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NZM1H-1
VER 1.31
DEC/04/2008

BASE LOGIC:NZM1 EXT PRE-DV
 VER 0.56
 SEP/29/2008

95. LOAD SW AMT / MEPWRG
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	TITLE PAGE	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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EC HISTORY

NOZOMI-1 PRE-DV :BASE LOGIC COR5 EXT SOVP VER.6.01 04/07/2008

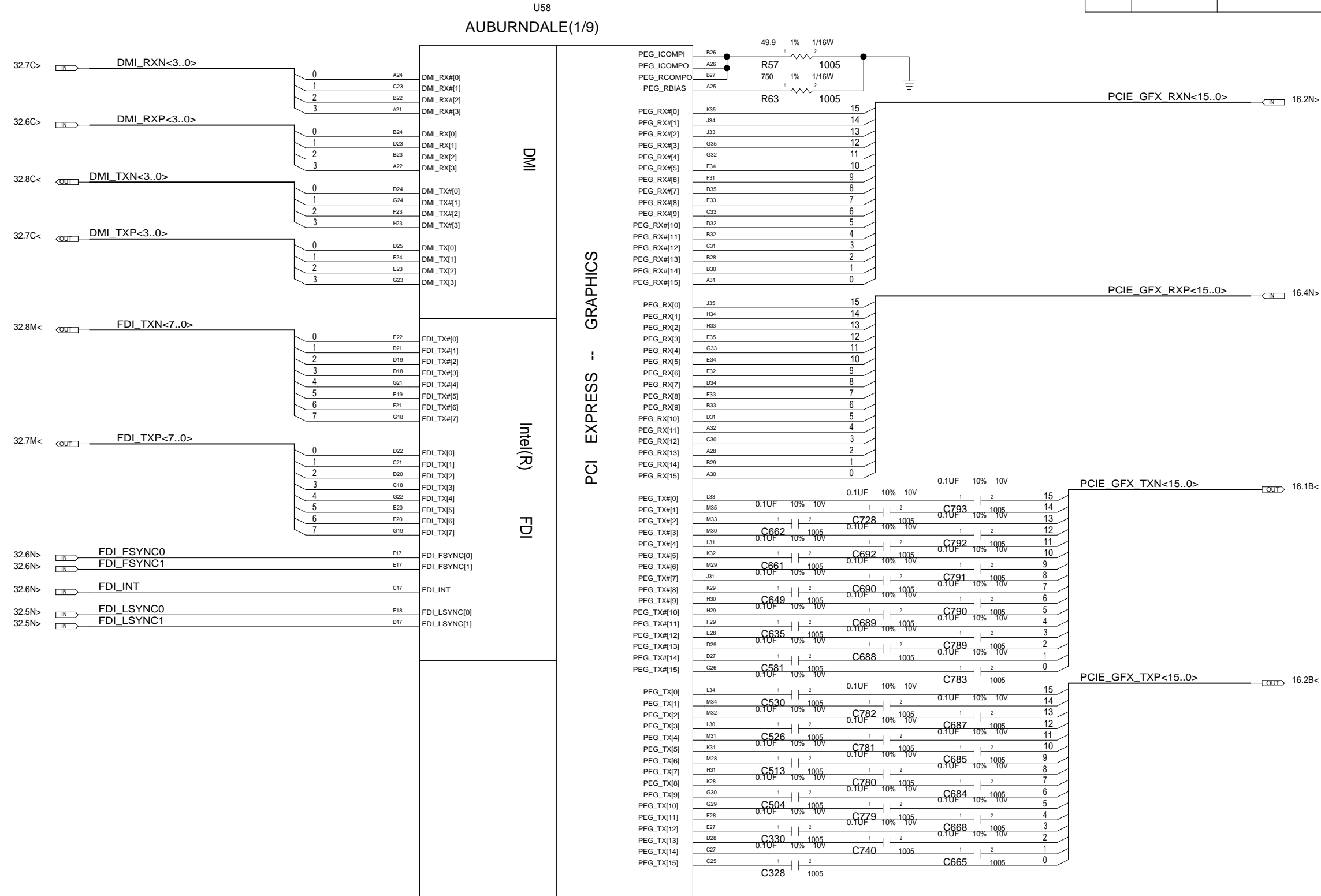
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VER.0.46	09/03/2008	APPLIED	PDV_EC315-319				

DATE	EC NO.	PART NO.
		VER.1.31
		DEVELOPMENT NO.
		Q/M
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08		
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	EC HISTORY	
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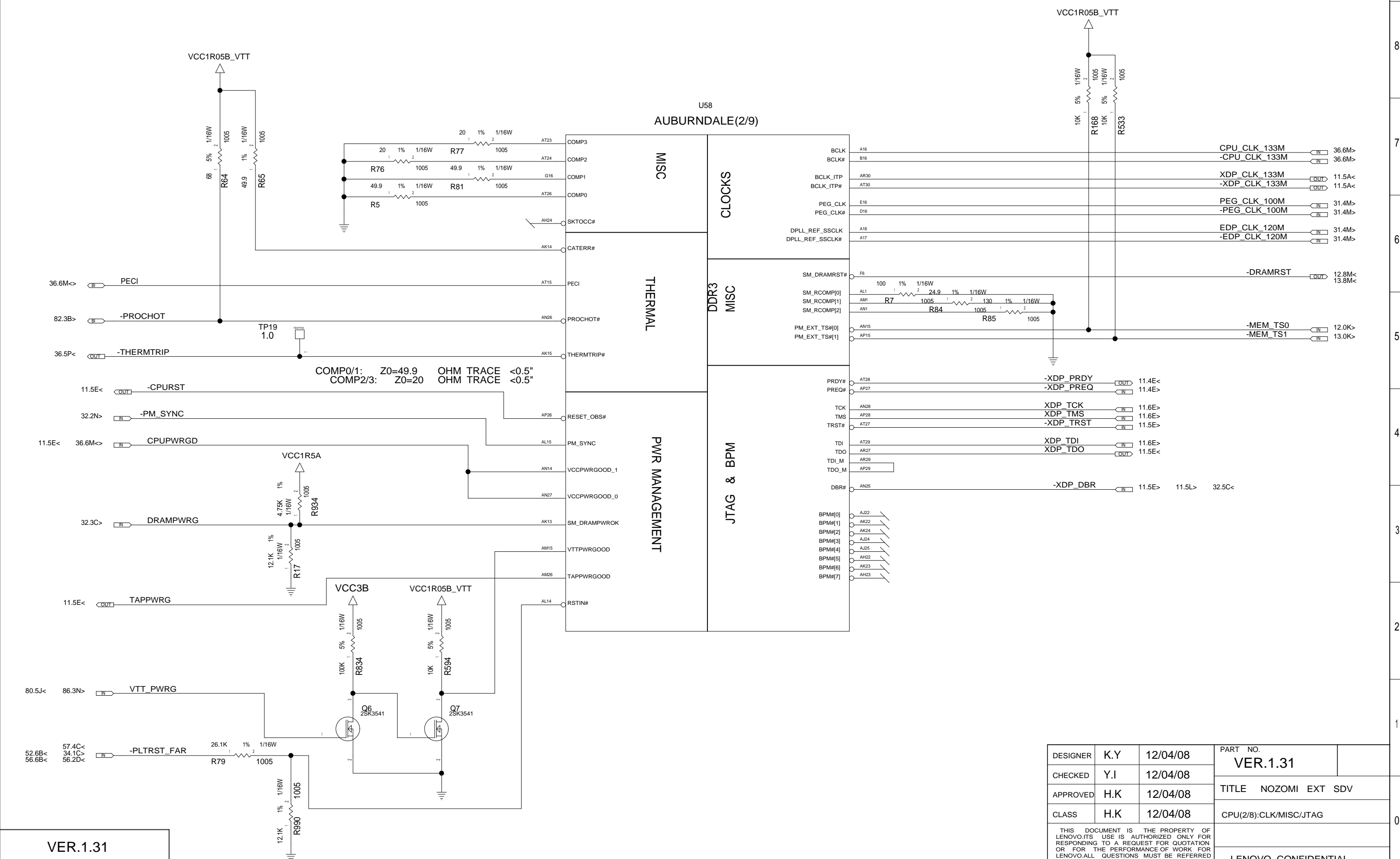
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		VER.1.31	
		DEVELOPMENT NO.	Q/M
			3 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	CPU(1/8):DMI/PEG/FDI
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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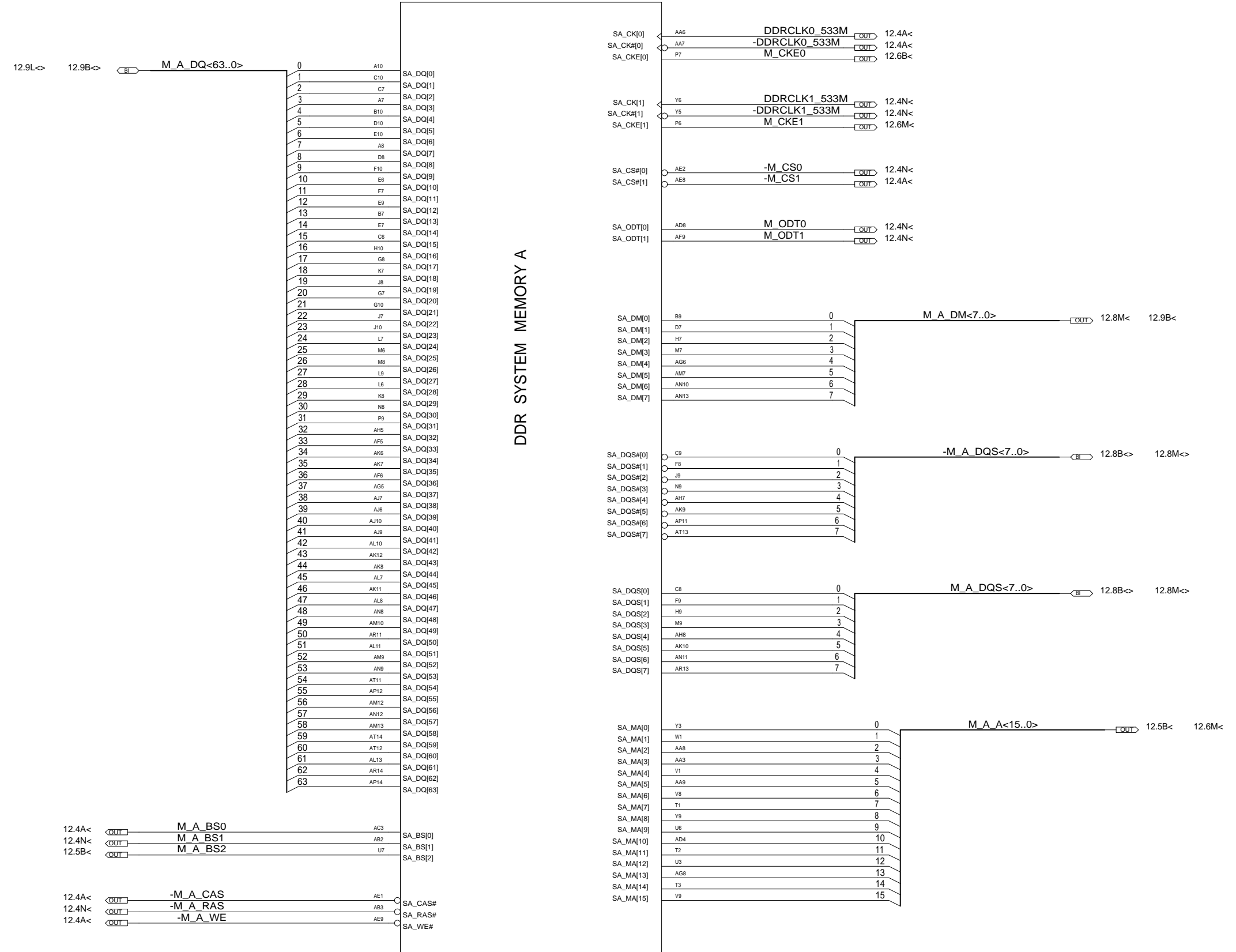
VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	CPU(2/8):CLK/MISC/JTAG	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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		VER.1.31	
		DEVELOPMENT NO.	Q/M
			5 / 99

U58
AUBURNDALE(3/9)



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	CPU(3/8):DDR3	CH-A
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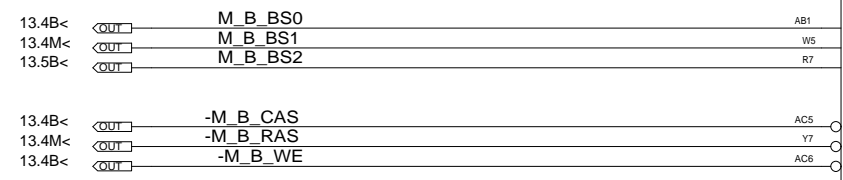
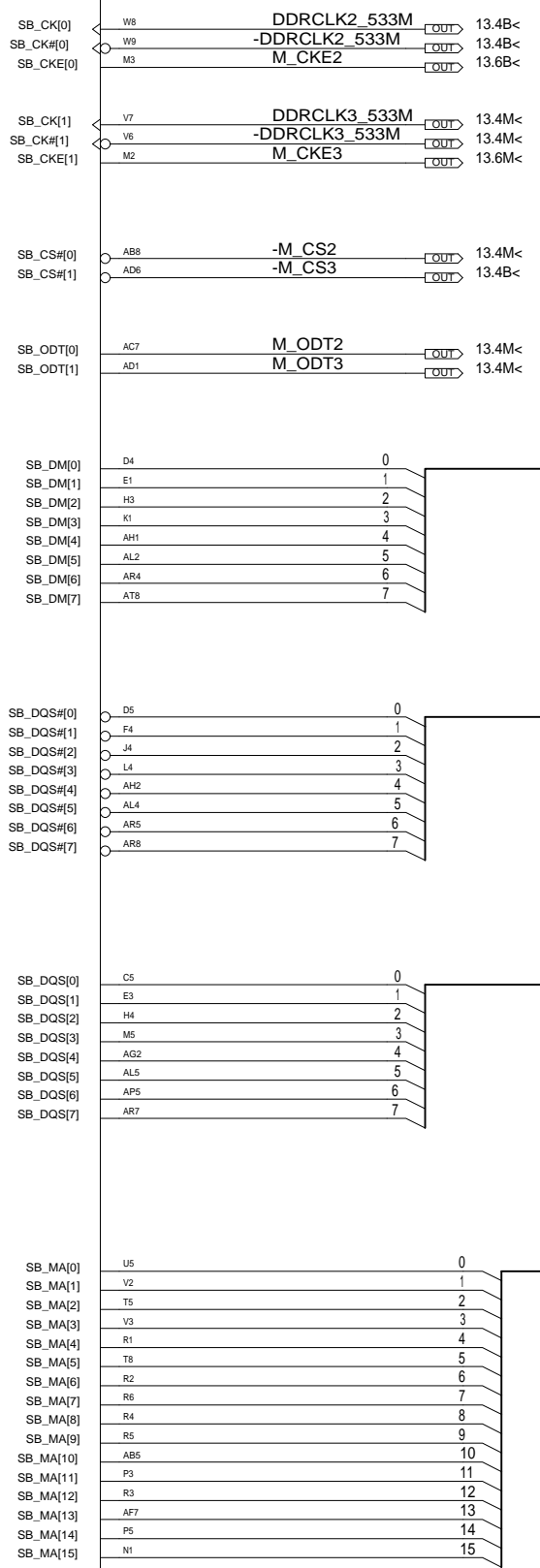
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			6 / 99

U58
AUBURNDALE(4/9)

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DDR SYSTEM MEMORY - B

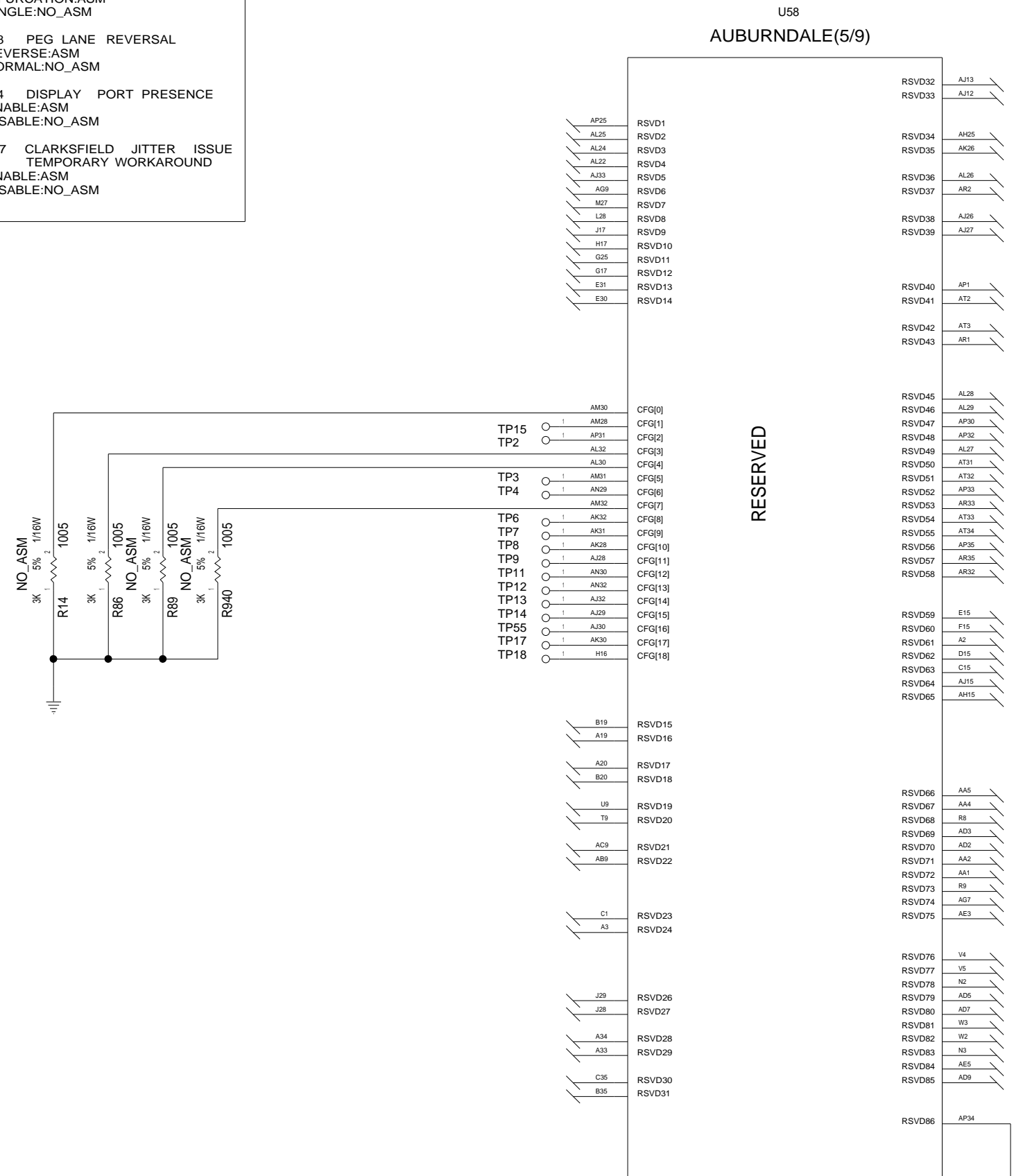


DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	CPU(4/8):DDR3	CH-B
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	DATE	EC NO.	PART NO.	
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TABLE

CFG0	PEG CONFIG	BIFURCATION:ASM	SINGLE:NO_ASM
CFG3	PEG LANE REVERSAL	REVERSE:ASM	NORMAL:NO_ASM
CFG4	DISPLAY PORT PRESENCE	ENABLE:ASM	DISABLE:NO_ASM
CFG7	CLARKSFIELD JITTER ISSUE	TEMPORARY WORKAROUND	ENABLE:ASM
			DISABLE:NO_ASM



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	CPU(5/8):CFG/RSVD	
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VCCPUCORE

AUBURNDALE(6/9)

VCC1R05B_VTT

6 MILI OHM

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			8 / 99

- AG35 VCC1
- AG34 VCC2
- AG33 VCC3
- AG32 VCC4
- AG31 VCC5
- AG30 VCC6
- AG29 VCC7
- AG28 VCC8
- AG27 VCC9
- AG26 VCC10
- AF35 VCC11
- AF34 VCC12
- AF33 VCC13
- AF32 VCC14
- AF31 VCC15
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- AD26 VCC30
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- AC32 VCC34
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- AC28 VCC38
- AC27 VCC39
- AC26 VCC40
- AA35 VCC41
- AA34 VCC42
- AA33 VCC43
- AA32 VCC44
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- P31 VCC95
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U58
POWER

1.1V RAIL POWER

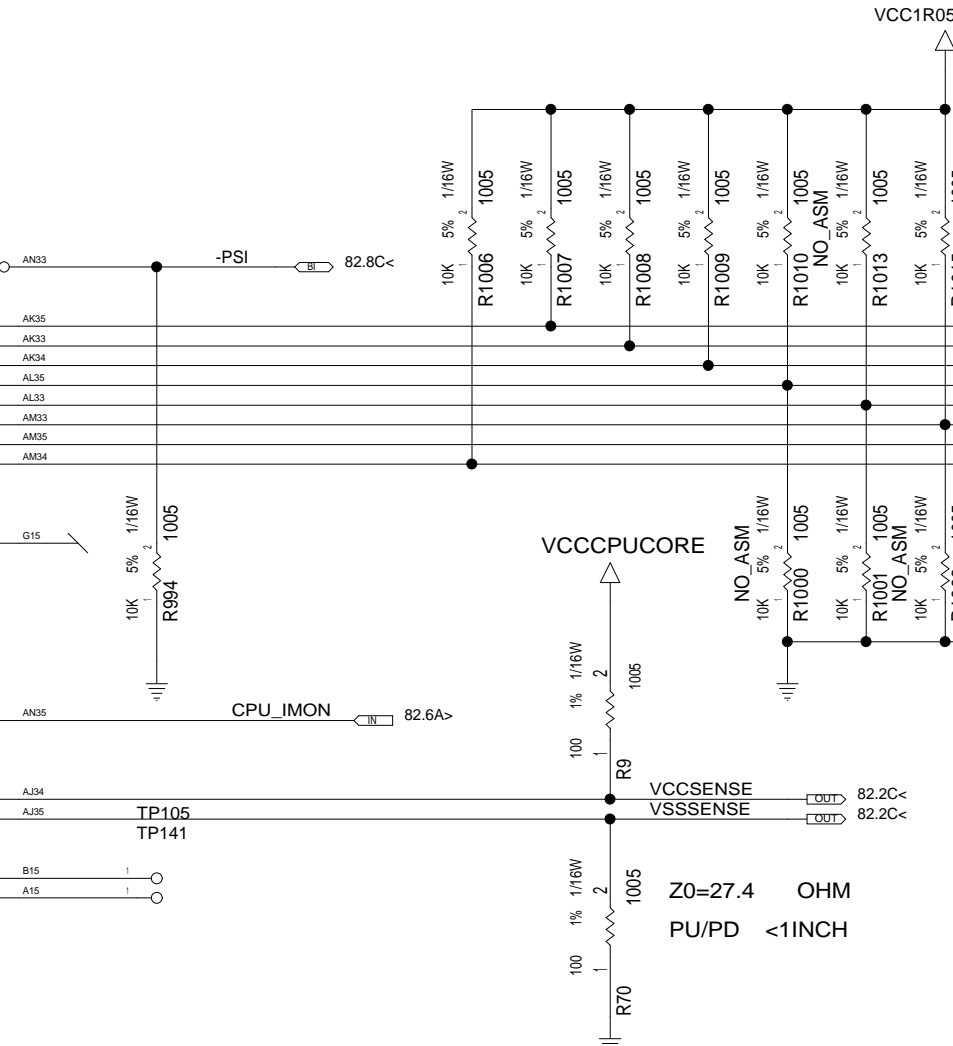
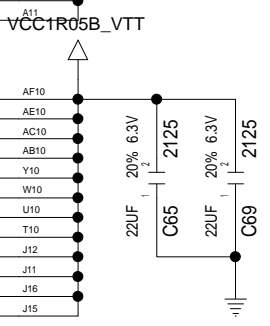
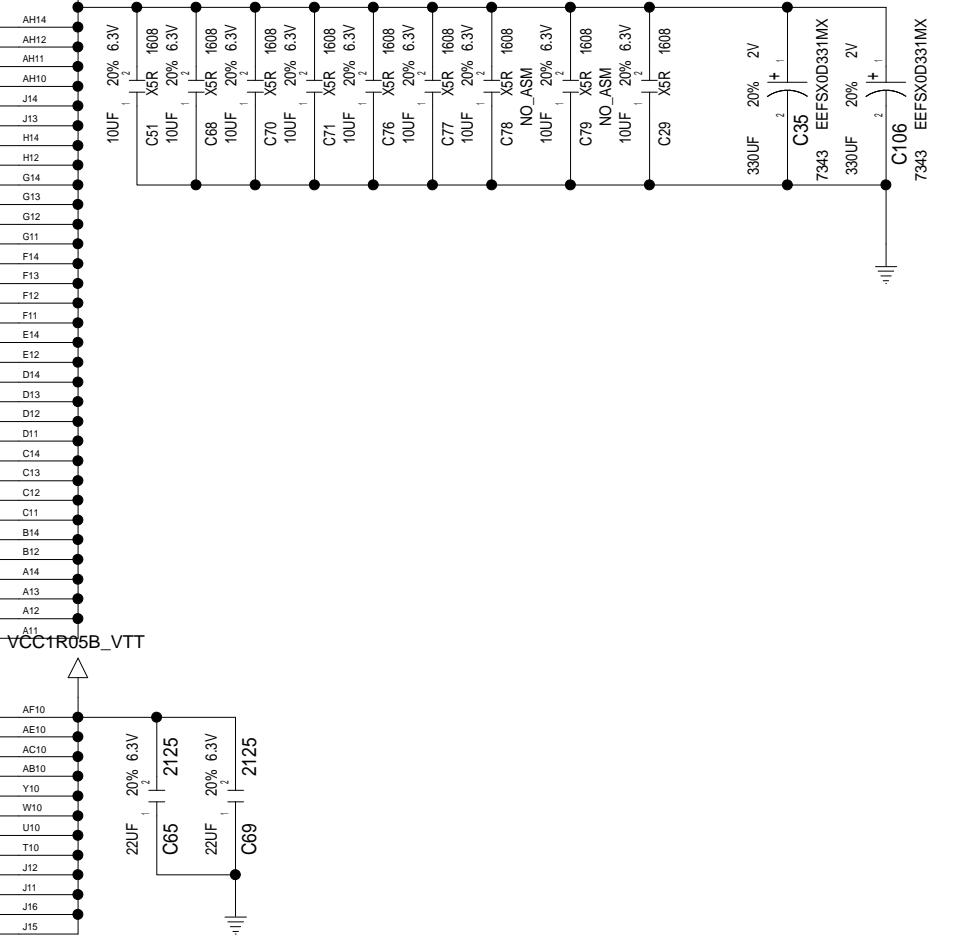
CPU CORE SUPPLY

CPU VIDS

SENSE LINES

- VTT1 AH14
- VTT2 AH12
- VTT3 AH11
- VTT4 AH10
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- VTT6 J13
- VTT7 H14
- VTT8 H12
- VTT9 G14
- VTT10 G13
- VTT11 G12
- VTT12 G11
- VTT13 F14
- VTT14 F13
- VTT15 F12
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- VTT17 E14
- VTT18 E12
- VTT19 D14
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- VTT24 C13
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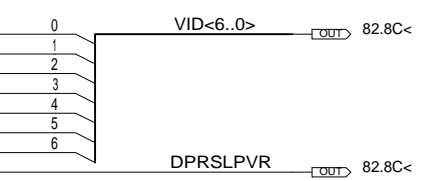
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- VTT43 J16
- VTT44 J15



LOGIC

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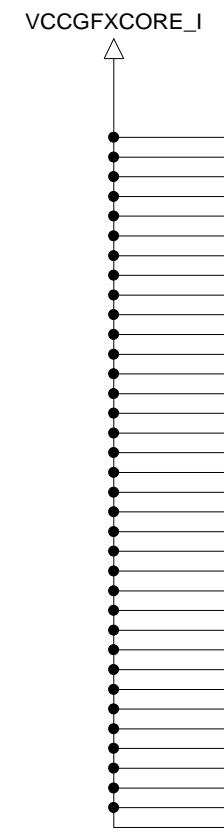
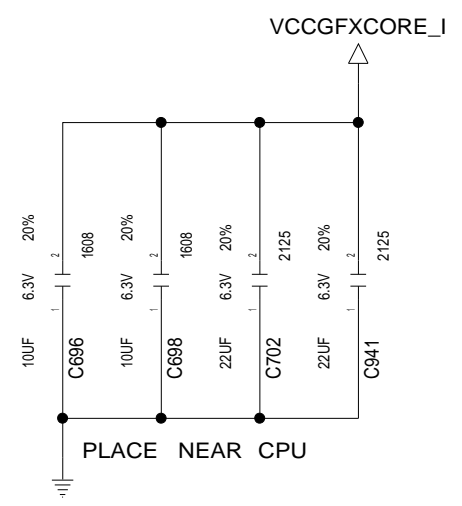
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	CPU(6/8):PWR	
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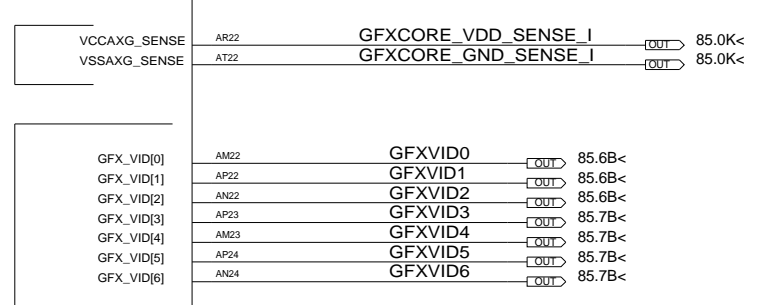
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			9 / 99



U58
AUBURNDALE(7/9)

GRAPHICS

SENSE LINES

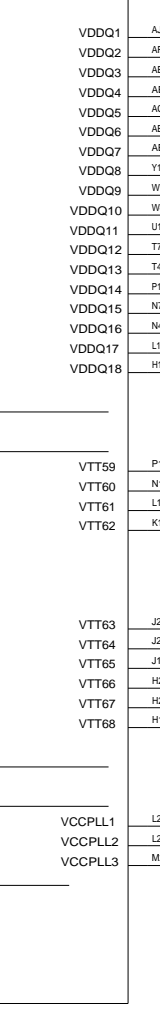


POWER

DDR3 - 1.5V RAILS

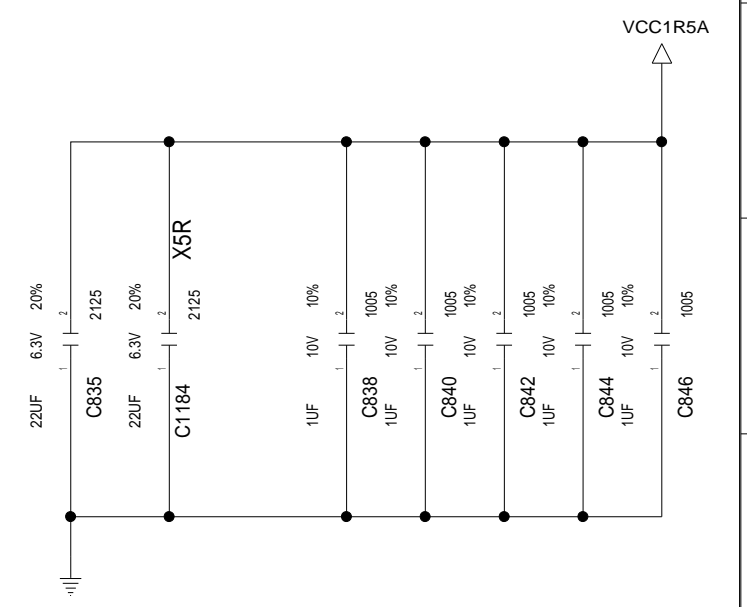
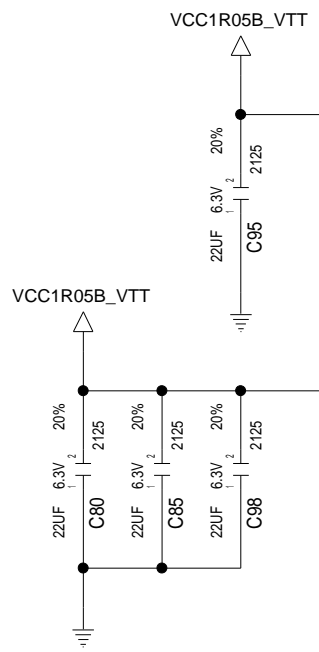
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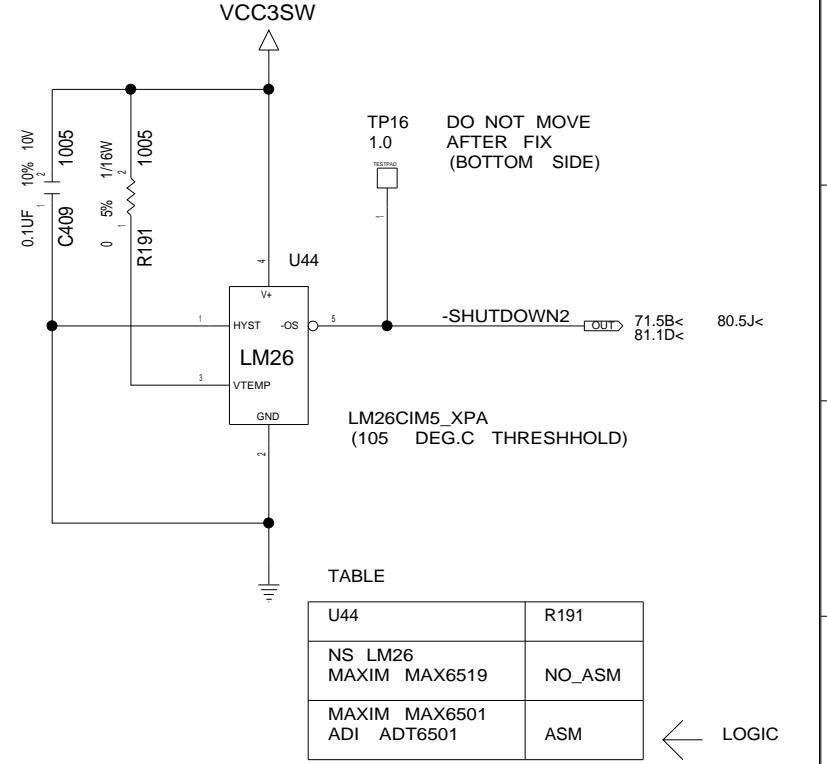
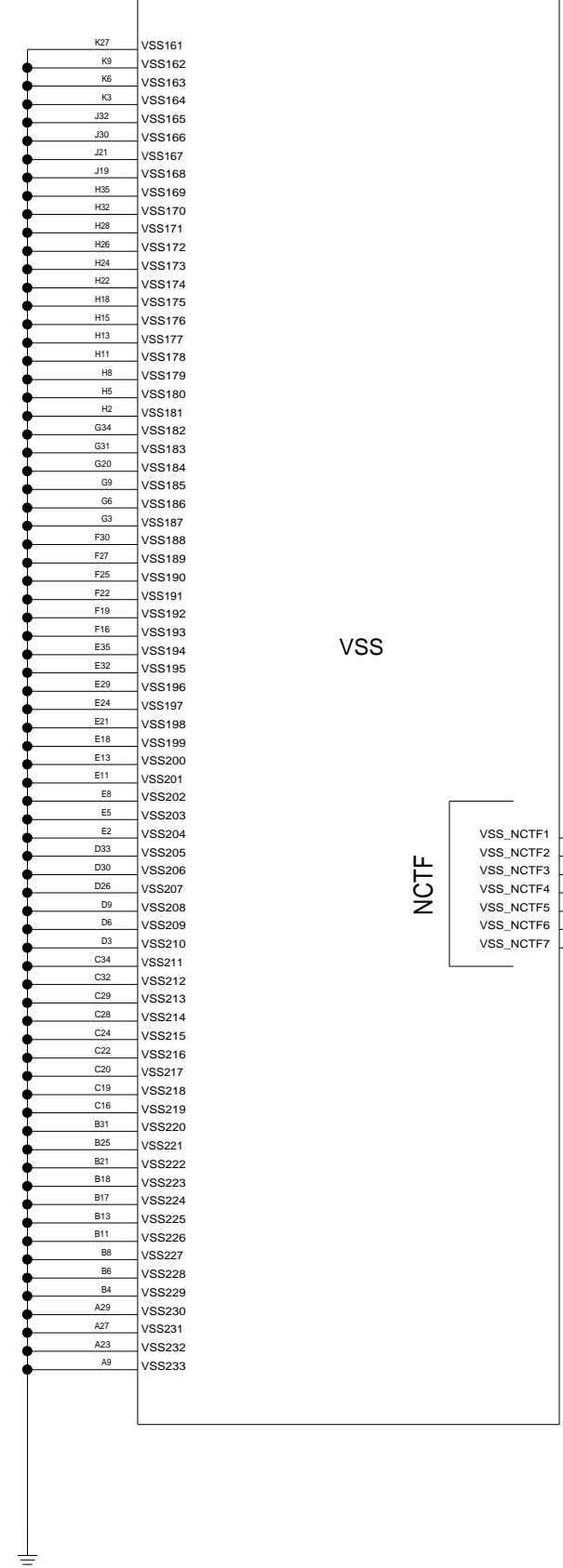
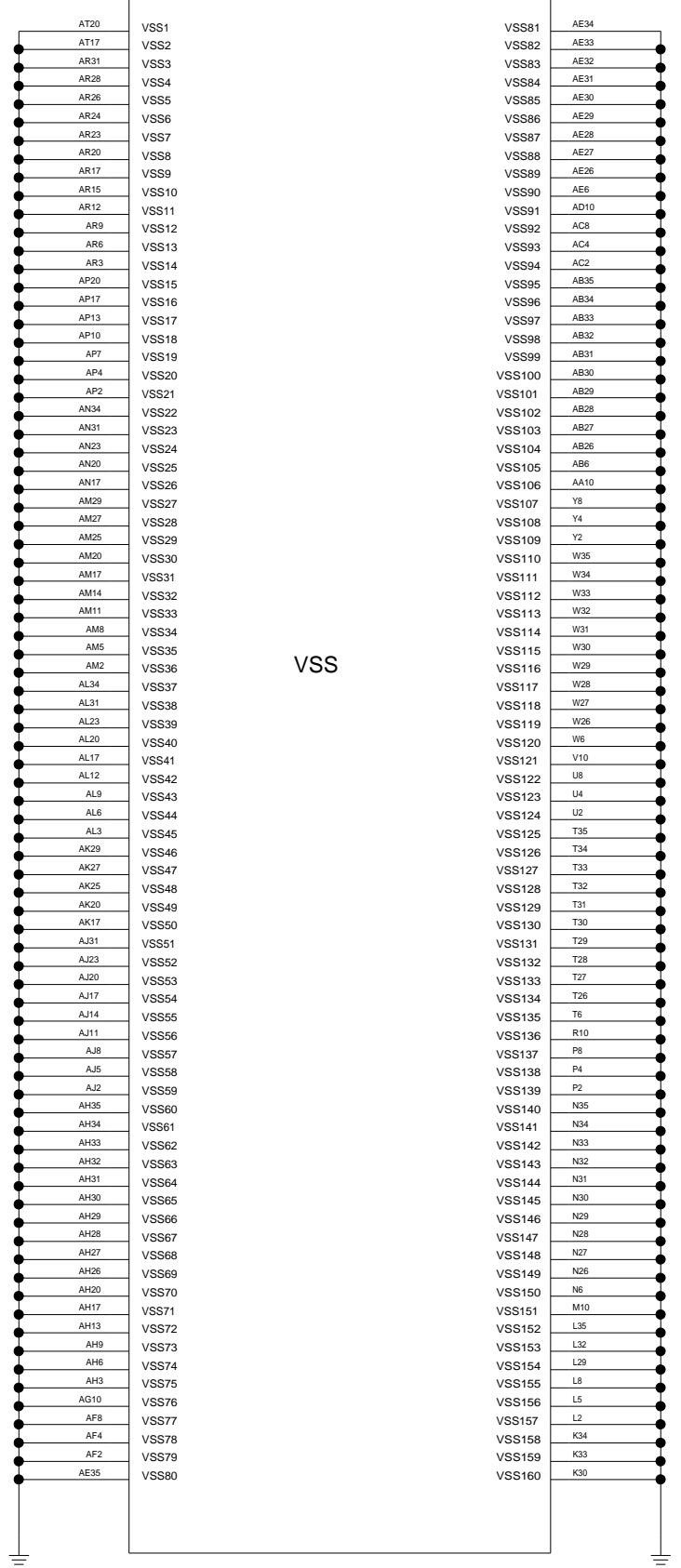
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CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	CPU(7/8):GFX/PWR
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DATE	EC NO.	PART NO. VER.1.31	
		DEVELOPMENT NO.	Q/M 10 / 99

U58
AUBURNDALE(8/9)

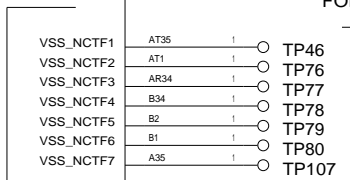
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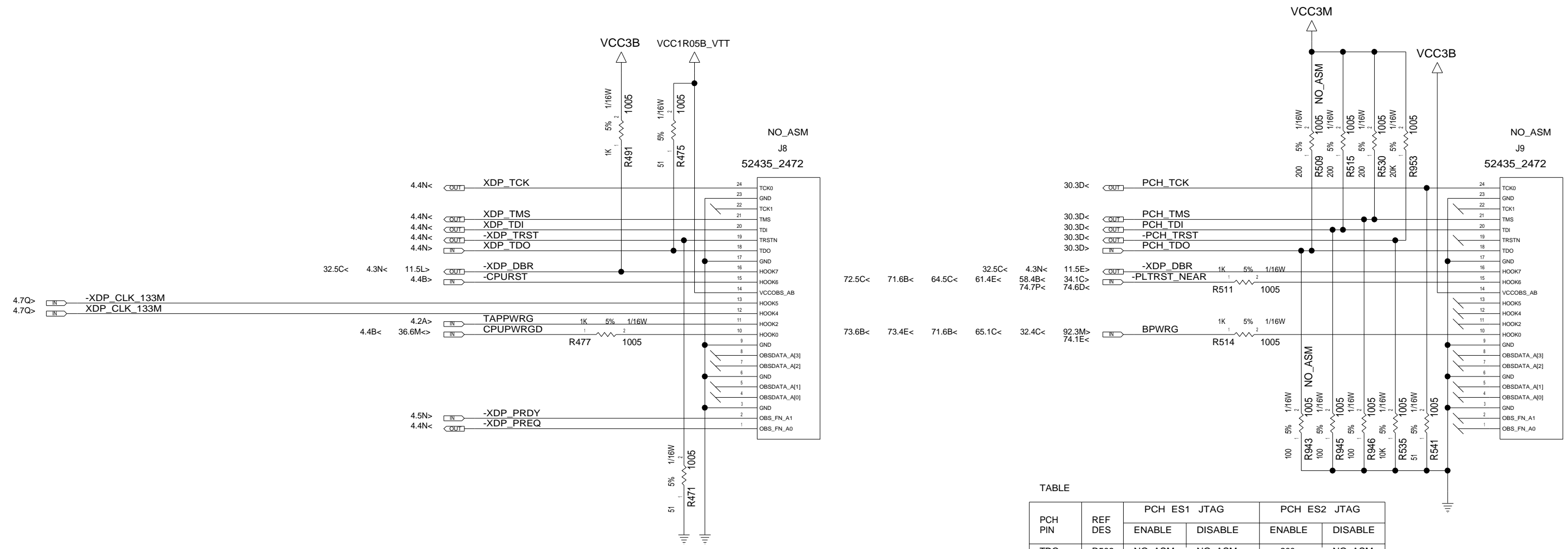
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MAXIM MAX6519	ASM
MAXIM MAX6501	
ADI ADT6501	

