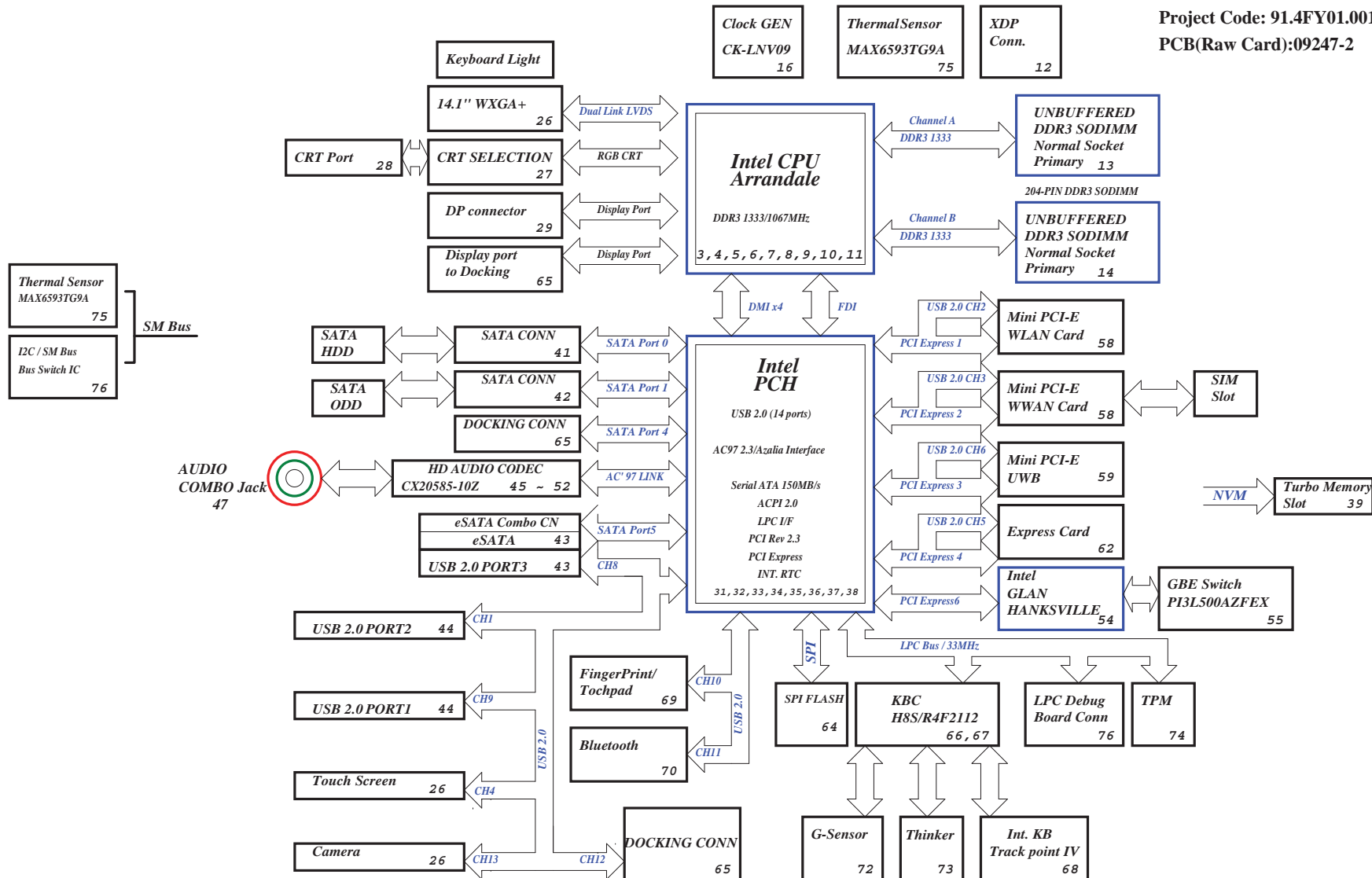


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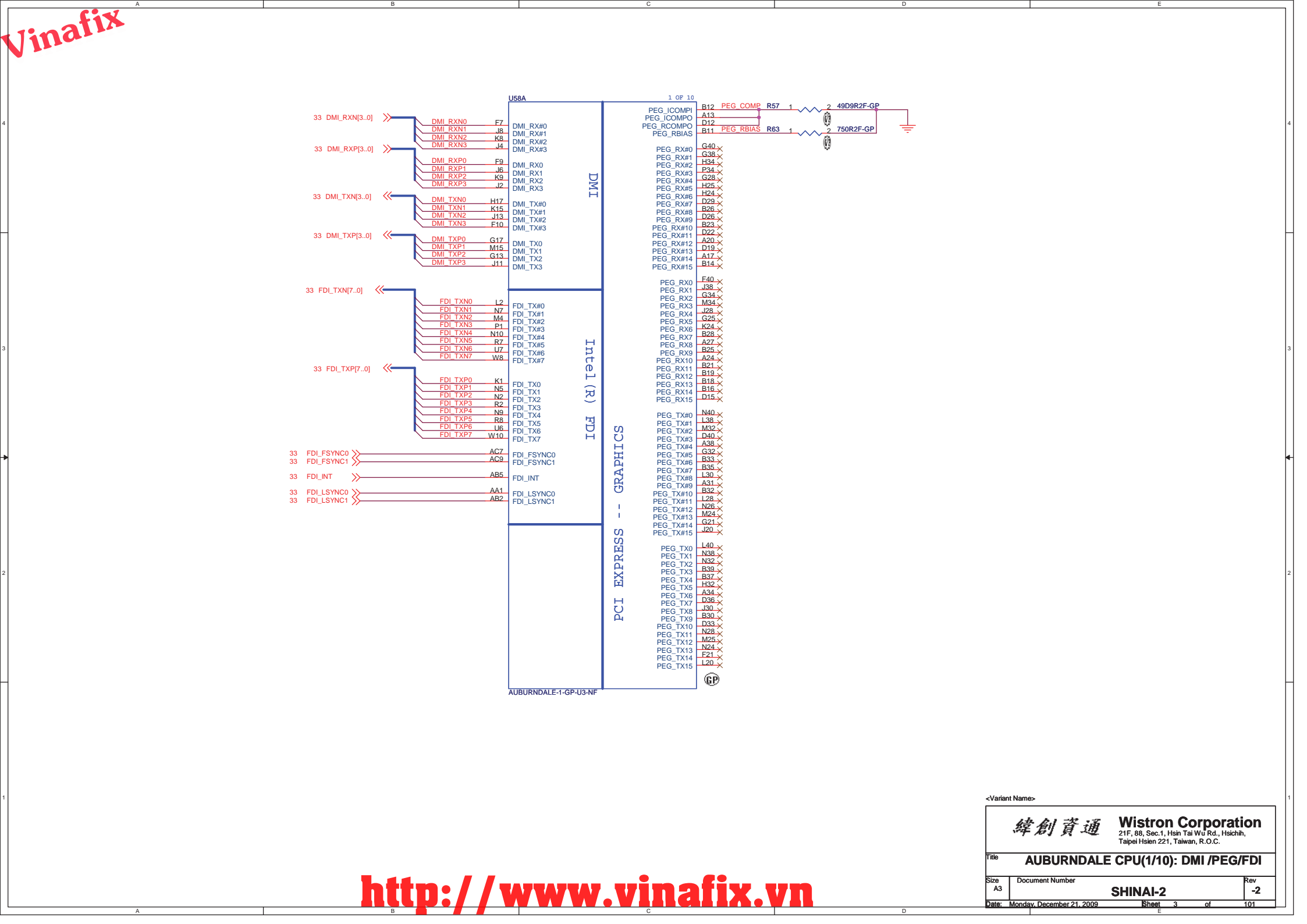
2009/12/28

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PCB(Raw Card):09247-2

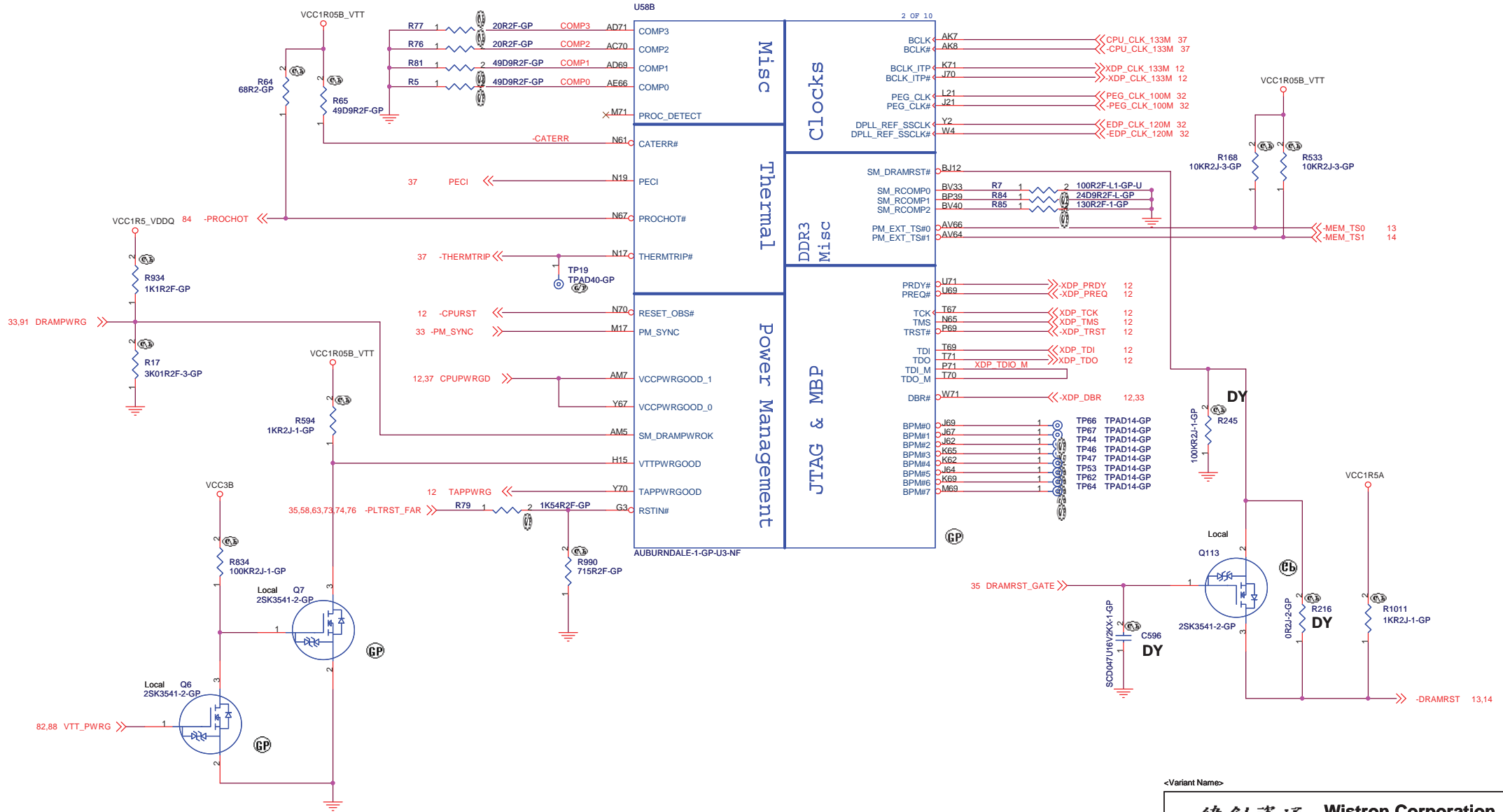


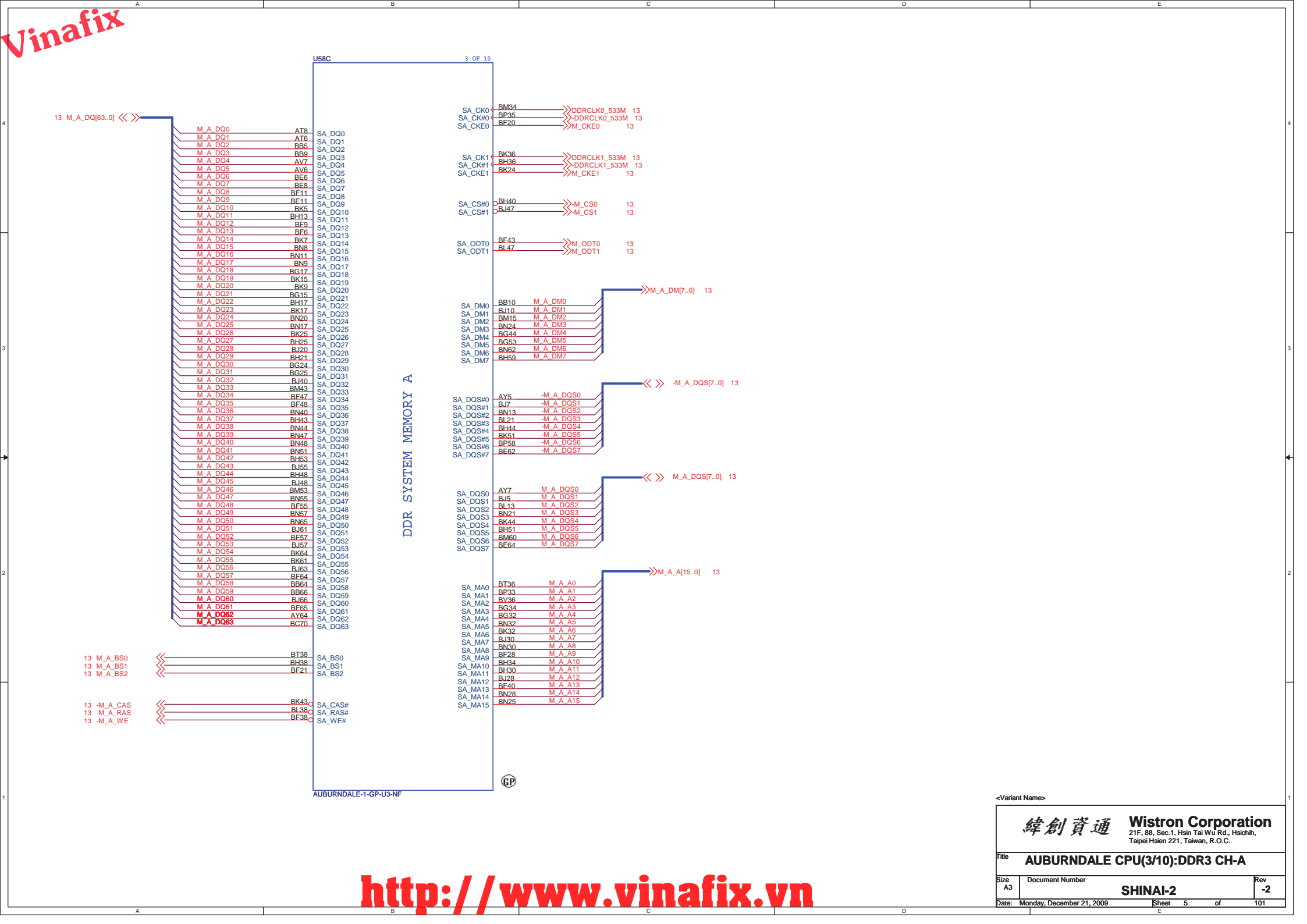
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L1:TOP	
L2:Signal-GND	
L3:Signal	
L4:GND	
L5:Signal	
L6:GND	
L7:VCC	
L8:Signal	
L9:Signal-GND	
L10:BOTTOM	
Battery Charger/Selector BQ24741 79	
INPUTS	OUTPUTS
DCIN_PWR20_F	M-BAT-PWR
TPS51222	S-BAT-PWR
System DC/DC 83	
VINT20	VCC5M
VCC3M	
CPU DC/DC 84	
ADP3212	
VINT20	VCCCPUCORE
GFX CORE 87	
ADP3211	
VINT20	VCCGFXCORE
VCC1R5A 90	
VT356FCX	
VCC5M_OUT	VCC1R5A
VCC0R75B 91	
MAX1510	
VCC1R5A	VCC0R75B
VCC1R8B 93	
BD3551HFN	
VCC3M	VCC1R8B
VCC1R05LAN 89	
VT356FCX	
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VCC5M_OUT	VCC1R05B_VTT

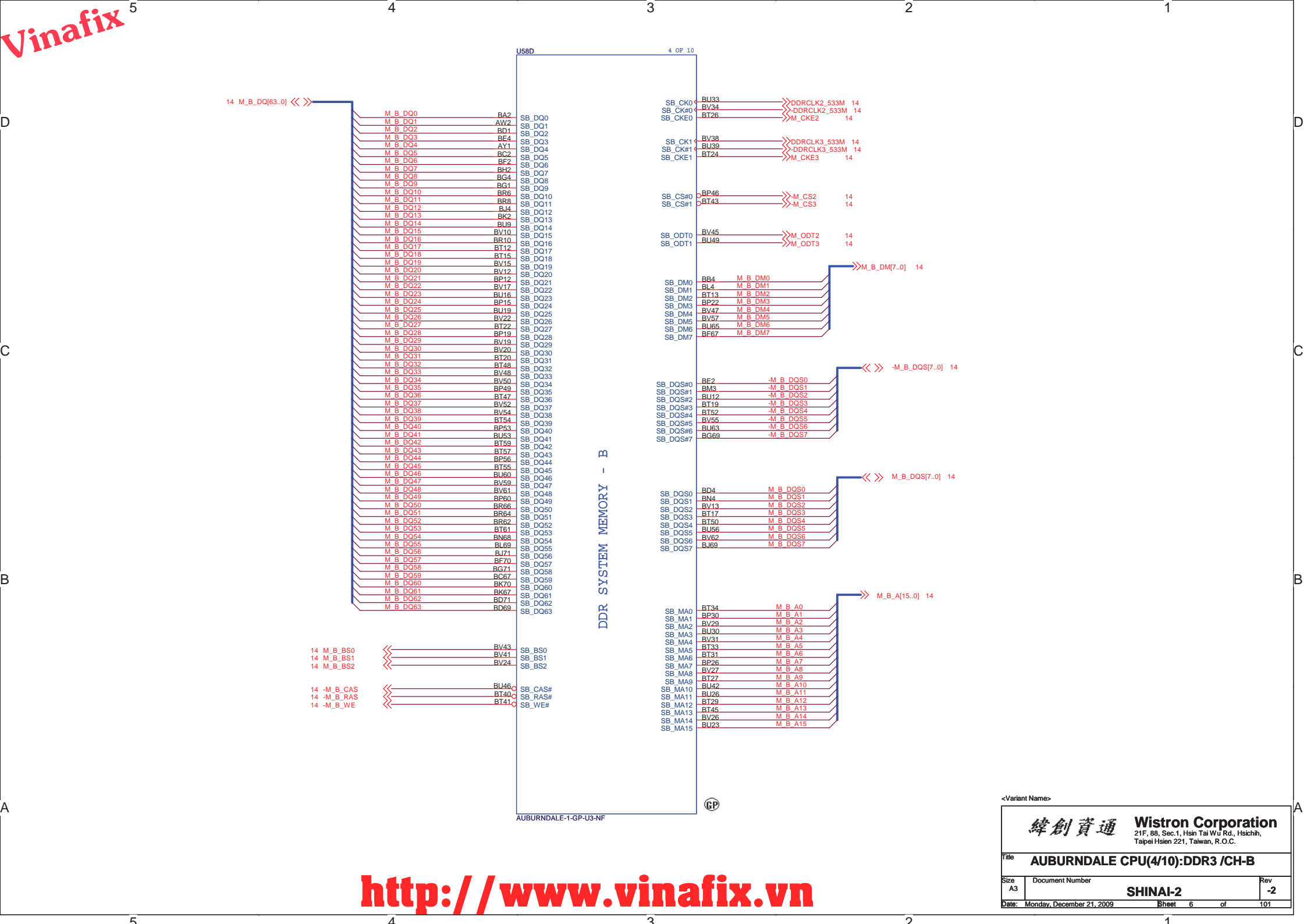
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緯創資通 Wistron Corporation	
21F, 88, Sec.1, Hsin Tai Wu Rd., Heichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title	
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Size	Document Number
Custom	SHINAI-2
Date: Monday, December 28, 2009	Sheet 1 of 101

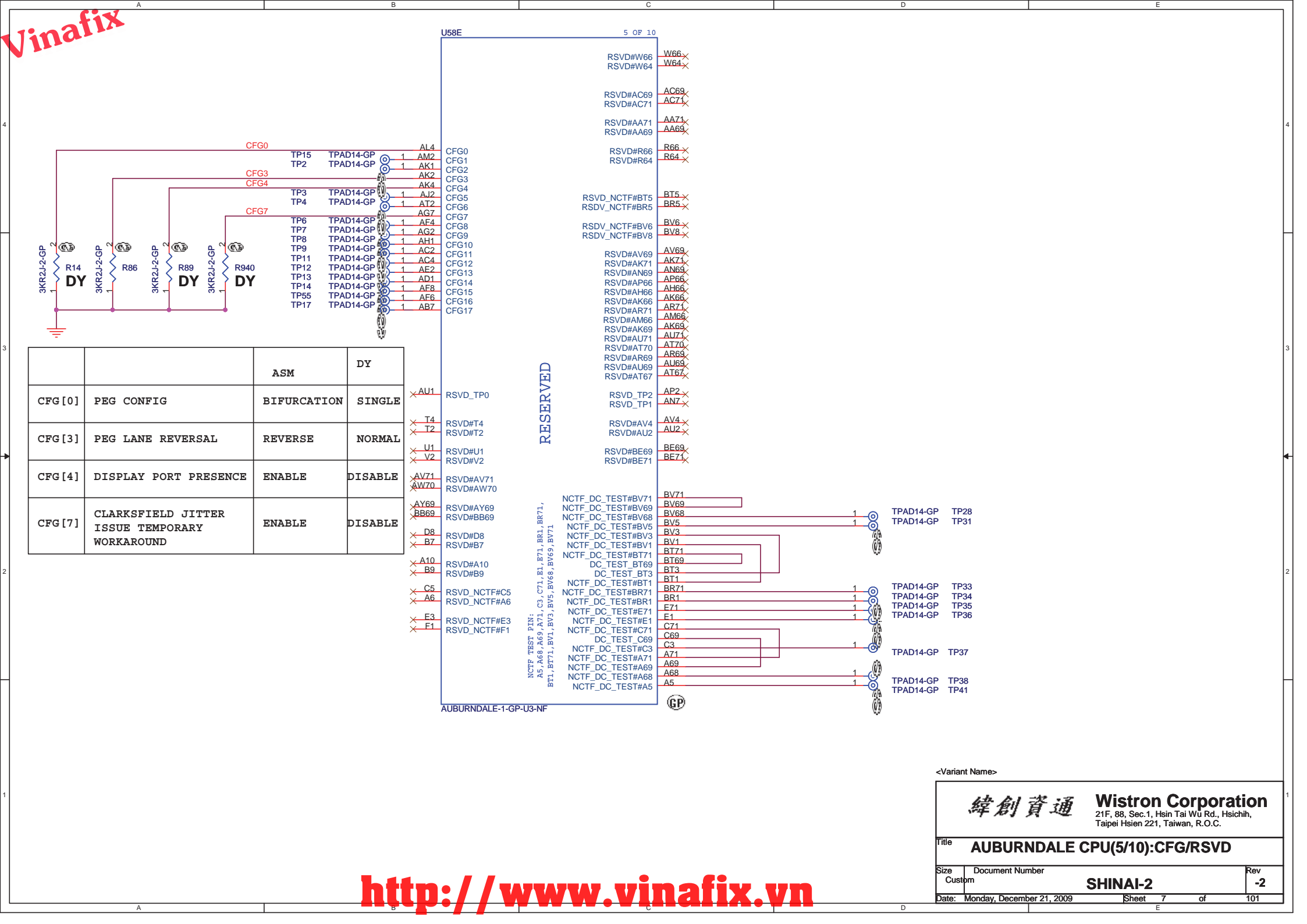


COMP0/1/2/3 : TRACE Length <0.5"
COMP0/1/2/3 : 10mil width traces, 20mil spacing



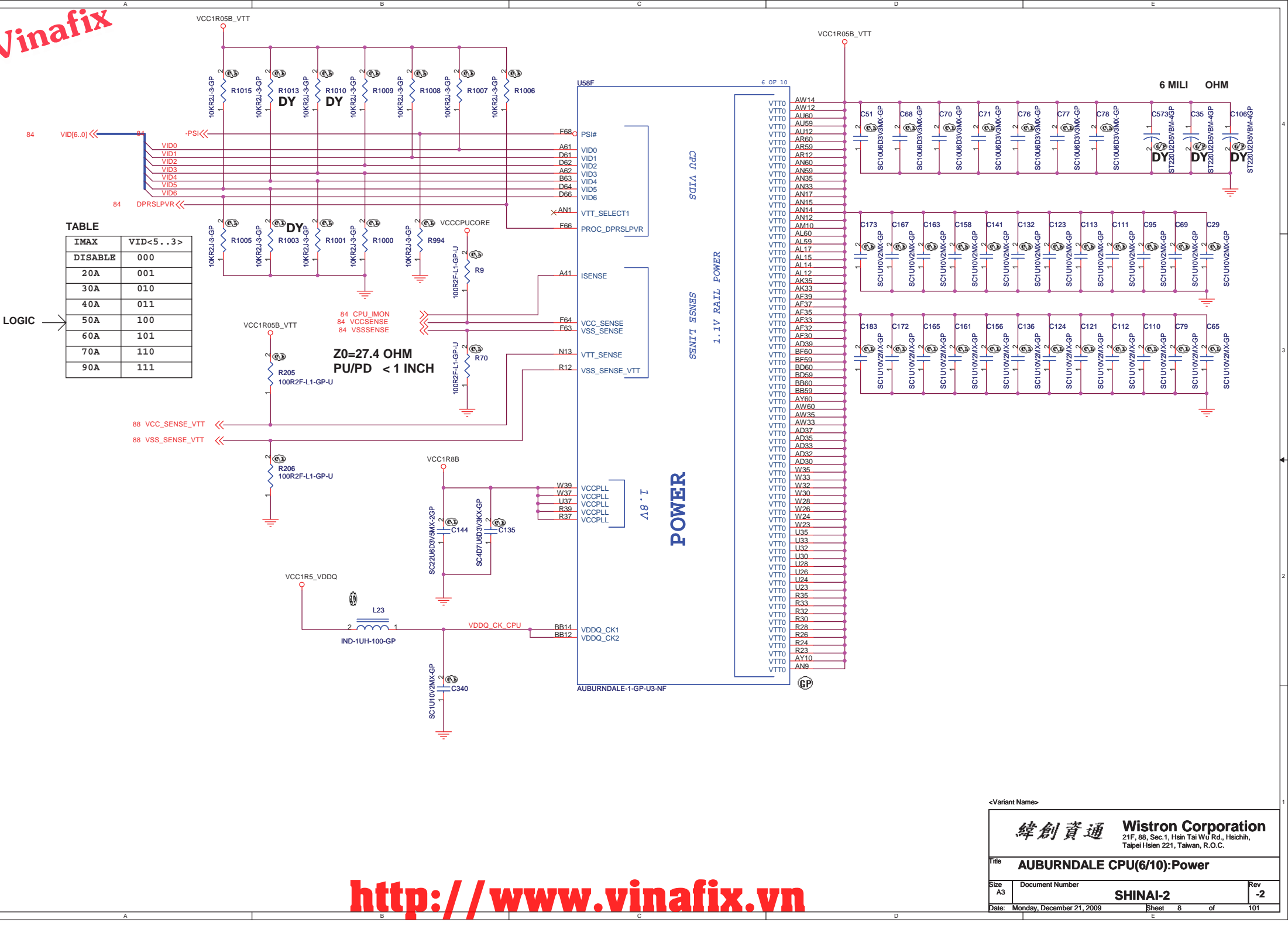


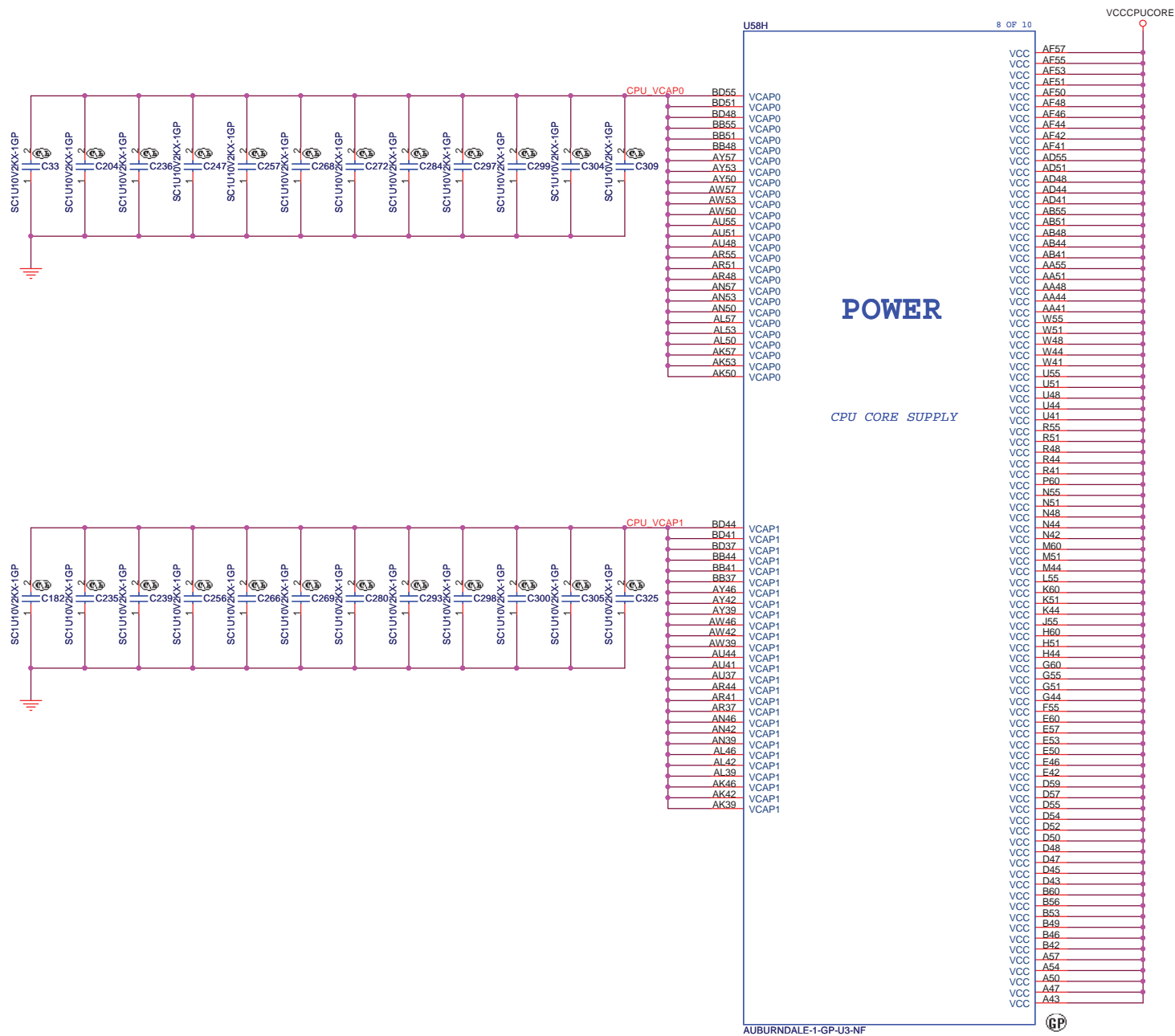


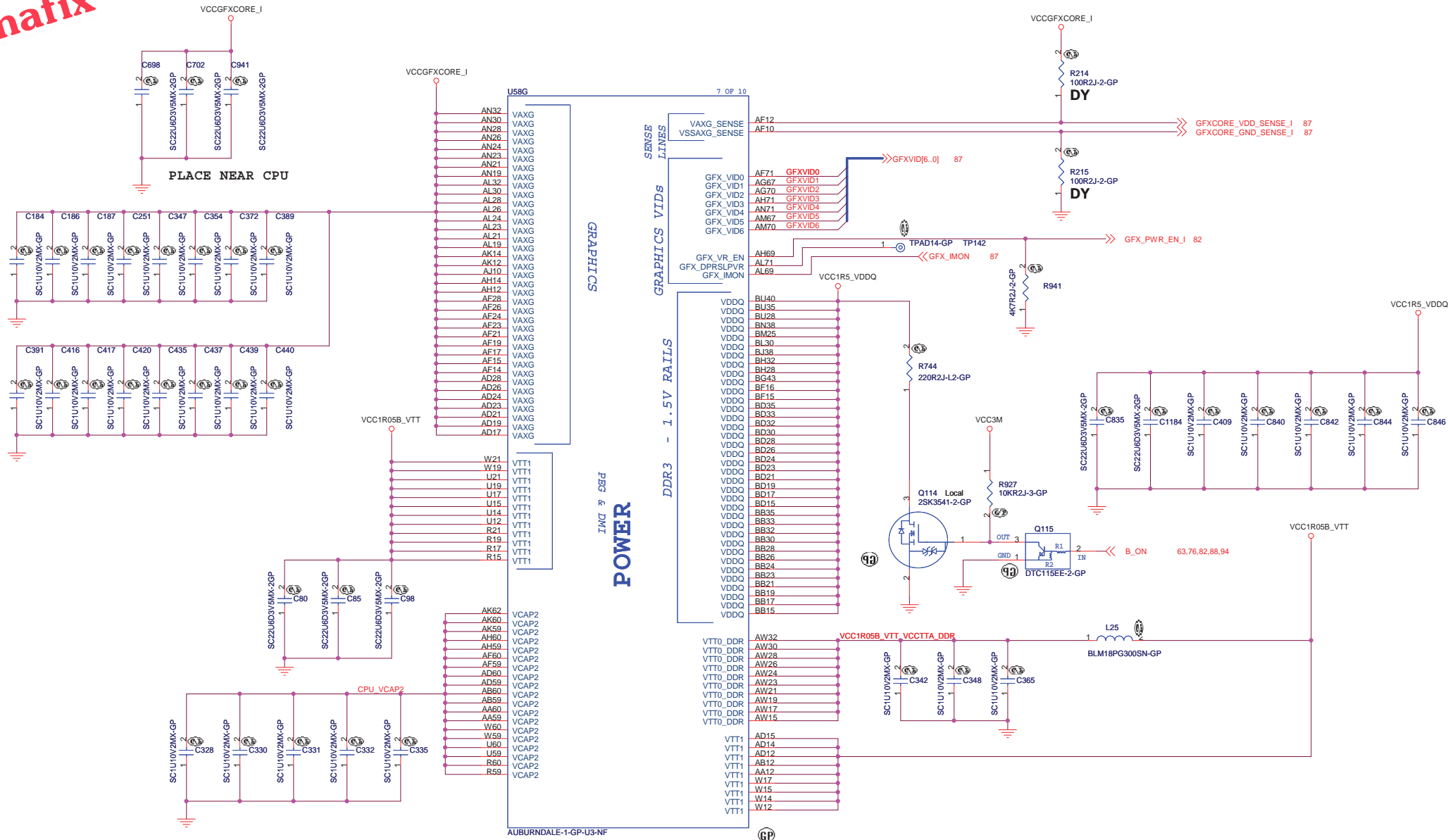


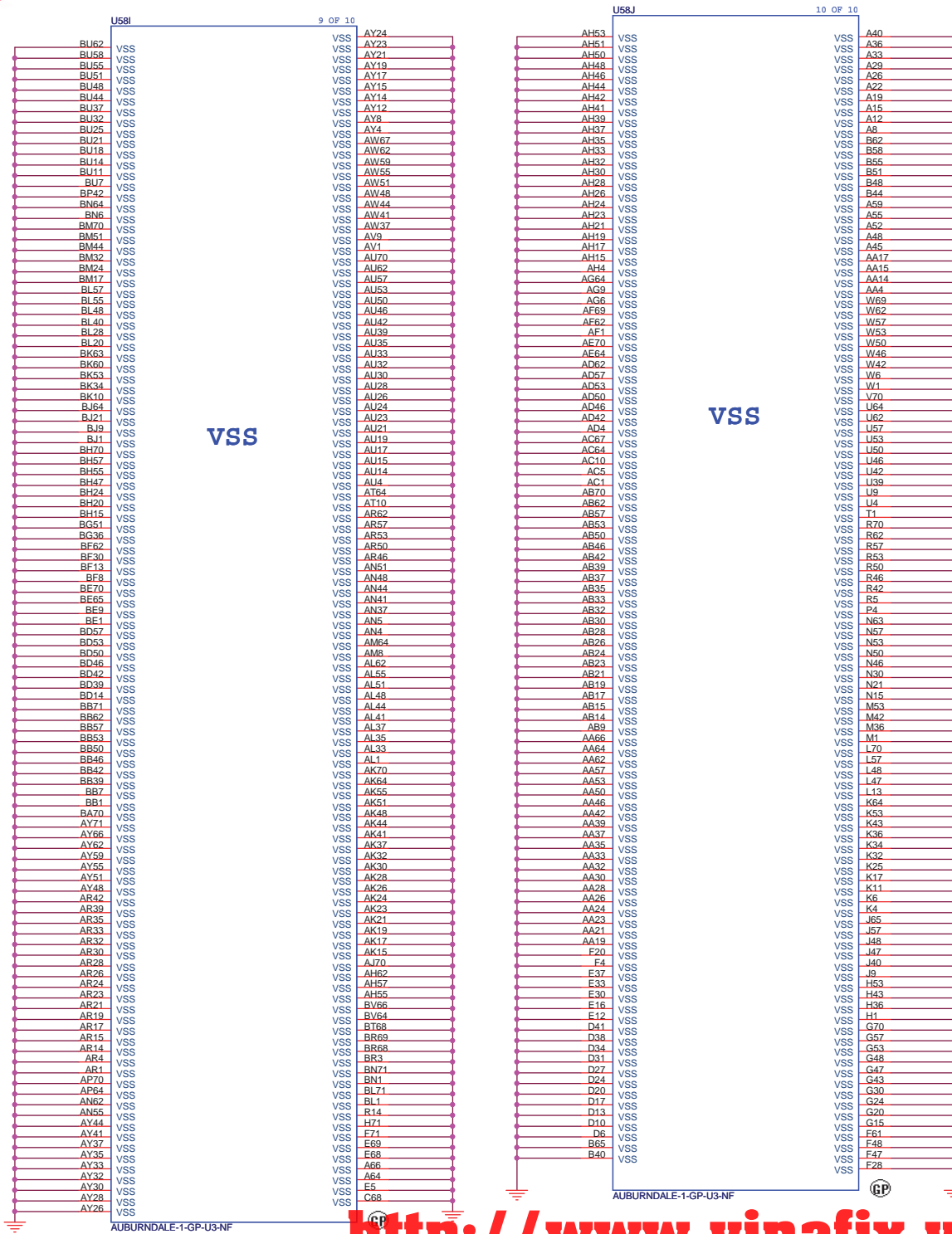
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90A	111

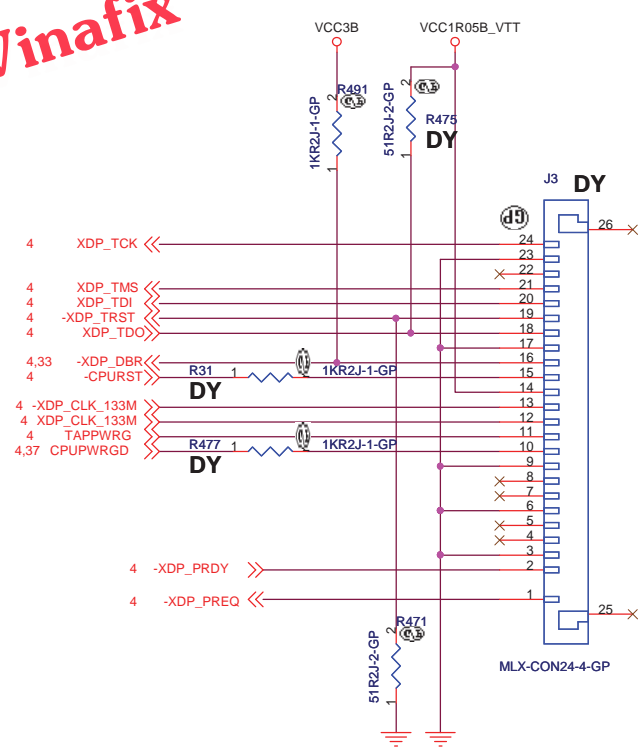
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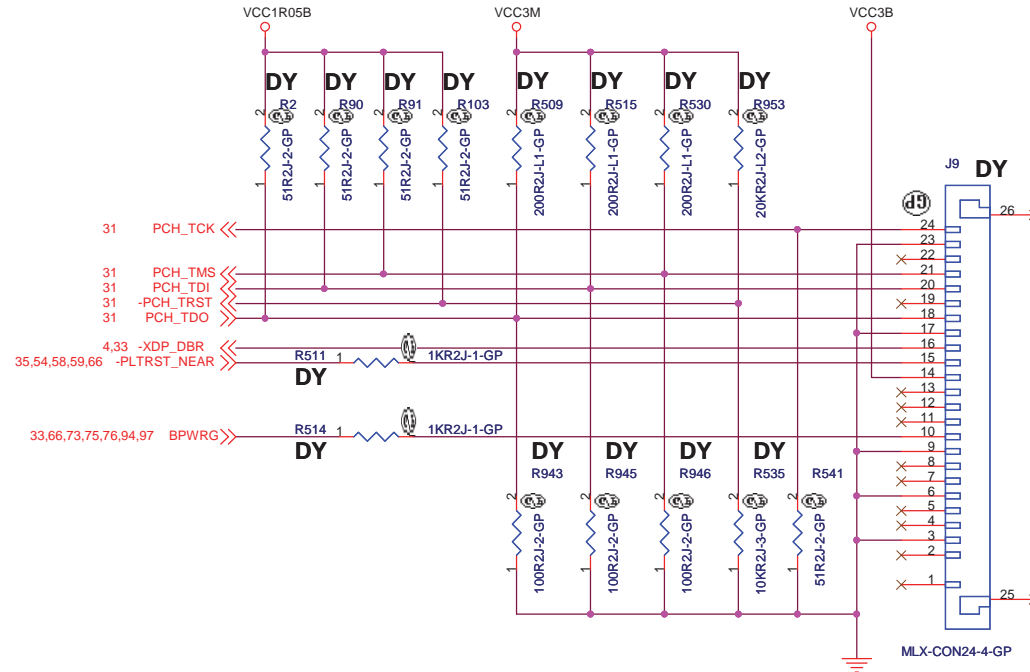








DEBUG Interface for Processor.



