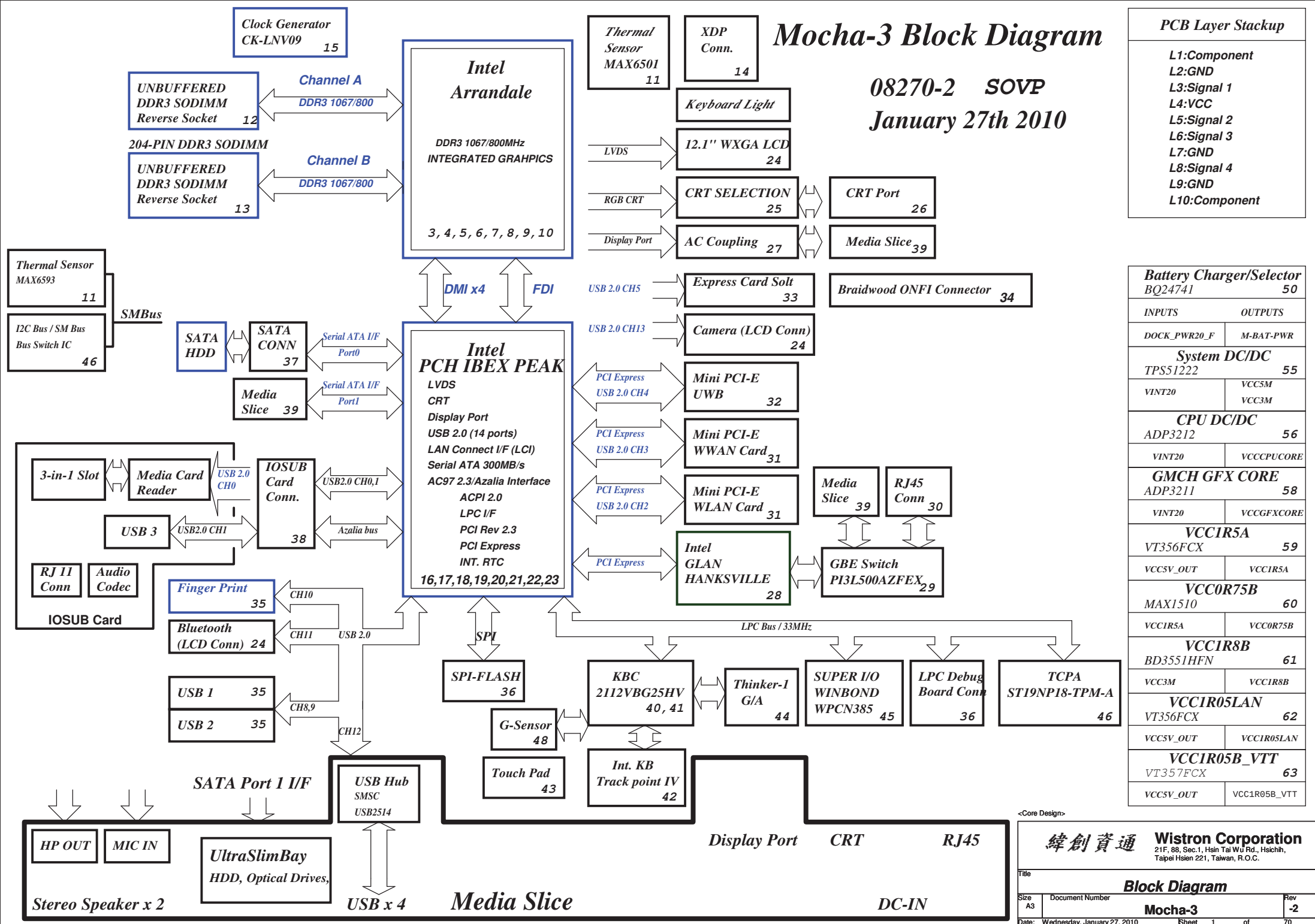




RESISTOR

Symbol name	Value	Tolerance (J: 5%, F: 1%, D: 0.5%, B: 0.1 %)	Rating 0402=> 1/16W, 25V 0603 => 1/16W, 75V 0805 => 1/10W, 100V	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
10KR3	10K Ohm	If no letter, it means J: 5%	1/16W, 75V	0603
33D3R5	33.3 Ohm	If no letter, it means J: 5%	1/10W, 100V	0805
1KR3F	1K Ohm	F: 1%	1/16W, 75V	0603

The naming rule is value + R + size + tolerance
 For the value, it can be read by the number before R. (R means resistor)
 For the tolerance, it can be read from the last letter.
 For the rating, we don't show on the symbol name.
 For the size, R2=>0402, R3=>0603, R5=>0805,....

CAPACITOR

Symbol name	Value	Tolerance (M: +/-20, K: +/-10, Z: +80/-20)	Rating	Size 2=>0402, 3=>0603, 5=>0805, 6=>1206, 0=>1210
SCD1U10V2MX-1	0.1uF	M/X5R	10V	0402
SC10U6D3V5MX	10uF	M/X5R	6.3V	0805
SC2D2U16V5ZY	2.2uF	Z/Y5V	16V	0805

The naming rule is
 Capacitor type + value + rating + size + tolerance + material
 SCD1U10V2MX-1
 SC=> SMT Ceramic, TC=> POS cap or SP cap
 D1U => 0.1uF
 10V => the voltage rating is 10V
 2=> 0402, 3=>0603, 5=>0805
 M=>tolerance M, K, Z
 X=> X7R/X5R, Y=> Y5V
 -1 => symbol version, nonsense to EE characteristic

PLANAR_ID[3..0]

IBEXPEAK-M	39	38	37	36	Planar ID Version	Planar PCB Version
PLANAR_IDn	3	2	1	0		
	0	0	0	0	Mocha-3 Pre-DV	SA
	0	0	0	1	Mocha-3 DV	SB
	0	0	1	0	Mocha-3 FVT	SC
	0	0	1	1	Mocha-3 SIV	SD
	0	1	0	0	Mocha-3 SIT	SE
	0	1	0	1	Mocha-3 SVT	-1
	0	1	1	0		-2
	0	1	1	1		

EC HISTORY

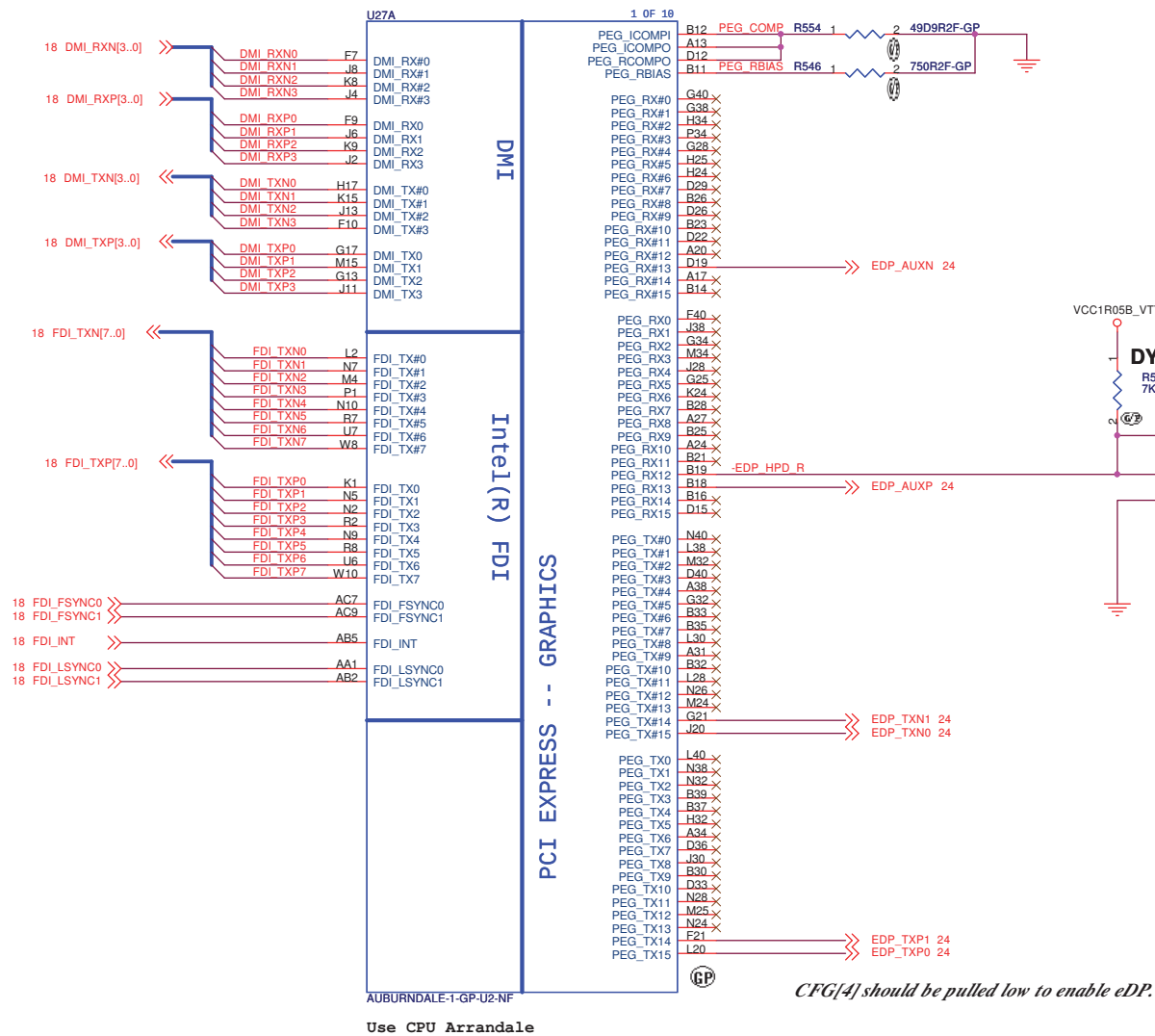
[illegible]

PCI TABLE

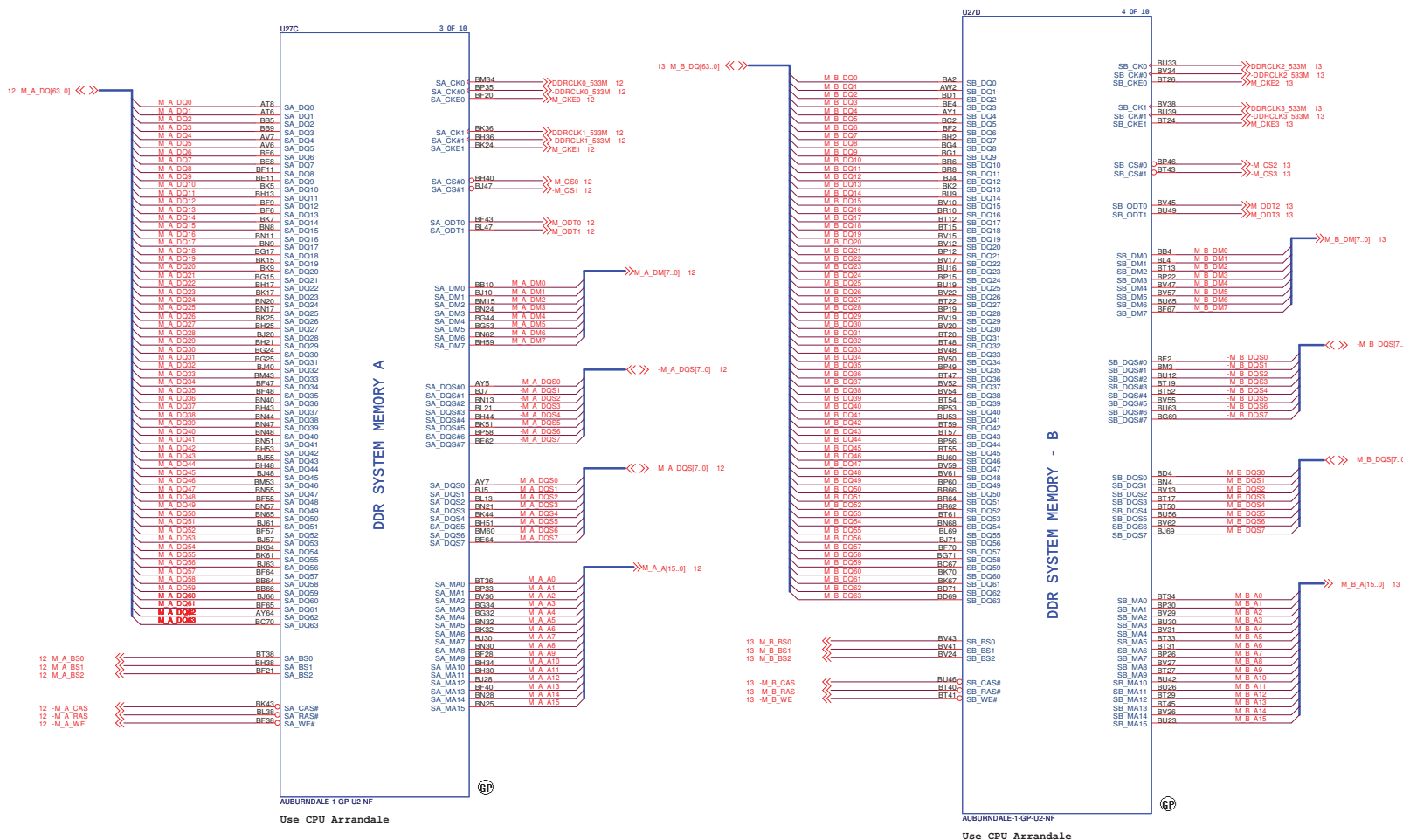
DEVICE	IDSEL	IRQ (Default)	REQ# / GNT#
USB UHCI	AD29	A, C, D	
USB 2.0 EHCI	AD29	H	
DMI-to-PCI/ AC97 Modem/ AC97 Audio	AD30	B B	
LPC Bridge IDE SATA SMBus	AD31	C C B	
PCI Express	AD28	A, B, C, D	

<Core Design>

 Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
Reference Mocha-3	
Size A3	Document Number -2
Date: Wednesday, January 27, 2010 Sheet 2 of 70	

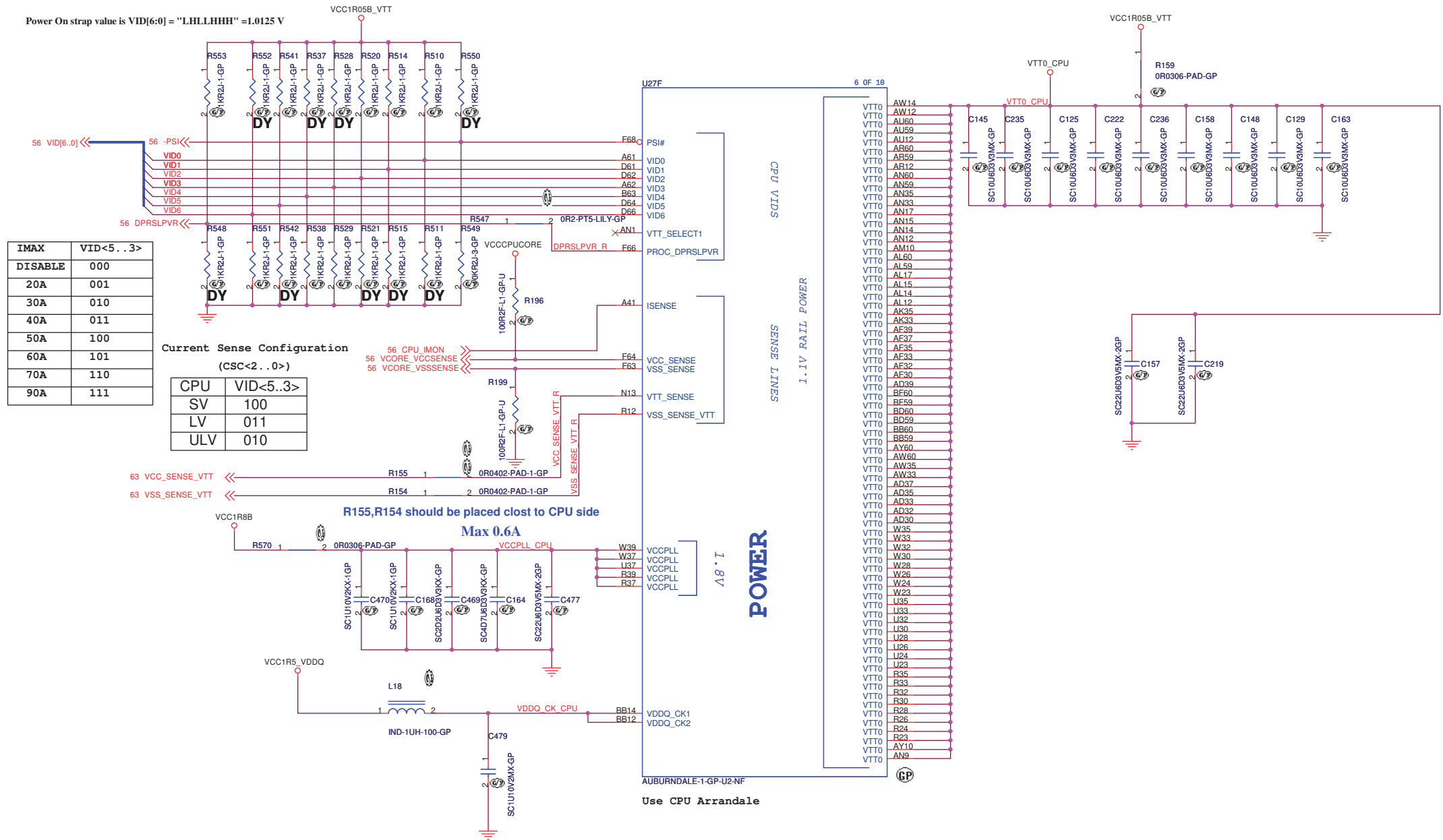


<Core Design>





Power On strap value is VID[6:0] = "LHLLHHH" =1.0125 V



<Core Design>

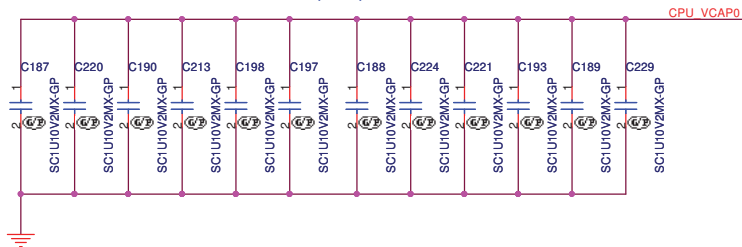
緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	Arrandale CPU(5/8):Power
-------	---------------------------------

Size A3	Document Number Meche 2	Rev 2
------------	-----------------------------------	-----------------

Date: Wednesday, January 27, 2010 Sheet 7 of 70

12 X
1uF /10V/ ±20% 0402

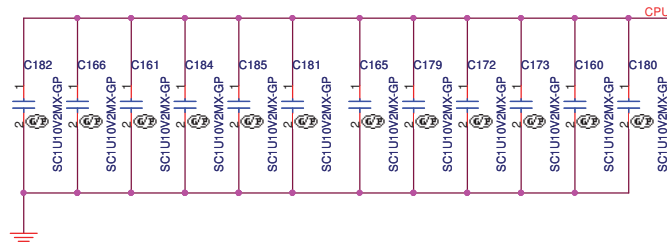


BD55 VCAP0
BD51 VCAP0
BD48 VCAP0
BB55 VCAP0
BB51 VCAP0
BB48 VCAP0
AV57 VCAP0
AY53 VCAP0
AY50 VCAP0
AW57 VCAP0
AW53 VCAP0
AW50 VCAP0
AU55 VCAP0
AU51 VCAP0
AU48 VCAP0
AR55 VCAP0
AR51 VCAP0
AR48 VCAP0
AN57 VCAP0
AN53 VCAP0
AN50 VCAP0
AL57 VCAP0
AL53 VCAP0
AL50 VCAP0
AK57 VCAP0
AK53 VCAP0
AK50 VCAP0

POWER

CPU CORE SUPPLY

12 X
1uF/10V/ ±20% 0402



BD44 VCAP1
BD41 VCAP1
BD37 VCAP1
BB44 VCAP1
BB41 VCAP1
BB37 VCAP1
AY46 VCAP1
AY42 VCAP1
AY39 VCAP1
AW46 VCAP1
AW42 VCAP1
AW39 VCAP1
AU44 VCAP1
AU41 VCAP1
AU37 VCAP1
AR44 VCAP1
AR41 VCAP1
AR37 VCAP1
AN46 VCAP1
AN42 VCAP1
AN39 VCAP1
AL46 VCAP1
AL42 VCAP1
AL39 VCAP1
AK46 VCAP1
AK42 VCAP1
AK39 VCAP1

AUBURNDAL-1-GP-U2-NF

Use CPU Arrandale

8 OF 10

VCC AF57
VCC AF55
VCC AF53
VCC AF51
VCC AF50
VCC AF48
VCC AF46
VCC AF44
VCC AF42
VCC AF41
VCC AD55
VCC AD51
VCC AD48
VCC AD44
VCC AD41
VCC AB55
VCC AB51
VCC AB48
VCC AB44
VCC AB41
VCC AA55
VCC AA51
VCC AA48
VCC AA44
VCC AA41
VCC W55
VCC W51
VCC W48
VCC W44
VCC W41
VCC U55
VCC U51
VCC U48
VCC U44
VCC U41
VCC R55
VCC R51
VCC R48
VCC R44
VCC R41
VCC P60
VCC N55
VCC N51
VCC N48
VCC N44
VCC N42
VCC M60
VCC M51
VCC M44
VCC L55
VCC K60
VCC K51
VCC K44
VCC J55
VCC H60
VCC H51
VCC H44
VCC G60
VCC G55
VCC G51
VCC G44
VCC F55
VCC F51
VCC F60
VCC E57
VCC E53
VCC E50
VCC E46
VCC E42
VCC D59
VCC D57
VCC D55
VCC D54
VCC D52
VCC D50
VCC D48
VCC D47
VCC D45
VCC D43
VCC B60
VCC B56
VCC B53
VCC B49
VCC B46
VCC B42
VCC A57
VCC A54
VCC A50
VCC A47
VCC A43



<Core Design>

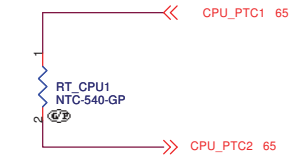
緯創資通

Wistron Corporation
21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title **Arrandale CPU(7/8): VCC&VCAP**

Size A3	Document Number Mocha-3	Rev -2
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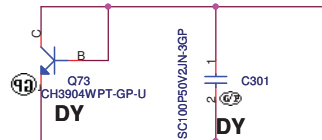
Date: Wednesday, January 27, 2010 Sheet 9 of 70



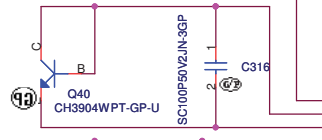
It should be arranged near CPU instead of CPU thermal sensor

THESE CAPS MUST BE PLACED AS CLOSE AS POSSIBLE TO MAX6593

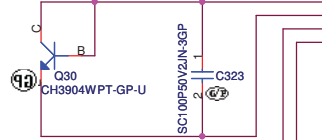
TO NVM



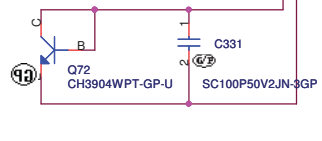
TO Express Card



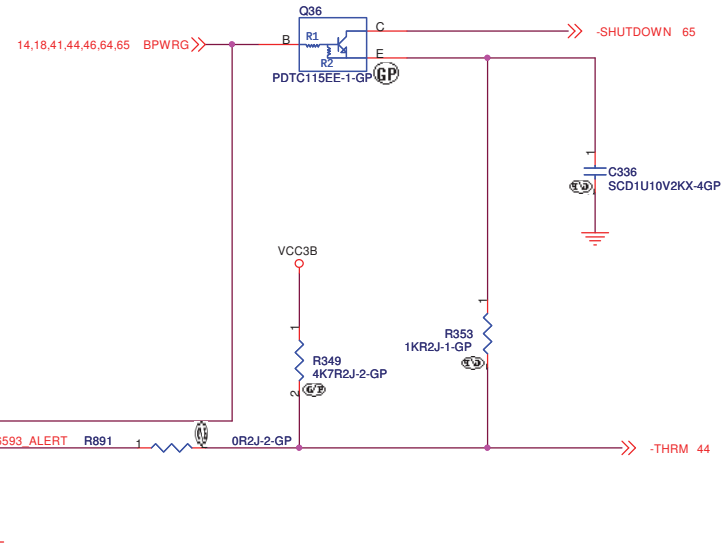
TO VCORE FET



TO MINI CARD



Place under DIMM
H8 I2C Bus 2 ADDRESS : 9AH
TEST PAD FOR BOARD MFG TEST



Layout Comment :
(1) Thermal sensor trace lines should not be overlapped with other high frequency trace lines in other layers.
(2) Also, it should not be overlapped with large amplitude trace lines either.