← LOGIC



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CHECKED	Y.I	12/04/08	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	CPU(8/8):GND
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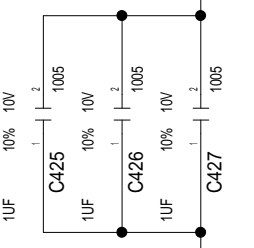
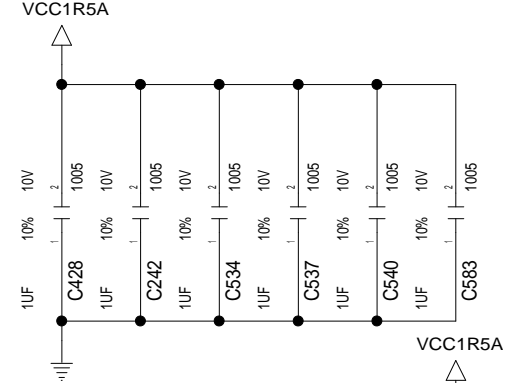
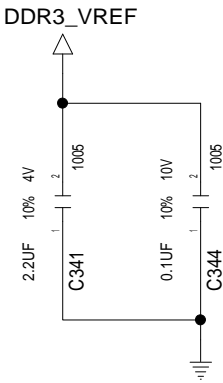
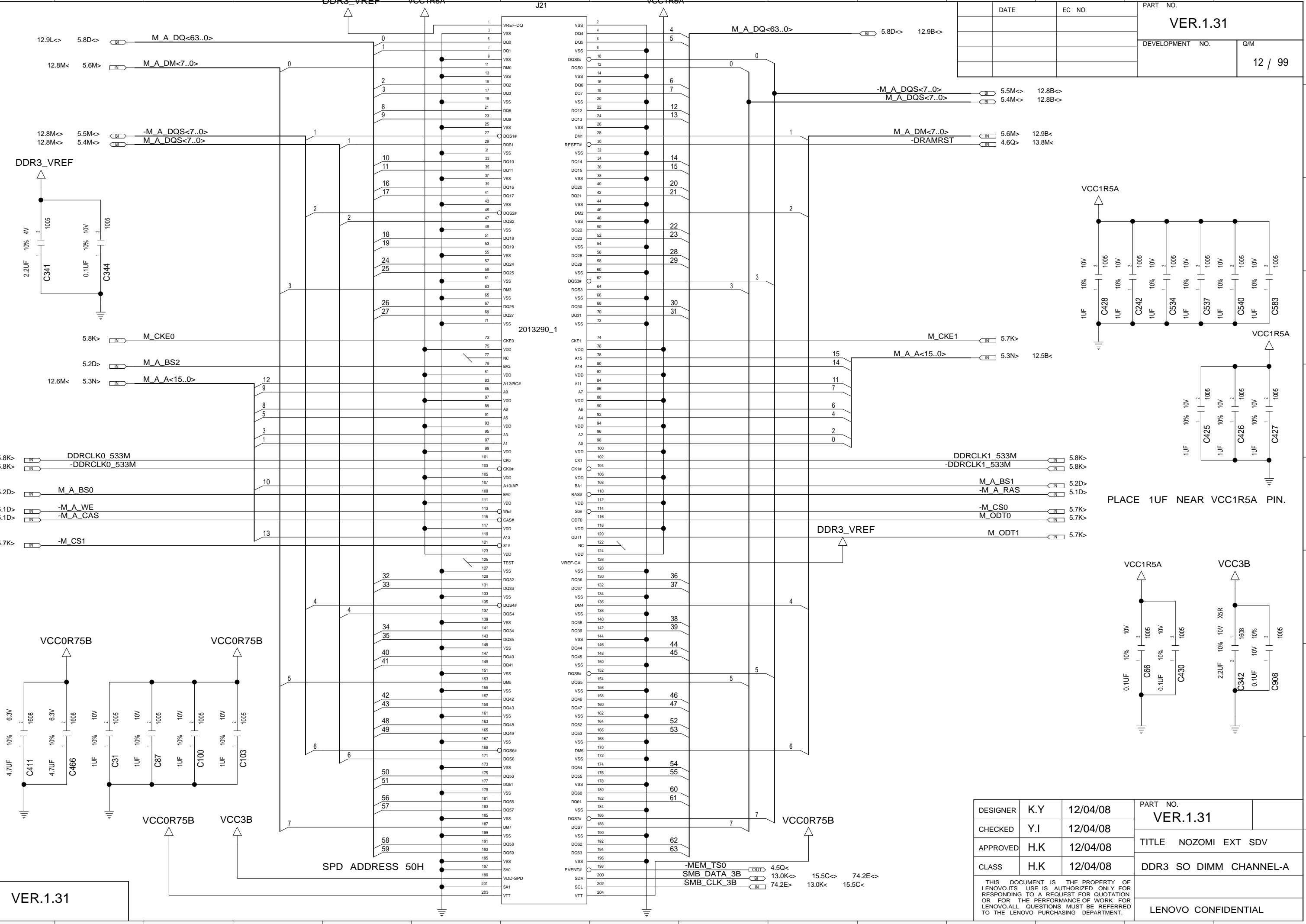


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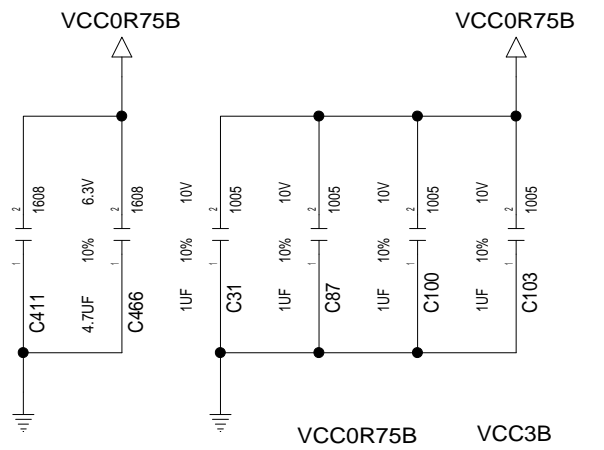
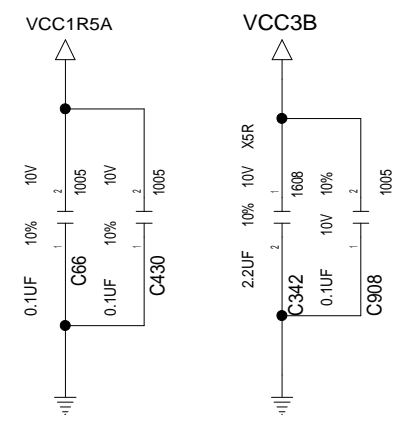
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	R943	NO_ASM	NO_ASM	100	NO_ASM
TMS	R530	200	NO_ASM	200	NO_ASM
	R946	100	NO_ASM	100	NO_ASM
TDI	R515	200	20K	200	NO_ASM
	R945	100	10K	100	NO_ASM
TCK	R541	51	51	51	51
TRST#	R953	20K	NO_ASM	20K	NO_ASM
	R535	10K	NO_ASM	10K	NO_ASM

↑
LOGIC

DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
		12 / 99	



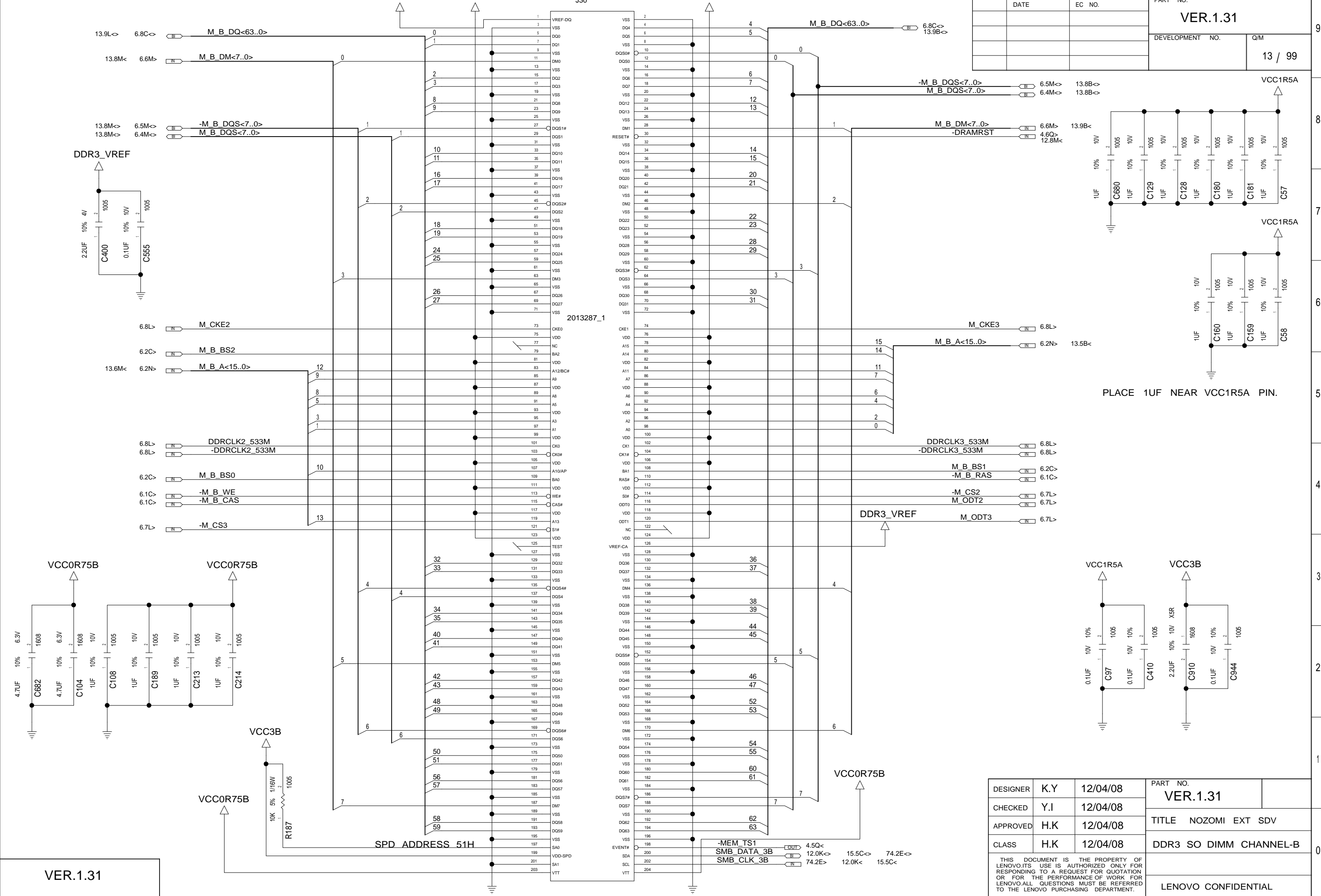
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	DDR3 SO DIMM CHANNEL-A	
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DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
		13 / 99	

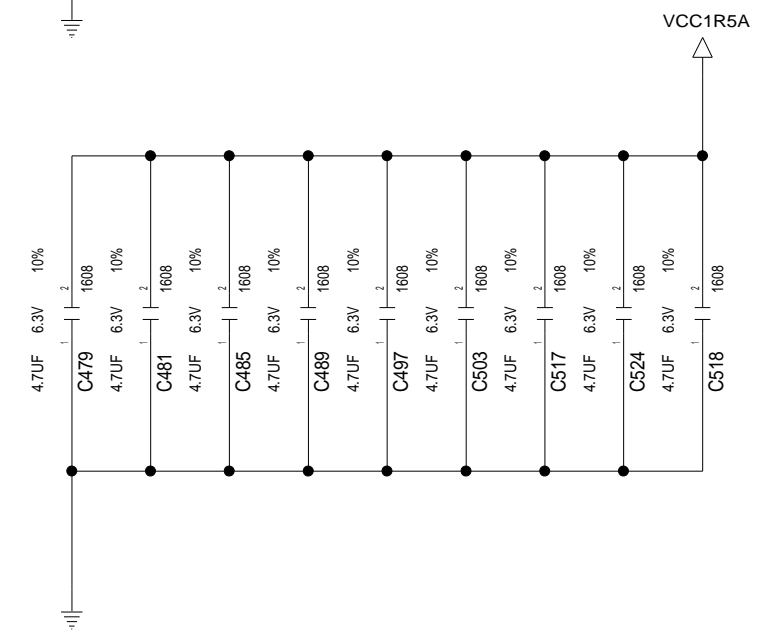
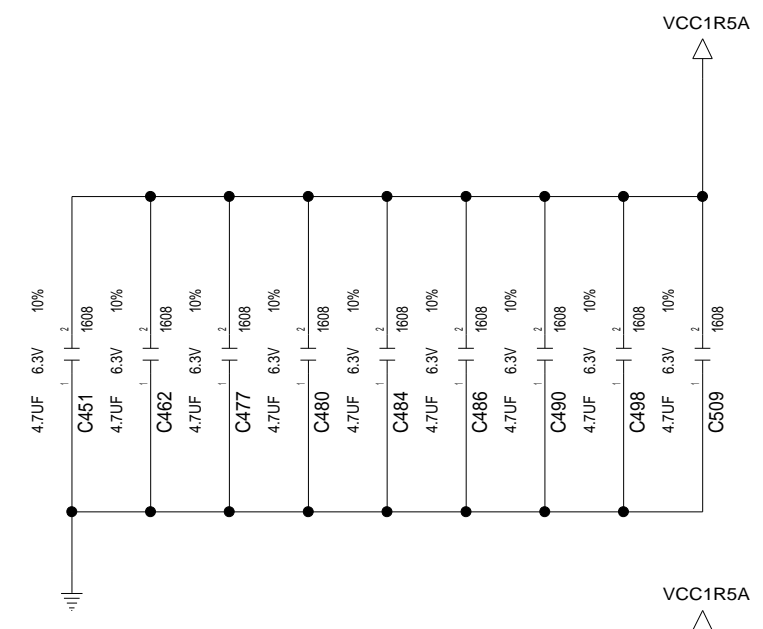
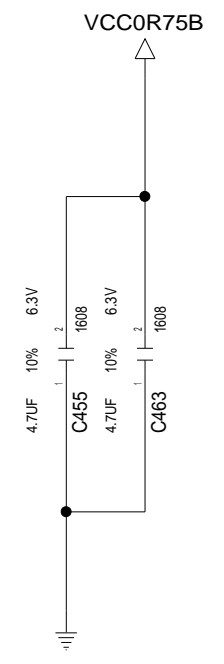


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CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	DDR3 SO DIMM CHANNEL-B	
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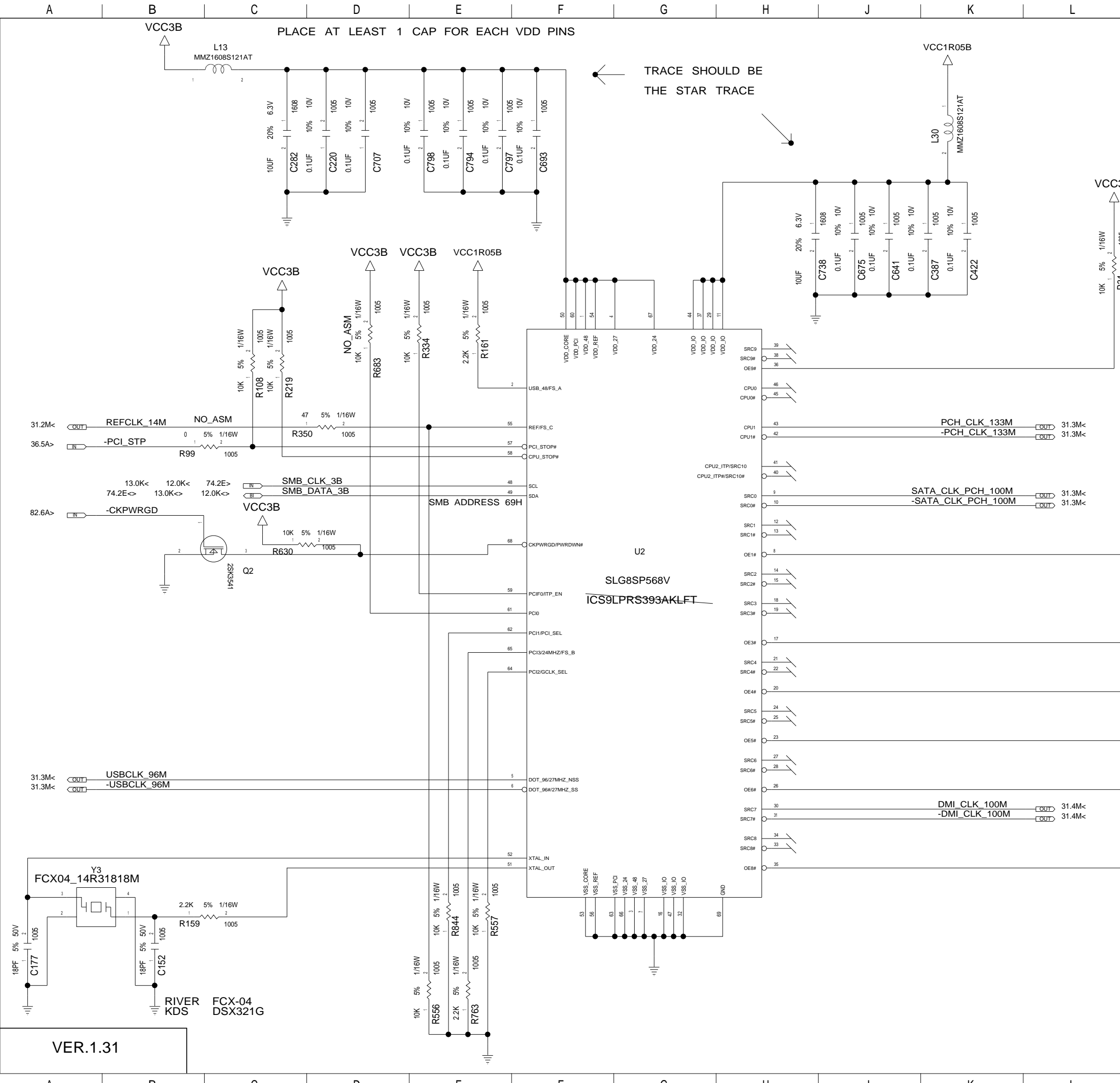
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			VER.1.31	
			DEVELOPMENT NO.	Q/M
				14 / 99



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CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	DDR3 DECOUPLING	
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DATE	EC NO.	PART NO.
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		15 / 99

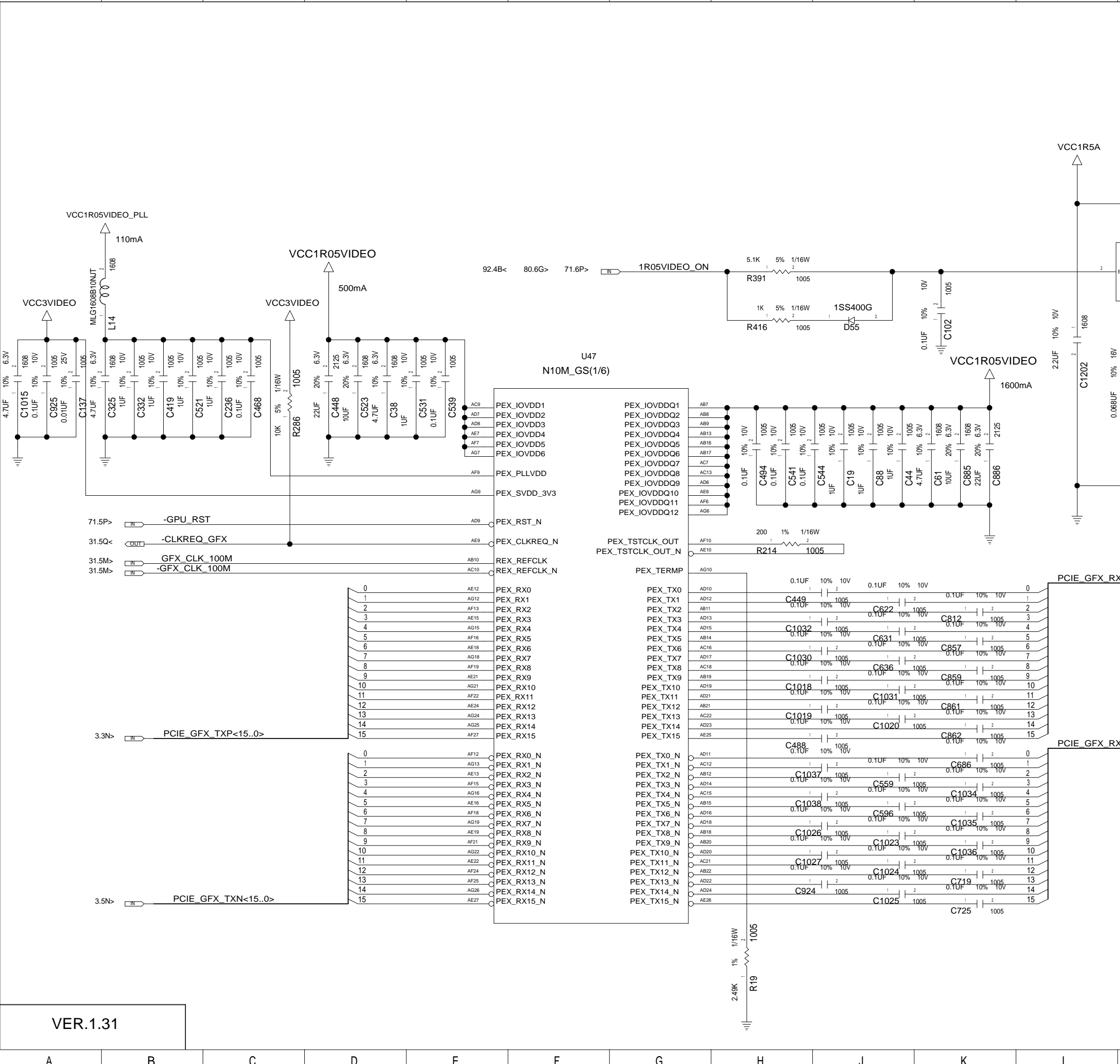
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5	OE#5	GBE
6	OE#6	WUSB
7		PCH DMI
8	OE#8	SATA
9	OE#9	EXT GFX
10		ITP

DESIGNER	K.Y	12/04/08	PART NO.
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APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	CLOCK GEN
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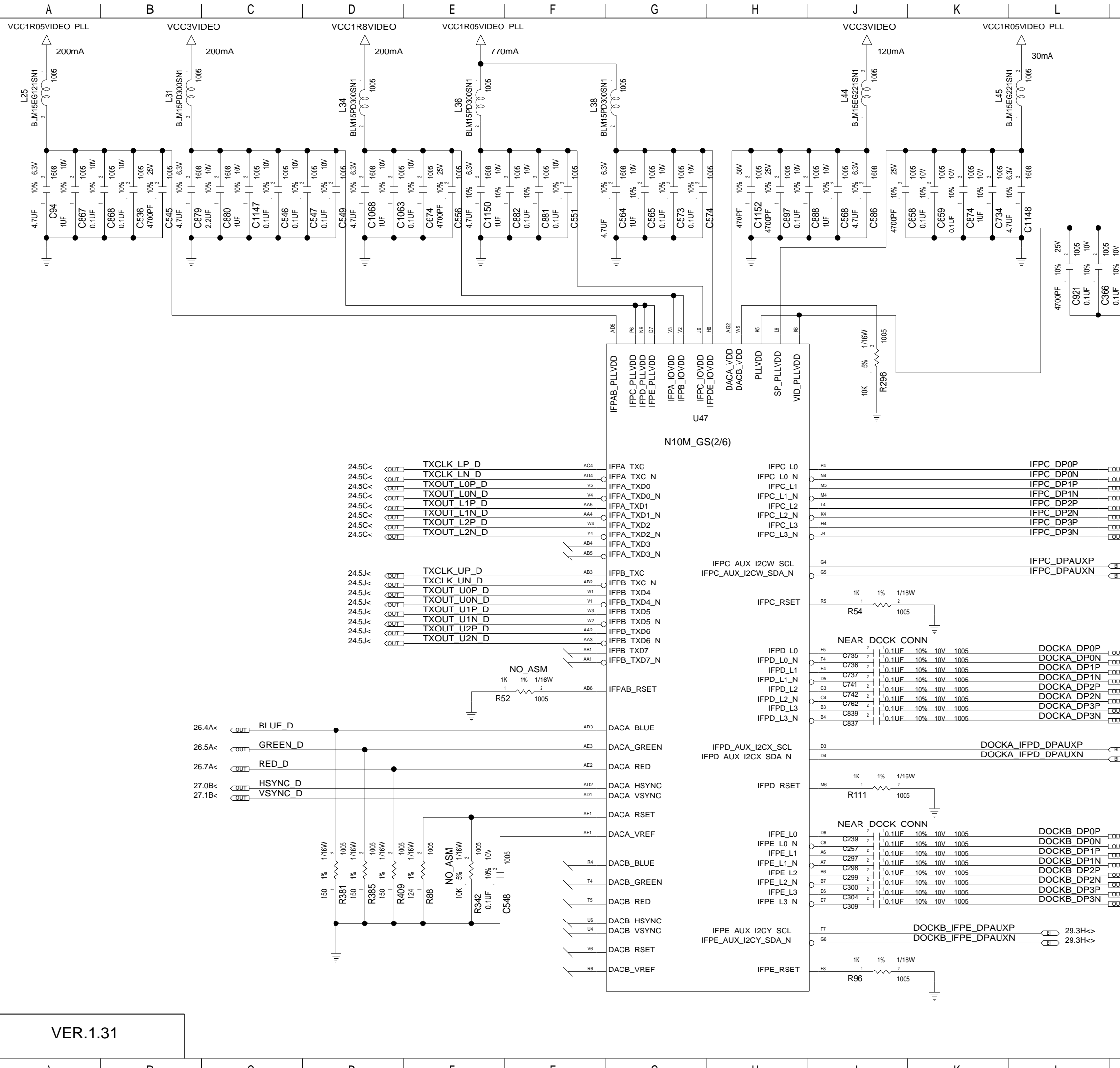
VER.1.31

DATE	EC NO.	PART NO.	
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DEVELOPMENT NO.		Q/M	
		16 / 99	

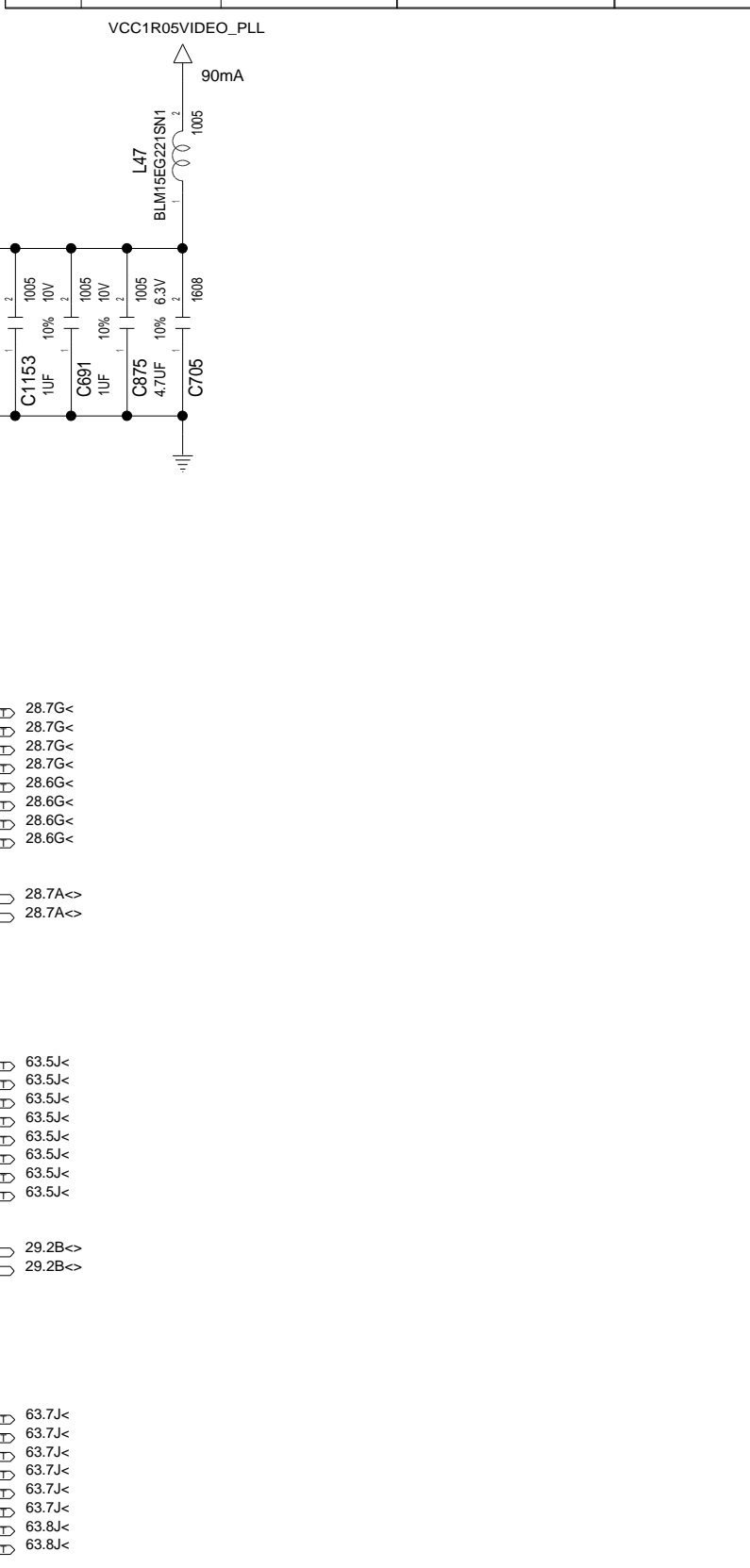


VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	N10M-GS(1/6):PEG I/F	
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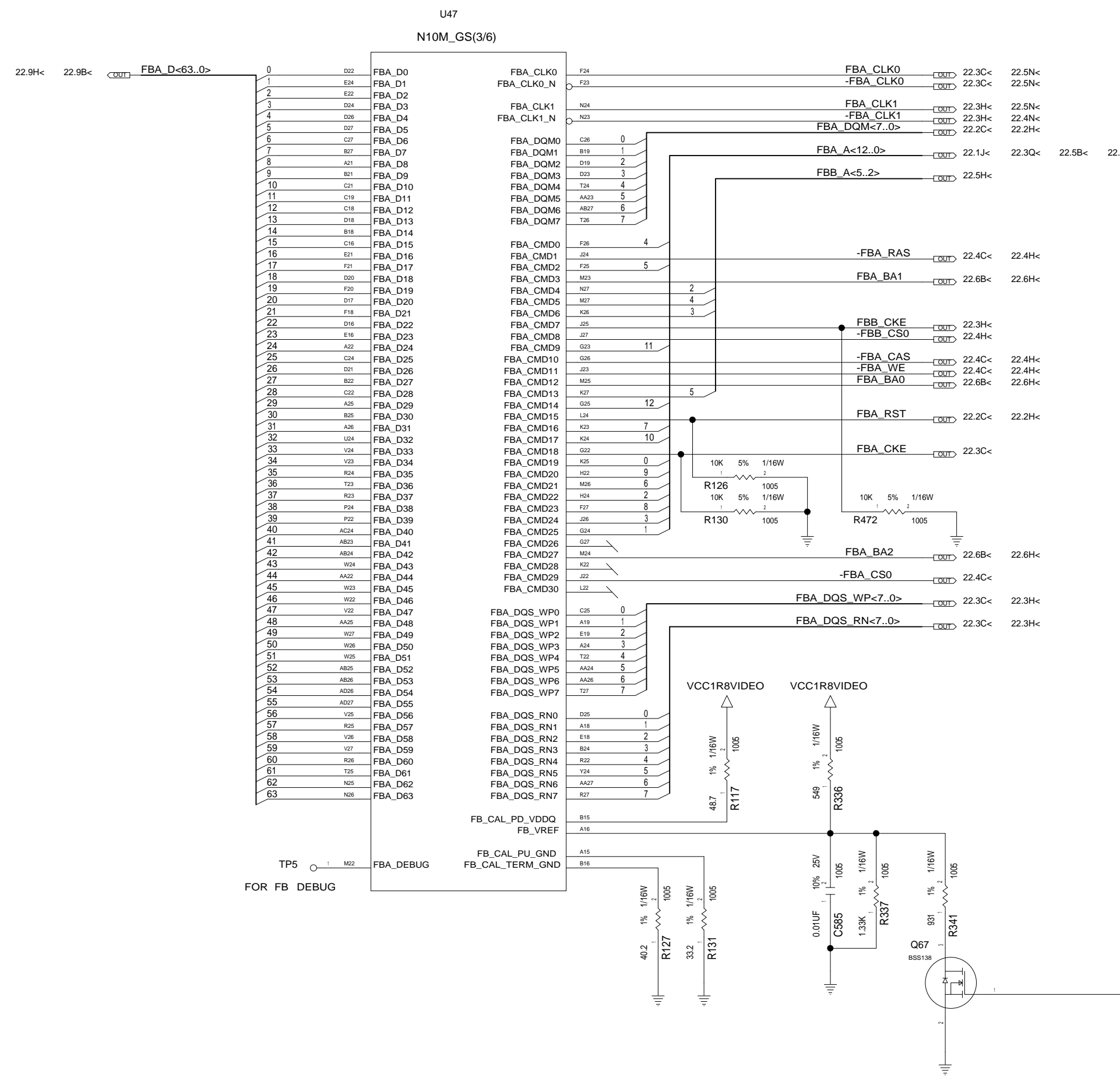
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DEVELOPMENT NO.		Q/M	
		17 / 99	



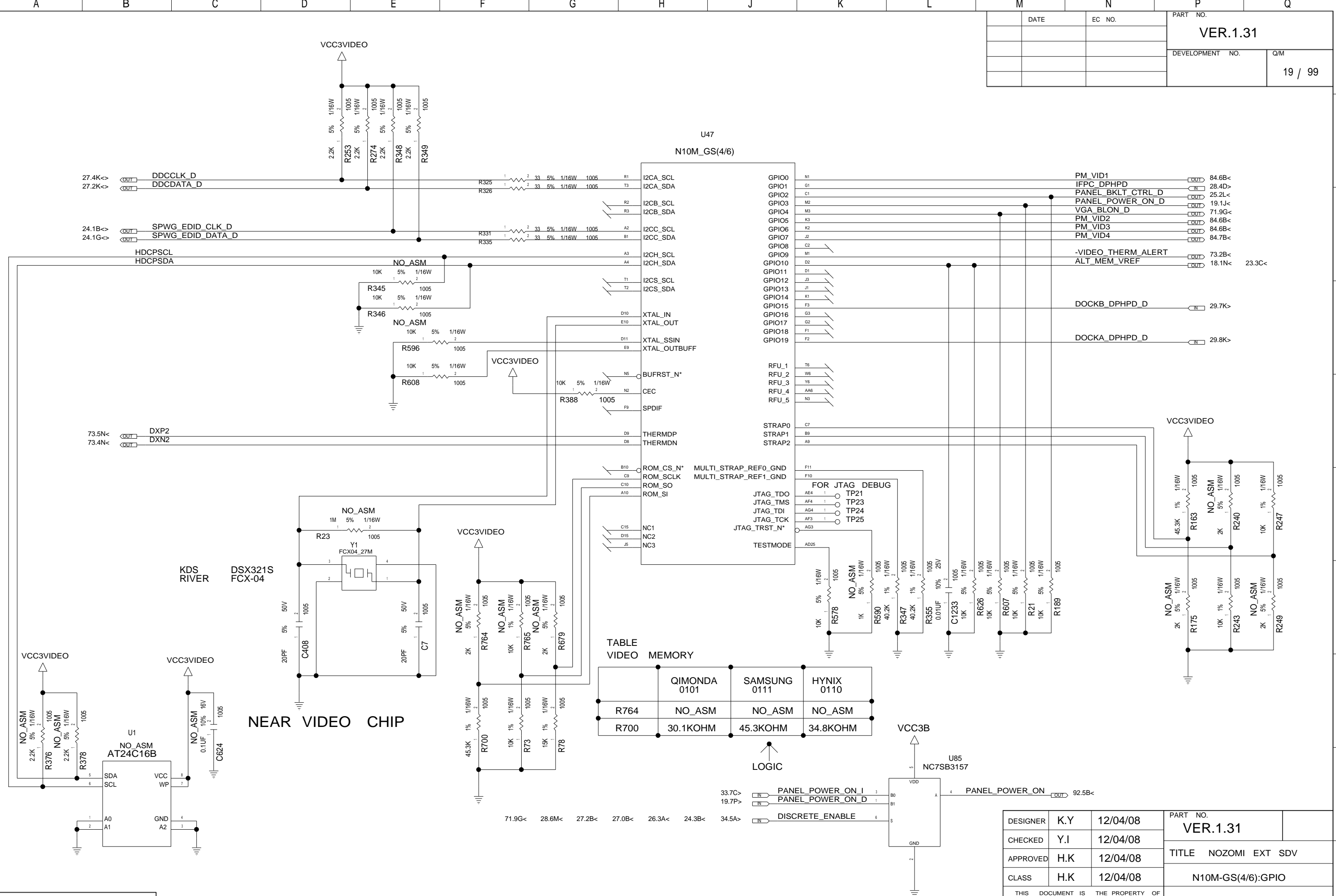
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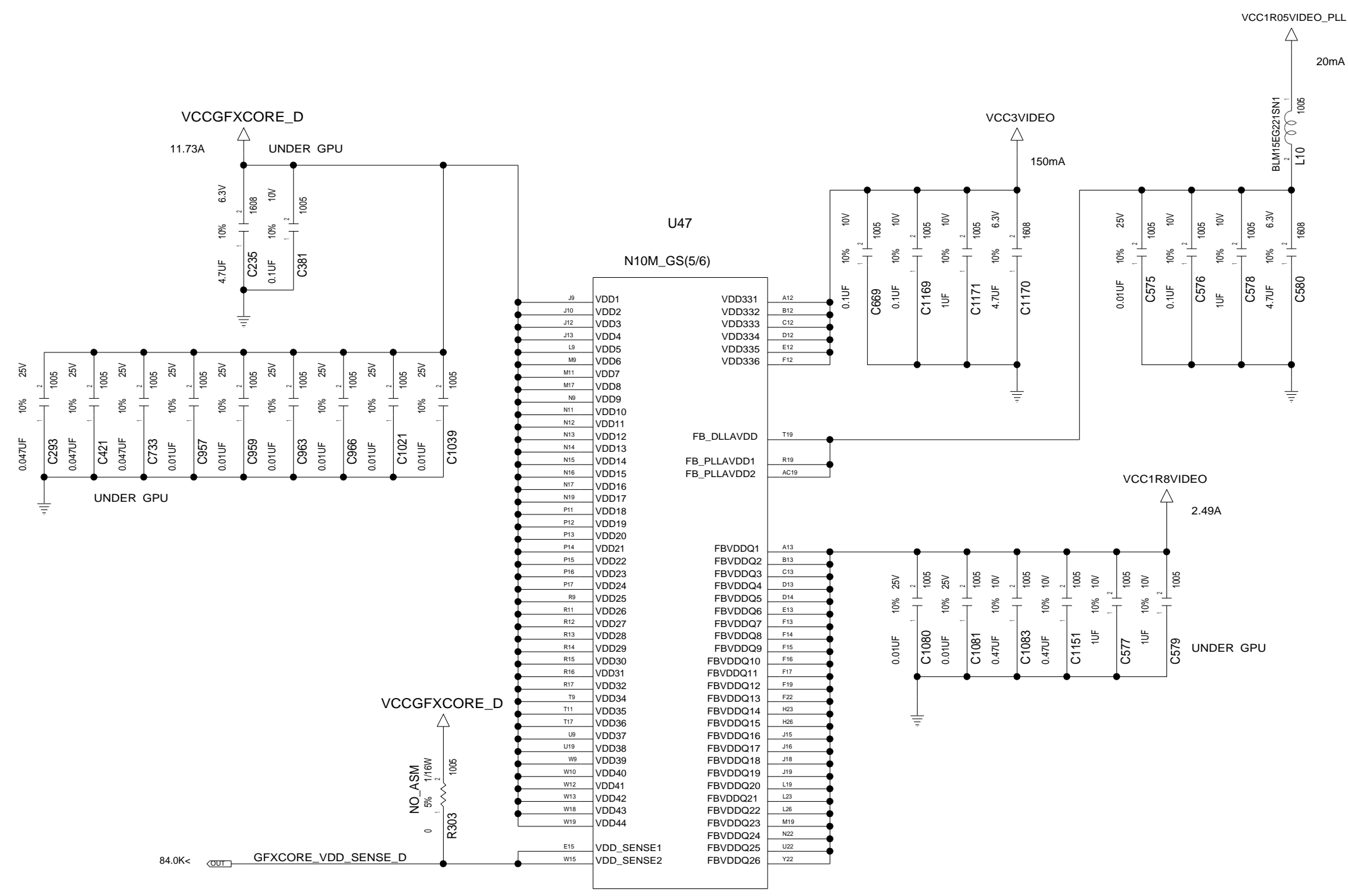
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			18 / 99



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APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	N10M-GS(3/6):VRAM	I/F
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DATE	EC NO.	PART NO.	
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			20 / 99

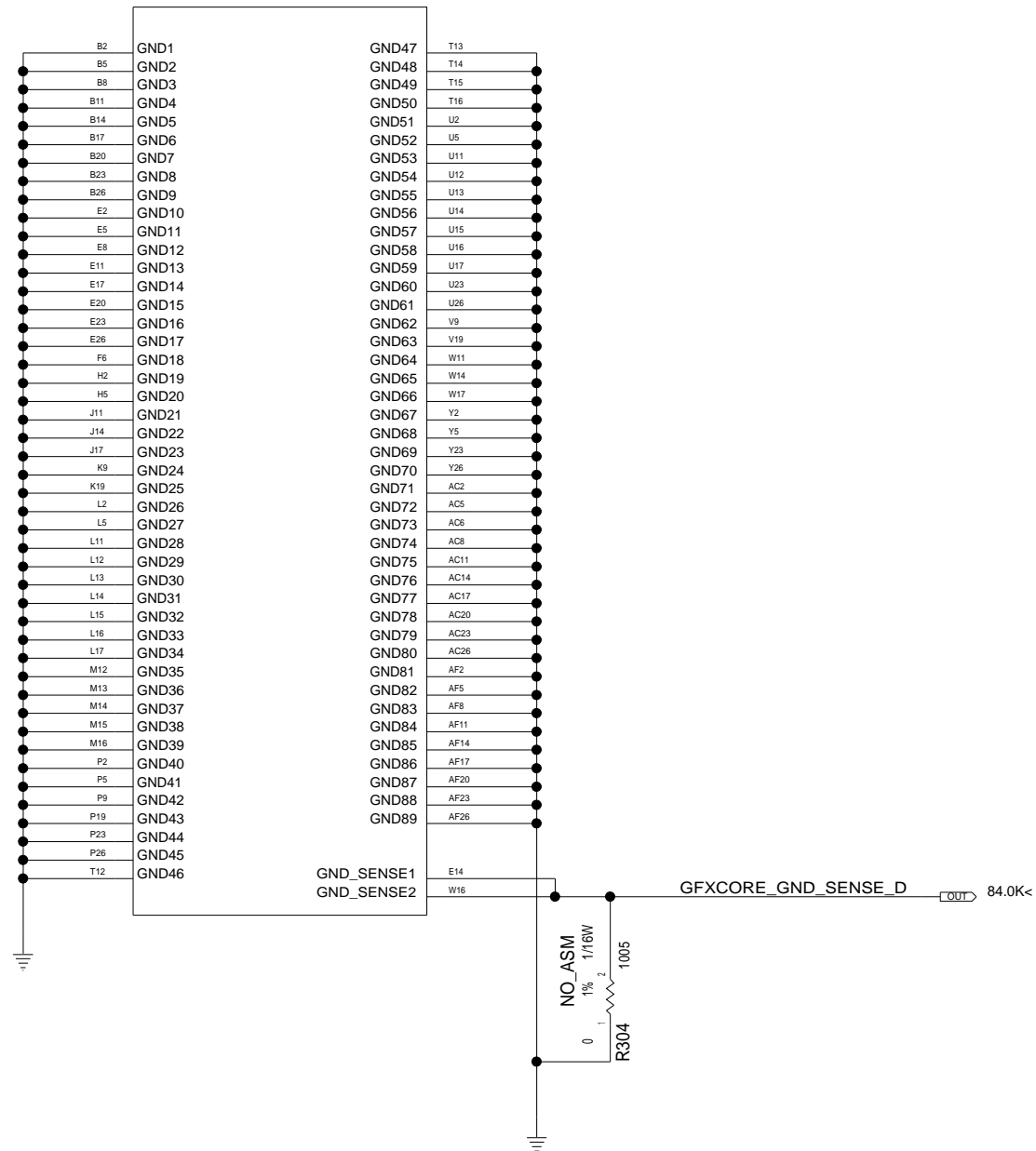


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CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
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CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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			DEVELOPMENT NO.	Q/M
				21 / 99

U47
N10M_GS(6/6)