DEBUG Interface for PCH.

TABLE

PCH PIN	REF DES	PCH ES1 JTAG		PCH ES2 JTAG		PRODUCTION	
		Enable	Disable	Enable	Disable	Enable	Disable
TDO	R509	DY	DY	200 Ohms	DY	DY	DY
	R943	DY	DY	100 Ohms	DY	DY	DY
	R2	DY	DY	DY	DY	51 Ohms	DY
TMS	R530	200 Ohms	DY	200 Ohms	DY	DY	DY
	R946	100 Ohms	DY	100 Ohms	DY	DY	DY
	R91	DY	DY	DY	DY	51 Ohms	DY
TDI	R515	200 Ohms	20K Ohms	200 Ohms	DY	DY	DY
	R945	100 Ohms	10K Ohms	100 Ohms	DY	DY	DY
	R90	DY	DY	DY	DY	51 Ohms	DY
TCK	R541	51 Ohms	51 Ohms	51 Ohms	51 Ohms	51 Ohms	51 Ohms
TRST#	R953	20K Ohms	DY	DY	DY	DY	DY
	R535	10K Ohms	DY	DY	DY	DY	DY
	R103	DY	DY	DY	DY	DY	DY

↑
LOGIC

<Variant Name>

緯創資通

Wistron Corporation

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Taipei Hsien 221, Taiwan, R.O.C.

Title

XDP CONN

Size

Customer

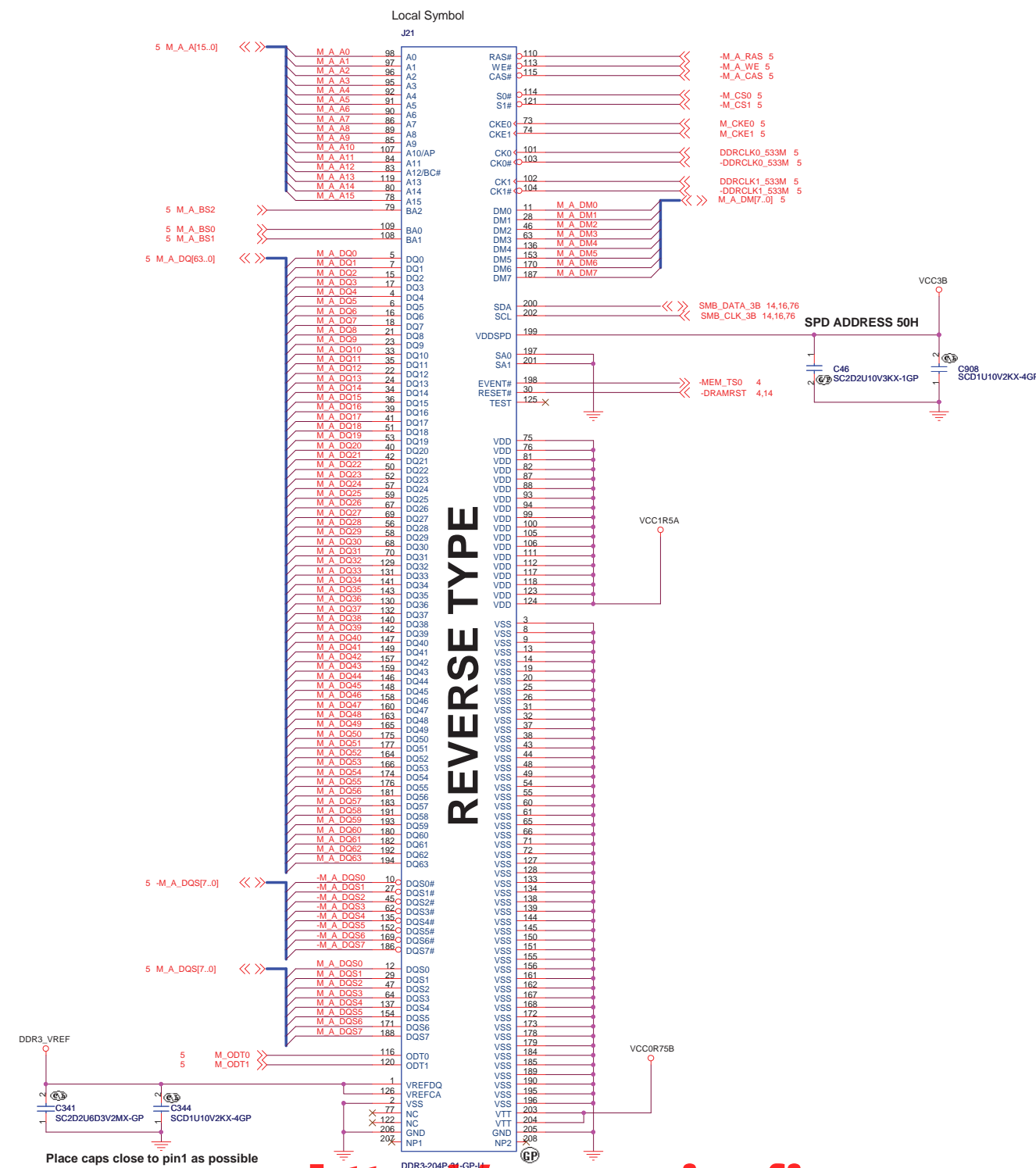
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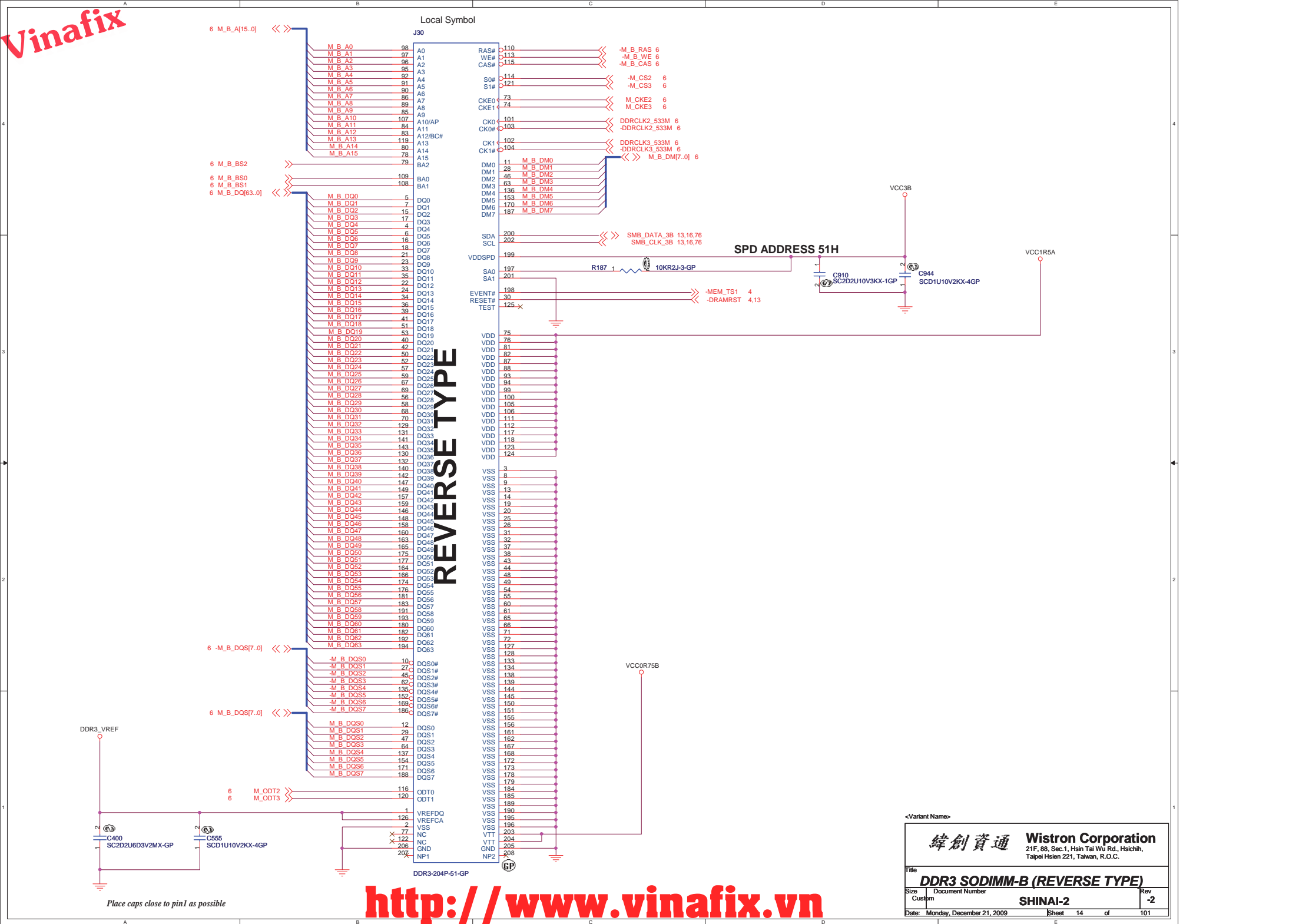
Rev

-2

Date: Monday, December 21, 2009

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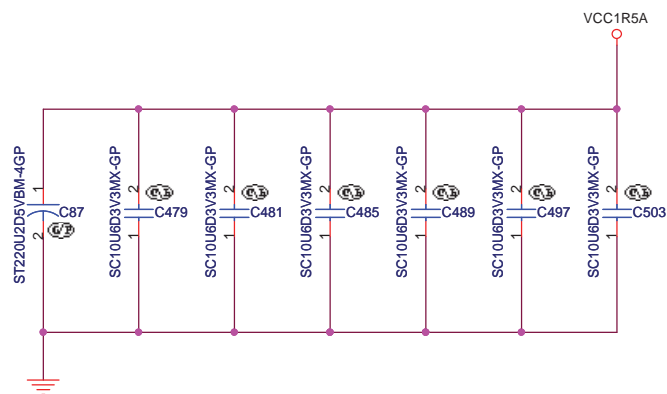
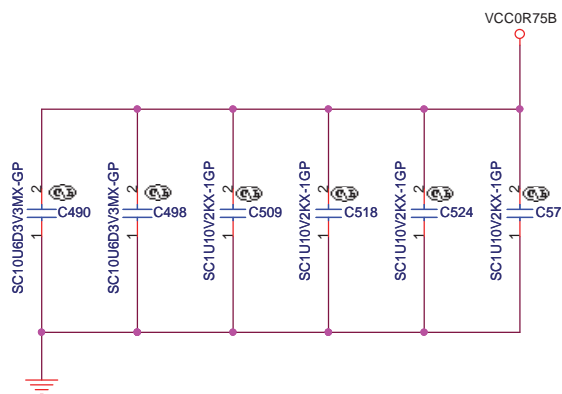
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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
Taipei Hsien 221, Taiwan, R.O.C.

Title
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Size Document Number
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Date: Monday, December 21, 2009 Sheet 14 of 101

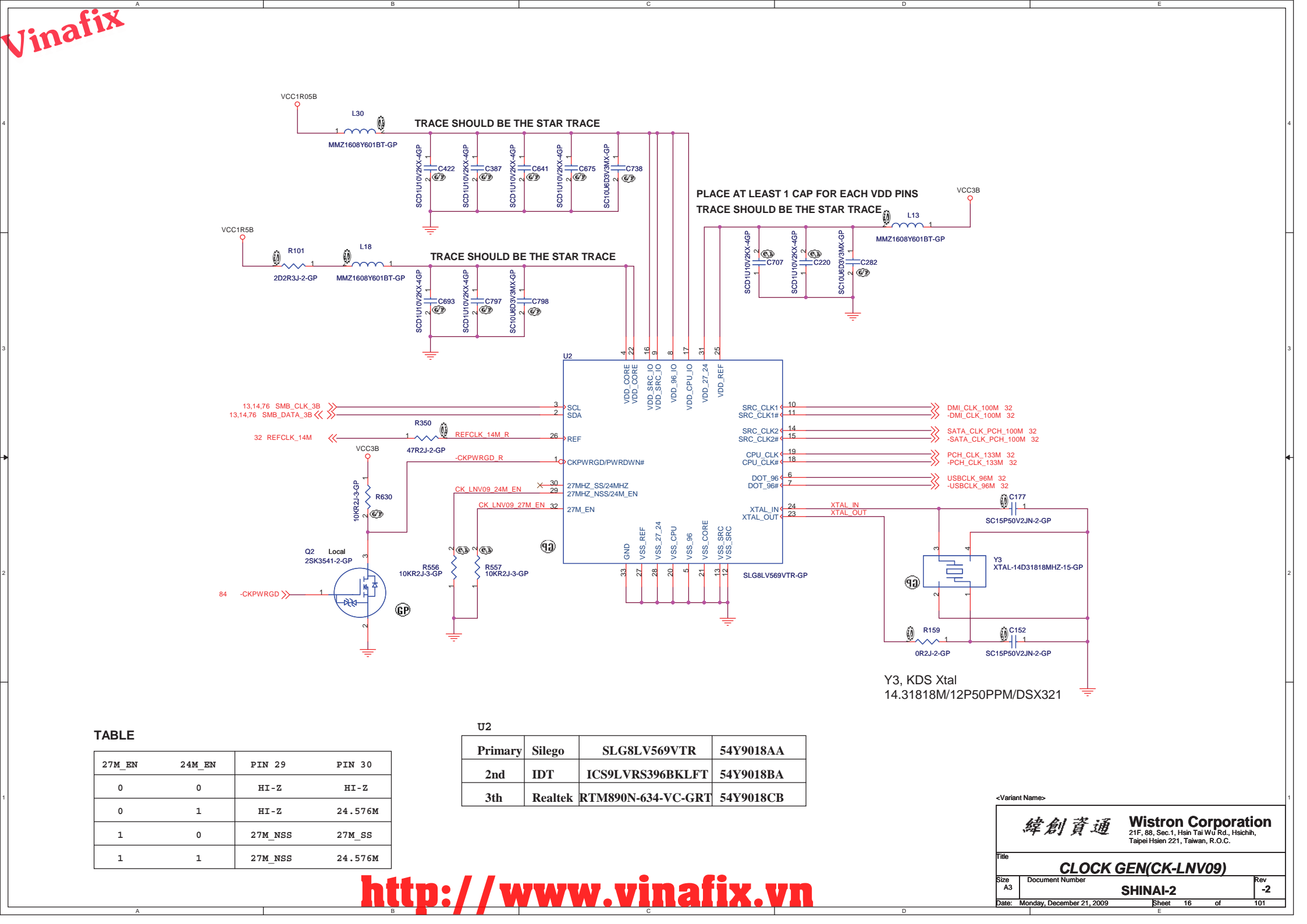


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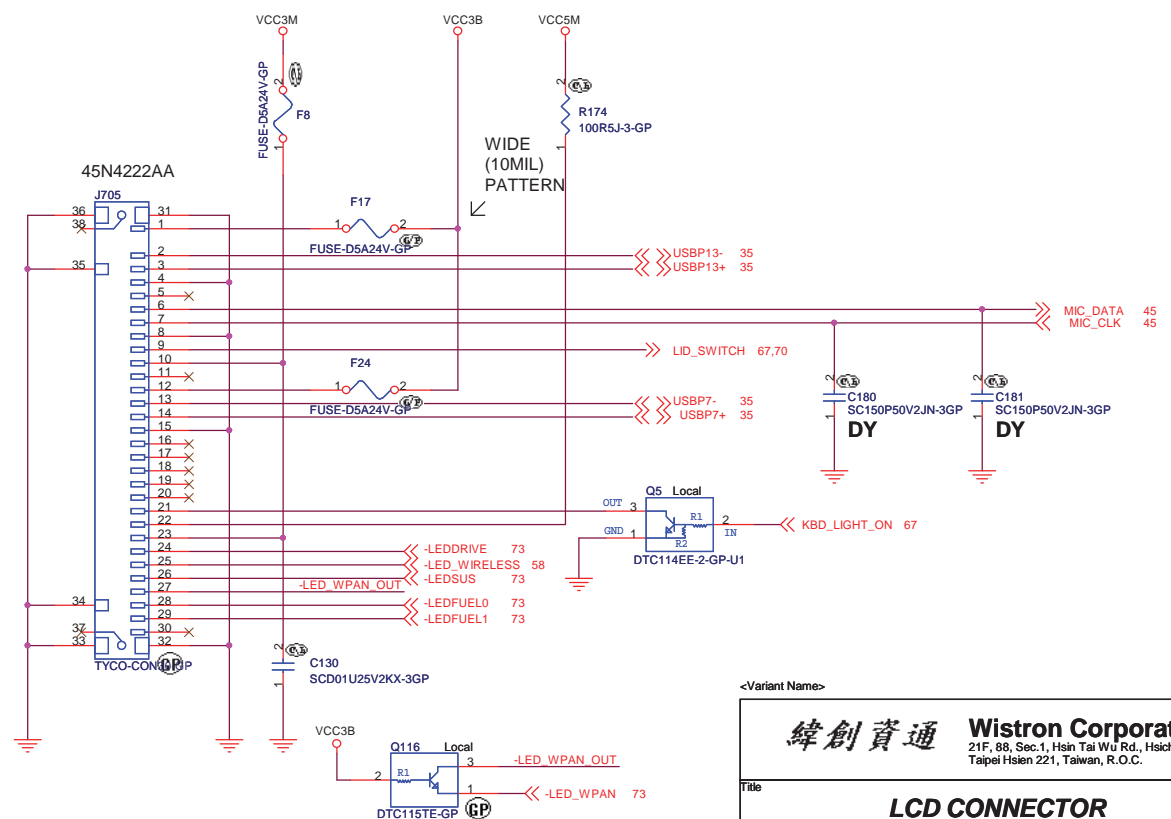
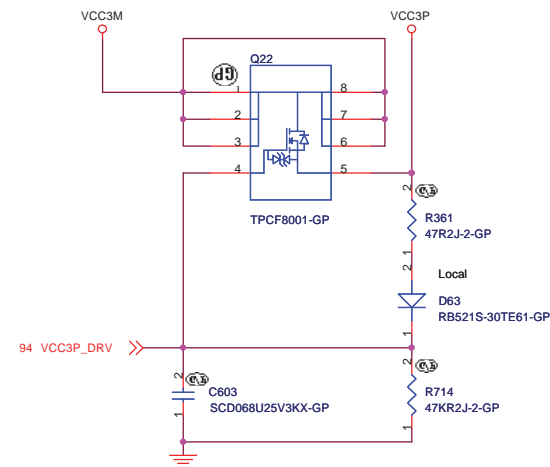
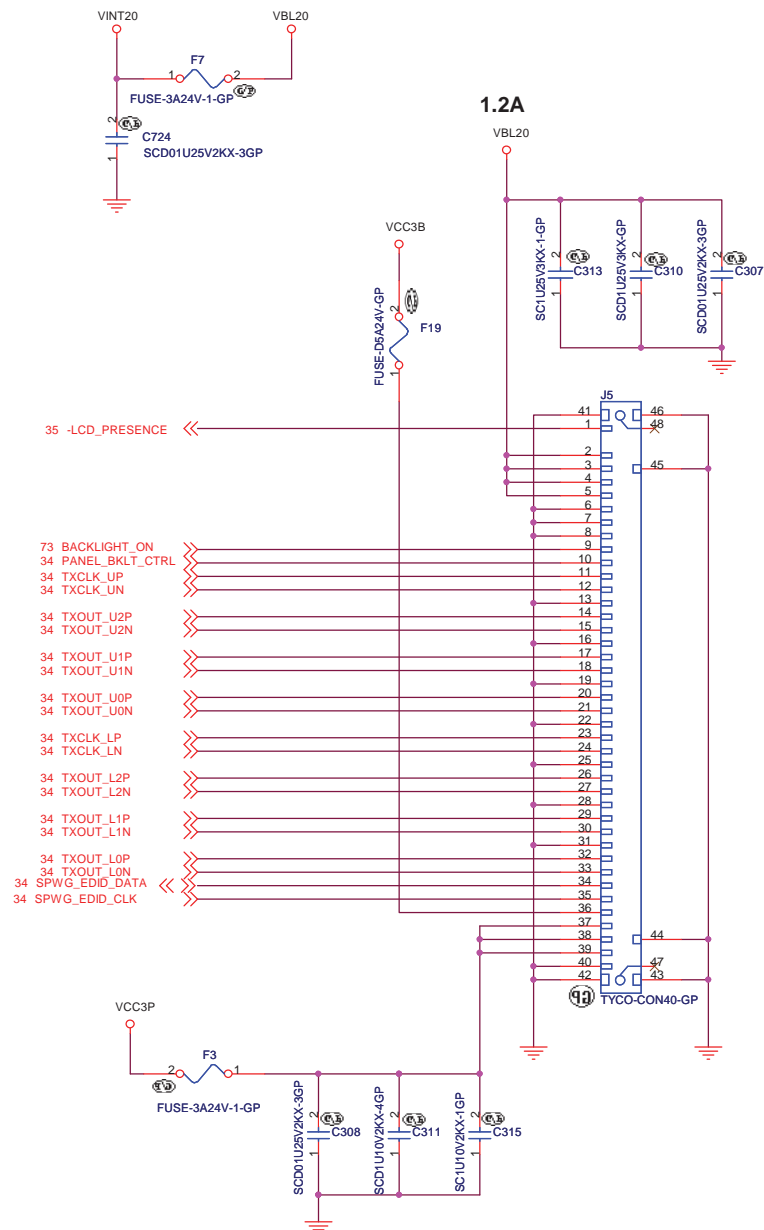
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,
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Rev	-2
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101



LCD / Inverter Connector



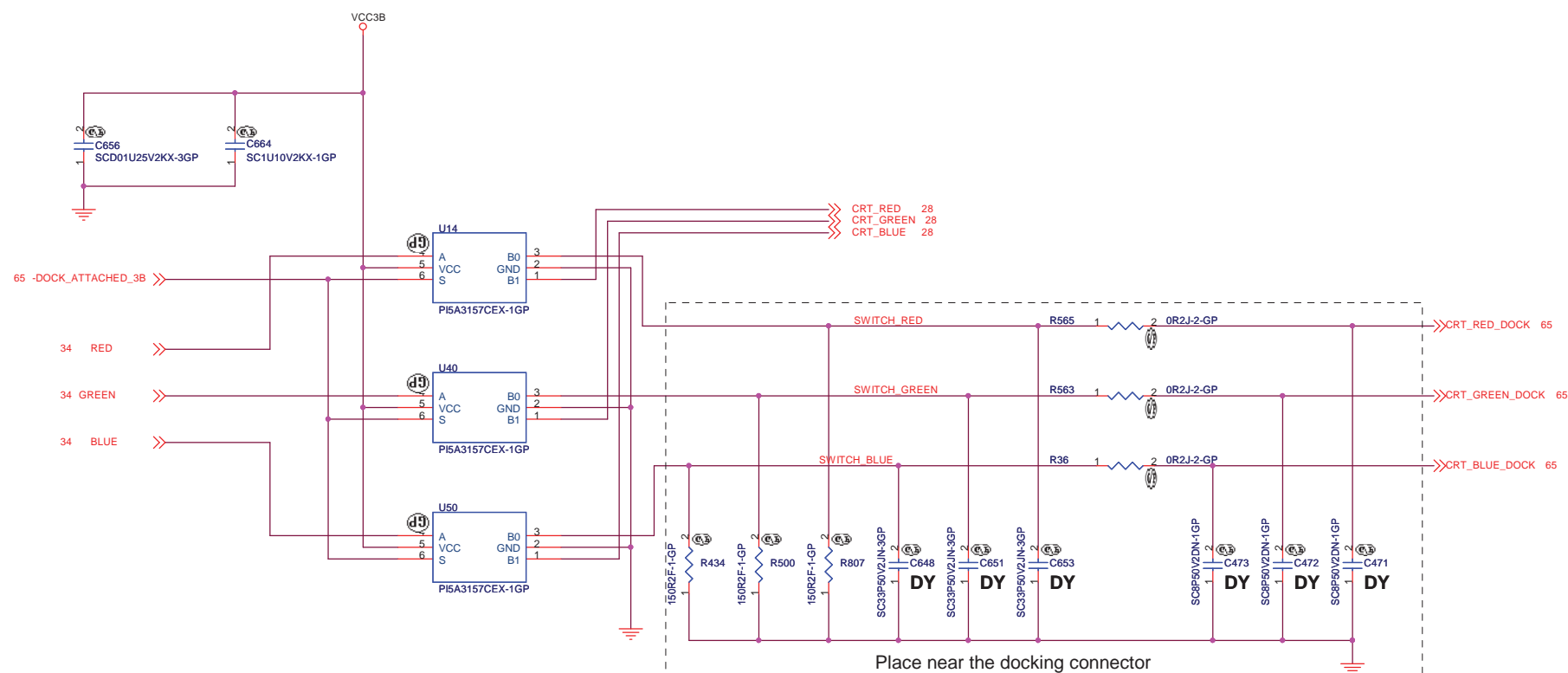
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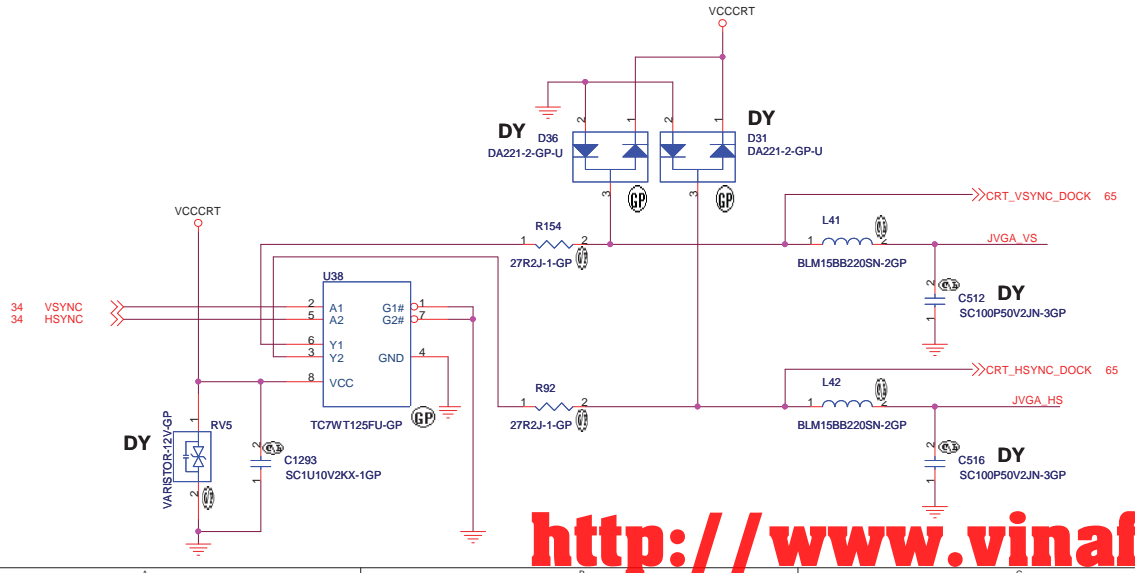
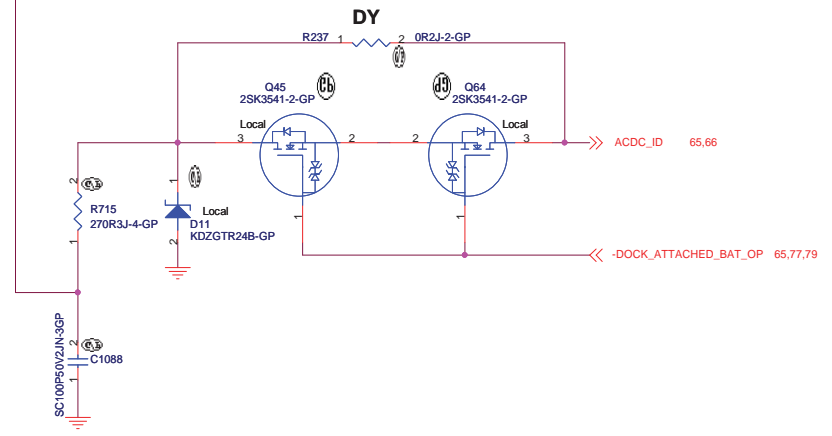
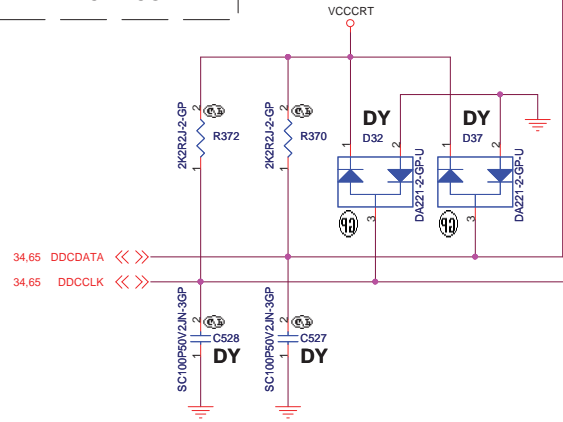
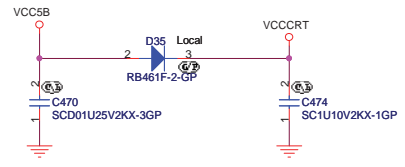
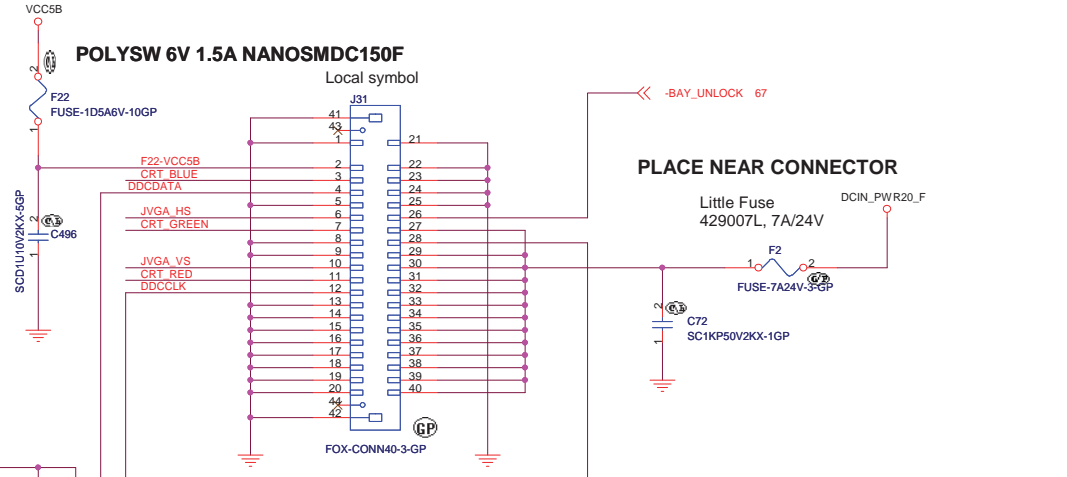
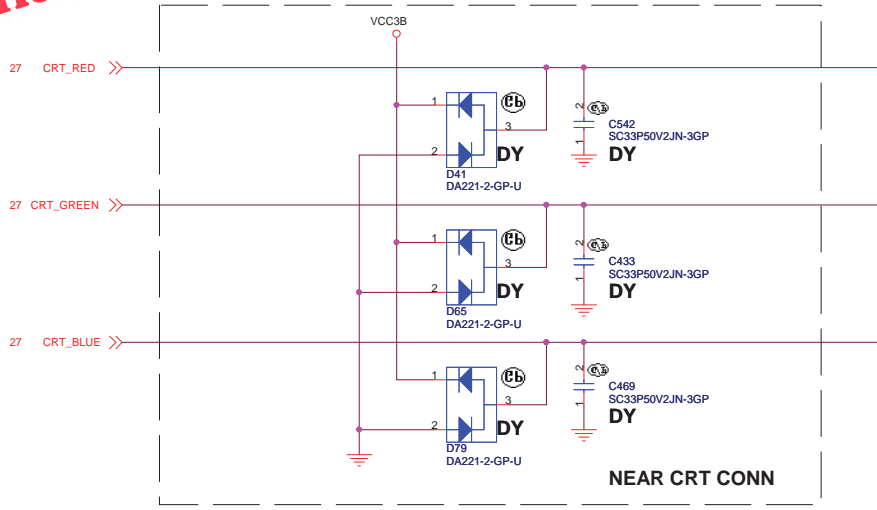
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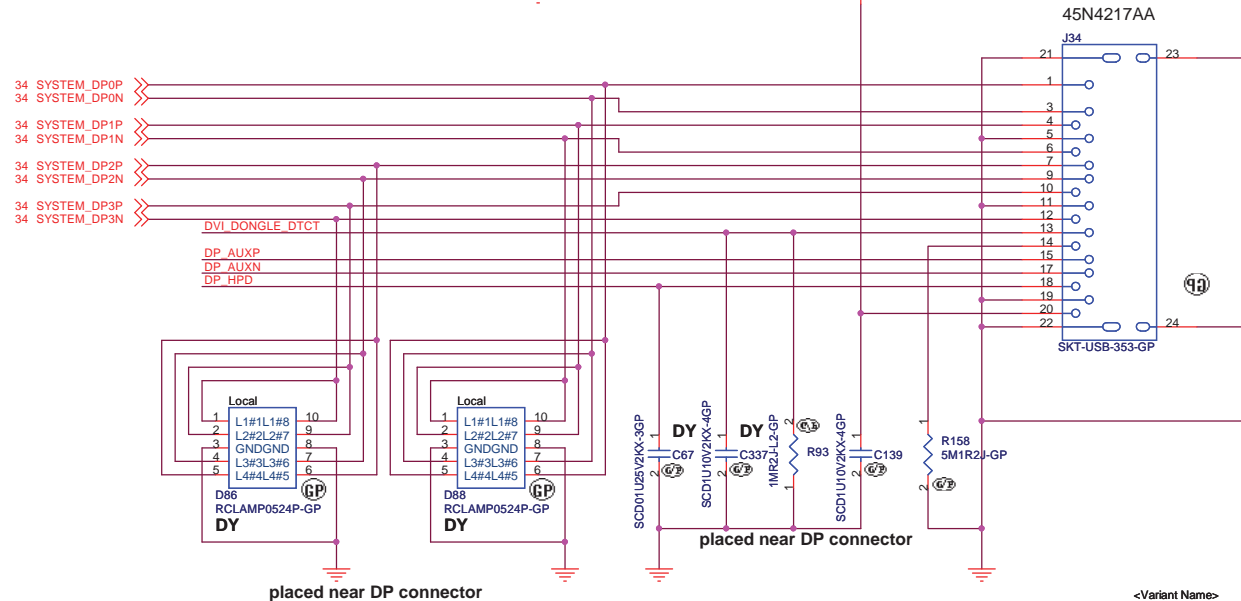
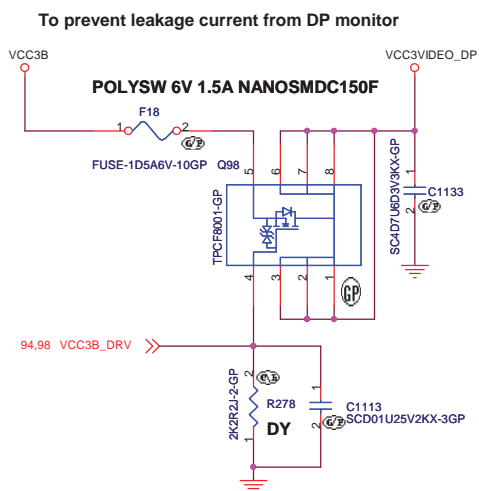
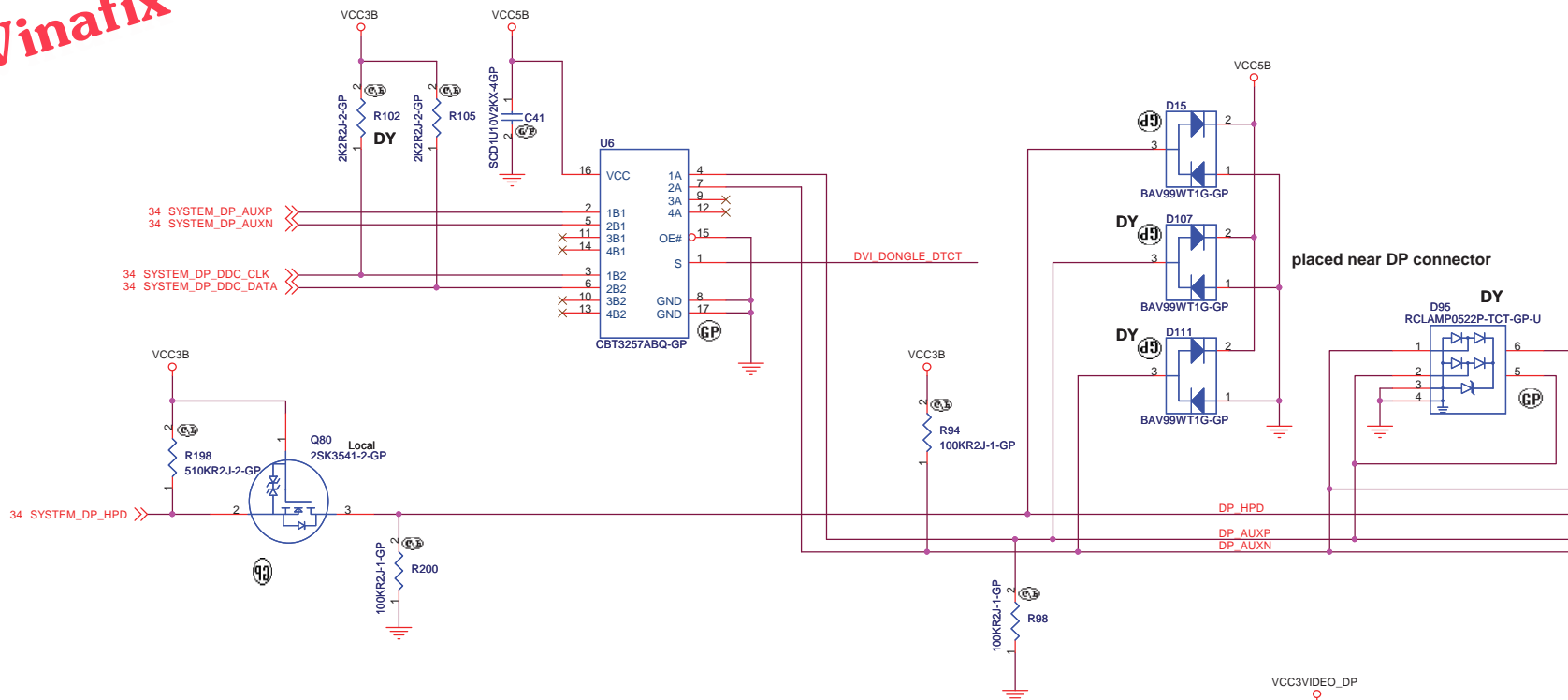
Wistron Corporation
21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih,