<Core Design>

緯創資通		Wistron Corporation 21F, 88, Sec. 1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
THERMAL SENSOR			
Size A3	Document Number Mocha-3		Rev -2
Date: Wednesday, January 27, 2010		Sheet 11 of 70	

DM1
20.F1272.204 Tyco
62.10017.M21 Foxconn

REVERSE TYPE

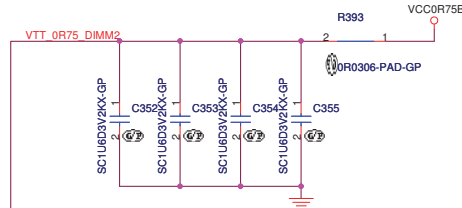
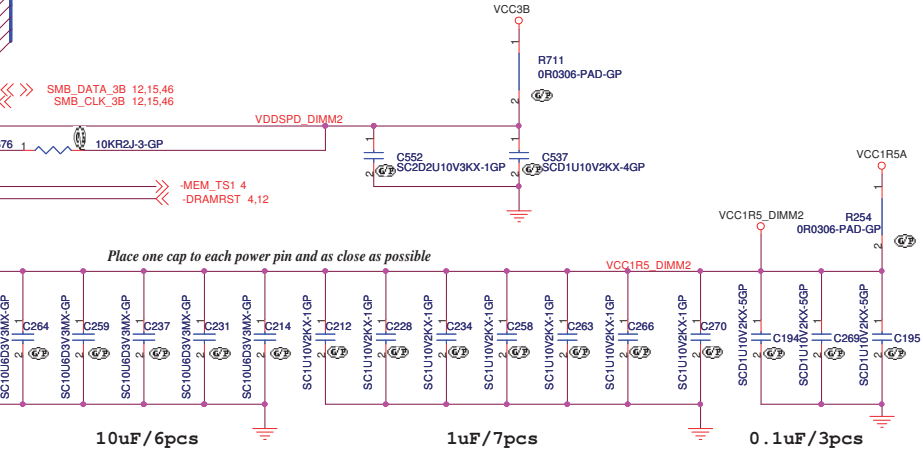
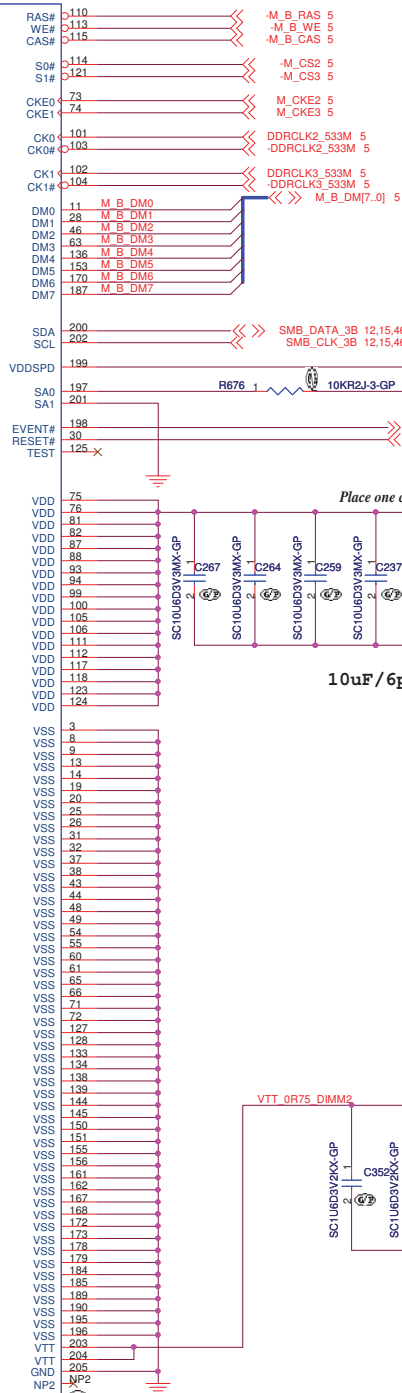
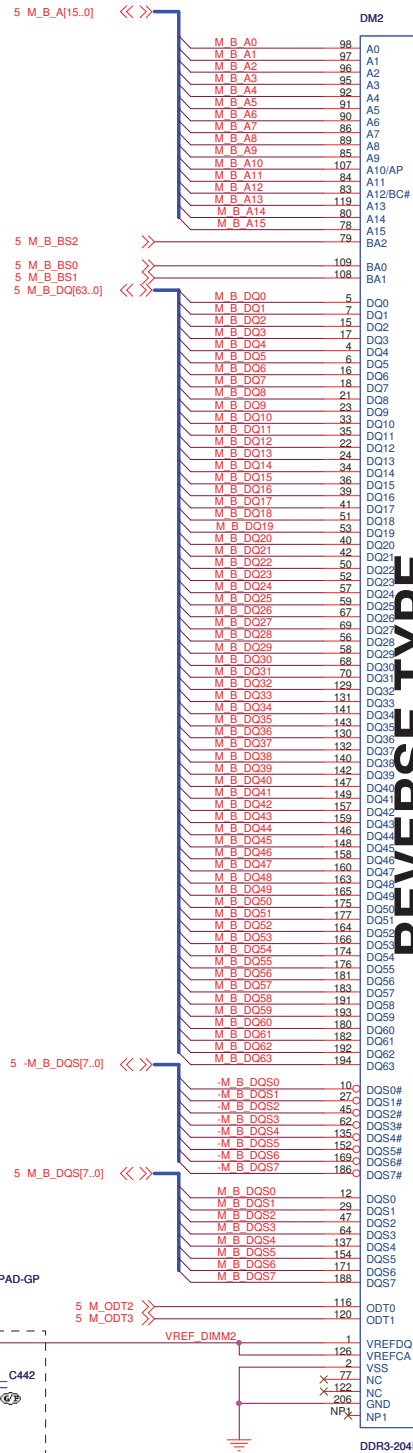
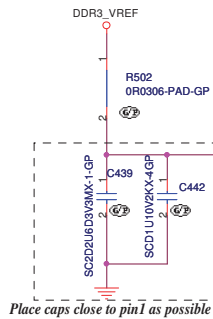
<Core Design>

緯創資通 Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title
DDR3 SODIMM-A (REVERSE TYPE)
Size Document Number
Custom Mocha-3 Rev
Date: Wednesday, January 27, 2010 Sheet 12 of 70

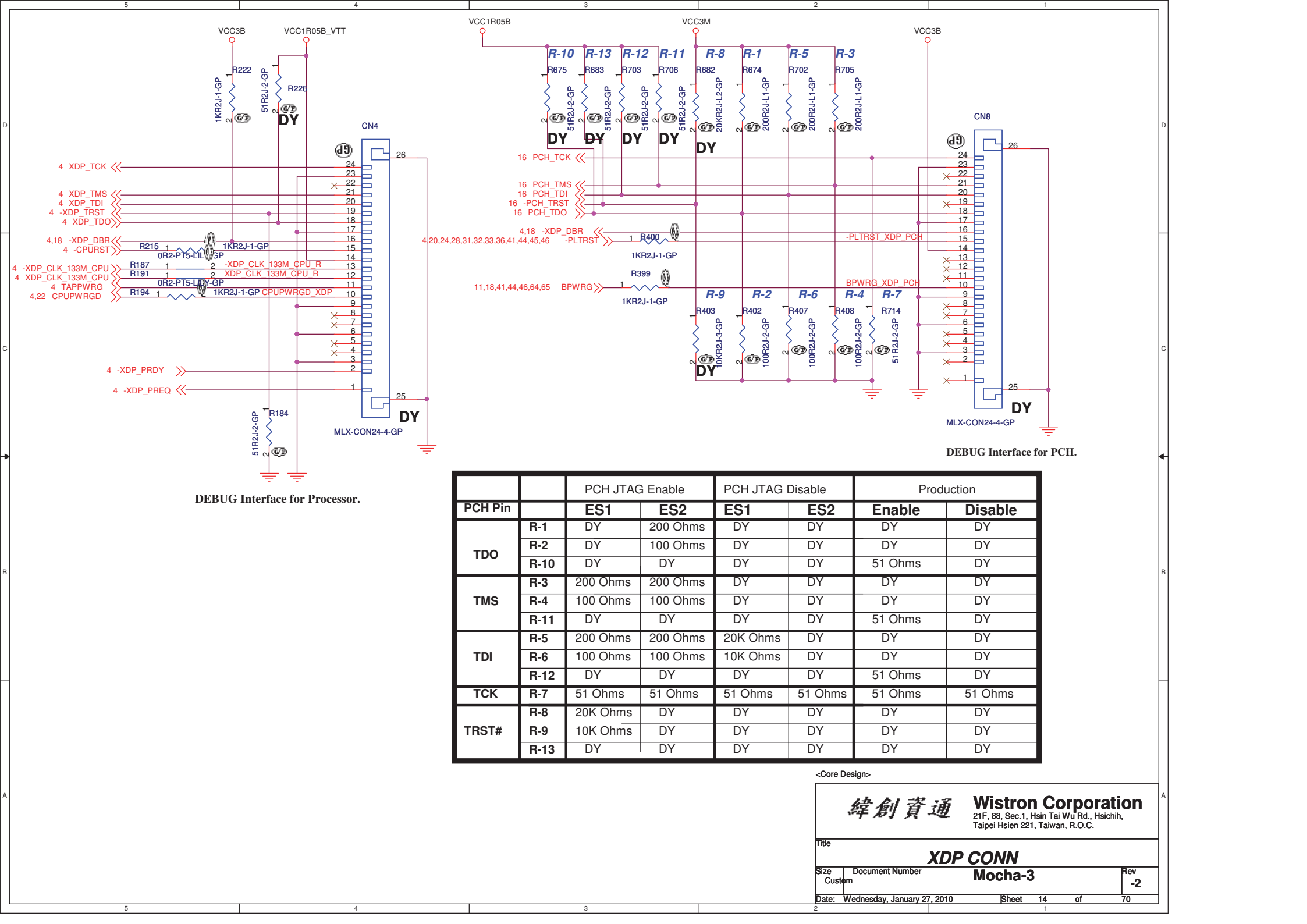
DM2
20.F1272.204 Tyco
62.10017.M21 Foxconn

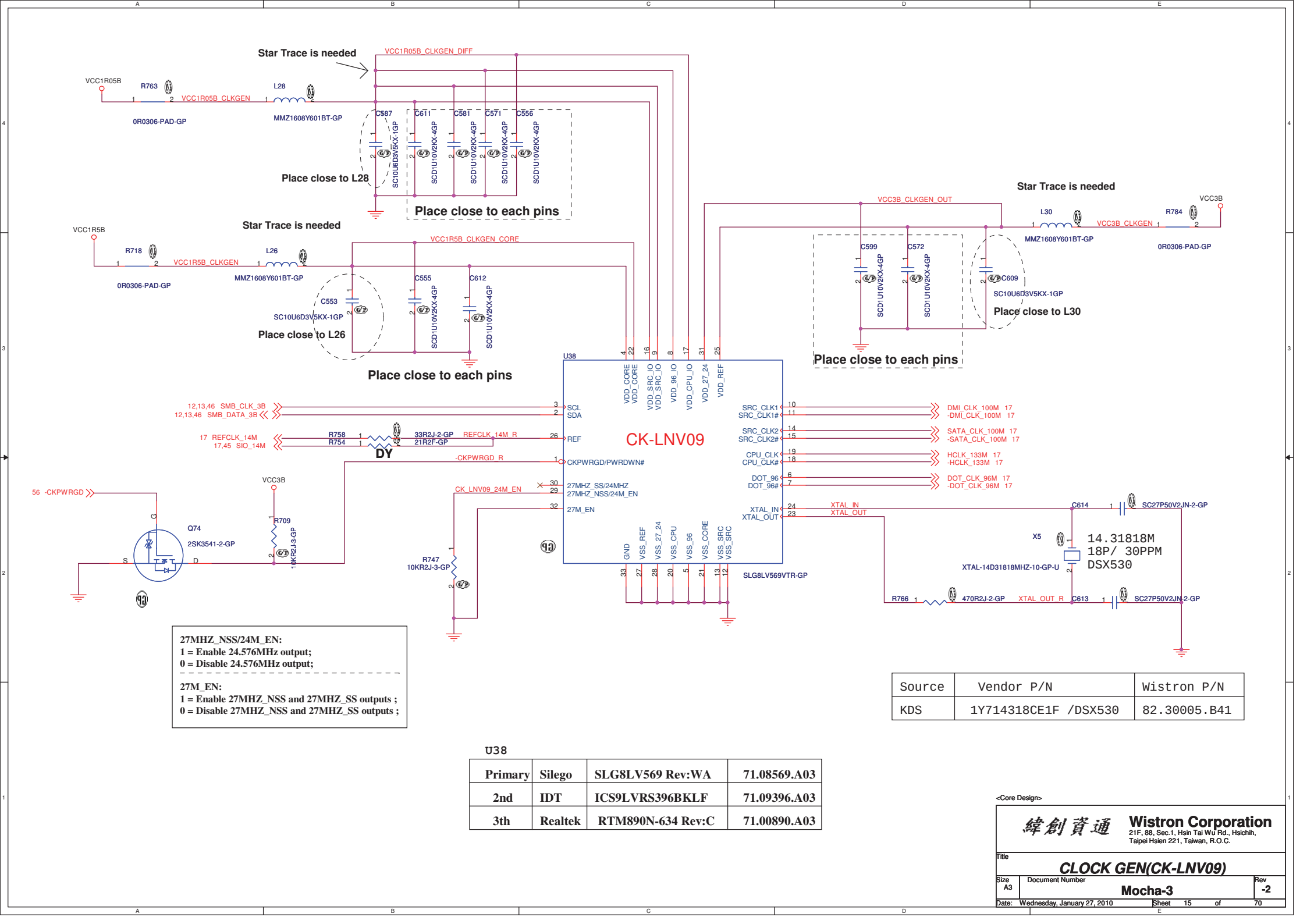
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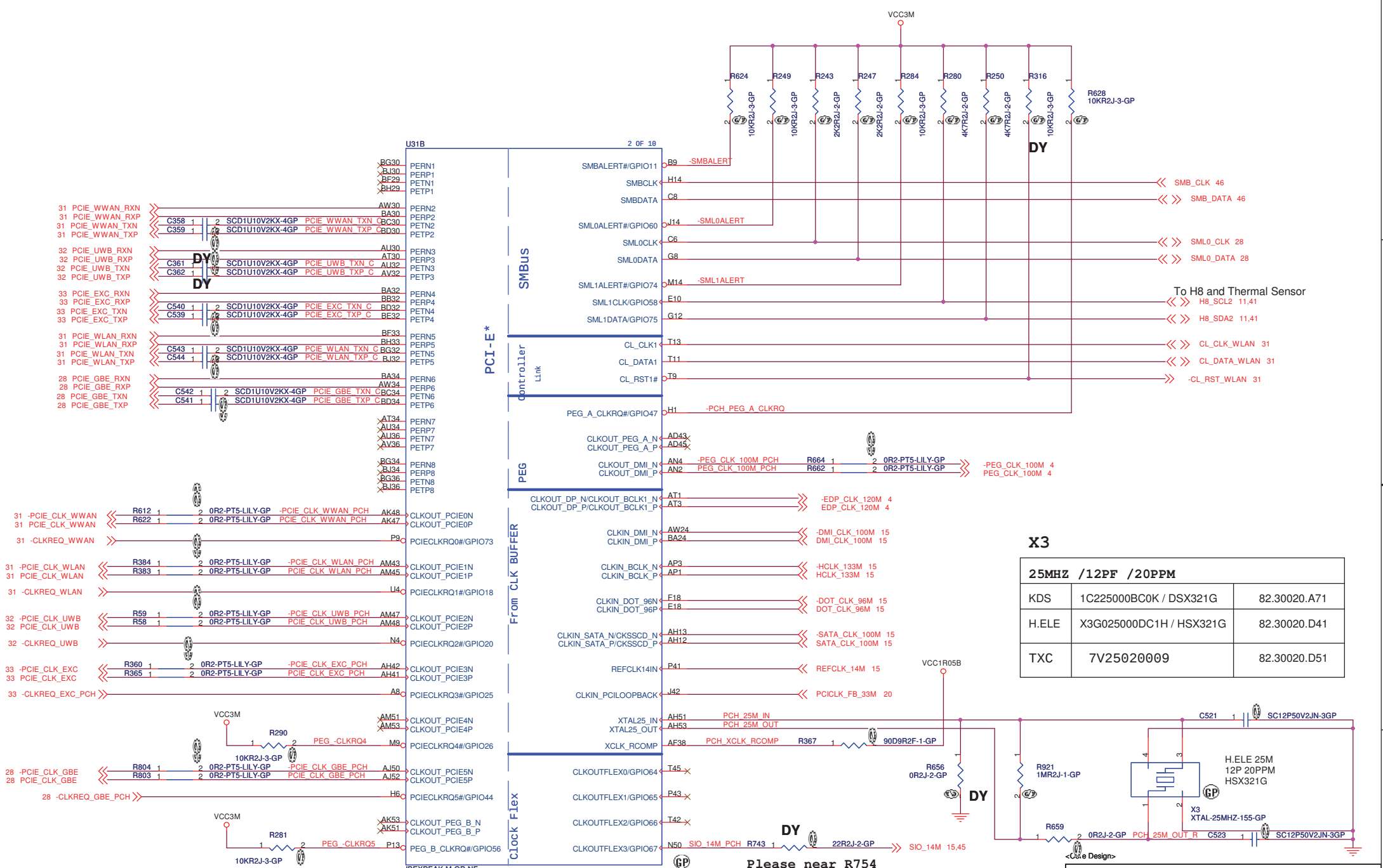


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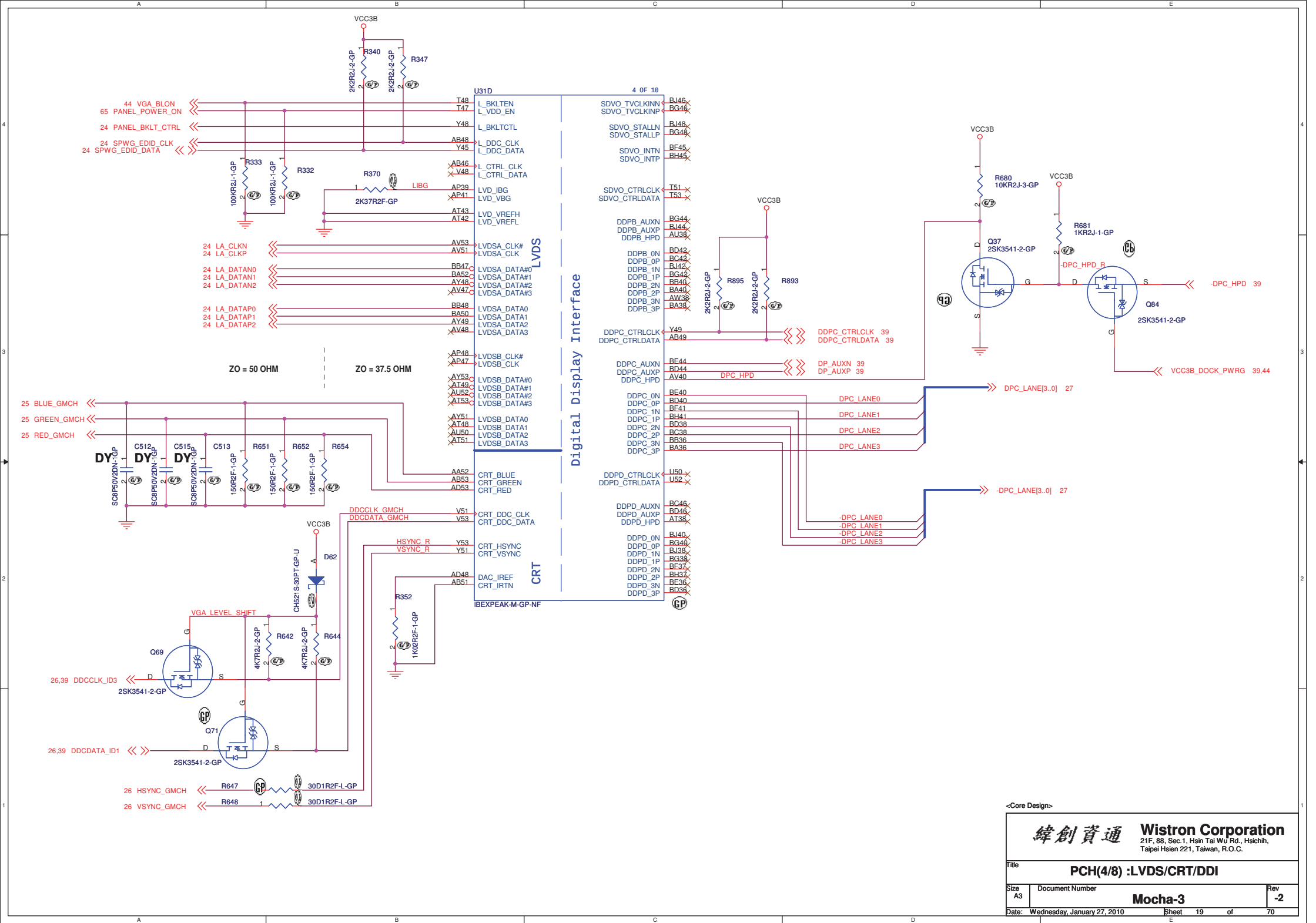
Title		Wistron Corporation	
Size		21F, 8B, Sec.1, Hsin Tai Wai Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Document Number		DDR3 SODIMM-B (REVERSE TYPE)	
Custom		Mocha-3	
Date: Wednesday, January 27, 2010		Sheet 13 of 70	
		Rev -2	

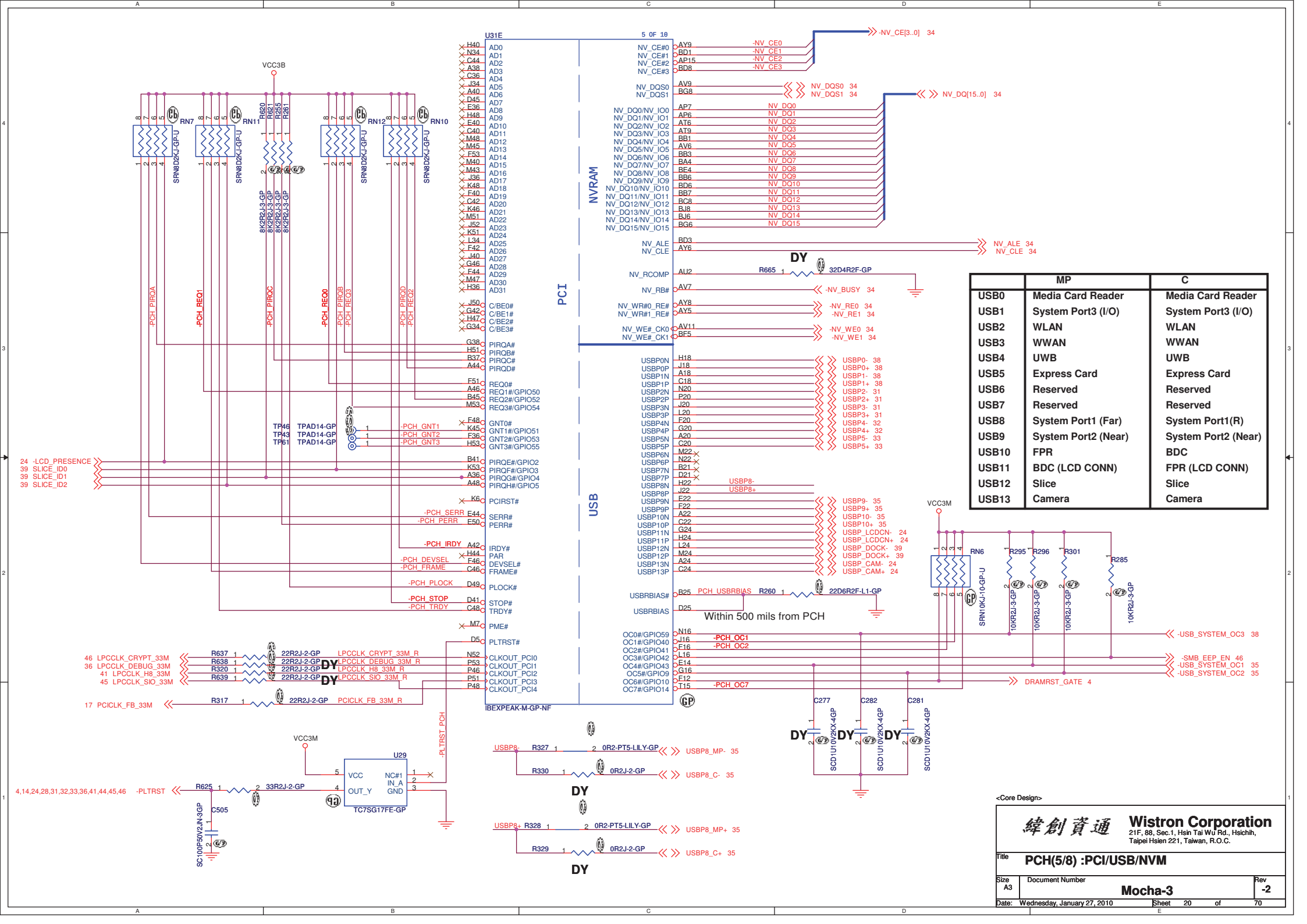






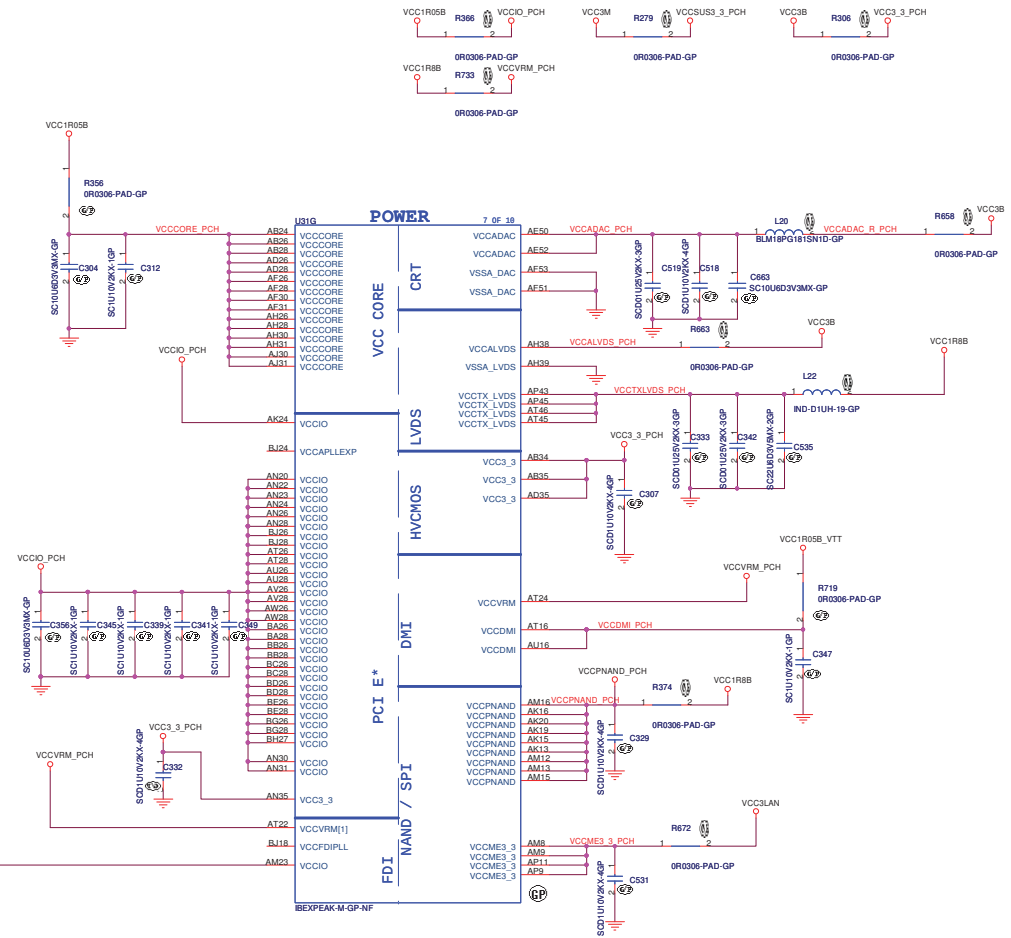
25MHZ /12PF /20PPM		
KDS	1C225000BC0K / DSX321G	82.30020.A71
H.ELE	X3G025000DC1H / HSX321G	82.30020.D41
TXC	7V25020009	82.30020.D51