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	N10M-GS(6/6):GND	
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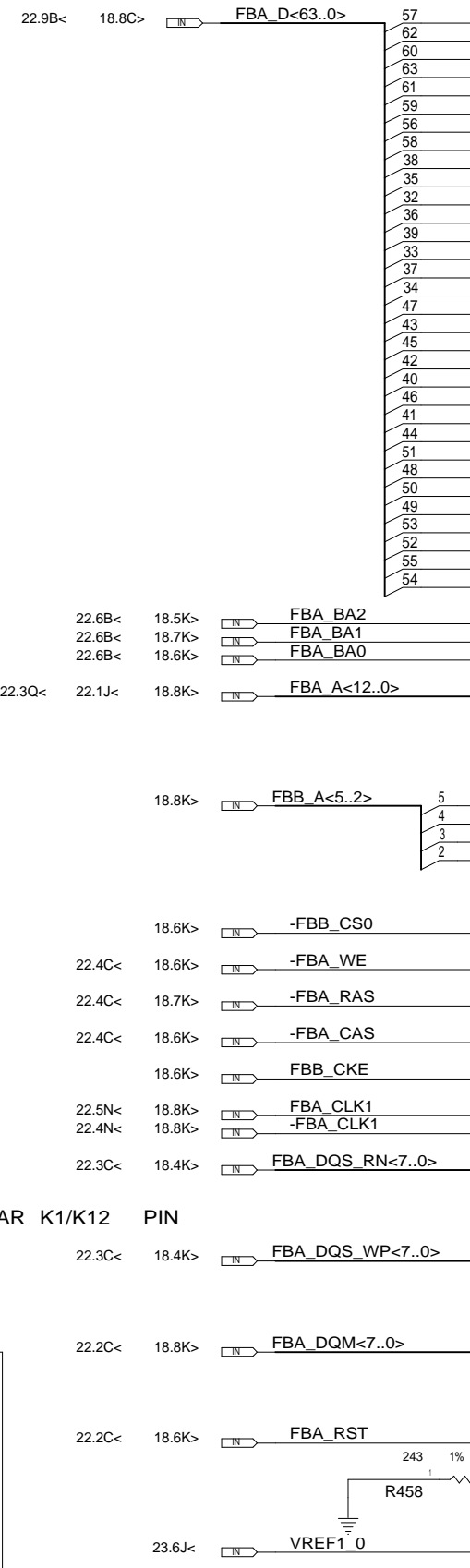
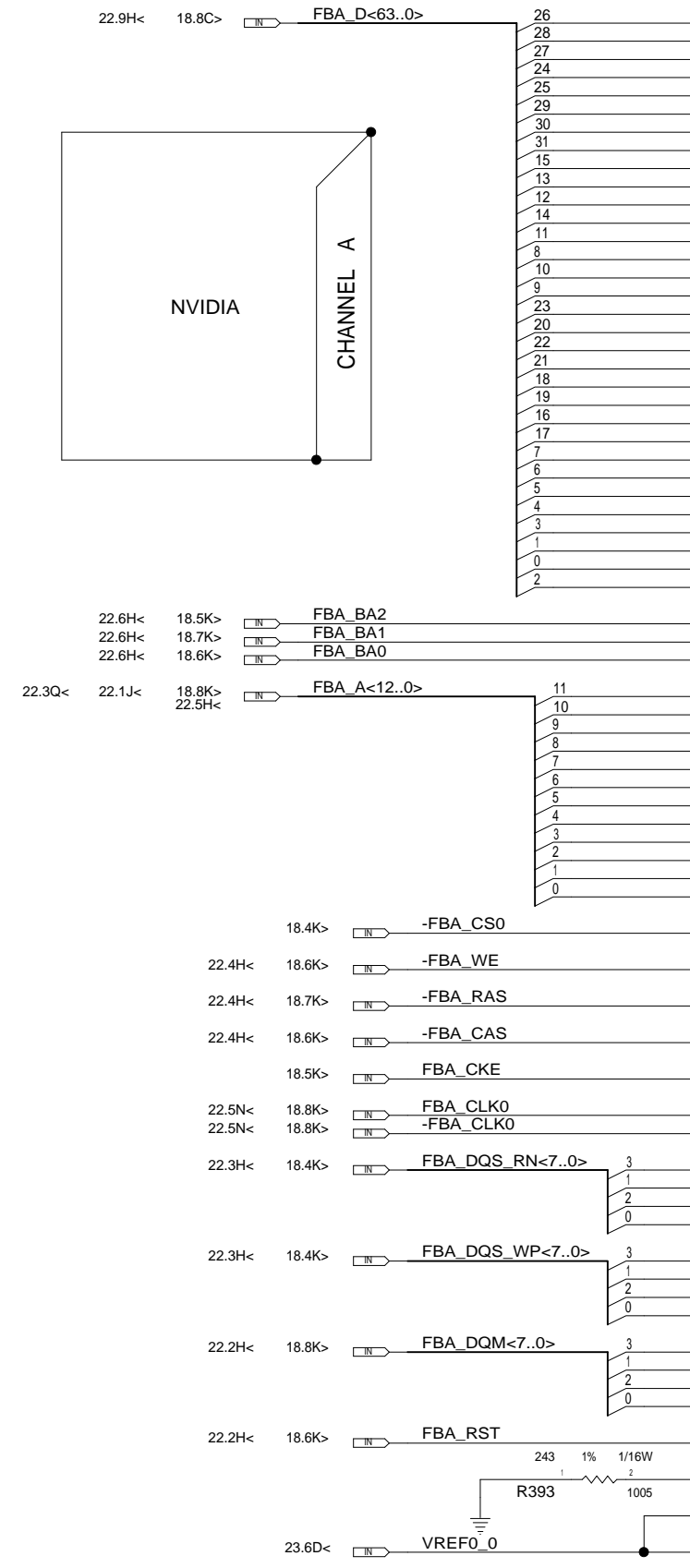
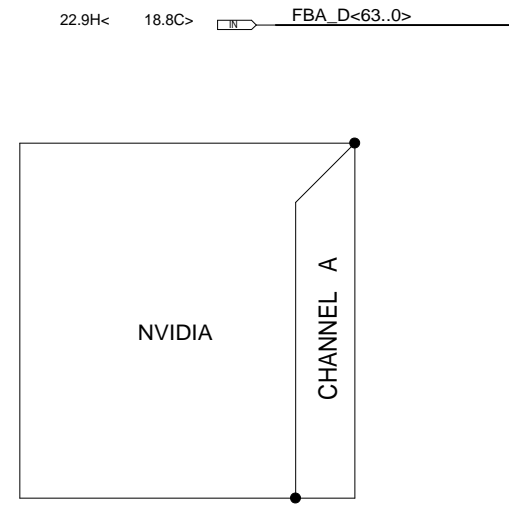
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			22 / 99

(TOP SIDE)

(TOP SIDE)

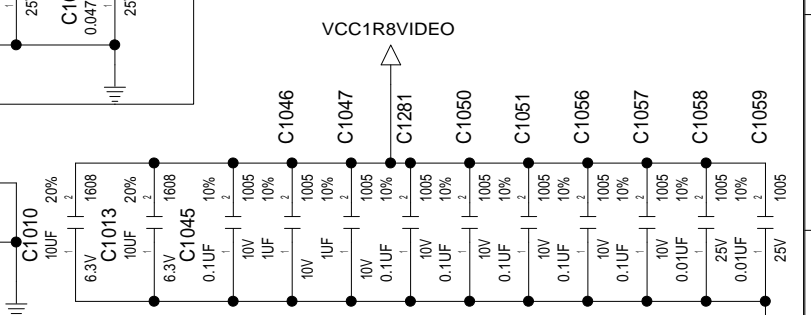
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NEAR K1/K12 PIN

NEAR K1/K12 PIN



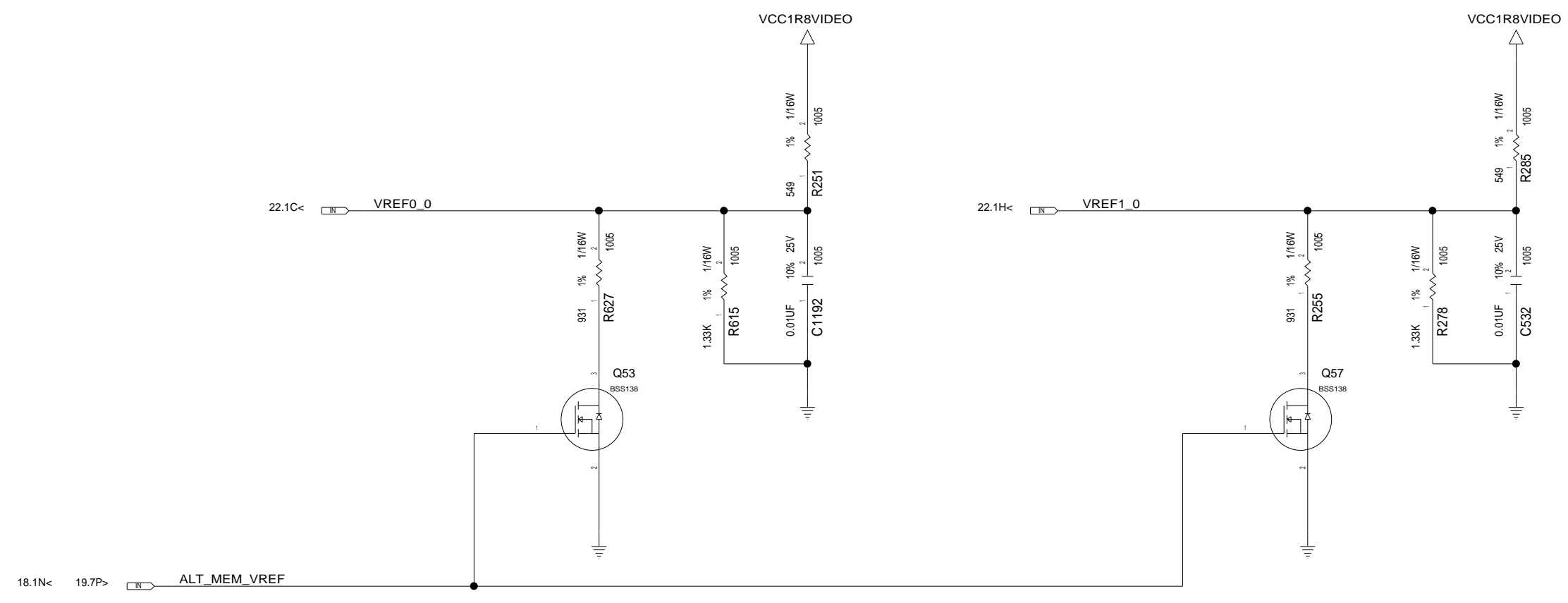
MEMORY CHANNEL A

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	VRAM CHANNEL-A

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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			23 / 99

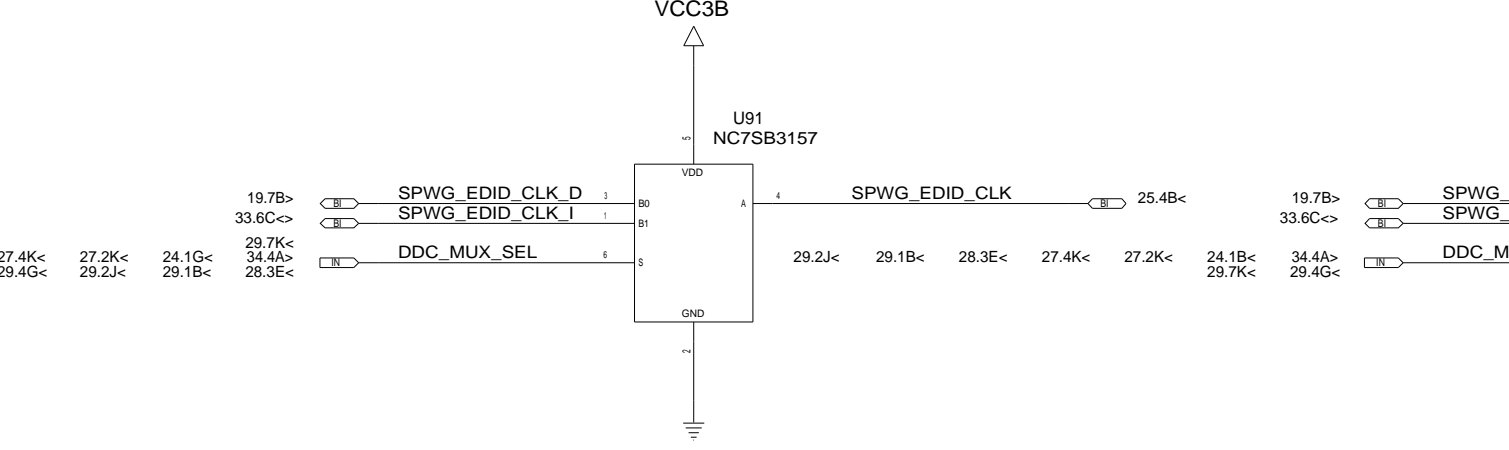
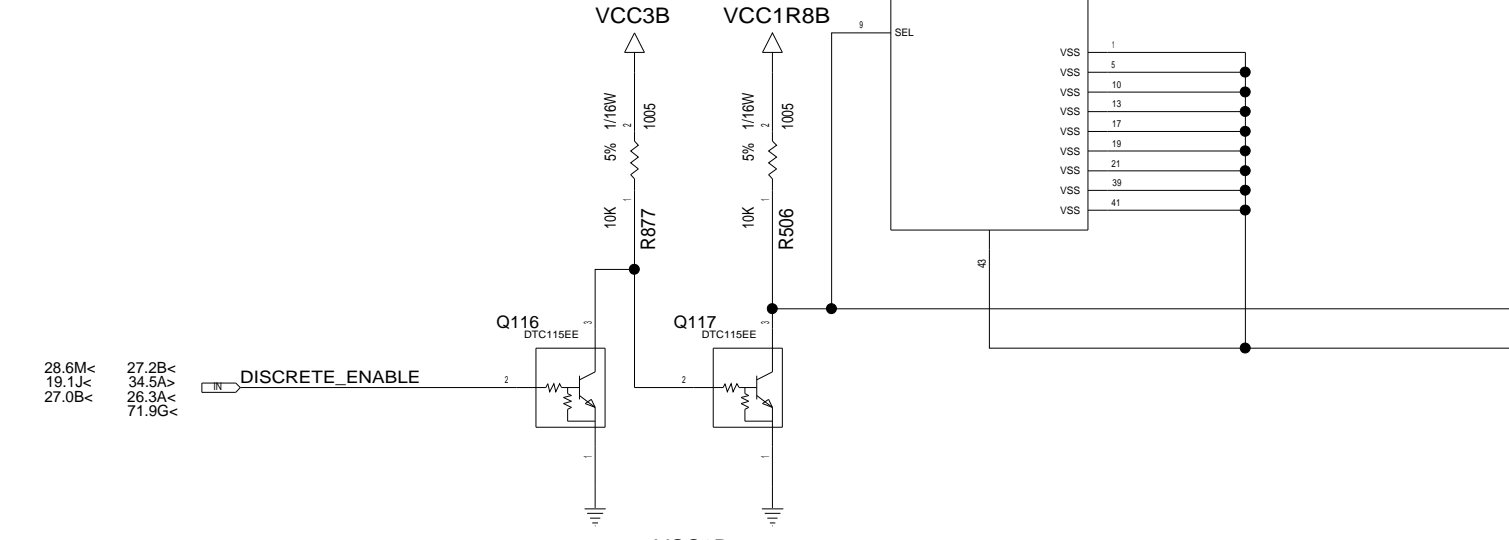
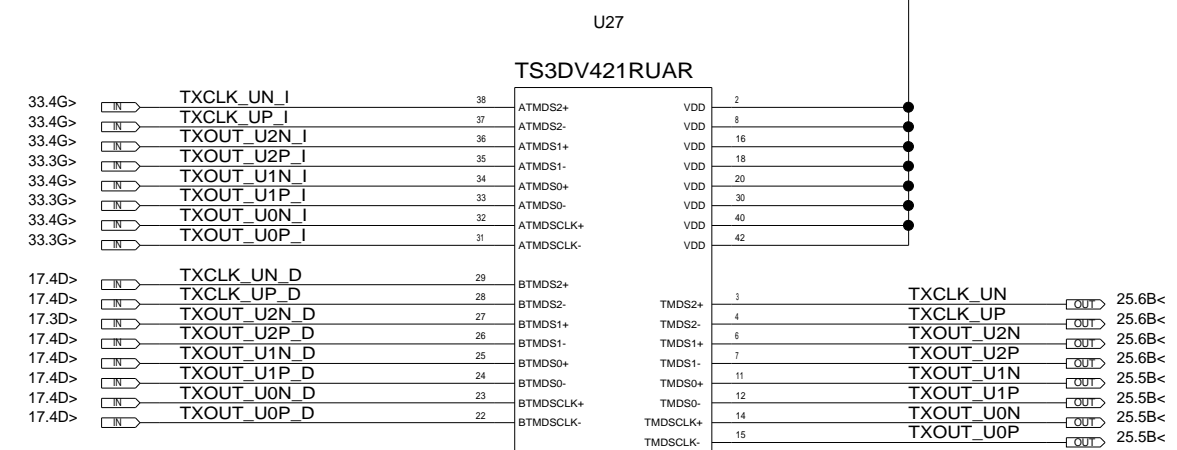
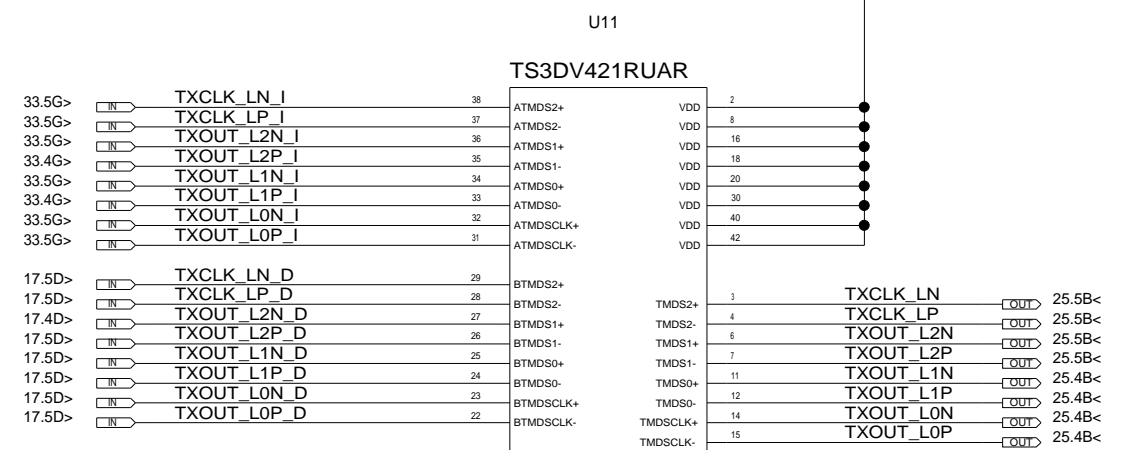
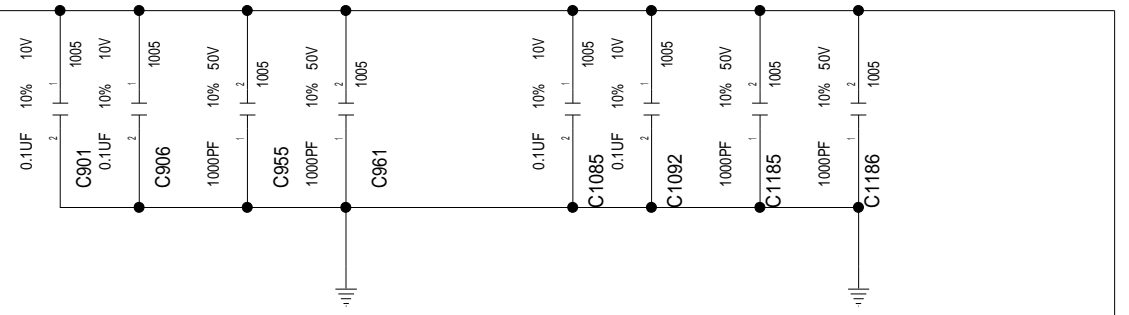


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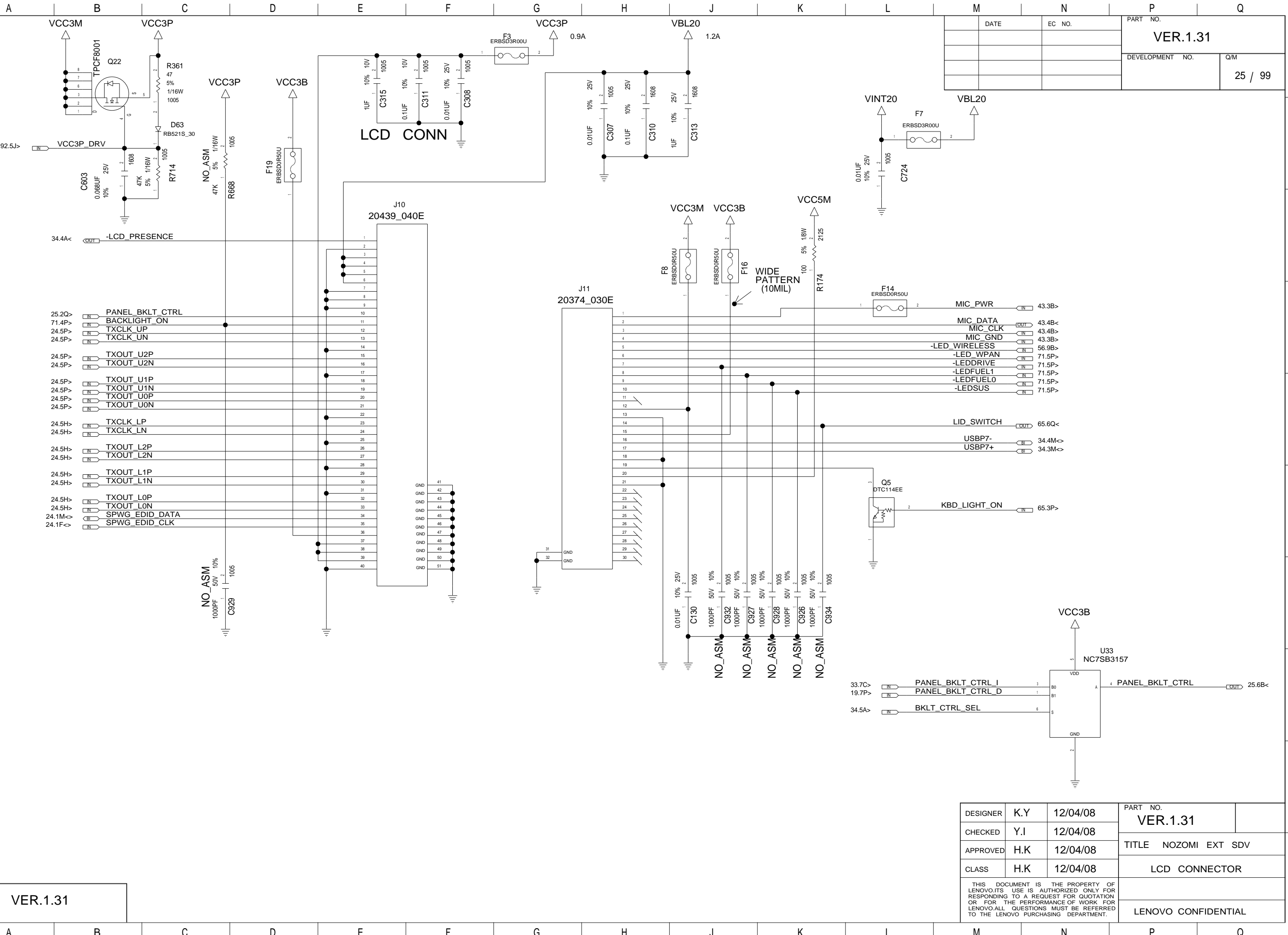
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		DEVELOPMENT NO.	Q/M
			24 / 99

VCC1R8B



DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	LVDS SWITCH
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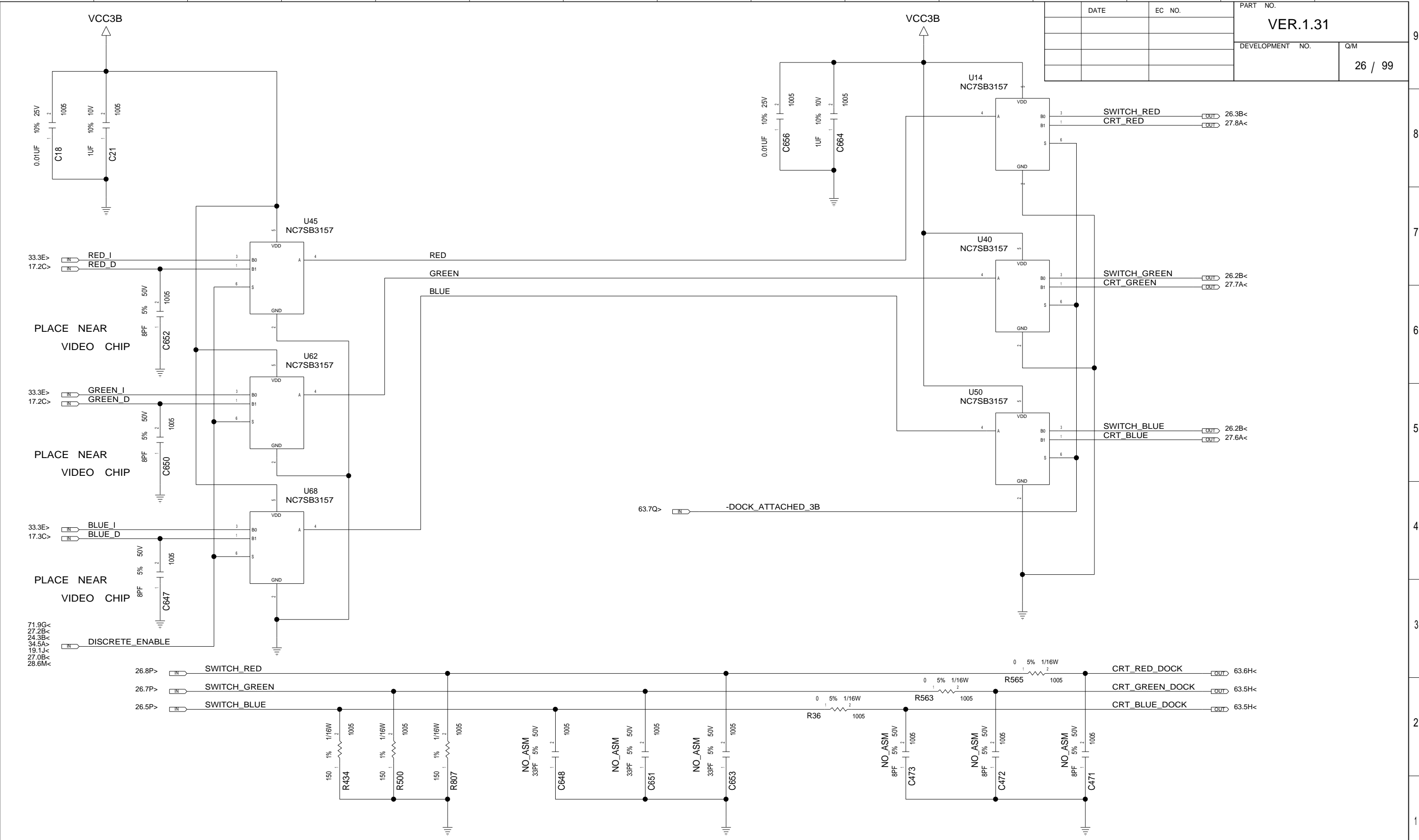
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		VER.1.31	
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		25 / 99	

VER.1.31

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CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV		
APPROVED	H.K	12/04/08	LCD CONNECTOR		
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL		
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			26 / 99



PLACE NEAR VIDEO CHIP

PLACE NEAR VIDEO CHIP

PLACE NEAR VIDEO CHIP

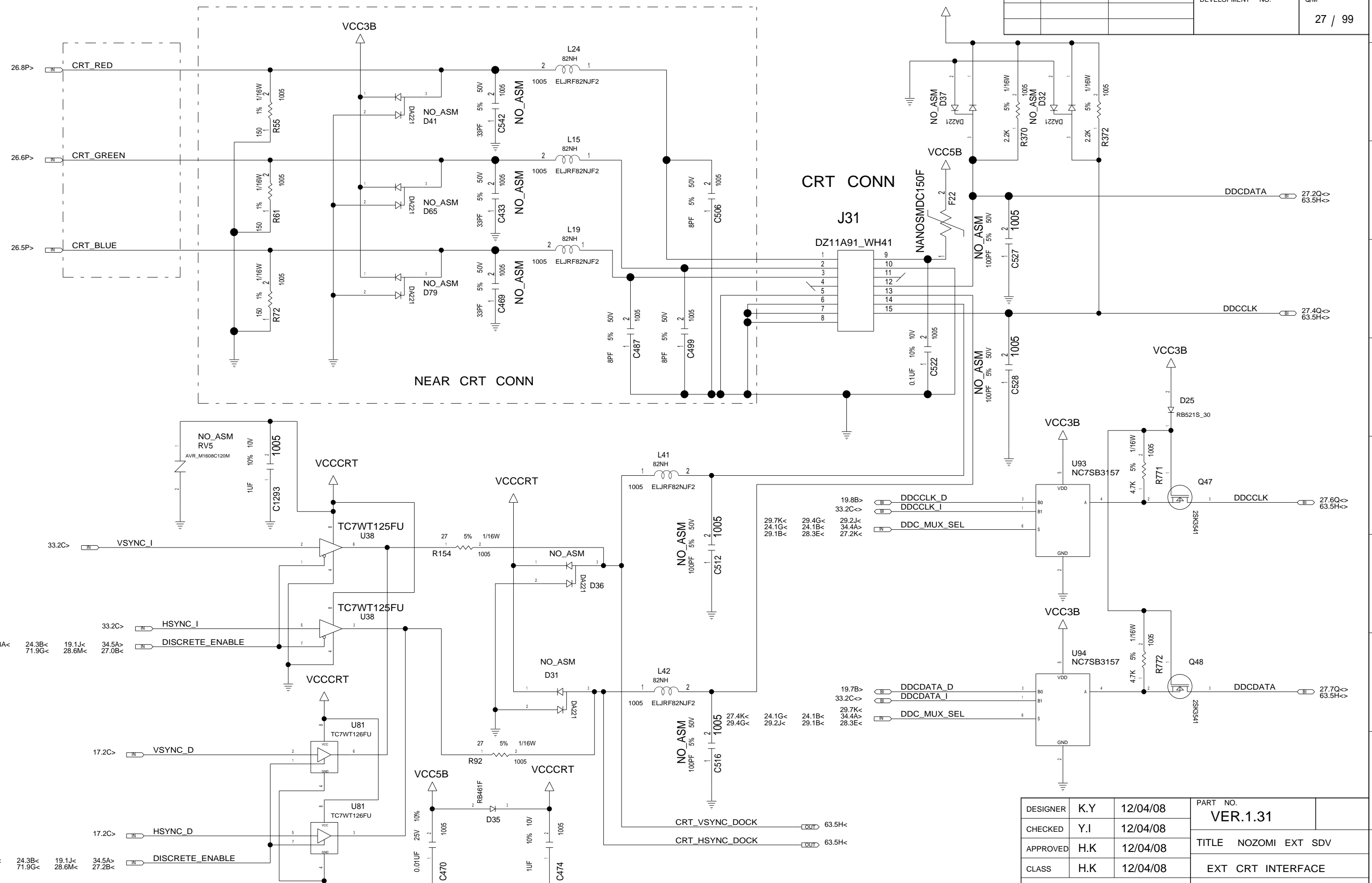
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	RGB SWITCH
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A B C D E F G H J K L M N P Q

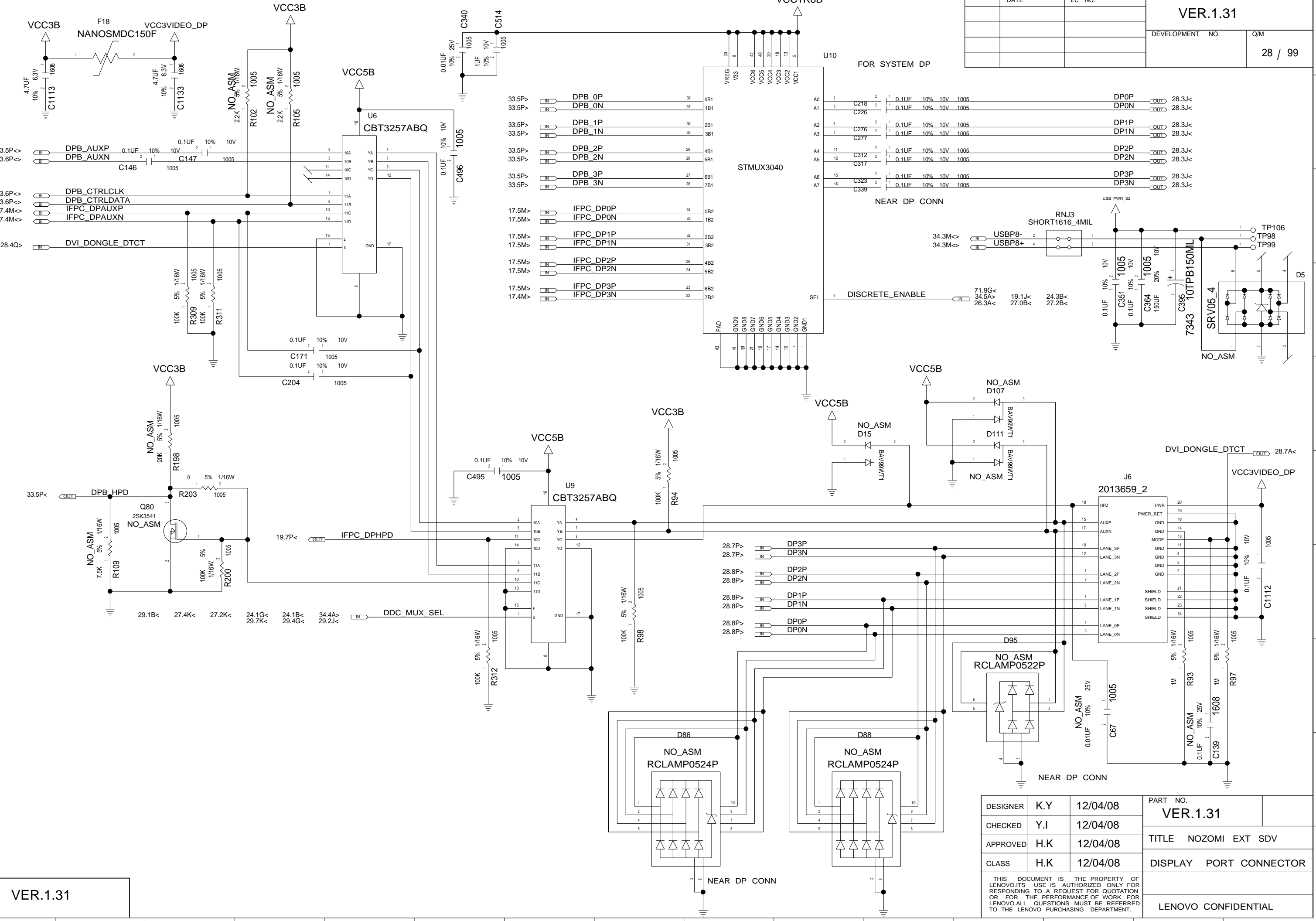
DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
		27 / 99	



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	EXT CRT INTERFACE
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DATE	EC NO.	PART NO.
		VER.1.31
DEVELOPMENT NO.		Q/M
		28 / 99

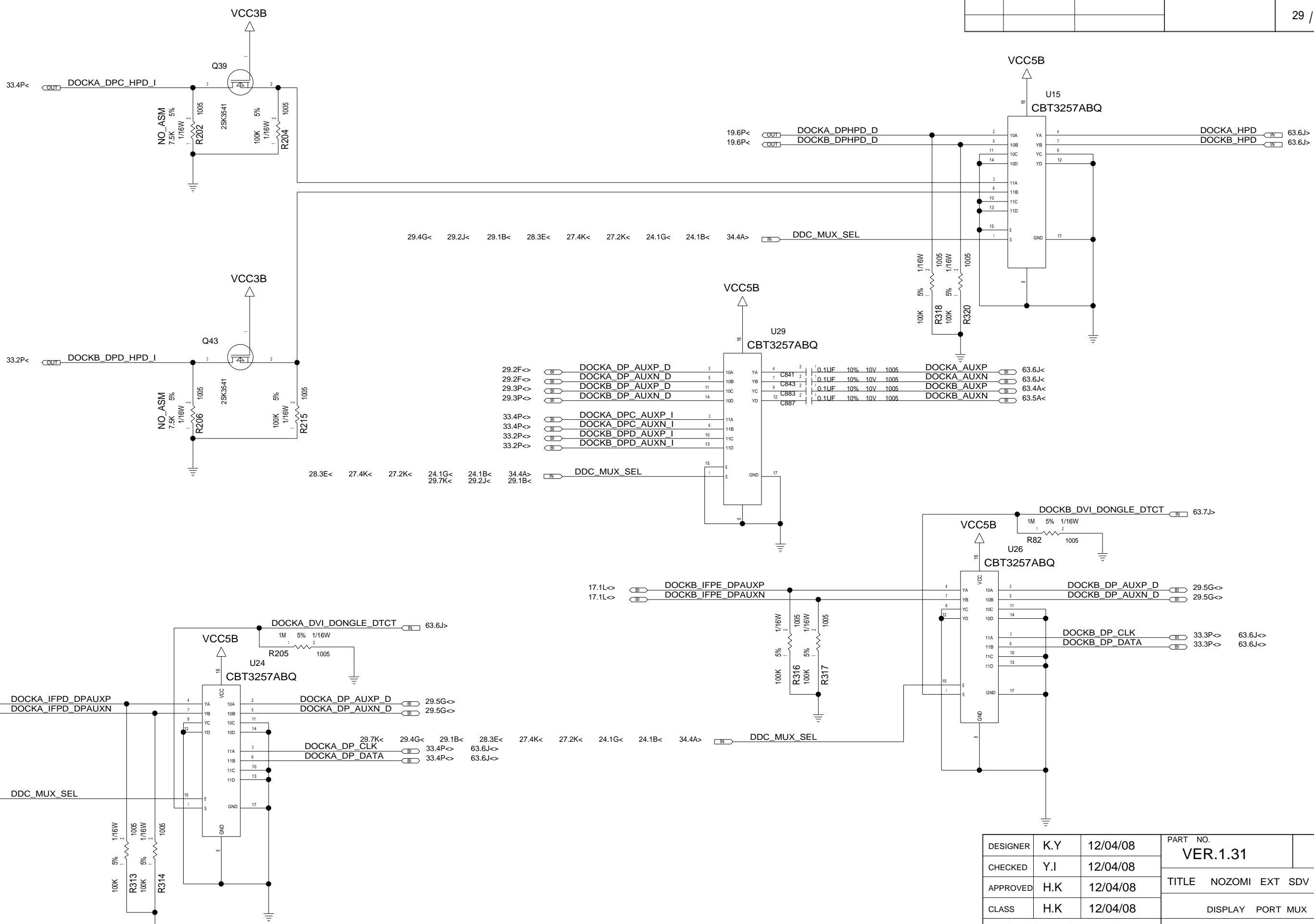


VER.1.31

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CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	DISPLAY PORT CONNECTOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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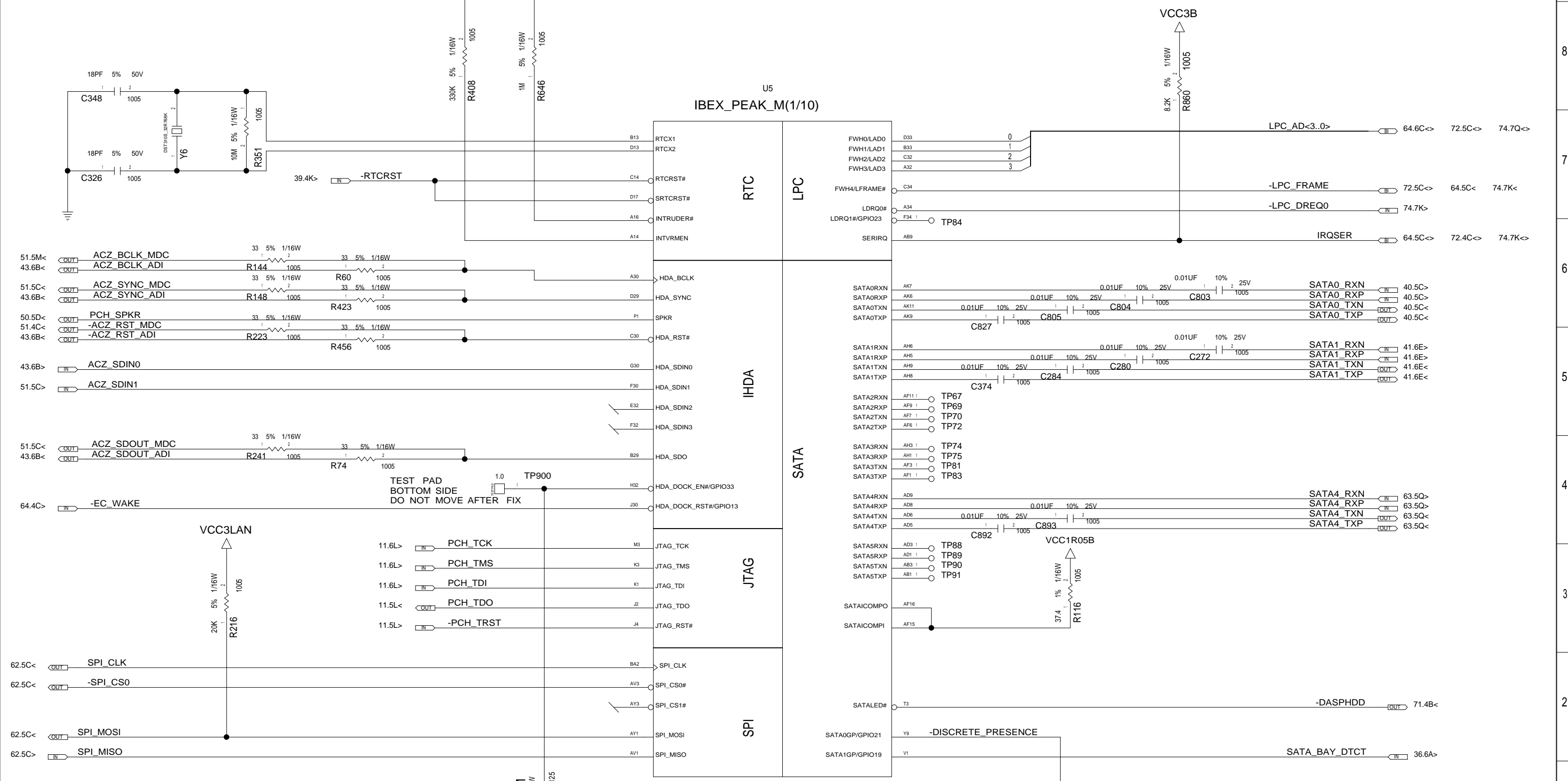
DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DISPLAY PORT MUX
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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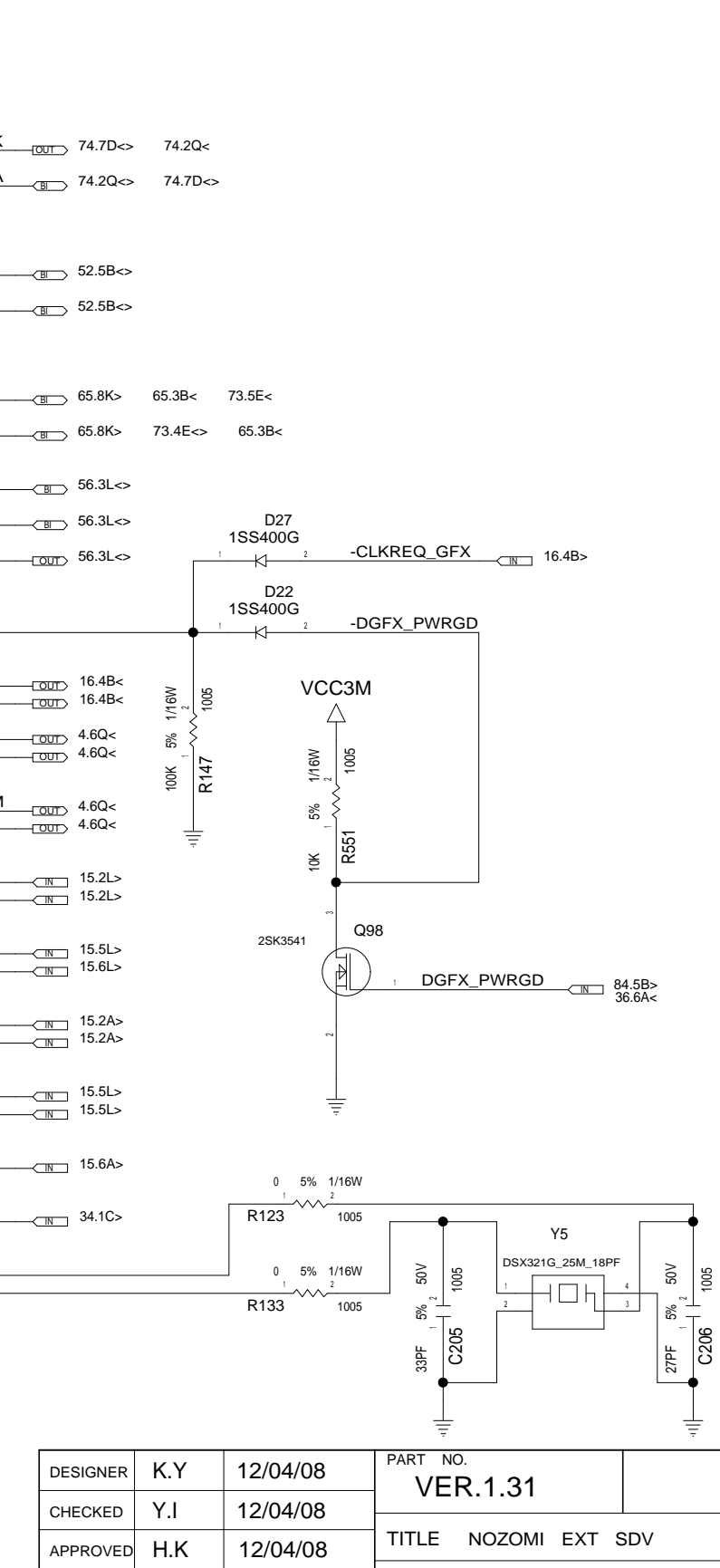
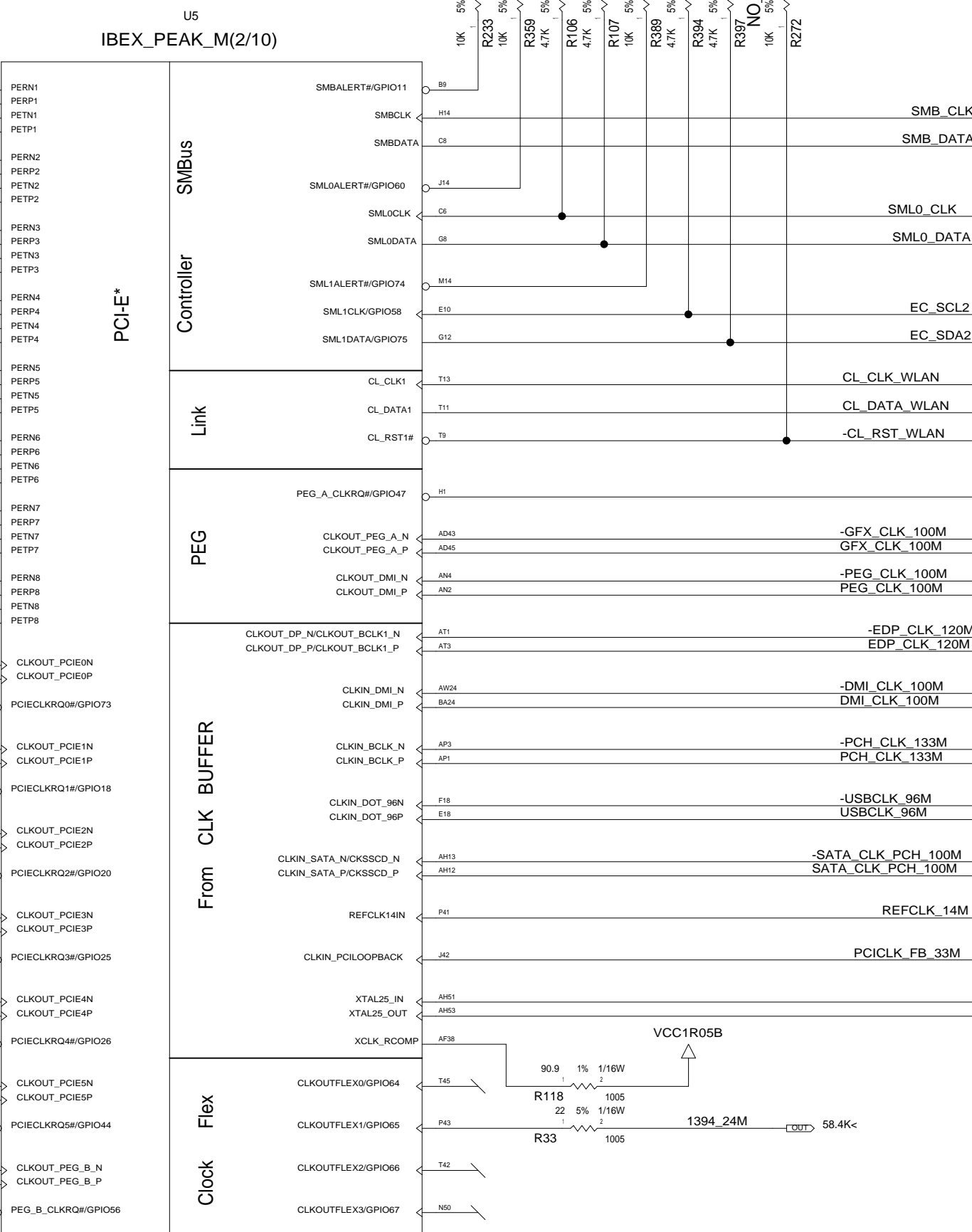
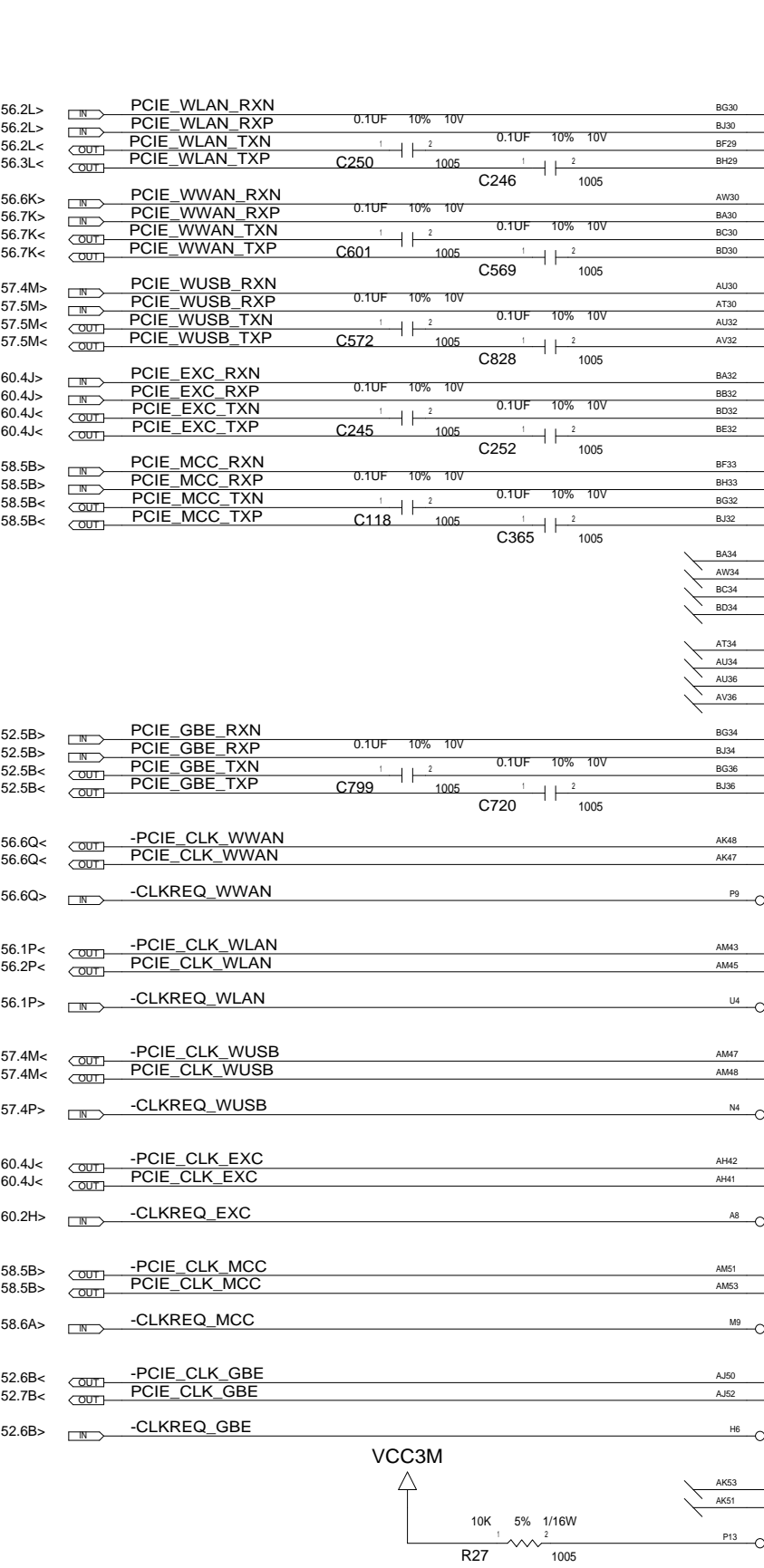
TABLE