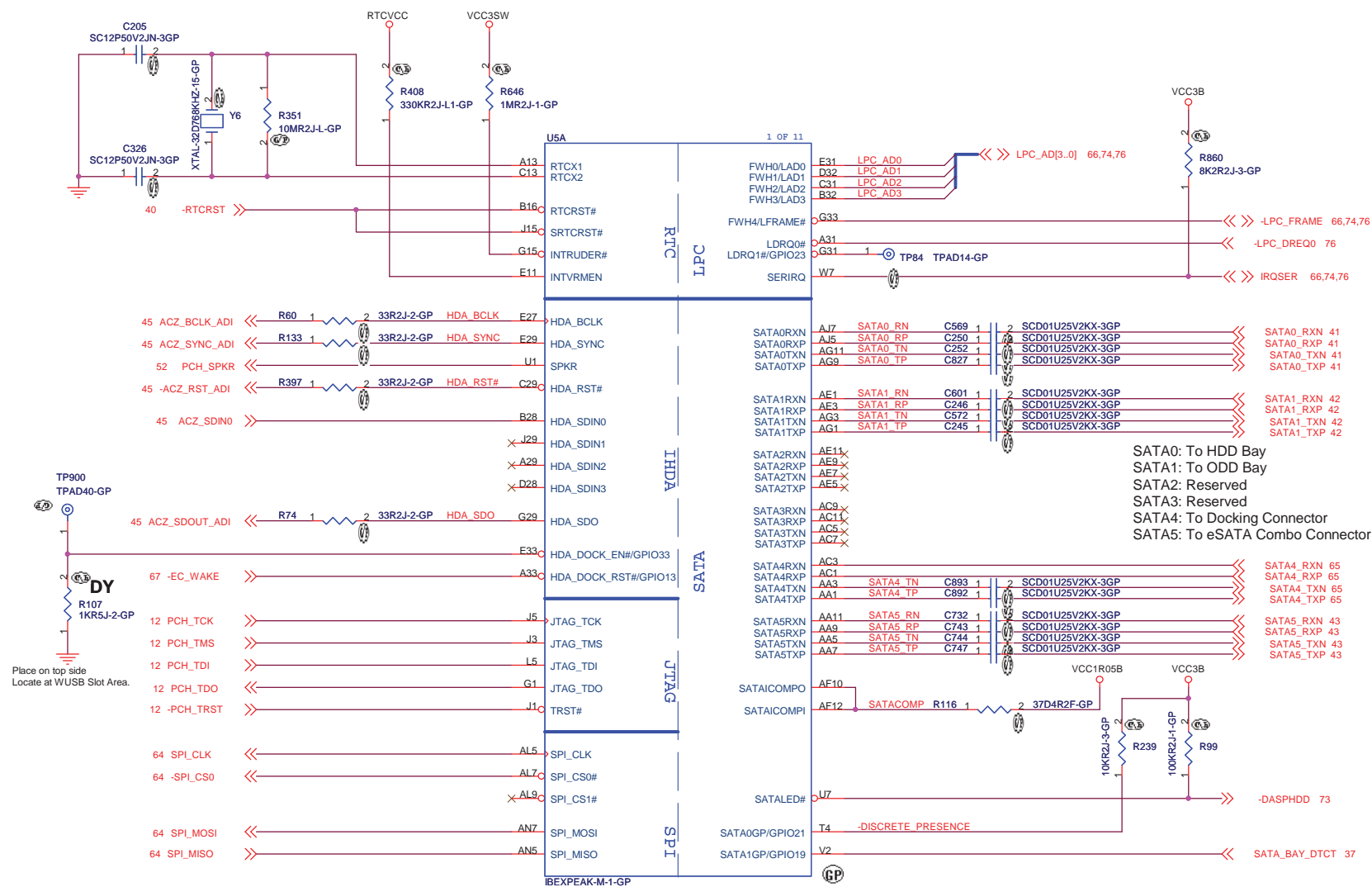
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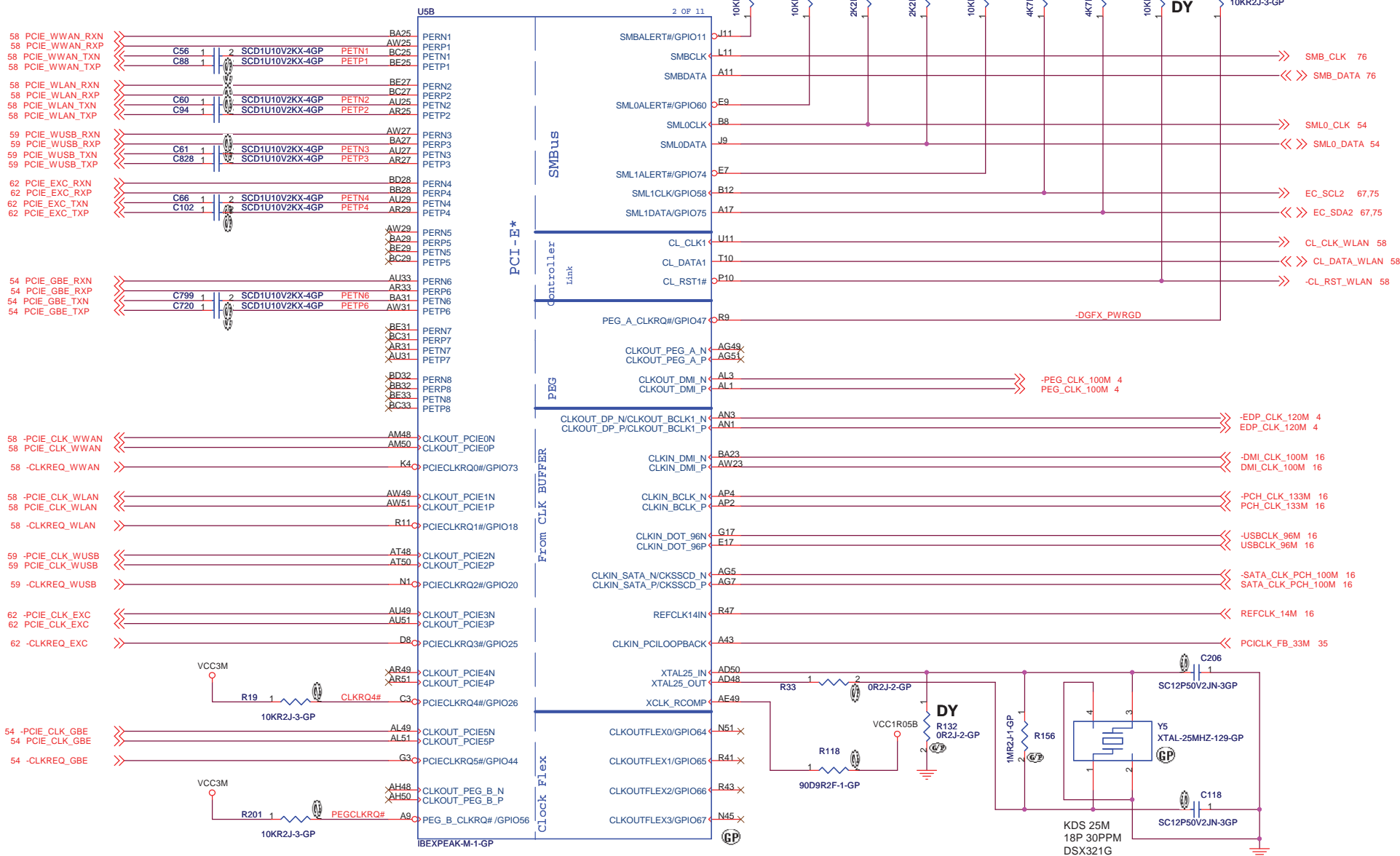
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Size A3	Document Number		Rev
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Date:	Monday, December 21, 2009	Sheet 26 of	101



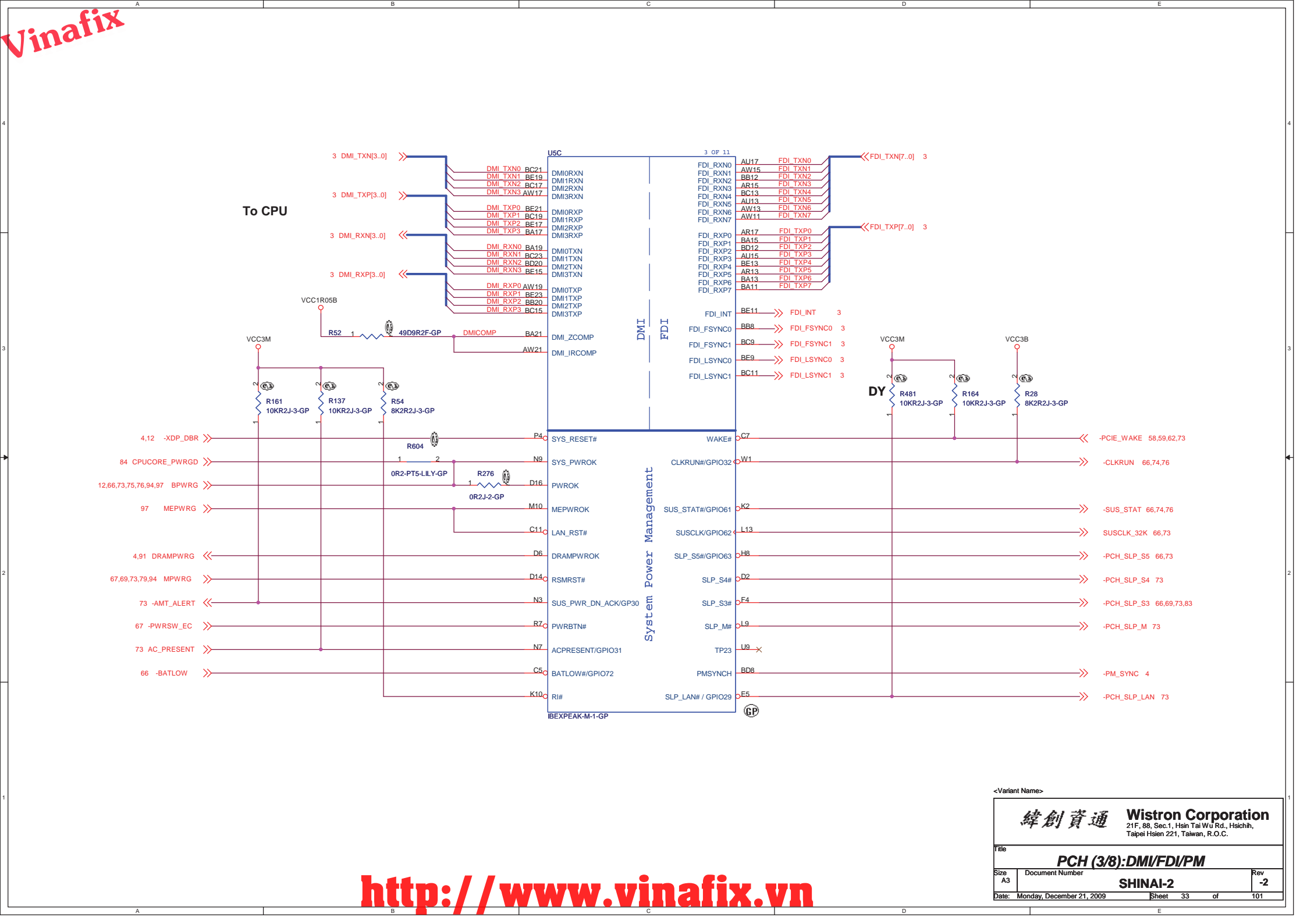








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2	H.ELE	HSX321G 25M 12P 20PPM	82.30020.D41
3	TXC	TV25000009 25M 12P 30PPM	82.30020.D51



Vinafix

<http://www.vinafix.vn>

<Variant Name>

緯創資通

Wistron Corporation

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

Title

PCH (3/8):DMI/FDI/PM

Size

A3

Document Number

SHINAI-2

Rev

-2

Date:

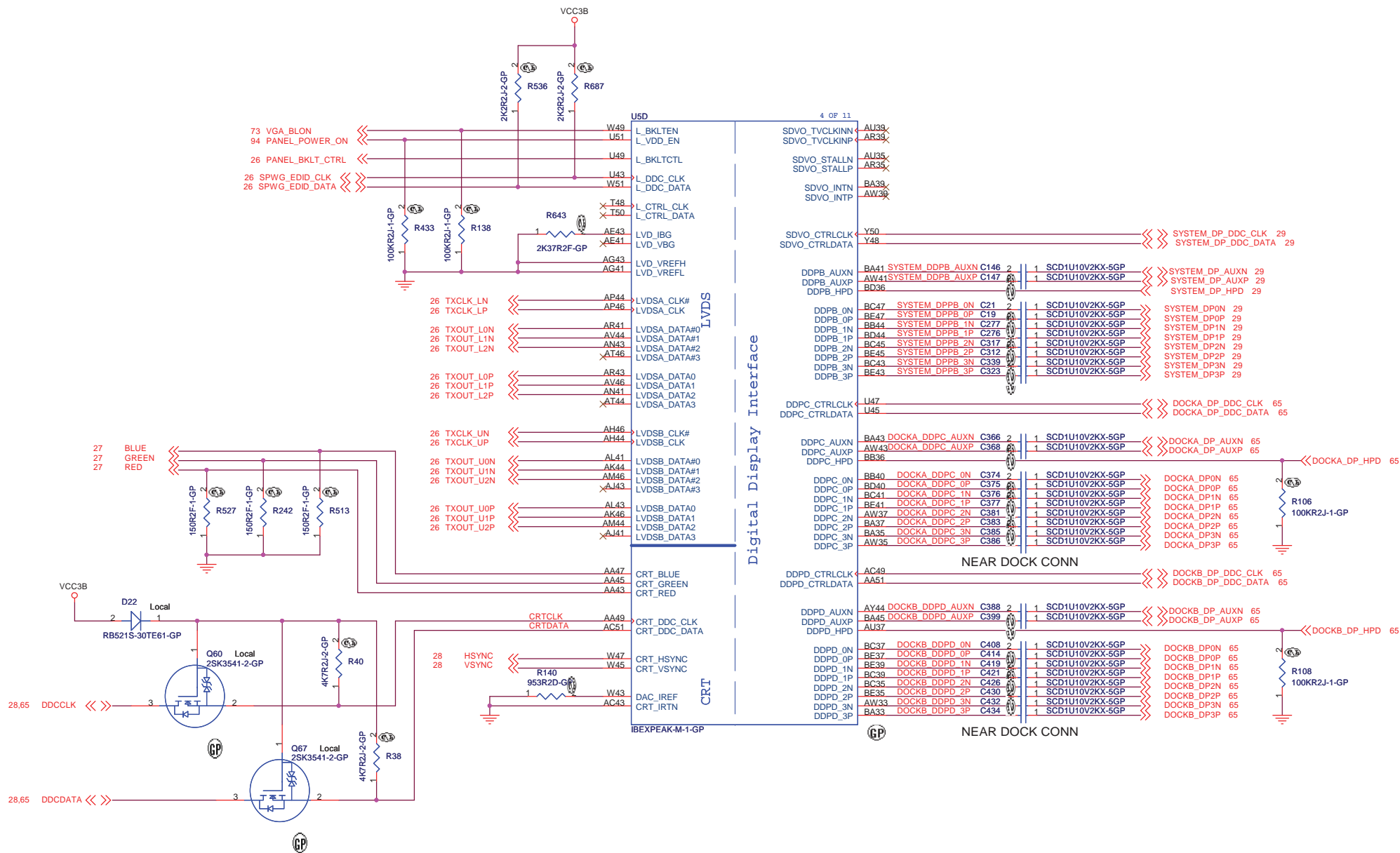
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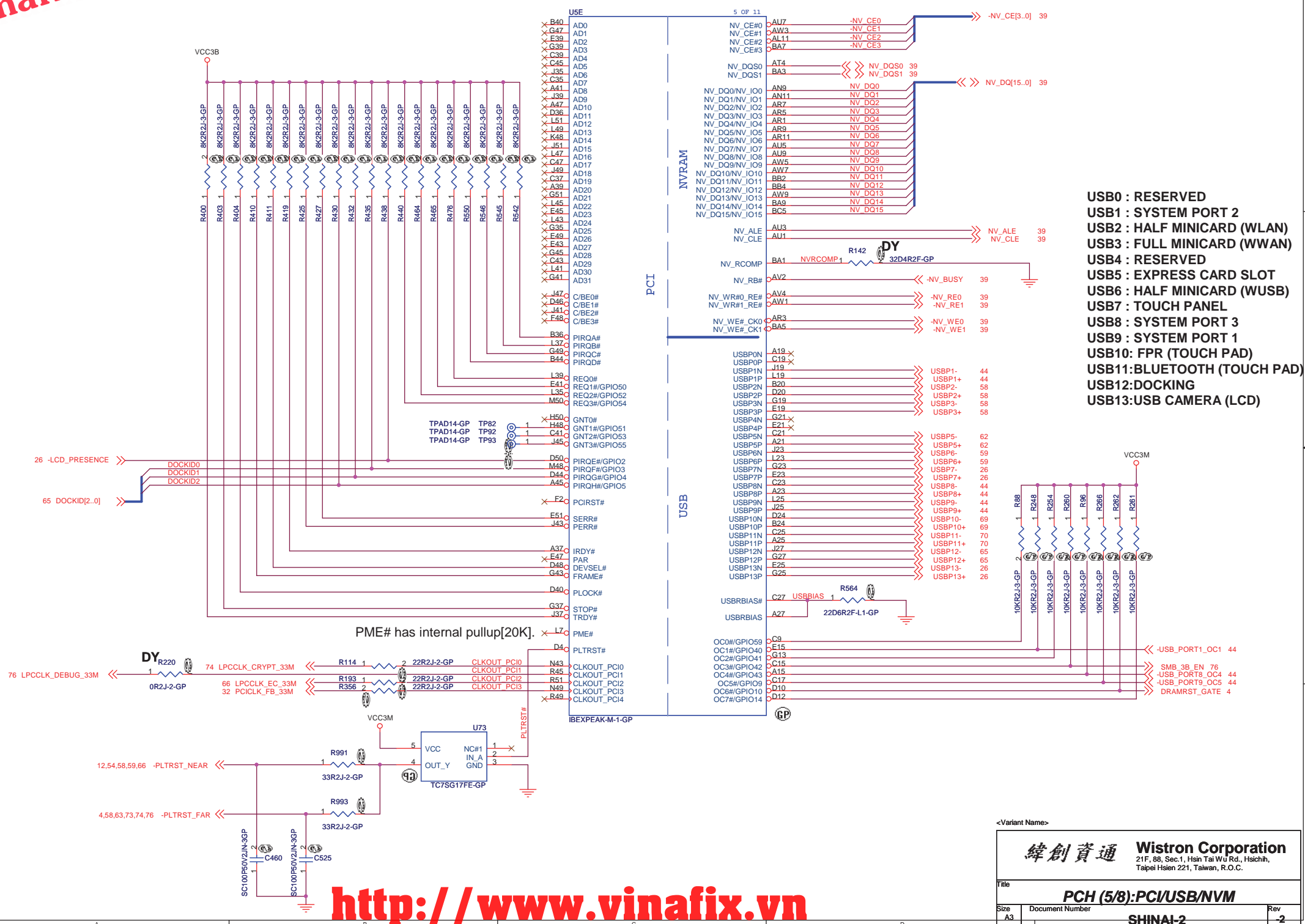
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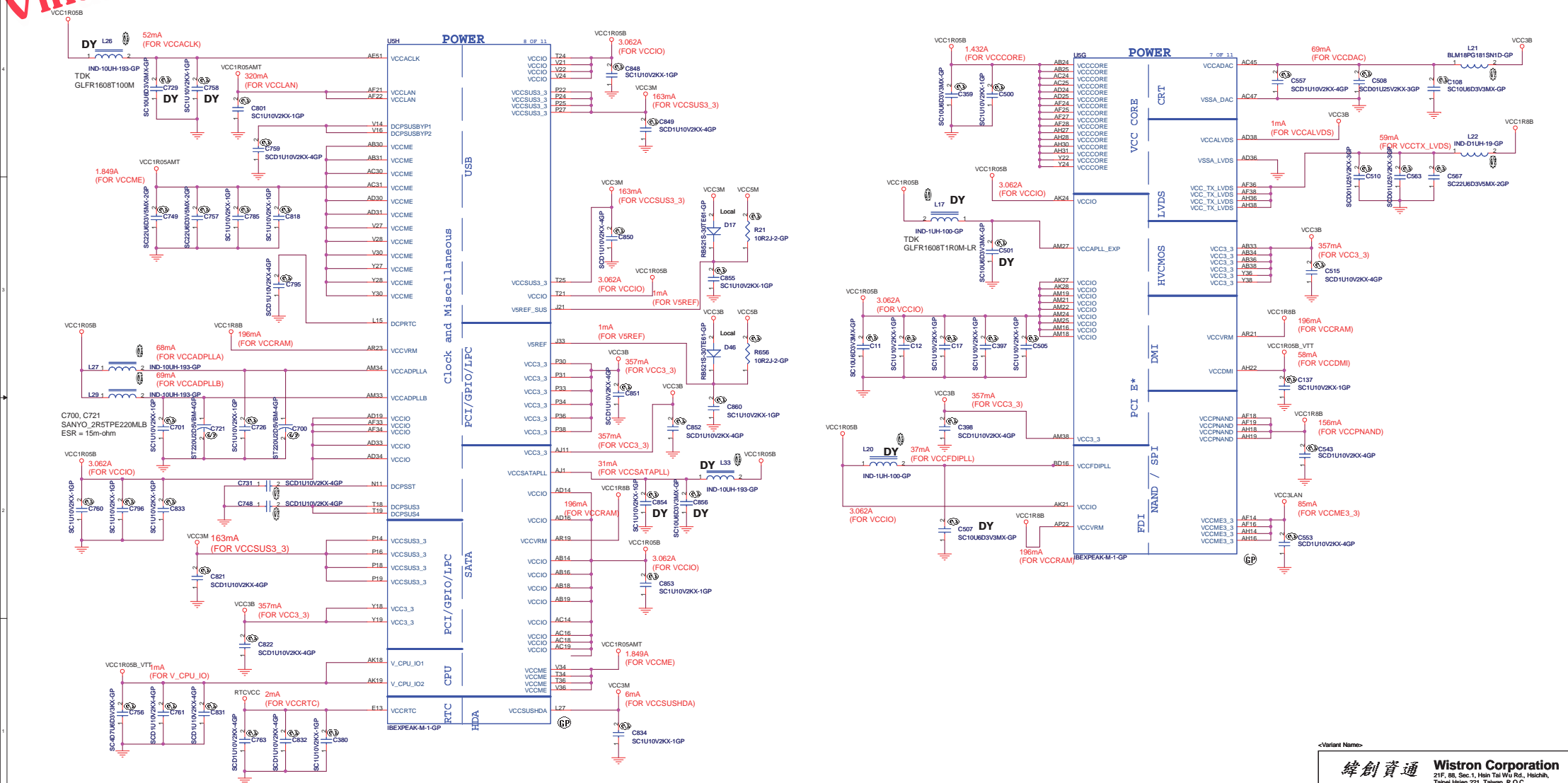
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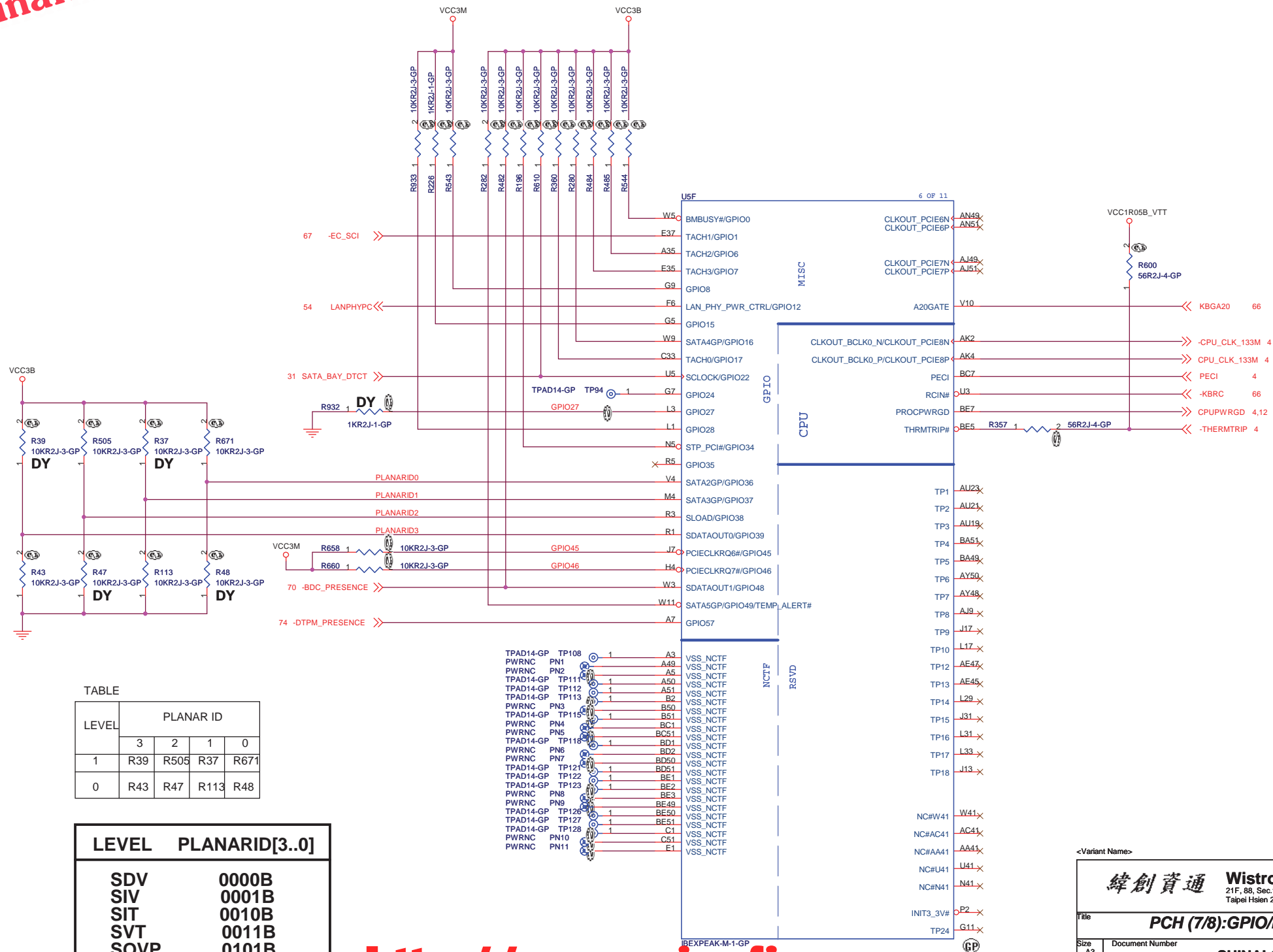
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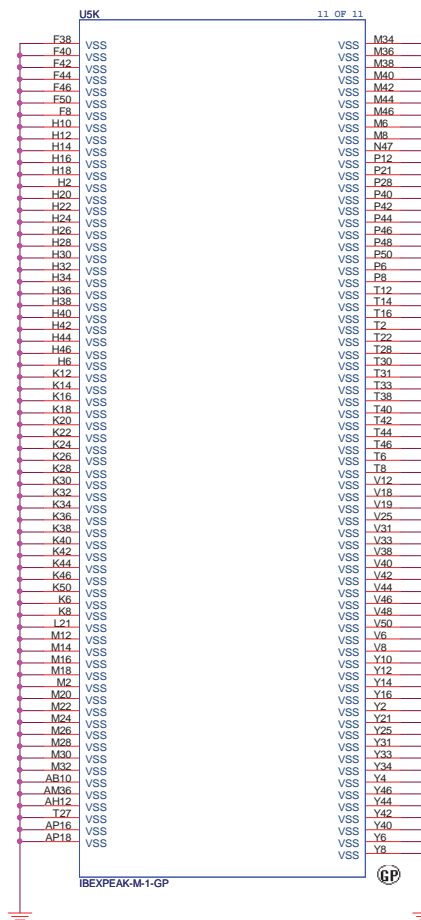
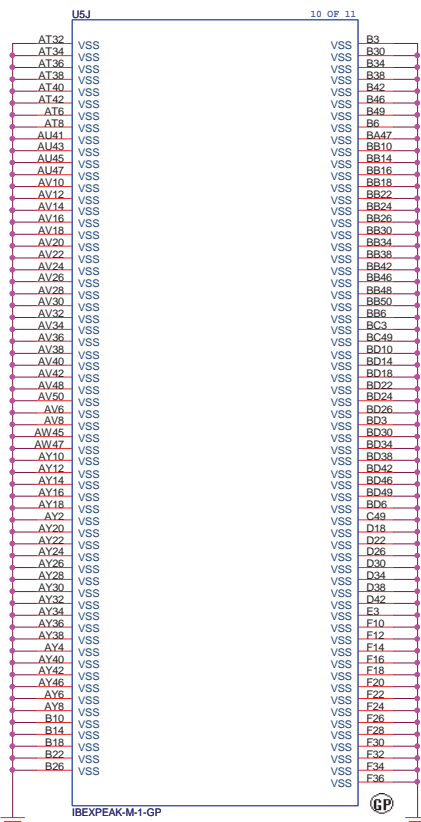
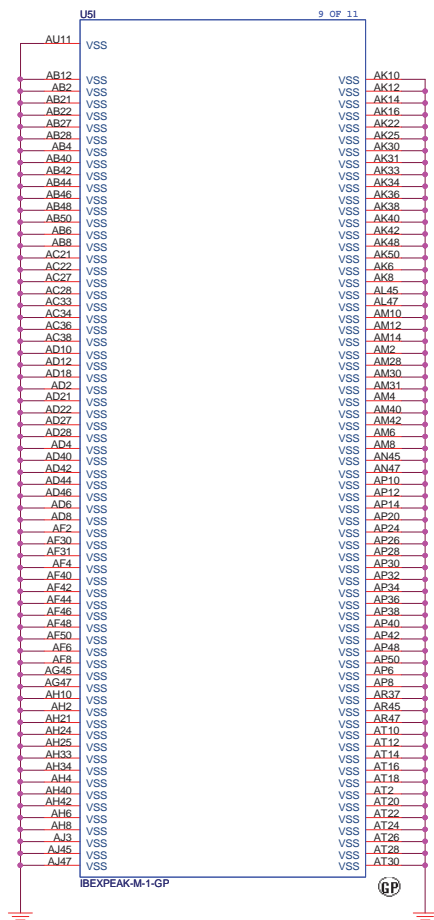
USB0 : RESERVED
USB1 : SYSTEM PORT 2
USB2 : HALF MINICARD (WLAN)
USB3 : FULL MINICARD (WWAN)
USB4 : RESERVED
USB5 : EXPRESS CARD SLOT
USB6 : HALF MINICARD (WUSB)
USB7 : TOUCH PANEL
USB8 : SYSTEM PORT 3
USB9 : SYSTEM PORT 1
USB10: FPR (TOUCH PAD)
USB11:BLUETOOTH (TOUCH PAD)
USB12:DOCKING
USB13:USB CAMERA (LCD)