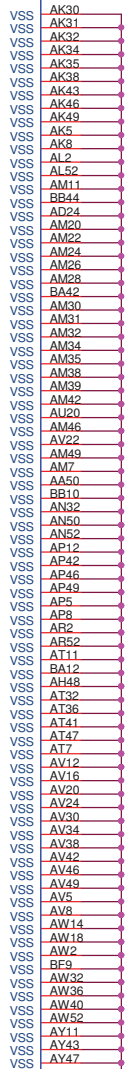
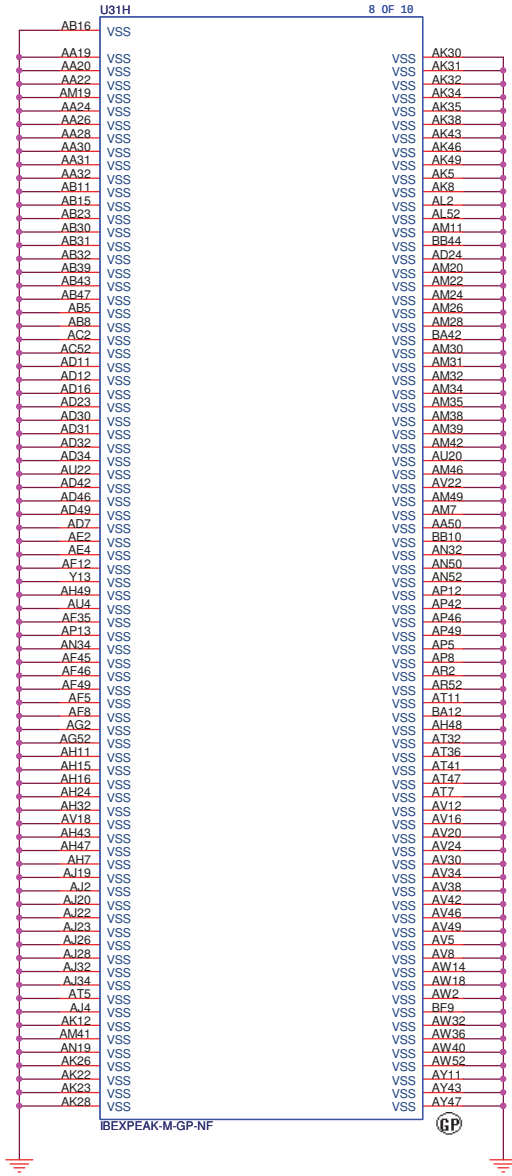
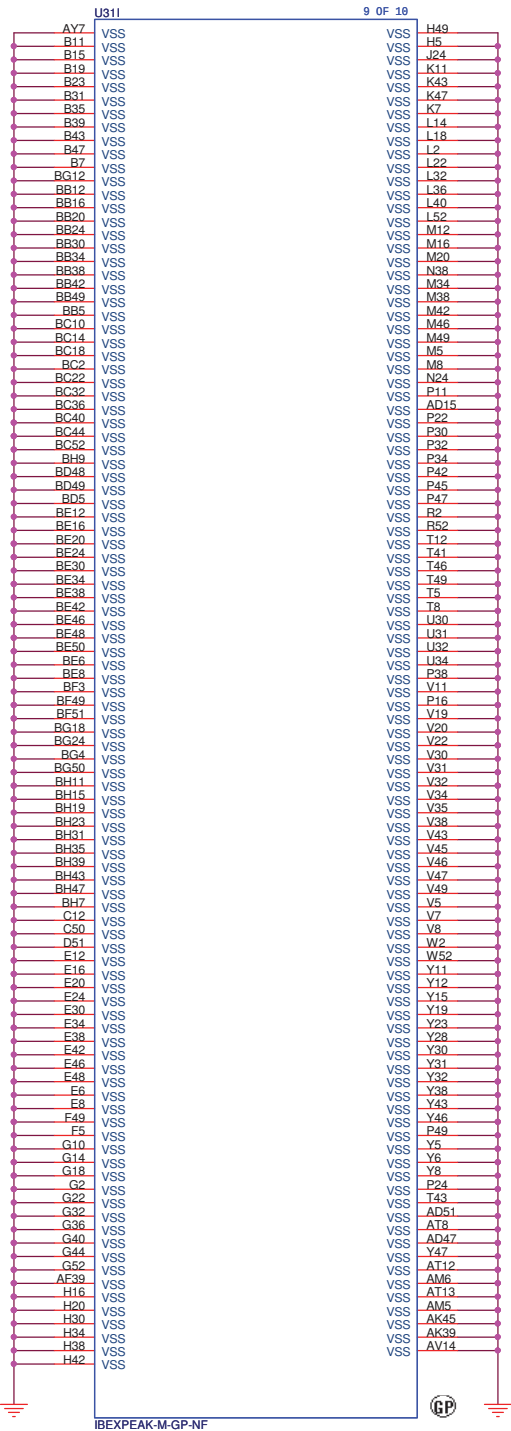
	MP	C
USB0	Media Card Reader	Media Card Reader
USB1	System Port3 (I/O)	System Port3 (I/O)
USB2	WLAN	WLAN
USB3	WWAN	WWAN
USB4	UWB	UWB
USB5	Express Card	Express Card
USB6	Reserved	Reserved
USB7	Reserved	Reserved
USB8	System Port1 (Far)	System Port1(R)
USB9	System Port2 (Near)	System Port2 (Near)
USB10	FPR	BDC
USB11	BDC (LCD CONN)	FPR (LCD CONN)
USB12	Slice	Slice
USB13	Camera	Camera

Refer to "HDMI 1080P 60Hz Deep Color Mode Support
on Intel 5 Series Chipset (update to Ixex Peak Sighting #3306171)" issued at Aug 21st ,2009

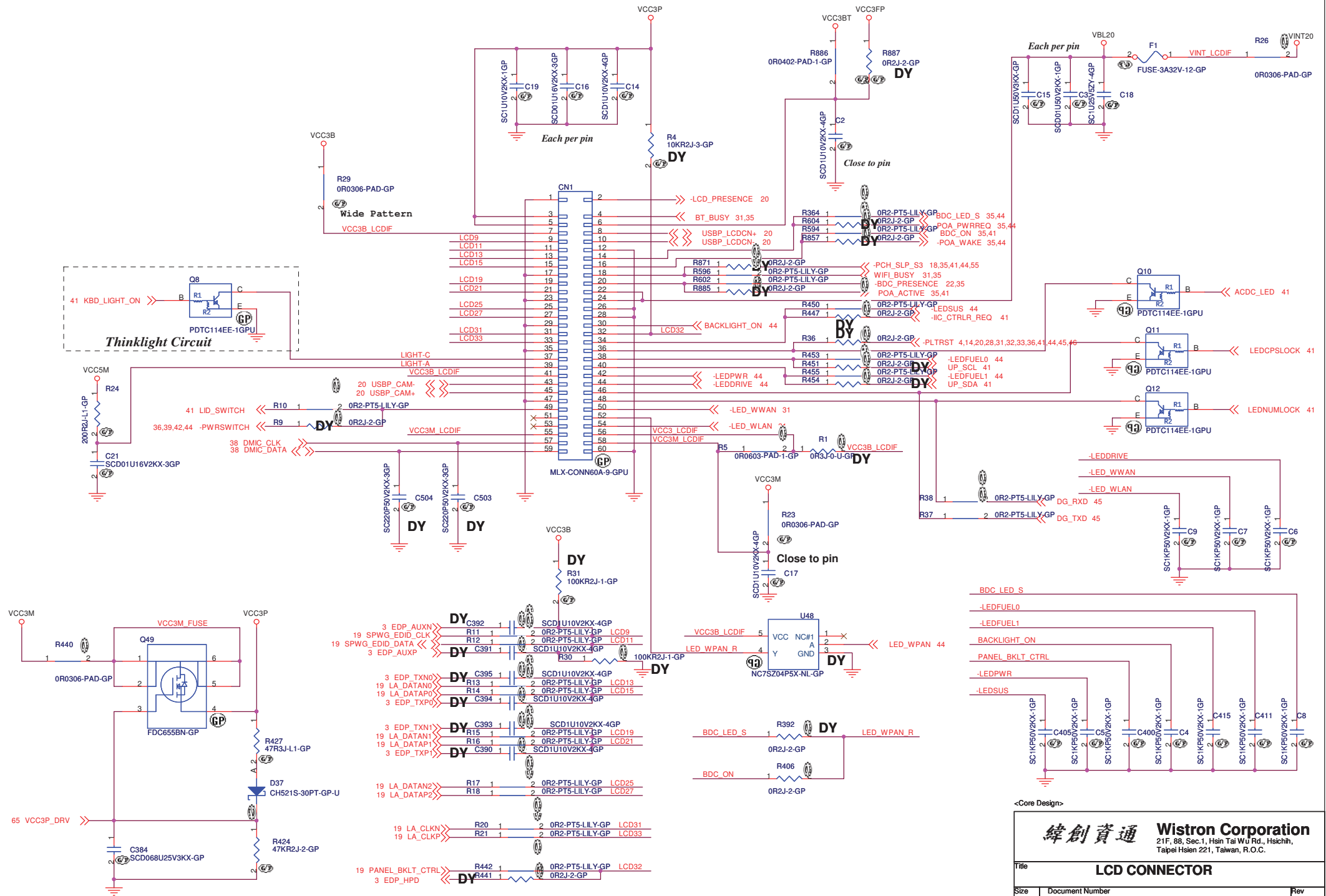


緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title PCH(6/8) :Power			
Size A2	Document Number Mocha-3		Rev -2
Date: Wednesday, January 27, 2010		Sheet 21 of 70	



LCD / Inverter Connector



<Core Design>

緯創資通

Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title	LCD CONNECTOR
-------	----------------------

Size
A3

Document Number

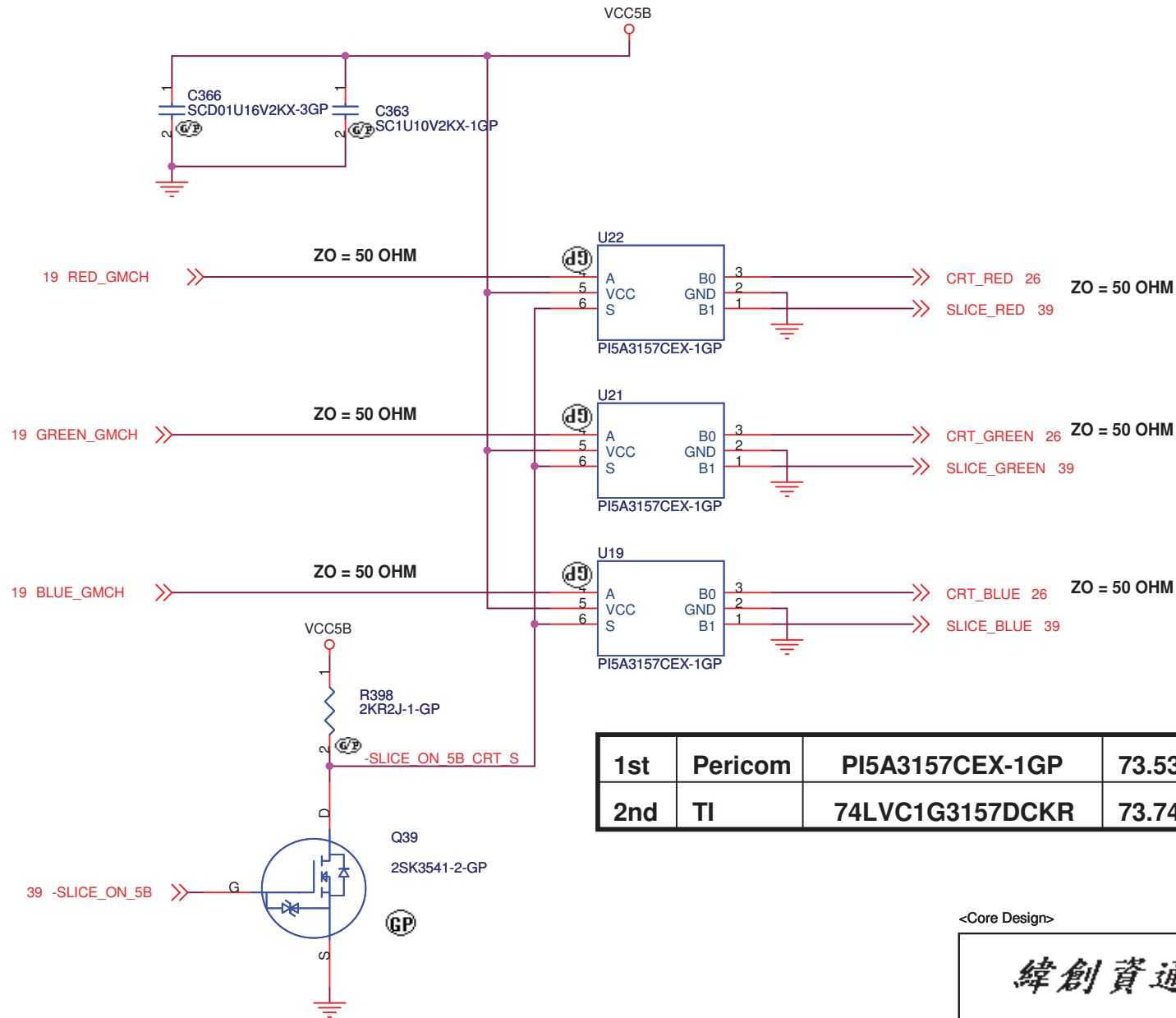
Mocha-3

Rev
-2

Date: Wednesday, January 27, 2010

Sheet 24

70

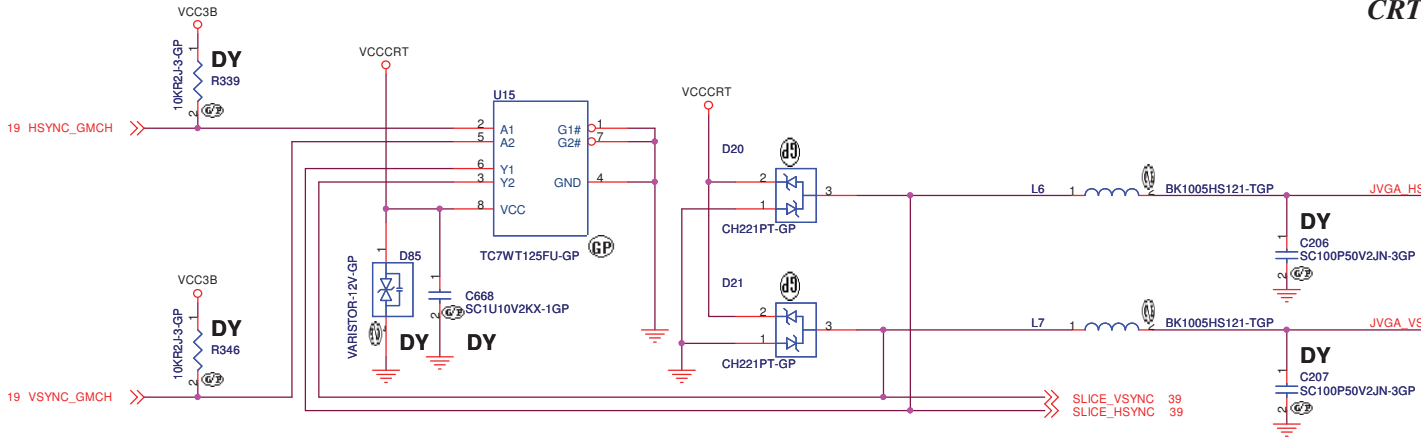
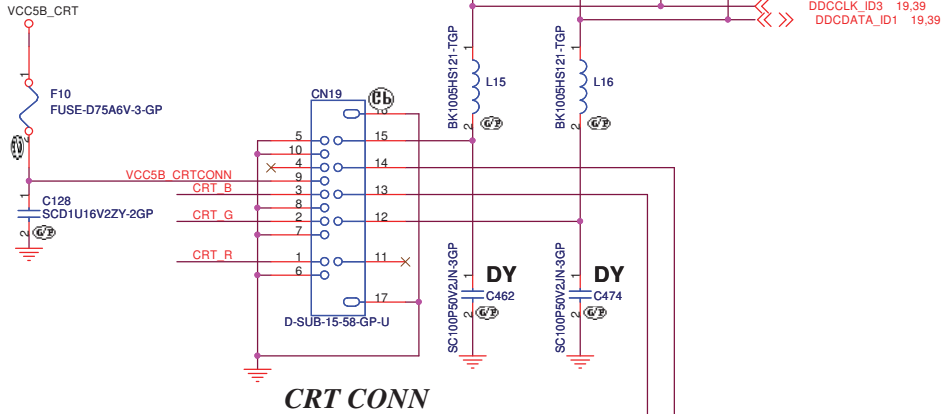
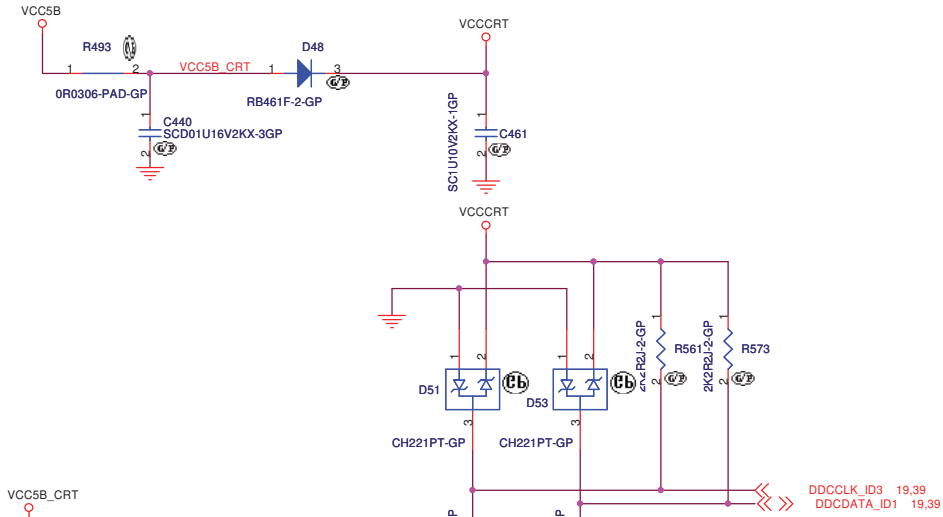
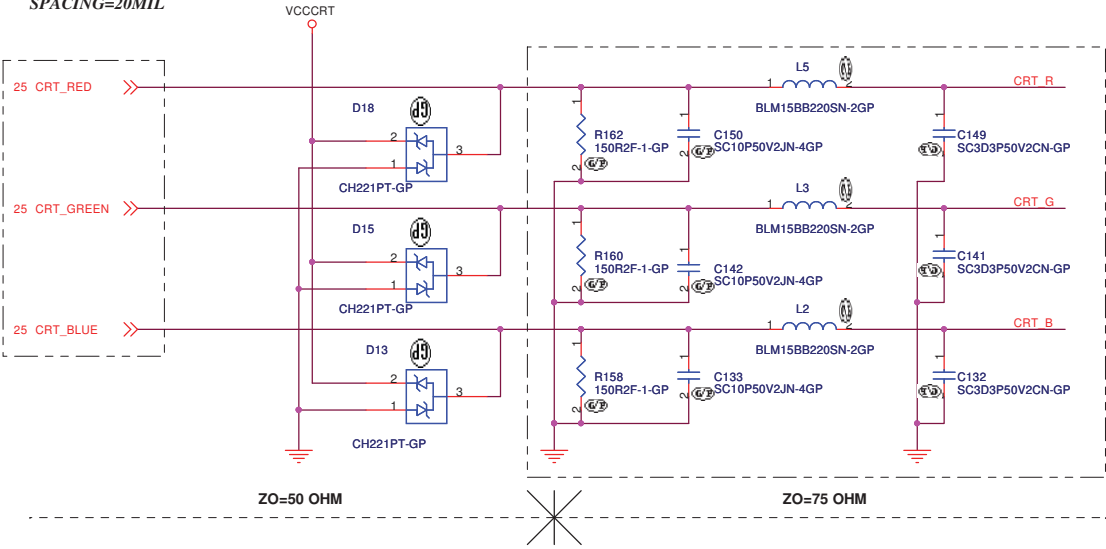


1st	Pericom	PI5A3157CEX-1GP	73.53157.A0J
2nd	TI	74LVC1G3157DCKR	73.74157.CHH

<Core Design>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
CRT SELECTOR	
Size A4	Document Number Mocha-3
Date: Wednesday, January 27, 2010	Rev -2
Sheet 25 of 70	

GND GUARDING
EACH SIGNAL WIDTH DEPENDS ON ZO(TRACE IMPEDANCE)
SPACING=20MIL

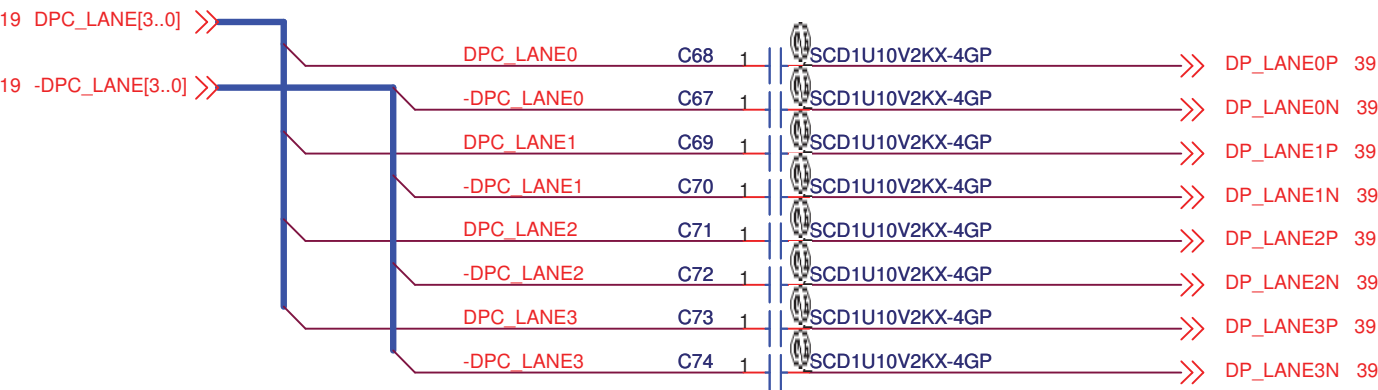


Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichin,
Taipei Hsien 221, Taiwan, R.O.C.