SPI_MOSI	PULL UP : ENABLE ITPM
	FLOAT : DISABLE ITPM

NO_ASM
PLACE ON TOP SIDE
LOCATE AT WUSB SLOT AREA

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	PCH(1/8):HDA/JTAG/SATA	
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LENOVO CONFIDENTIAL				

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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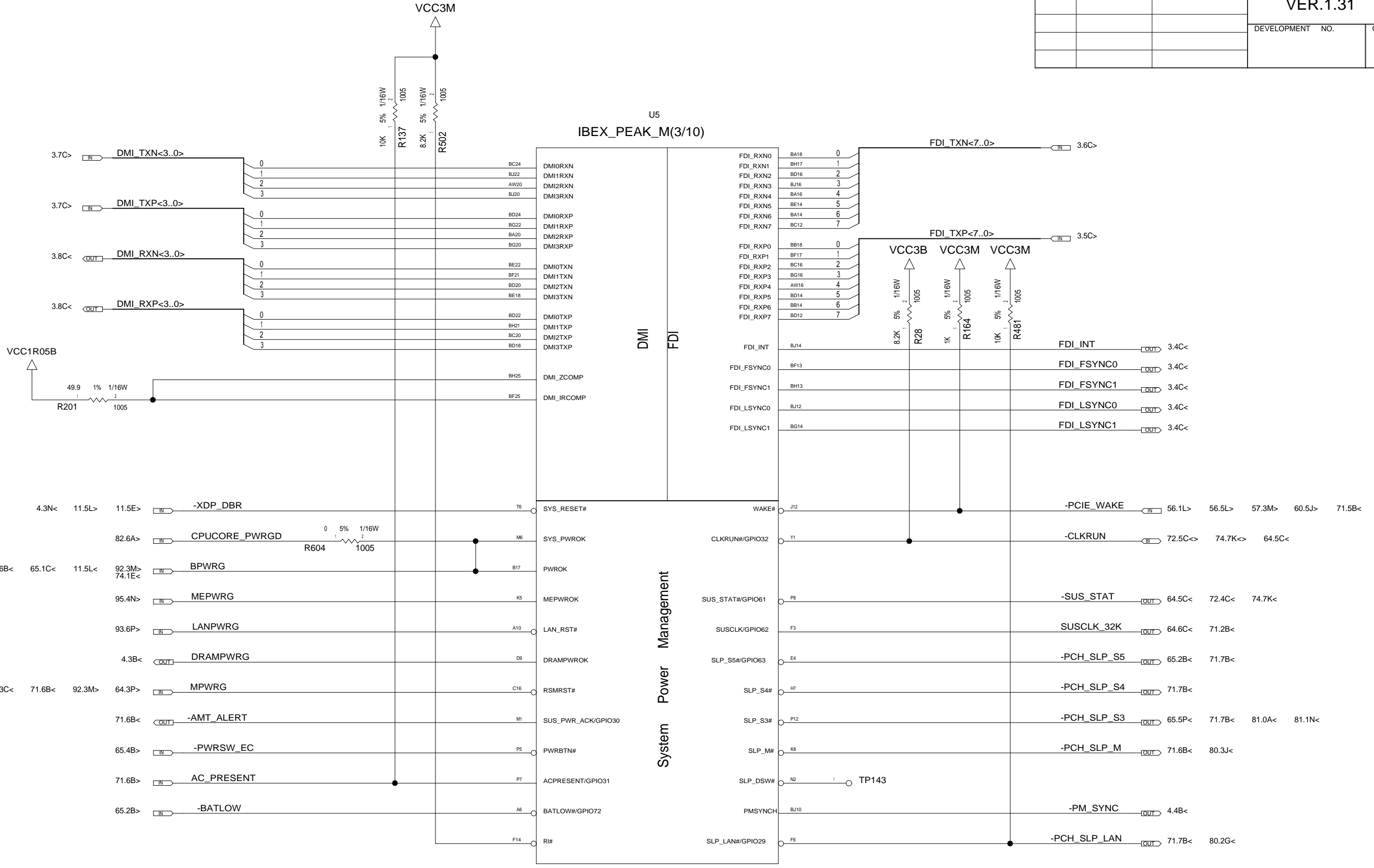
VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	PCH(2/8):PCIE/SMBUS/CLK

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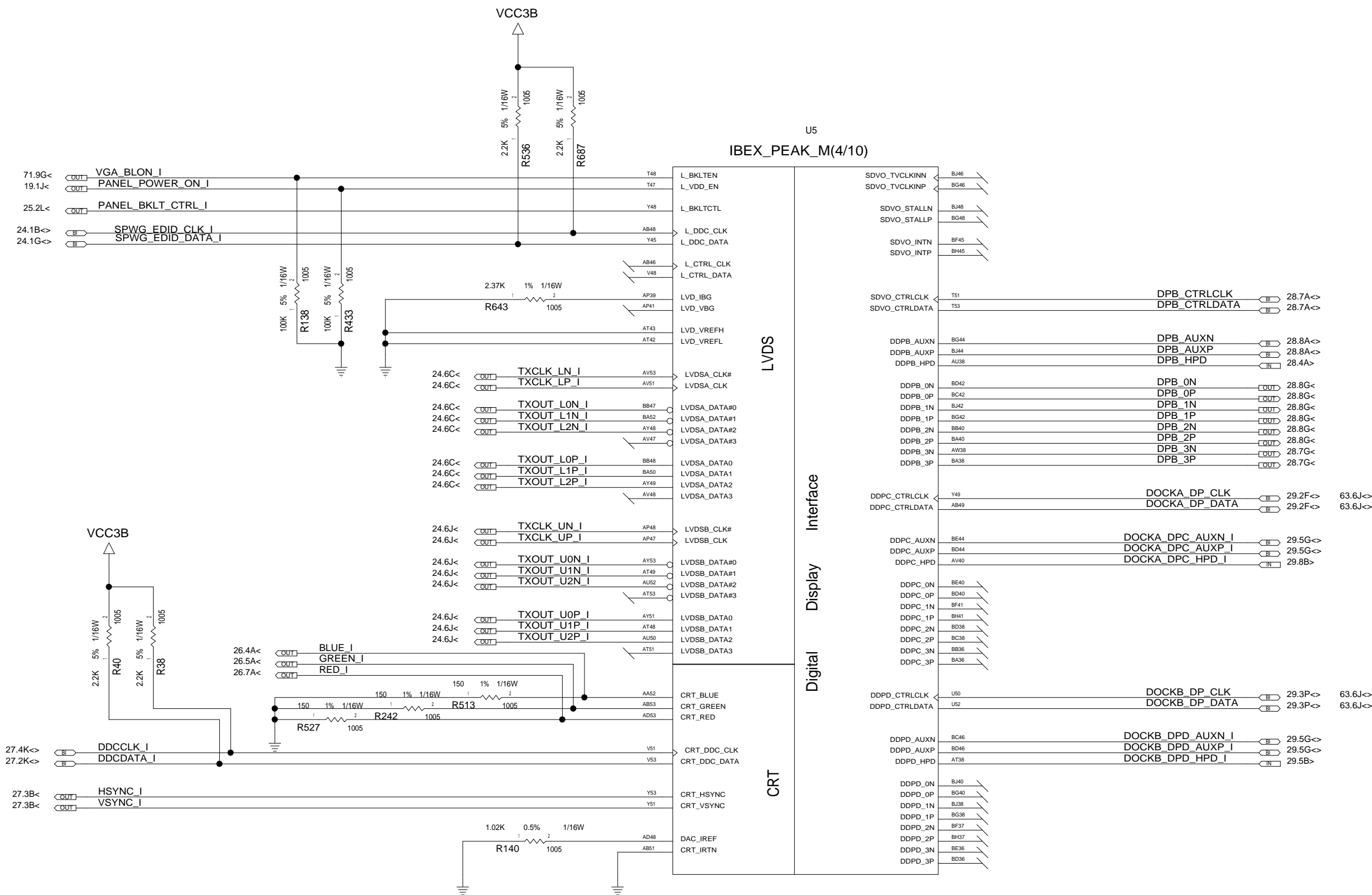
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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System Power Management

VER.1.31

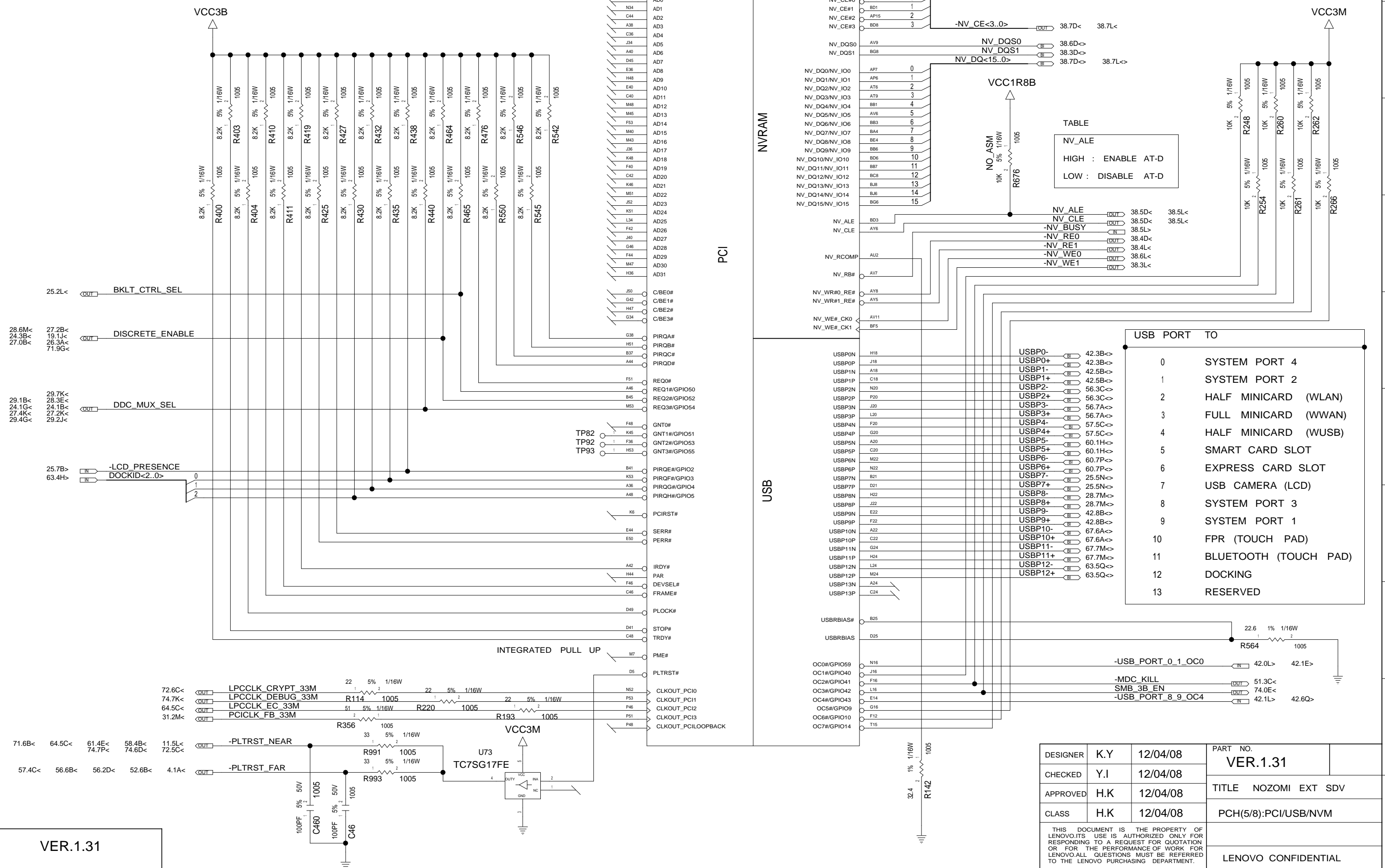
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CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	PCH(3/8):DMI/FDI/PM	
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DESIGNER	K.Y	12/04/08	PART NO. VER.1.31	
CHECKED	Y.I	12/04/08		
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	PCH(4/8):LVDS/CRT/DDI	
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DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
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U5
IBEX_PEAK_M(5/10)



TABLE

NV_ALE

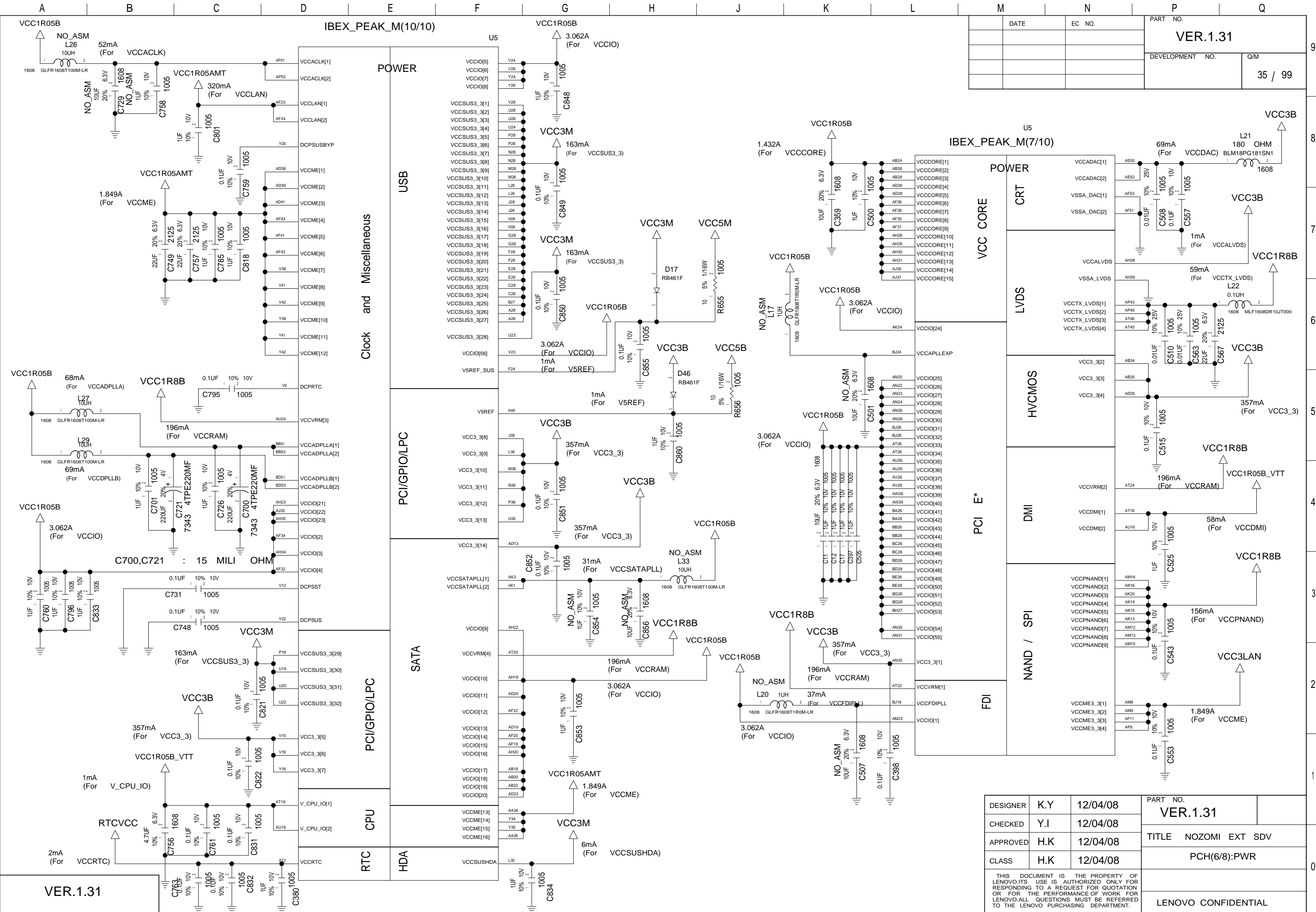
HIGH : ENABLE AT-D

LOW : DISABLE AT-D

USB PORT TO

0	SYSTEM PORT 4
1	SYSTEM PORT 2
2	HALF MINICARD (WLAN)
3	FULL MINICARD (WWAN)
4	HALF MINICARD (WUSB)
5	SMART CARD SLOT
6	EXPRESS CARD SLOT
7	USB CAMERA (LCD)
8	SYSTEM PORT 3
9	SYSTEM PORT 1
10	FPR (TOUCH PAD)
11	BLUETOOTH (TOUCH PAD)
12	DOCKING
13	RESERVED

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	PCH(5/8):PCI/USB/NVM
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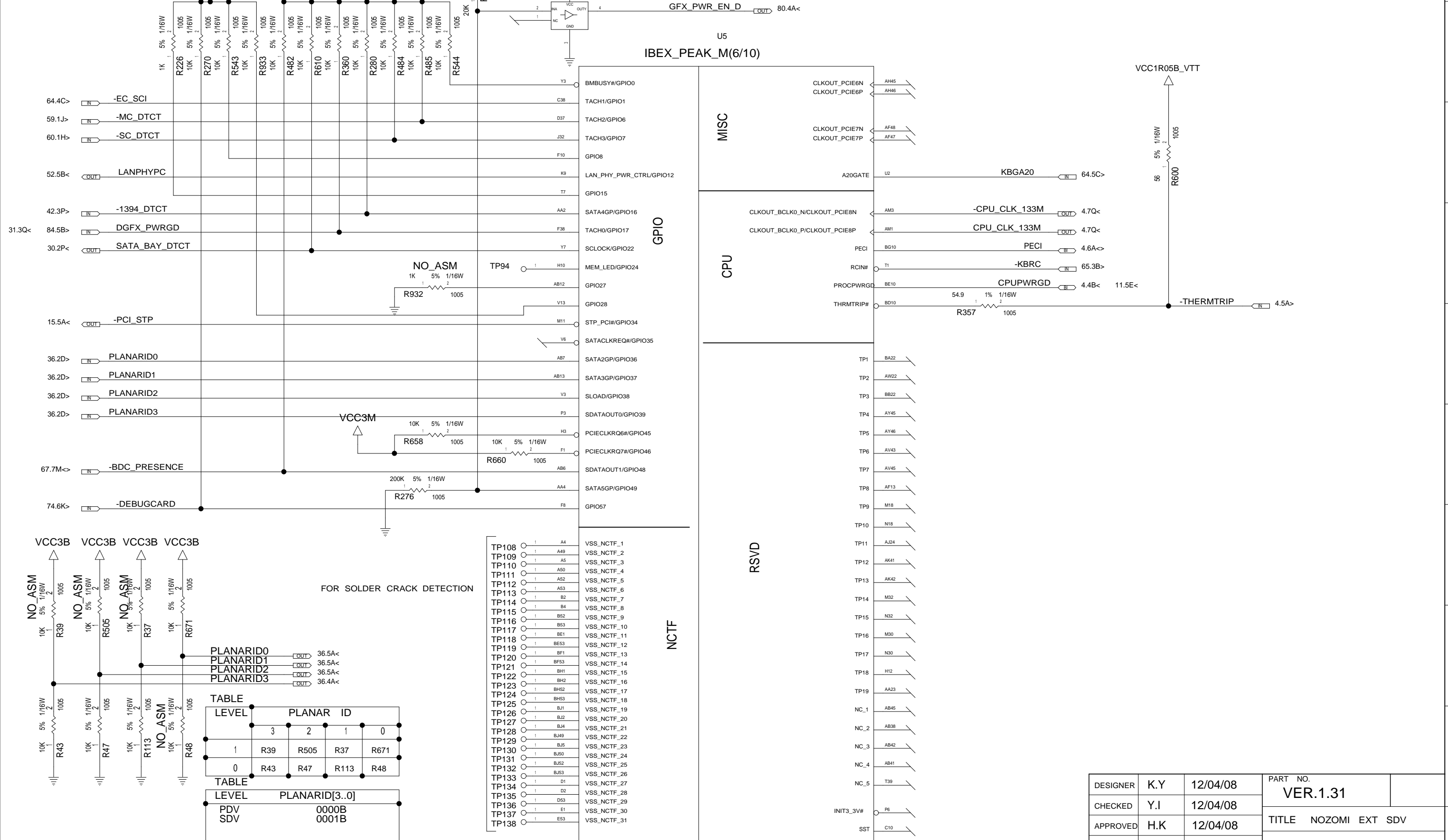


DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			35 / 99

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	PCH(6/8):PWR	
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GPIO15	ME	CRYPTO	STRAP
HIGH	:	WITH	CONFIDENTIALITY
LOW	:	NO	CONFIDENTIALITY

DATE	EC NO.	PART NO.
		VER.1.31
		DEVELOPMENT NO. Q/M
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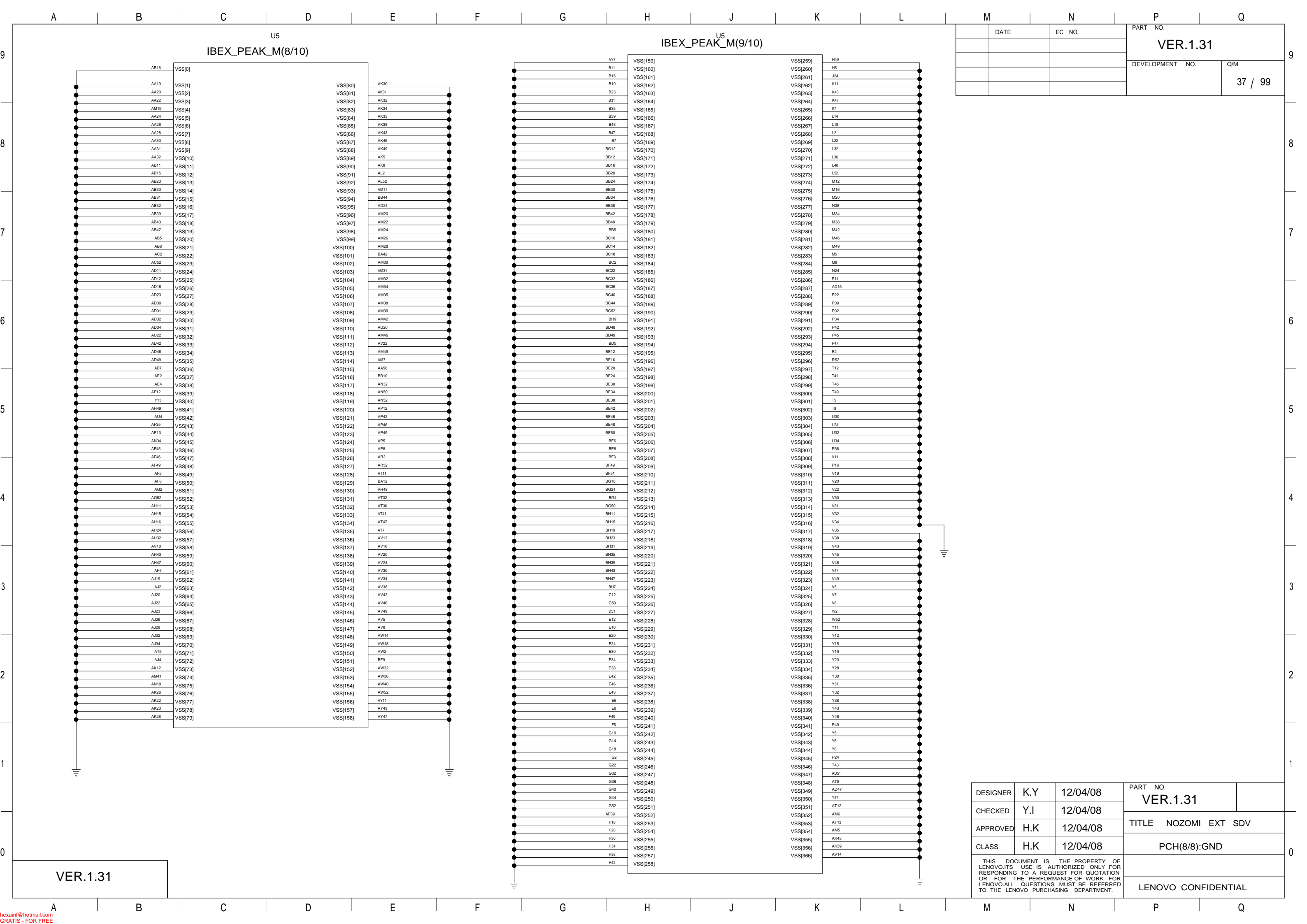
VER.1.31

LEVEL	PLANAR ID			
1	R39	R505	R37	R671
0	R43	R47	R113	R48

LEVEL	PLANARID[3..0]	
PDV	0000B	
SDV	0001B	

TP108	A4	VSS_NCTF_1
TP109	A9	VSS_NCTF_2
TP110	A5	VSS_NCTF_3
TP111	A50	VSS_NCTF_4
TP112	A52	VSS_NCTF_5
TP113	A53	VSS_NCTF_6
TP114	B2	VSS_NCTF_7
TP115	B4	VSS_NCTF_8
TP116	B52	VSS_NCTF_9
TP117	B53	VSS_NCTF_10
TP118	BE1	VSS_NCTF_11
TP119	BE3	VSS_NCTF_12
TP120	BF1	VSS_NCTF_13
TP121	BF3	VSS_NCTF_14
TP122	BH1	VSS_NCTF_15
TP123	BH2	VSS_NCTF_16
TP124	BH52	VSS_NCTF_17
TP125	BH53	VSS_NCTF_18
TP126	BJ1	VSS_NCTF_19
TP127	BJ2	VSS_NCTF_20
TP128	BJ4	VSS_NCTF_21
TP129	BJ49	VSS_NCTF_22
TP130	BJ5	VSS_NCTF_23
TP131	BJ50	VSS_NCTF_24
TP132	BJ52	VSS_NCTF_25
TP133	BJ53	VSS_NCTF_26
TP134	D1	VSS_NCTF_27
TP135	D2	VSS_NCTF_28
TP136	D53	VSS_NCTF_29
TP137	E1	VSS_NCTF_30
TP138	E53	VSS_NCTF_31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	PCH(7/8):GPIO/NCTF/RSVD
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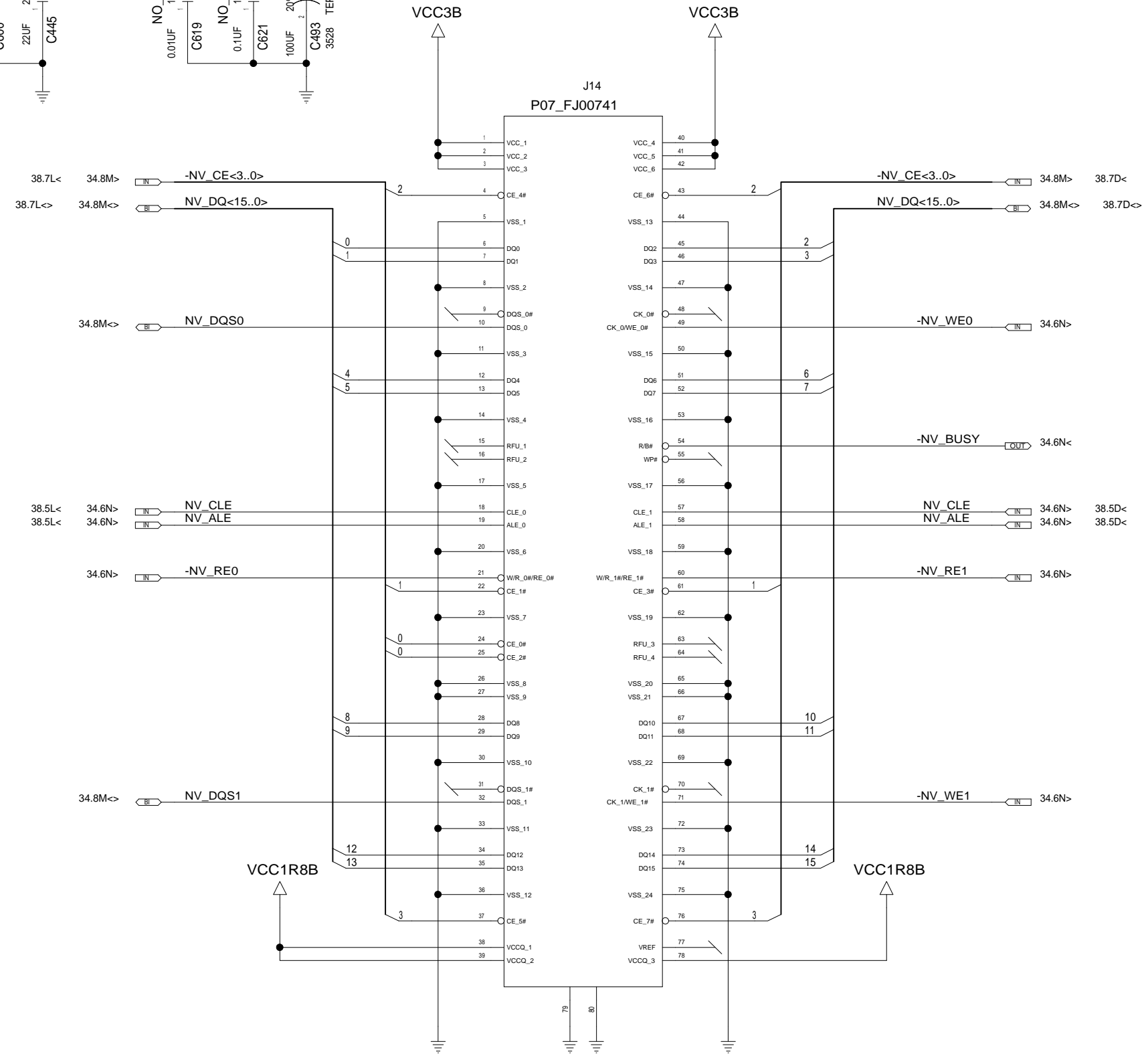
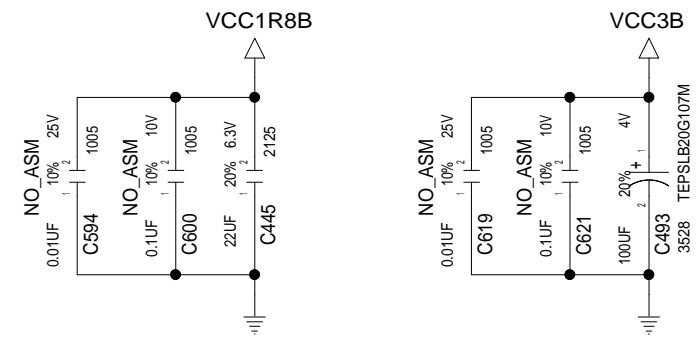
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	PCH(8/8):GND	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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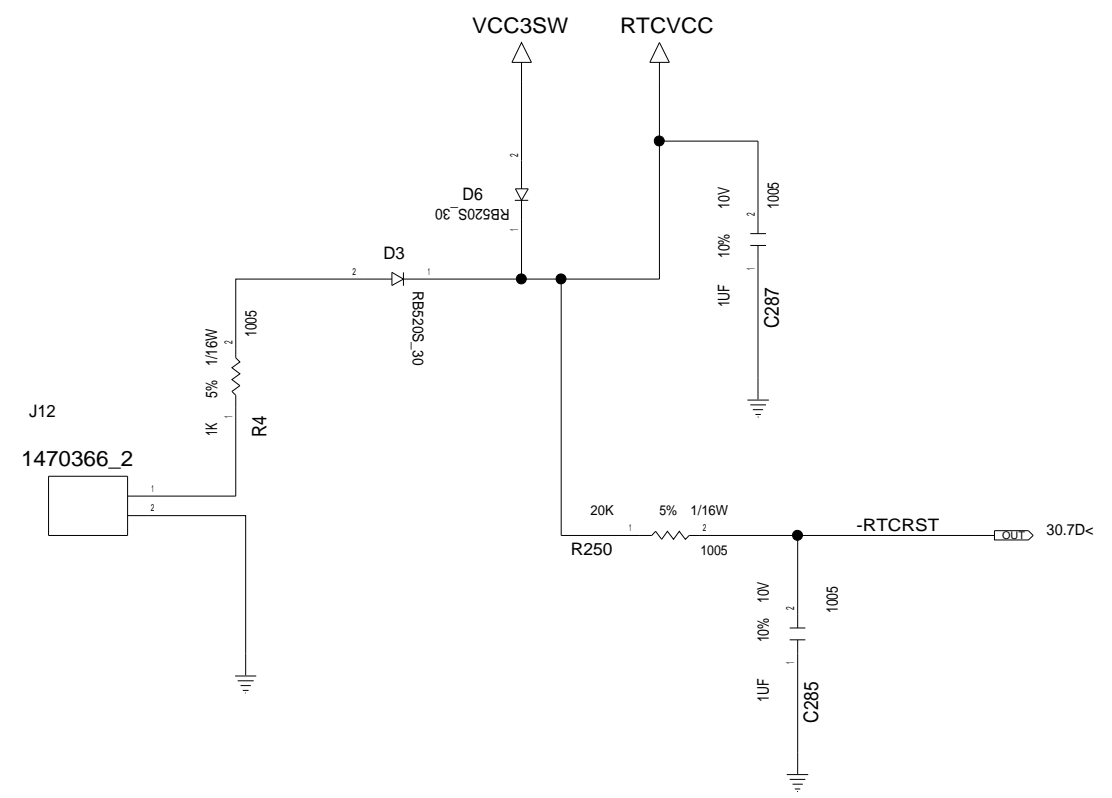
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	TURBO MEMORY SLOT	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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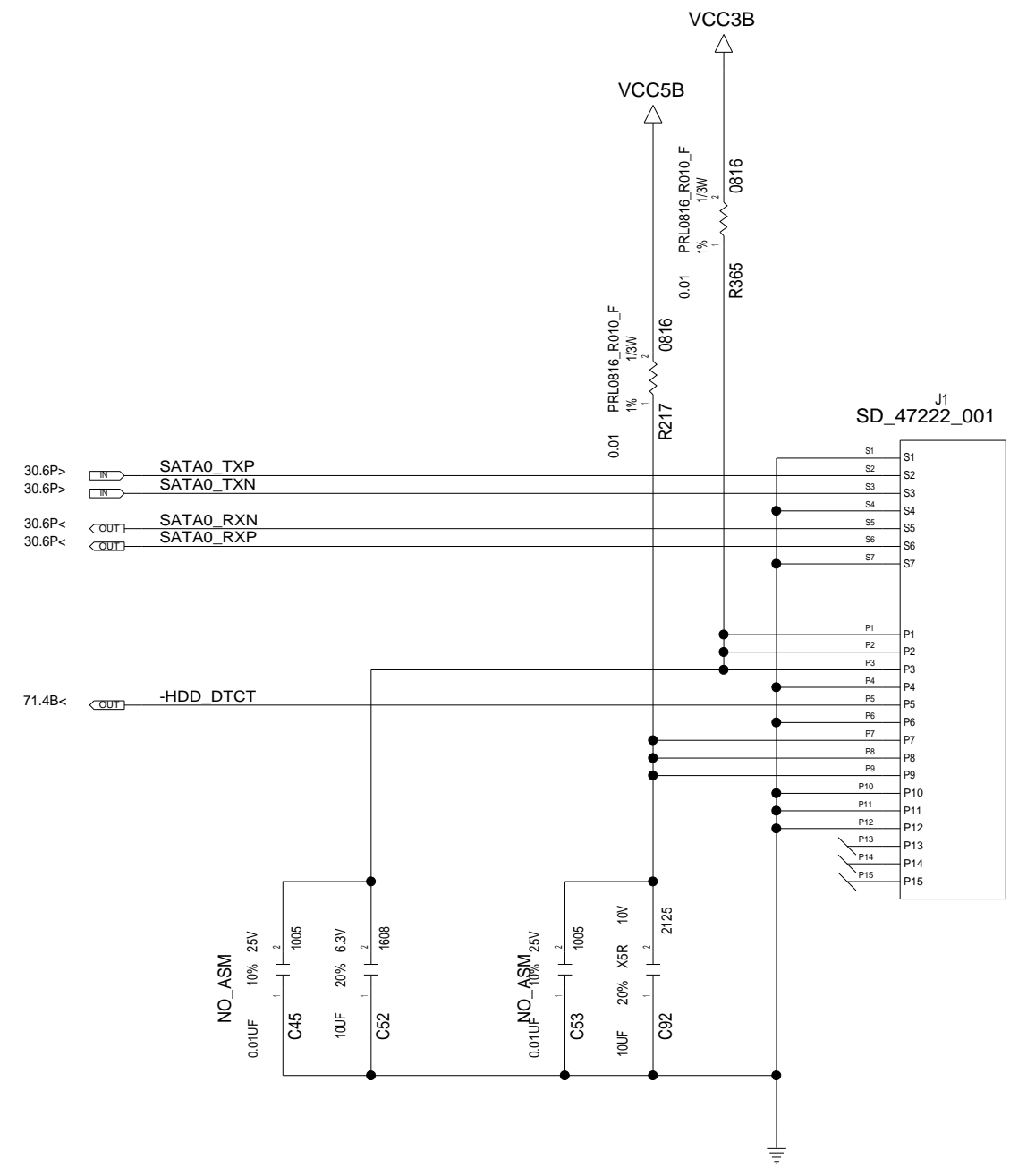
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			VER.1.31	
			DEVELOPMENT NO.	Q/M
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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	RTC BATTERY	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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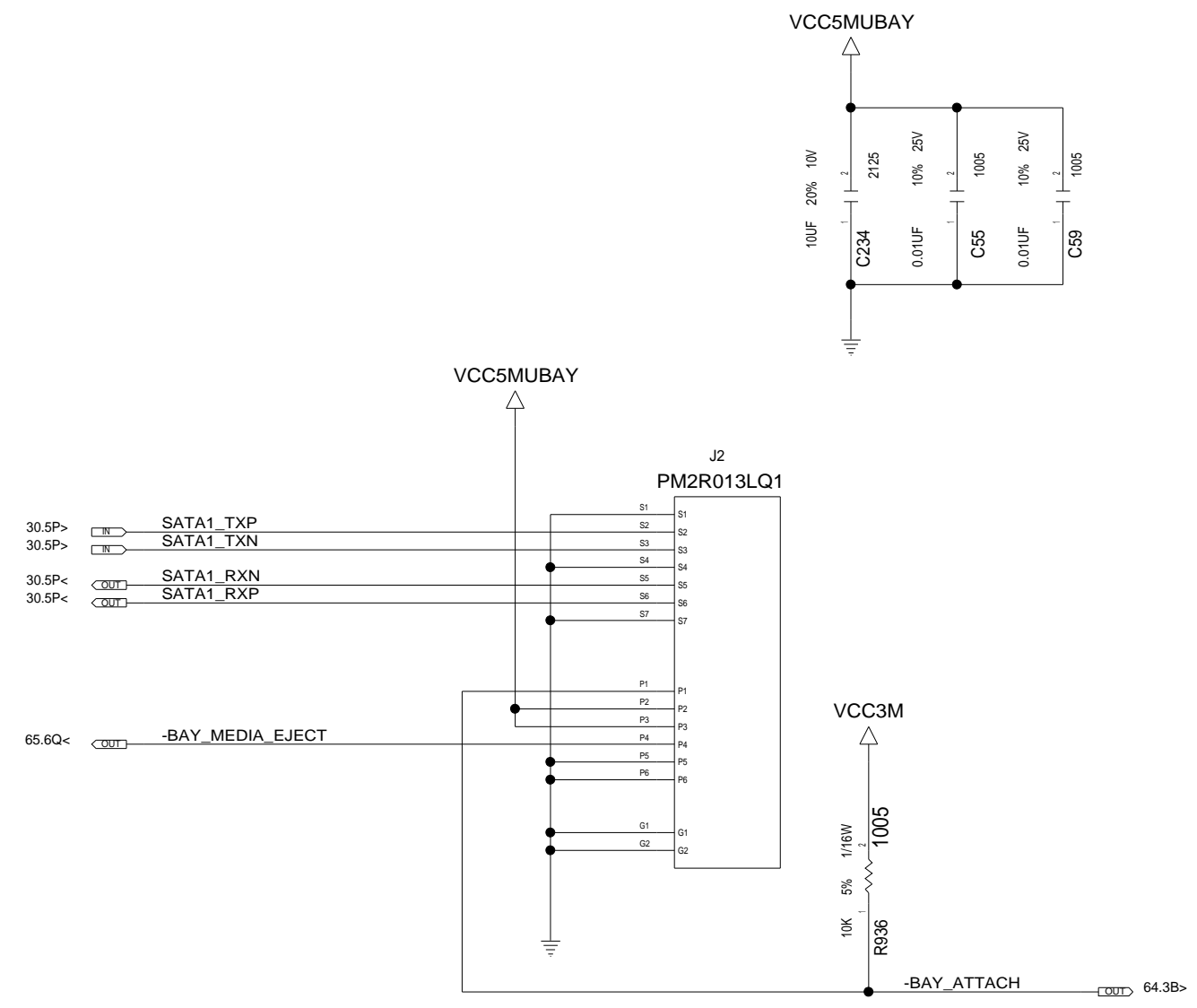
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			VER.1.31	
			DEVELOPMENT NO.	Q/M
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	SATA HDD CONN	
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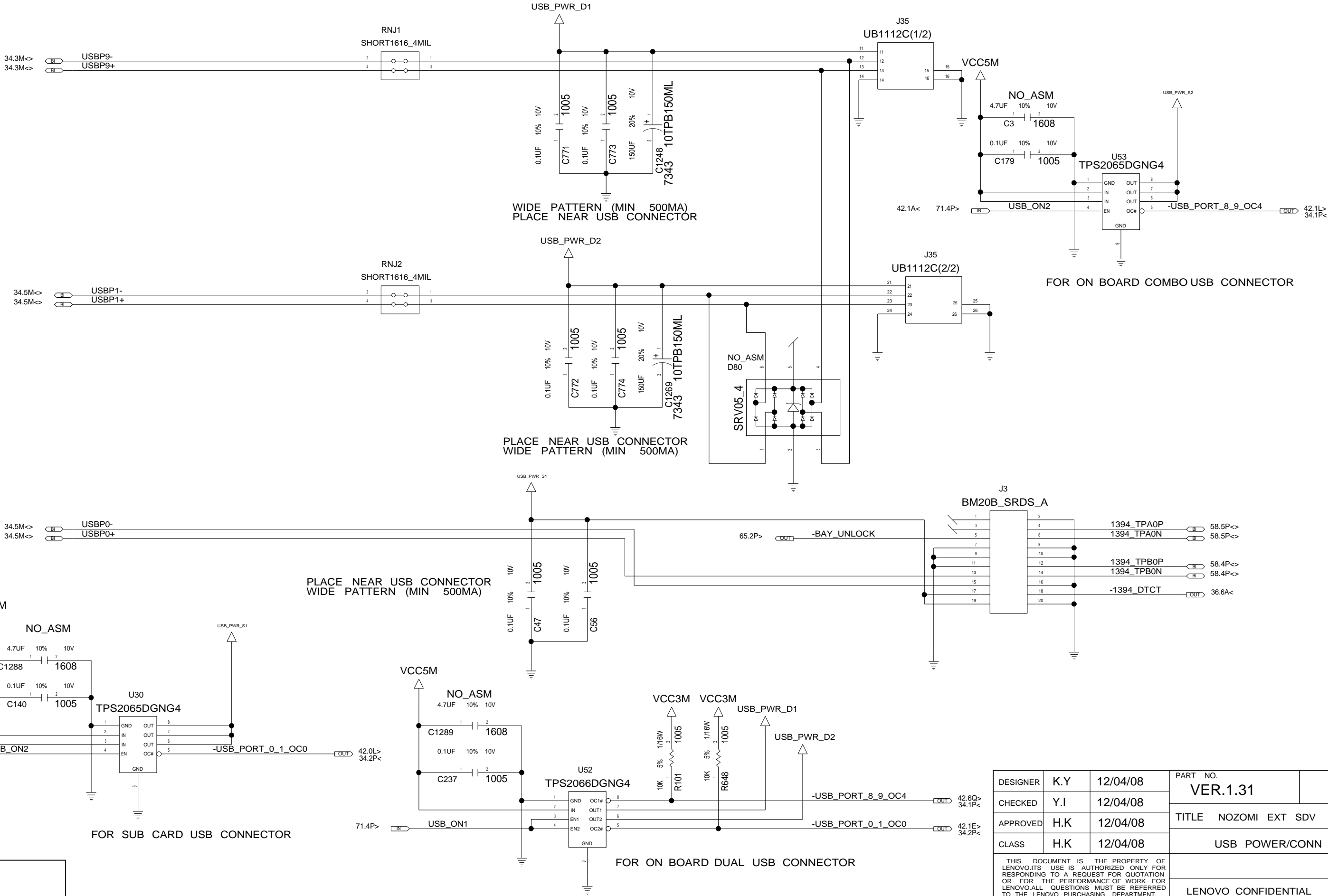
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	SATA BAY I/F CONN	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
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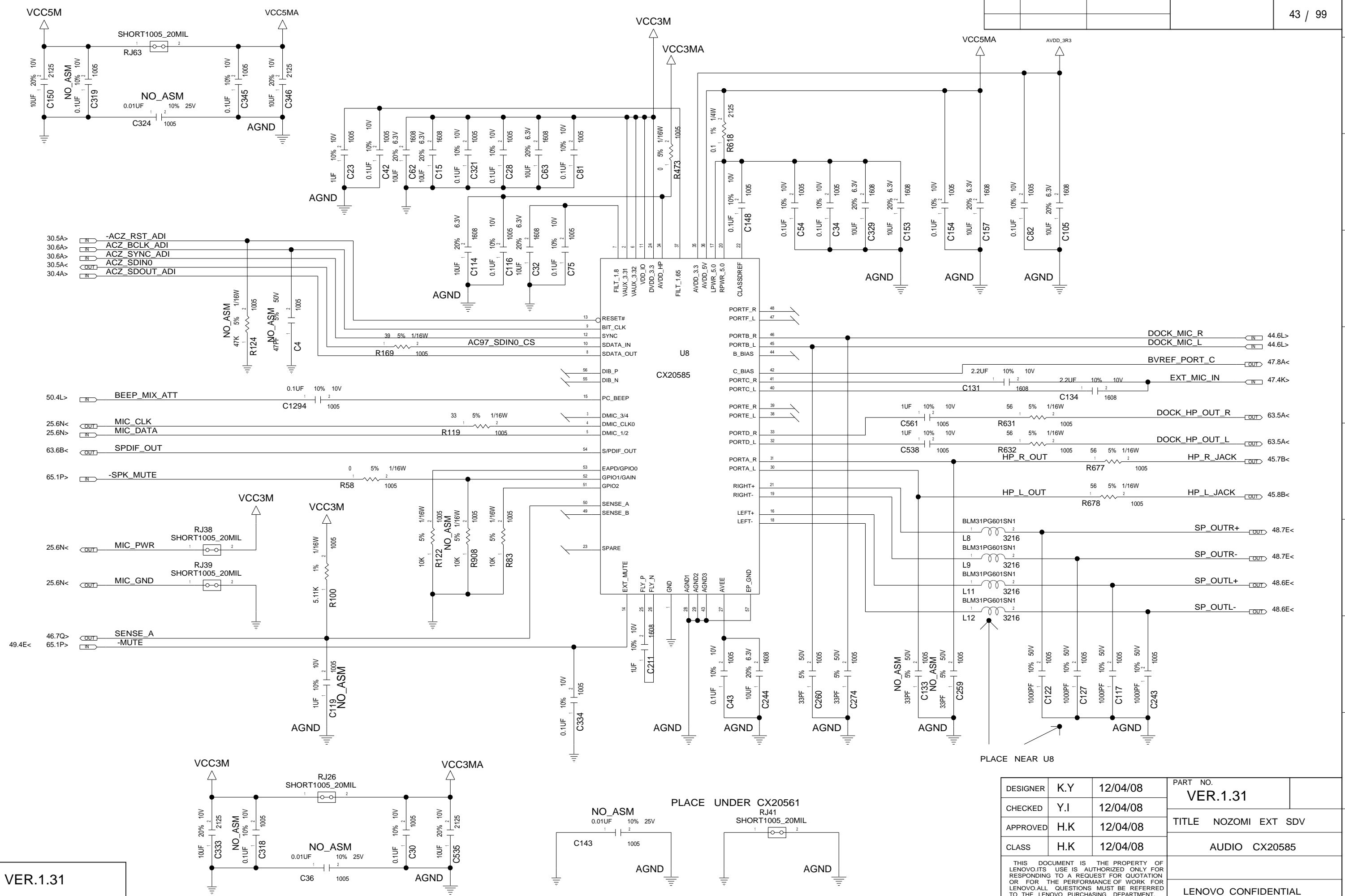


VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	USB POWER/CONN	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
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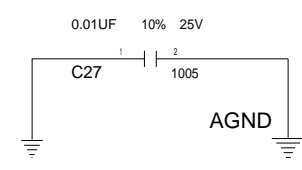
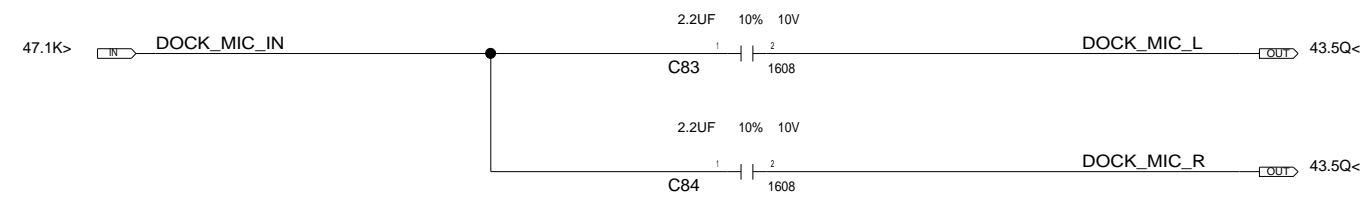


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DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	AUDIO CX20585	
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A B C D E F G H J K L M N P Q

	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
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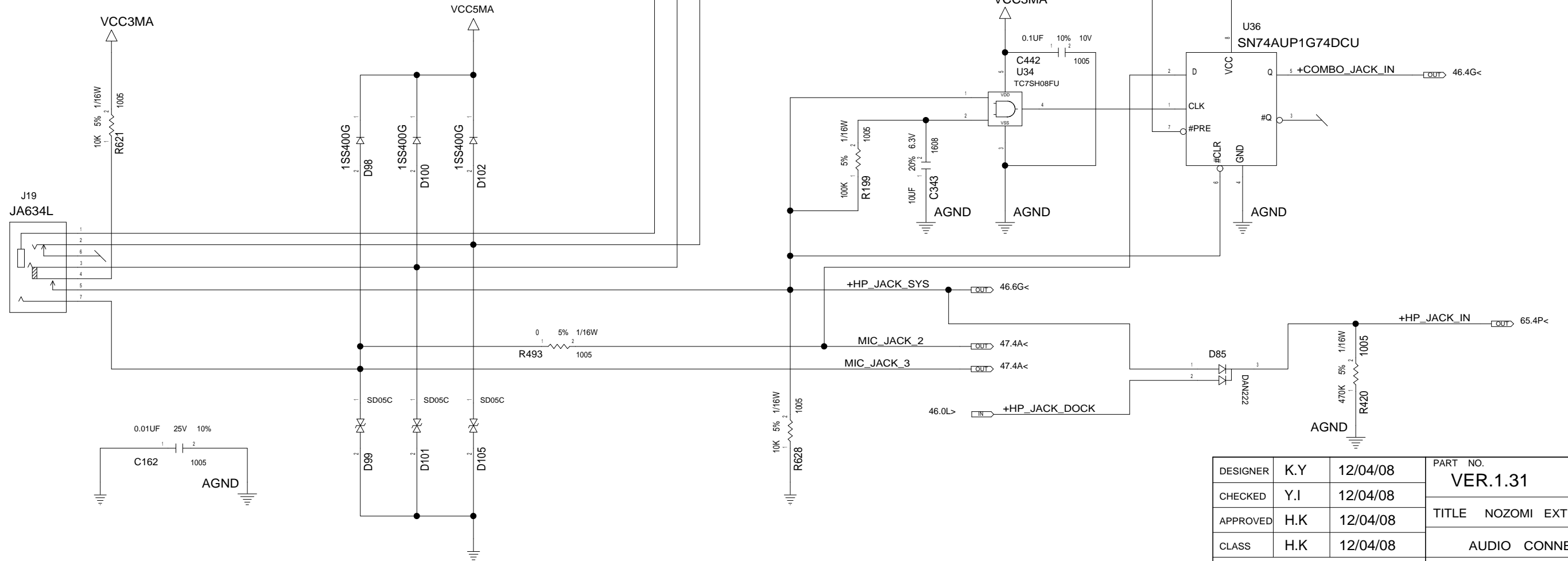
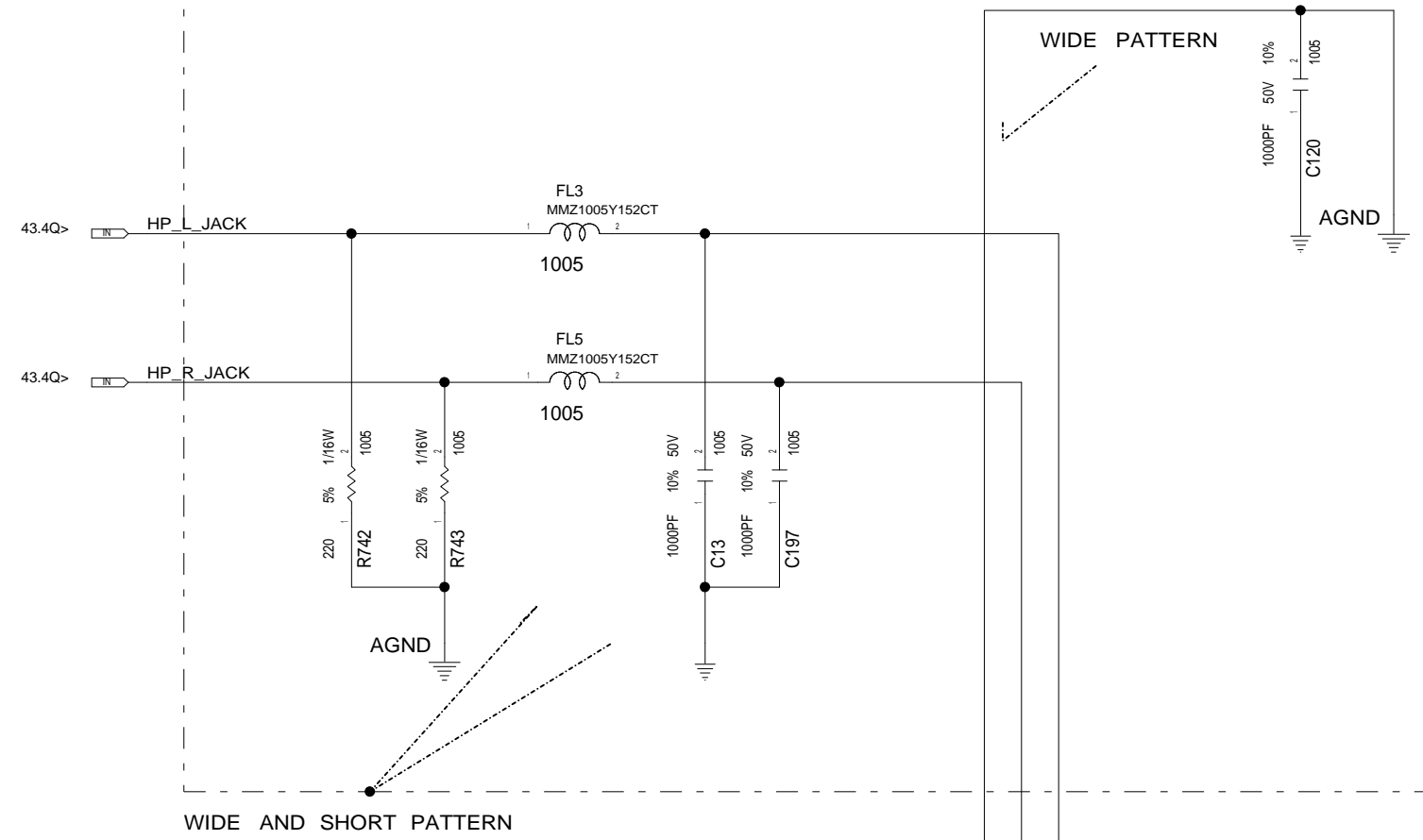
VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	AUDIO MISC	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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A B C D E F G H J K L M N P Q

NEAR HEADPHONE CONN

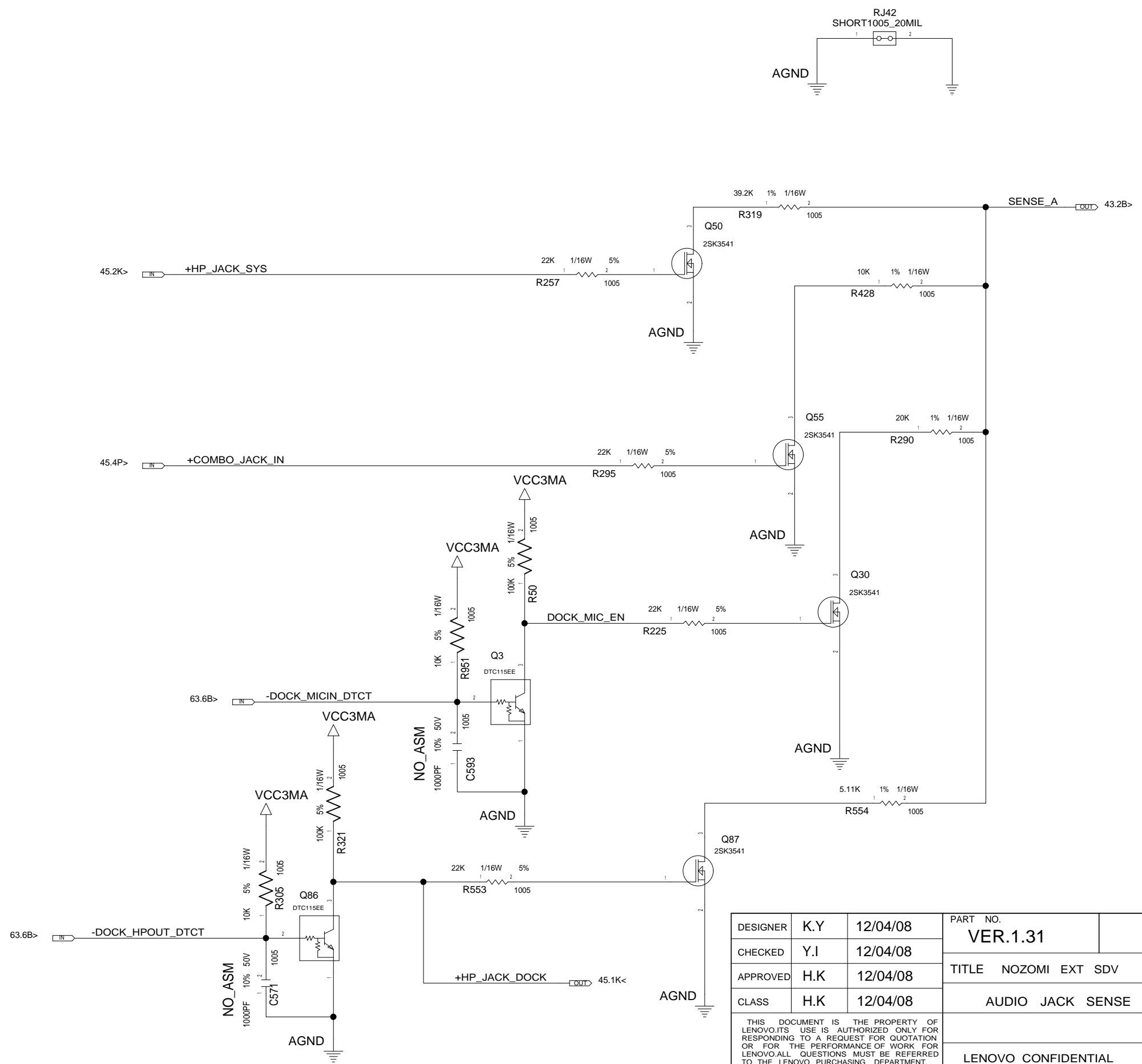
DATE	EC NO.	PART NO.
		VER.1.31
		DEVELOPMENT NO.
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DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	AUDIO CONNECTOR
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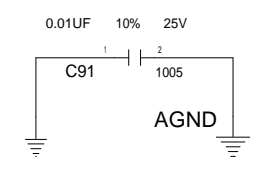
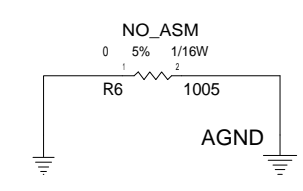
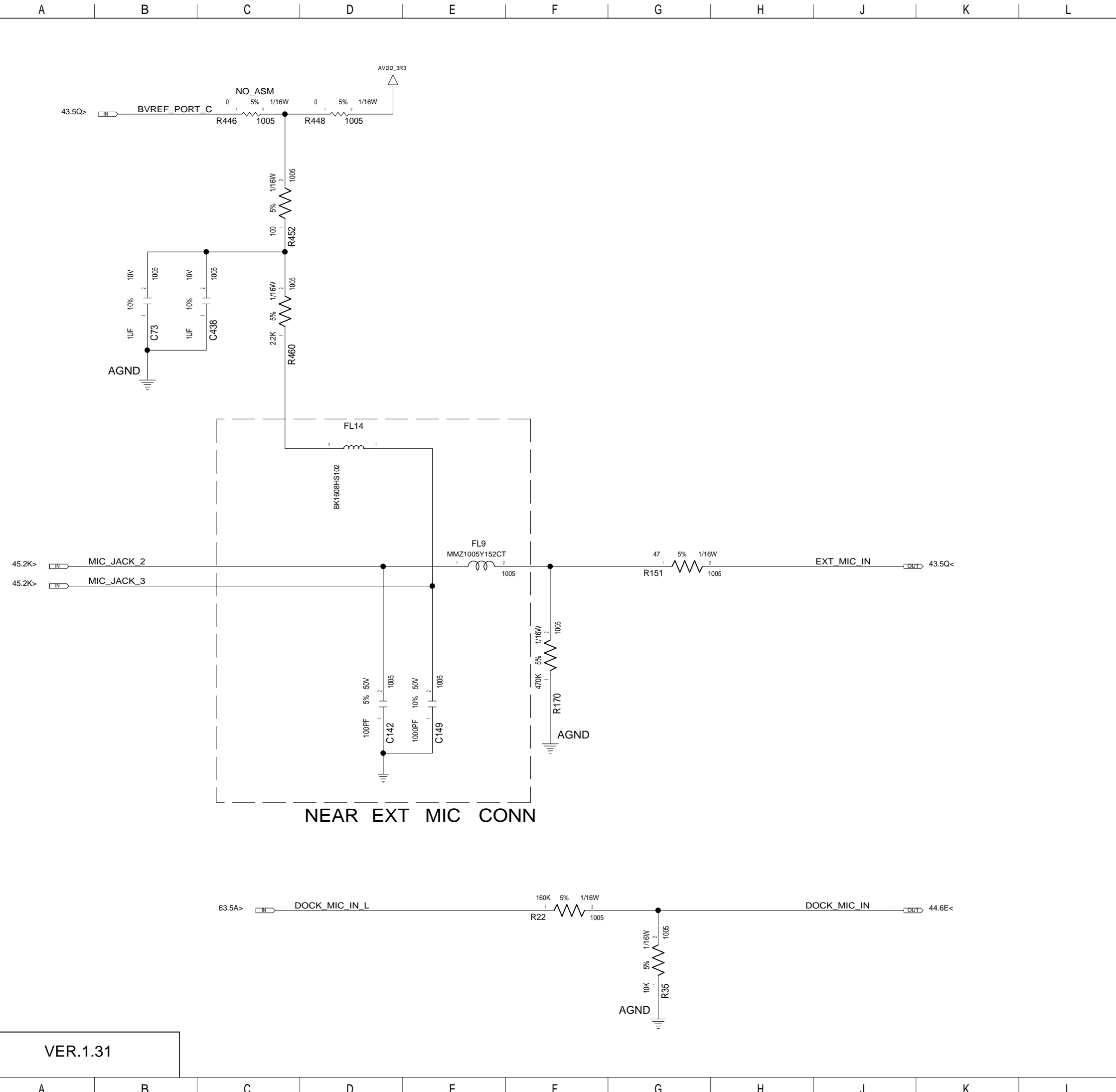
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
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DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	AUDIO JACK SENSE
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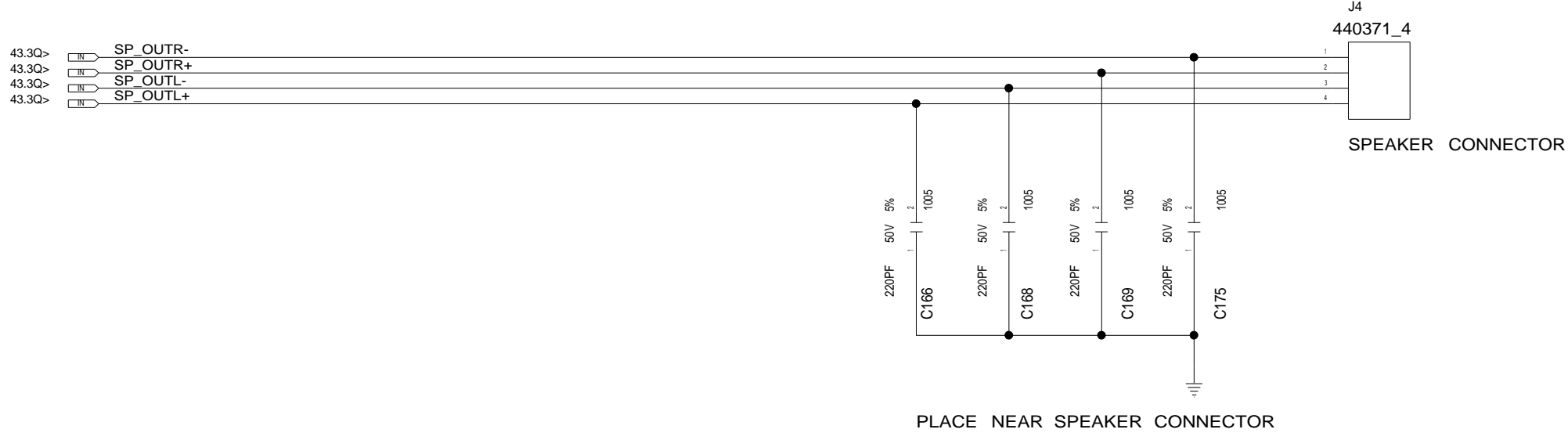
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			VER.1.31	
			DEVELOPMENT NO.	Q/M
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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	AUDIO EXT MIC I/F	
CLASS	H.K	12/04/08		
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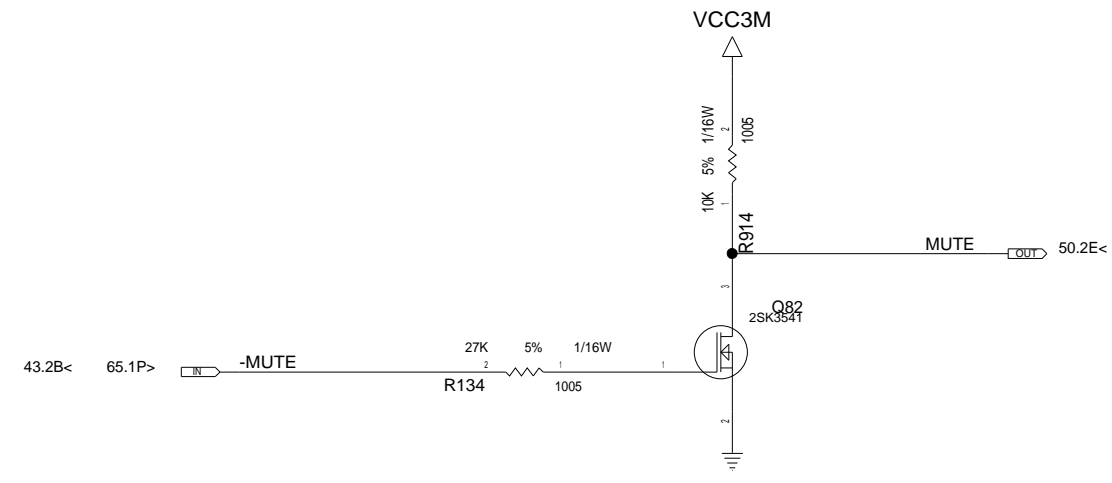
	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				48 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	AUDIO SPEAKER	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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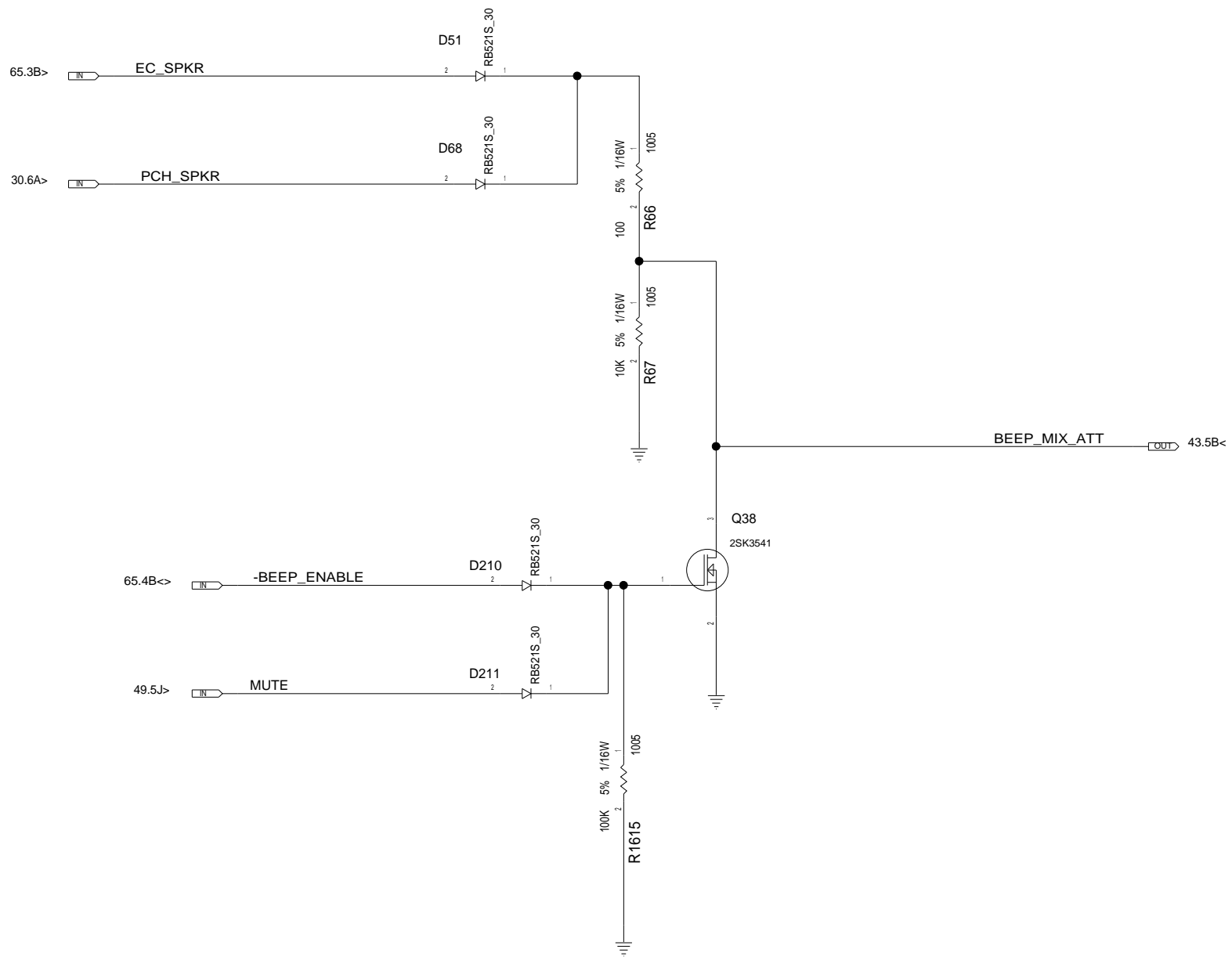
	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				49 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	AUDIO HDP AMP	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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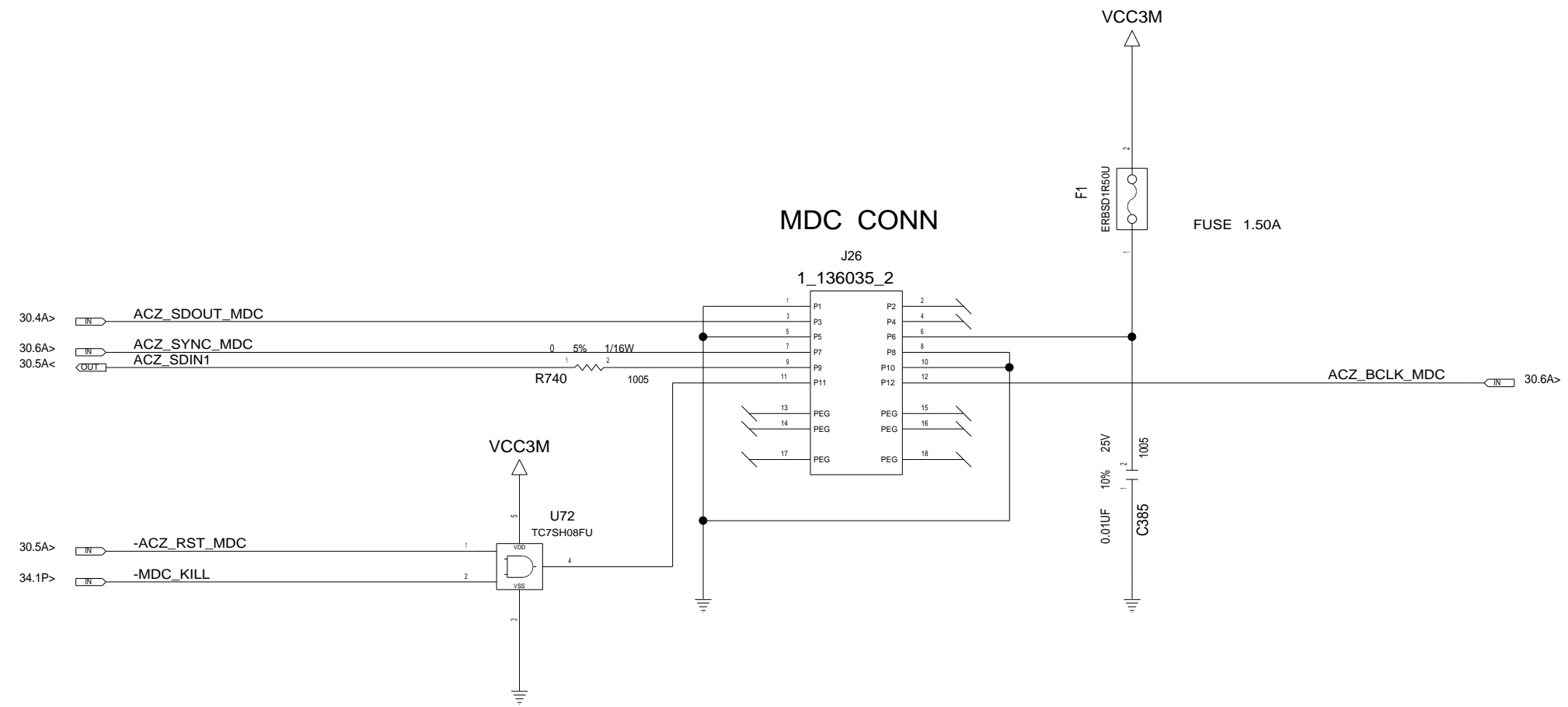
	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				50 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	AUDIO BEEP	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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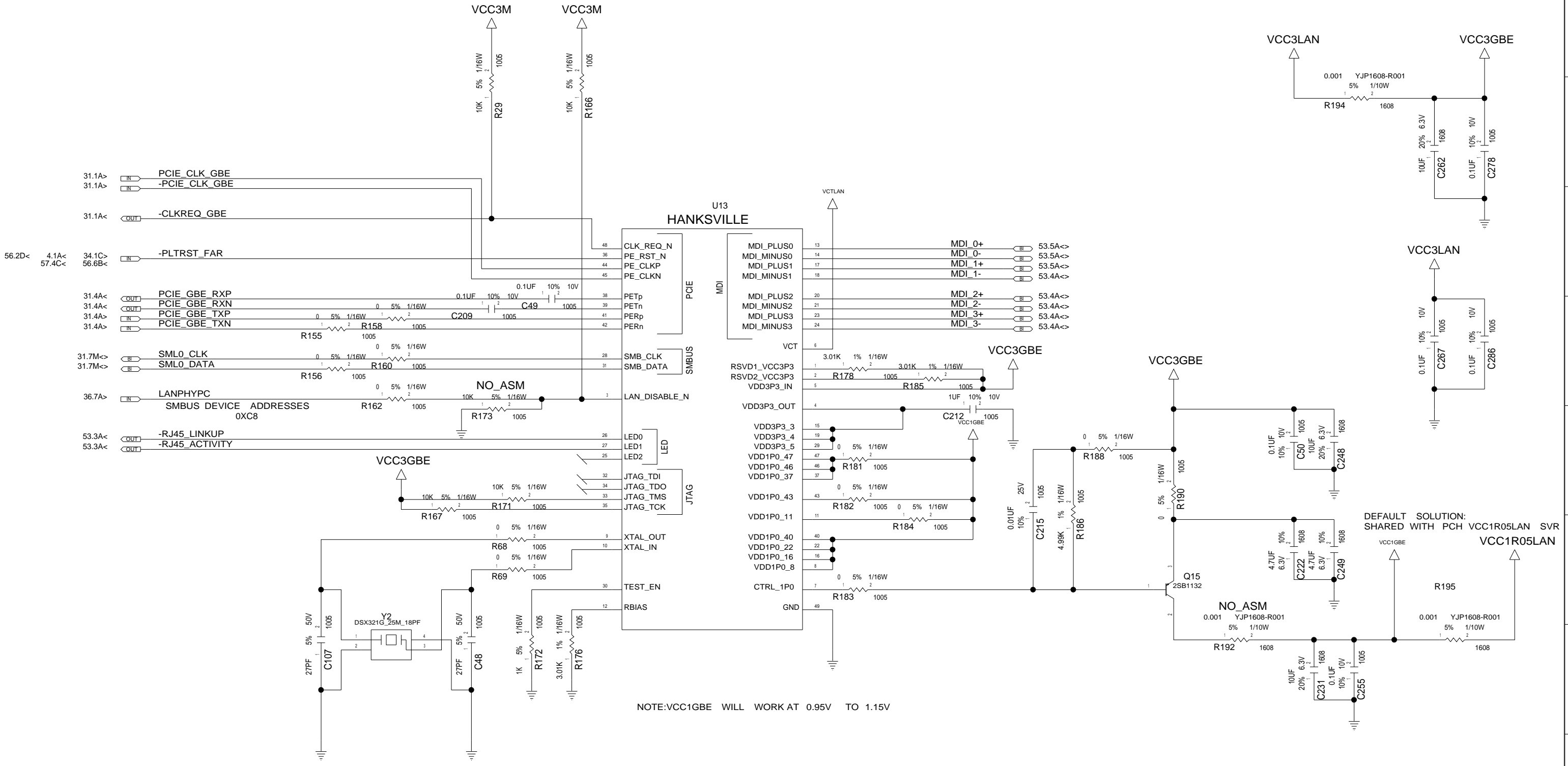
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			51 / 99



VER.1.31

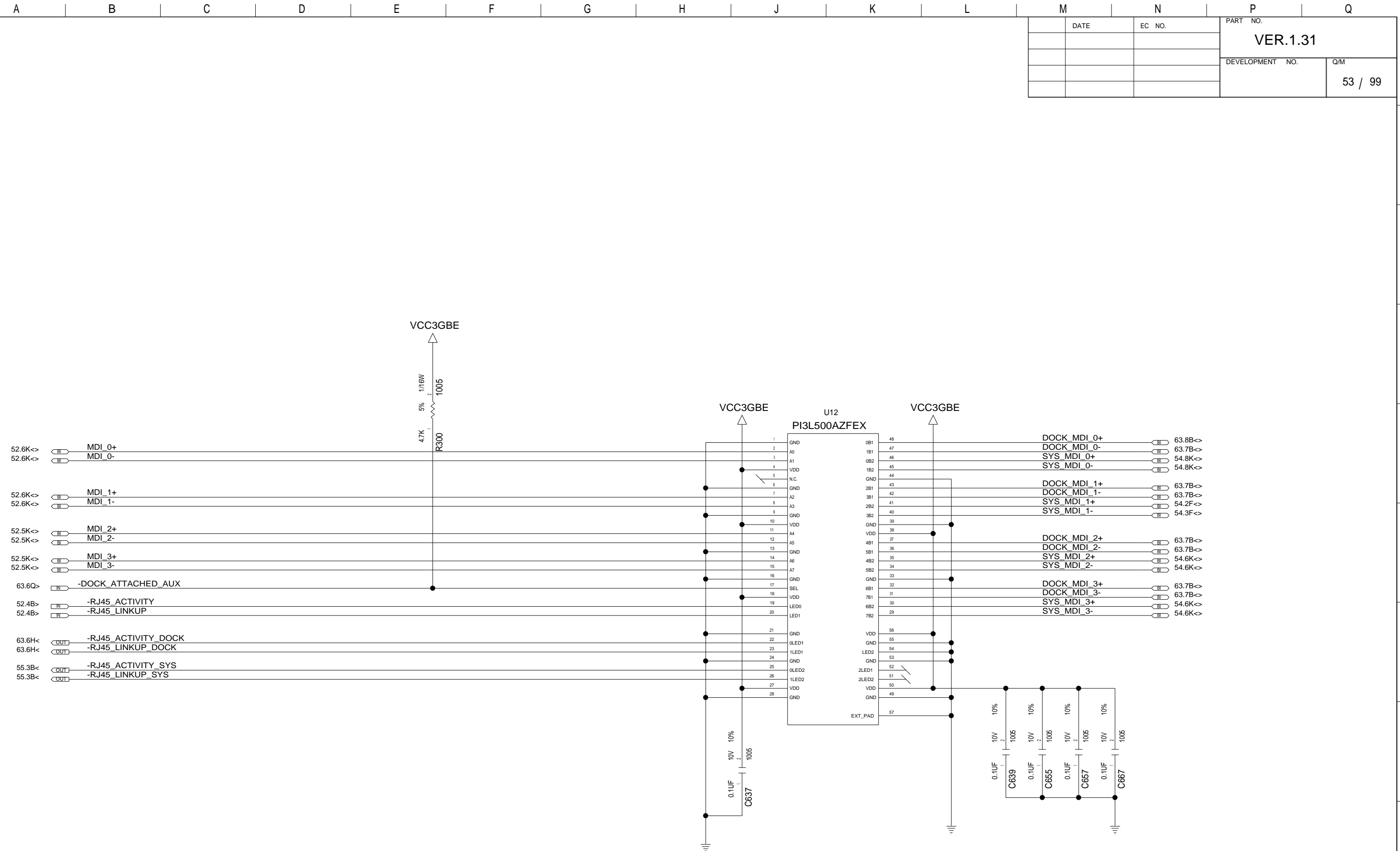
DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	MDC CONNECTOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			52 / 99



DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	GBE HANKSVILLE	
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DATE		EC NO.		PART NO.	
				VER.1.31	
DEVELOPMENT NO.				Q/M	
				53 / 99	



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	GBE LAN SWITCH	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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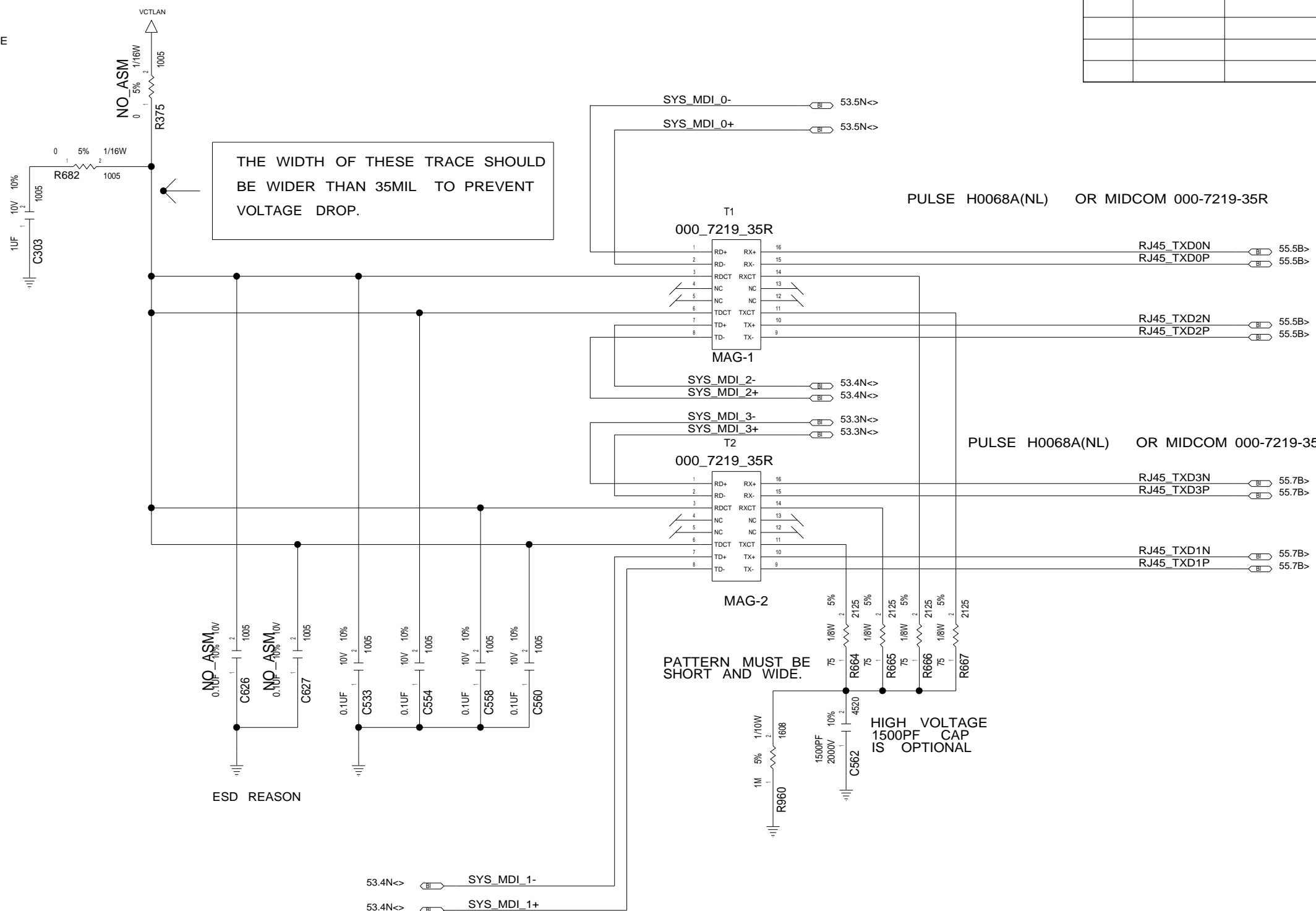
DATE		EC NO.		PART NO.	
				VER.1.31	
DEVELOPMENT NO.				Q/M	
				54 / 99	

C303 AND 0 OHM RESISTOR SHOULD BE PLACED AS CLOSE TO MAGNETICS AS POSSIBLE.