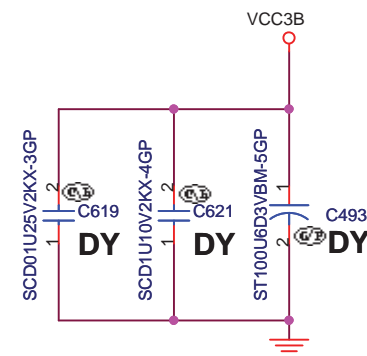
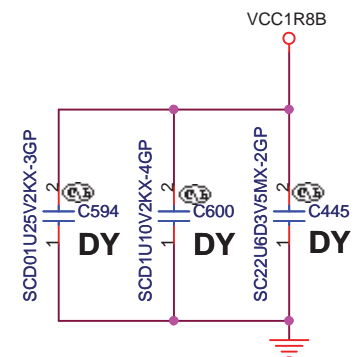
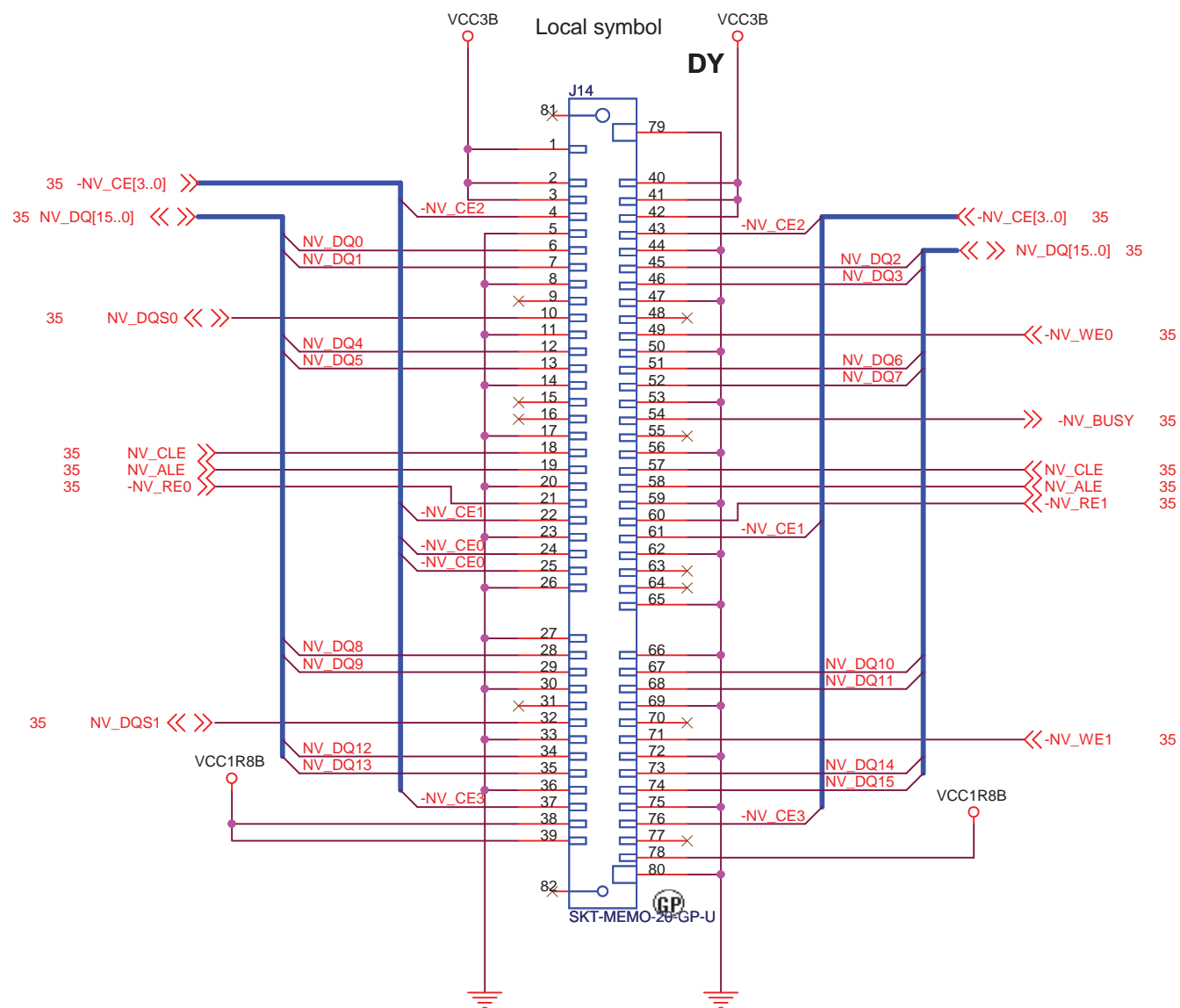




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緯創資通

Wistron Corporation

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

Title

TURBO MEMORY SLOT

Size

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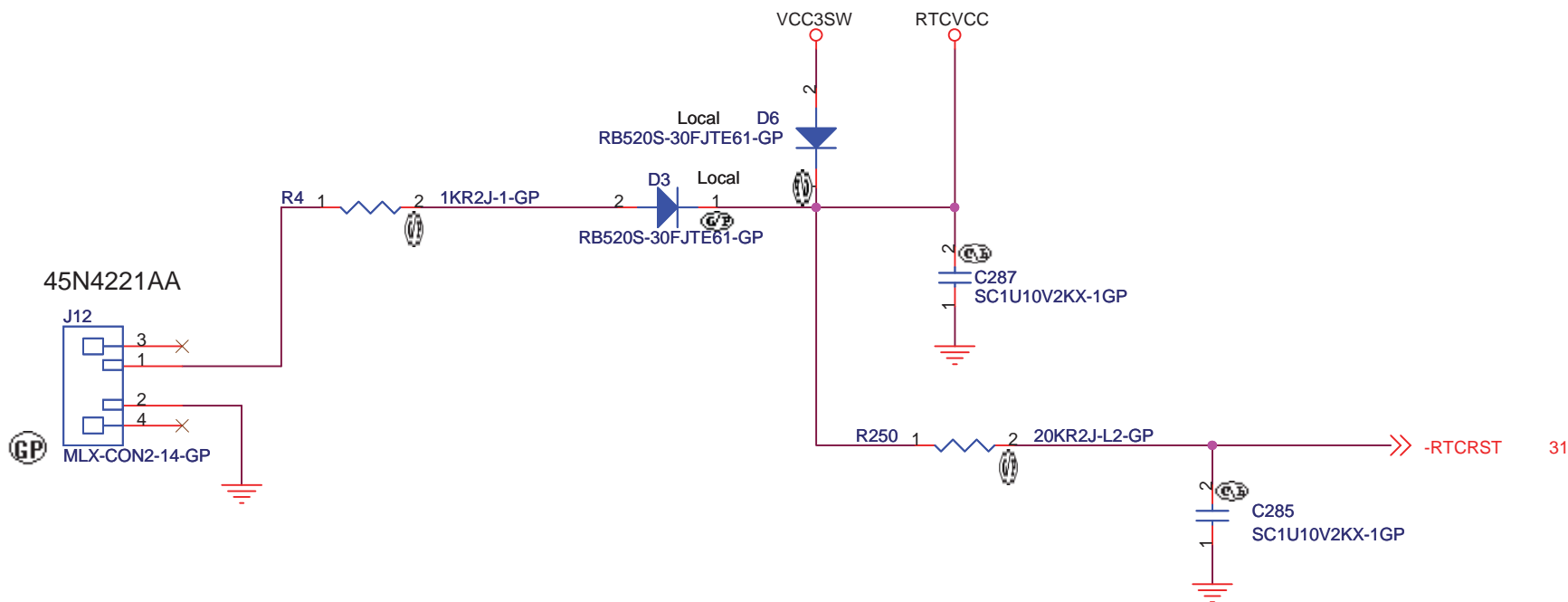
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SHINAI-2

-2

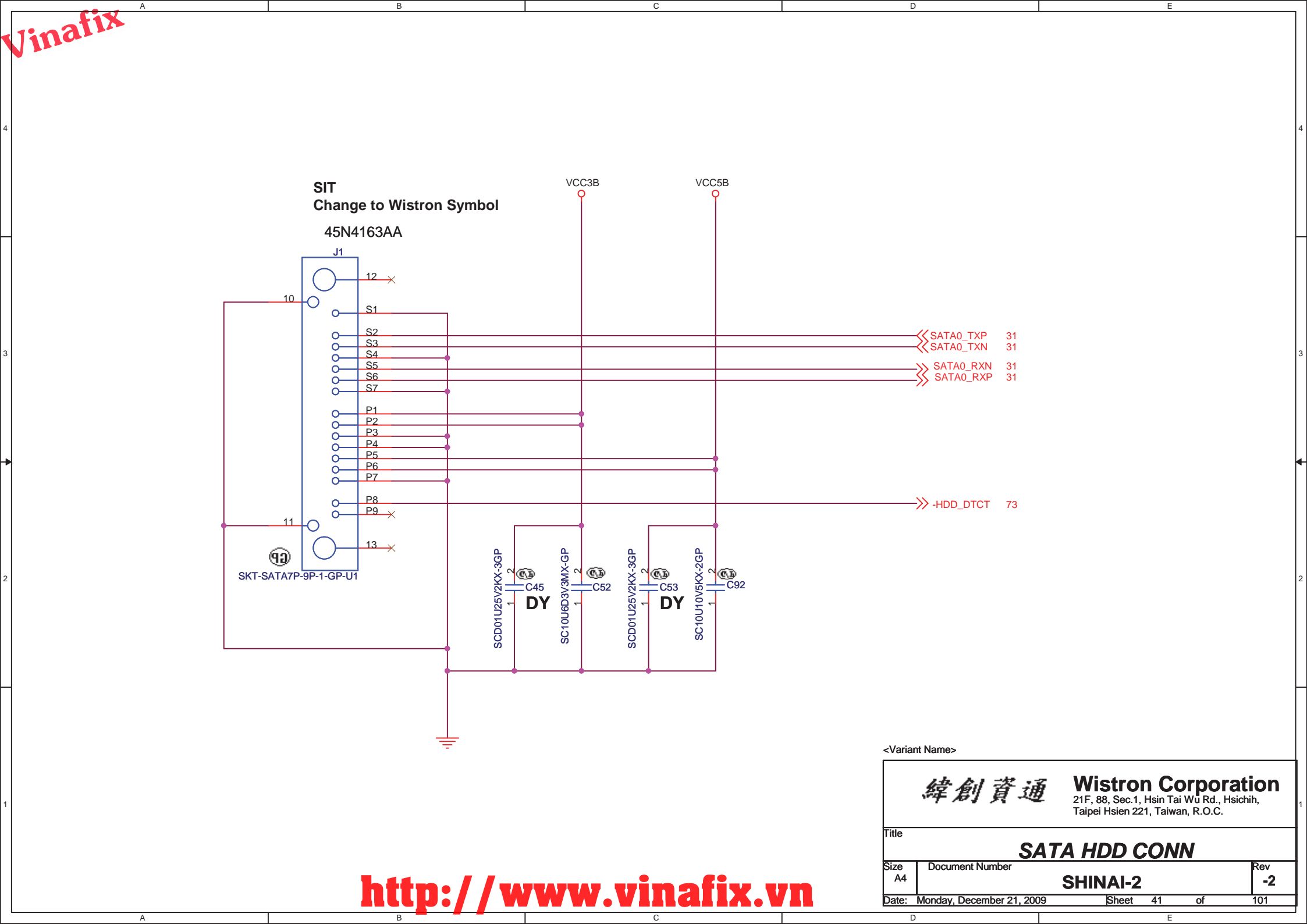
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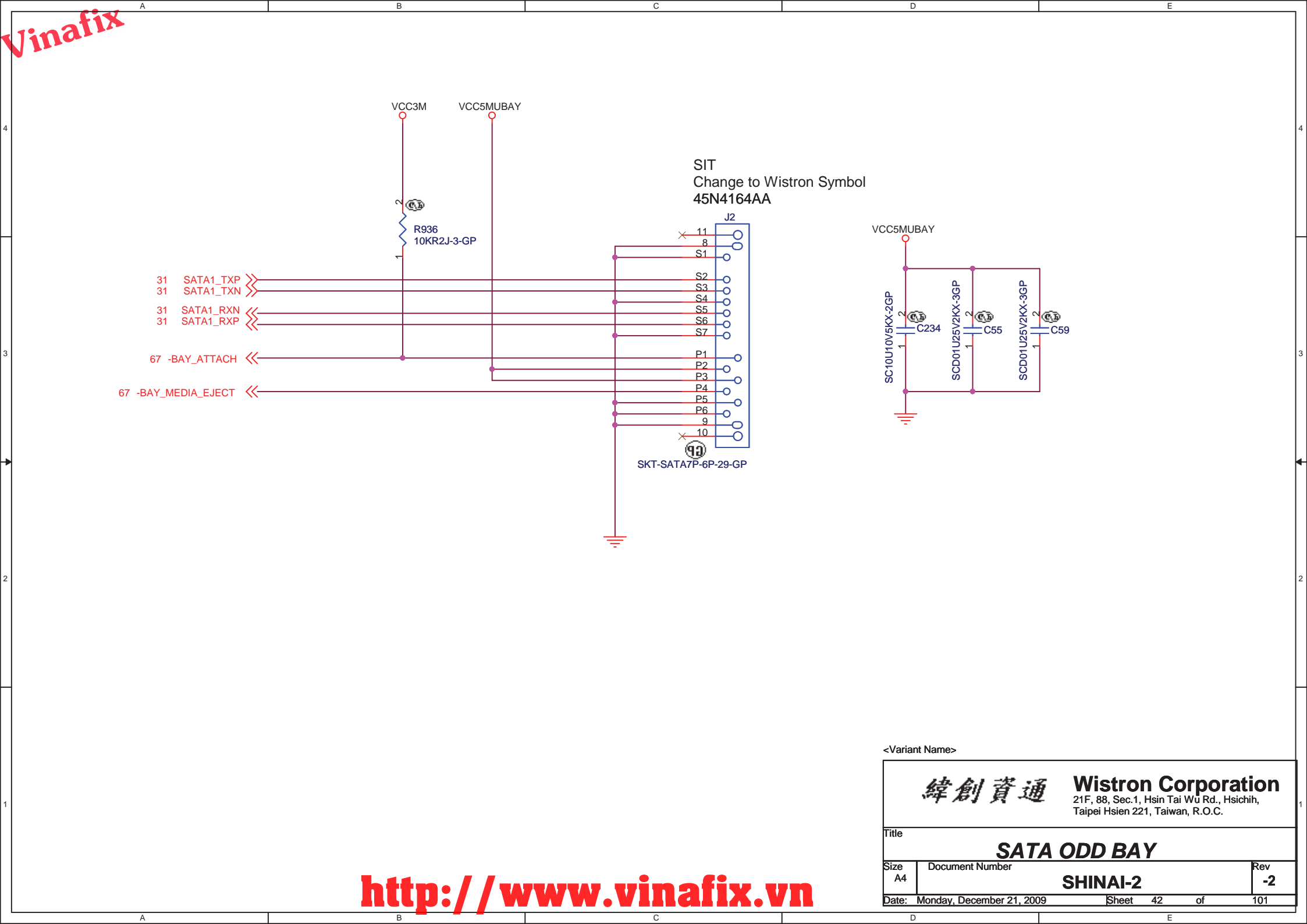
Sheet 39 of 101

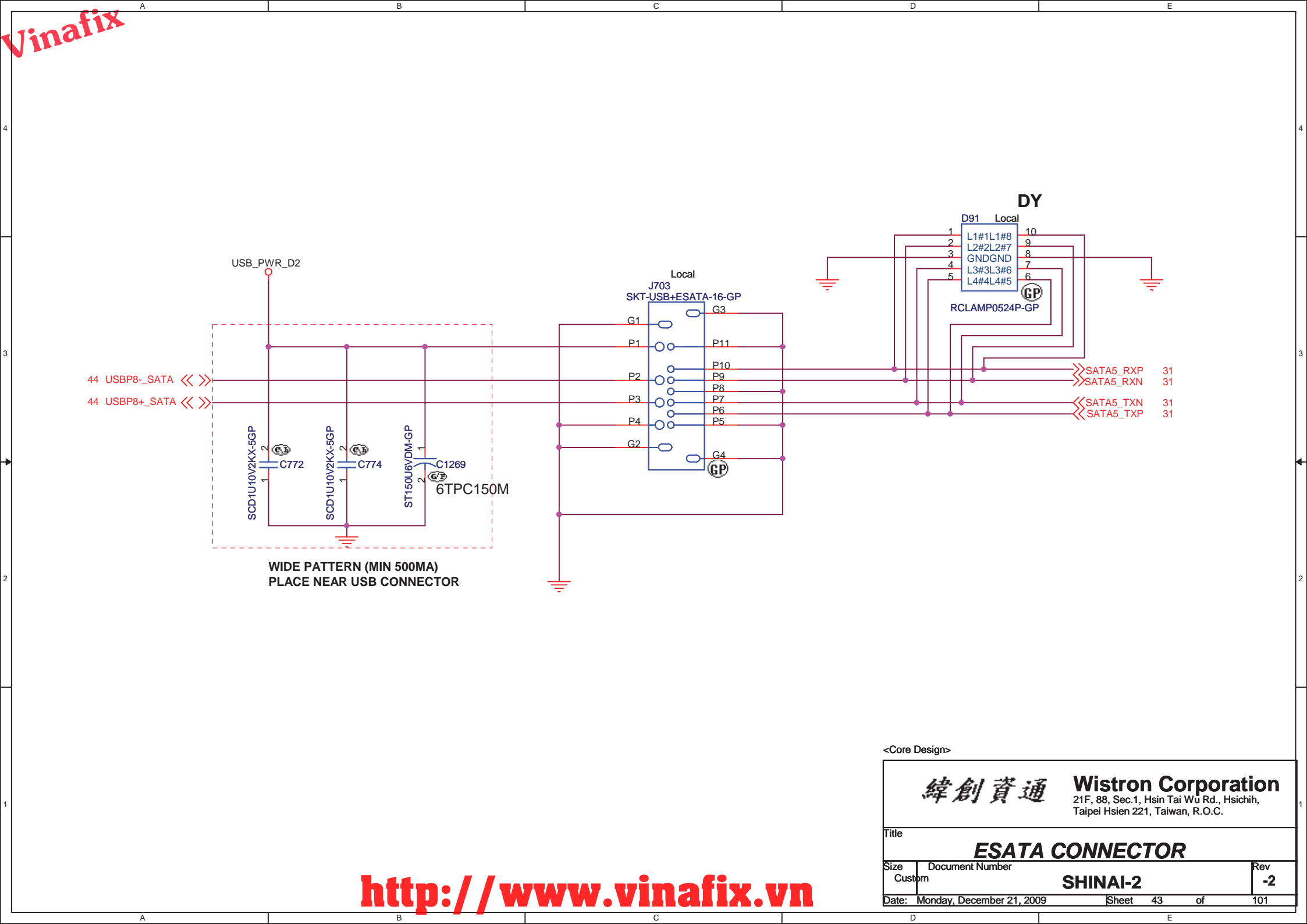


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<p>Date</p>	<p>Monday, December 21, 2009</p>	<p>Sheet 40 of 101</p>	

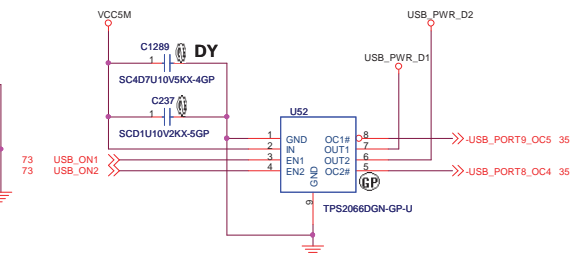
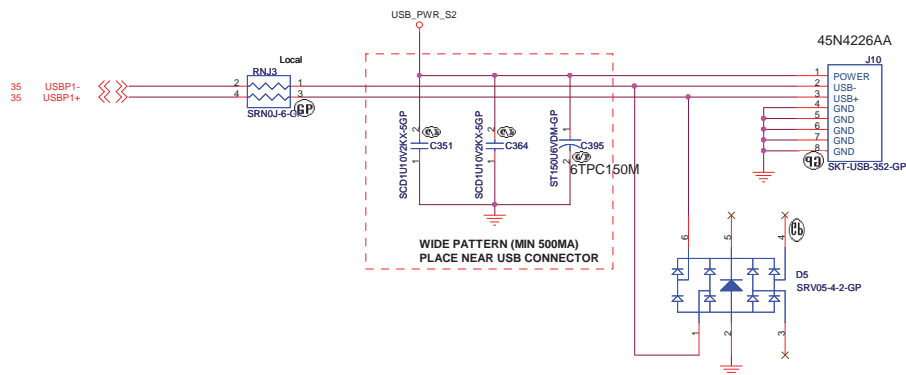
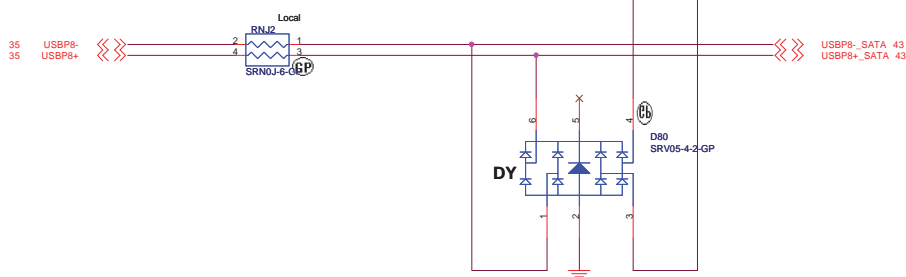
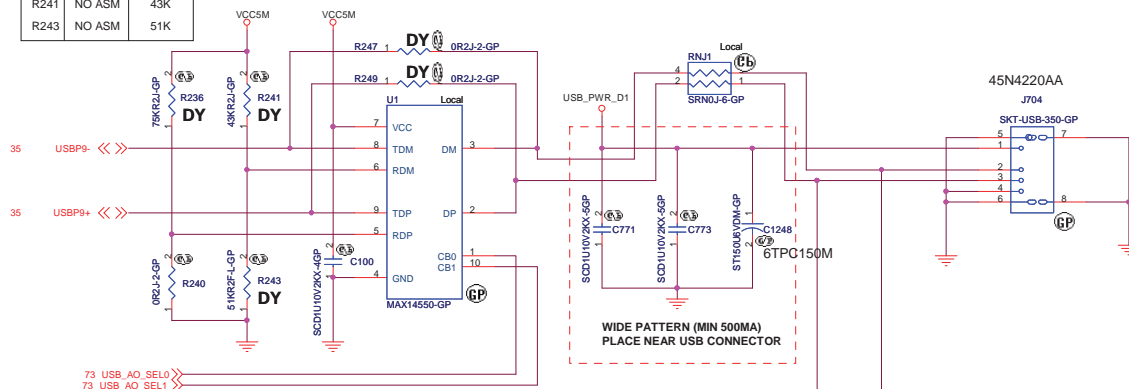




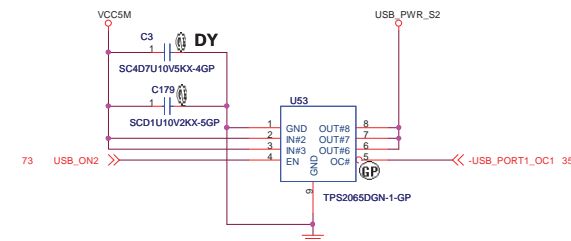


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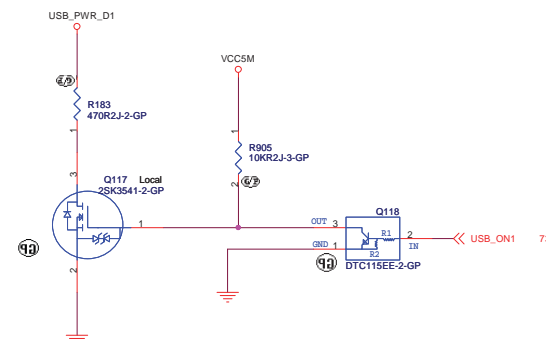
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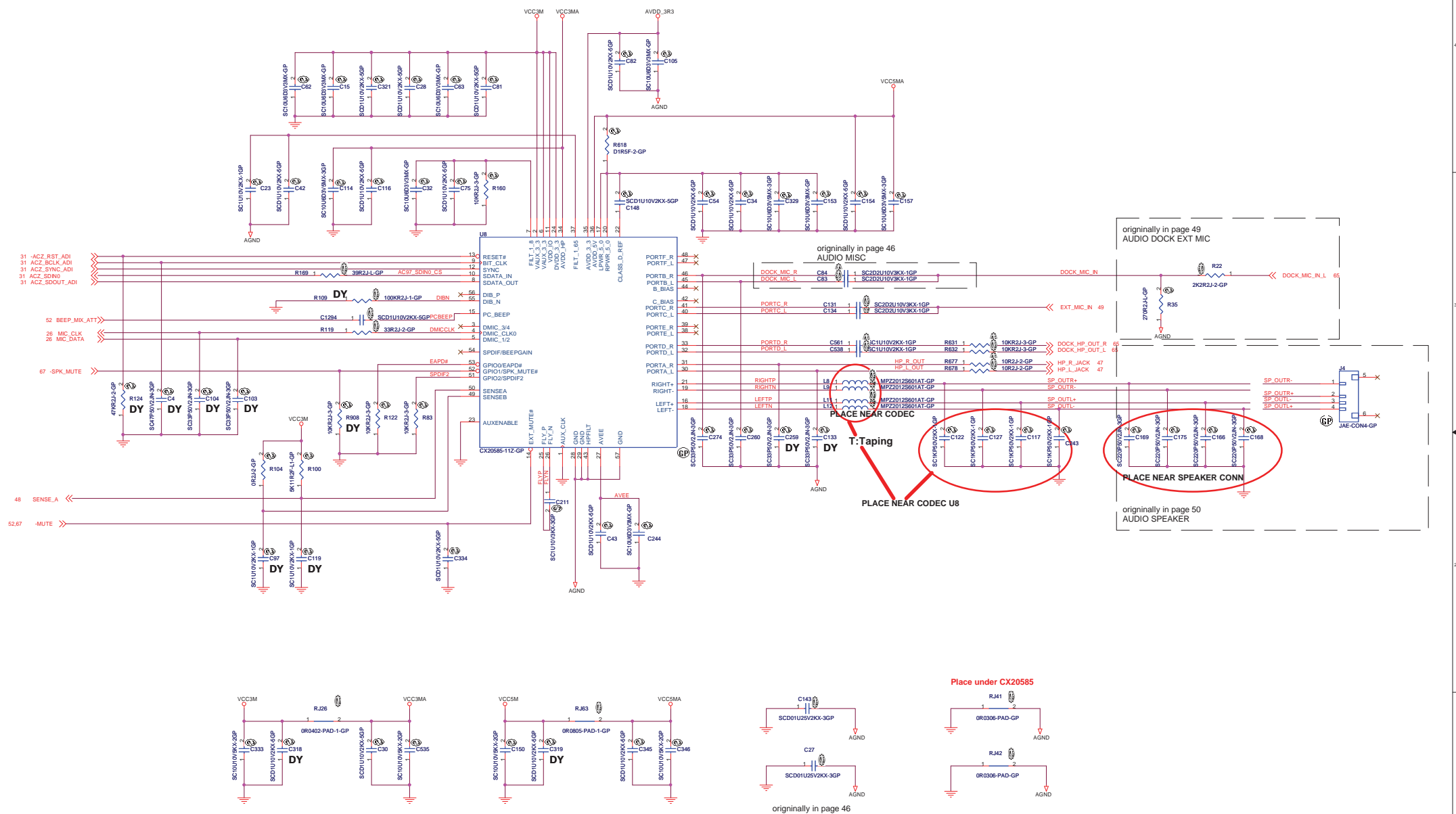


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1	TPS2066DGN-GP-U	41A1231AA



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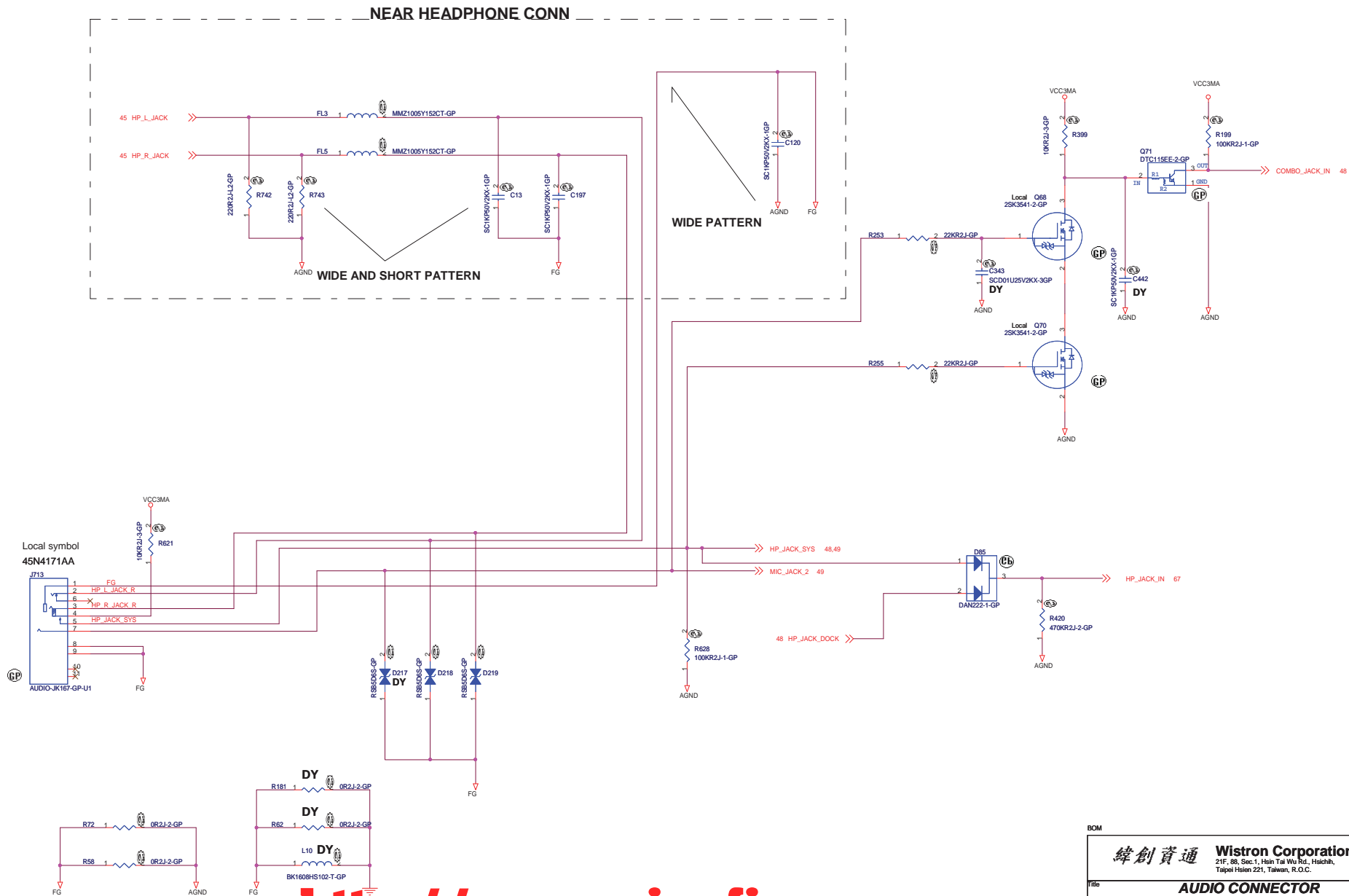


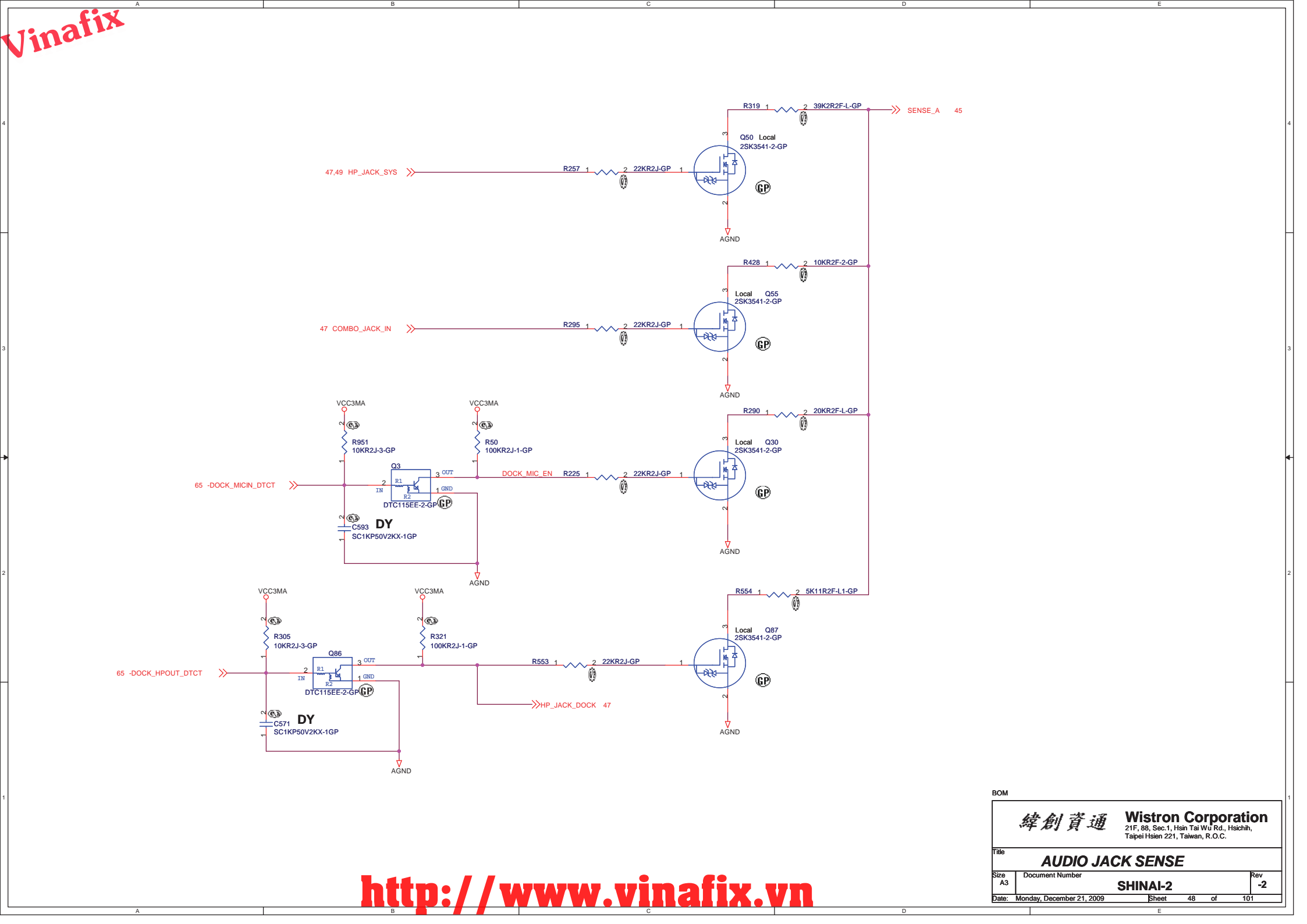


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Date:	Monday, December 21, 2009	Sheet 46 of	101