EXT CRT INTERFACE

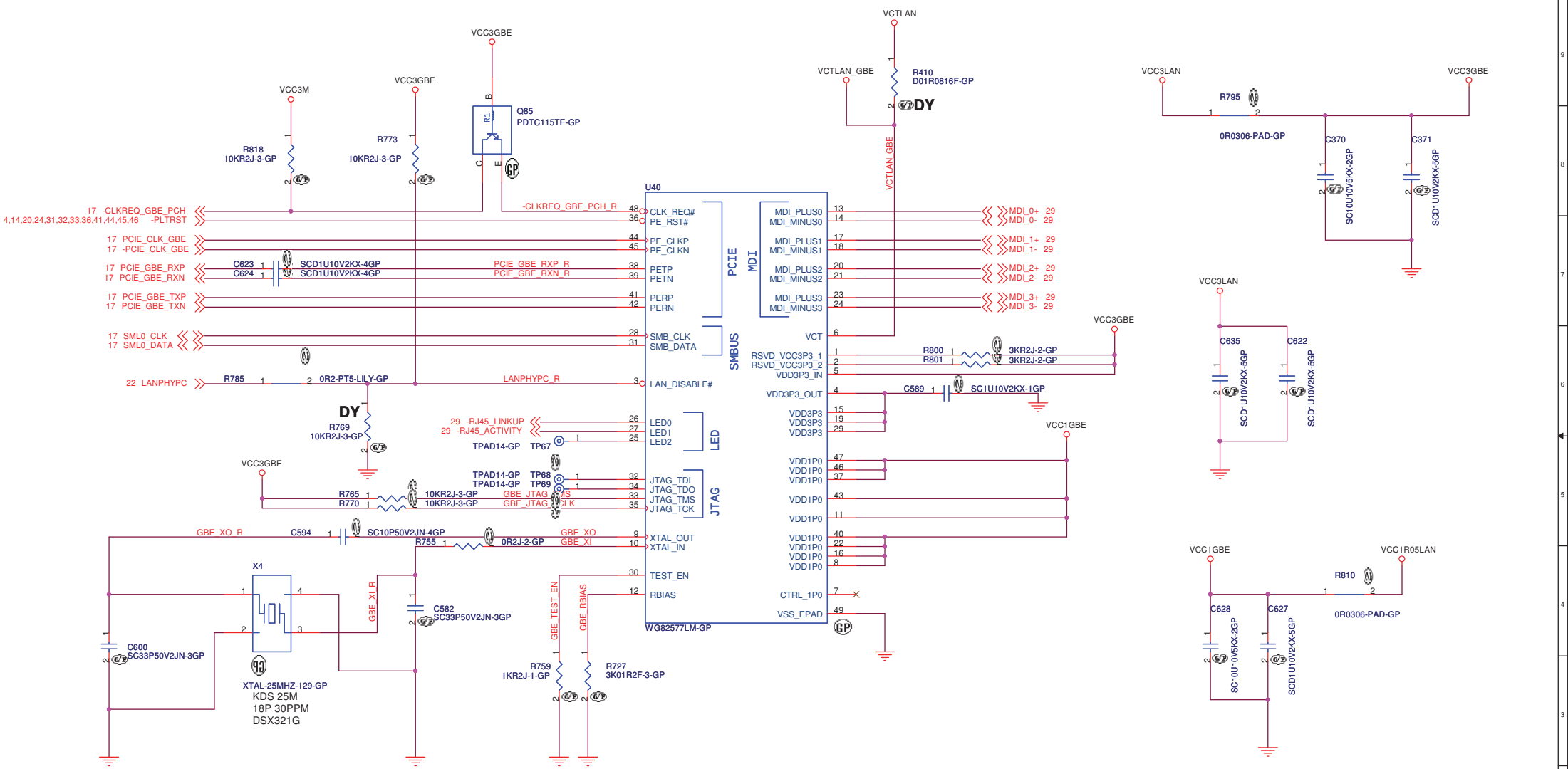
Size A3	Document Number Mocha-3	Rev -2
Date: Wednesday, January 27, 2010		Sheet 26 of 70

System DP: GMCH to SLICE Connector



<Core Design>

		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
<i>Display Port AC Coupling</i>			
Size A	Document Number Mocha-3		Rev -2
Date:	Wednesday, January 27, 2010	Sheet	27 of 70



X4			
1st	KDS	DSX321G 25M 18P 30PPM	82.30020.B11
2nd	H.ELE	HSX321S 25M 18P 30PPM	82.30020.B21
3rd	TXC	7V25020001 25M 18P 30PPM	41U6141AA

AMT	YES	NO
U40	82577LM	82577LC

<Core Design>

緯創資通

Wistron Corporation

21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title

GBE Hanksville

Size

A3

Document Number

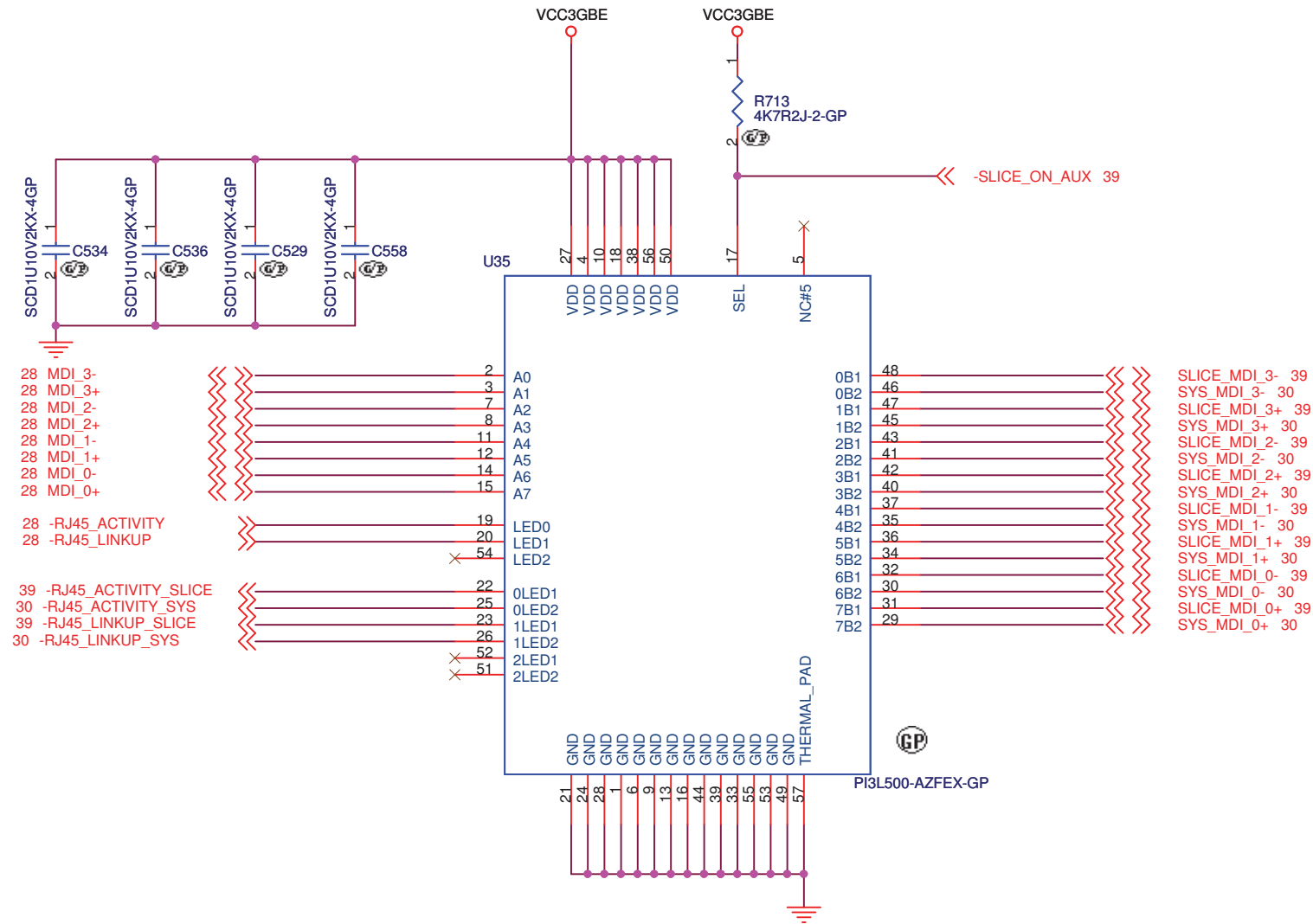
Mocha-3

Rev

-2

Date: Wednesday, January 27, 2010

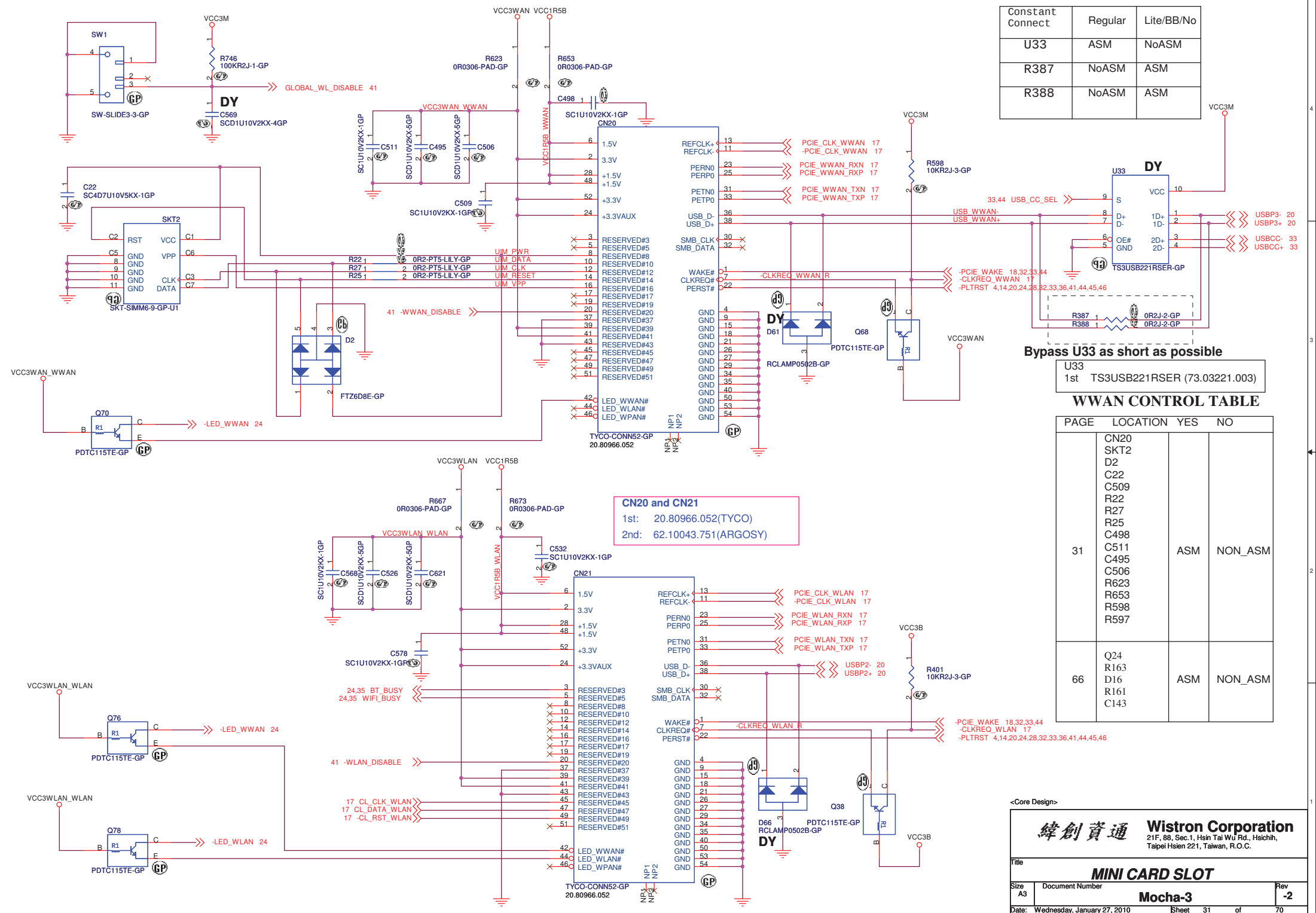
Sheet 28 of 70



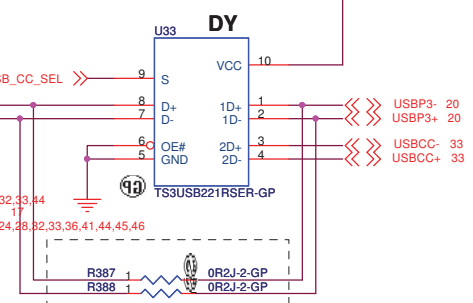
		Vendor P/N	Wistron P/N
1st	Pericom	PI3L500AZFEX	73.3L500.003
2nd	TI	TS3L500AERHUR	73.3L500.A0V

<Core Design>

 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
GBE LAN SW	
Size A4	Document Number Mocha-3
Date Wednesday, January 27, 2010	Rev -2
Sheet 29 of 70	



Constant Connect	Regular	Lite/BB/No
U33	ASM	NoASM
R387	NoASM	ASM
R388	NoASM	ASM



Bypass U33 as short as possible

U33
1st TS3USB221RSE-R (73.03221.003)

WWAN CONTROL TABLE

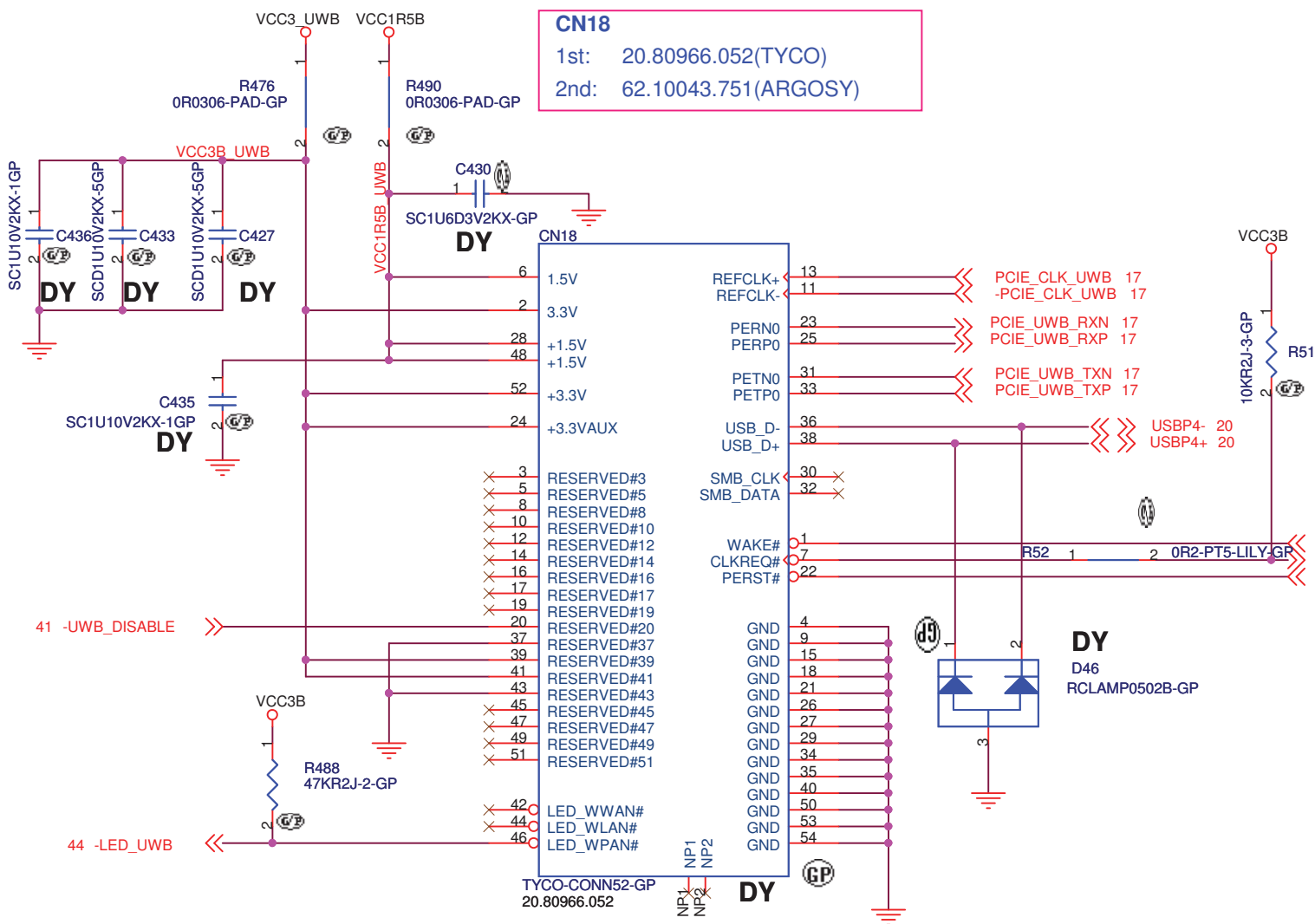
PAGE	LOCATION	YES	NO
31	CN20	ASM	NON_ASM
	SKT2		
	D2		
	C22		
	C509		
	R22		
	R27		
	R25		
	C498		
	C511		
C495			
C506			
R623			
R653			
R598			
R597			
66	Q24	ASM	NON_ASM
	R163		
	D16		
	R161		
	C143		

CN20 and CN21
1st: 20.80966.052(TYCO)
2nd: 62.10043.751(ARGOSY)

<Core Design>

緯創資通 **Wistron Corporation**
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title			Rev		
Size			Document Number		
A3			Mocha-3		
Date: Wednesday, January 27, 2010			Sheet 31 of 70		



UWB	YES	NO
CN18	ASM	DY
C427	ASM	DY
C433	ASM	DY
C436	ASM	DY
C430	ASM	DY
C435	ASM	DY
D46	DY	DY
R51	ASM	ASM
R52	ASM	DY
R488	ASM	ASM
R62	ASM	DY

-PCIE_WAKE 18,31,33,44
-CLKREQ_UWB 17
-PLTRST 4,14,20,24,28,31,33,36,41,44,45,46

<Core Design>

緯創資通

Wistron Corporation

21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.

Title

MINI CARD SLOT 2

Size A4

Document Number

Rev -2

Date: Wednesday, January 27, 2010

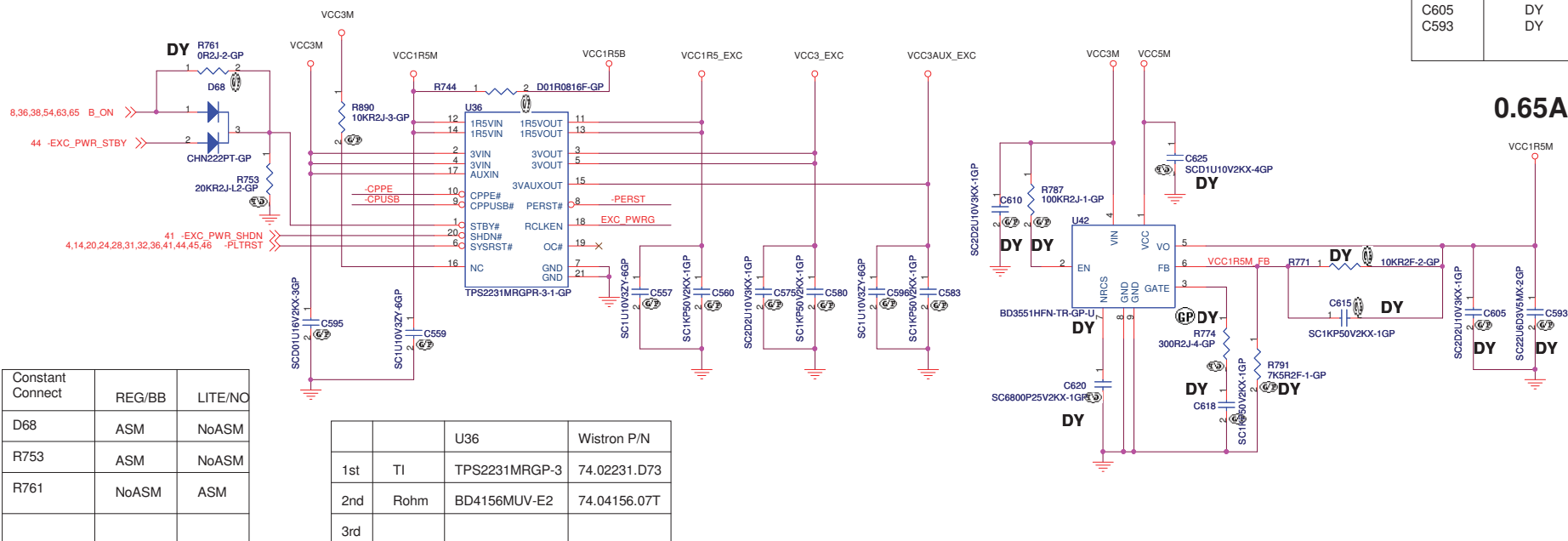
Sheet 32 of 70

Mocha-3



Constant Connect	REG	LITE/BB/NO
U32	ASM	NoASM
R362	NoASM	ASM
R363	NoASM	ASM

Constant Connect	REG/BB	REG/BB	LITE/NO
U36	BD4156MUV TPS2231MRGPR-3	BD4156MUV TPS2231MRGPR	BD4156MUV TPS2231MRGPR
R890	ASM	DY	DY
R744	ASM	DY	ASM
U42	DY	ASM	DY
R787	DY	ASM	DY
C610	DY	ASM	DY
C625	DY	ASM	DY
C620	DY	ASM	DY
R774	DY	DY	DY
C618	DY	DY	DY
R771	DY	ASM	DY
R791	DY	ASM	DY
C615	DY	DY	DY
C605	DY	ASM	DY
C593	DY	ASM	DY



Constant Connect	REG/BB	LITE/NO
D68	ASM	NoASM
R753	ASM	NoASM
R761	NoASM	ASM

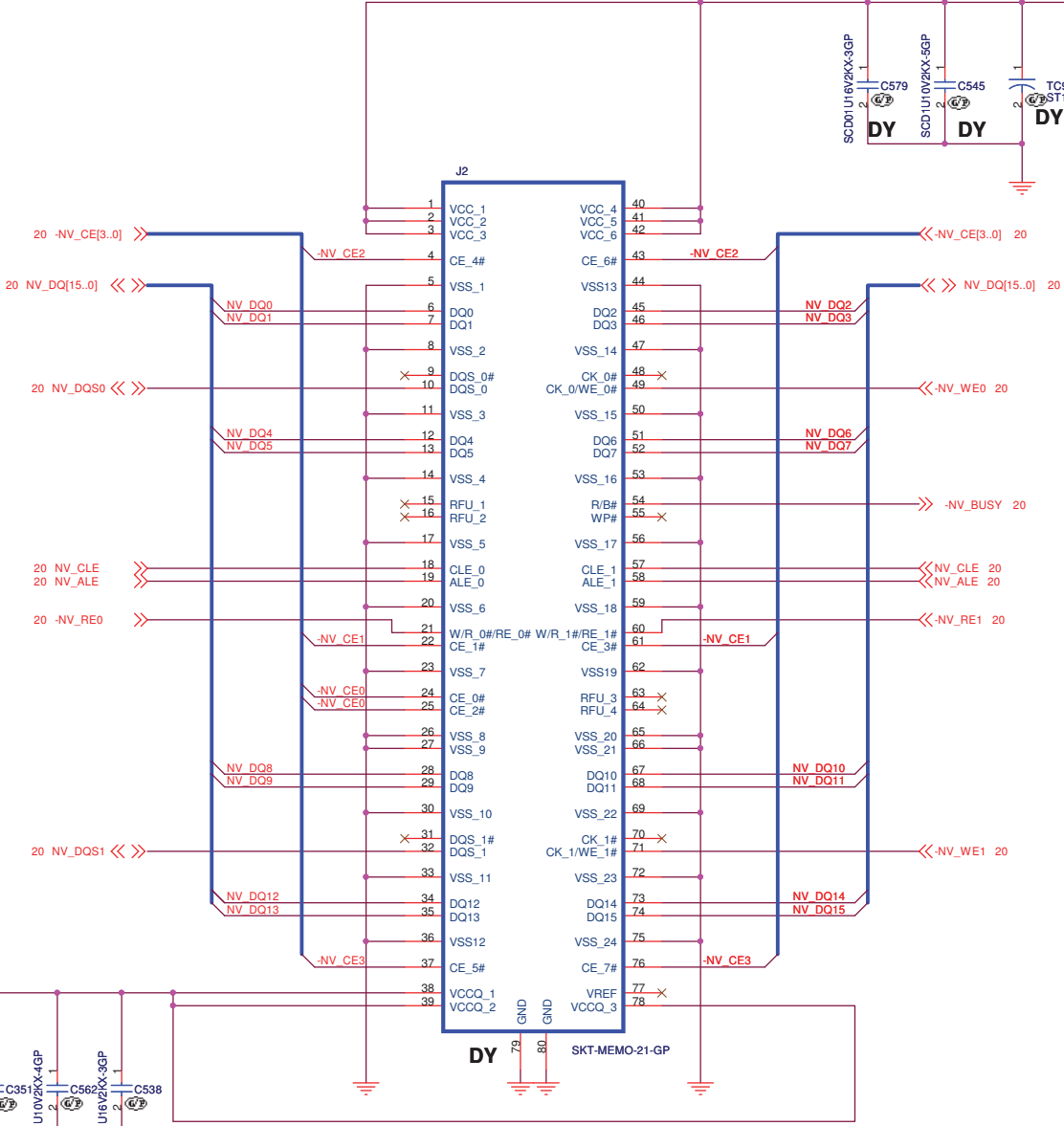
		U36	Wistron P/N
1st	TI	TPS2231MRGP-3	74.02231.D73
2nd	Rohm	BD4156MUV-E2	74.04156.07T
3rd			

J2
62.10034.331

0.4A
VCC1R8B

0.4A

VCC3B



Turbo memory Braidwood Support	YES	NO
J2	ASM	DY
TC9	ASM	DY
C545	DY	DY
C579	DY	DY
C351	ASM	DY
C562	DY	DY
C538	DY	DY

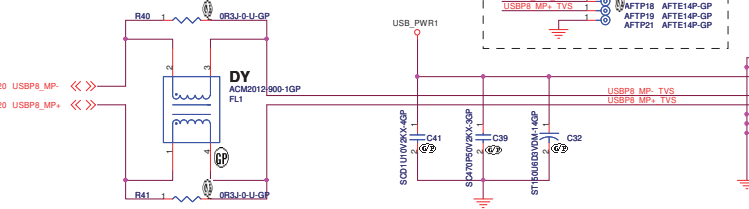
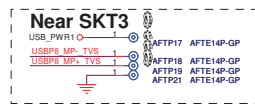


Figure 1: USB Power Switching Circuit Diagram

The diagram illustrates a USB power switching circuit. Key components include:

- USB Connector (U30):** Provides VCC1, DM, DP, GND, and TDM signals.
- Inductors (DY):** Two dual inductors (R632, R633) are used for the main power path.
- Capacitors (C48, C49):** Electrolytic capacitors for power filtering.
- USB Power Switch (U34):** Controls the power flow from the USB connector.
- USB Power Switch (U18):** Another power switch component.
- Power Sources:** VCC5M and VCC1M provide the main power supply.
- Labels:** R632, R633 Dual layout with FL2 WIDE PATTERN (MIN 500µM) PLACE NEAR USB CONNECTOR.