THE WIDTH OF THESE TRACE SHOULD BE WIDER THAN 35MIL TO PREVENT VOLTAGE DROP.

PATTERN MUST BE SHORT AND WIDE.
HIGH VOLTAGE 1500PF CAP IS OPTIONAL

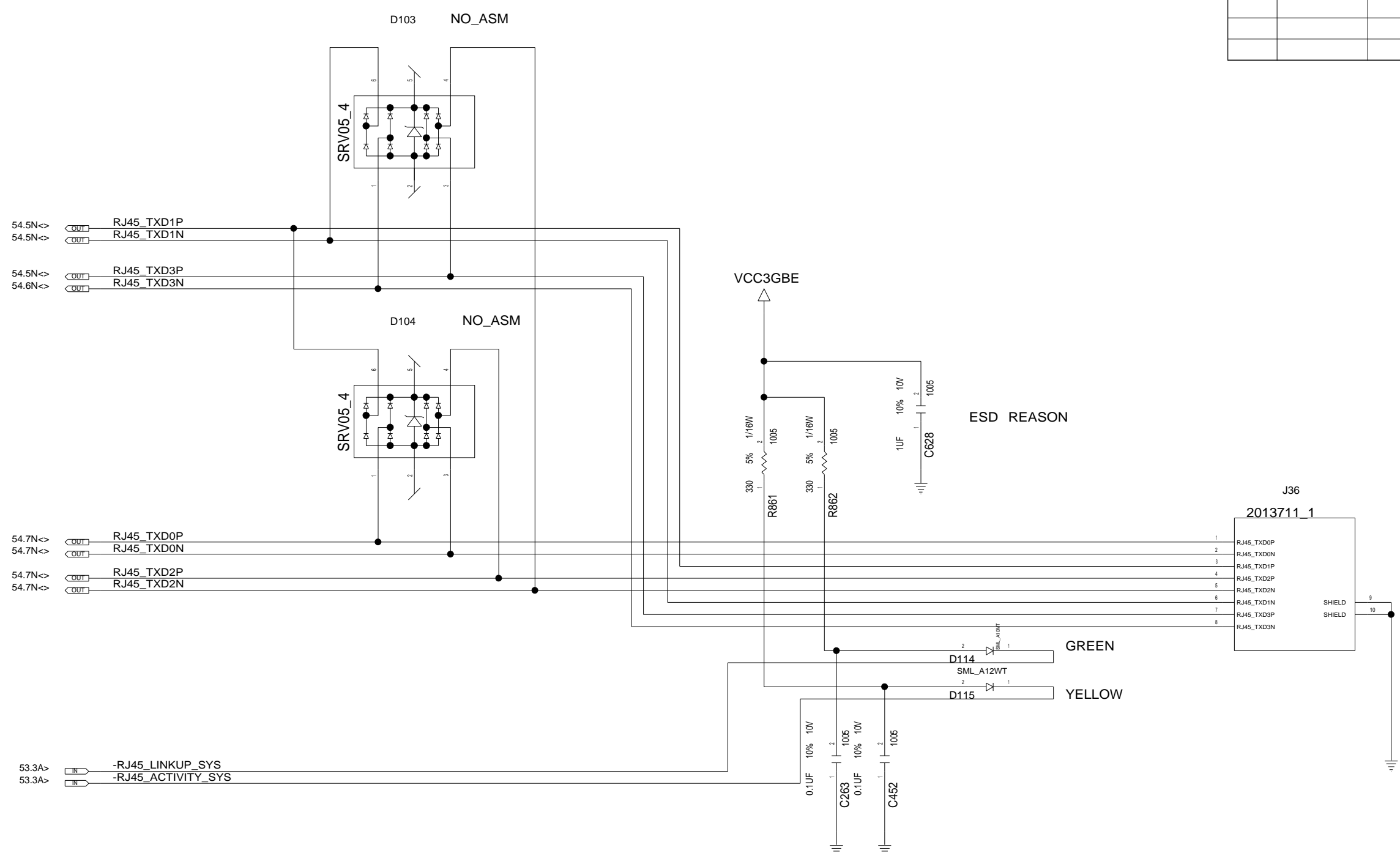
ESD REASON



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	GBE MAGNETICS	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				55 / 99

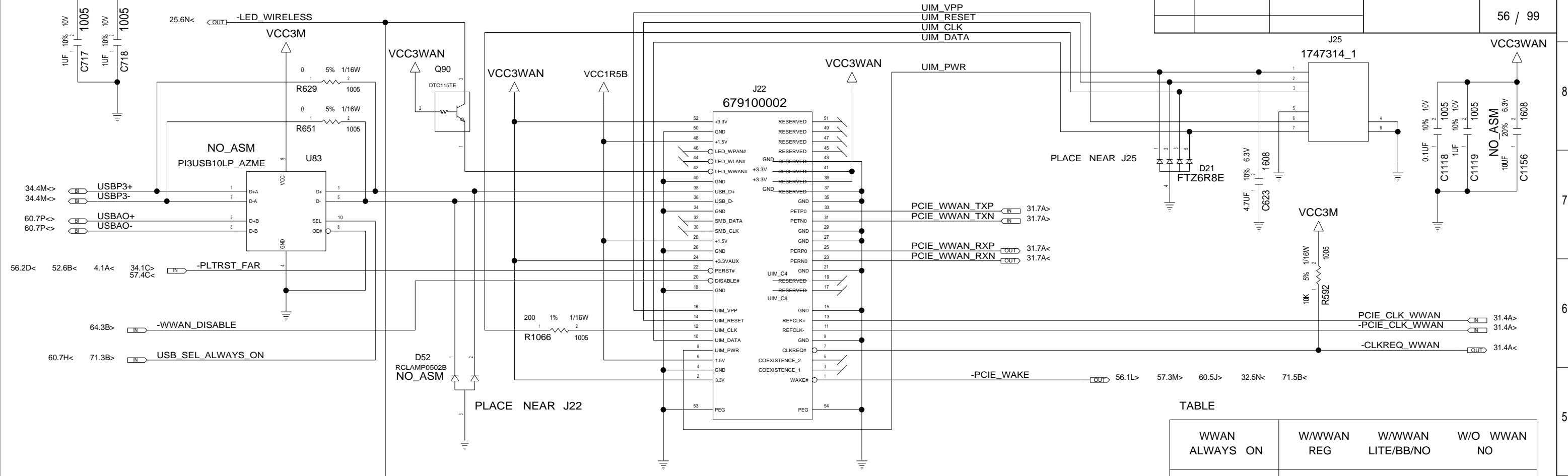


VER.1.31

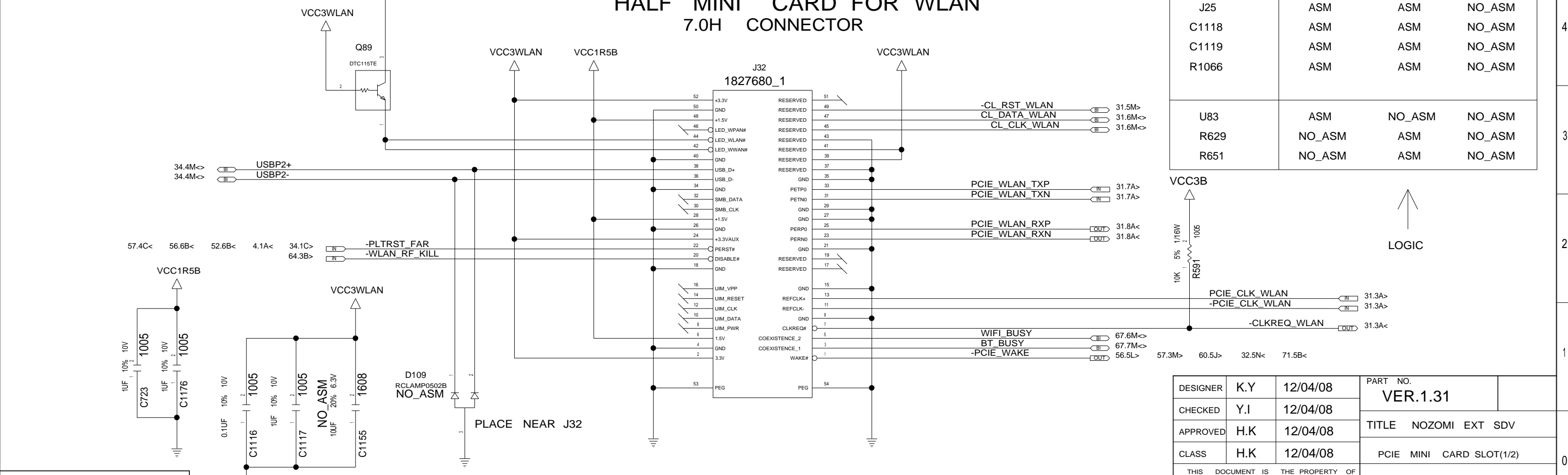
DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	RJ45 CONNECTOR	
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FULL MINI CARD FOR WWAN 4.1H CONNECTOR

DATE	EC NO.	PART NO.
		VER.1.31
DEVELOPMENT NO.	Q/M	
	56 / 99	

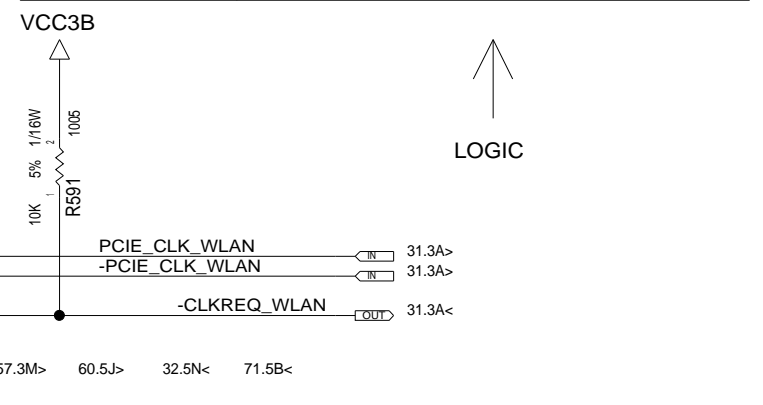


HALF MINI CARD FOR WLAN 7.0H CONNECTOR



TABLE

	WWAN ALWAYS ON	W/WWAN REG	W/WWAN LITE/BB/NO	W/O WWAN NO
J22		ASM	ASM	NO_ASM
J25		ASM	ASM	NO_ASM
C1118		ASM	ASM	NO_ASM
C1119		ASM	ASM	NO_ASM
R1066		ASM	ASM	NO_ASM
U83		ASM	NO_ASM	NO_ASM
R629		NO_ASM	ASM	NO_ASM
R651		NO_ASM	ASM	NO_ASM

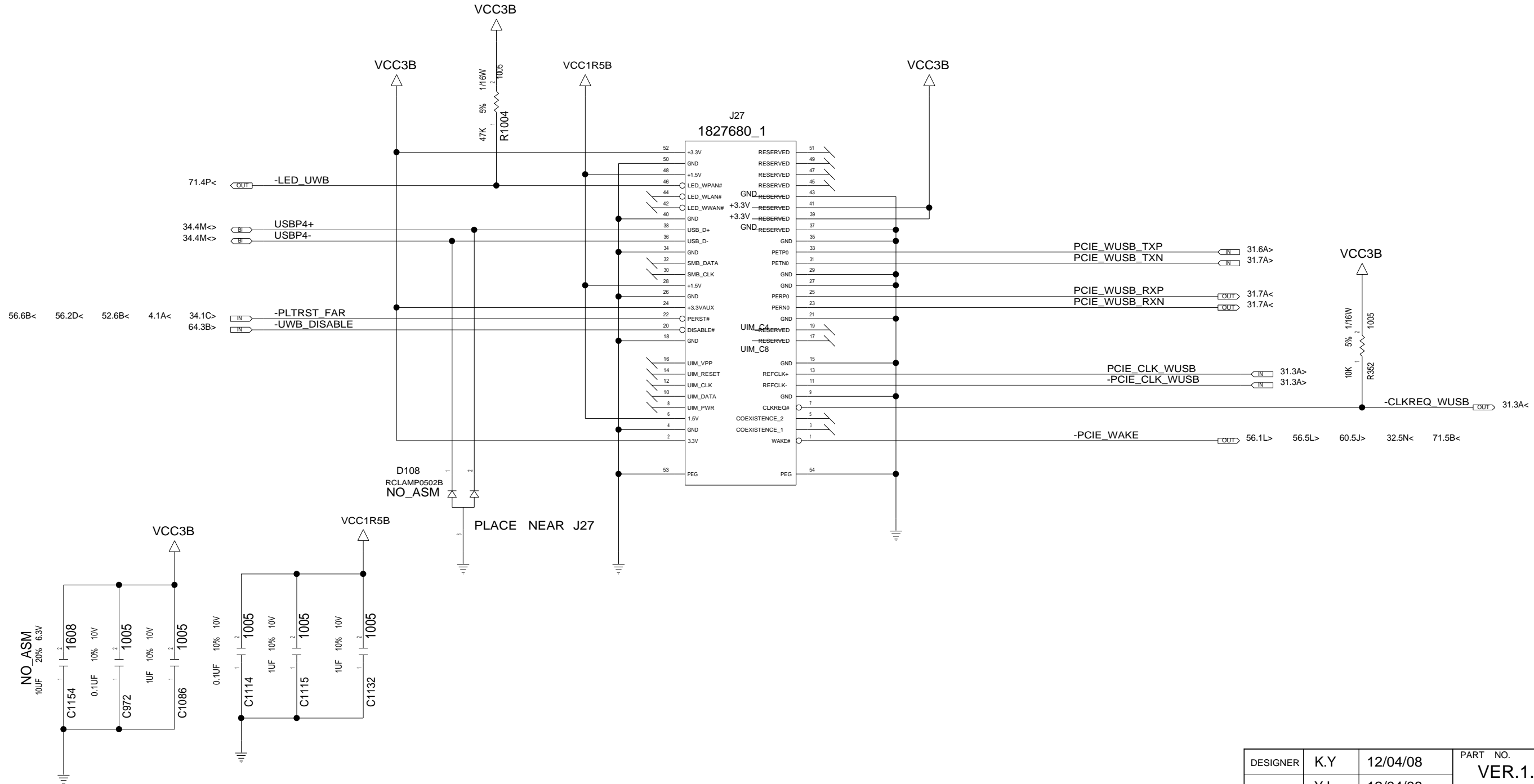


DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	PCIE MINI CARD SLOT(1/2)
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LENOVO CONFIDENTIAL			

VER.1.31

	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				57 / 99

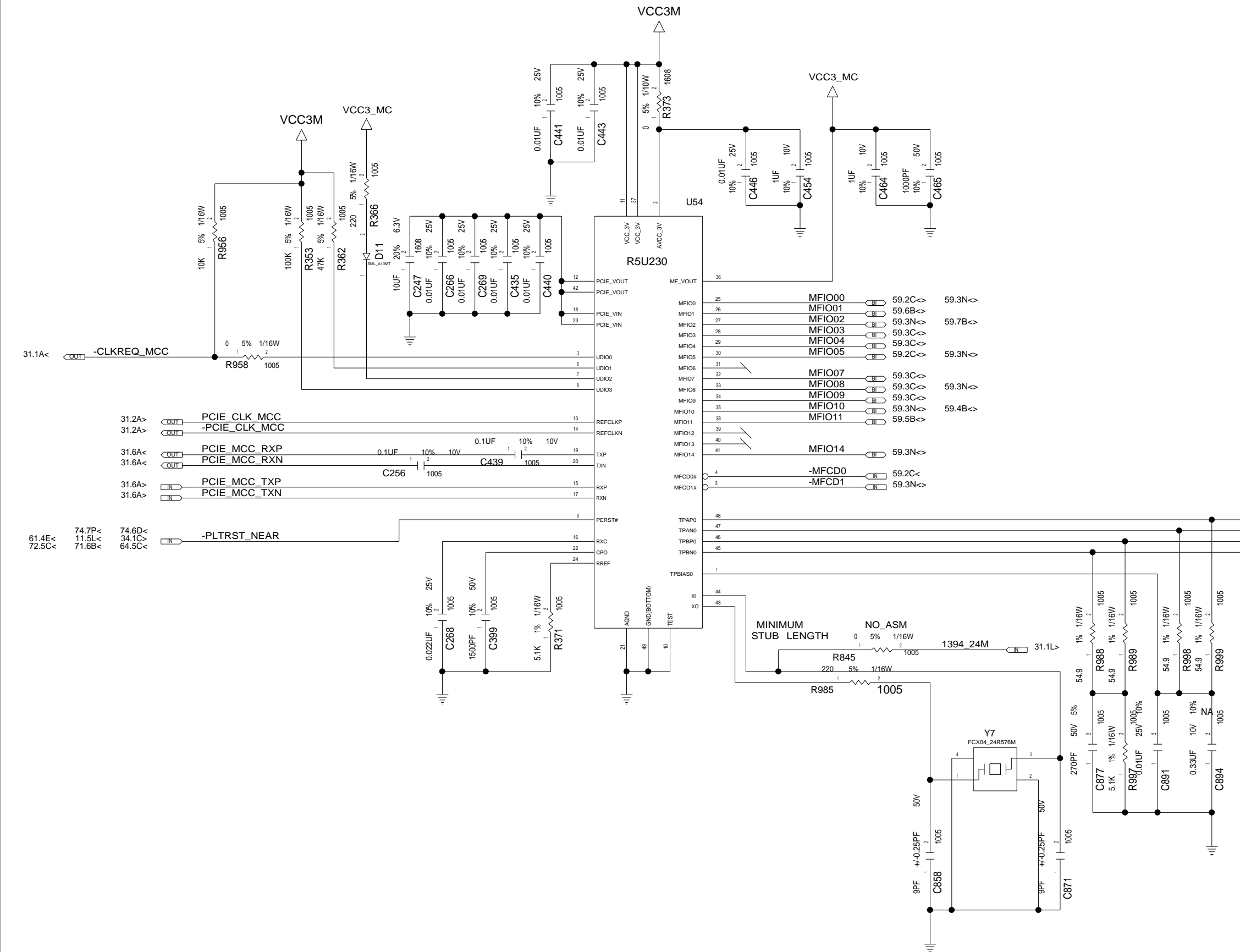
HALF MINI CARD FOR WUSB 7.0H CONNECTOR



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	PCIE MINI CARD SLOT(2/2)	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			58 / 99



TABLE

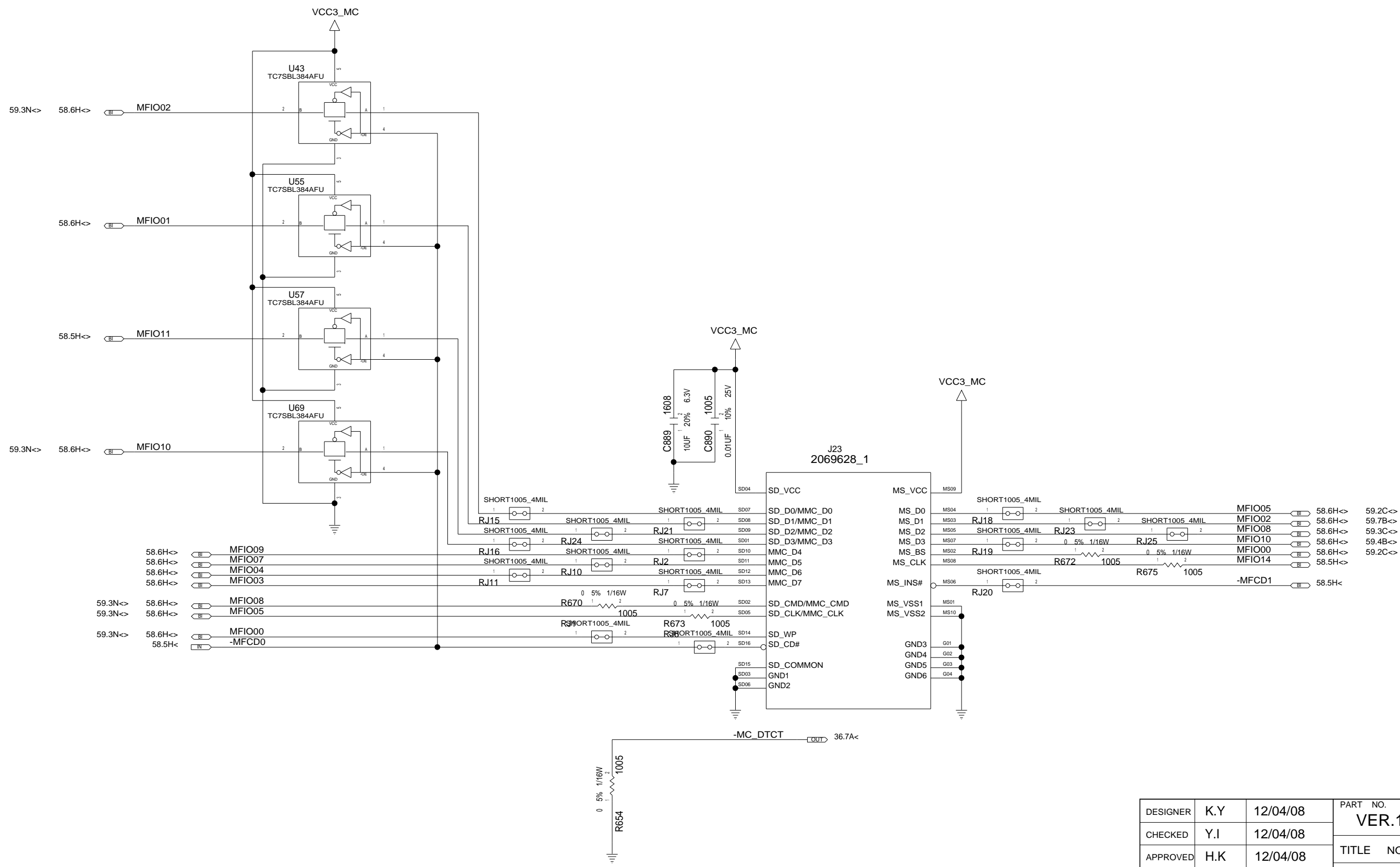
MEDIA I/F	SD/MMC	MEMORYSTICK	XD
MFIO00	SDWP#	MSBS	XD_D7
MFIO01	SD_D1	MS_D1	XD_D6
MFIO02	SD_D0	MS_D1	XD_D5
MFIO03	(SD_D7)	(MS_D5)	XD_D4
MFIO04	(SD_D6)	(MS_D5)	XD_D3
MFIO05	SD_CLK	MS_D0	XD_D2
MFIO06			XD_D1
MFIO07	(SD_D5)	(MS_D4)	XD_D0
MFIO08	SD_CDM	MS_D2	XD_WP#
MFIO09	(SD_D4)	(MS_D6)	XD_WE#
MFIO10	SD_D3	MS_D3	XD_ALE
MFIO11	SD_D2		XD_CLE
MFIO12		(MS_D7)	XD_CE#
MFIO13		MS_CLK	XD_R/B#
MFCD0#	SDCD#		XDCD0#
MFCD1#		MSINS#	XDCD1#

1394 TPA0P	42.3P<>
1394 TPA0N	42.3P<>
1394 TPB0P	42.3P<>
1394 TPB0N	42.3P<>

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	1394/MEDIA CARD CONTROLLER	
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LENOVO CONFIDENTIAL				

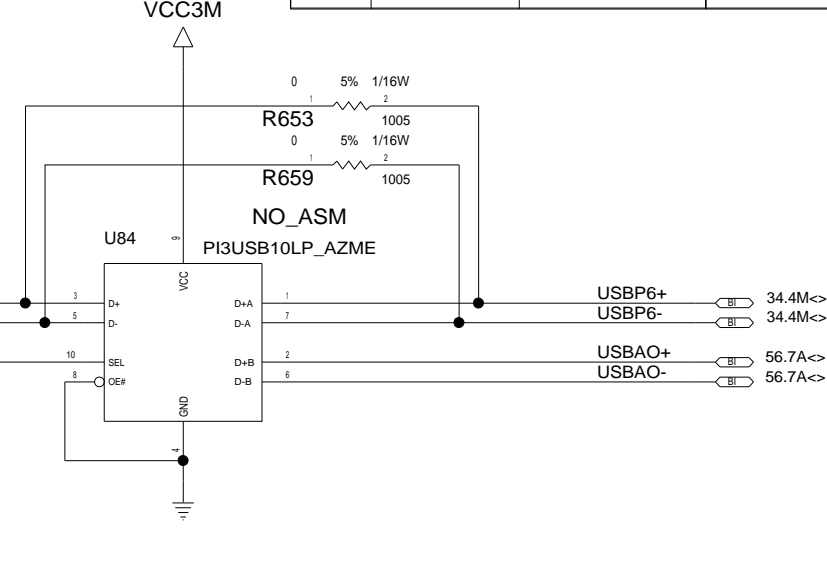
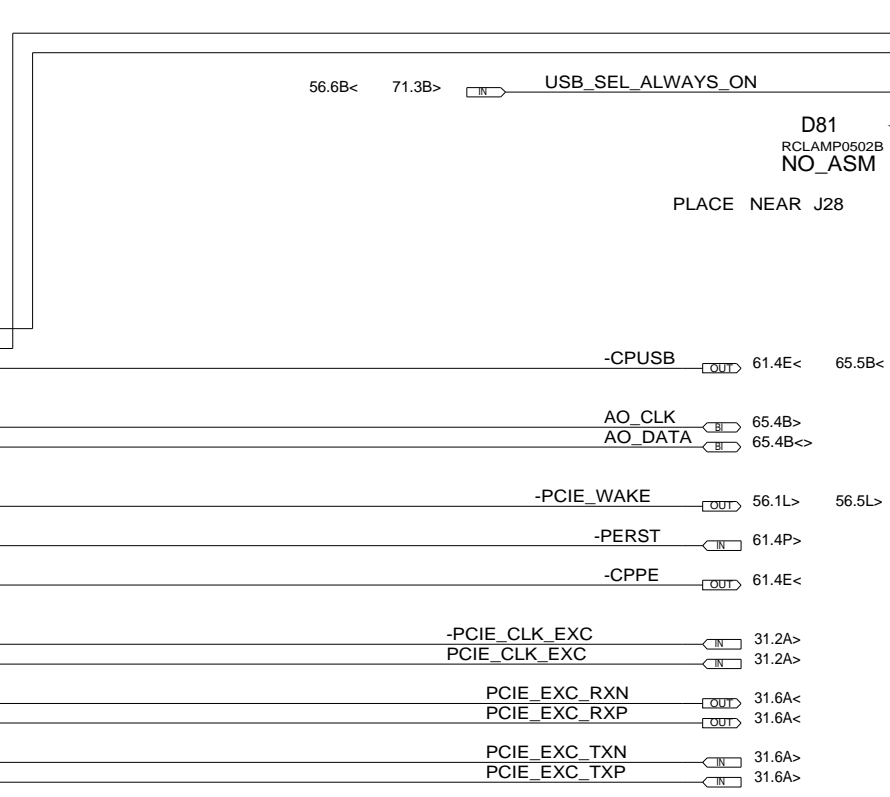
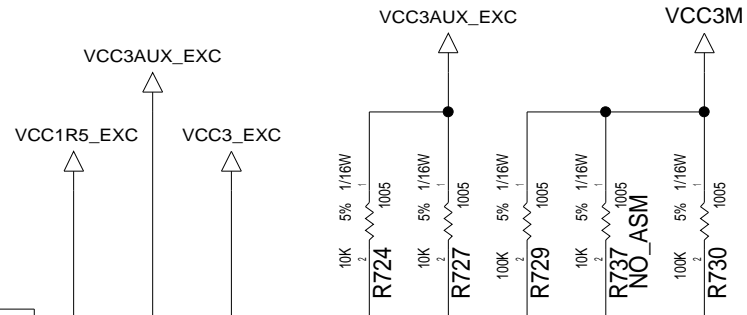
	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				59 / 99



VER.1.31

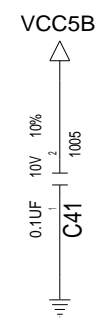
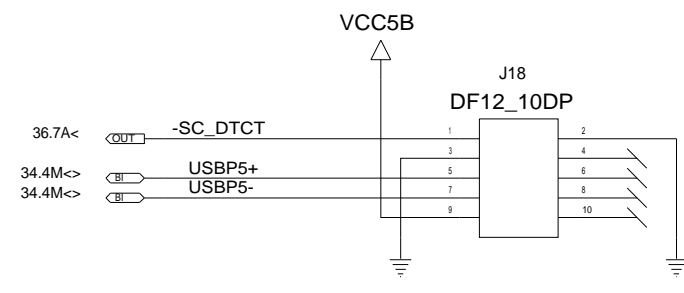
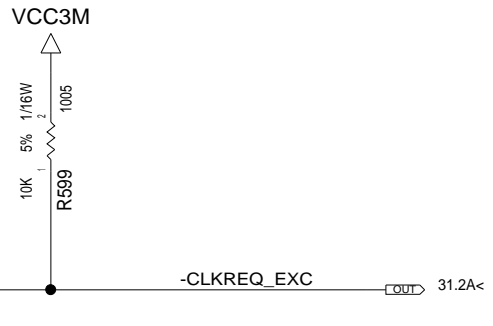
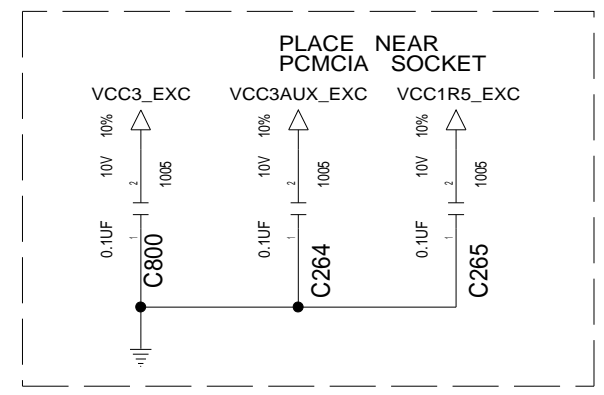
DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	MEDIA CARD INTERFACE	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			60 / 99



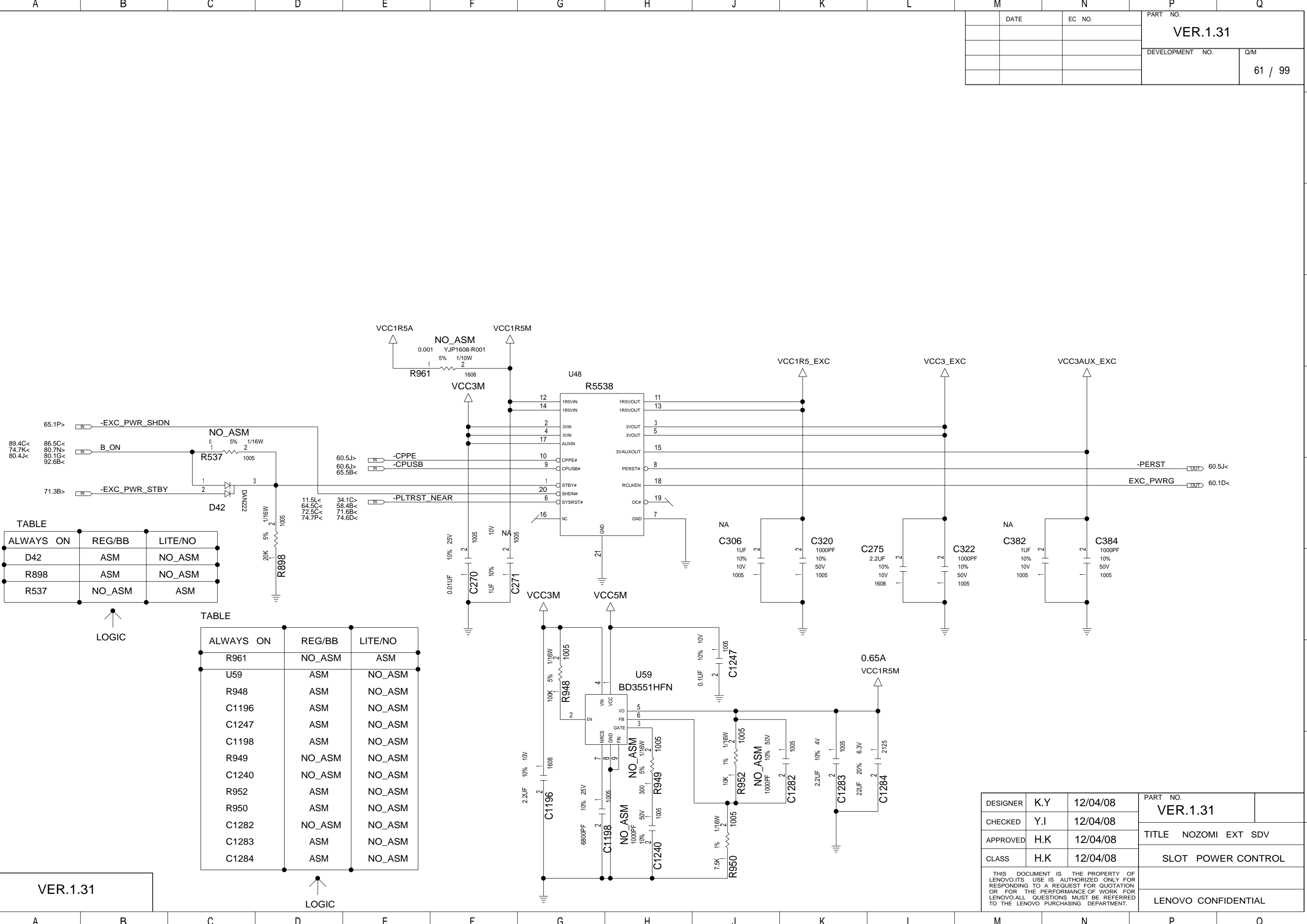
TABLE

	ALWAYS ON	REG	LITE/BB/NO
U84		ASM	NO_ASM
R653		NO_ASM	ASM
R659		NO_ASM	ASM



DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	EXPRESS CARD/SMART CARD I/F	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			61 / 99



TABLE

ALWAYS ON	REG/BB	LITE/NO
D42	ASM	NO_ASM
R898	ASM	NO_ASM
R537	NO_ASM	ASM

TABLE

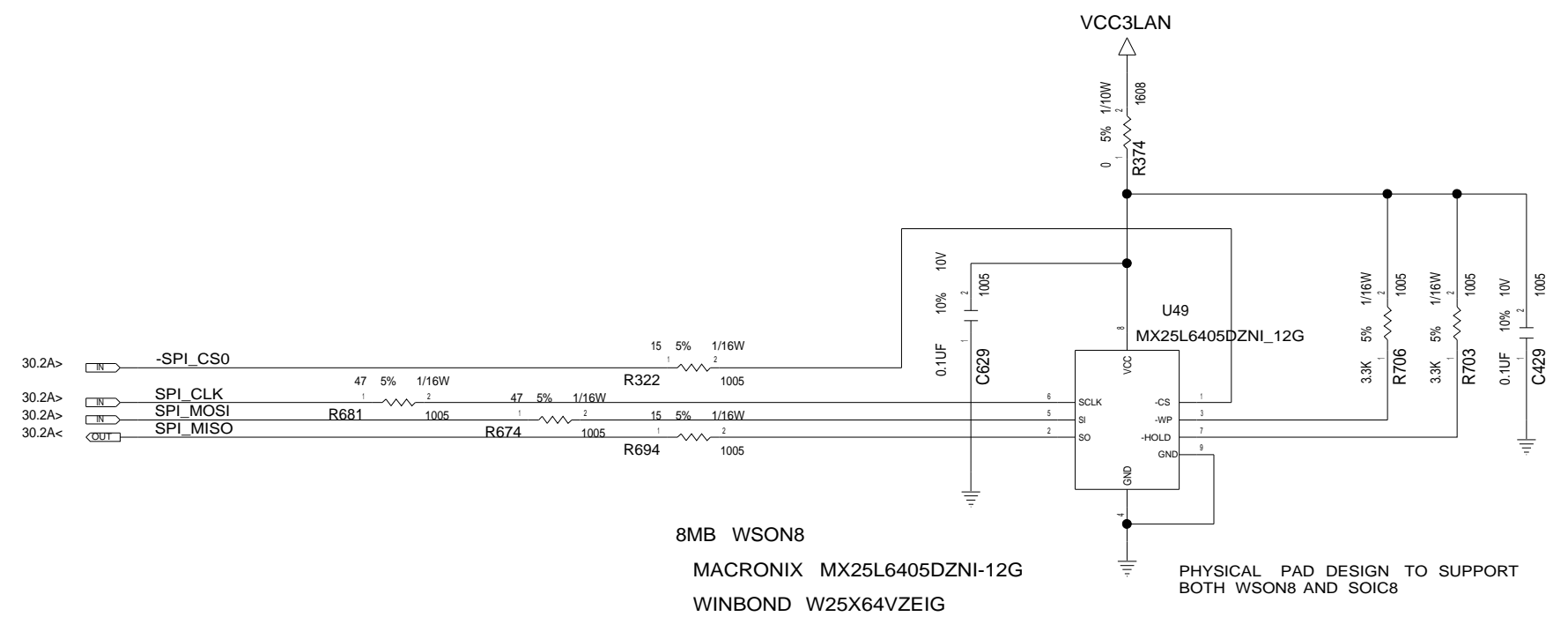
ALWAYS ON	REG/BB	LITE/NO
R961	NO_ASM	ASM
U59	ASM	NO_ASM
R948	ASM	NO_ASM
C1196	ASM	NO_ASM
C1247	ASM	NO_ASM
C1198	ASM	NO_ASM
R949	NO_ASM	NO_ASM
C1240	NO_ASM	NO_ASM
R952	ASM	NO_ASM
R950	ASM	NO_ASM
C1282	NO_ASM	NO_ASM
C1283	ASM	NO_ASM
C1284	ASM	NO_ASM

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	SLOT POWER CONTROL	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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DATE		EC NO.		PART NO.	
				VER.1.31	
DEVELOPMENT NO.				Q/M	
				62 / 99	



8MB WSON8
 MACRONIX MX25L6405DZNI-12G
 WINBOND W25X64VZEIG
 PHYSICAL PAD DESIGN TO SUPPORT BOTH WSON8 AND SOIC8

TABLE

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

TABLE

SF100	PIN	HEADER	INTERFACE
1	VCC	R374.1	GND
3	CS#	R322.2	R681.2
5	MISO	R694.2	R674.2
7	(KEY)	N/A	N/A
			GND
			CLK
			MOSI
			(RESET)

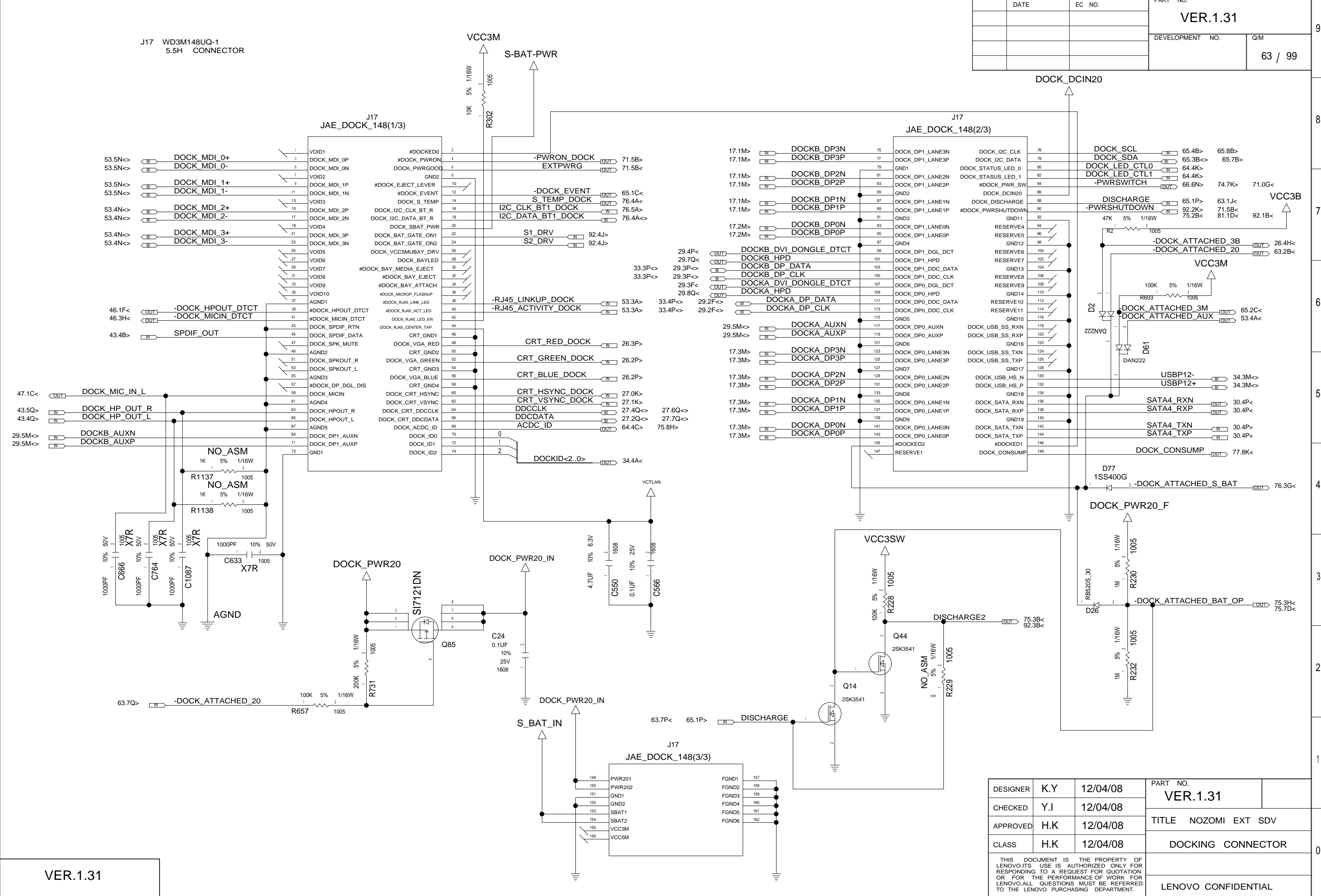
TABLE

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

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	SPI FLASH	
CLASS	H.K	12/04/08		
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LENOVO CONFIDENTIAL				