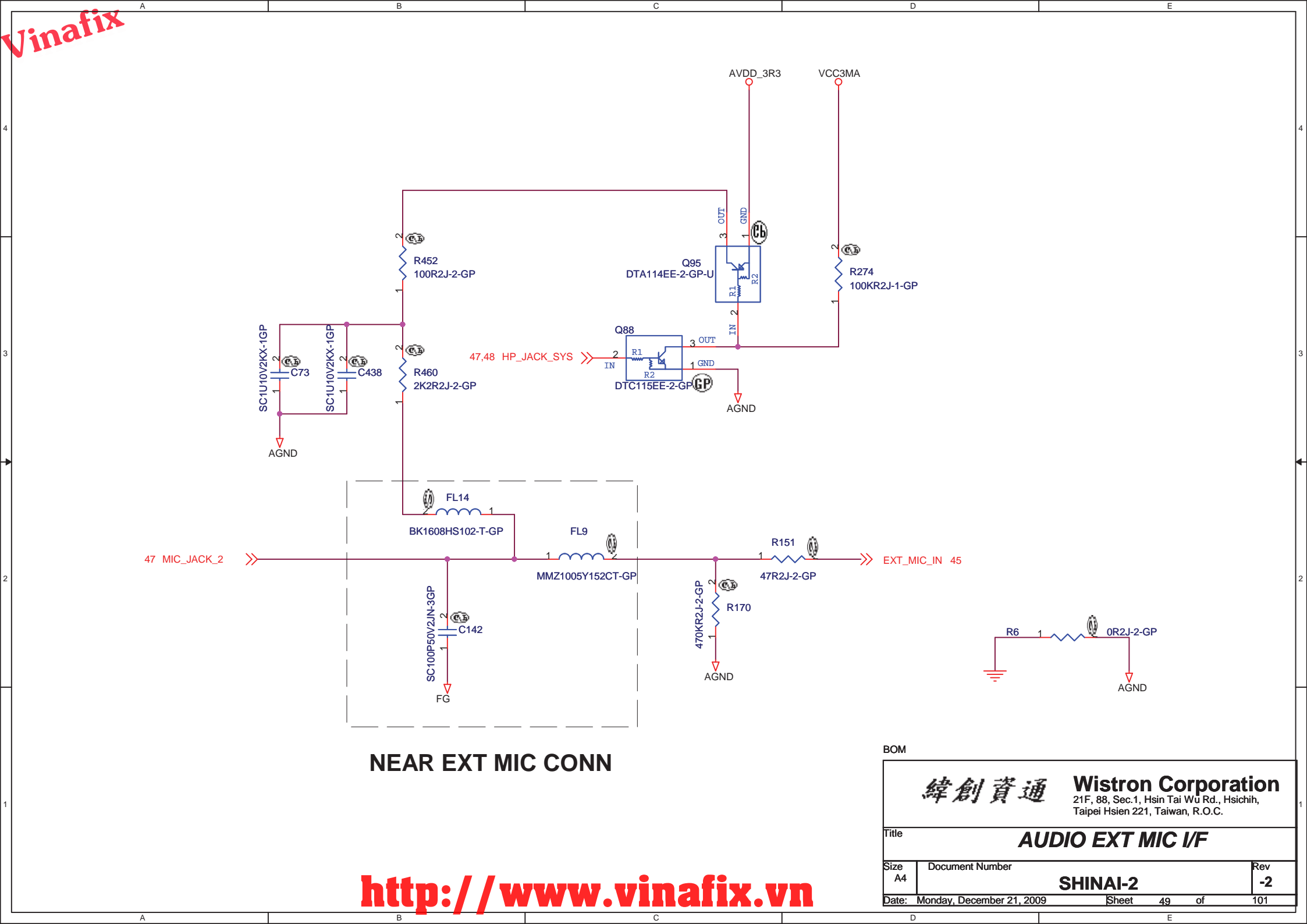




Vinafix

<http://www.vinafix.vn>

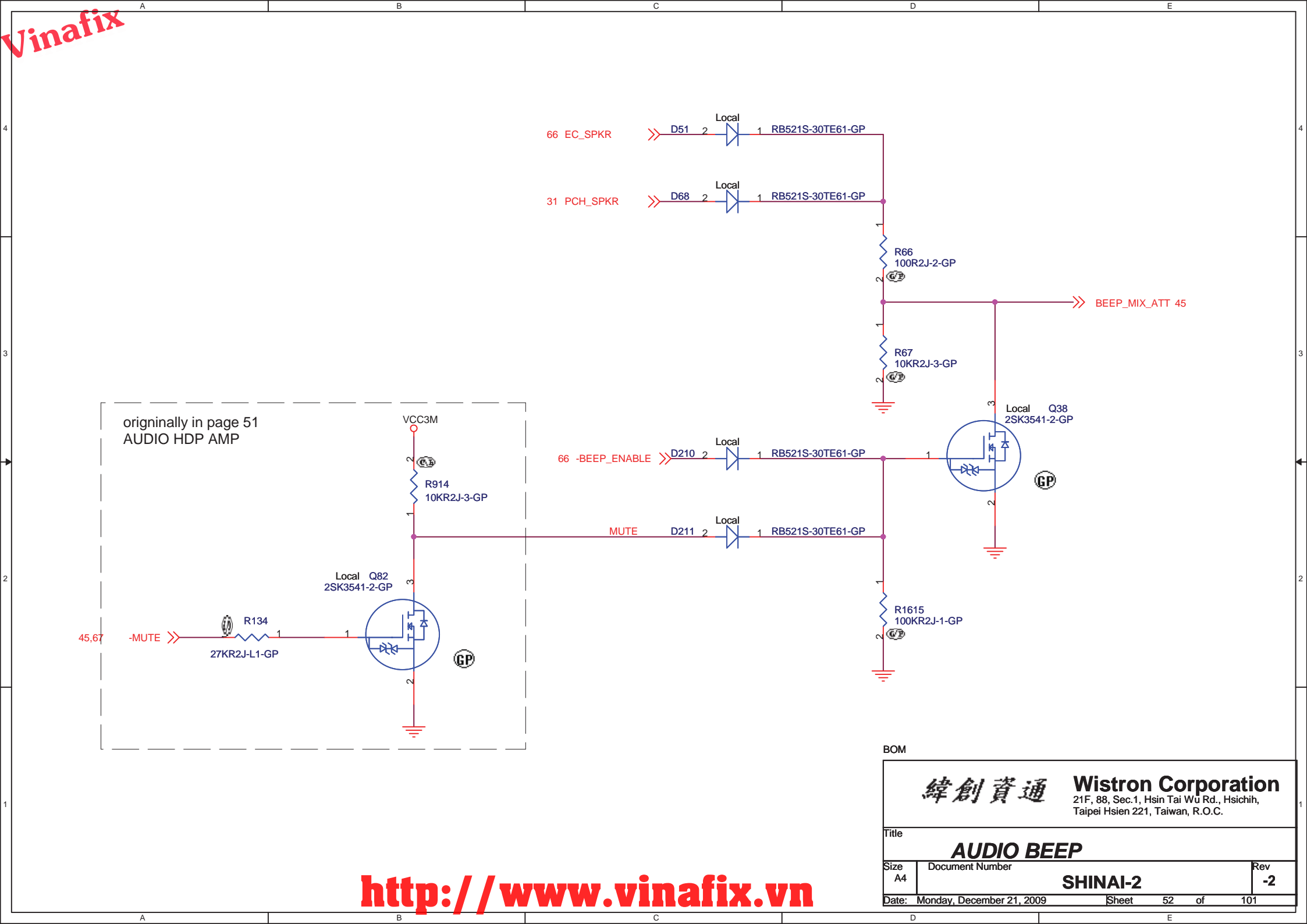
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21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
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Size	Document Number
A3	SHINAI-2
Date:	Monday, December 21, 2009
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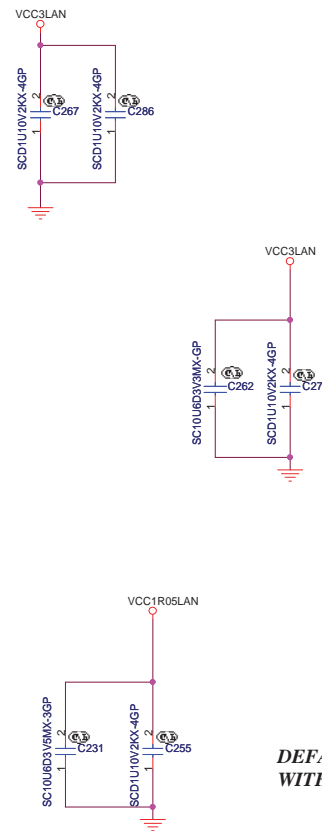
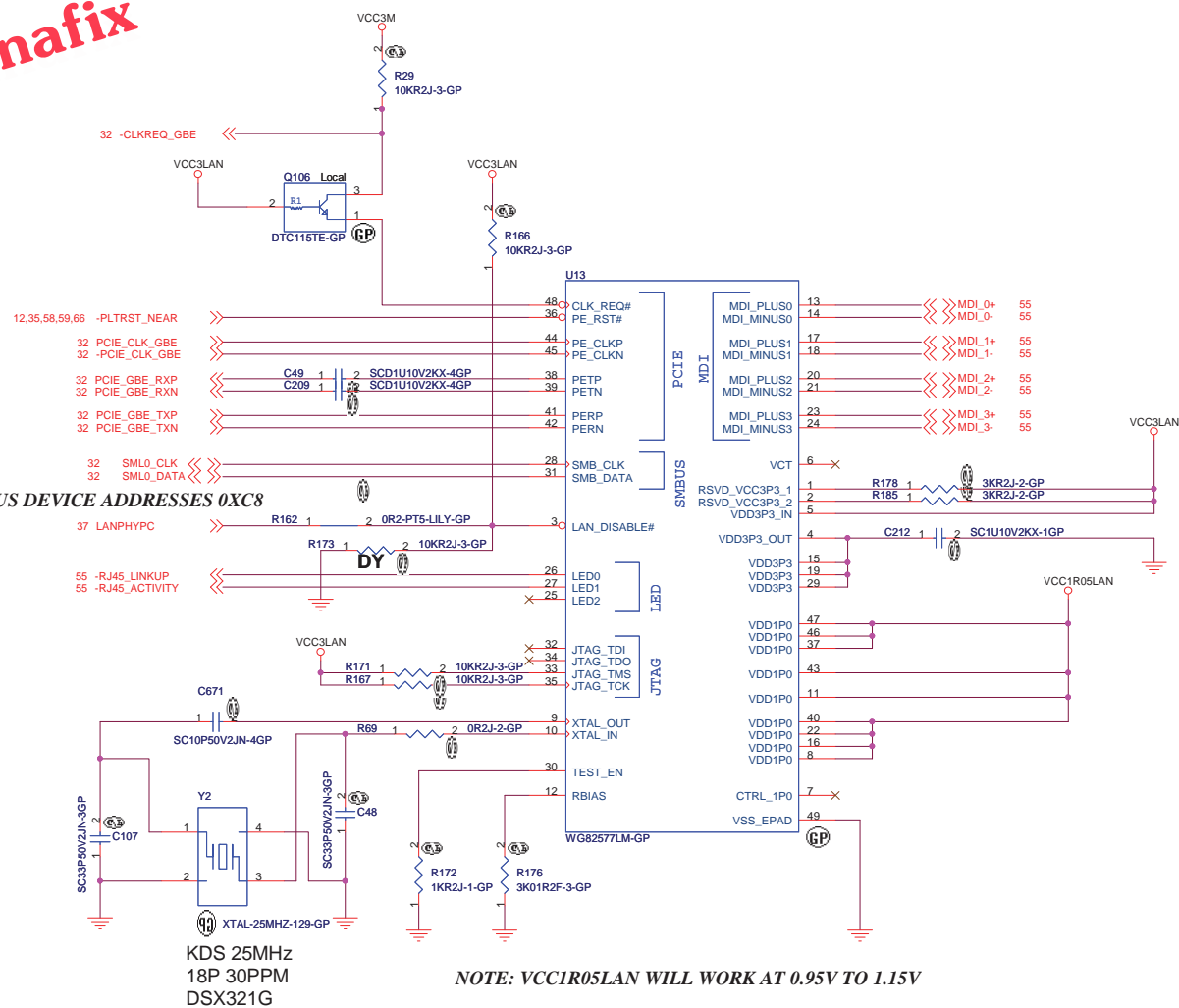


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Size A4	Document Number SHINAI-2		Rev -2
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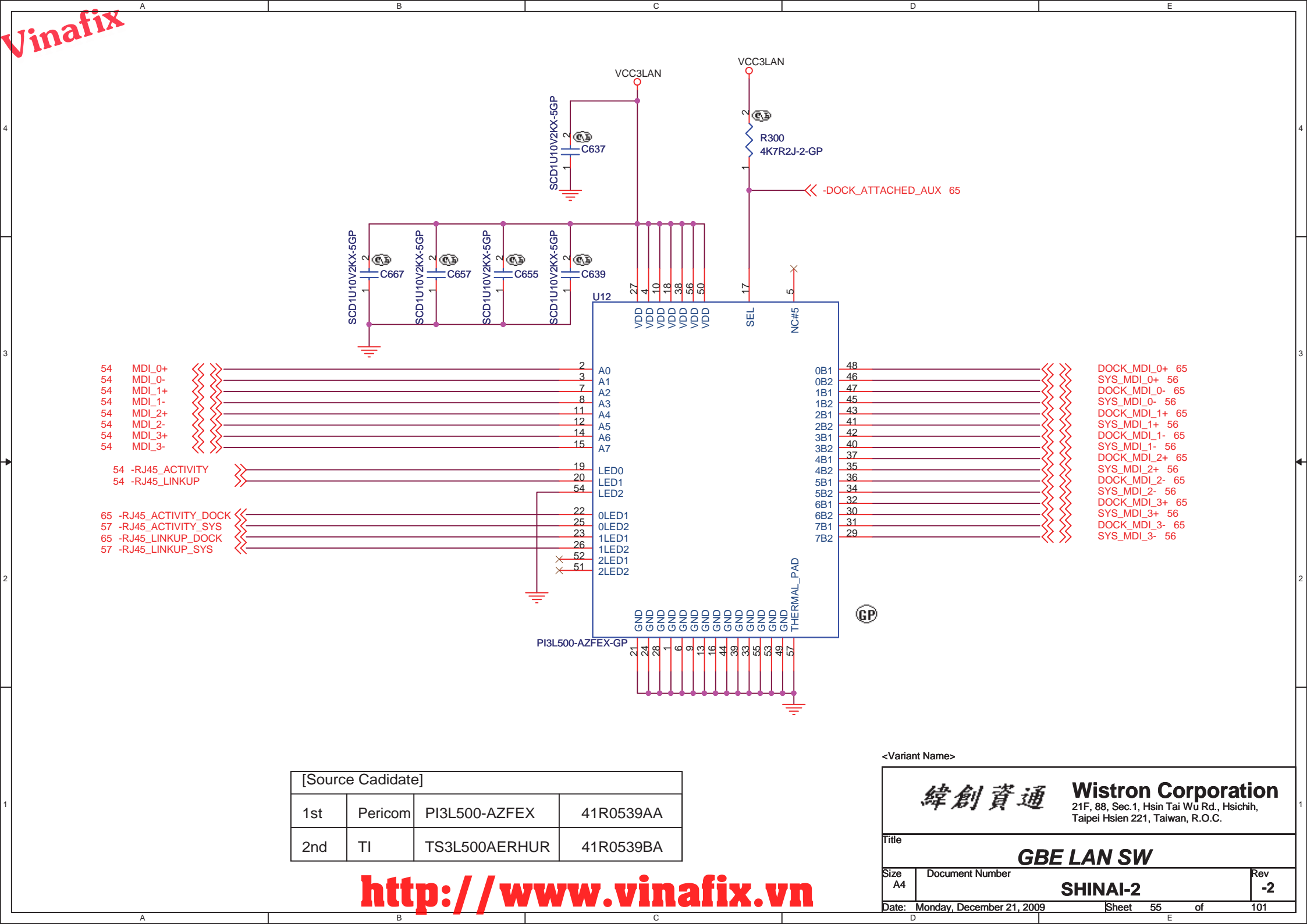
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2	H.ELE	HSX321S 25M 18P 30PPM	82.30020.B21
3	TXC	7V25020001 25M 18PF 30PPM	41U6141AA

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WITH PCH VCC1R05LAN SVR**

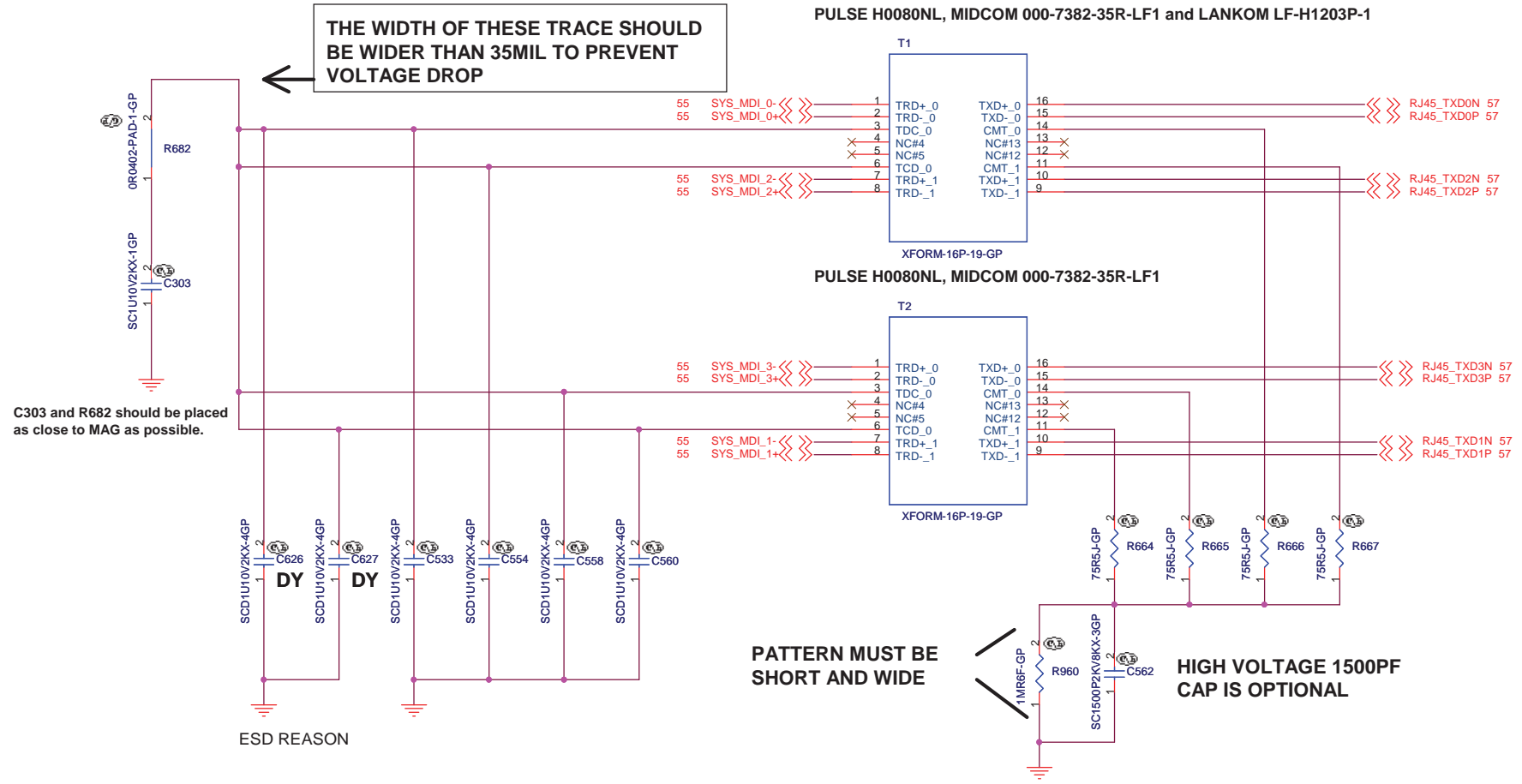


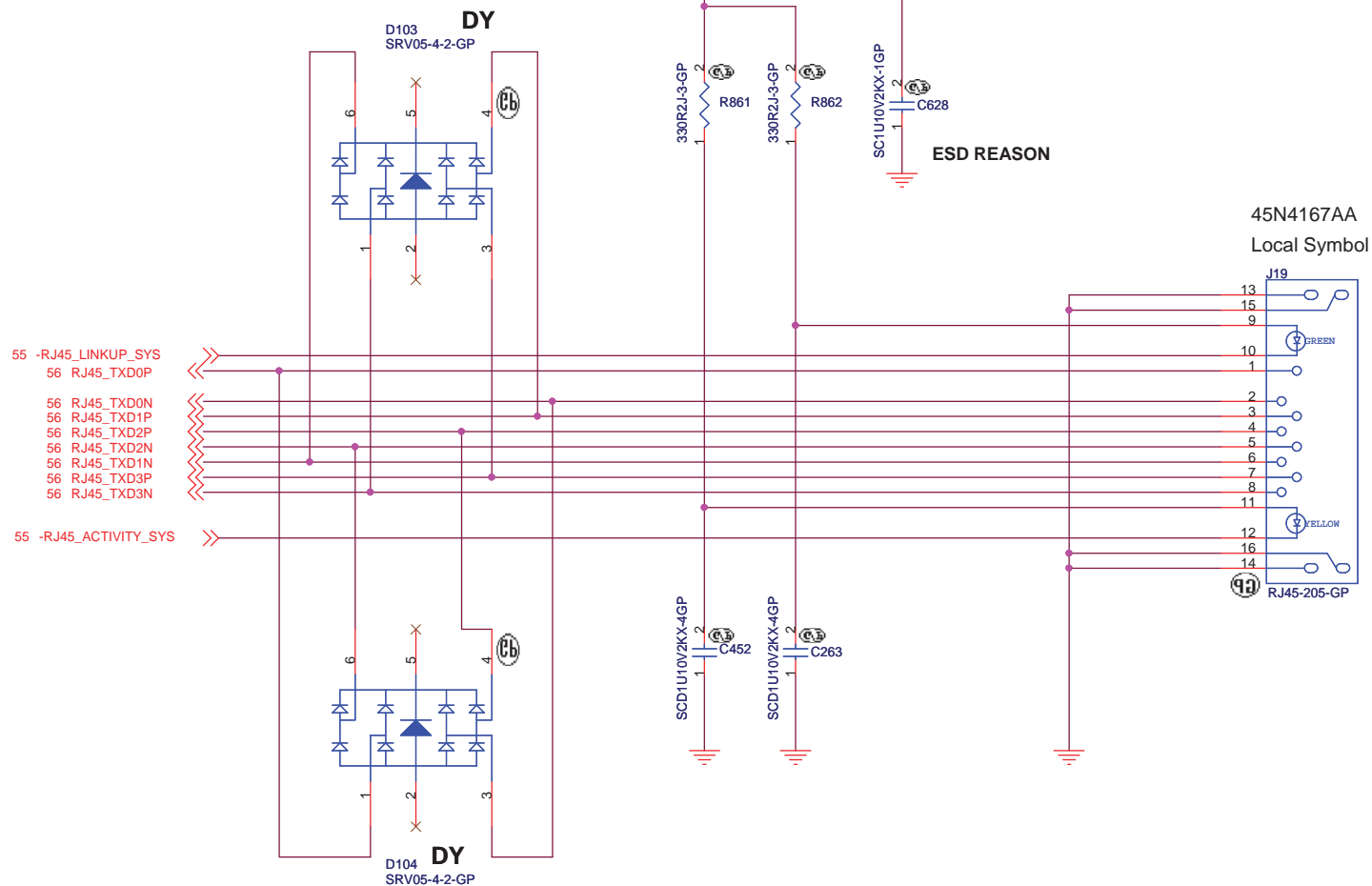
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2nd	TI	TS3L500AERHUR	41R0539BA

<http://www.vinafix.vn>

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Title			
GBE LAN SW			
Size A4	Document Number SHINAI-2		Rev -2
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緯創資通

Wistron Corporation

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

Title

RJ45 CONN

Size
A4

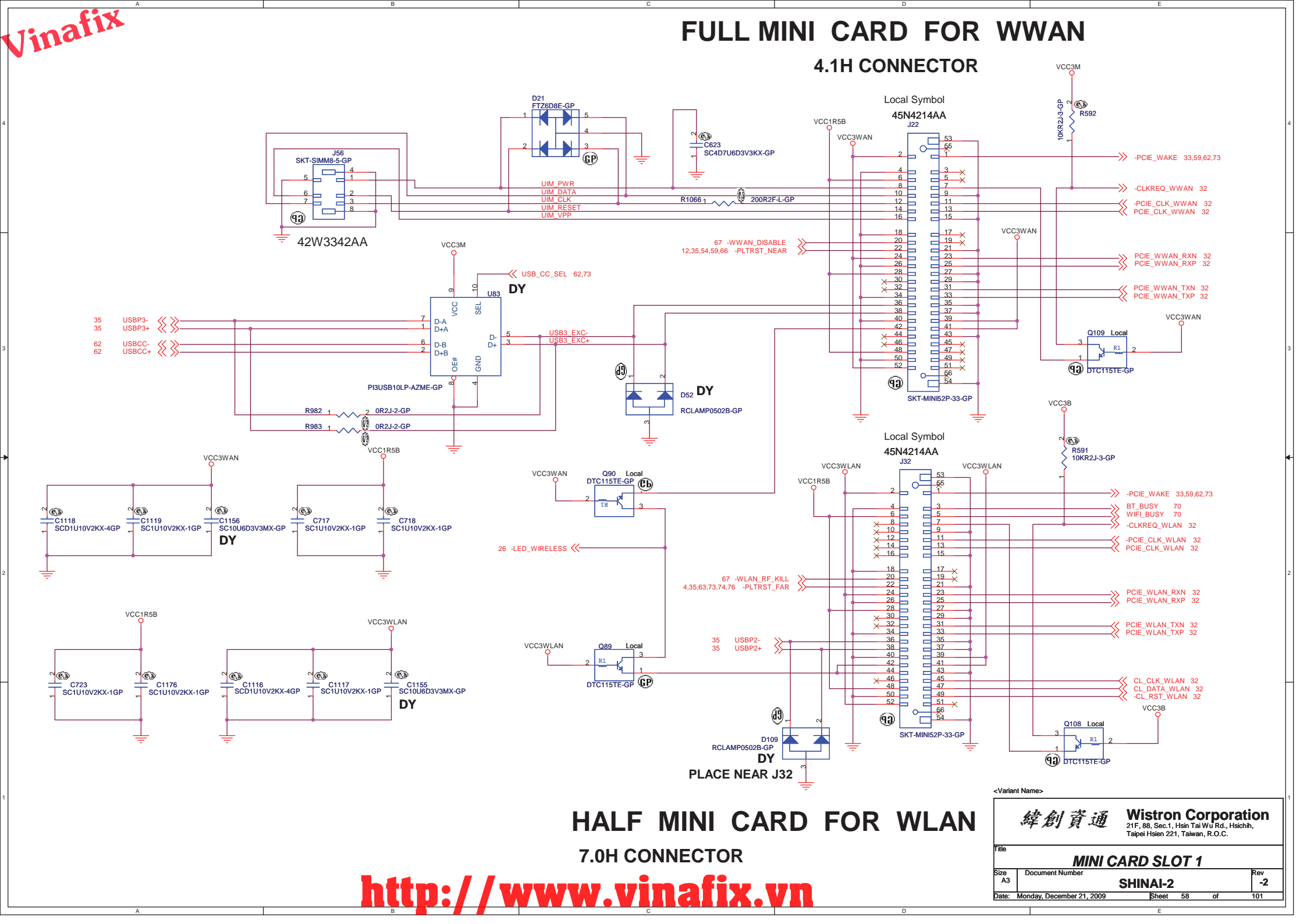
Document Number

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Date: Monday, December 21, 2009

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FULL MINI CARD FOR WWAN

4.1H CONNECTOR

HALF MINI CARD FOR WLAN

7.0H CONNECTOR

<http://www.vinafix.vn>

<Variant Name>

緯創資通

Wistron Corporation

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File

MINI CARD SLOT 1

Size
A3

Document Number

SHINAI-2

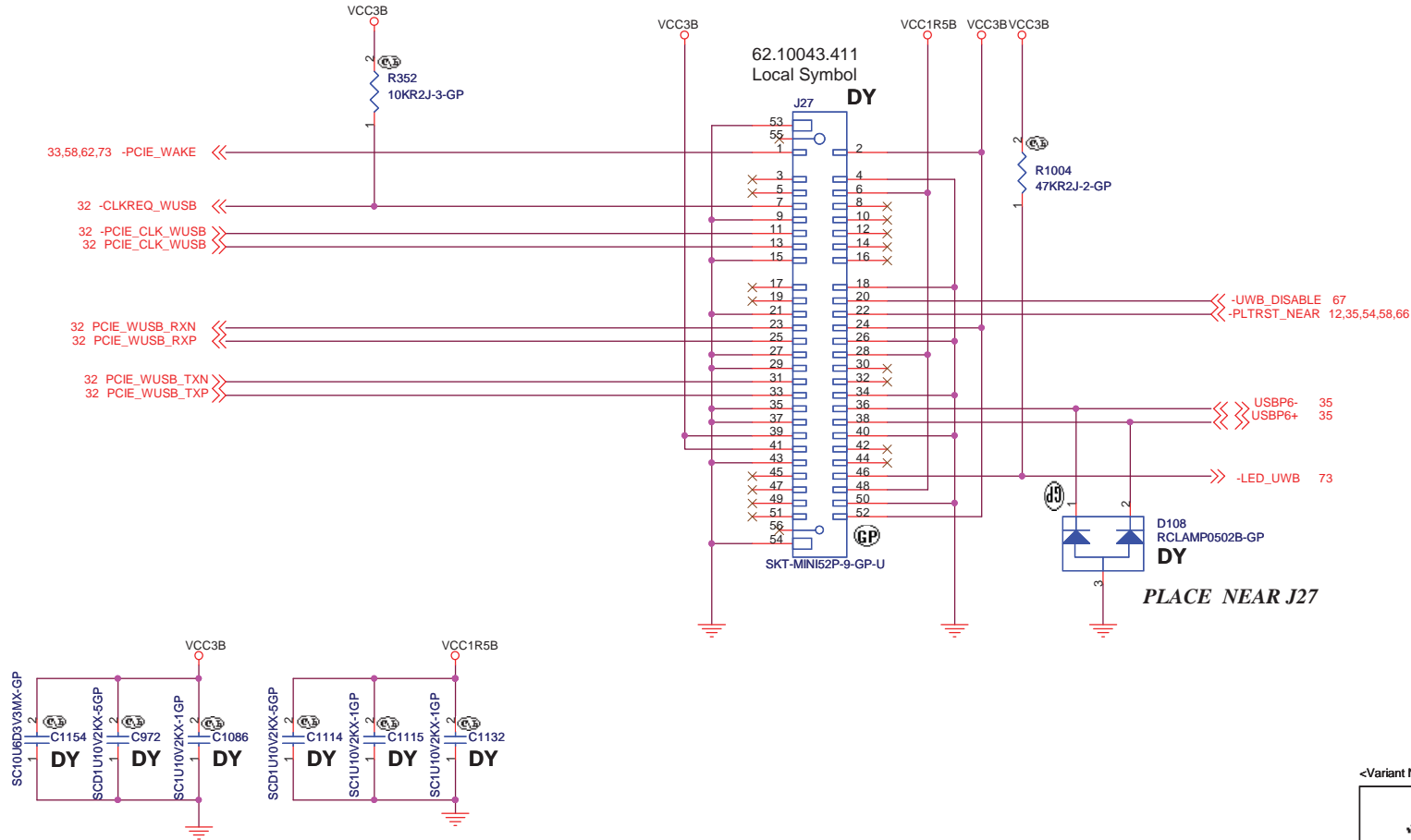
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Date: Monday, December 21, 2009

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HALF MINI CARD FOR WUSB

7.0H CONNECTOR



<Variant Name>

緯創資通

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Title

MINI CARD SLOT 2

Size
B

Document Number

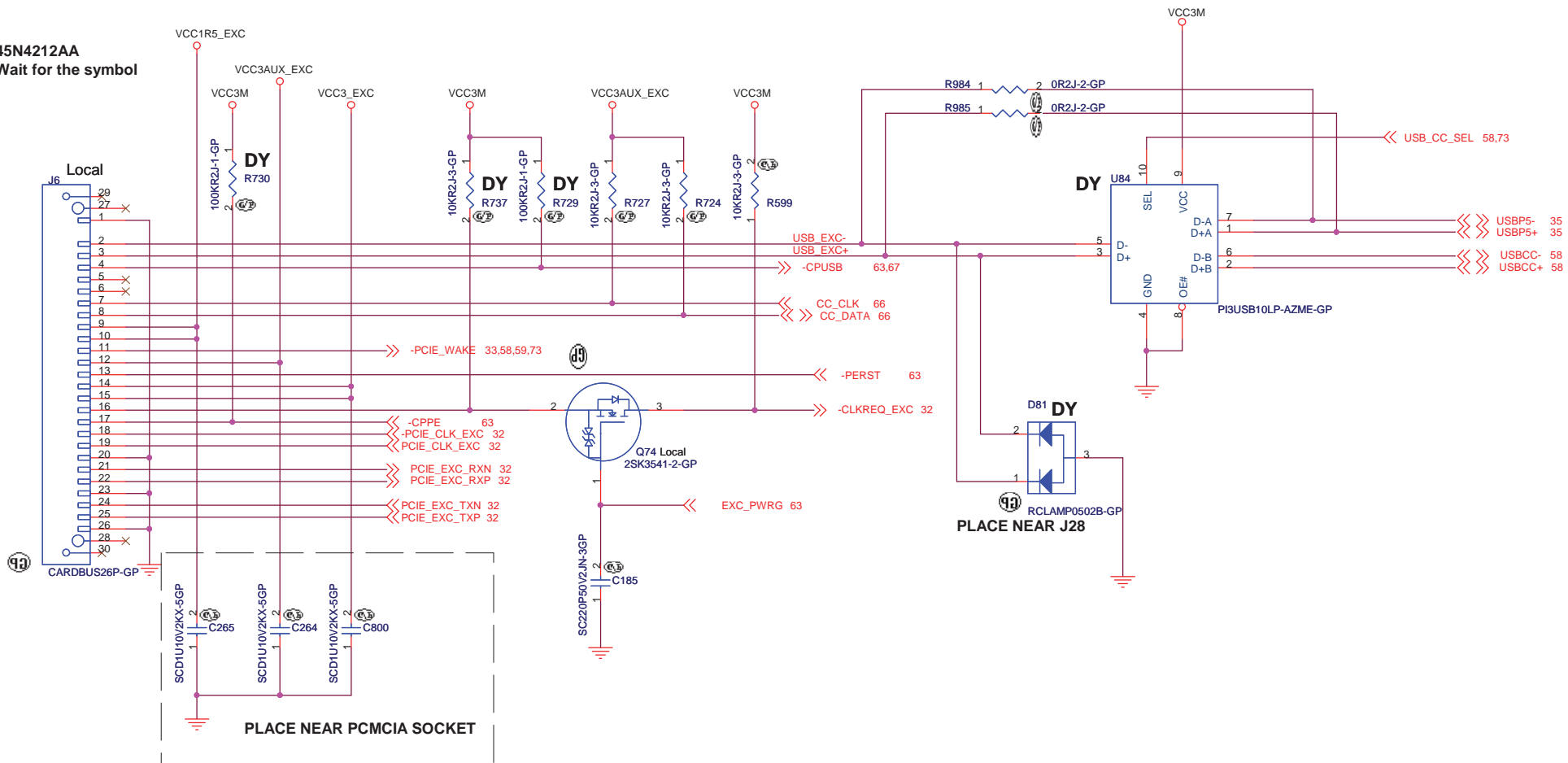
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45N4212AA
Wait for the symbol



<Variant Name>

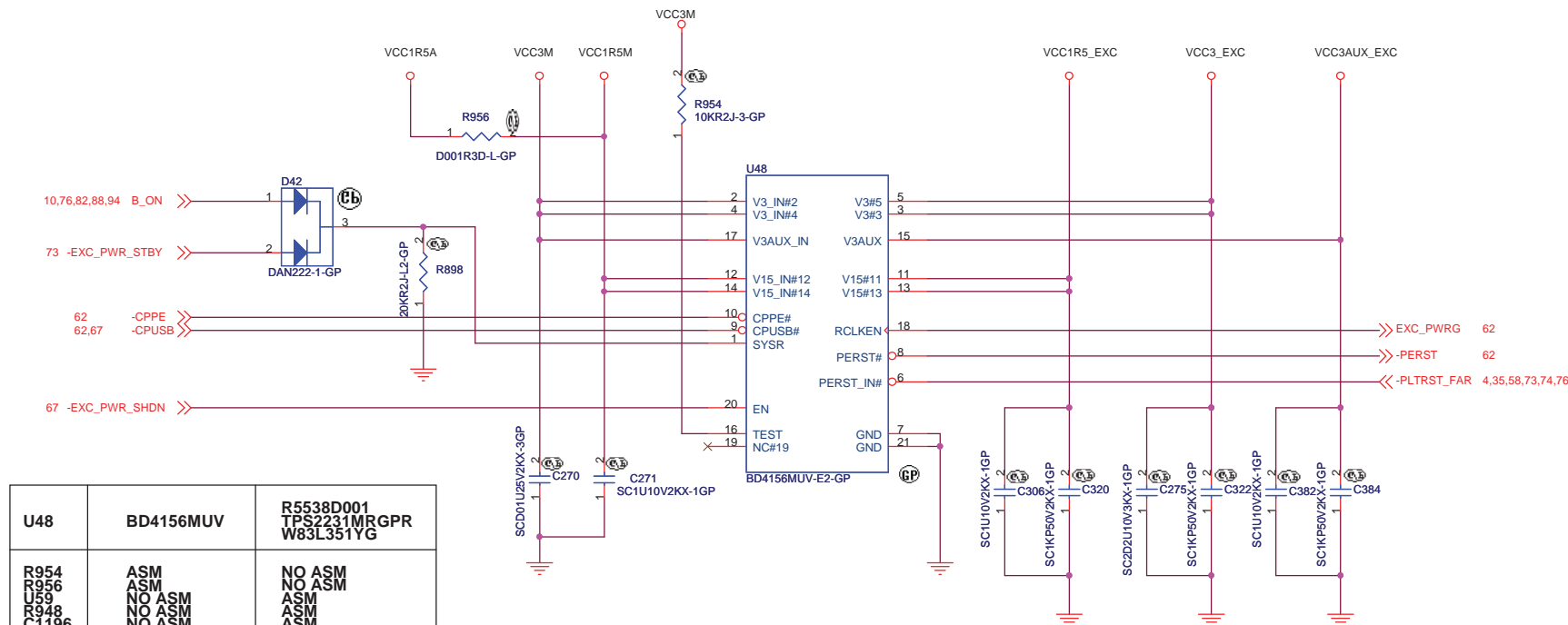
緯創資通

Wistron Corporation
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Taipei Hsien 221, Taiwan, R.O.C.