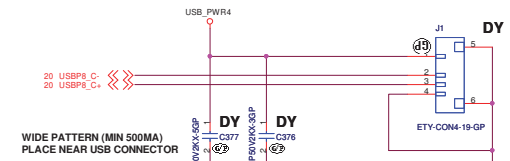
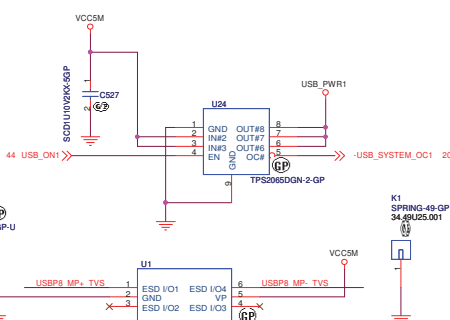
	INT DIVIDER	EXT DIVIDER
R632 R633	DY 0	75K 51K
R657 R655	DY DY	43K 51K

CB1 (USB_A0_SEL1)	CB0 (USB_A0_SEL0)	Function Mode
Low	Low	Auto
Low	High	Force Resistor
High	Low	Force Short
High	High	Pass Through

	Vendor	Vendor P/N	Wistron P/N
1st	TI	TPS2065DGN-1-GP	74.02065.A79
2nd	Rohm	BD8014FVJ	74.08014.07G

Vendor	Vendor P/N	Wistron P/N
NEC/TOKIN	TLPSLV0J157M(40)12RE	77.C1571.0221
SANYO	6TPC150M	77.21571.0311
PANASONIC	EEFCX0J151R	79.15710.2B11

	Vendor	Vendor P/N	Wistron P/N
1st	TI	TPS2065DGN-1-GP	74.02065.A79
2nd	TI	TPS2065DGN-GP	41A1229AA
3rd	Rohm	BD8014FVJ	74.08014.07G

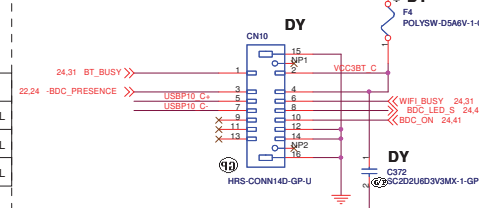


Near J1

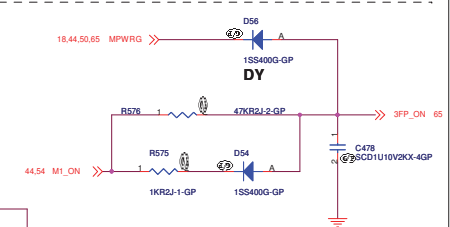
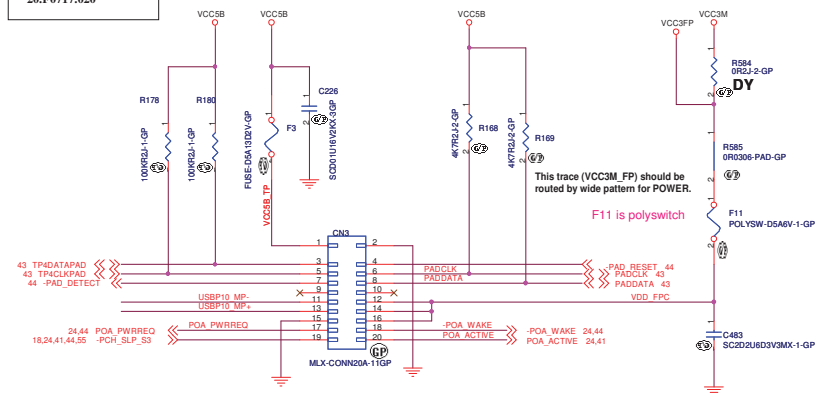
USB_PWR4 is connected to AFTP5 and AFTP4.

Ground is connected to AFTP5 and AFTP4.

	Vendor	Vendor P/N	Wistron P/N
1st	NXP	IP4223CZ6	83.42236.0AE
2nd	SEMTECH	SRV05-4.TCT	83.00005.BAE /41U5451AA
3rd	AOS	A0Z8904CIL	83.08904.0AE

[illegible]

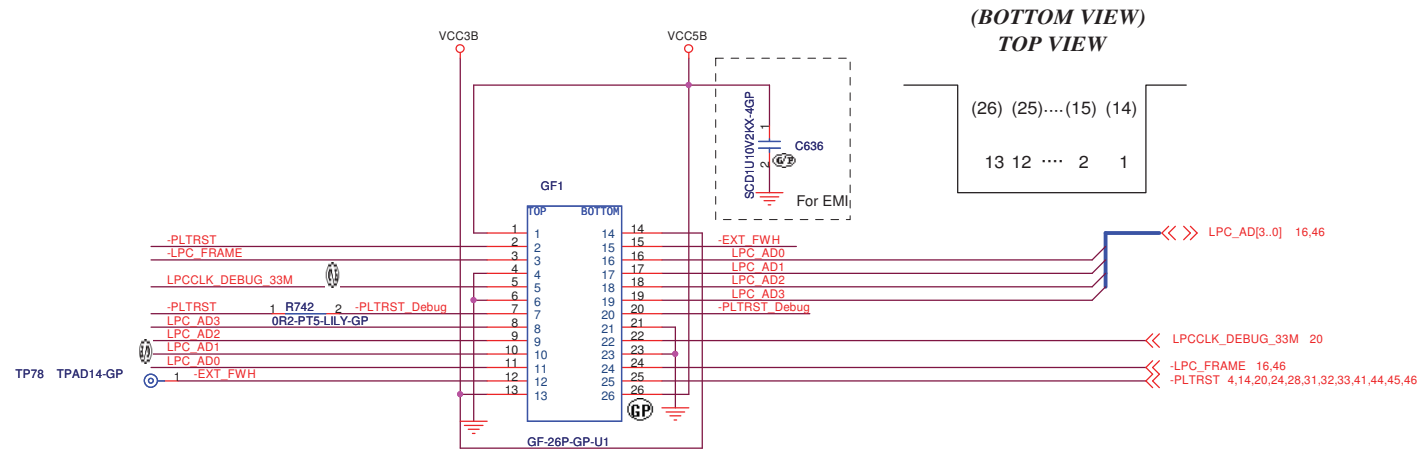
CN3
MOLEX 54722-0204
20.F0717.020



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Title			
USB POWER / CONNECTOR			
Size A2	Document Number Mocha-3		Rev -2
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Golden Finger for Debug Board

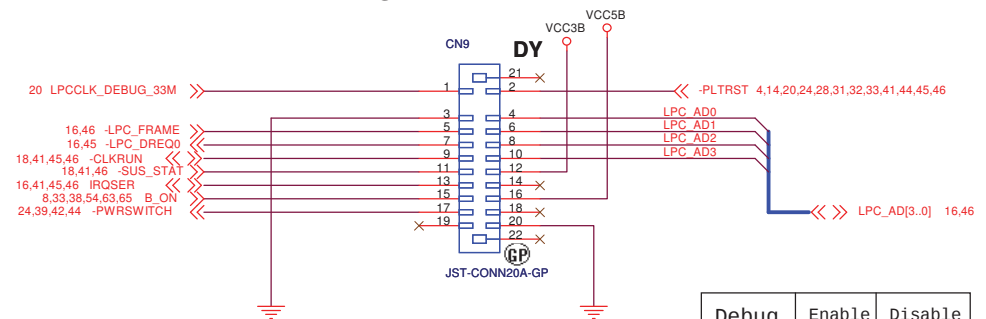


64Mbit SPI FLASH : SO8		
MXIC	MX25L6445EM2I-10G	72.25644.001
Winbond	W25X64BVSSIG	72.25X64.B01

64Mbit SPI FLASH : WSON8		
MXIC	MX25L6405DZNI-12G	41R0821AA
Winbond	W25X64VZEIG	41R0821BA
Winbond	W25X64BVZEIG	72.25X64.C01

64Mbit SPI FLASH : MLP8		
Numonyx	M25PX64-VME6TG	72.25P64.003

Debug card connector



Put "easy-to -access" place

Debug	Enable	Disable
CN9	ASM	DY
R638	ASM	DY

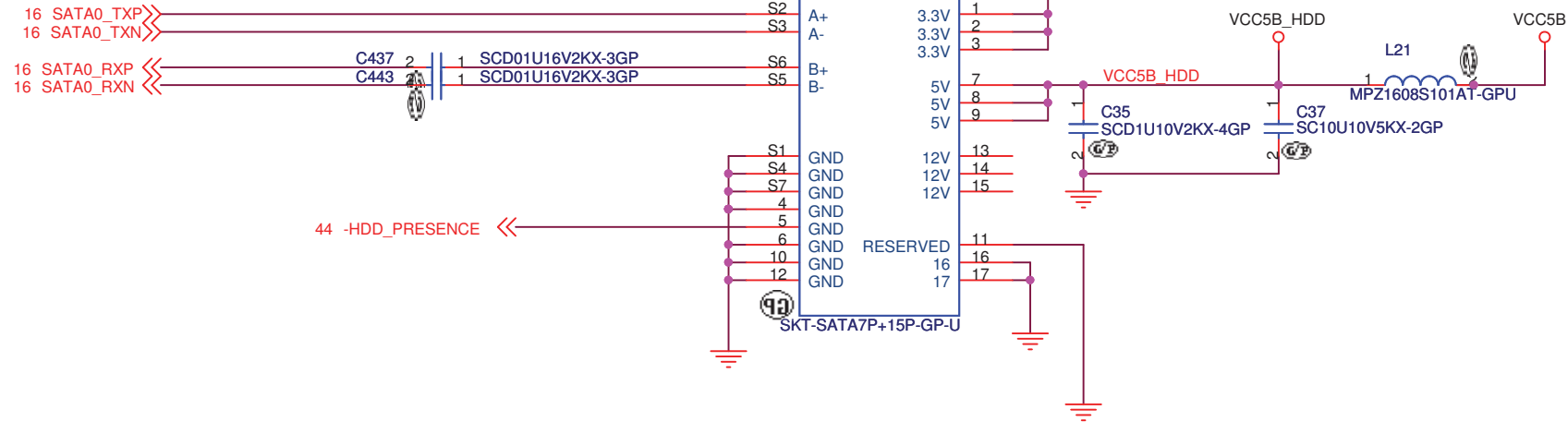
	ICP Enable
R343	RB520S-30
R666	470 5%
R669	470 5%
R668	470 5%
R382	470 5%

SO8 and WSON8 are both supported!

SF 100 PIN HEADER INTERFACE (Top View)					
1	VCC	R343.2	GND	GND	2
3	CS#	R666.1	R669.1	CLK	4
5	MISO	R382.2	R668.1	MOSI	6
7	(KEY)	N/A	N/A	(RESET)	8

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Title		
SPL&LPC debug card		
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Title

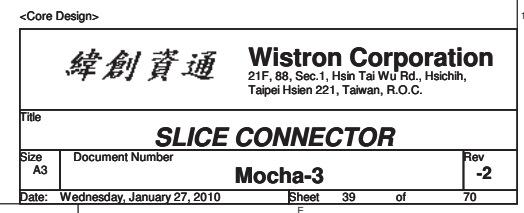
2.5 inch SATA ConnectorSize
A4

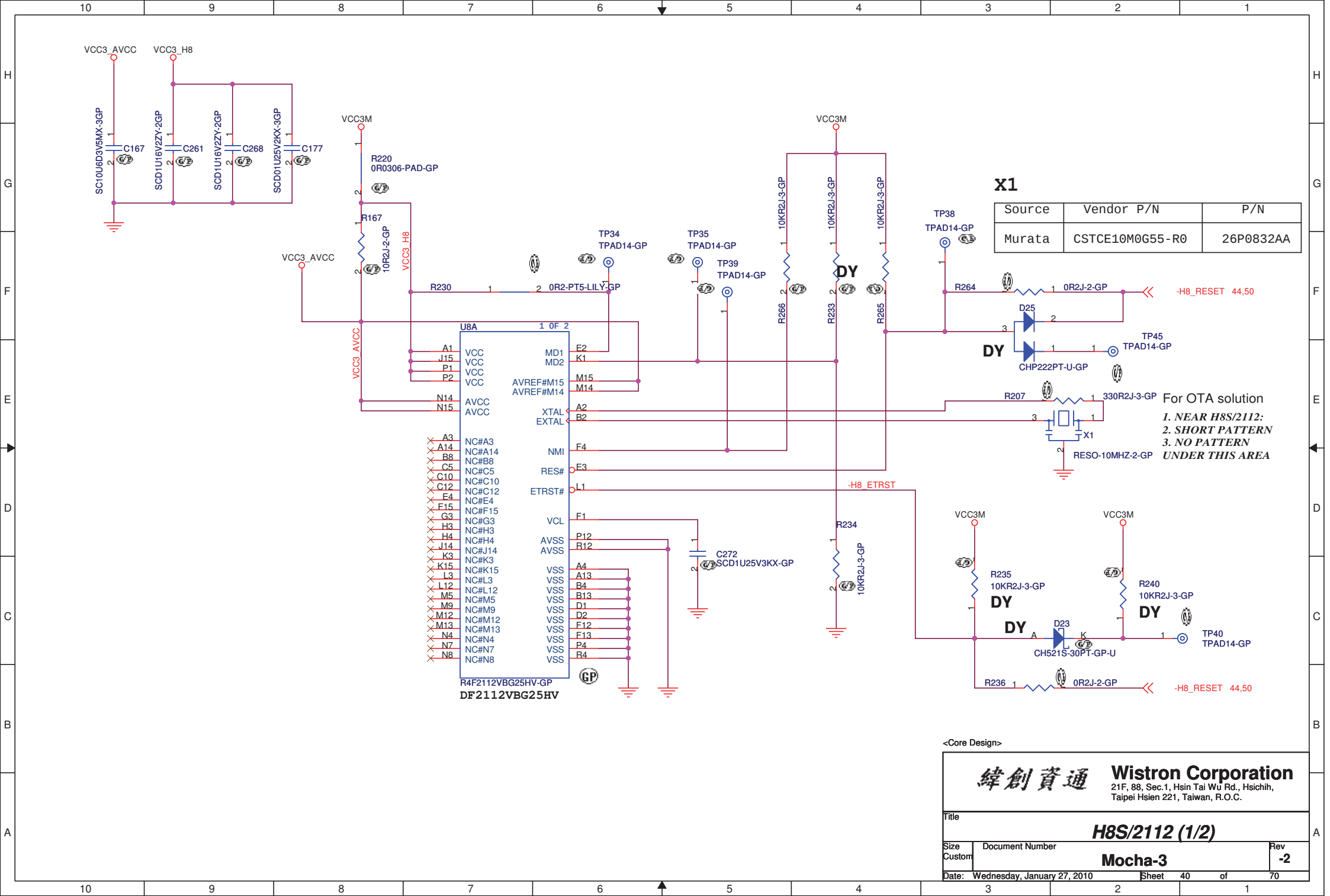
Document Number

Mocha-3Rev
-2

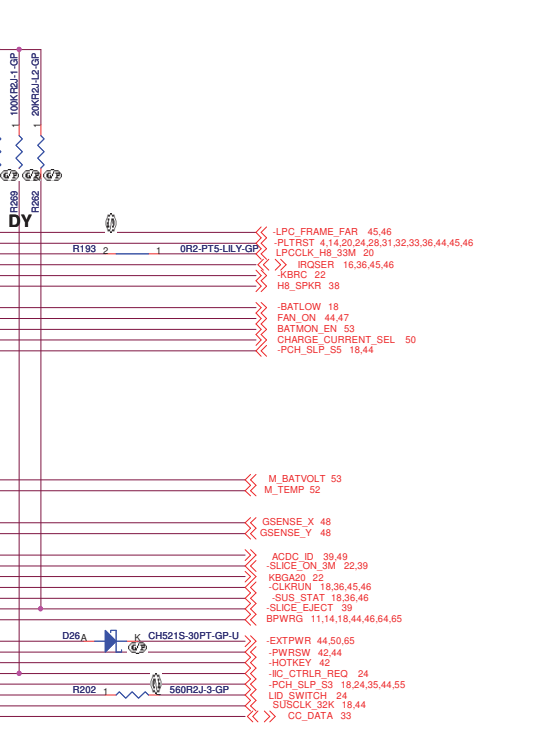
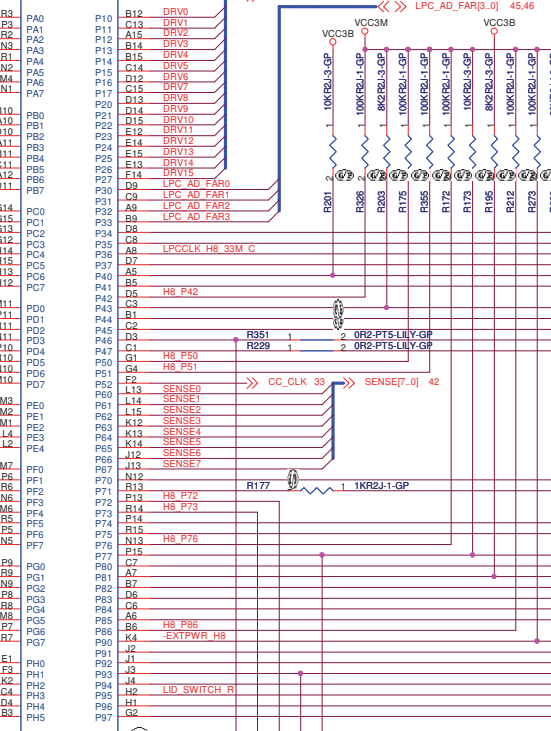
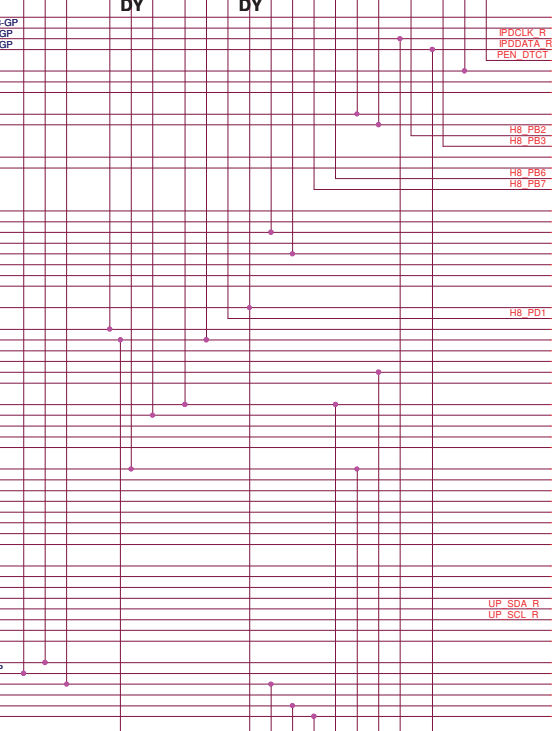
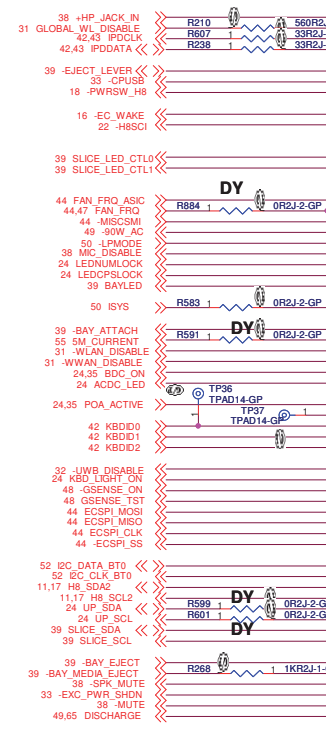
Date: Wednesday, January 27, 2010

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E10A Debug I/F	Enable	Disable
R264	NO ASM	ASM
R265	ASM	ASM
D25	ASM	NO ASM
R236	NO ASM	ASM
R235	ASM	NO ASM
R240	ASM	NO ASM
D23	ASM	NO ASM
R234	NO ASM	ASM
R233	ASM	NO ASM
R272	ASM	NO ASM
R271	NO ASM	ASM



MP - 3	C - 3
R269	DY
R270	ASM

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H8S/2112 (2/2)

File: **Mocha-3**

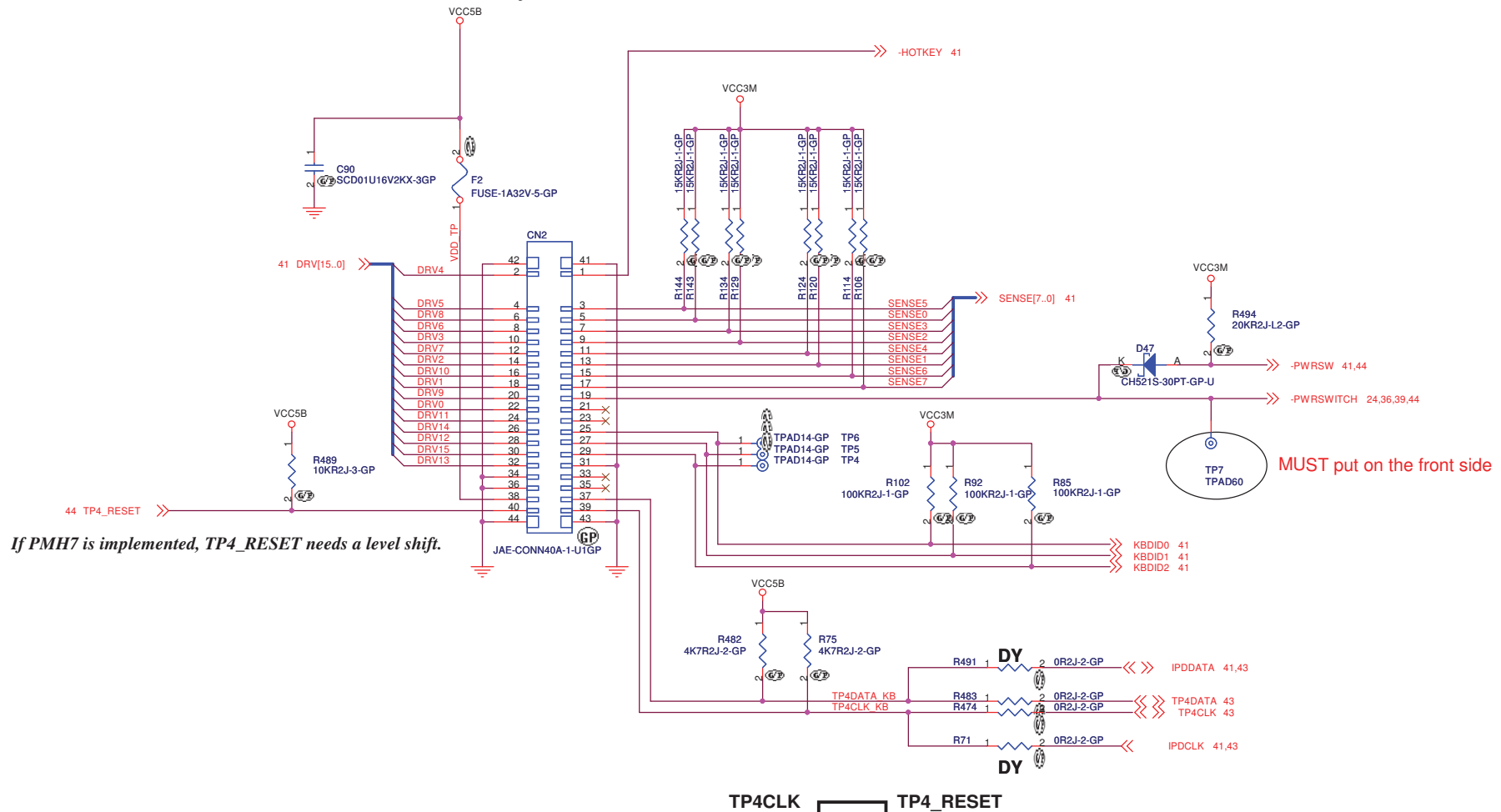
Size: **2**

Document Number: **2**

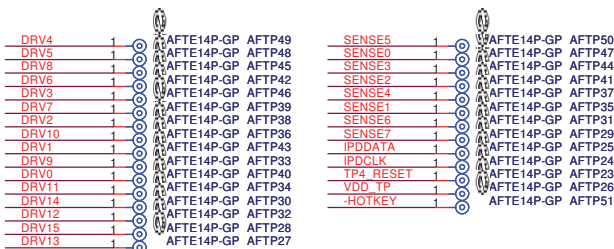
Date: **Wednesday, January 27, 2010**

Sheet: **41** of **70**

Keyboard Connector



Near CN2



TP4CLK TP4_RESET

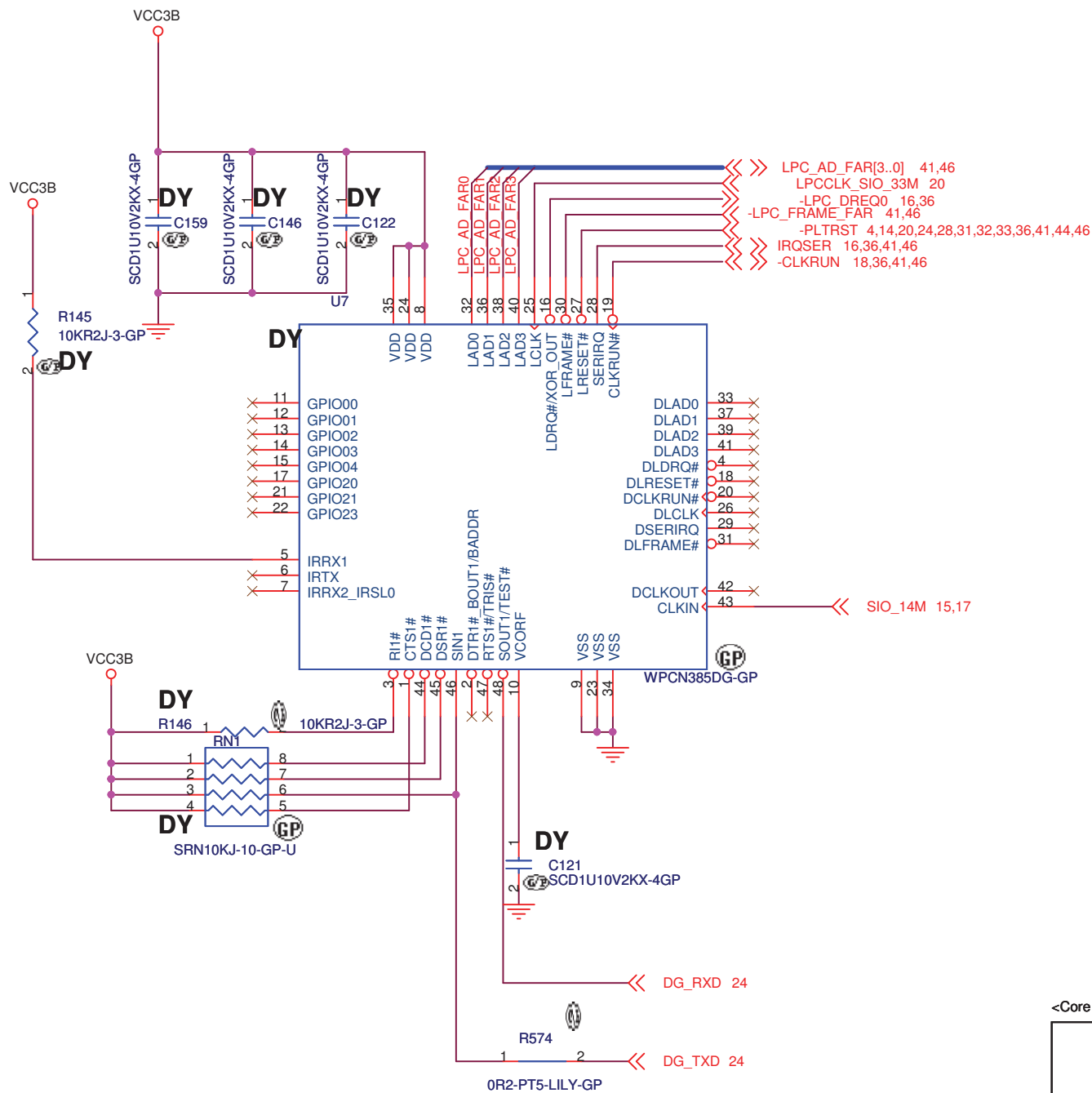
HOTKEY# DRV4
Keyboard Connector Top View