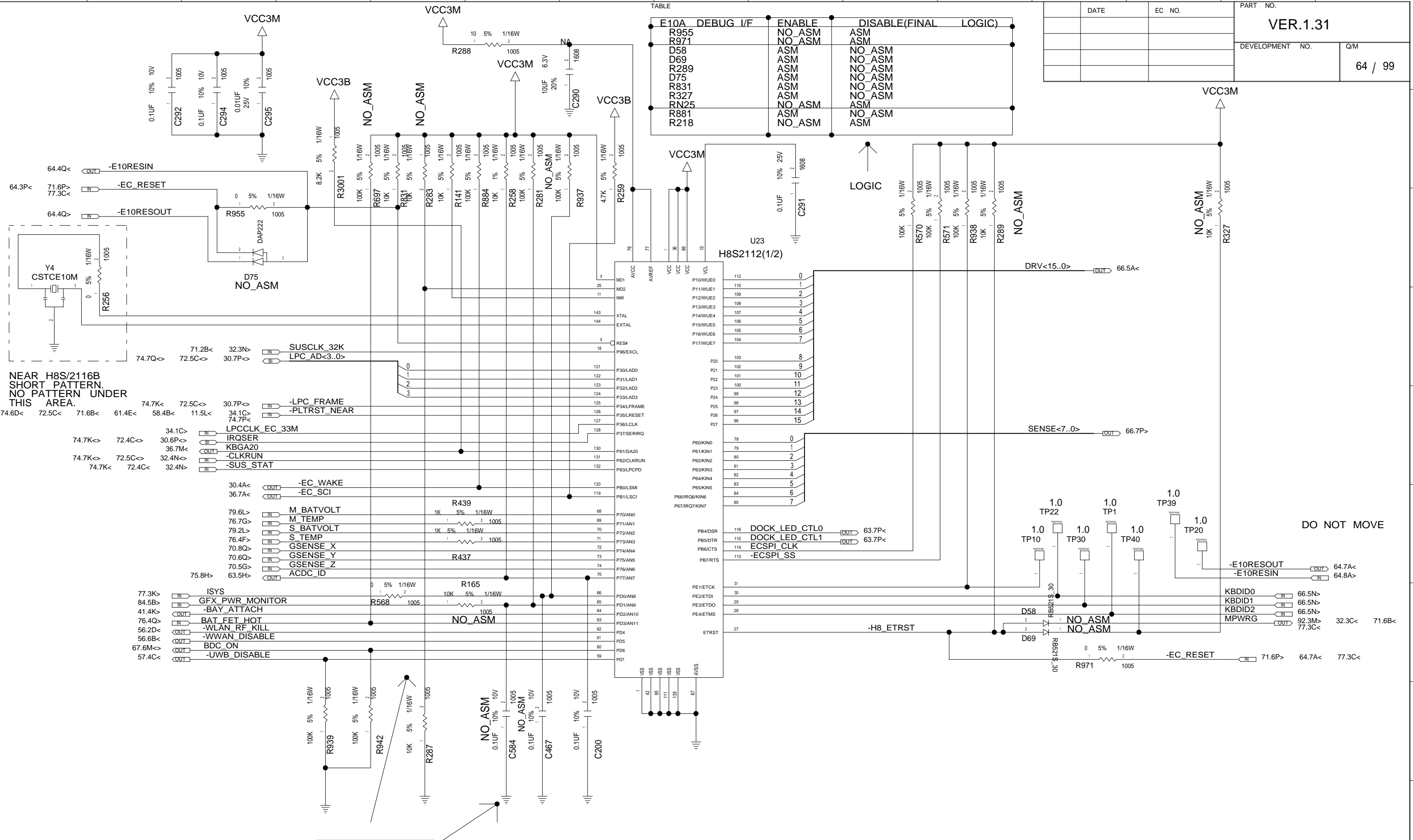
DATE	EC NO.	PART NO.
		VER.1.31
		DEVELOPMENT NO.
		Q/M
		63 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DOCKING CONNECTOR
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DATE		EC NO.		PART NO.	
				VER.1.31	
DEVELOPMENT NO.			Q/M		
			64 / 99		



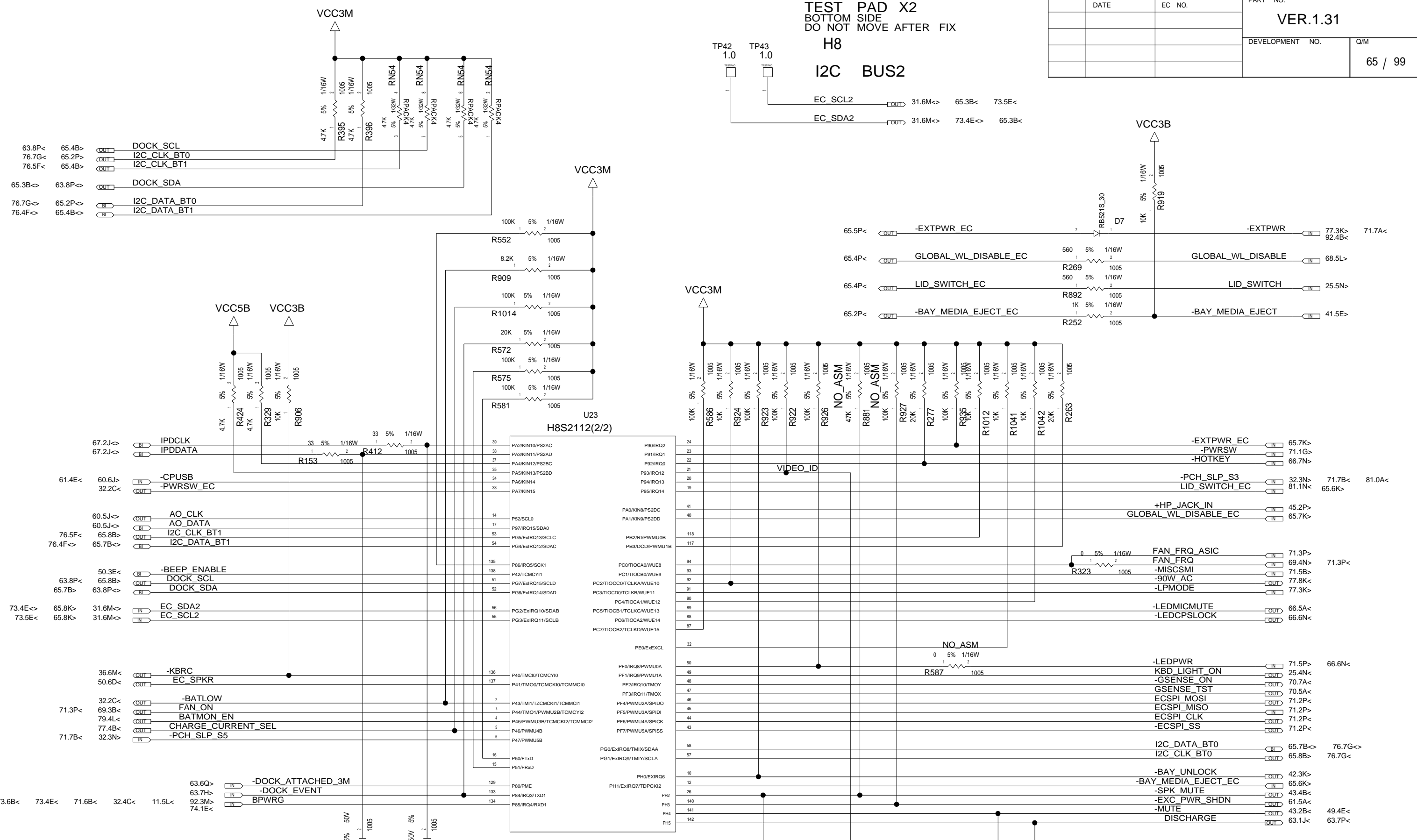
NEAR H8S/2116B
SHORT PATTERN.
NO PATTERN UNDER
THIS AREA.

PLACE NEAR H8

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	H8S/2112 (1/2)	
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TEST PAD X2
BOTTOM SIDE
DO NOT MOVE AFTER FIX
H8
I2C BUS2

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			65 / 99



TABLE

	EXT.	INT.
GFX		
R922	ASM	NO_ASM
R925	NO_ASM	ASM

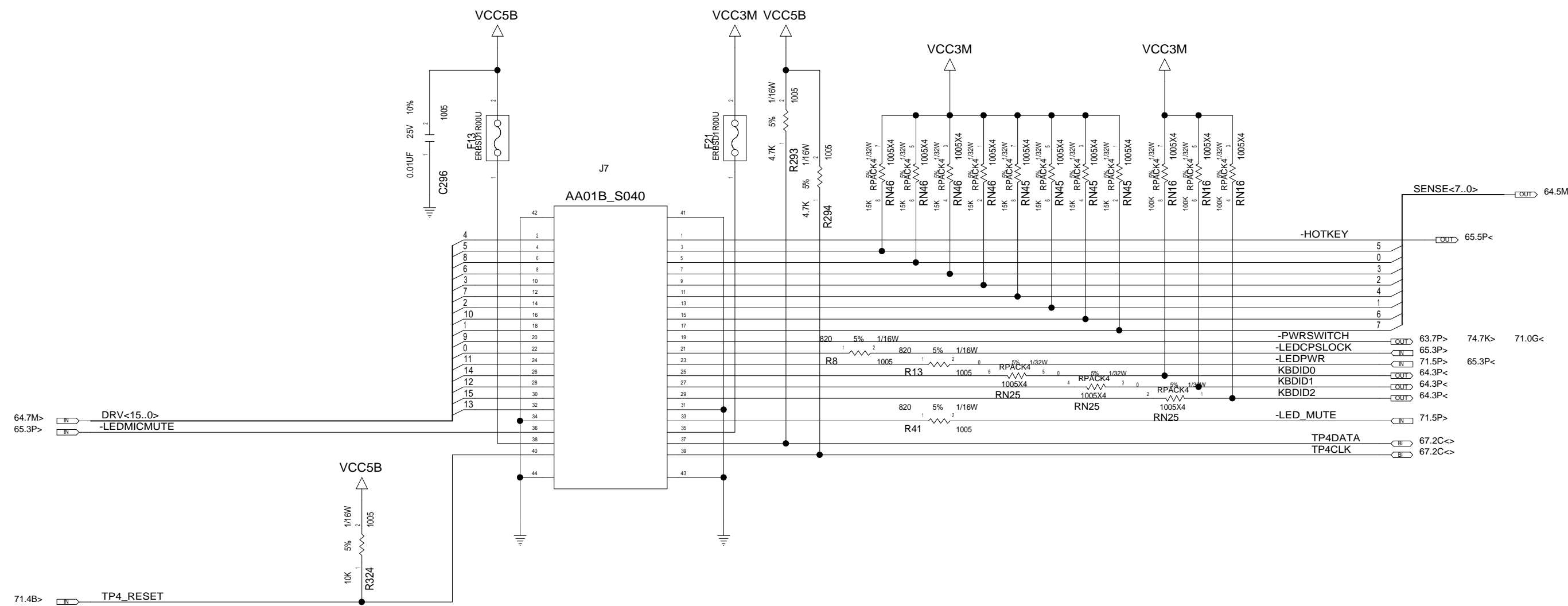
LOGIC

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	H8S/2112 (2/2)	

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VER.1.31

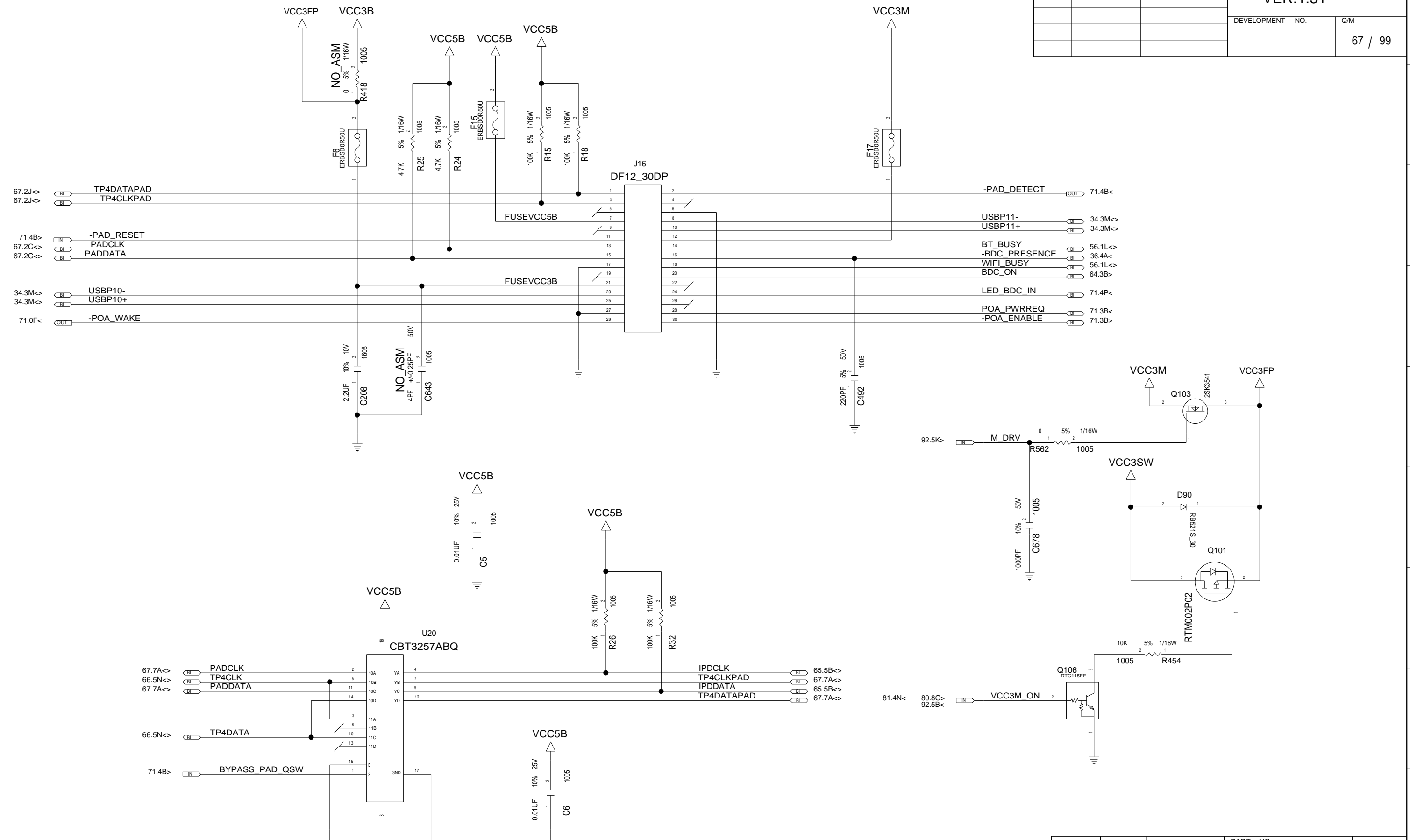


- SENSE<7..0> (OUT) 64.5M>
- HOTKEY (OUT) 65.5P<
- PWRSWITCH (OUT) 63.7P>
- LEDCPSLOCK (IN) 65.3P>
- LEDPWR (IN) 71.5P>
- KBDID0 (OUT) 64.3P<
- KBDID1 (OUT) 64.3P<
- KBDID2 (OUT) 64.3P<
- LED_MUTE (IN) 71.5P>
- TP4DATA (BI) 67.2C<>
- TP4CLK (BI) 67.2C<>

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	KEYBOARD CONNECTOR	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			67 / 99

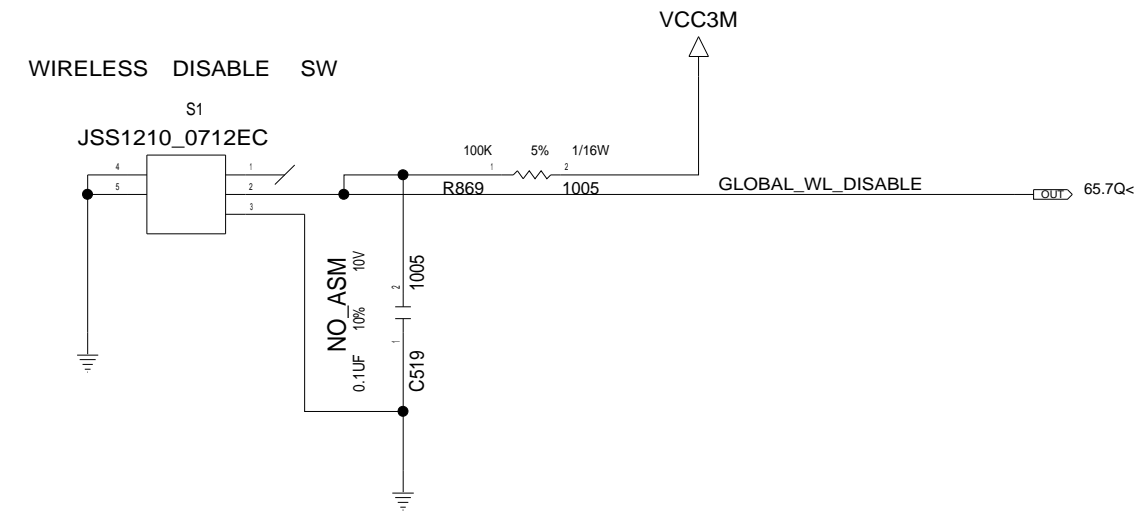


VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	TOUCH PAD CONNECTOR
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LENOVO CONFIDENTIAL			

A B C D E F G H J K L M N P Q

	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				68 / 99

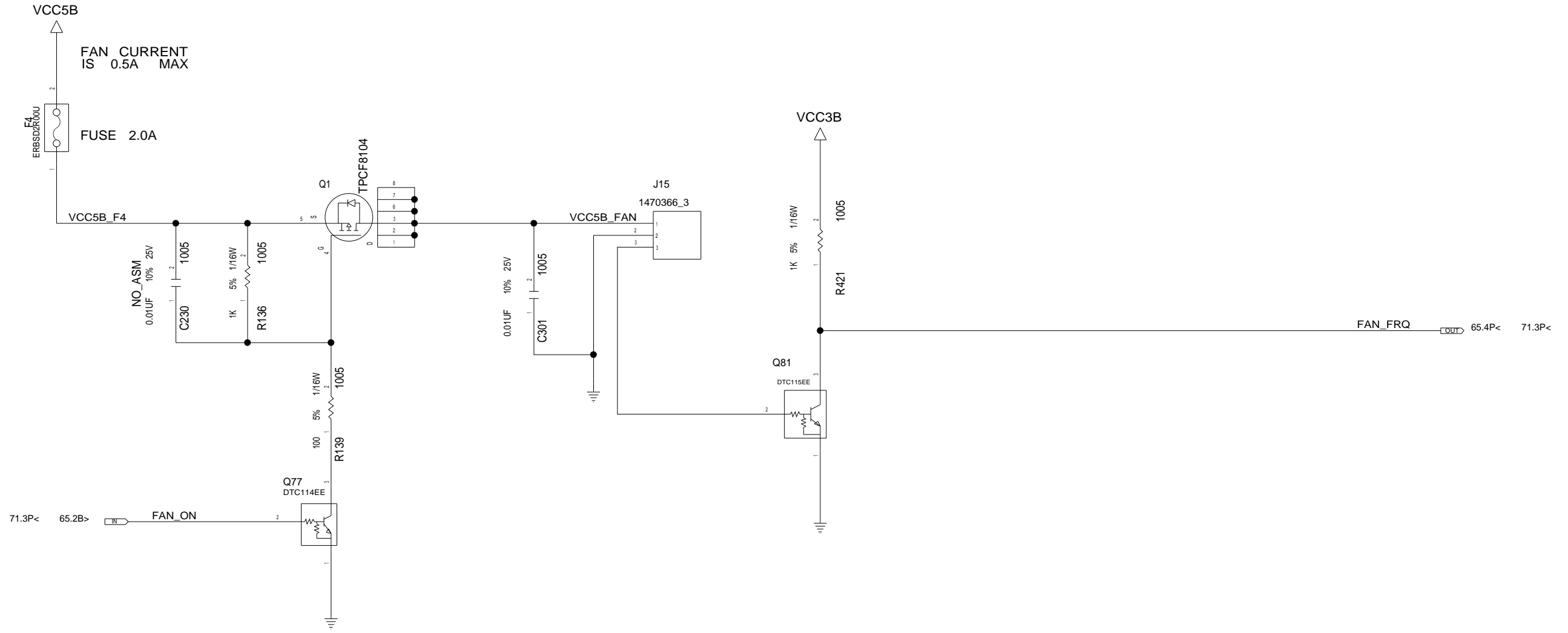


VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	WIRELESS DISABLE SW	
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A B C D E F G H J K L M N P Q

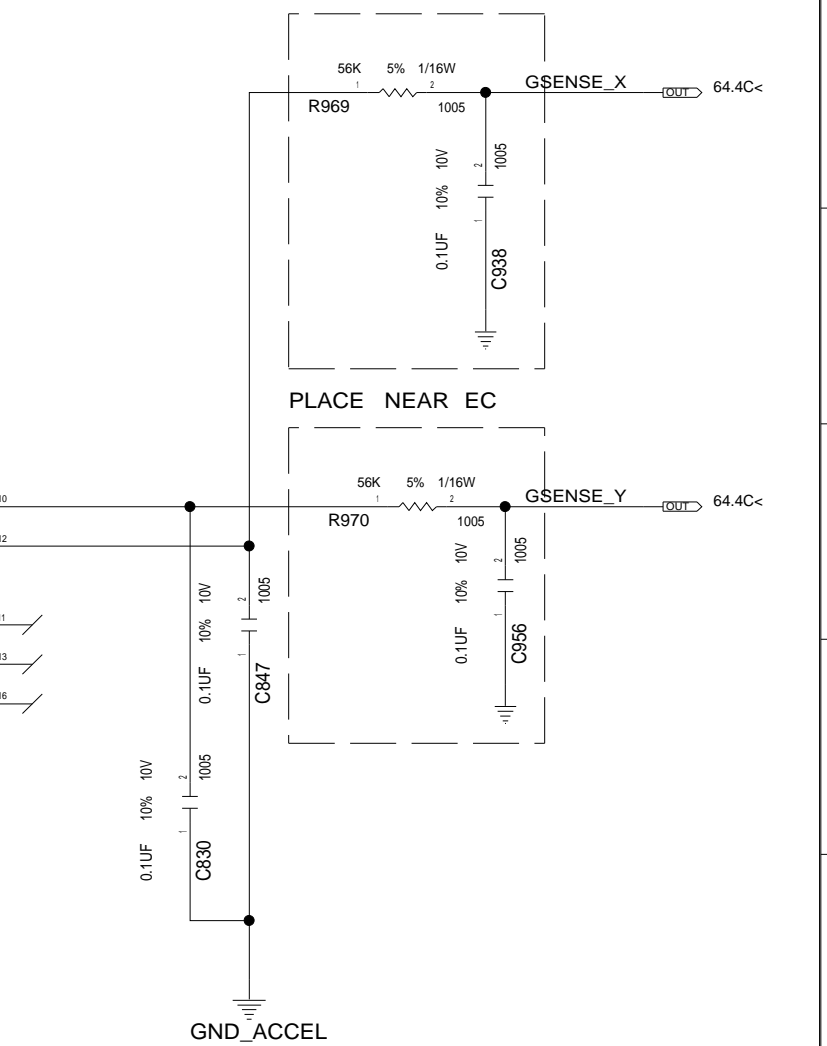
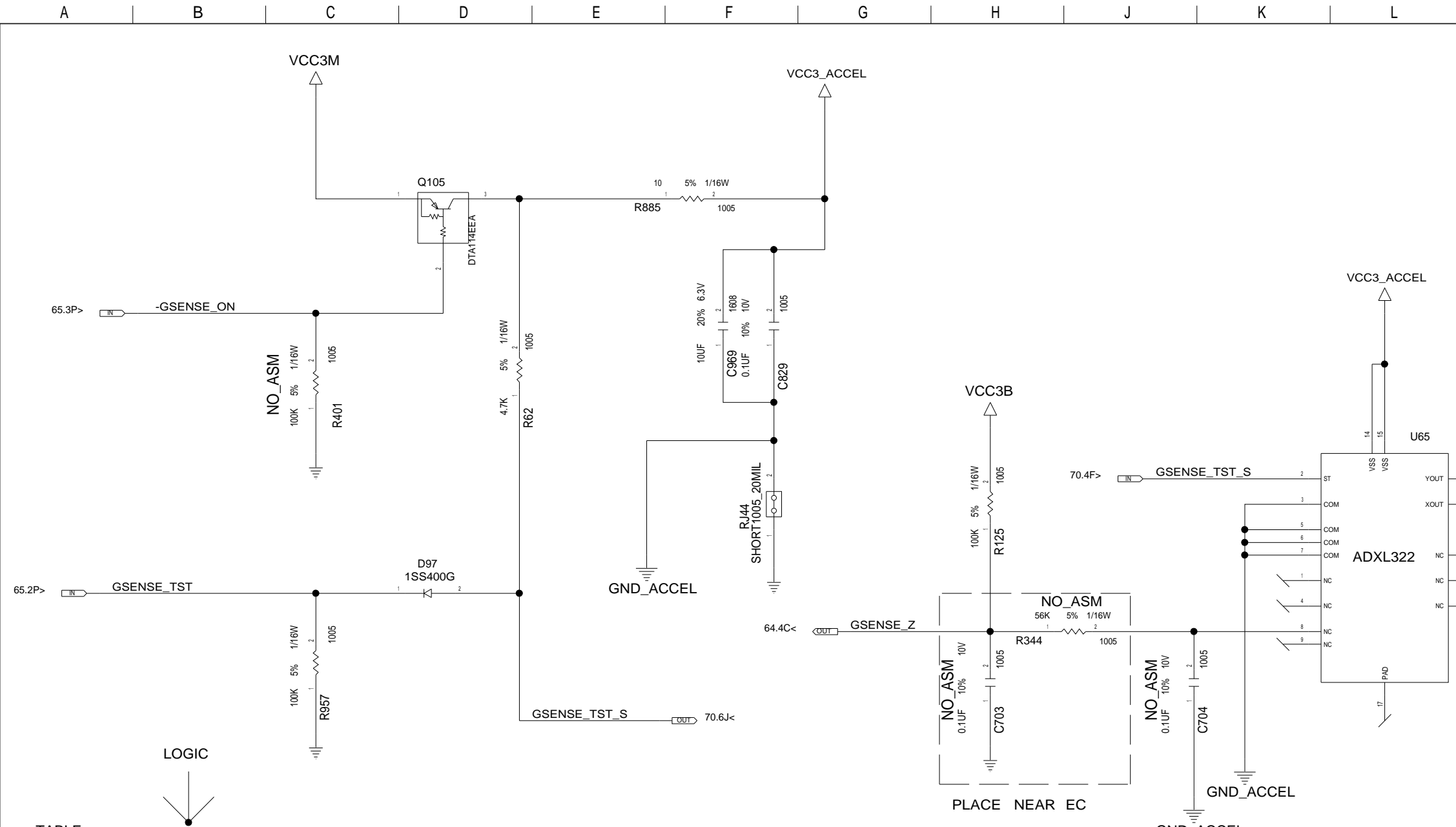
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			69 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	FAN CONNECTOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			70 / 99

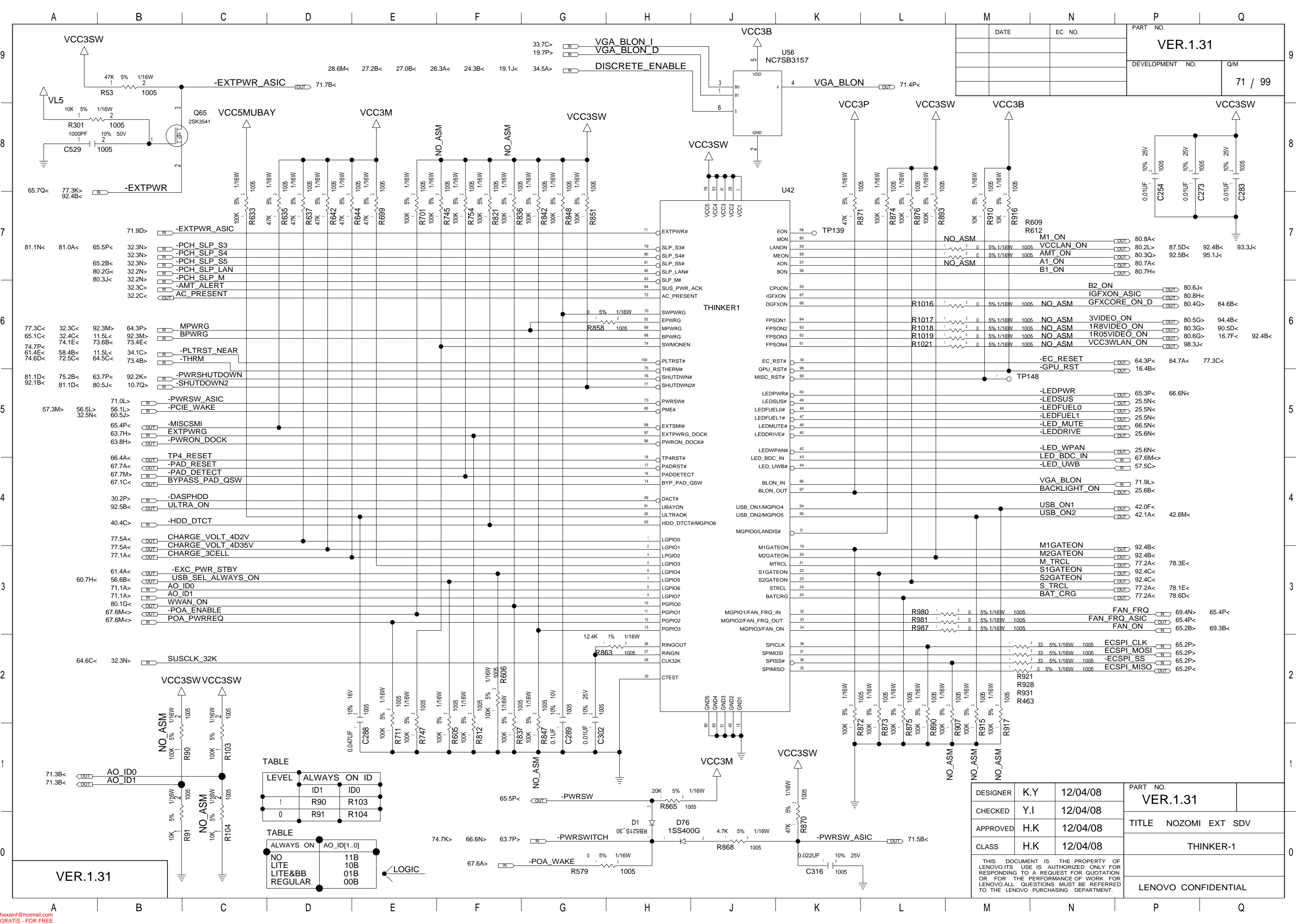


LOGIC

TABLE	ADXL322/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

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	G-SENSOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE
EC NO.
PART NO.
VER.1.31
DEVELOPMENT NO.
Q/M
71 / 99

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	THINKER-1	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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TABLE

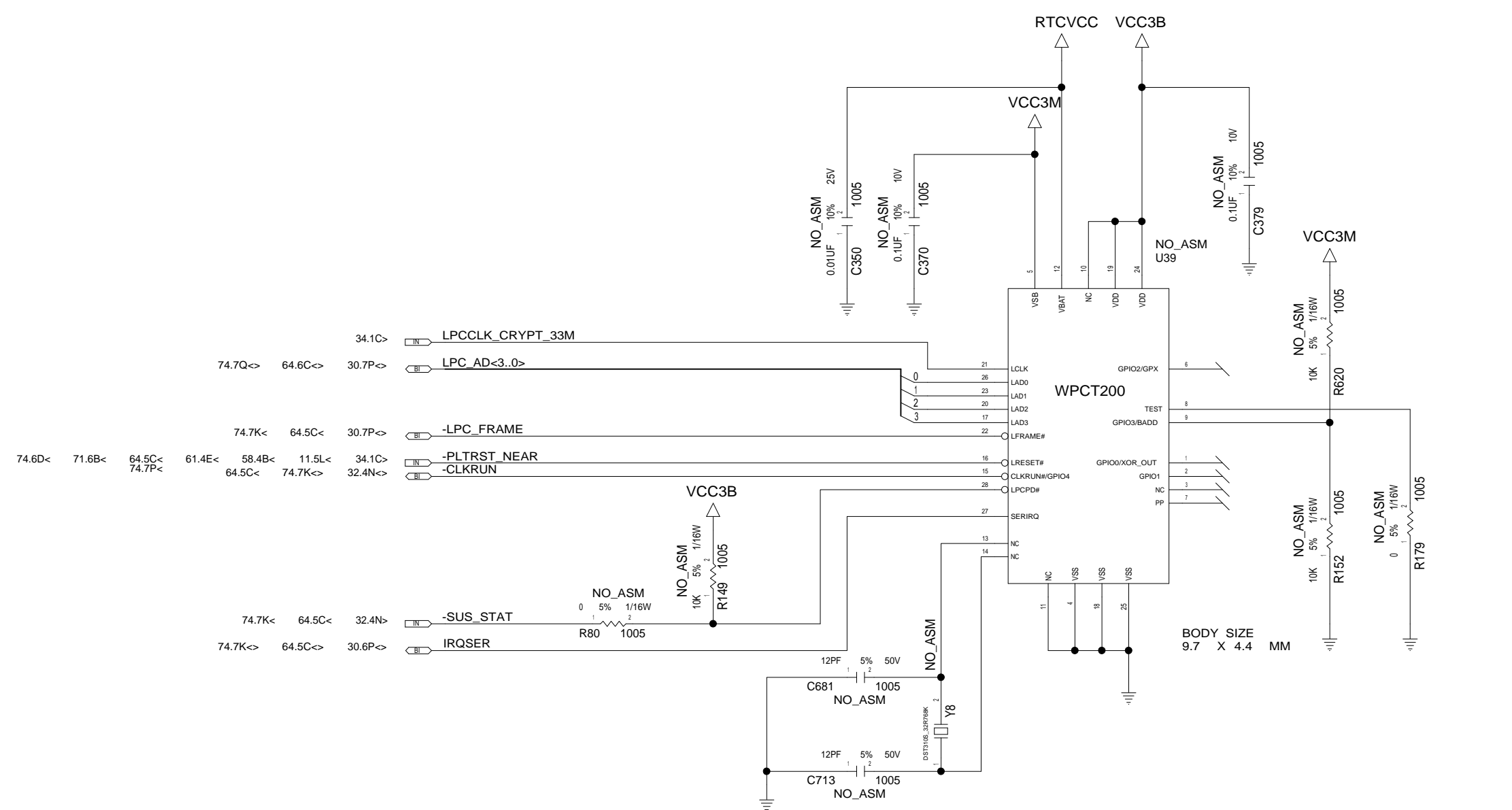
LEVEL	ALWAYS ON	ID
1	R90	R103
0	R91	R104

TABLE

ALWAYS ON	AO_ID[1..0]
NO	11B
LITE	10B
LITE&BB	01B
REGULAR	00B

LOGIC

VER.1.31

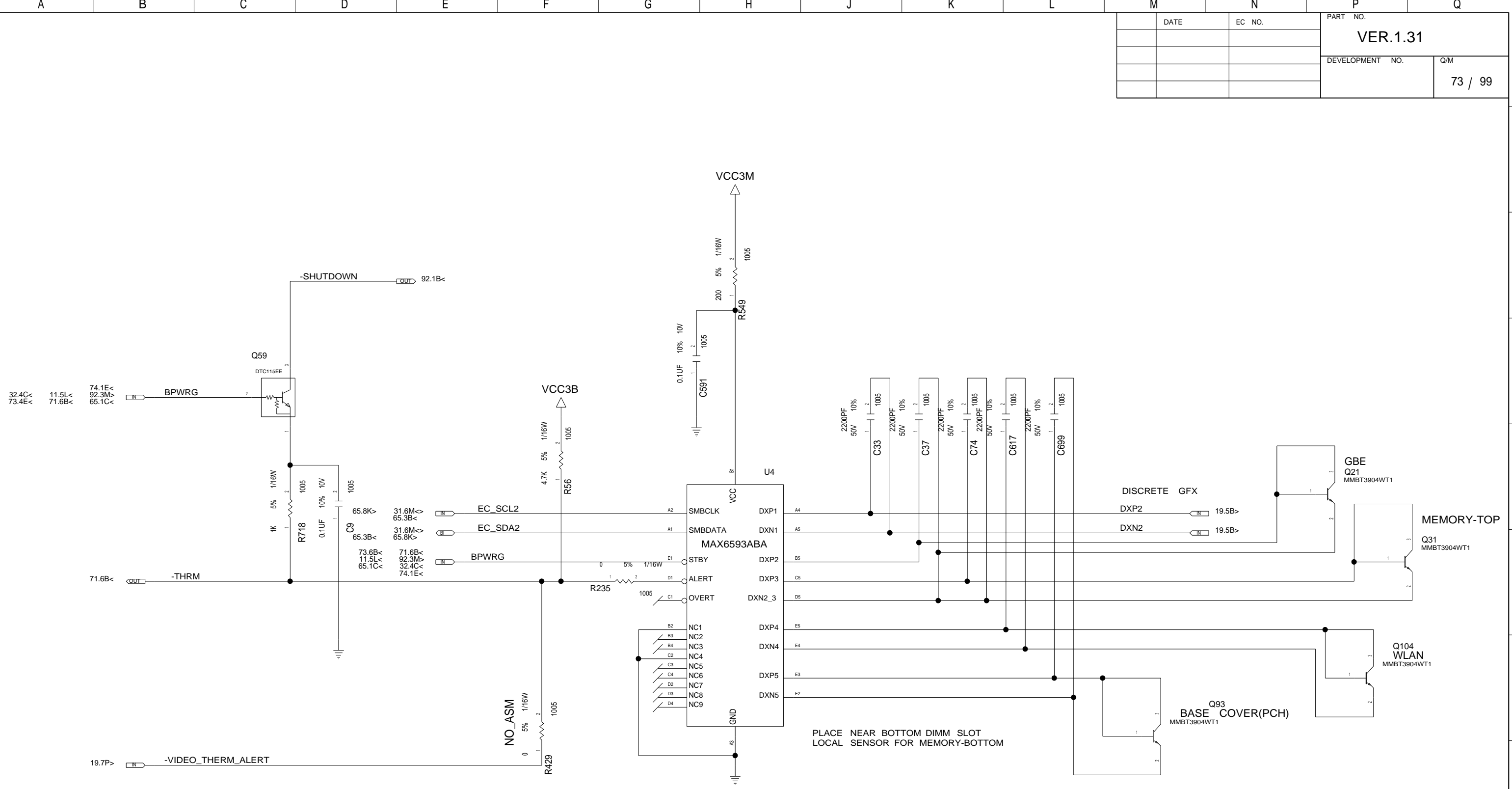


TABLE

REF DES	INTEL ITPM	WINBOND WPCT200	NUVOTON WPCT210	ST MICRO ST19NP18	INFINEON SLB9635TT
R216	ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM
U39	NO_ASM	ASM	ASM	ASM	ASM
C350	NO_ASM	ASM	NO_ASM	NO_ASM	NO_ASM
C370	NO_ASM	ASM	ASM	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

LOGIC

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			73 / 99



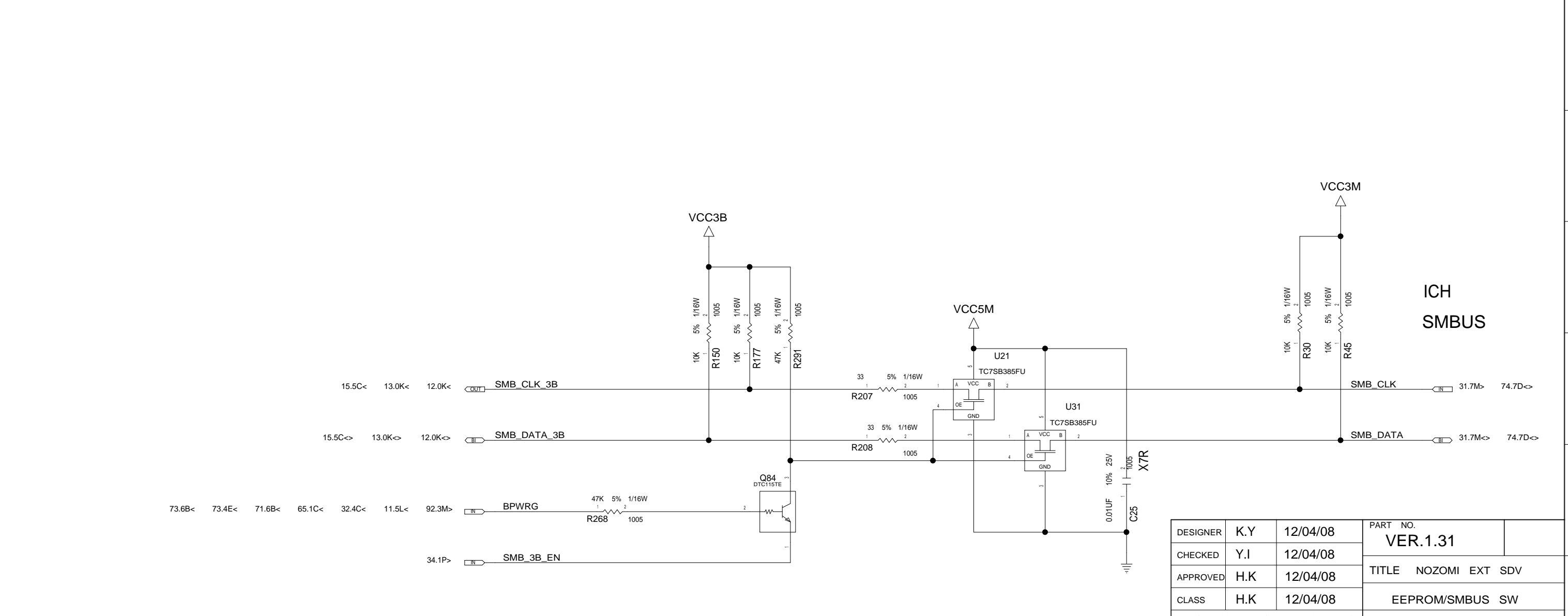
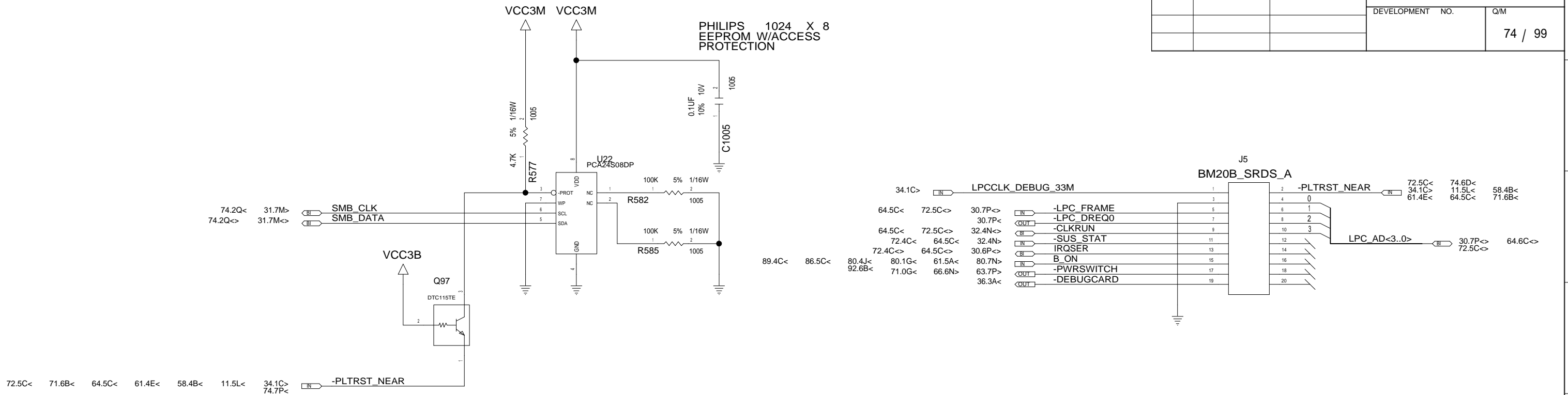
ADDRESS : 4DH