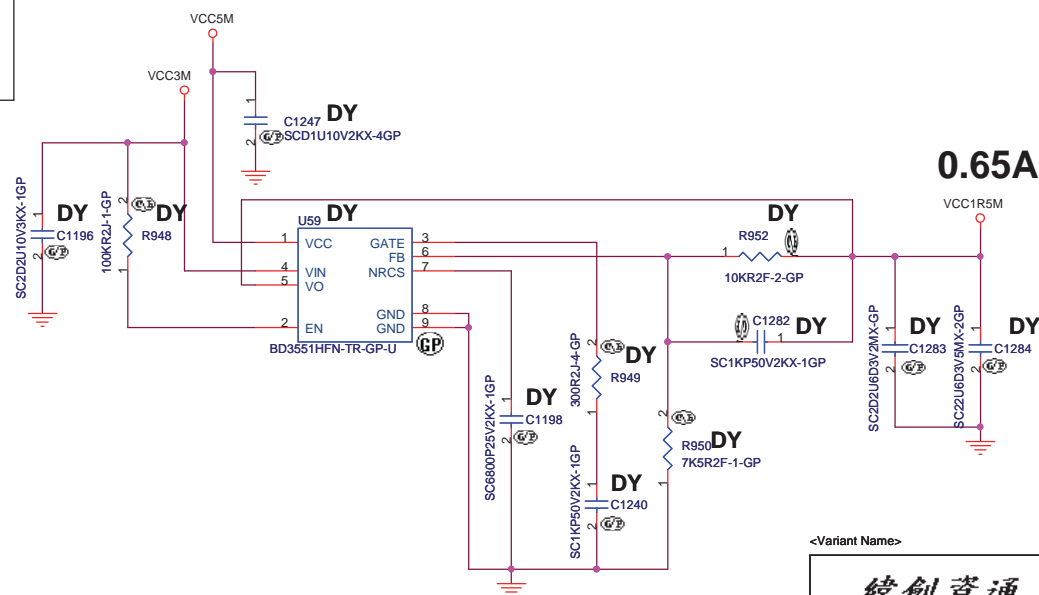
Title **Express Card/SMART CARD IF**

Size B Document Number **SHINAI-2** Rev **-2**

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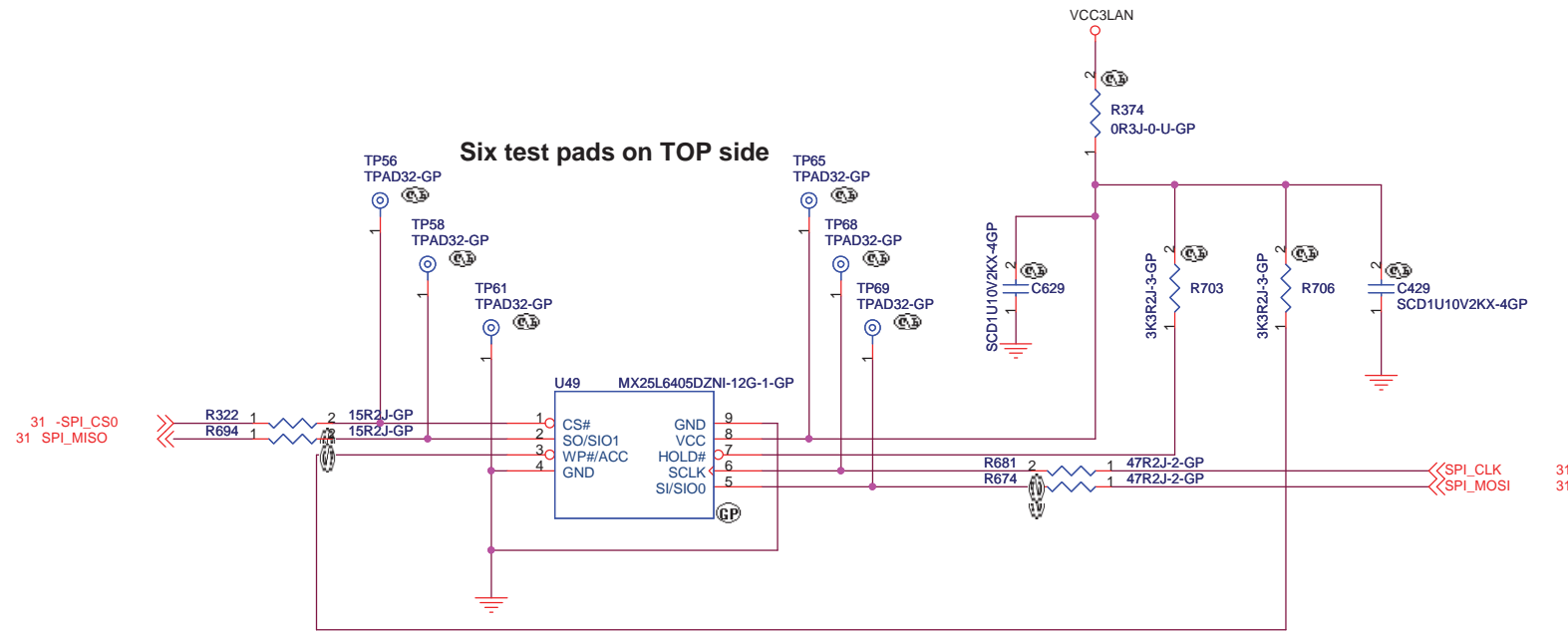
LOGIC



0.65A

<Variant Name>

緯創資通 Wistron Corporation 21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.	
Title SLOT POWER CONTROL	
Size Custom	Document Number SHINAI-2
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8MB WSON8
MACRONIX MX25L6405DZNI-12G
WINBOND W25X64BVZEIG
NUMONYX M25PX64-VMD6TG

PHYSICAL PAD DESIGN TO SUPPORT
BOTH WSONB AND SOIC8

8MB SOIC8
MACRONIX MX25L6445EM2I-10G
WINBOND W25X64BVSSIG

TABLE

	ICP	ENABLE
R374	RB520S-	30
R322	470	5%
R681	470	5%
R674	470	5%
R694	470	5%

TABLE

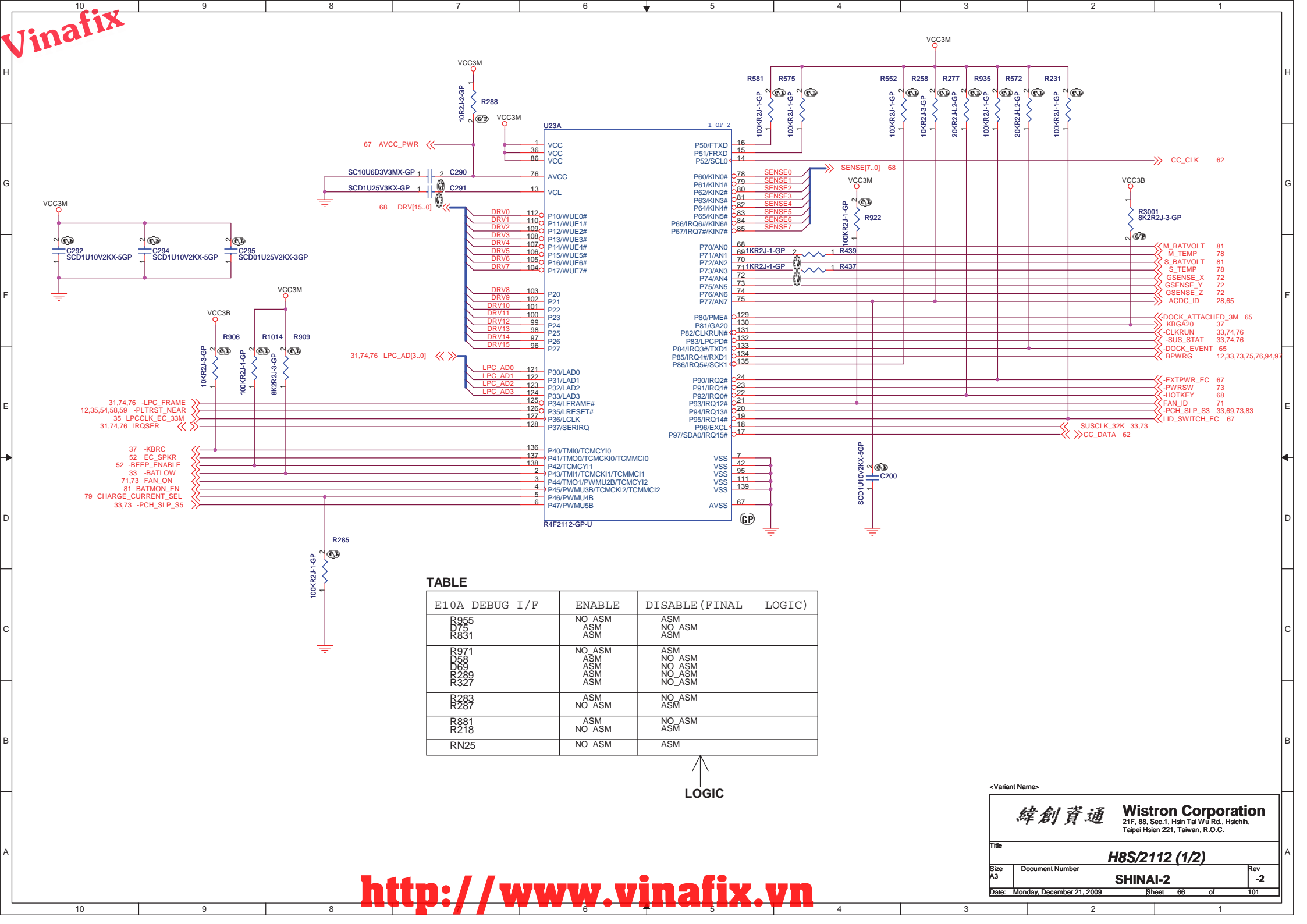
SF100 PIN HEADER IN TERFACE (TOP VIEW)					
1	VCC	R374.1	GND	GND	2
3	CS#	R322.2	R681.2	CLK	4
5	MISO	R694.2	R674.2	MOSI	6
7	(KEY)	N/A	N/A	(RESET)	8

TABLE

8MB WSON8 PIN	SIGNAL	8MB SOP16 PIN
1	-CS	7
2	SO	8
3	-WP	9
4	GND	10
5	SI	15
6	SCLK	16
7	-HOLD	1
8	VCC	2

<Variant Name>

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SPI FLASH	
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TABLE

E10A DEBUG I/F	ENABLE	DISABLE (FINAL LOGIC)
R955 D95 R831	NO_ASM ASM ASM	ASM NO_ASM ASM
R971 D58 D69 R259 R327	NO_ASM ASM ASM ASM ASM	ASM NO_ASM NO_ASM NO_ASM NO_ASM
R283 R287	ASM NO_ASM	NO_ASM ASM
R881 R218	ASM NO_ASM	NO_ASM ASM
RN25	NO_ASM	ASM

LOGIC

<Variant Name>

緯創資通

Wistron Corporation

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Title

H8S/2112 (1/2)

Size

A3

Document Number

SHINAI-2

Rev

-2

Date:

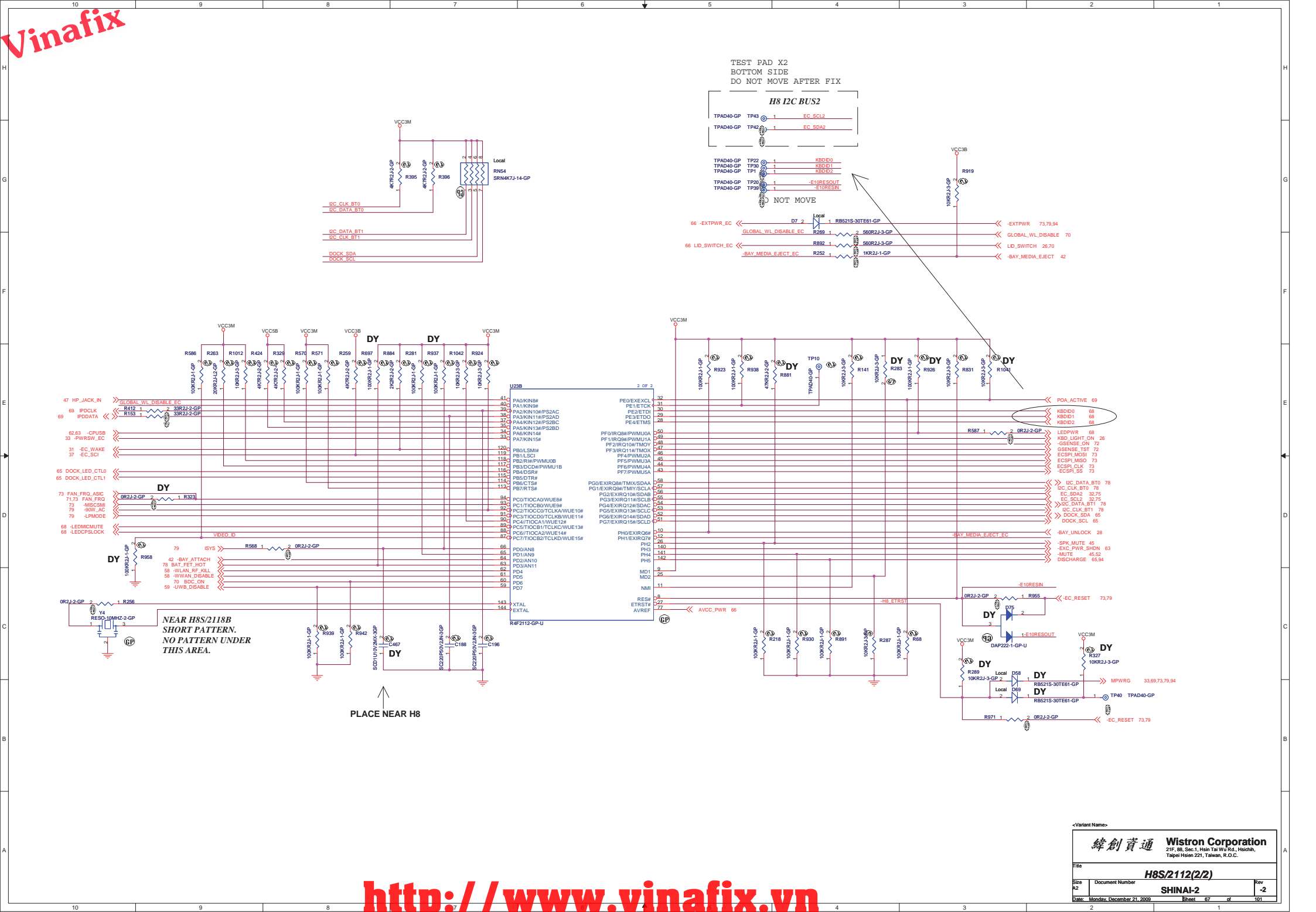
Monday, December 21, 2009

Sheet

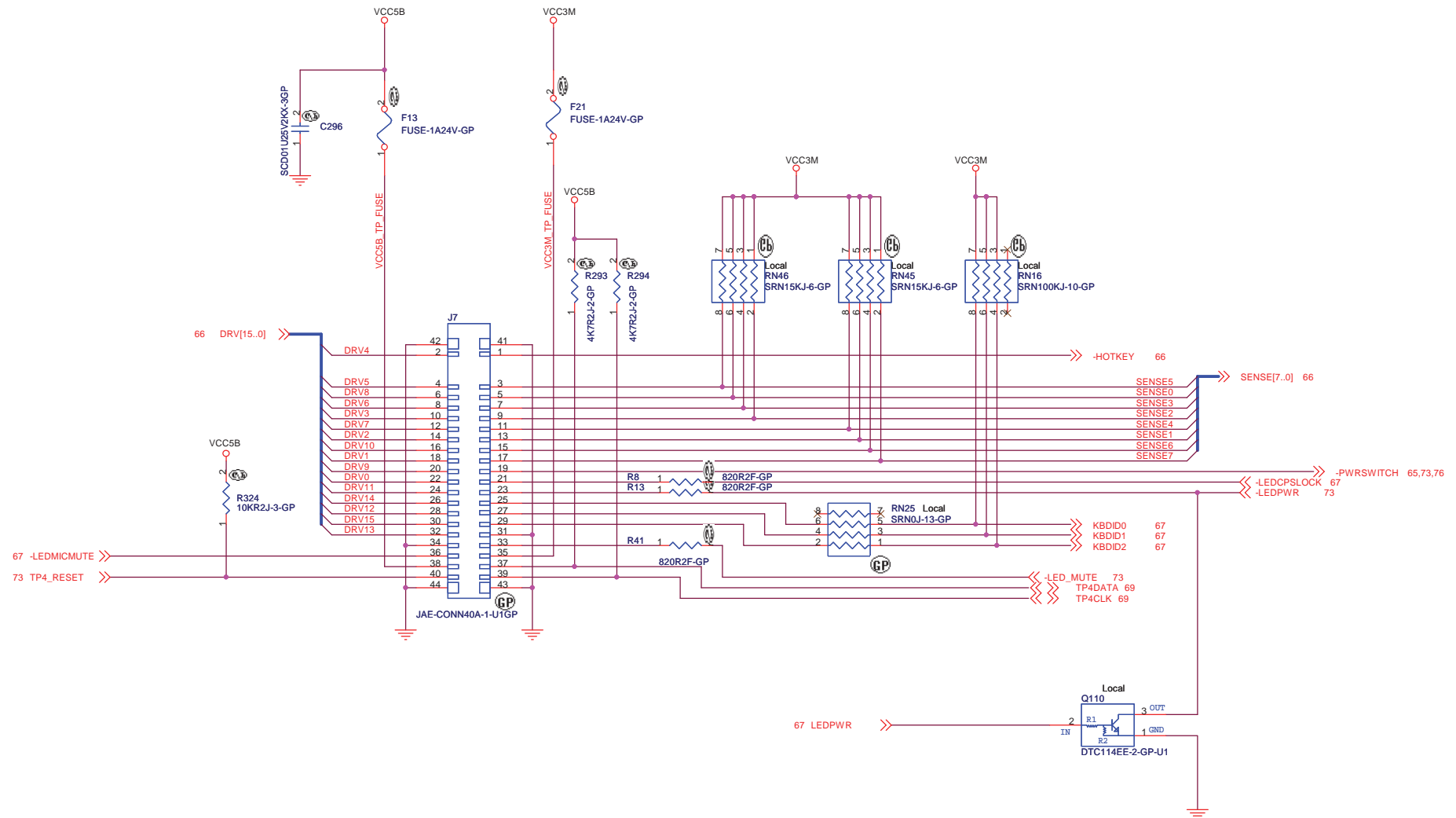
66

of

101



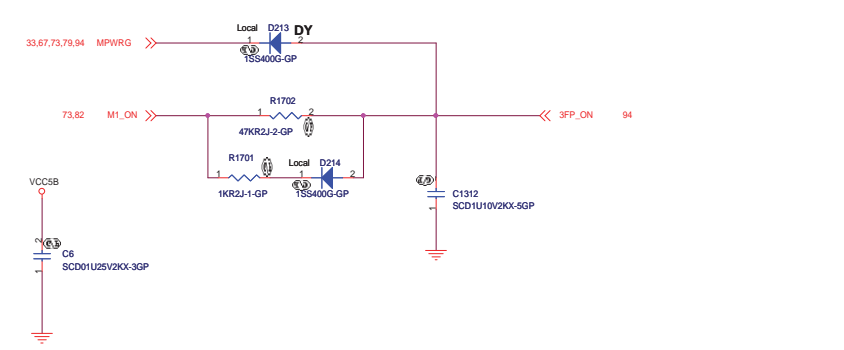
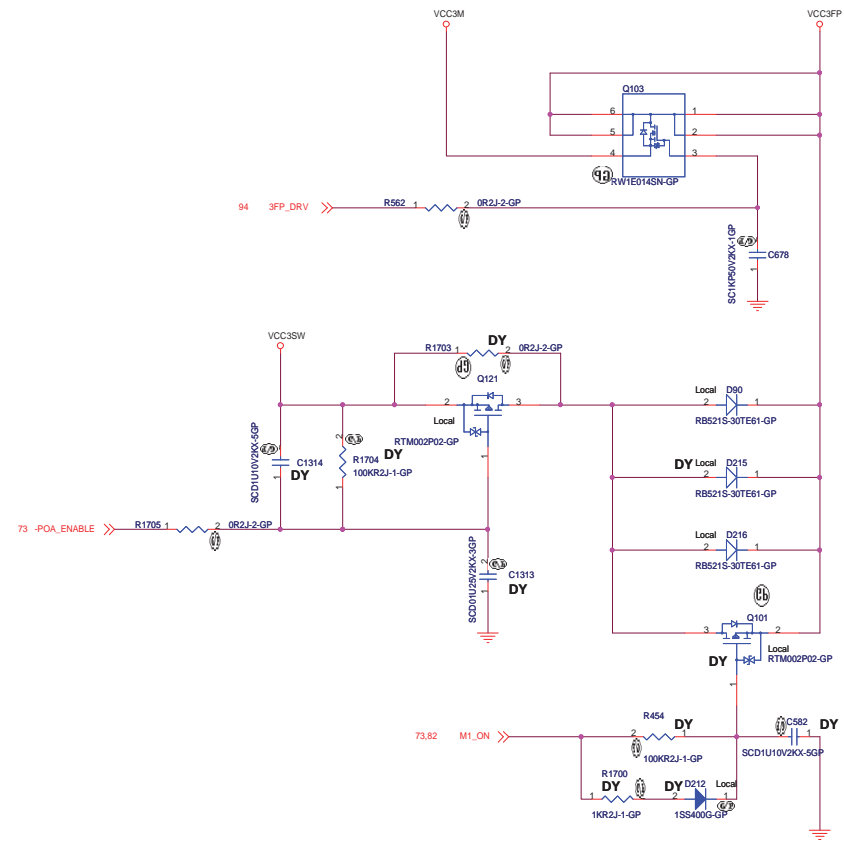
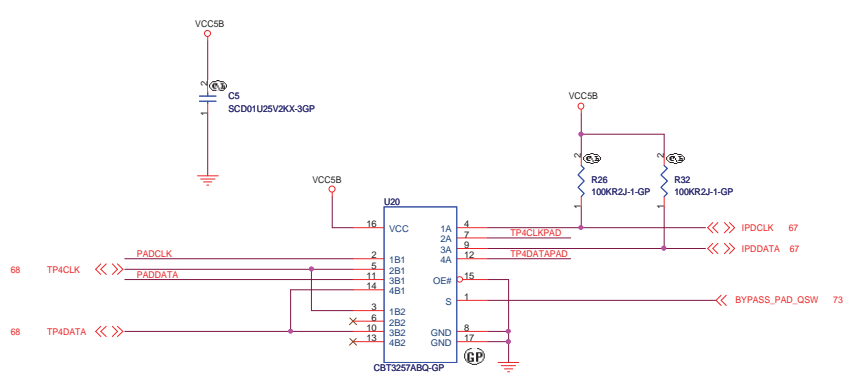
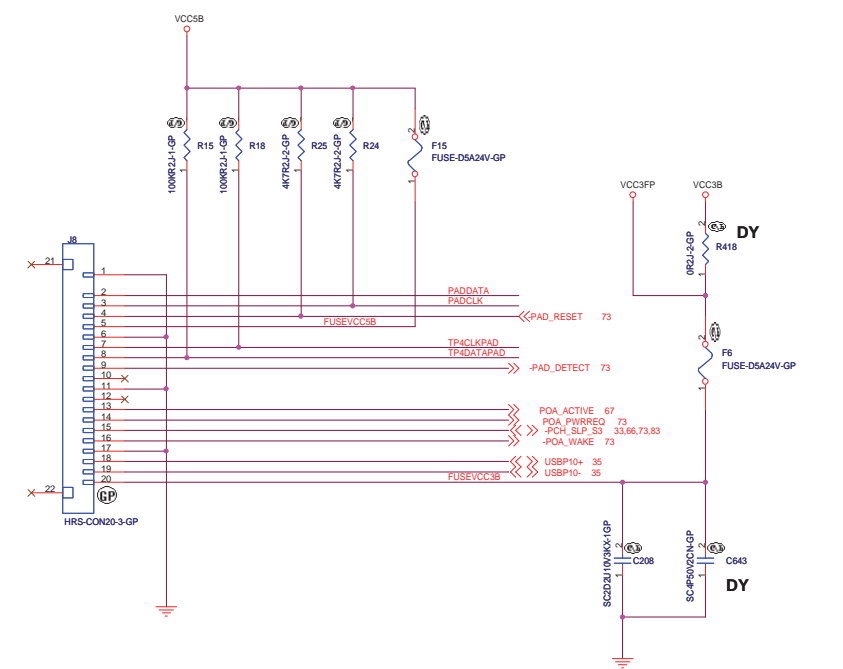
Keyboard Connector

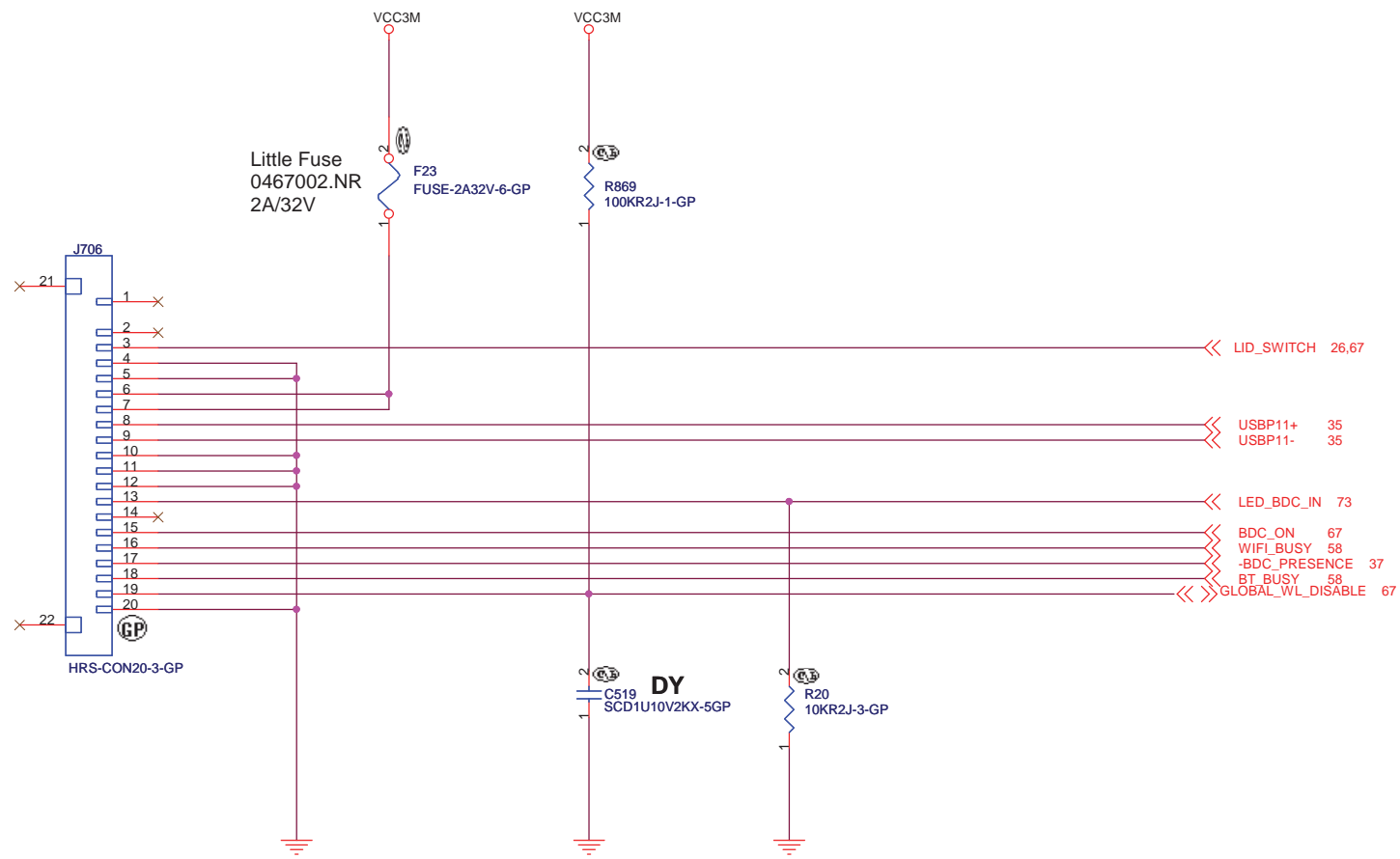


<Variant Name>

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Title			
KEYBOARD CONN			
Size	Document Number	Rev	
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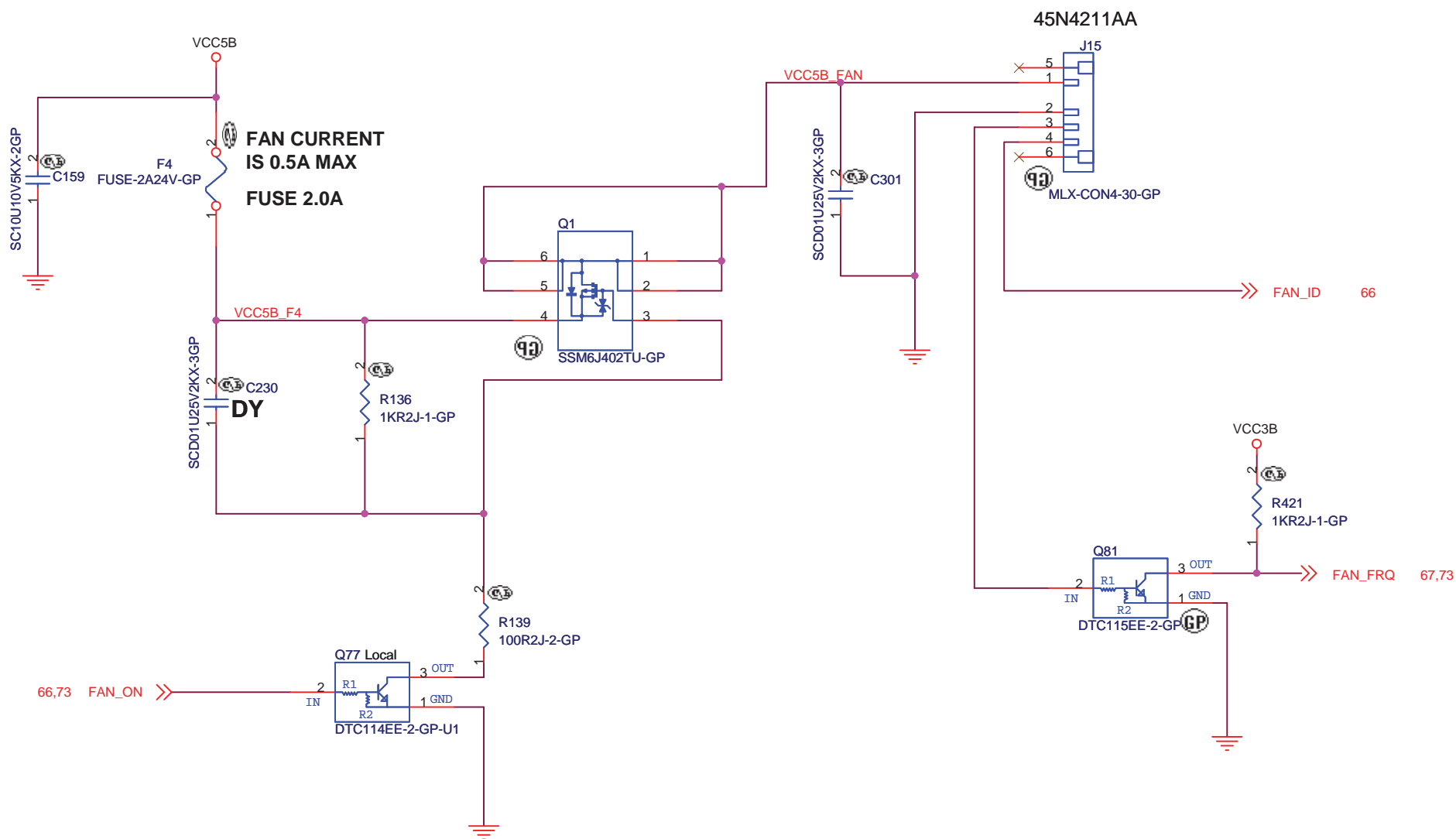


<Core Design>

緯創資通 Wistron Corporation
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Title
WIRELESS DISABLE

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<Core Design>

緯創資通

Wistron Corporation

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Taipei Hsien 221, Taiwan, R.O.C.

Title

FAN CONTROL

Size
A4

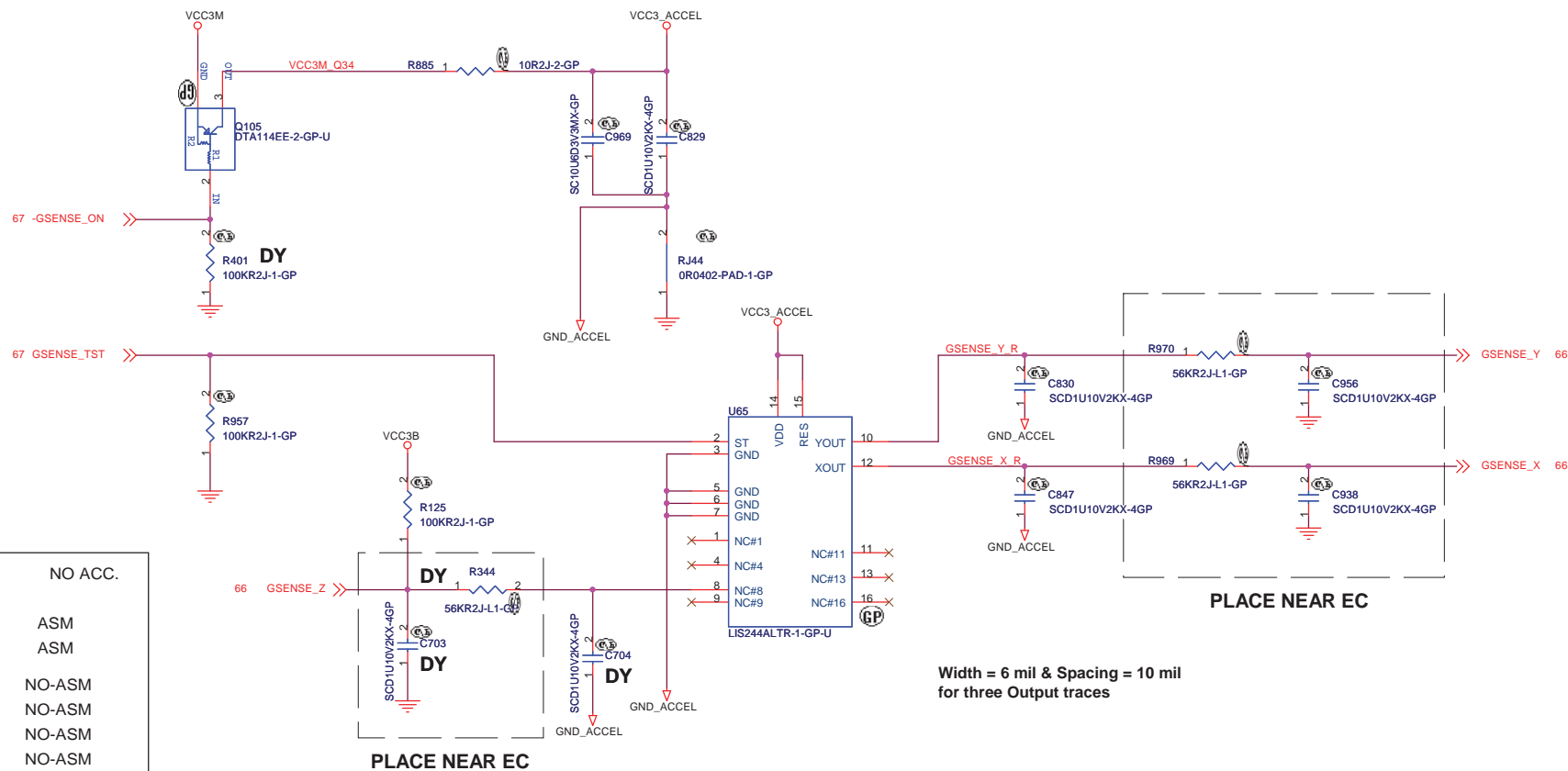
Document Number

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LIS244AL/LIS34AL		NO ACC.
R401	NO-ASM	ASM
R957	ASM	ASM
U65	ASM	NO-ASM
Q105	ASM	NO-ASM
D97	ASM	NO-ASM
R62	ASM	NO-ASM
R885	10-OHM	NO-ASM
C829	ASM	NO-ASM
C969	ASM	NO-ASM
C830	ASM	NO-ASM
C847	ASM	NO-ASM
R969	56K	NO-ASM
C938	ASM	NO-ASM
R970	56K	NO-ASM
C956	ASM	NO-ASM
C704	NO-ASM	NO-ASM
R344	NO-ASM	NO-ASM
C703	NO-ASM	NO-ASM
R125	ASM	ASM

Layout Comment :

- (1) Place C830, C837, Q105, R401, R885, C969, C829, R957 close to U65.

(2) Avoid routing under DCDC switching area.