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Title			
KEYBOARD CONN			
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		Mocha-3	

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	MP	Caramel
U7	DY	ASM
C159	DY	ASM
C146	DY	ASM
C122	DY	ASM
R145	DY	ASM
R146	DY	ASM
RN1	DY	ASM
R574	DY	ASM
C121	DY	ASM

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Title

WPCN385SDG

Size
A4

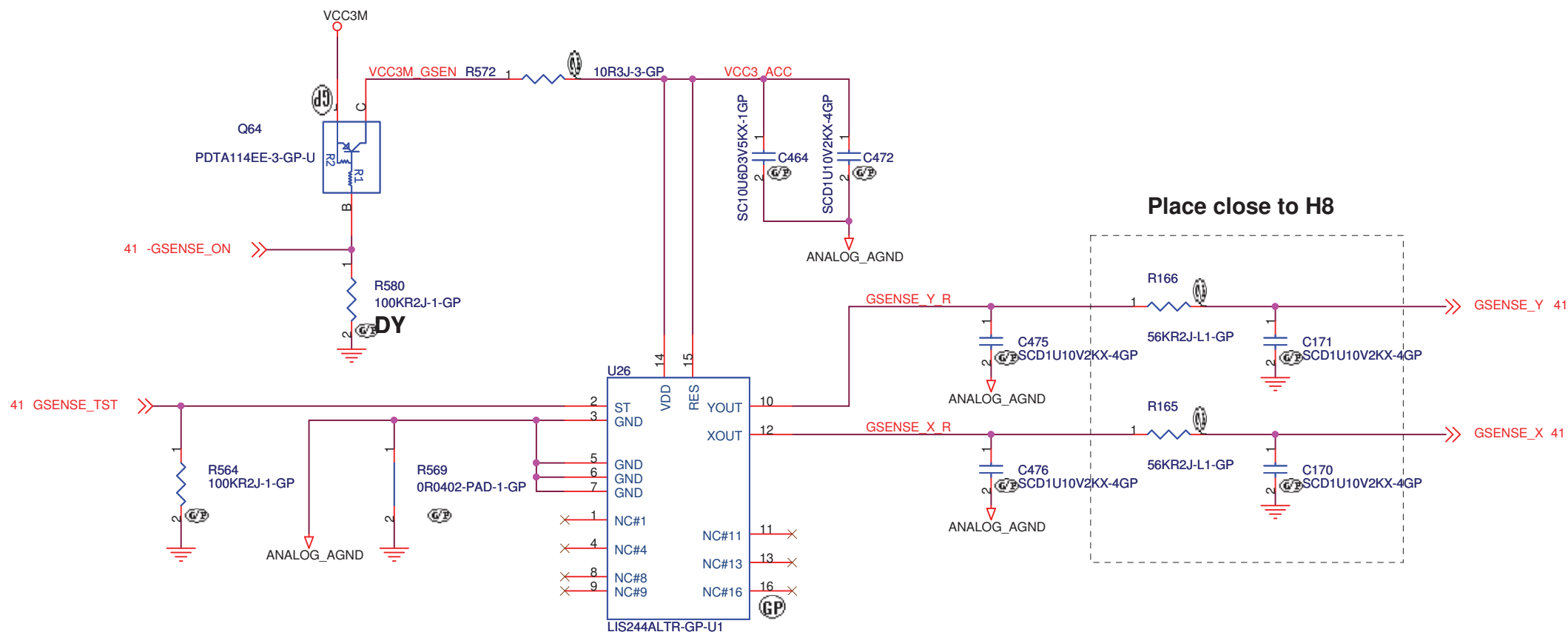
Document Number

Mocha-3

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-2

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	LIS244AL LIS34AL	No Accel
R580	NO_ASM	ASM
R564	ASM	ASM
All other	ASM	NO_ASM

U26

Primary	STMicro LIS244AL	74.00244.0BZ
Second	STMicro LIS34AL	74.00034.0BZ

Layout Comment :

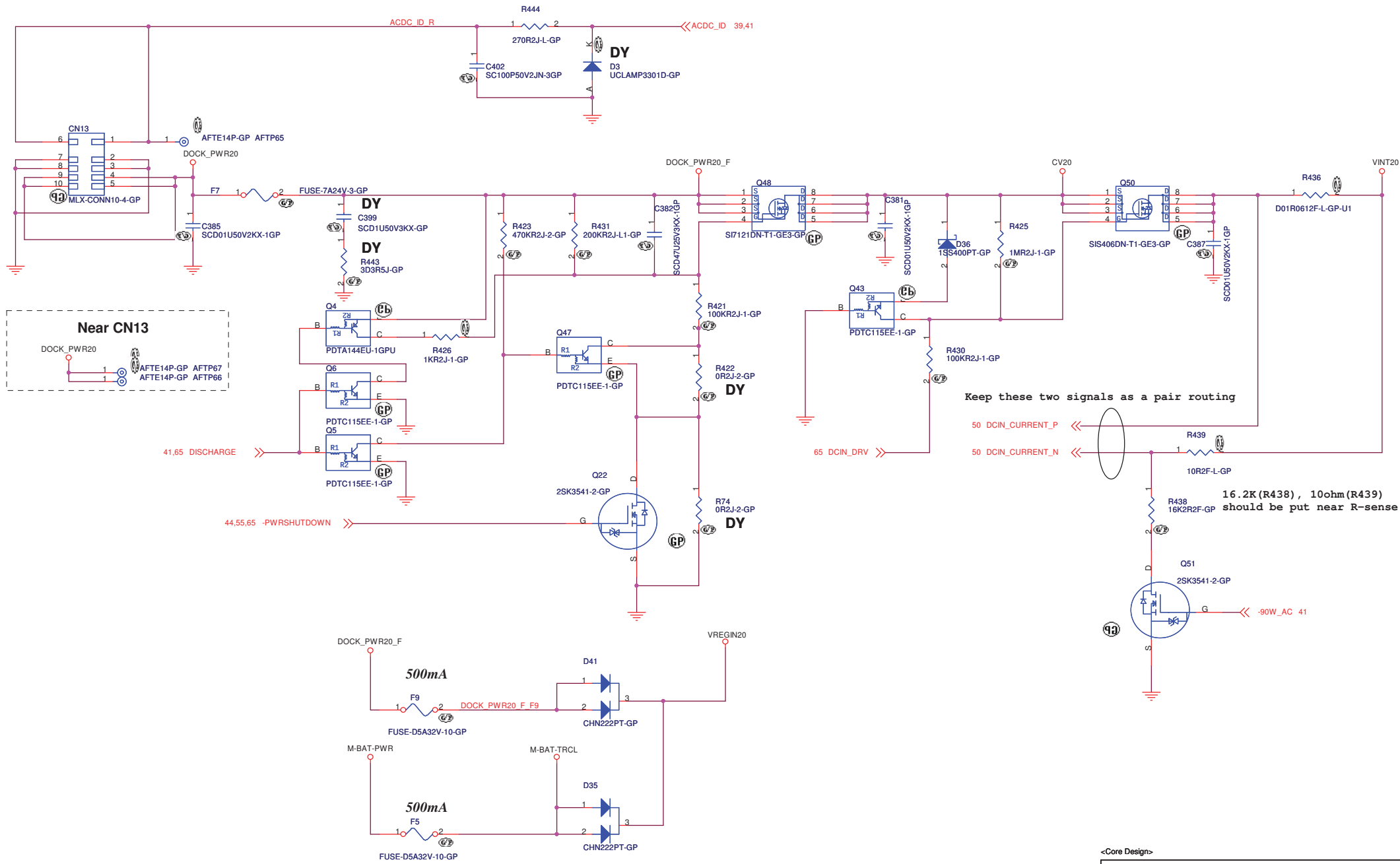
(1) Place C475,C476,Q64,R572,R580
C464,C472,R564,R569 close to U26

(2) Avoid routing under DCDC switching area.

Width = 6 mil & Spacing = 10 mil
for three Output traces

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Title	
G-SENSOR	
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Title

DC-IN AND CHARGER (1/2)

Size
A3

Document Number

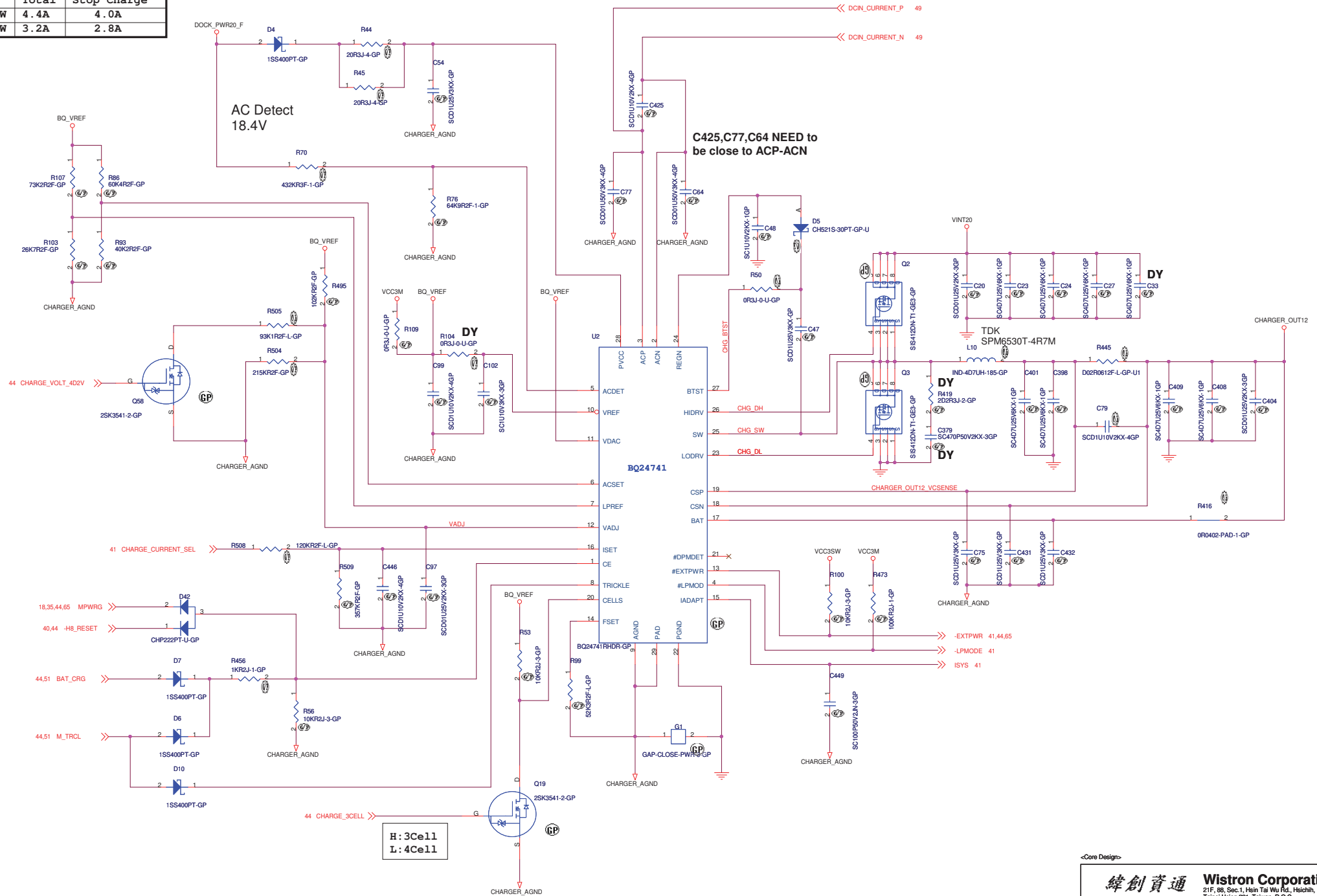
Mocha-3

Rev
-2

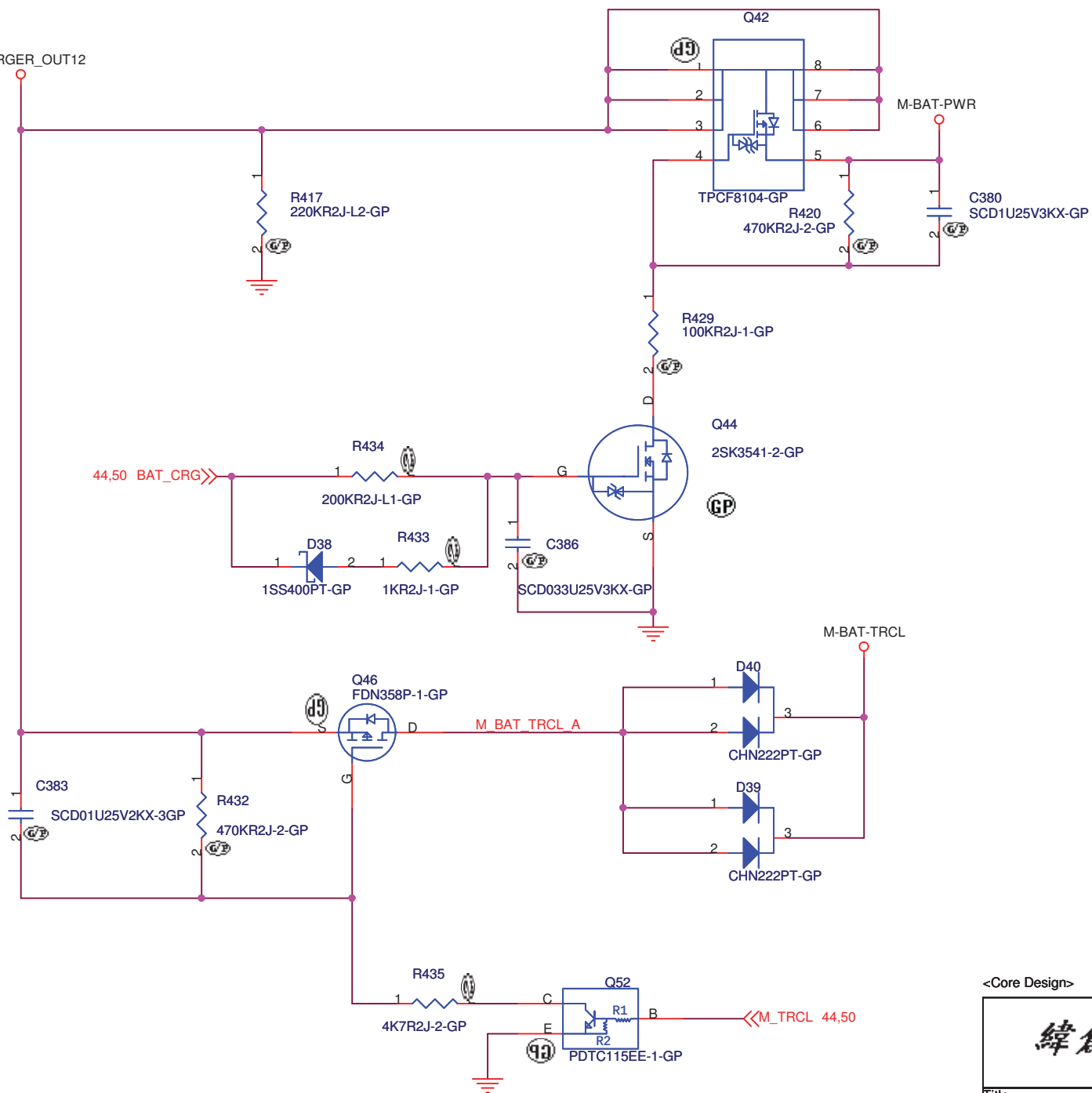
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	Total	Stop Charge
90W	4.4A	4.0A
65W	3.2A	2.8A



CHARGER_OUT12



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Title

CHARGER SELECT

Size
A4

Document Number

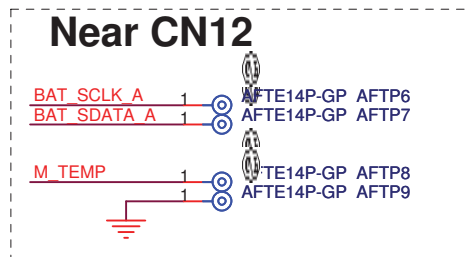
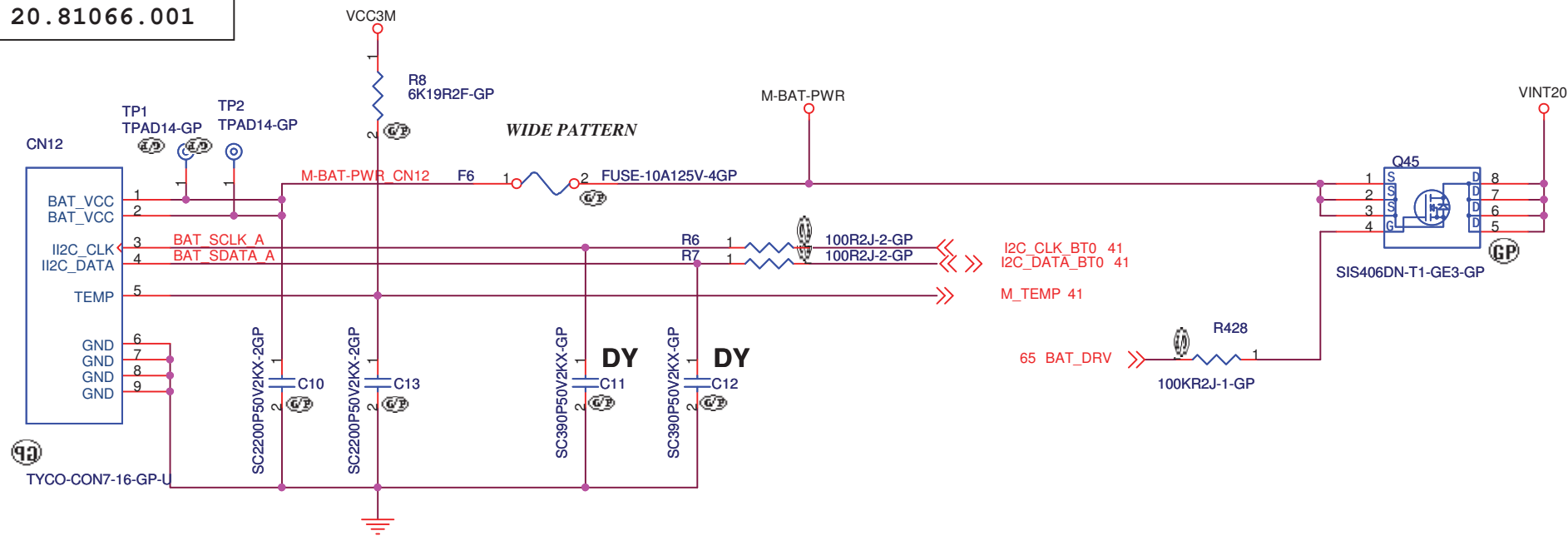
Mocha-3

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-2

Date: Wednesday, January 27, 2010

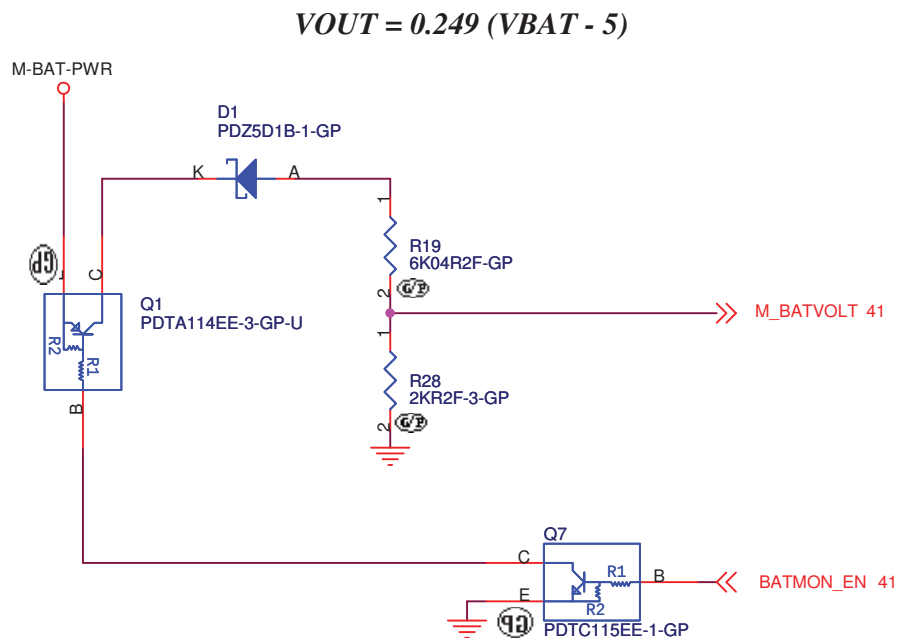
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CN12
AMP 2041614-1
20.81066.001



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Title			
BATTERY INPUT			
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Title

BATTERY MONITOR

Size
A4

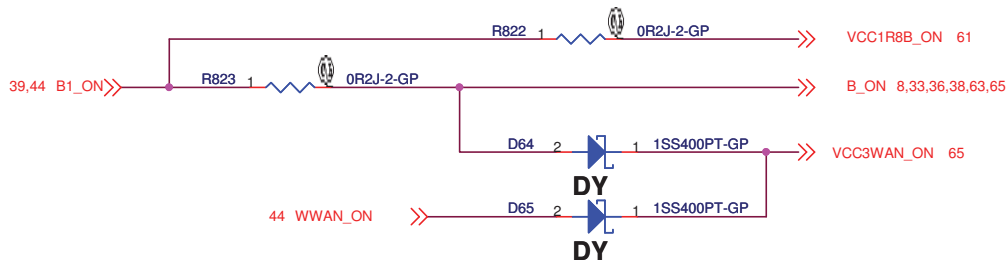
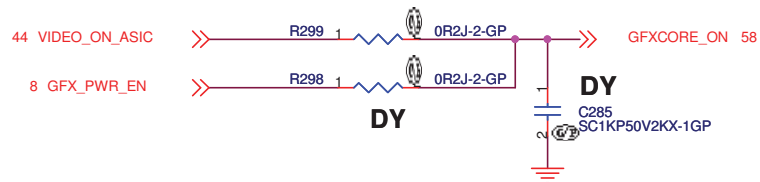
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Mocha-3

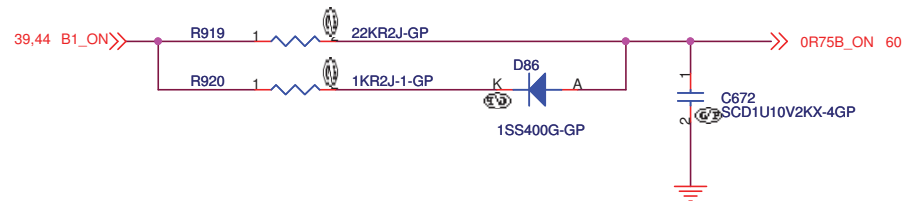
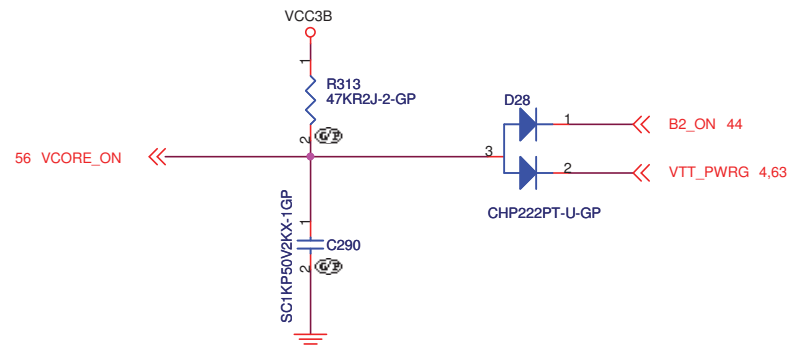
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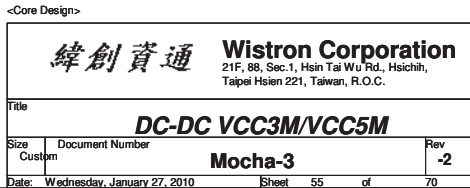


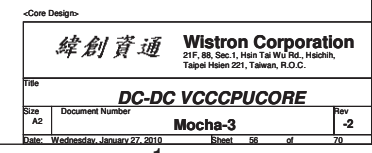
Constant Connect	Enable	Disable
D64	ASM	NoASM
D65	ASM	NoASM



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Title			
POWER SEQUENCE			
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	SV 2-phase(48A)	LV 2-phase(35A)	ULV 2-phase(27A)
OCP	73A	52A	42A
R96	6.04K	5.36K	5.76K
R140	2.32K	2.61K	2.1K
R545	162K	102K	102K
R544	162K	102K	102K
Q63	ASM	DY	DY
Q67	ASM	DY	DY
TC5	470uF / 4.5m-ohm	330uF / 6m-ohm	330uF / 6m-ohm
TC8	470uF / 4.5m-ohm	330uF / 6m-ohm	330uF / 6m-ohm
TC6	470uF / 4.5m-ohm	330uF / 6m-ohm	330uF / 6m-ohm
TC11	470uF / 4.5m-ohm	DY	DY
TC12	470uF / 4.5m-ohm	DY	DY
R900	487K	432K	464K

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Title					
DC-DC VCCCPUCORE					
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$I_{out}=22A \Rightarrow G_{FX_IMON}=1V$
 Ideal $R_{mon}(900mV):0.9*13.3K/$
 $(10*7m-ohm*22A)$
 Adding positive offset for 8.5%:
 $8.66K+681K$ pull-up

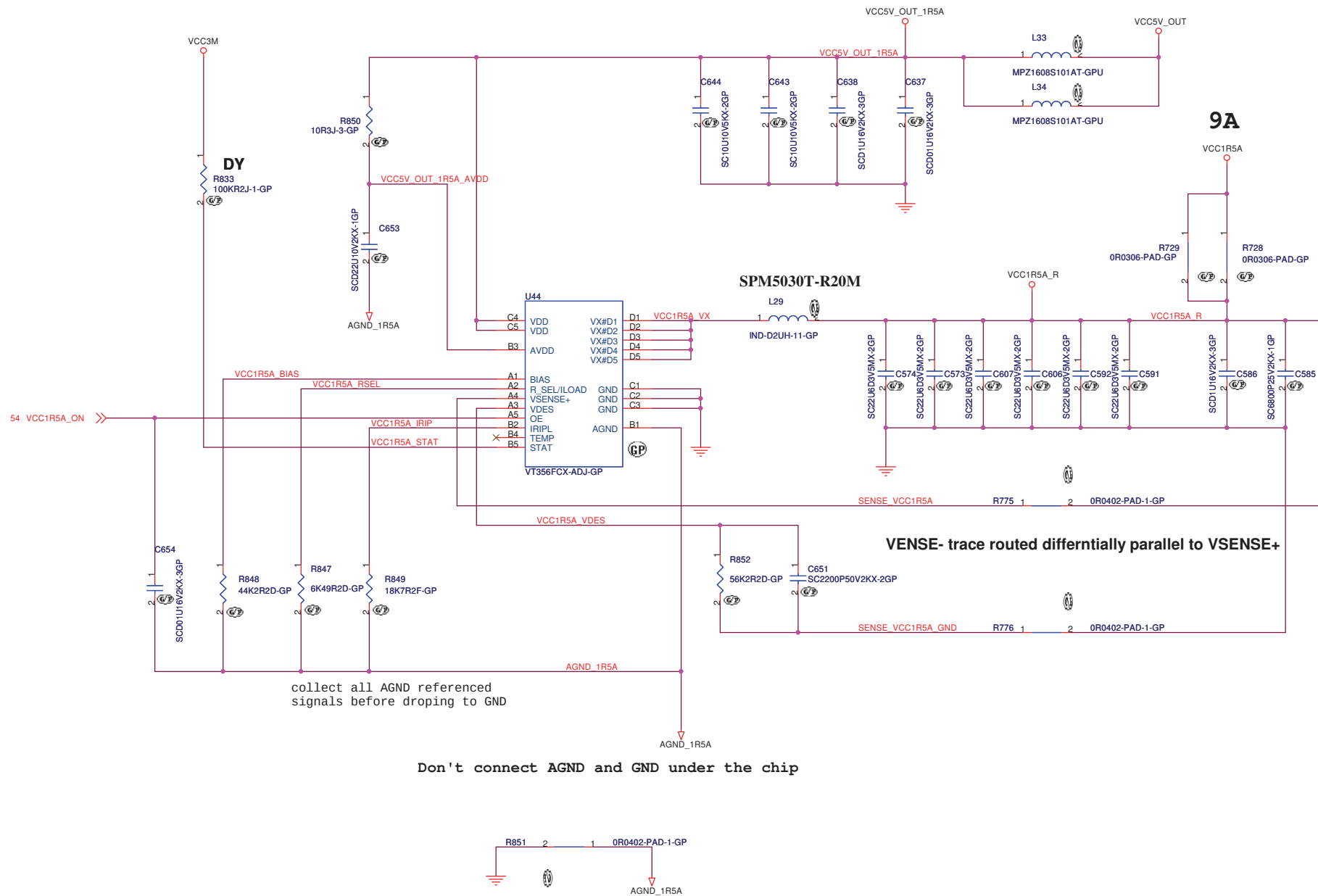
OCP setting should be 38A to cover 22A
 with Max rush current for cap with 120mV
 rising with regarding to max. spec. R535~13.3K

	SV(22A)	LV(15A)	ULV(12A)
OCF	38A	30A	23A
C52	ASM	DY	DY
R507	8.66K	10K	9.53K
R535	13.3K	10.5K	8.06K
R899	681K	787K	750K
TC2	470uF	330uF	220uF
TC3	470uF	330uF	220uF

<Core Design>

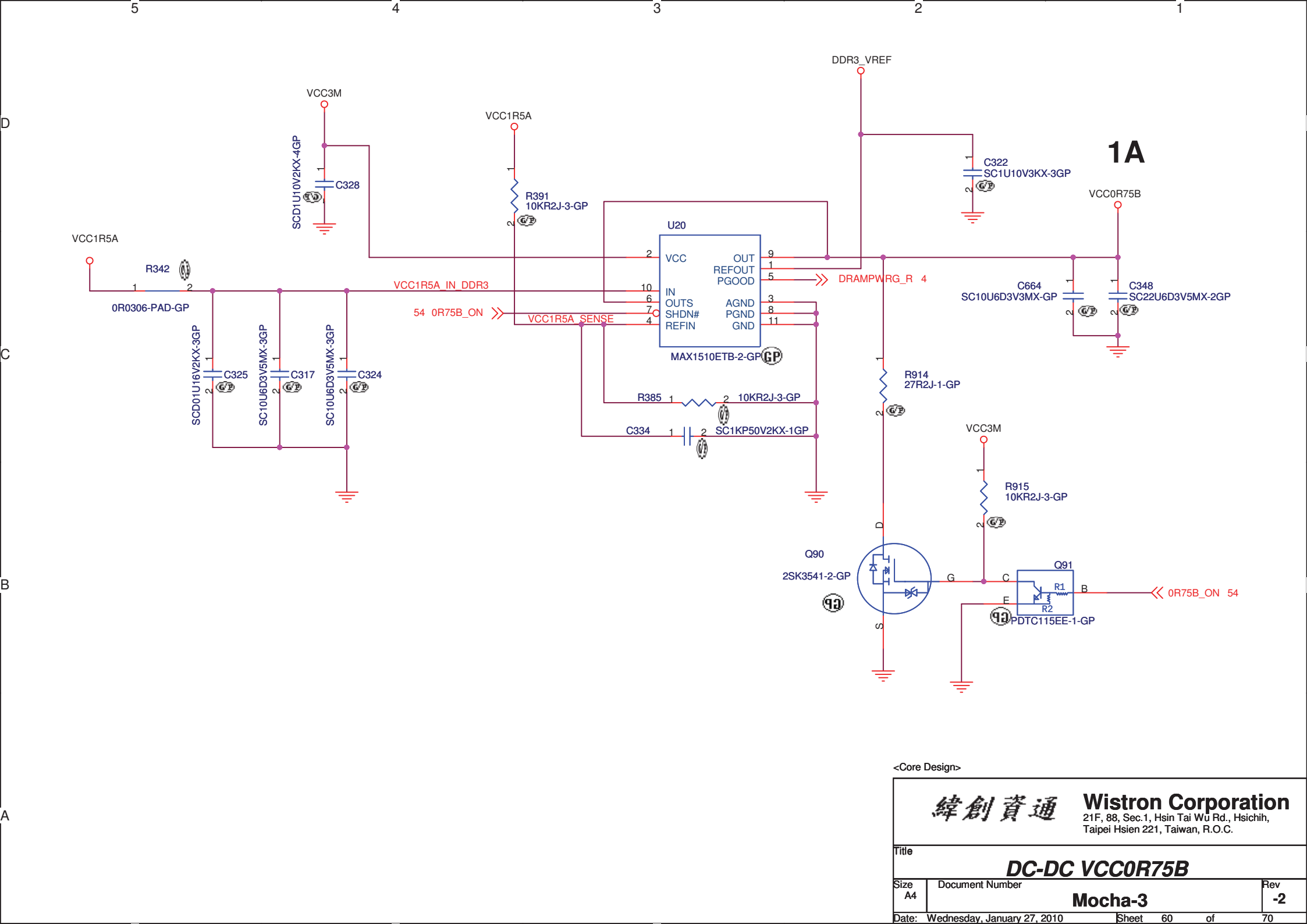
緯創資通 Wistron Corporation
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 Taipei Hsien 221, Taiwan, R.O.C.

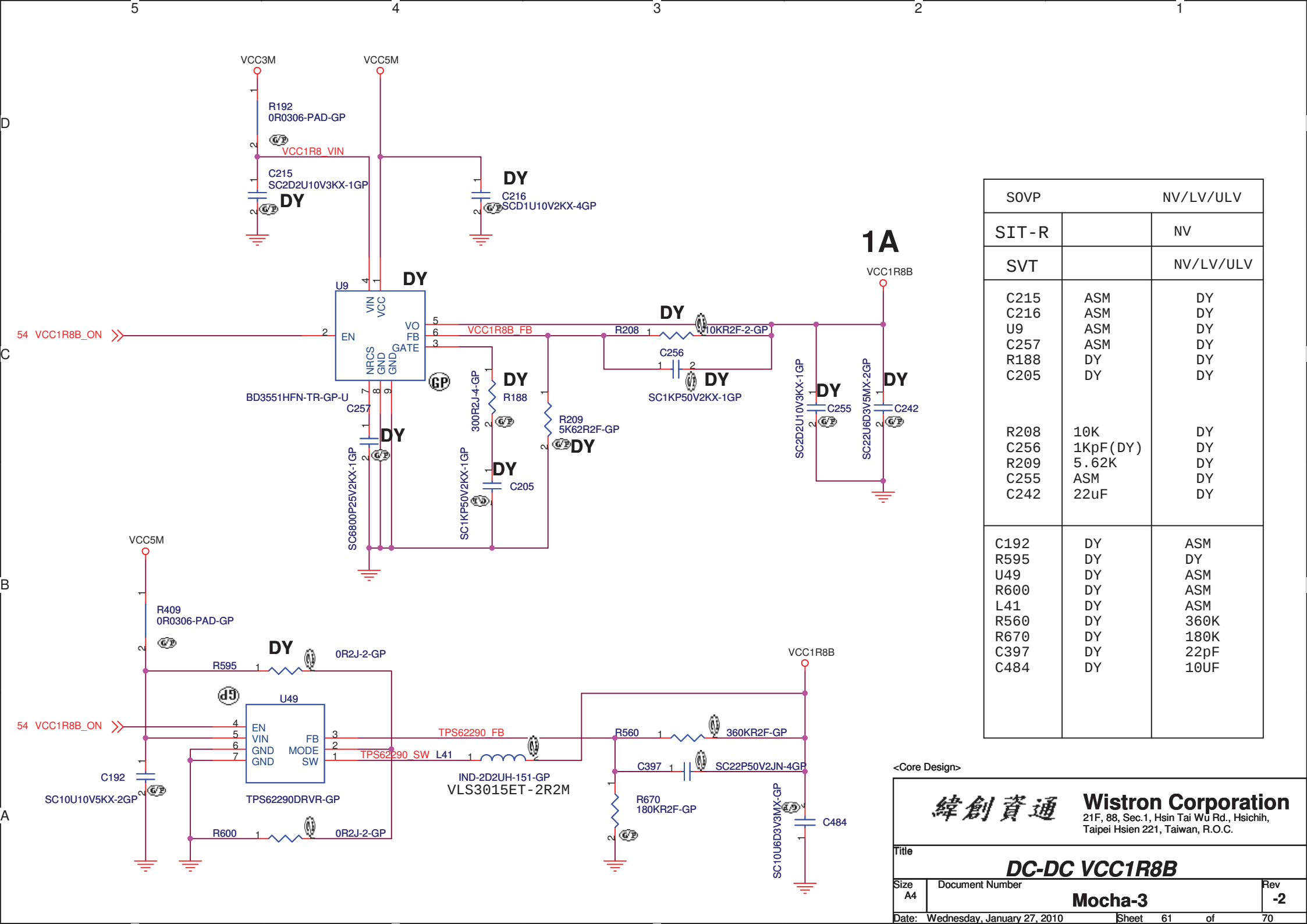
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Size	Document Number	Rev	
A2	Mocha-3	-2	
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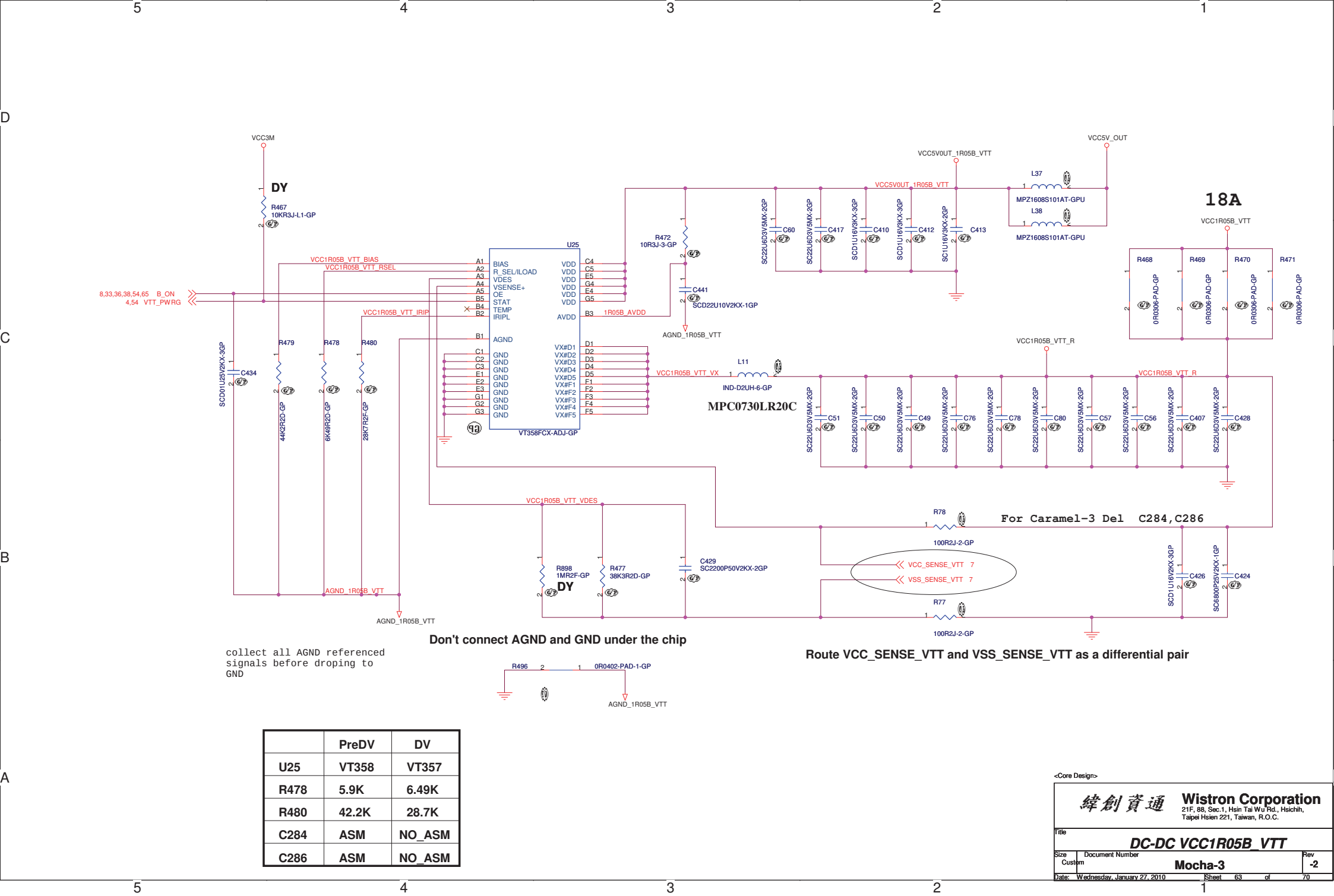


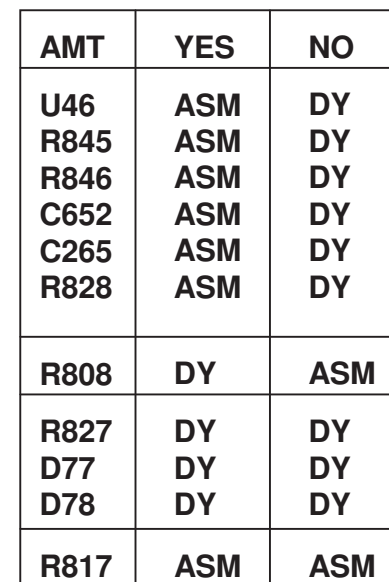
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Title			
DC-DC VCC1R5A			
Size A3	Document Number		Rev -2
Mocha-3			
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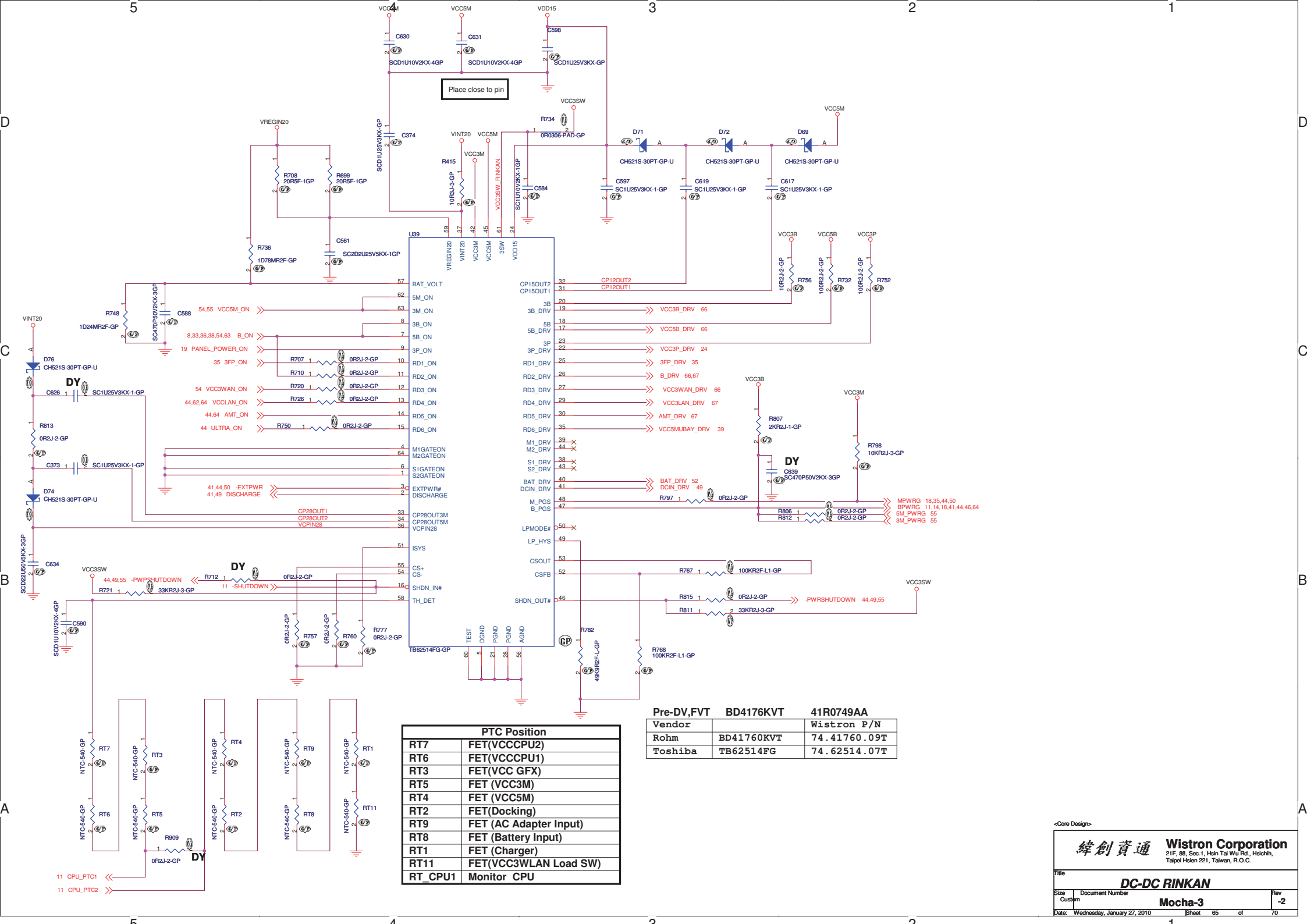






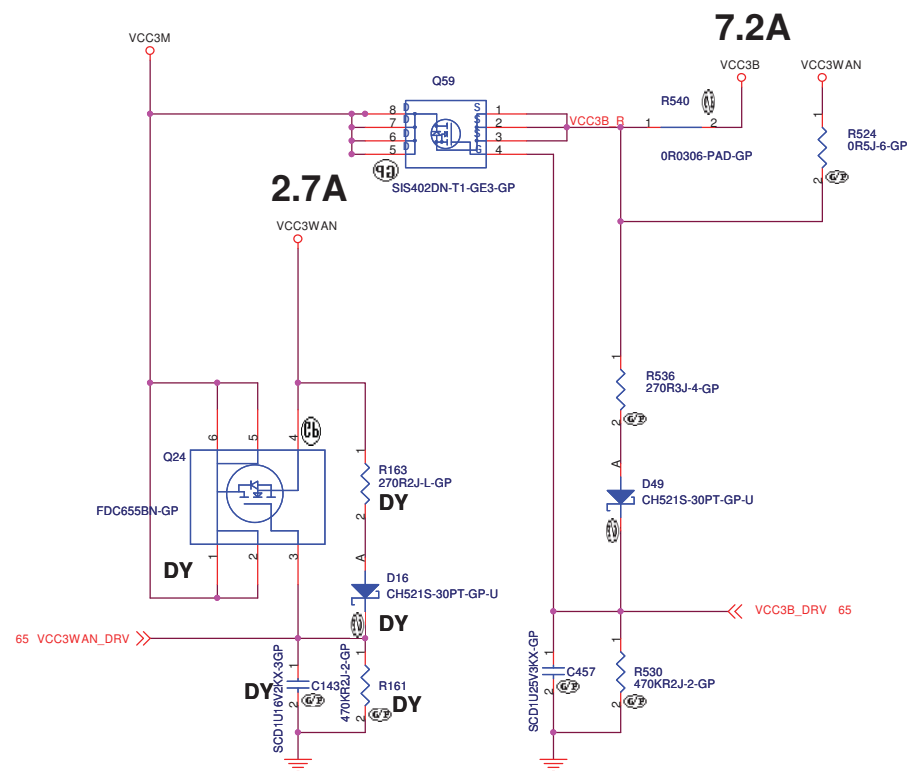
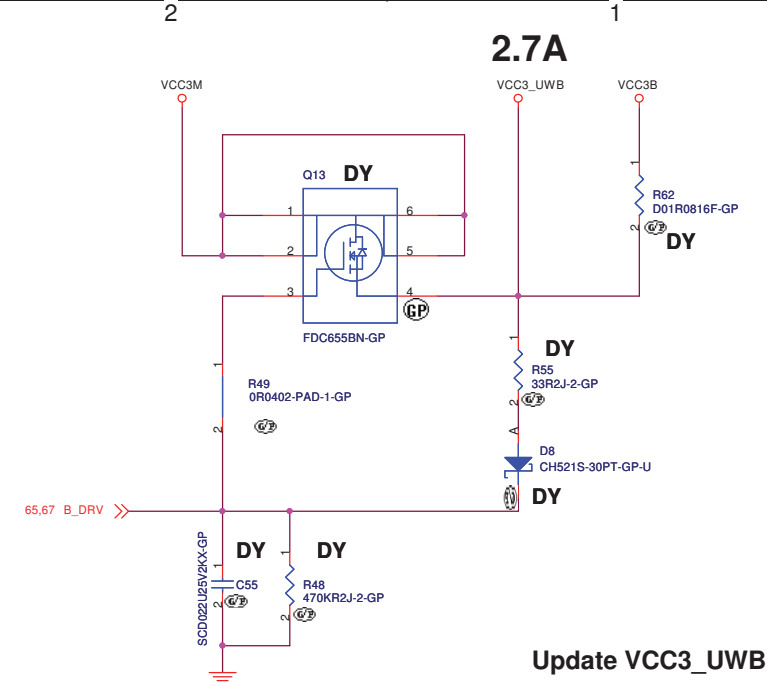
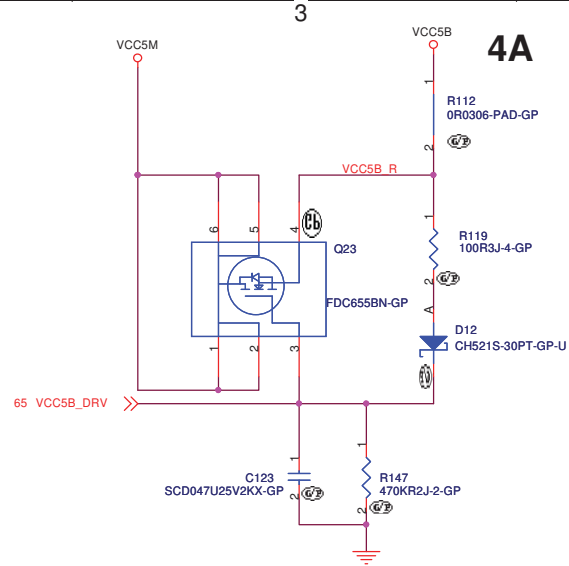
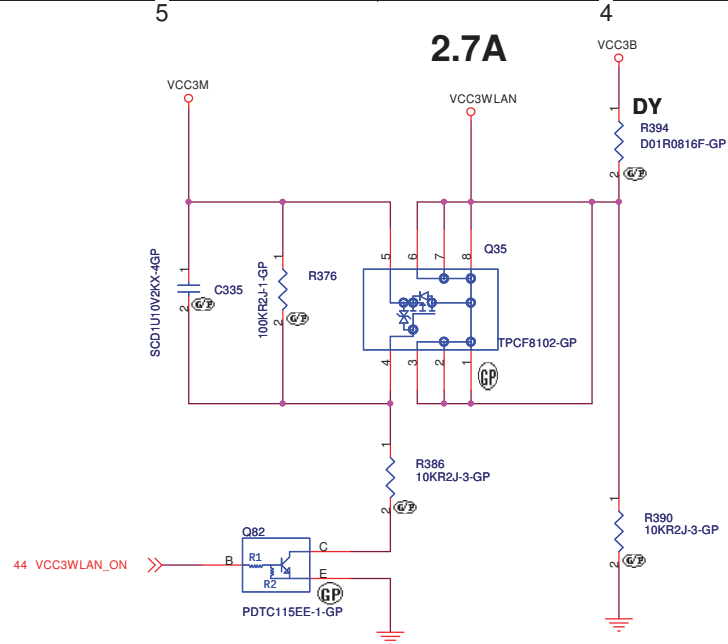