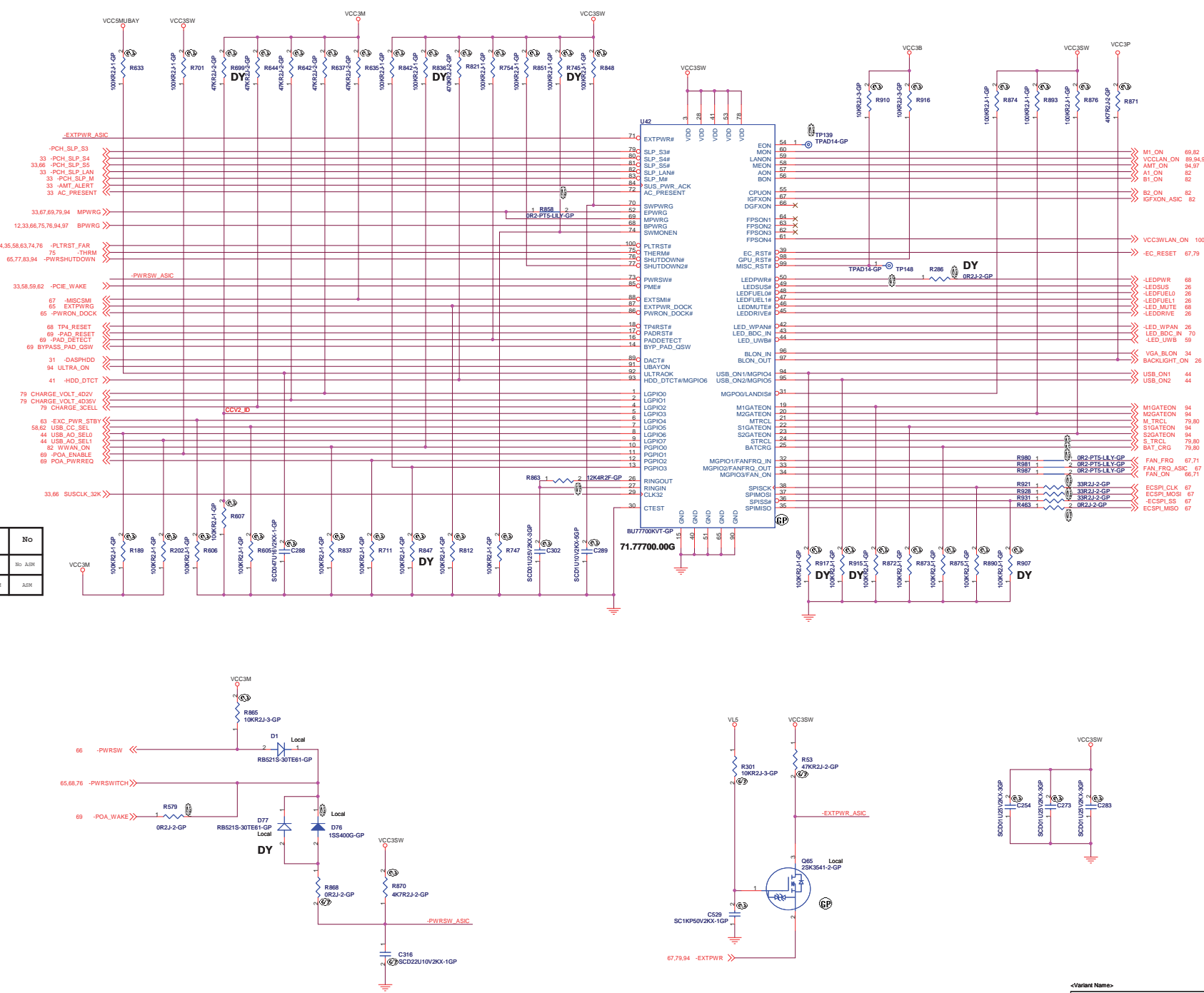
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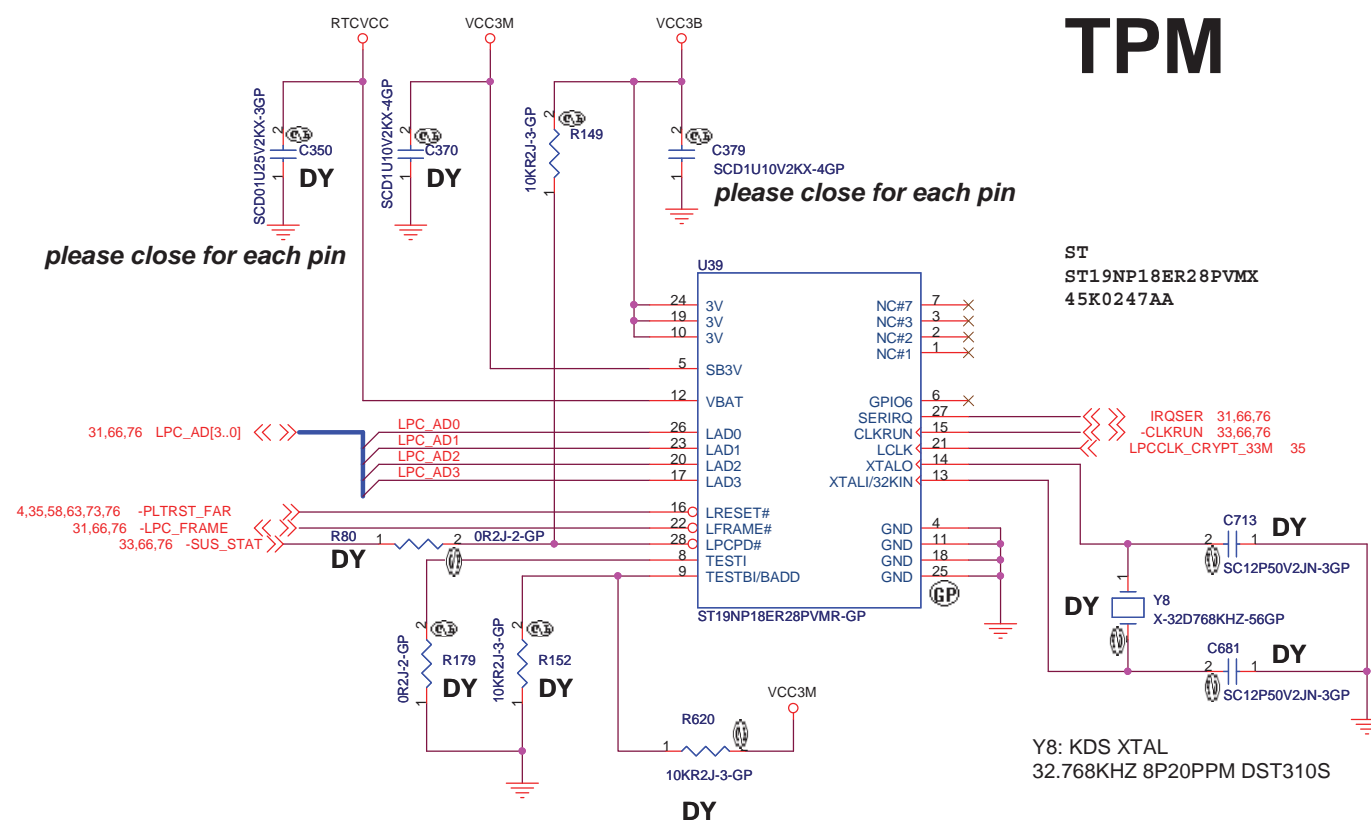
<Core Design>

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Title			
G-SENSOR			
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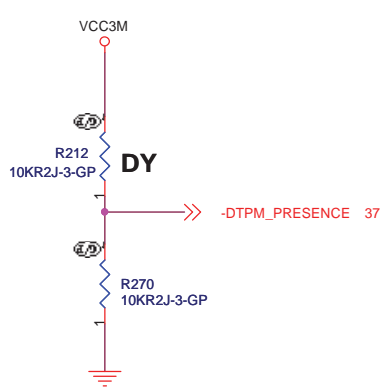
Constant Connect Version.2	Yes	No
R699	ASM	No ASM
R607	No ASM	ASM





TABLE

REF DES	NO TPM	WINBOND WPCT200	NUVOTON WPCT210A	ST MICRO ST19NP18-TPM-A	INFINEON SLB9635TT
U39	NO_ASM	ASM	ASM	ASM	ASM
C350	NO_ASM	ASM	NO_ASM	NO_ASM	NO_ASM
C370	NO_ASM	ASM	ASM	NO_ASM	ASM
C379	NO_ASM	ASM	ASM	ASM	ASM
R80	NO_ASM	ASM	ASM	ASM	ASM
R149	NO_ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM
R179	NO_ASM	NO_ASM	NO_ASM	NO_ASM	ASM
R152	NO_ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM
R620	NO_ASM	NO_ASM	NO_ASM	NO_ASM	ASM
Y8	NO_ASM	NO_ASM	NO_ASM	NO_ASM	ASM
C681	NO_ASM	NO_ASM	NO_ASM	NO_ASM	ASM
C713	NO_ASM	NO_ASM	NO_ASM	NO_ASM	ASM
R212	ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM
R270	NO_ASM	ASM	ASM	ASM	ASM

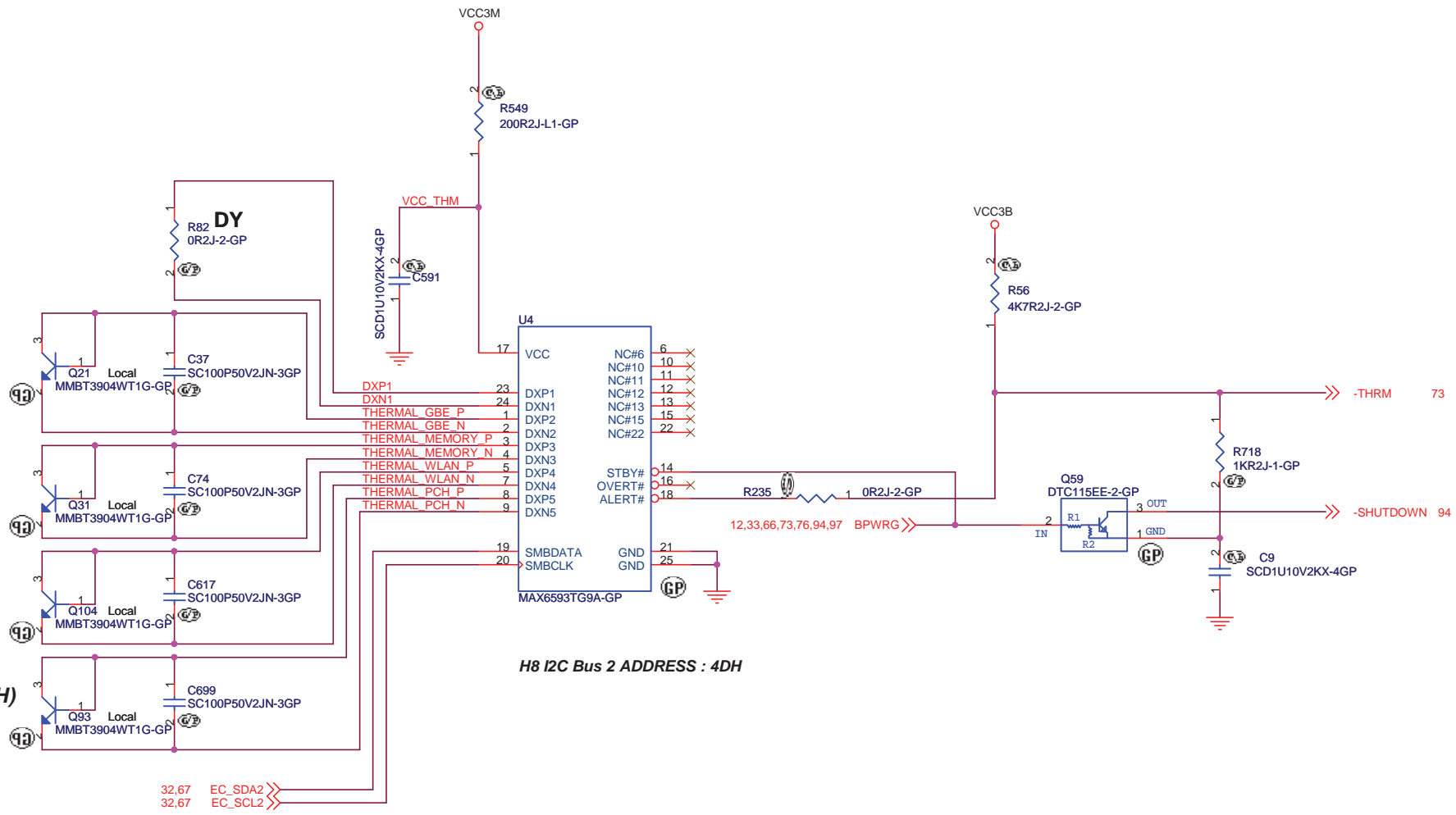


TO GBE

TO MEMORY

TO WLAN

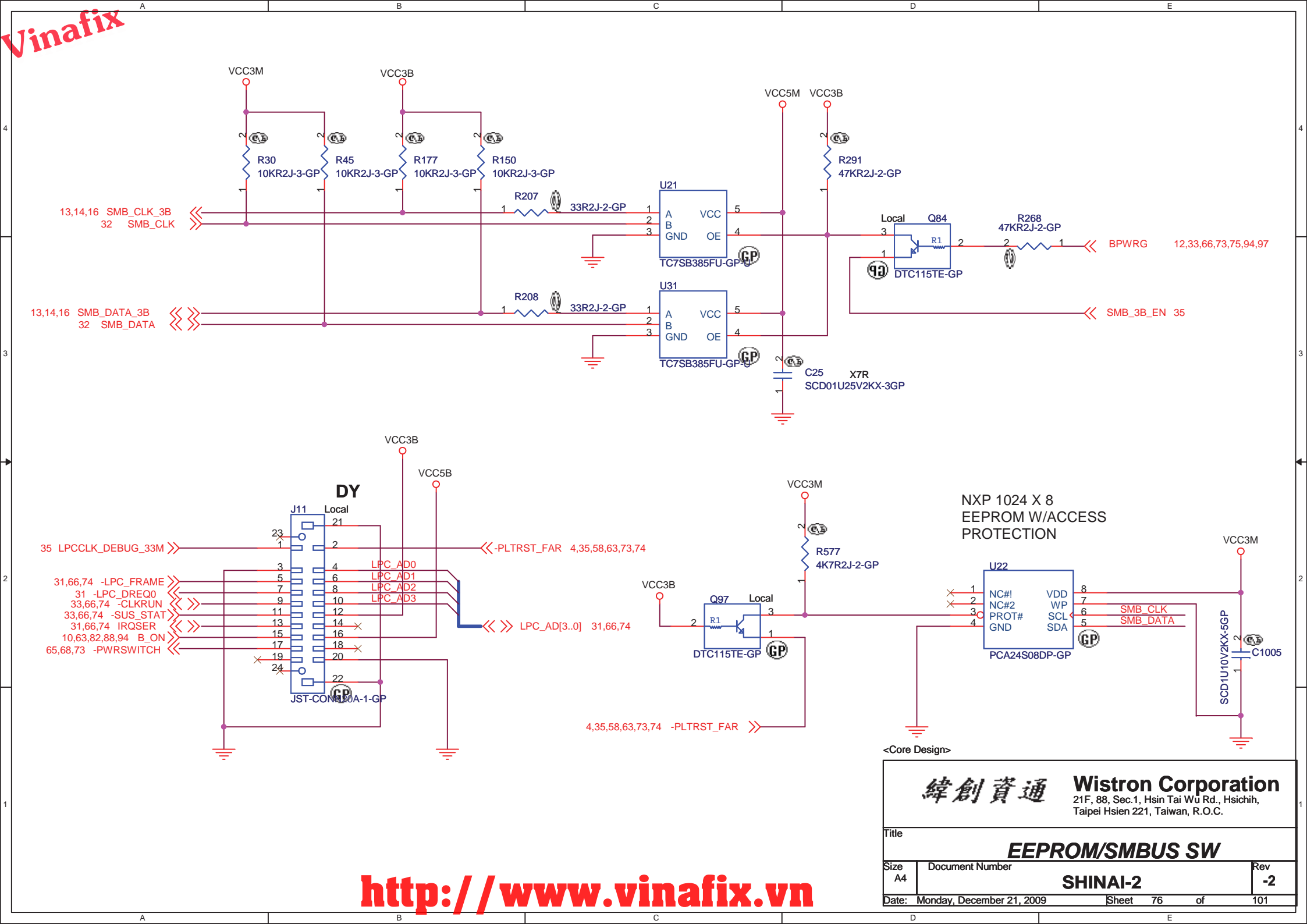
TO BASE COVER (PCH)

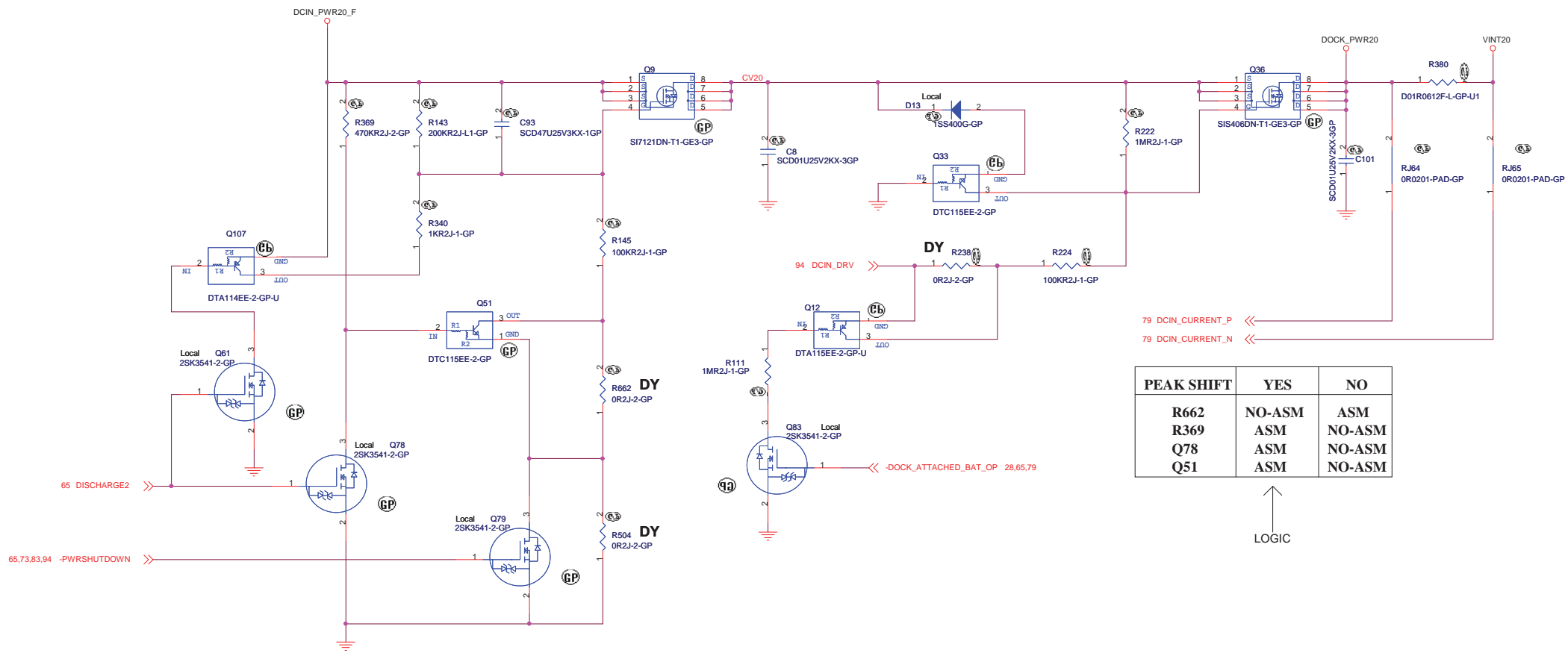


PLACE NEAR BOTTOM DIMM SLOT
LOCAL SENSOR FOR MEMORY-BOTTOM

<Variant Name>

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<p>Title THERMAL SENSOR</p>	
Size	Document Number
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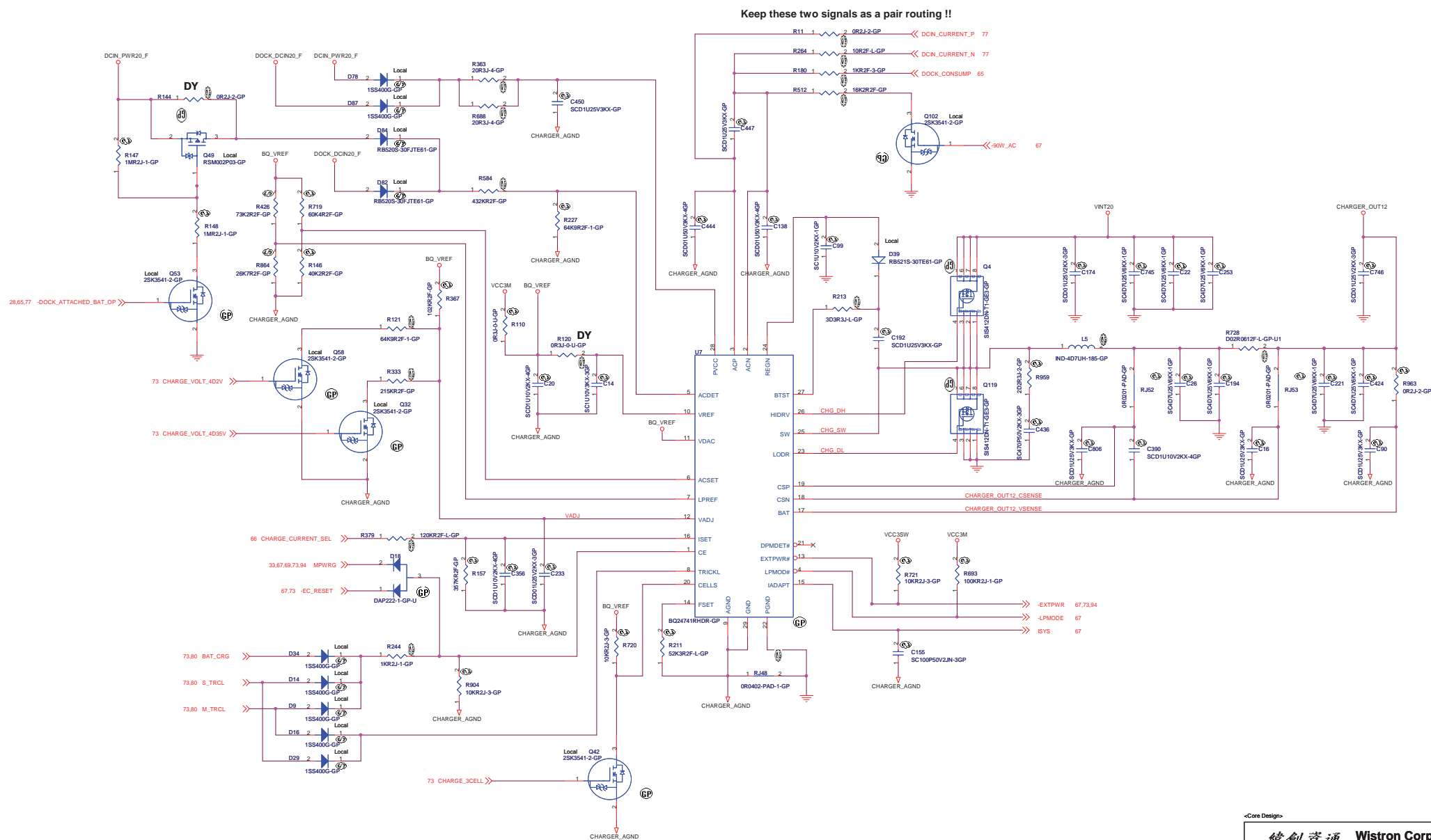


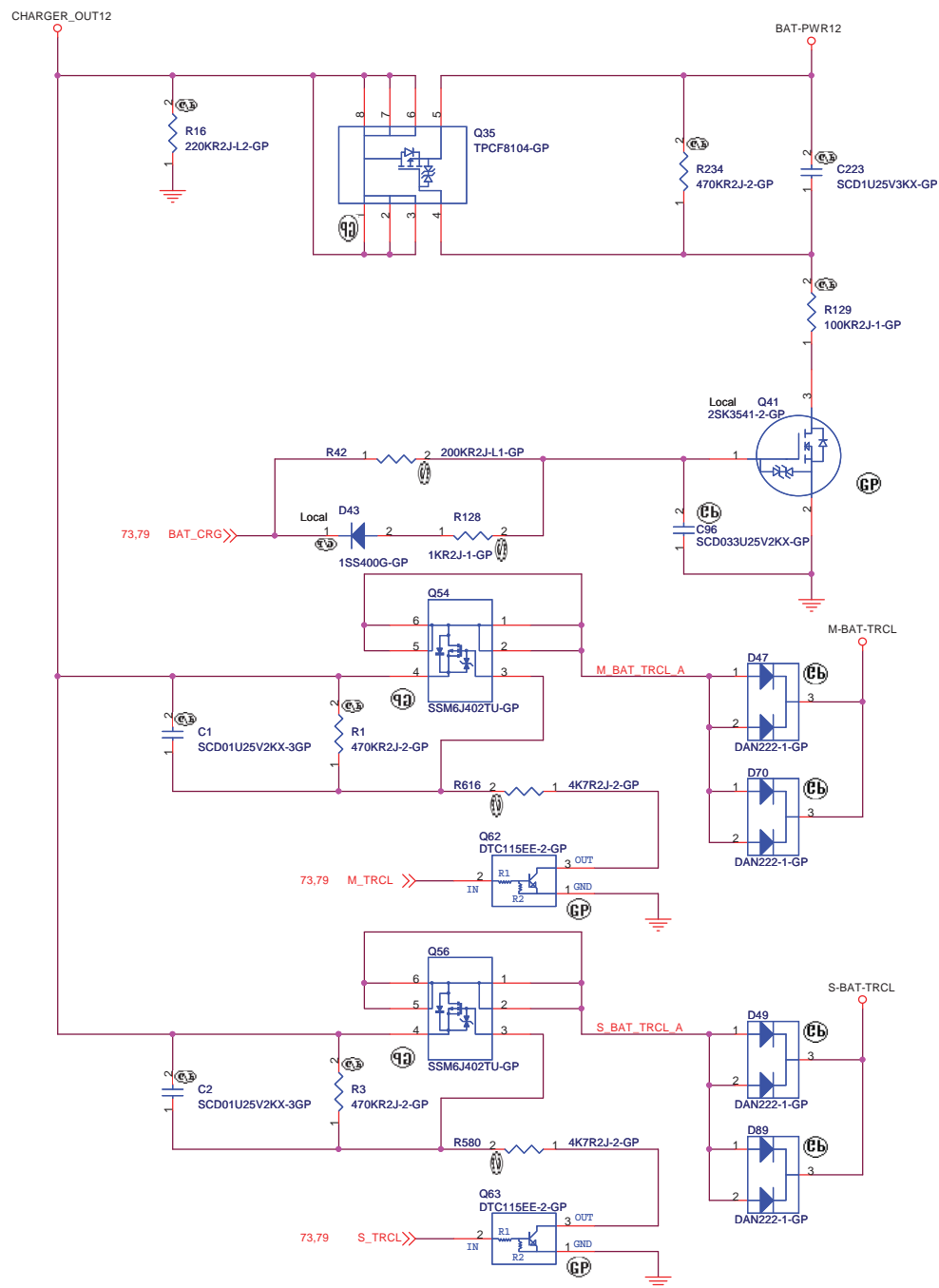


PEAK SHIFT	YES	NO
R662	NO-ASM	ASM
R369	ASM	NO-ASM
Q78	ASM	NO-ASM
Q51	ASM	NO-ASM

LOGIC

<Core Design>

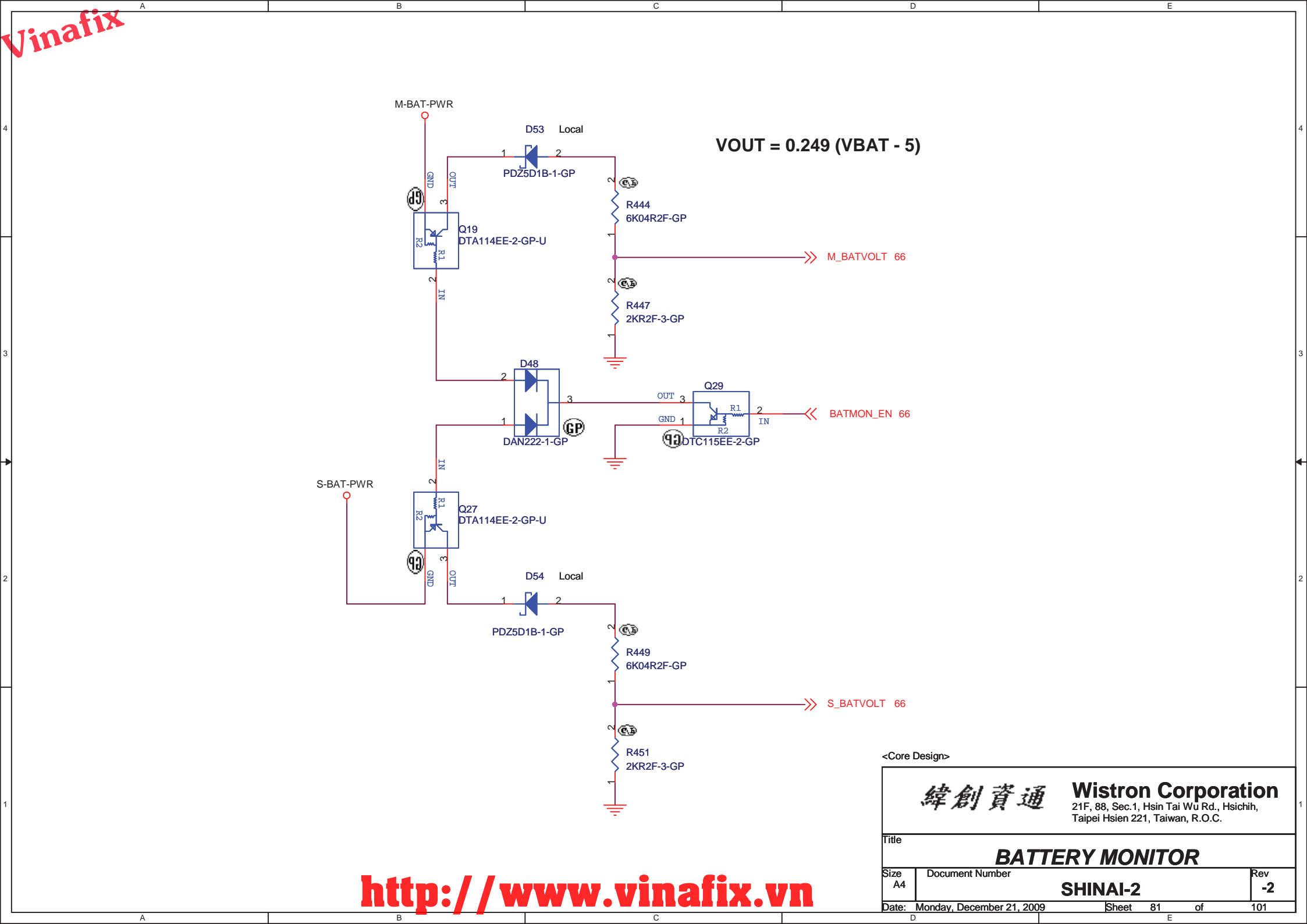


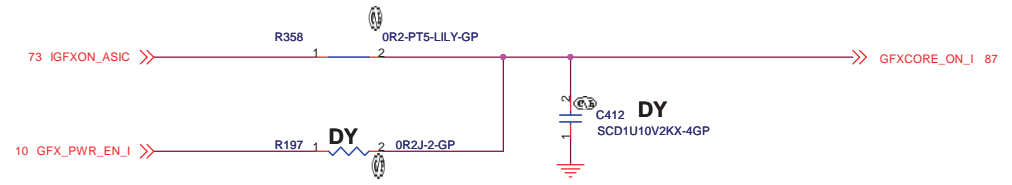
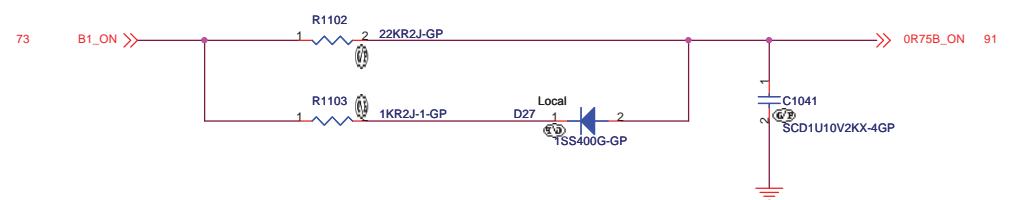
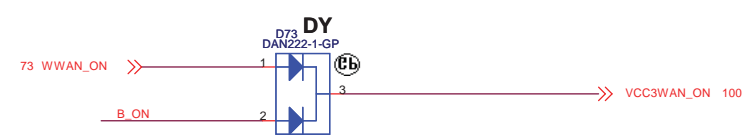
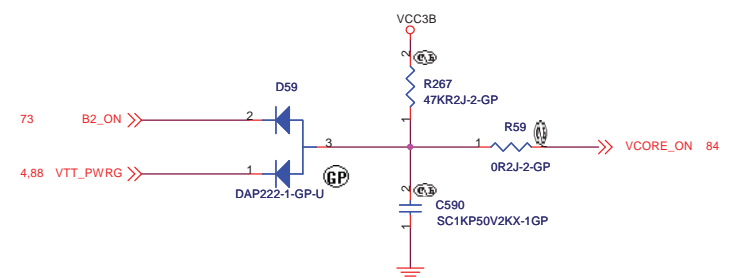
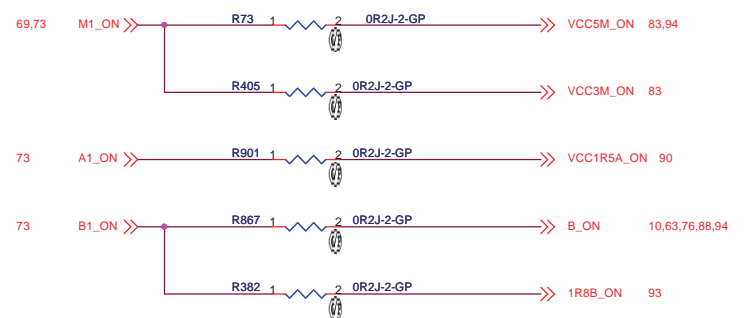


<Core Design>

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Title		
CHARGER SELECT		
Size A3	Document Number SHINAI-2	Rev -2
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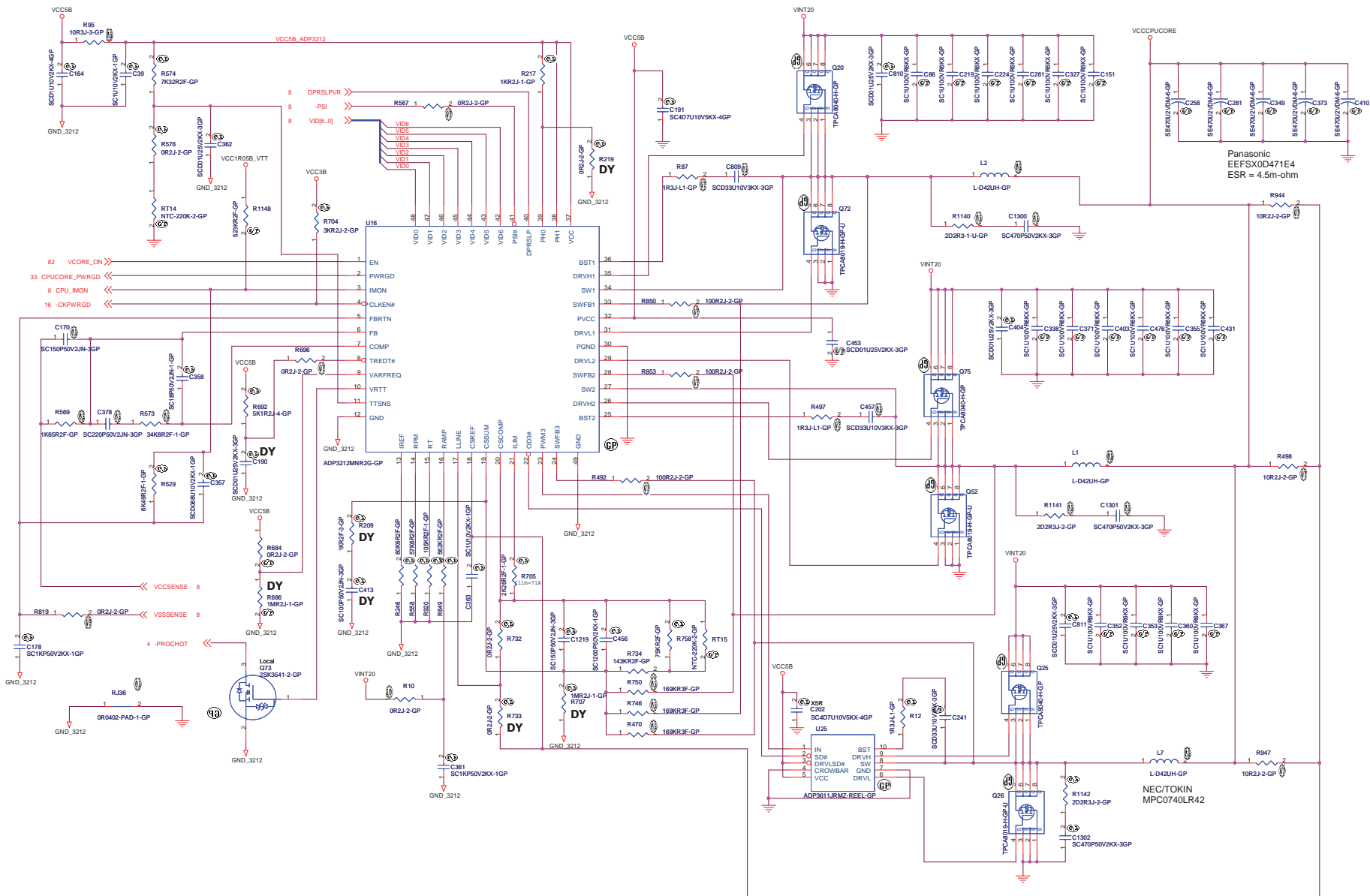




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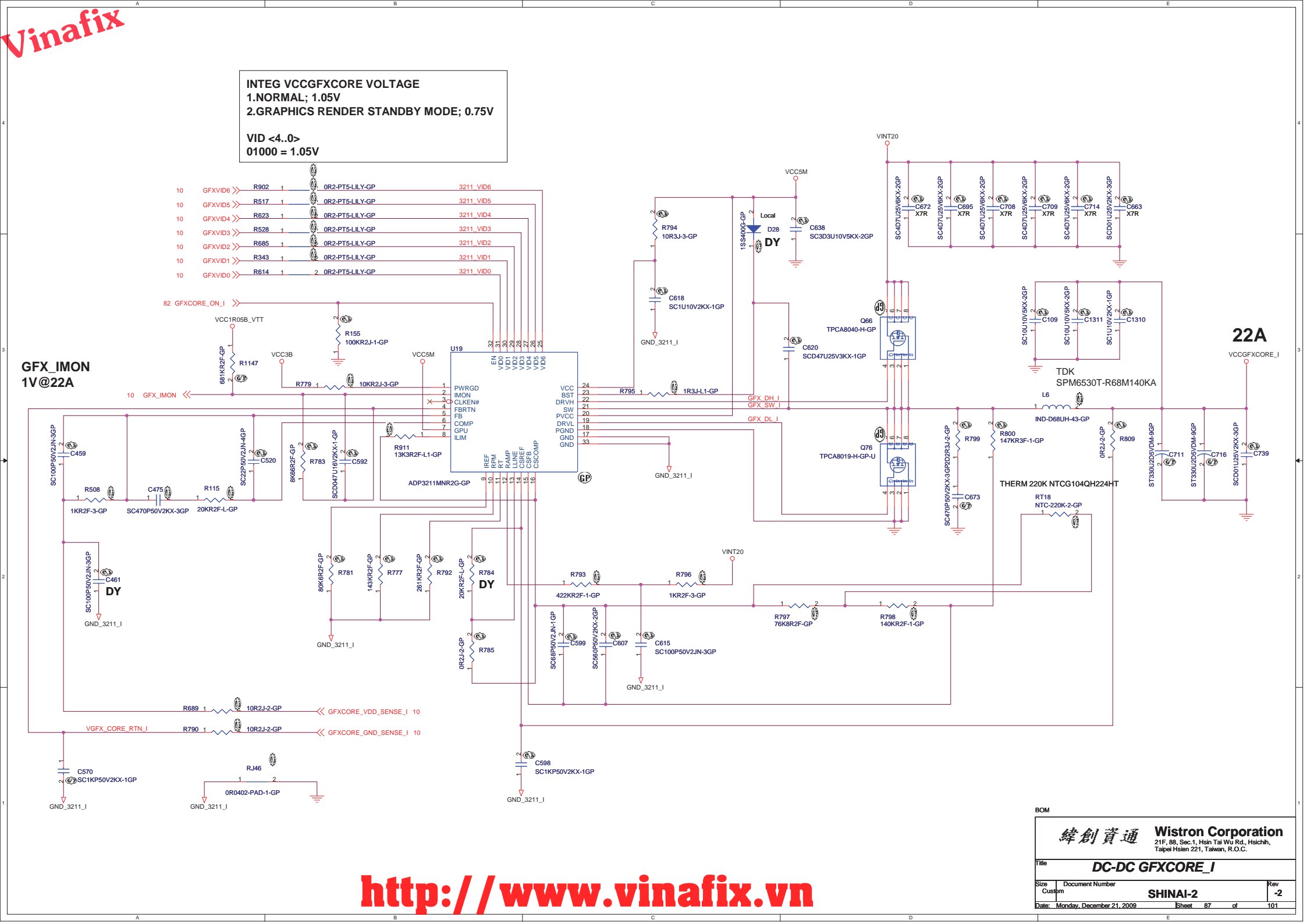
ALWAYS ON	YES	NO
D73	ASM	NO_ASM

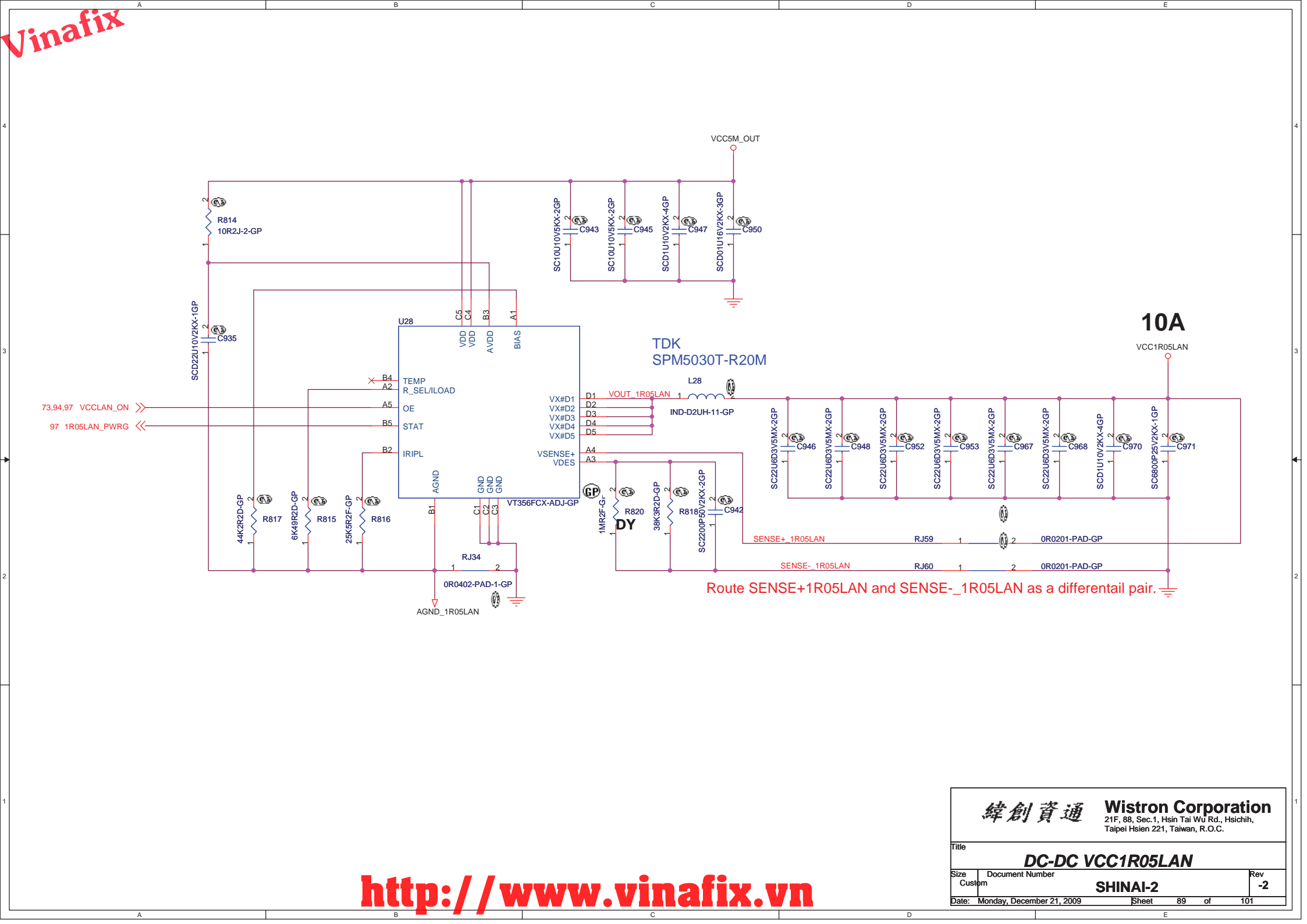
CPU_IMON
1V@50A

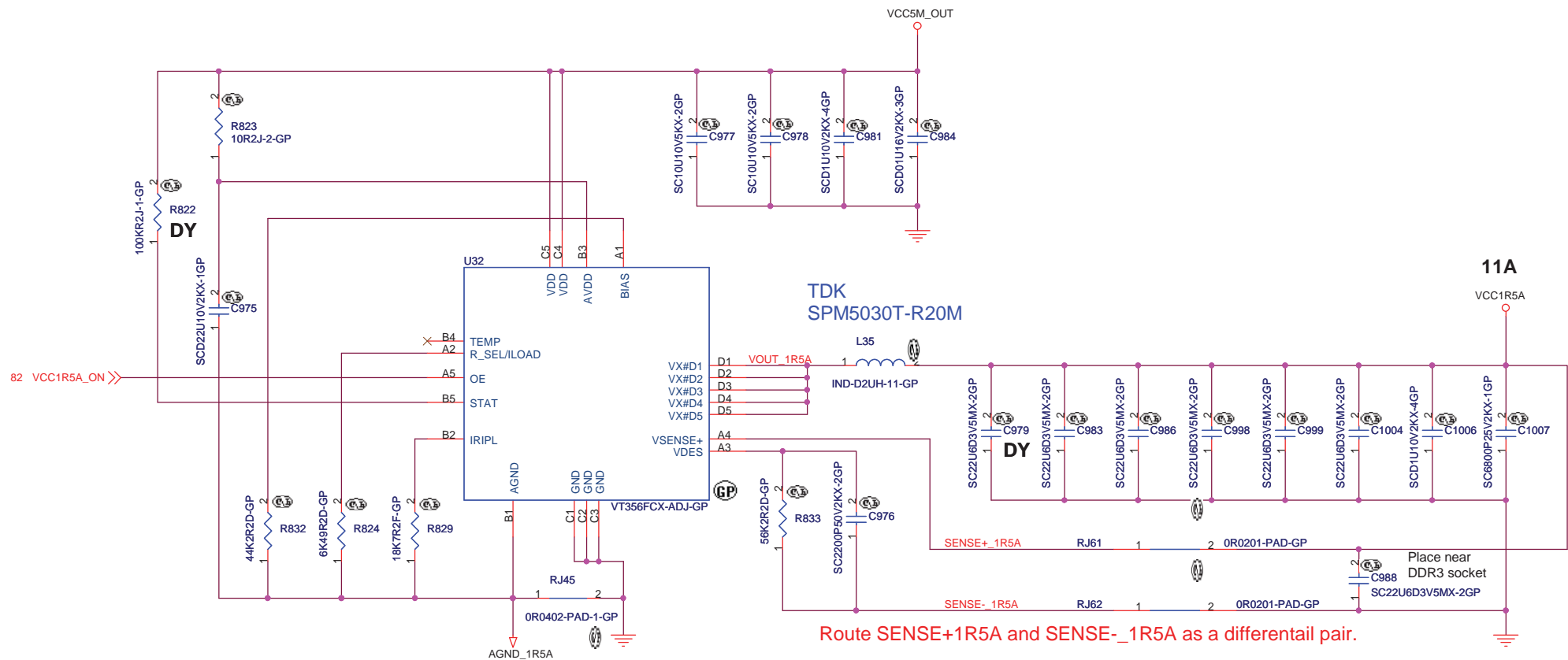


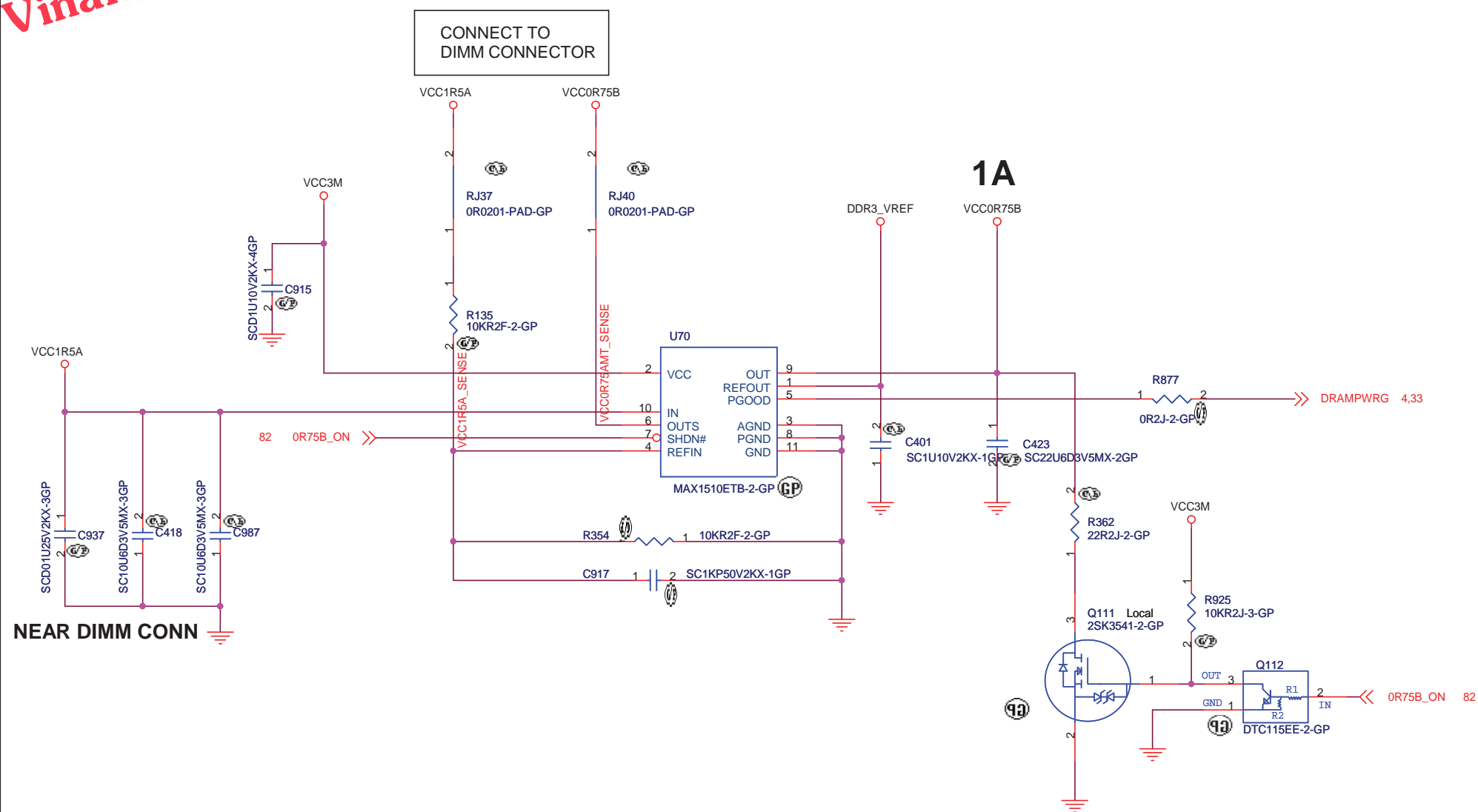


101









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Title

DC-DC VCC0R75B

Size

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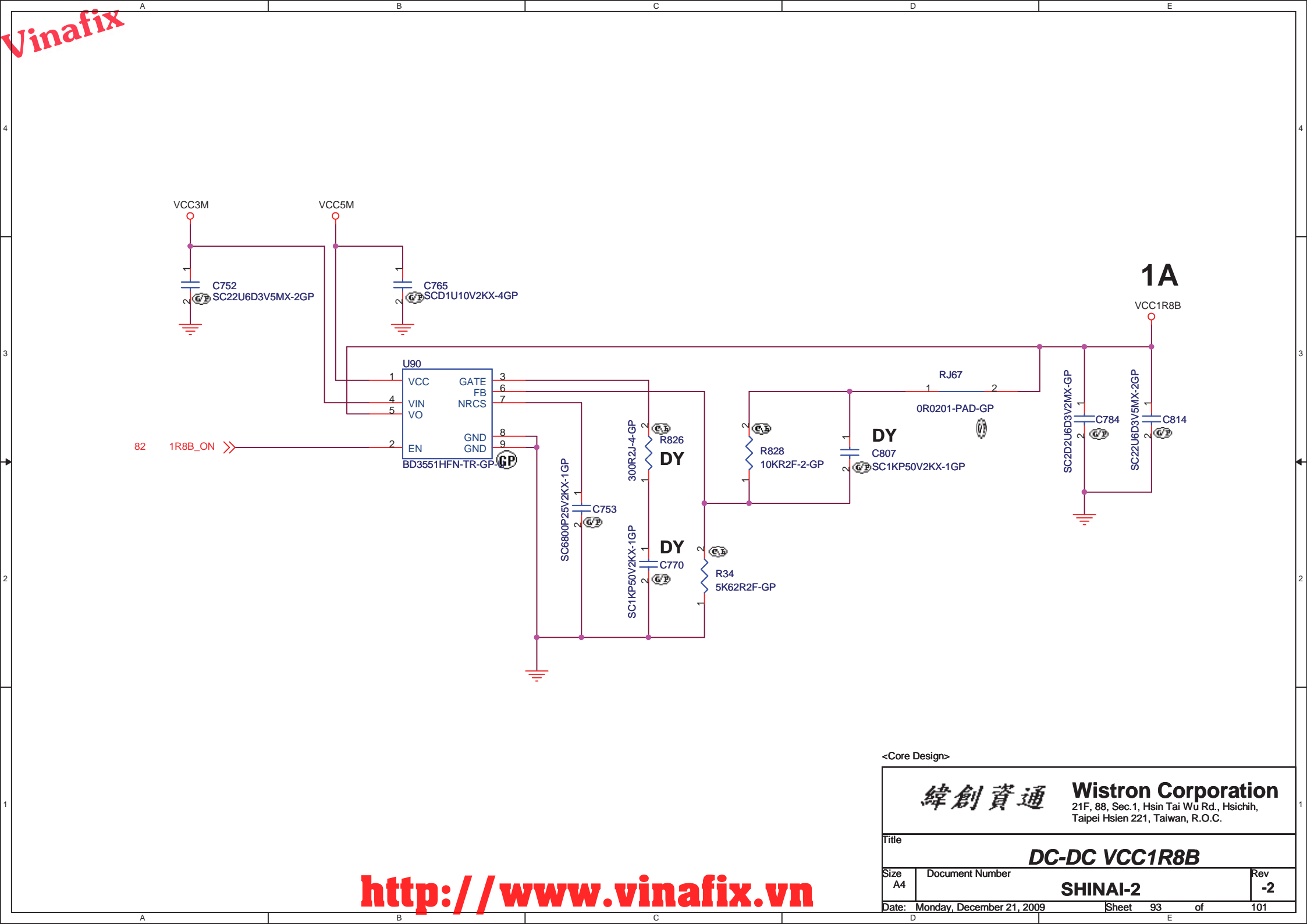
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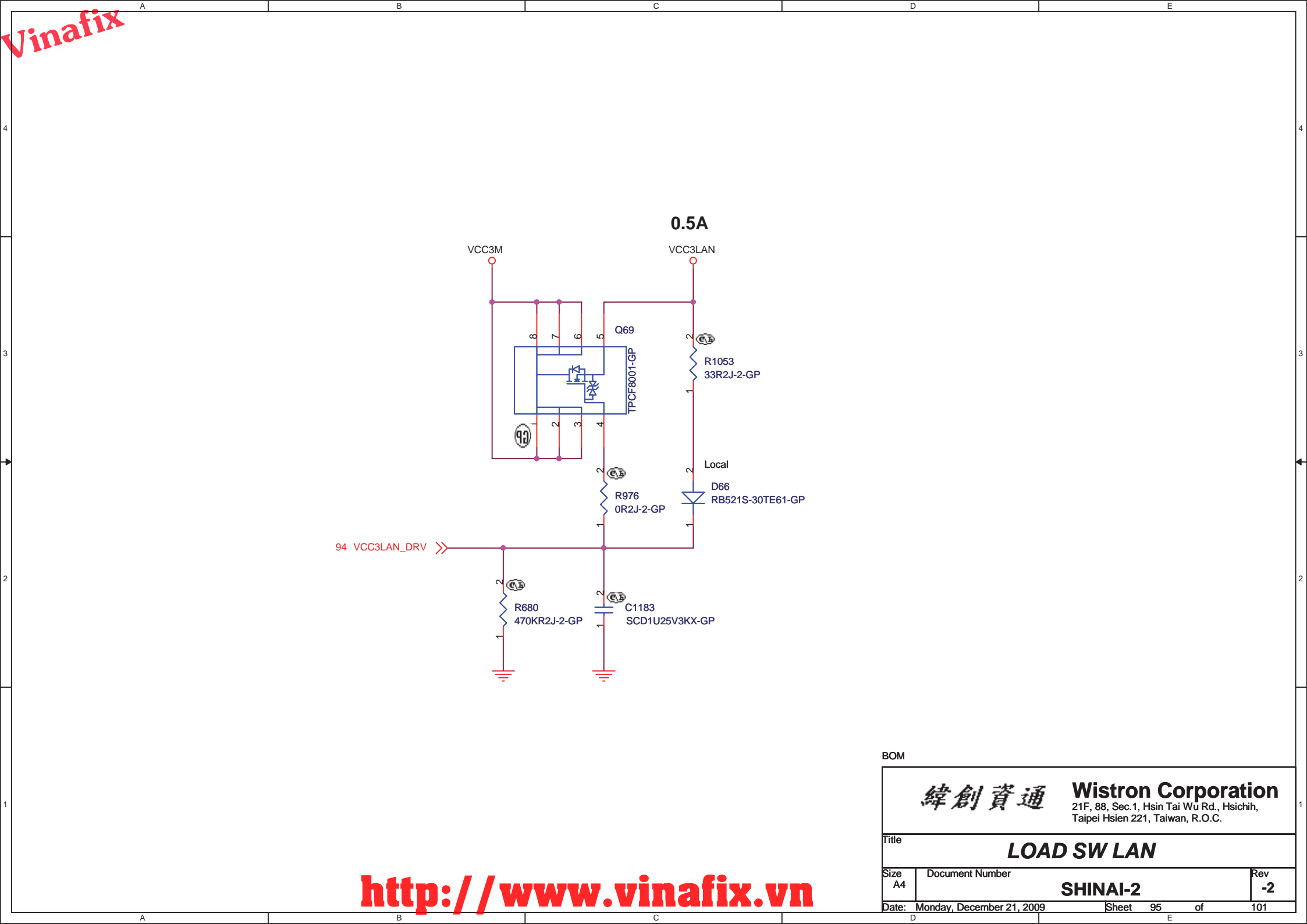
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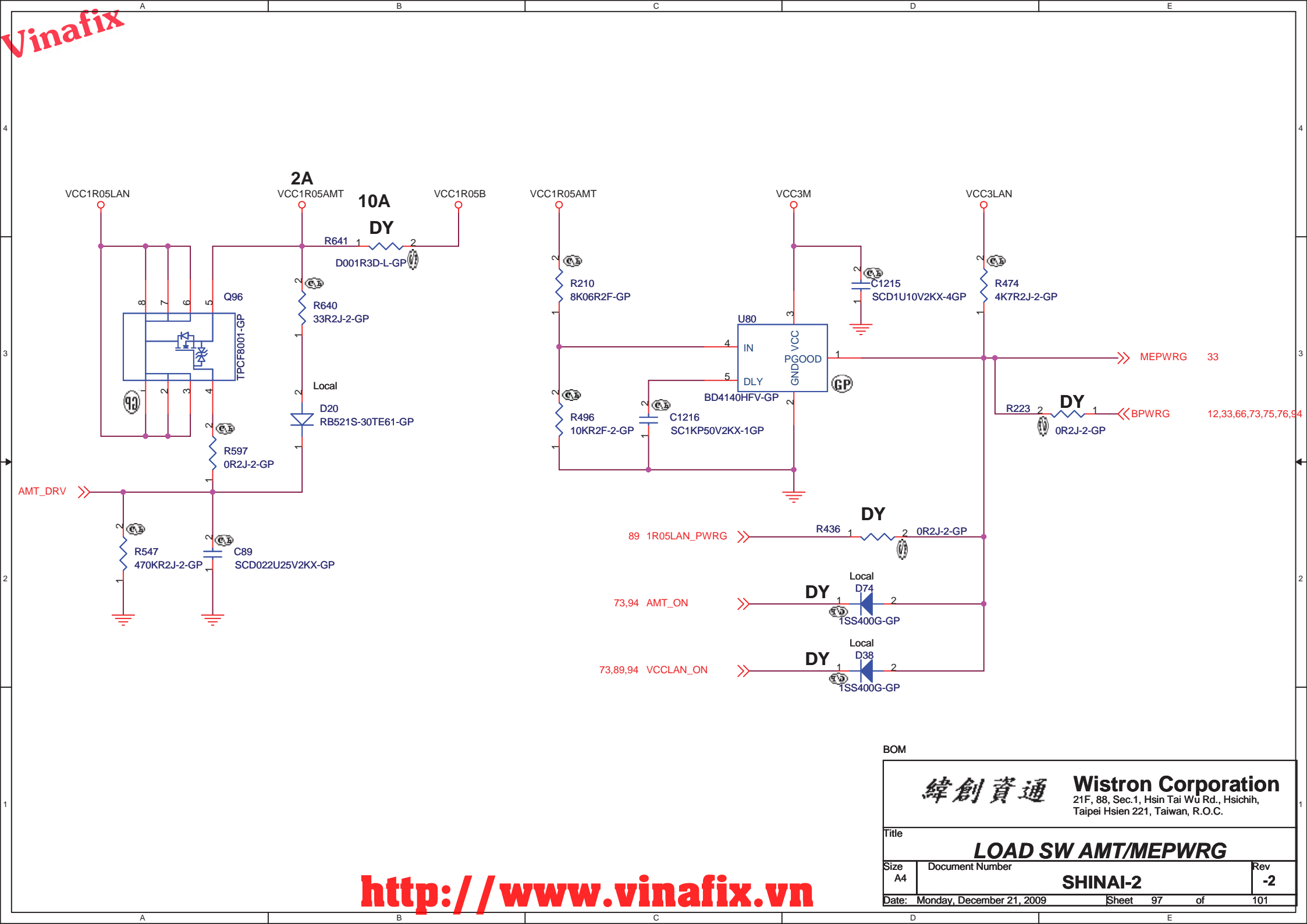
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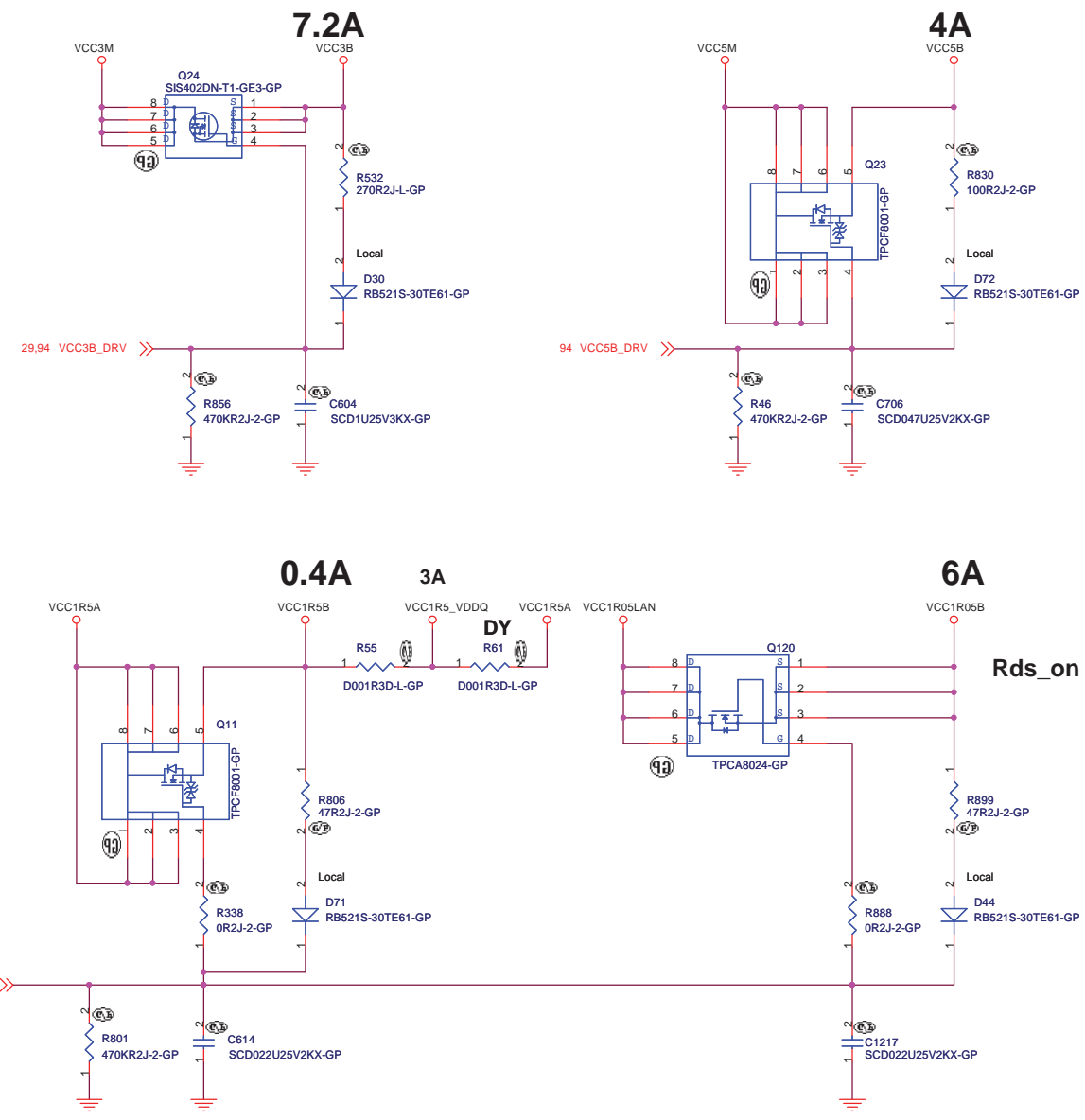
Date: Monday, December 21, 2009

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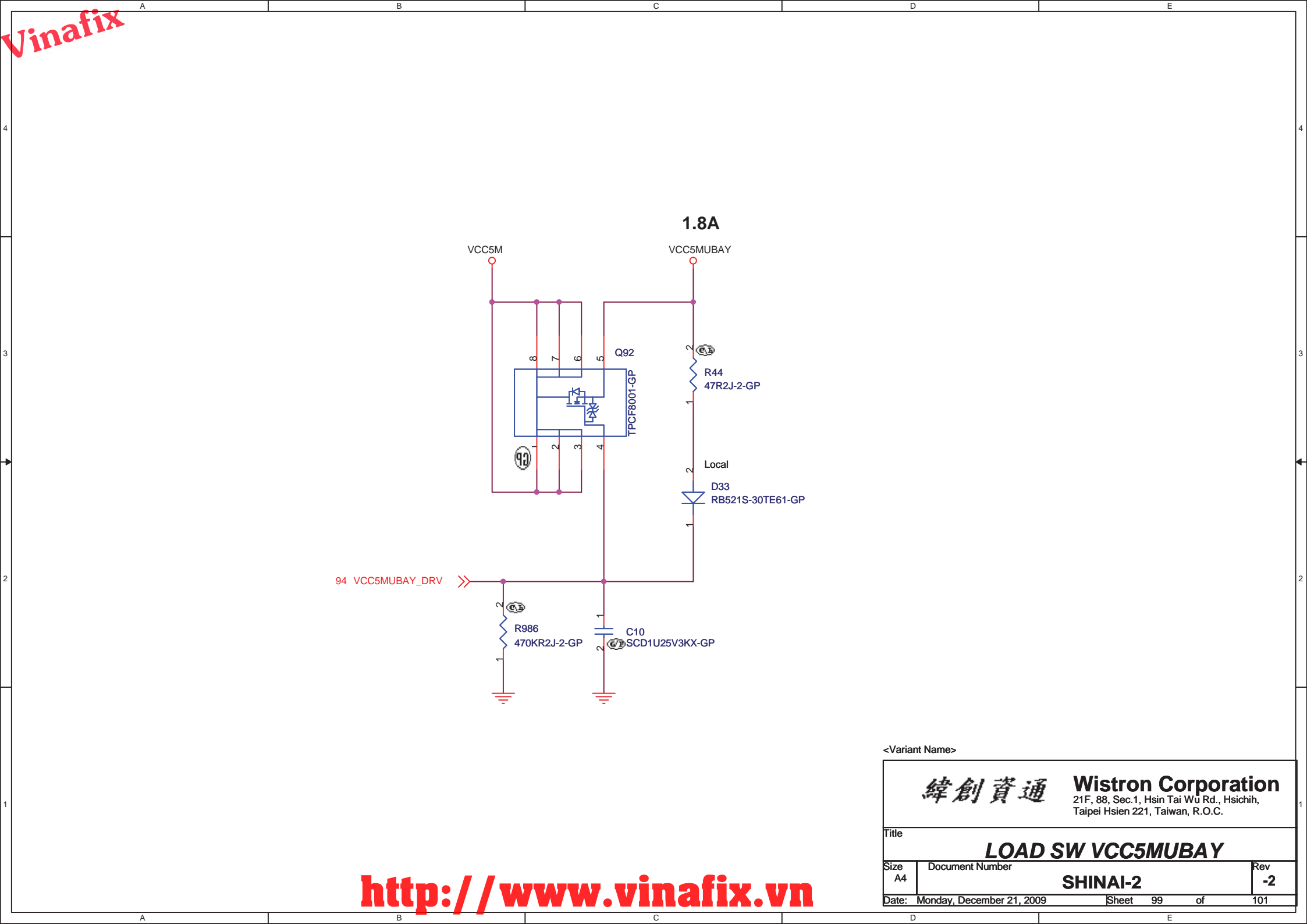


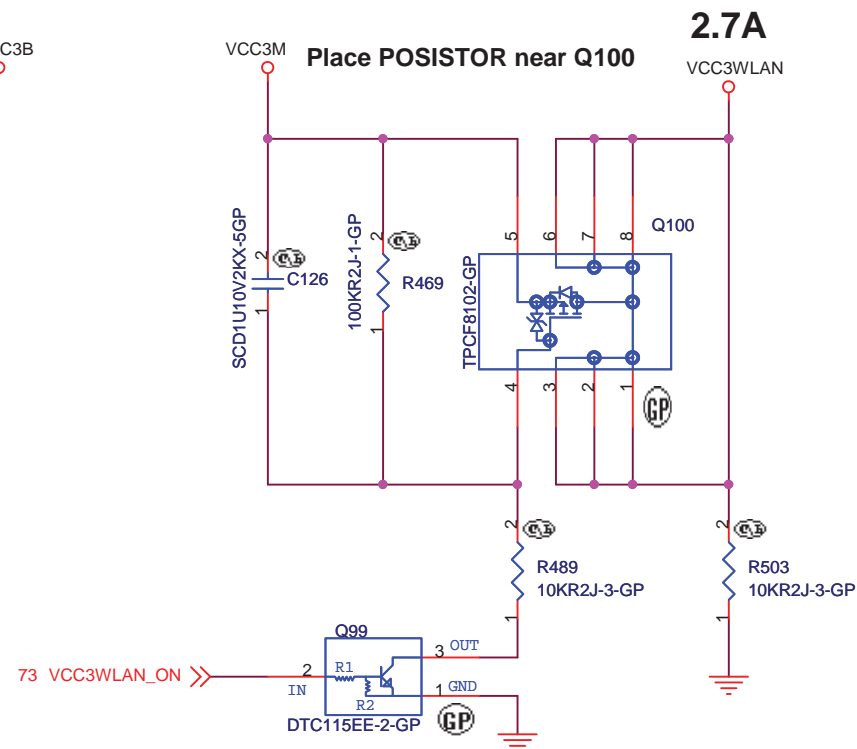
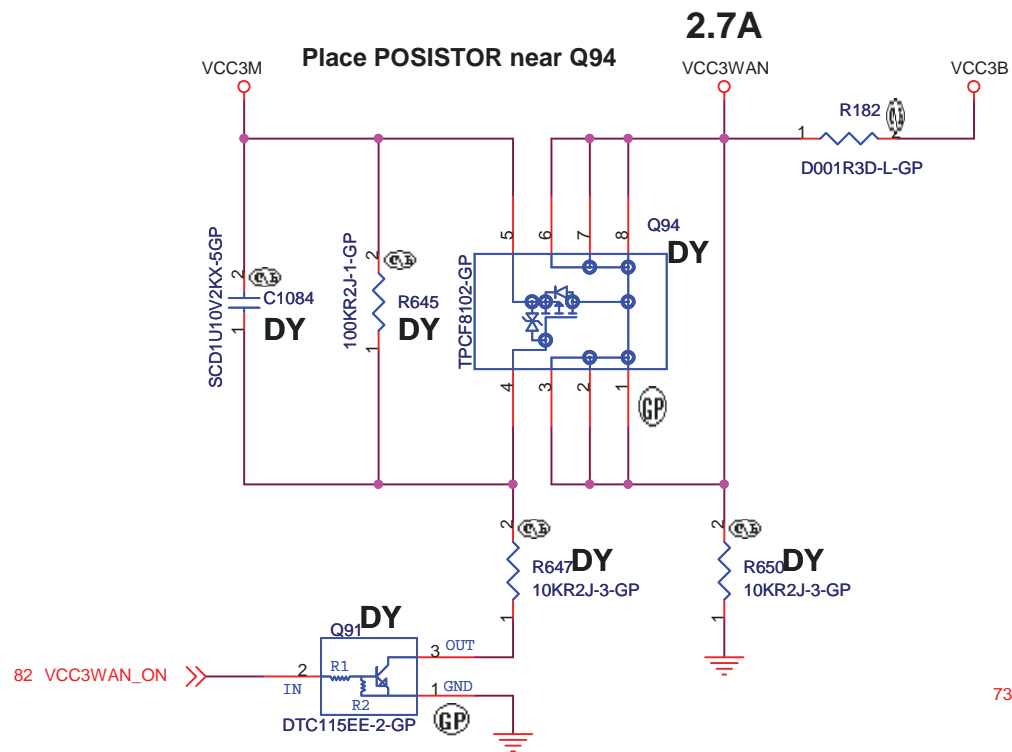




Rds_on = 4.5m ohm MAX@10V

BOM		
<div> <div>緯創資通</div> <div>Wistron Corporation</div> <div>21F, 88, Sec.1, Hsin Tai Wu Rd., Hsichih, Taipei Hsien 221, Taiwan, R.O.C.</div> </div>		
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Size	Document Number	Rev
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BOM

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Title

LOAD SW WAN & WLAN

Size
A4

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