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Title	
POWER GOOD Mocha-3	
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PTC Position	
RT7	FET(VCCCPU2)
RT6	FET(VCCCPU1)
RT3	FET(VCC GFX)
RT5	FET (VCC3M)
RT4	FET (VCC5M)
RT2	FET(Docking)
RT9	FET (AC Adapter Input)
RT8	FET (Battery Input)
RT1	FET (Charger)
RT11	FET(VCC3WLAN Load SW)
RT_CPU1	Monitor CPU

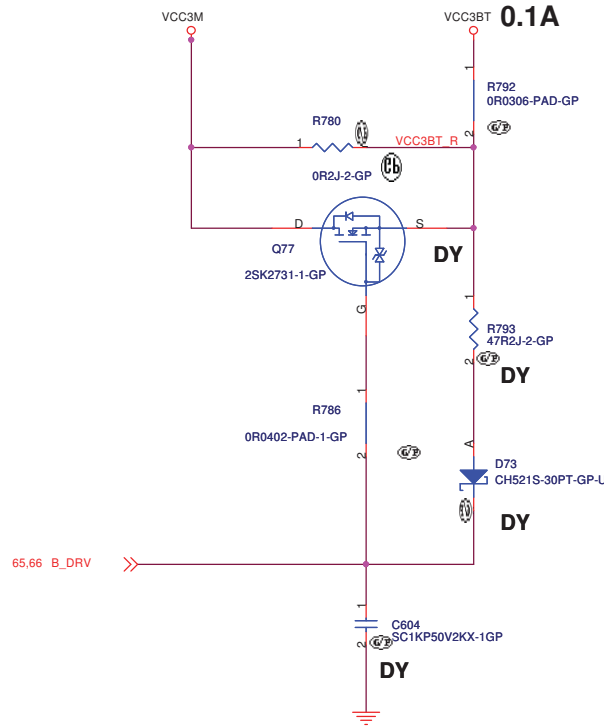
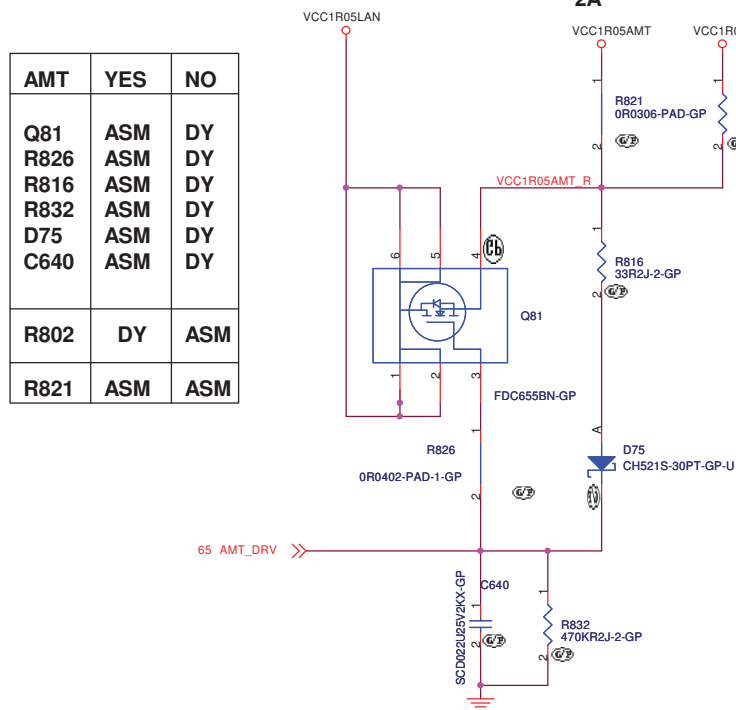
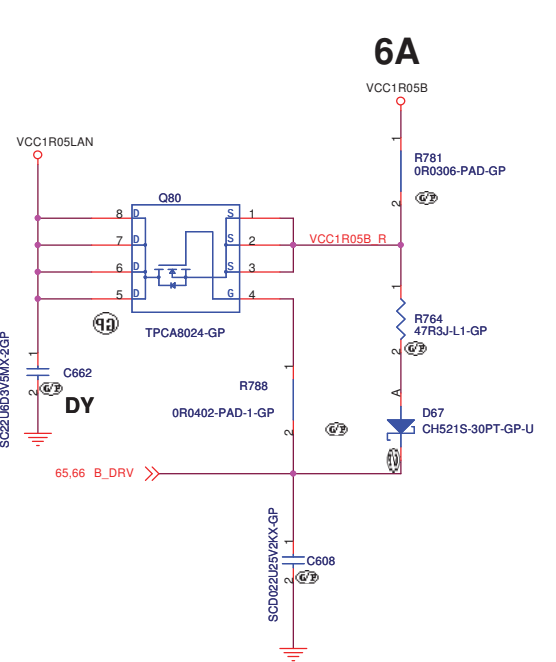
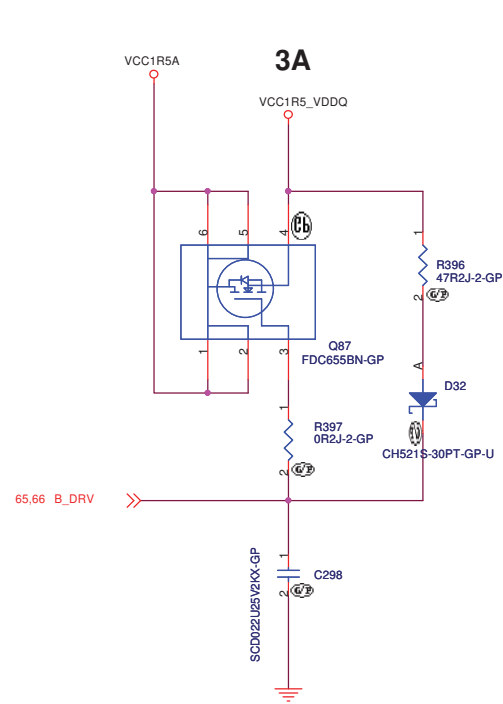
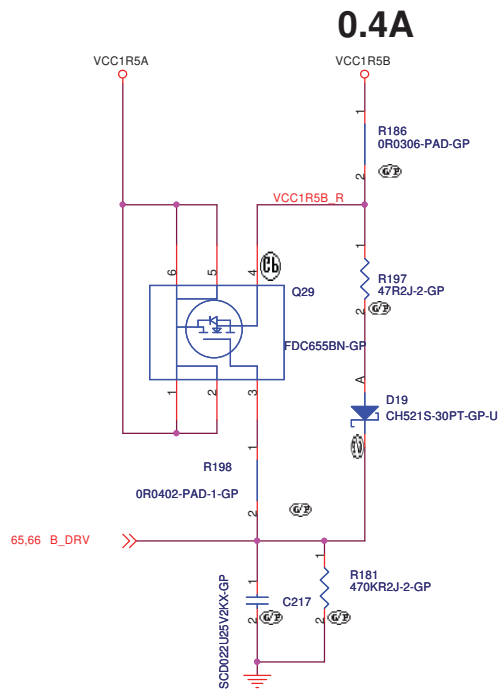
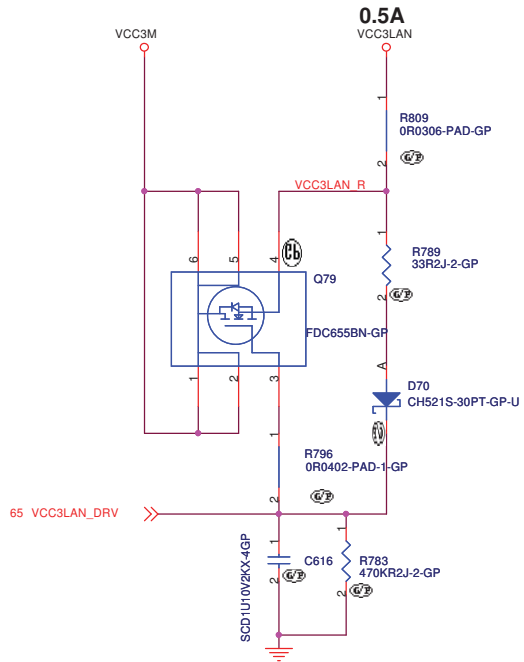
Pre-DV,FVT	BD4176KVT	41R0749AA
Vendor		Wistron P/N
Rohm	BD41760KVT	74.41760.09T
Toshiba	TB62514FG	74.62514.07T



No-asm for no WWAN CONN. MODEL

Always-ON	Enable	Disable
Q24	ASM	NoASM
R163	ASM	NoASM
D16	ASM	NoASM
R161	ASM	NoASM
C143	ASM	NoASM
R524	NOASM	ASM

<Core Design>



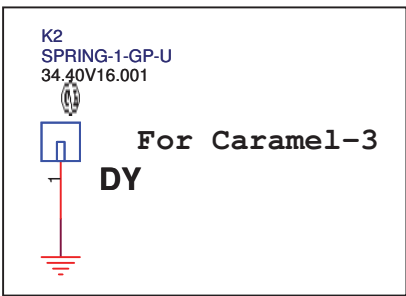
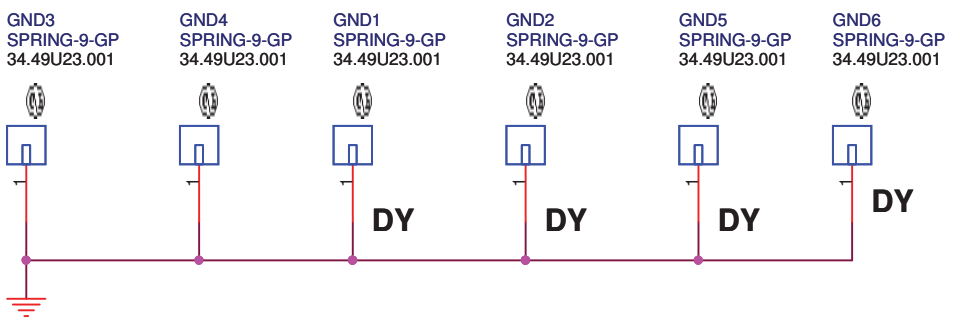
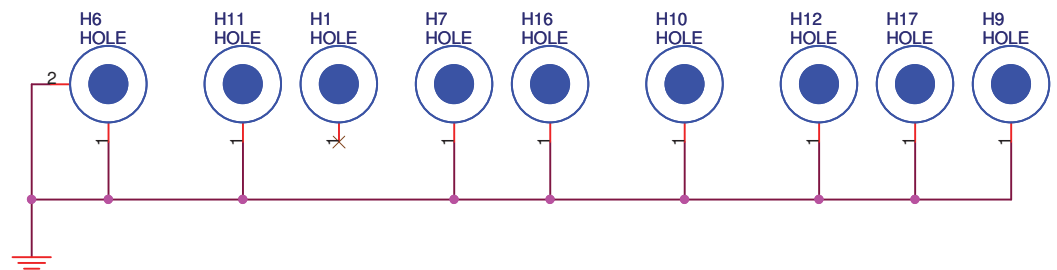
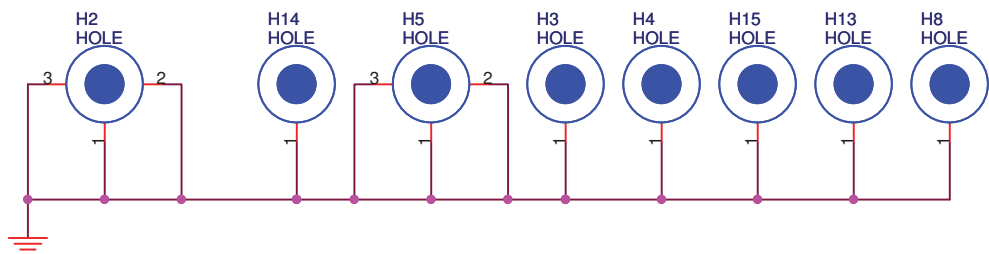
Q77

1st	ROHM	2SK2731	84.02731.A31	DY
2nd	TOSHIBA	2SK2009	84.22009.031	DY

AMT	YES	NO
Q81	ASM	DY
R826	ASM	DY
R816	ASM	DY
R832	ASM	DY
D75	ASM	DY
C640	ASM	DY
R802	DY	ASM
R821	ASM	ASM

<Core Design>

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Title	
LOAD SW 2	
Size A3	Document Number
Mocha-3	
Date: Wednesday, January 27, 2010	Sheet 67 of 70
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For Caramel-3

H2	HOLE276R95 - 3P - S
H5	HT7B75R24 - 3P - S
H6	HOLE276R95 - 3P - S
H11	HOLE256R98
H12	HOLE315R95 - 2P - S
H3	HOLET295B236R138
H4	HOLET295B236R138

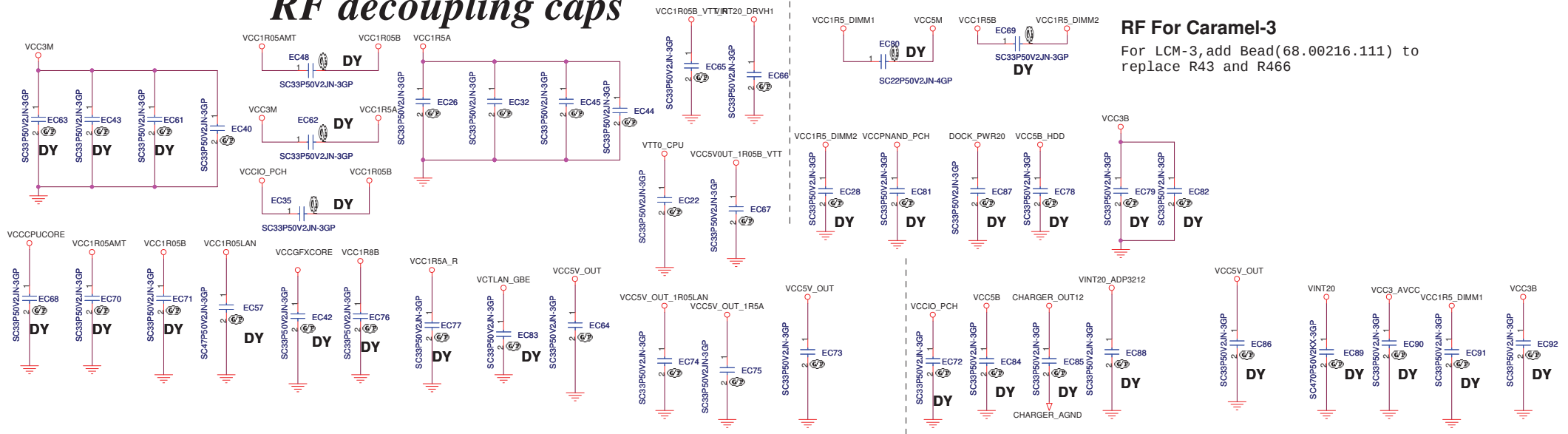
For Caramel-3

Standoff	34.4Y421.001	H3, H4	ASM
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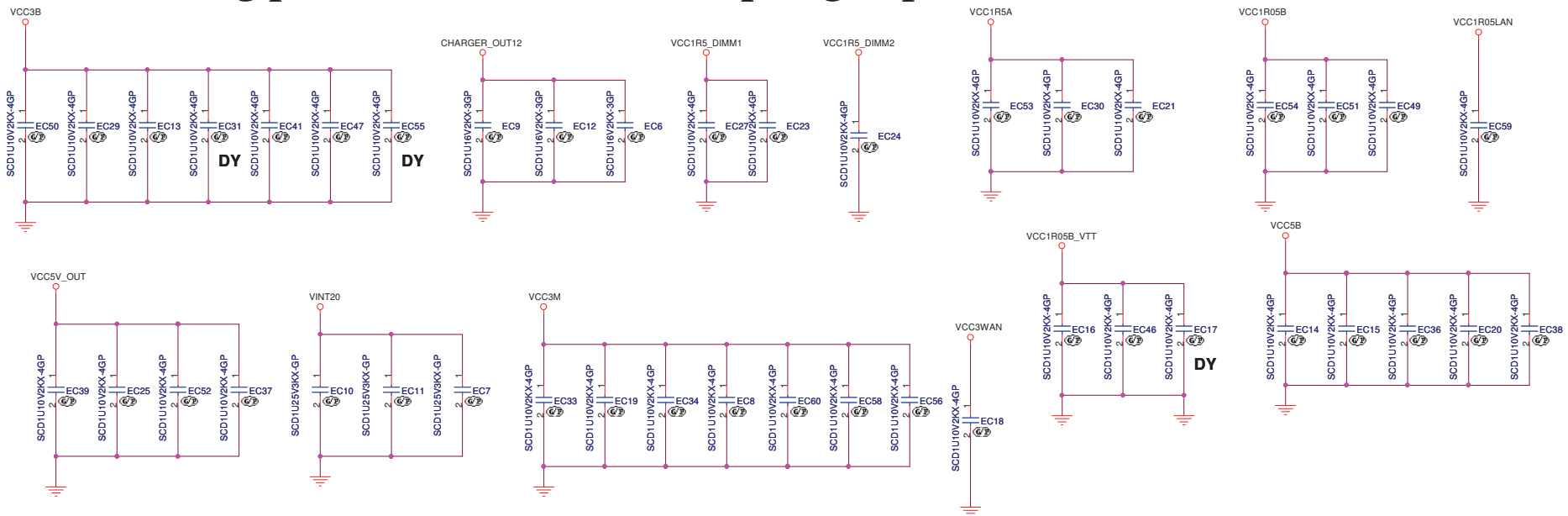
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		Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title			
HOLES/GND/PADS			
Size A4	Document Number Mocha-3		Rev -2
Date:	Wednesday, January 27, 2010	Sheet 68 of	70

RF decoupling caps



Long power trace EMI decoupling caps



<Core Design>

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Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

	Title
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EMI DECOUPLING

Size	Document Number
Custom	

Mocha-3

Rev
-2

Date: Wednesday, January 27, 2010

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Function	Location	Mocha-3	Pecan-3	Caramel-3	Function	Location	Mocha-3	Pecan-3	Caramel-3	Function	Location	Mocha-3	Pecan-3	Caramel-3
USB	R327	ASM	ASM	DY	Fingerprint	R584	DY	DY	DY	LCD Conn	R9	DY	DY	ASM
	R328	ASM	ASM	DY		R585	ASM	ASM	DY		R10	ASM	ASM	DY
	R329	DY	DY	ASM		F11	ASM	ASM	DY		R1	DY	DY	ASM
	R330	DY	DY	ASM		C483	ASM	ASM	DY		R5	ASM	ASM	DY
	C377	DY	DY	ASM	Touch PAD	R168 R169 F3 C226 R178 R180 CN3 U6 C473 R556 R577 R483 R474 R491 R71	ASM	ASM	ASM		R450	ASM	ASM	DY
	C376	DY	DY	ASM			ASM	ASM	ASM		R447	DY	DY	ASM
	J1	DY	DY	ASM			ASM	ASM	ASM		R36	DY	DY	ASM
	U23	DY	DY	ASM			ASM	ASM	ASM		R35	ASM	ASM	DY
	C378	DY	DY	ASM			ASM	ASM	ASM		R453	ASM	ASM	DY
Bluetooth	R411	ASM	ASM	DY			ASM	ASM	ASM		R451	DY	DY	ASM
	R412	ASM	ASM	DY			ASM	ASM	ASM		R455	ASM	ASM	DY
	R413	DY	DY	ASM			ASM	ASM	ASM		R454	DY	DY	ASM
	R414	DY	DY	ASM			ASM	ASM	ASM		R37	DY	DY	ASM
	CN10	DY	DY	ASM			ASM	ASM	ASM		R38	DY	DY	ASM
	F4	DY	DY	ASM			ASM	ASM	ASM		Q10	ASM	ASM	DY
	C372	DY	DY	ASM			DY	DY	DY		Q11	ASM	ASM	DY
							DY	DY	DY		Q12	ASM	ASM	DY
Super IO	U7	DY	DY	ASM	Pen Sensor	CN11 R418 C375	DY	DY	ASM		R886	ASM	ASM	DY
	C159	DY	DY	ASM			DY	DY	ASM		R364	ASM	ASM	DY
	C146	DY	DY	ASM			DY	DY	ASM		R594	ASM	ASM	DY
	C122	DY	DY	ASM			DY	DY	ASM		R596	ASM	ASM	DY
	R145	DY	DY	ASM			DY	DY	ASM		R602	ASM	ASM	DY
	R146	DY	DY	ASM			DY	DY	ASM		R887	DY	DY	ASM
	RN1	DY	DY	ASM			DY	DY	ASM		R604	DY	DY	ASM
	R574	DY	DY	ASM			DY	DY	ASM		R857	DY	DY	ASM
	C121	DY	DY	ASM	Pecan ID	R293 R286	ASM	DY	DY	uP	R599	DY	DY	ASM
	R743	DY	DY	ASM			DY	ASM	ASM		R601	DY	DY	ASM
	R754	DY	DY	ASM						H8	R269	DY	DY	ASM
	R639	DY	DY	ASM							R270	ASM	ASM	DY

Support Caramel-3 TouchPAD for SIV

MP-3 change to Caramel-3 planar					
Cut off portion			HOLE Geometry		
Location		Location		Location	PCB FootPrint
R40	DEL	U24	DEL	H2	HOLE276R95-3P-S
R41	DEL	C527	DEL	H5	HT7B75R24-3P-S
FL1	DEL	U1	DEL	H6	HOLE276R95-3P-S
C41	DEL	K1	DEL	H11	HOLE256R98
C39	DEL	C284	DEL	H12	HOLE315R95-2P-S
C32	DEL	C286	DEL	H3	HOLET295B236R138
SKT3	DEL			H4	HOLET295B236R138

Location	Mocha-3	Pecan-3	Caramel-3
L21(VCC5B_HDD) R43	ASM DEL	ASM DEL	ASM DEL
L31 R47	N0 ASM	N0 ASM	ADD DEL
L32 R220	N0 ASM	N0 ASM	ADD DEL
L33 L34 R790	ASM ASM DEL	ASM ASM DEL	ASM ASM DEL
L35 R794	ASM DEL	ASM DEL	ASM DEL
L36 R821	N0 ASM	N0 ASM	ADD DEL
L37 L38 R457	ASM ASM DEL	ASM ASM DEL	ASM ASM DEL
L39 R587	N0 ASM	N0 ASM	ADD DEL
L40 R502	N0 ASM	N0 ASM	ADD DEL
L42 R466	ASM DEL	ASM DEL	N0 ASM

RF decoupling caps			
Location	Mocha-3	Pecan-3	Caramel-3
EC63	DY	DY	DY
EC43	DY	DY	DY
EC61	DY	DY	DY
EC48	DY	DY	DY
EC62	DY	DY	DY
EC35	DY	DY	DY
EC68	DY	DY	DY
EC70	DY	DY	DY
EC71	DY	DY	DY
EC57	DY	DY	DY
EC42	DY	DY	DY
EC46	DY	DY	DY
EC76	DY	DY	DY
EC77	DY	DY	DY
EC83	DY	DY	DY
EC40	ASM	ASM	ASM
EC64	ASM	ASM	ASM
EC22	ASM	ASM	ASM
EC66	ASM	ASM	ASM
EC26	ASM	ASM	ASM
EC32	ASM	ASM	ASM
EC45	ASM	ASM	ASM
EC44	ASM	ASM	ASM
EC65	ASM	ASM	ASM
EC67	DY	ASM	ASM
EC80	DY	DY	ASM
EC69	DY	DY	ASM
EC28	DY	DY	ASM
EC81	DY	DY	ASM
EC87	DY	DY	ASM
EC78	DY	DY	ASM
EC79	DY	DY	ASM
EC82	DY	DY	ASM
EC74	DY	DY	ASM
EC75	DY	DY	ASM
EC72	DY	DY	DY
EC84	DY	DY	ASM
EC85	DY	DY	ASM
EC88	DY	DY	ASM
EC73	DY	DY	ASM
EC86	DY	DY	ASM
EC89	DY	DY	ASM
EC90	DY	DY	ASM
EC91	DY	DY	ASM
EC92	DY	DY	ASM
K2	DY	DY	ASM
EC93	DEL	DEL	DY
EC94	DEL	DEL	DY
EC95	DEL	DEL	DY
EC96	DEL	DEL	DY
EC97	DEL	DEL	ASM
EC98	DEL	DEL	DY
EC99	DEL	DEL	DY
EC100	DEL	DEL	DY
EC102	DEL	DEL	ASM
EC103	DEL	DEL	ASM
EC104	DEL	DEL	ASM
EC105	DEL	DEL	ASM