PLACE NEAR BOTTOM DIMM SLOT
LOCAL SENSOR FOR MEMORY-BOTTOM

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	THERMAL SENSOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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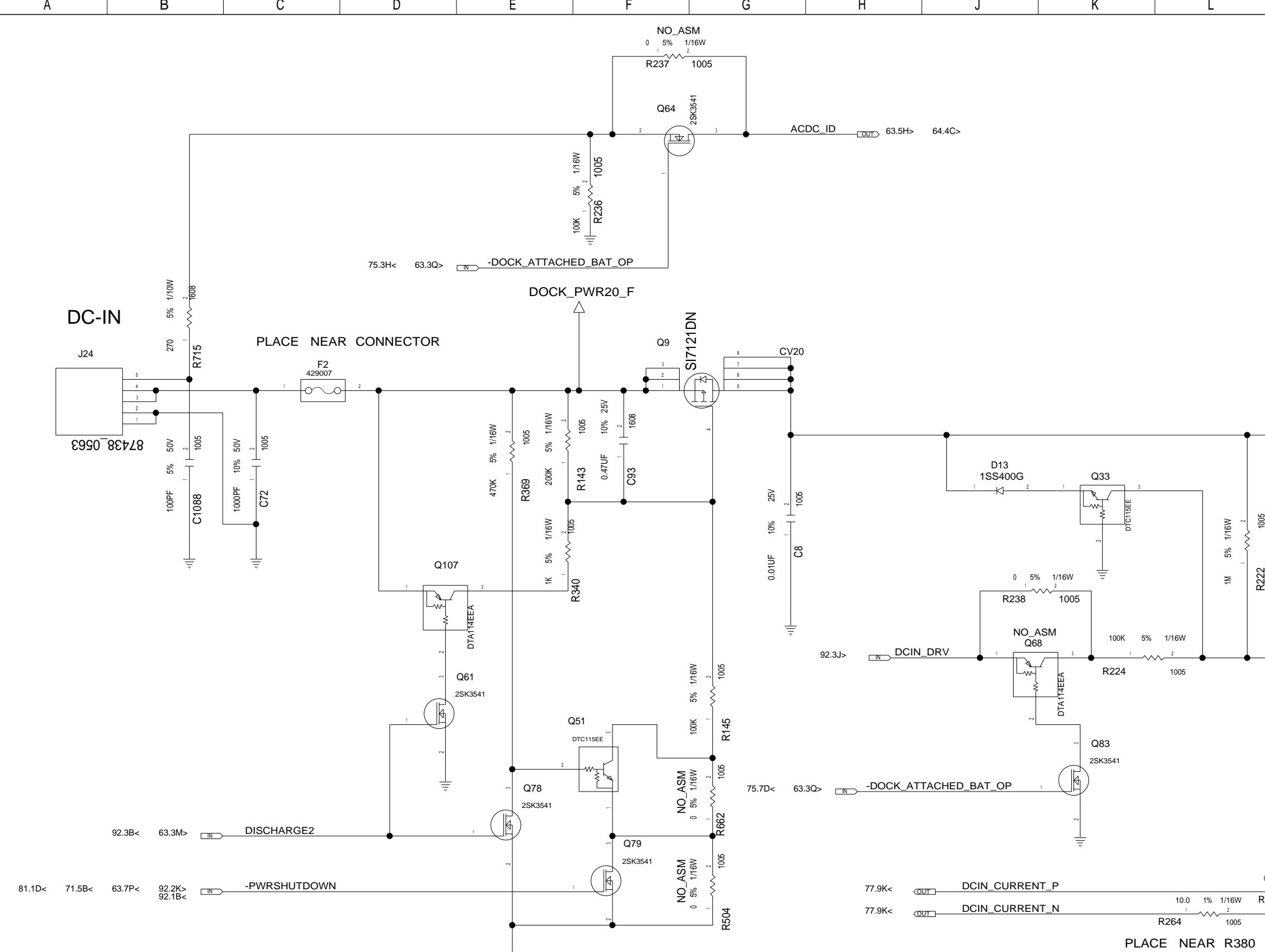
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			74 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	EEPROM/SMBUS SW
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			75 / 99



TABLE

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

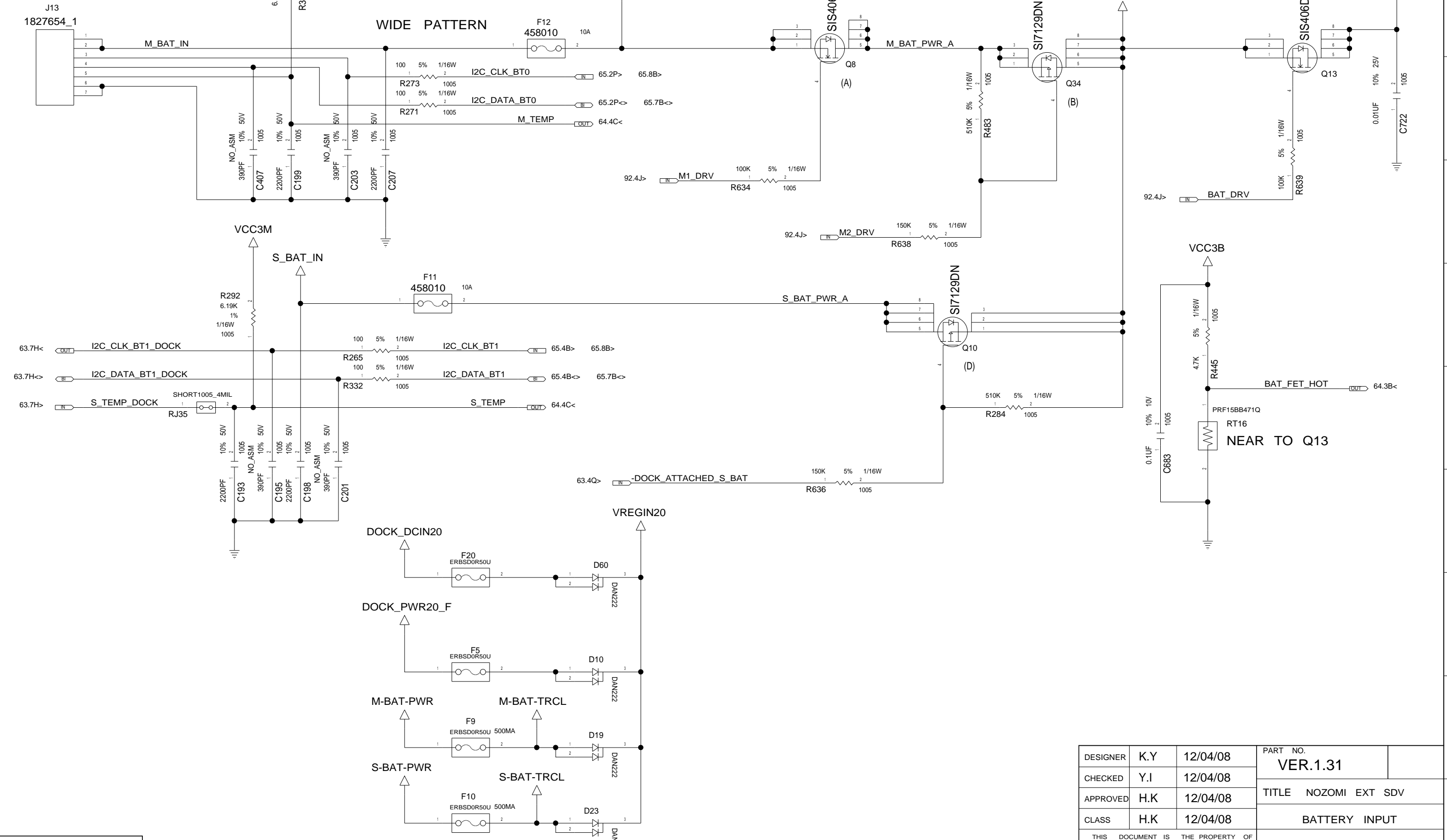
↑
LOGIC

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC-IN
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VER.1.31

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			76 / 99

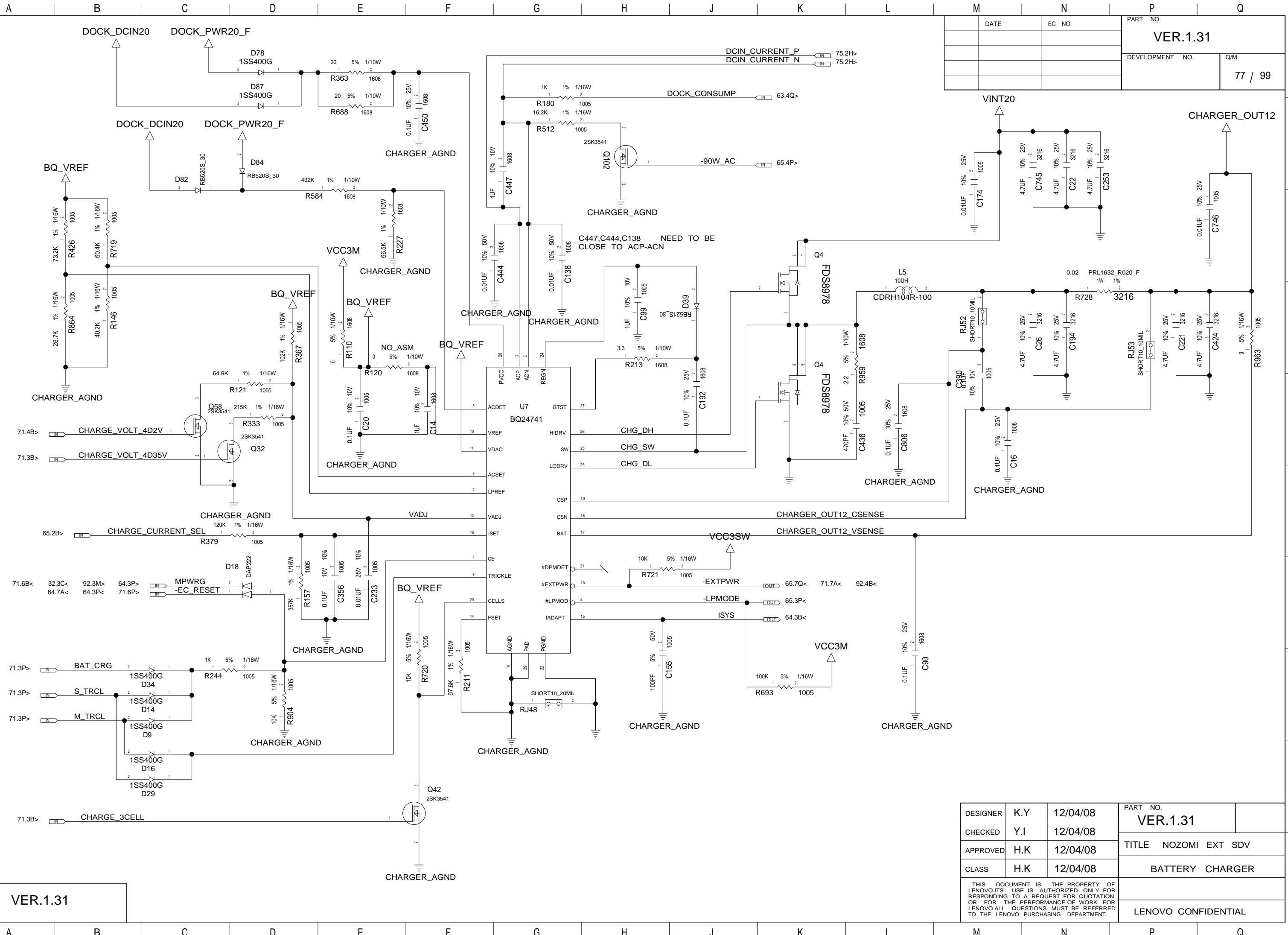
MAIN BAT CONN



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	BATTERY INPUT	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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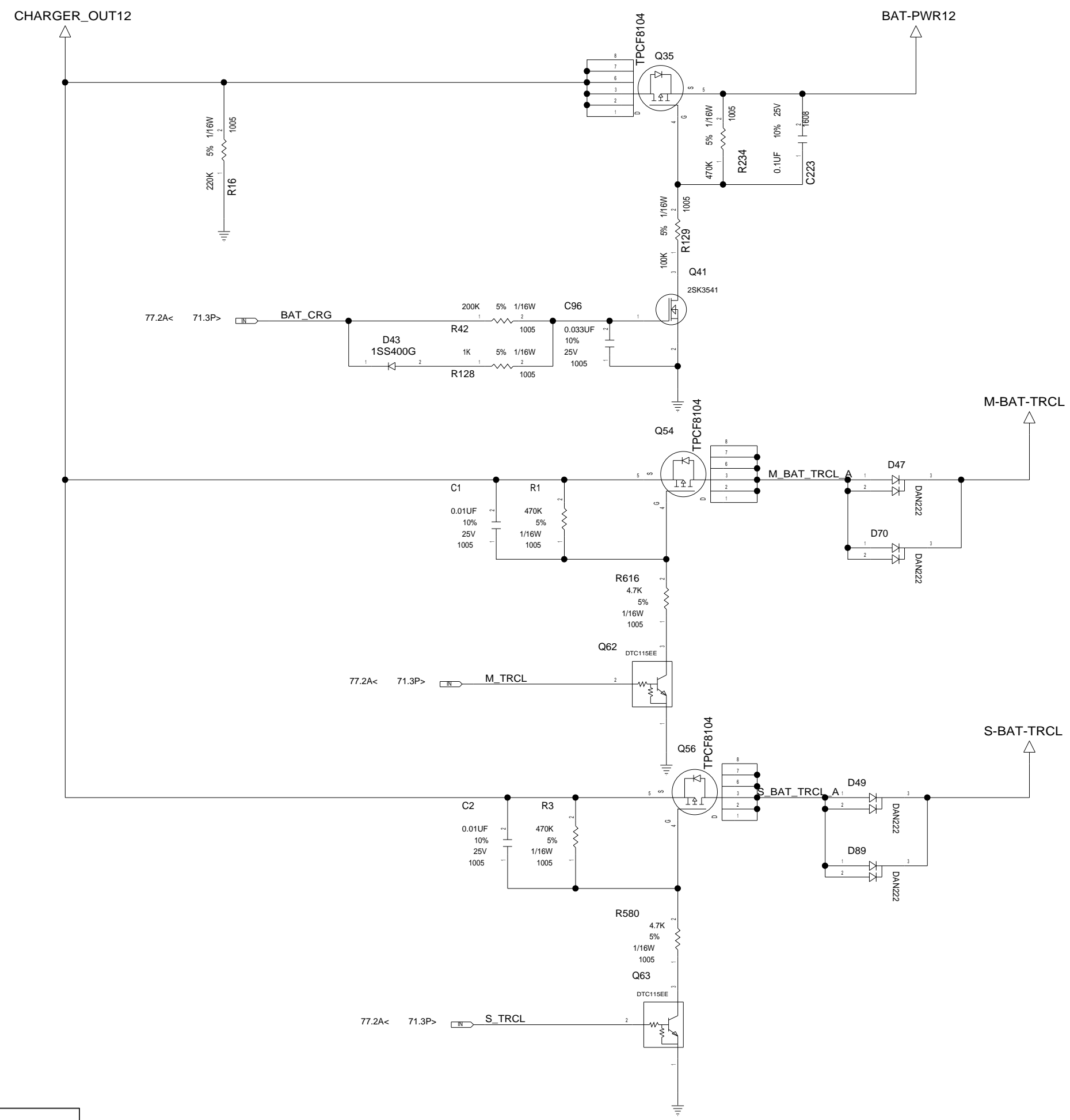


DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
		77 / 99	

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	BATTERY CHARGER
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VER.1.31

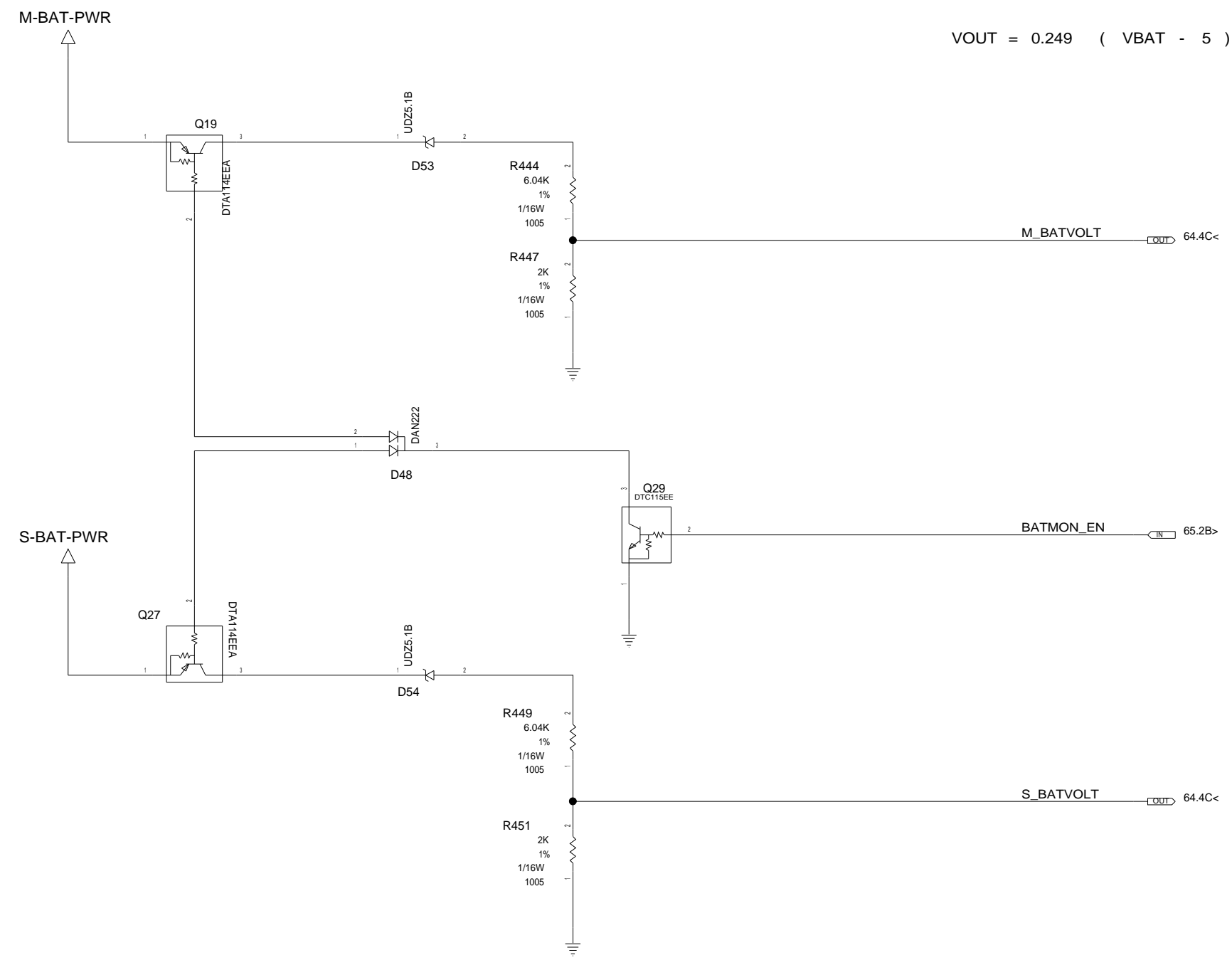
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			78 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	CHARGE SELECTOR	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			79 / 99

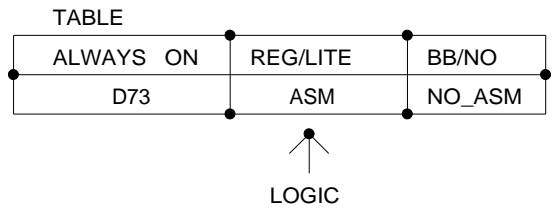
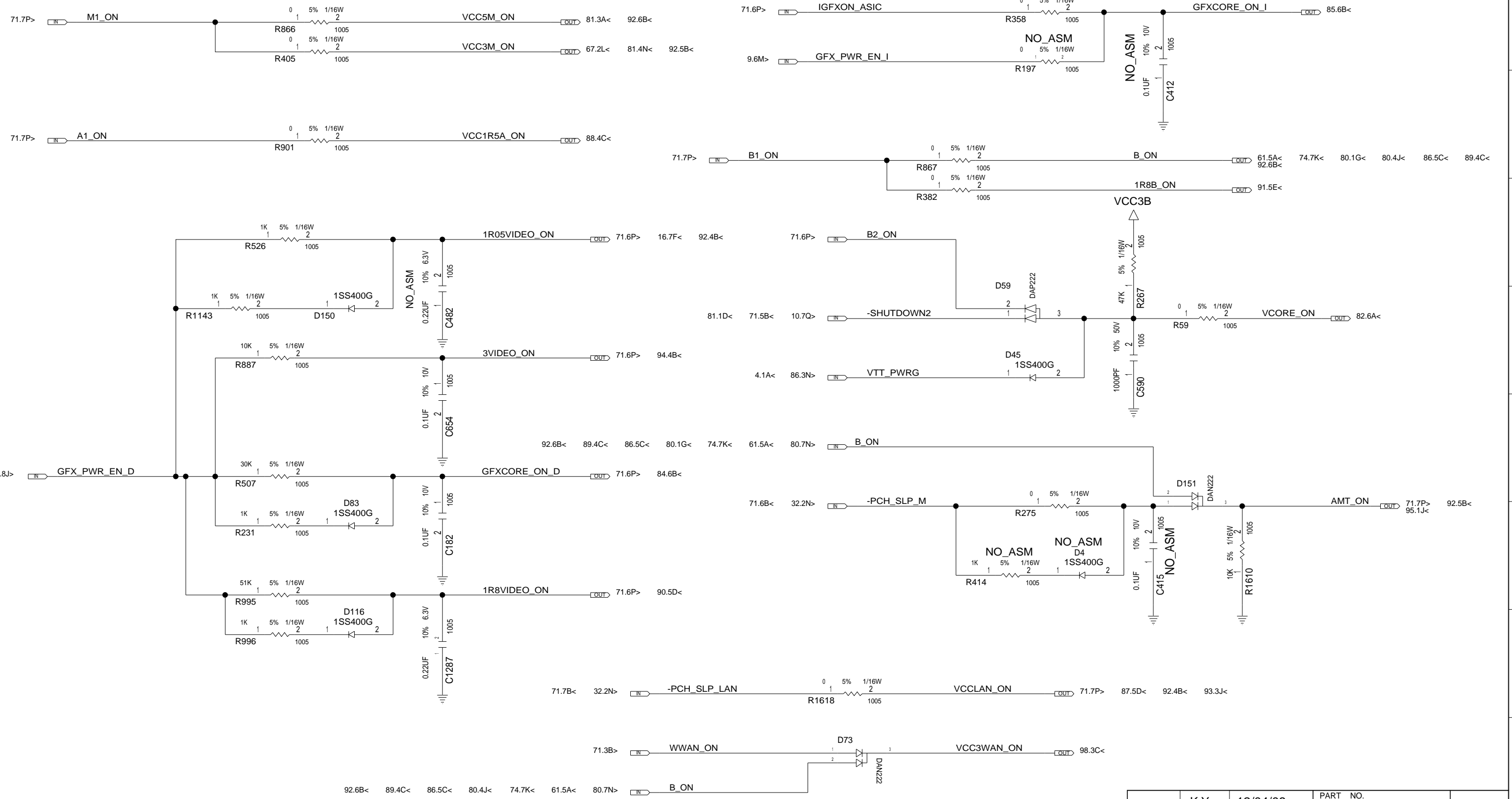


$V_{OUT} = 0.249 (V_{BAT} - 5)$

VER.1.31

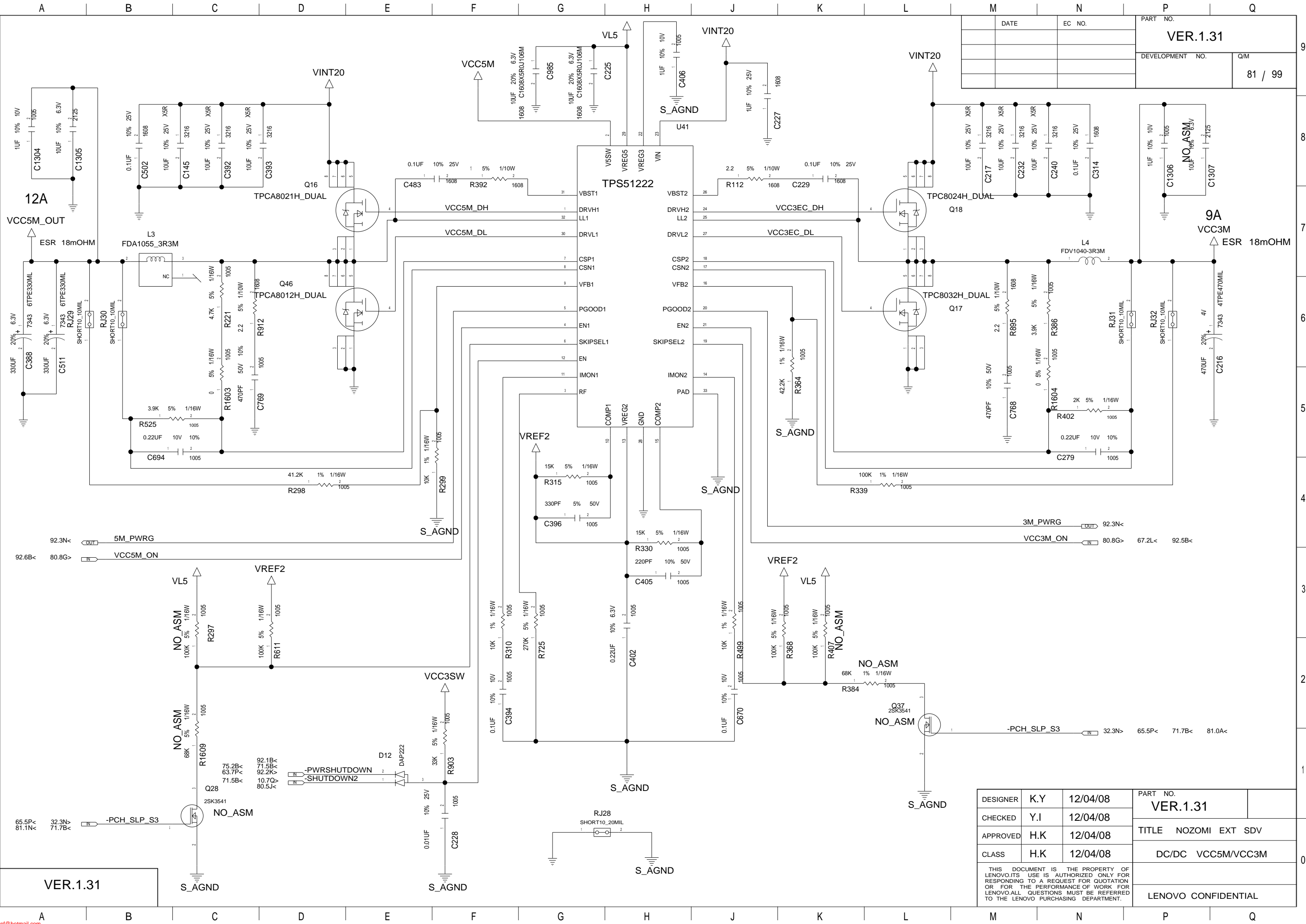
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CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	BATTERY MONITOR	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			80 / 99



VER.1.31

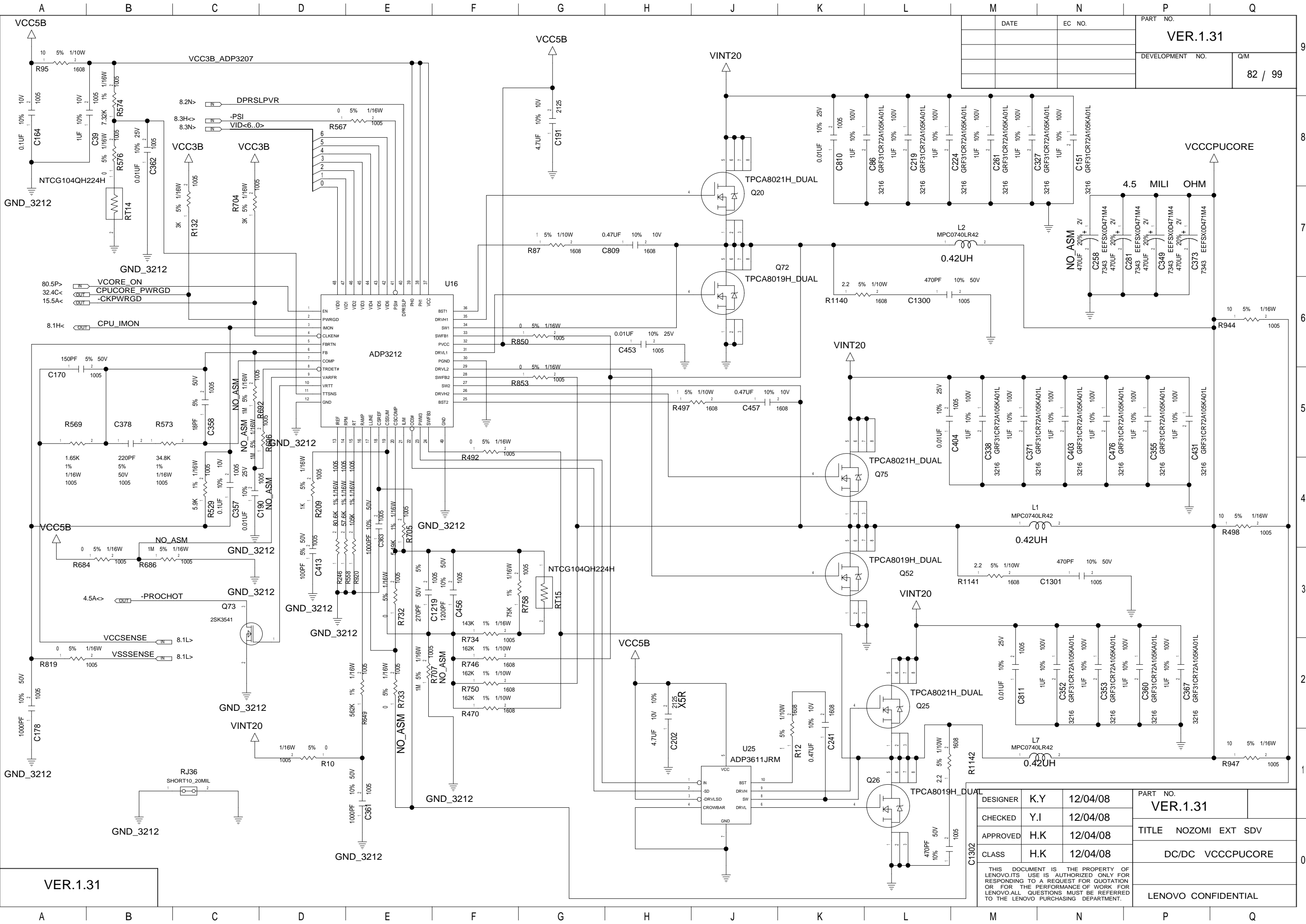
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CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	POWER SEQUENCE	
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DATE	EC NO.	PART NO.	
		VER.1.31	
DEVELOPMENT NO.		Q/M	
		81 / 99	

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	DC/DC VCC5M/VCC3M	
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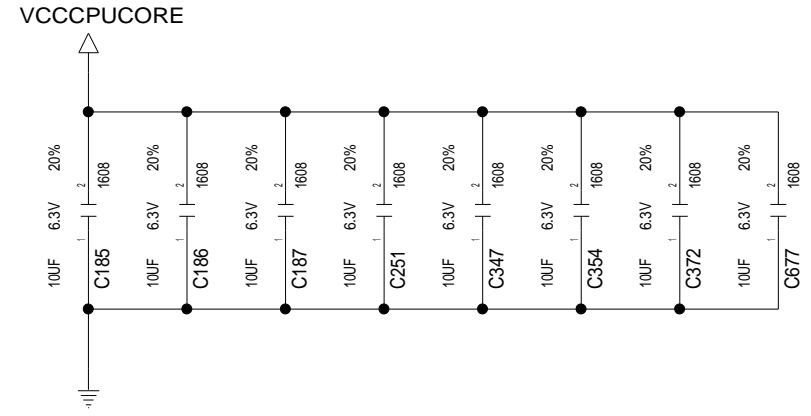
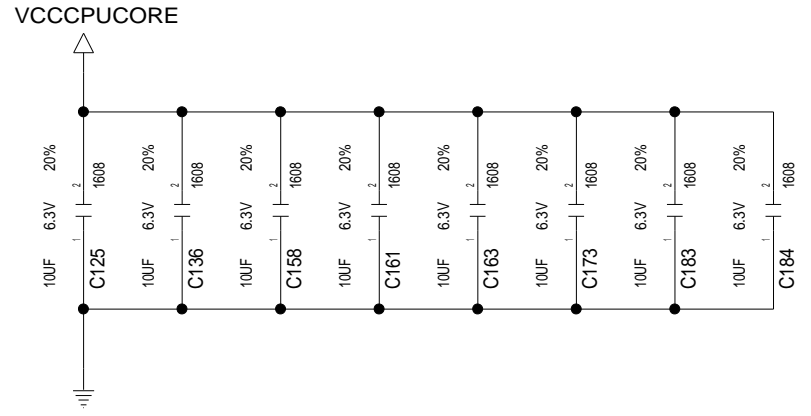


DATE	EC NO.	PART NO.
		VER.1.31
DEVELOPMENT NO.		Q/M
		82 / 99

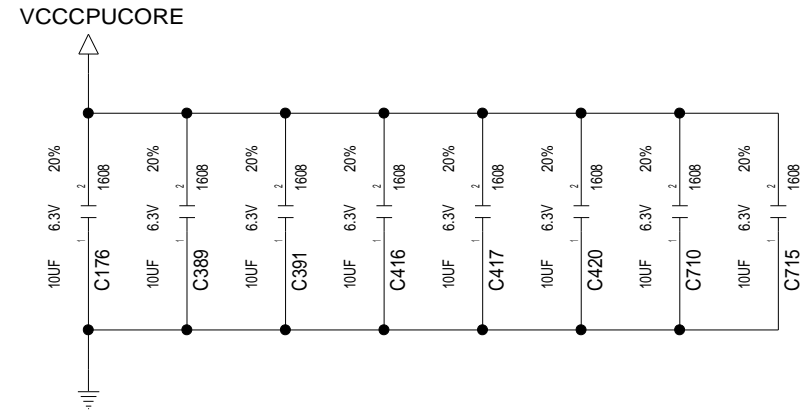
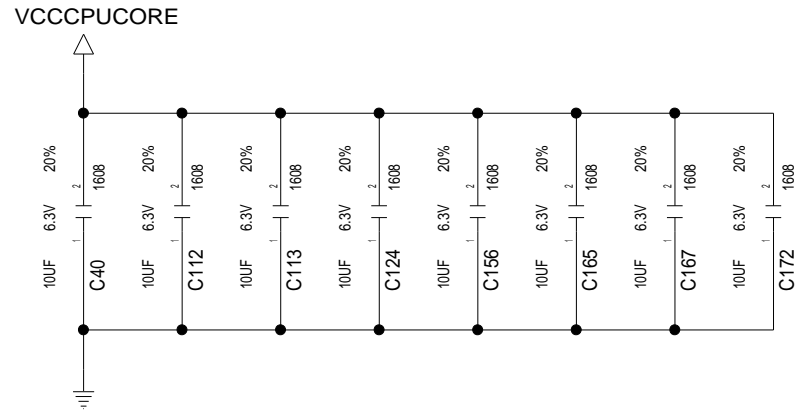
VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC VCCCPUCORE
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	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				83 / 99



10UF 6.3V X5R 1608 1/16W X 16PCS



10UF 6.3V X5R 1608 1/16W X 16PCS

VER.1.31

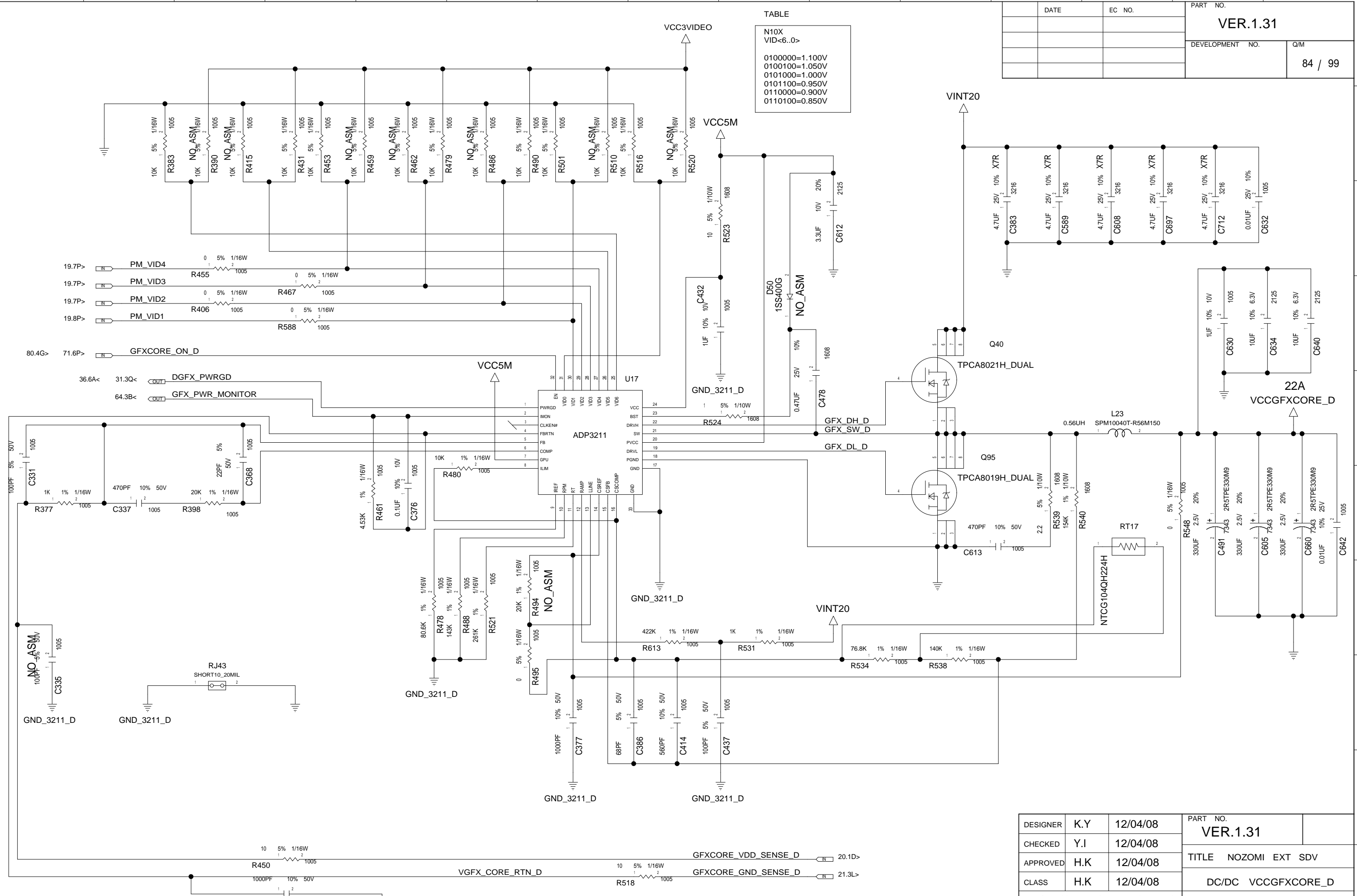
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CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	VCCCPUCORE DECOUPLING	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			84 / 99

TABLE

N10X
VID<6..0>

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0100100=1.050V
0101000=1.000V
0101100=0.950V
0110000=0.900V
0110100=0.850V



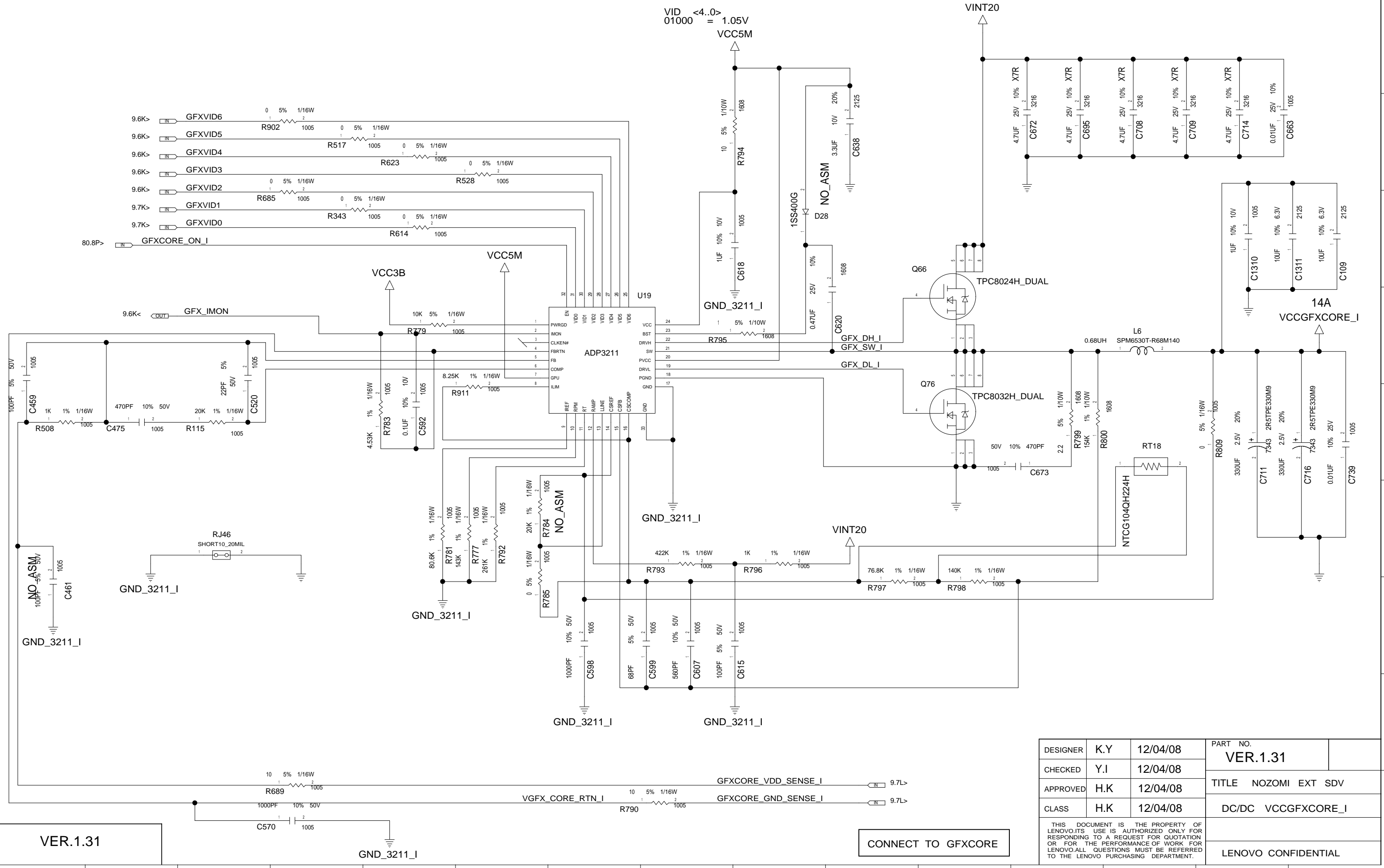
VER.1.31

CONNECT TO nVIDIA

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC VCCGFXCORE_D
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DATE	EC NO.	PART NO.
		VER.1.31
DEVELOPMENT NO.		Q/M
		85 / 99

INTEG VCCGFXCORE VOLTAGE
 1.NORMAL; 1.05V
 2.GRAPHICS RENDER STANDBY MODE; 0.75V



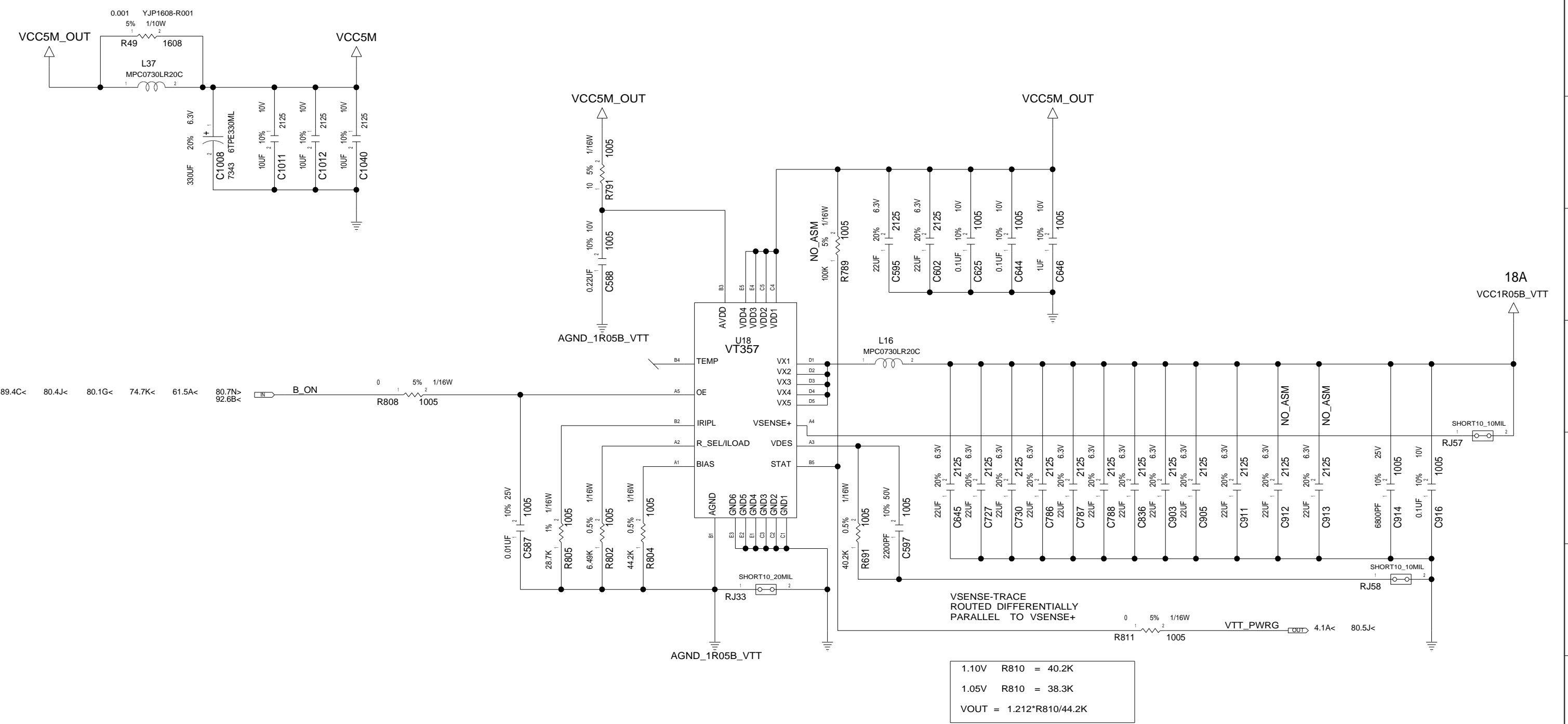
VER.1.31

CONNECT TO GFXCORE

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC VCCGFXCORE_I
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			86 / 99

LAY OUT THIS 0.001OHM RESISTOR INSIDE OF L37

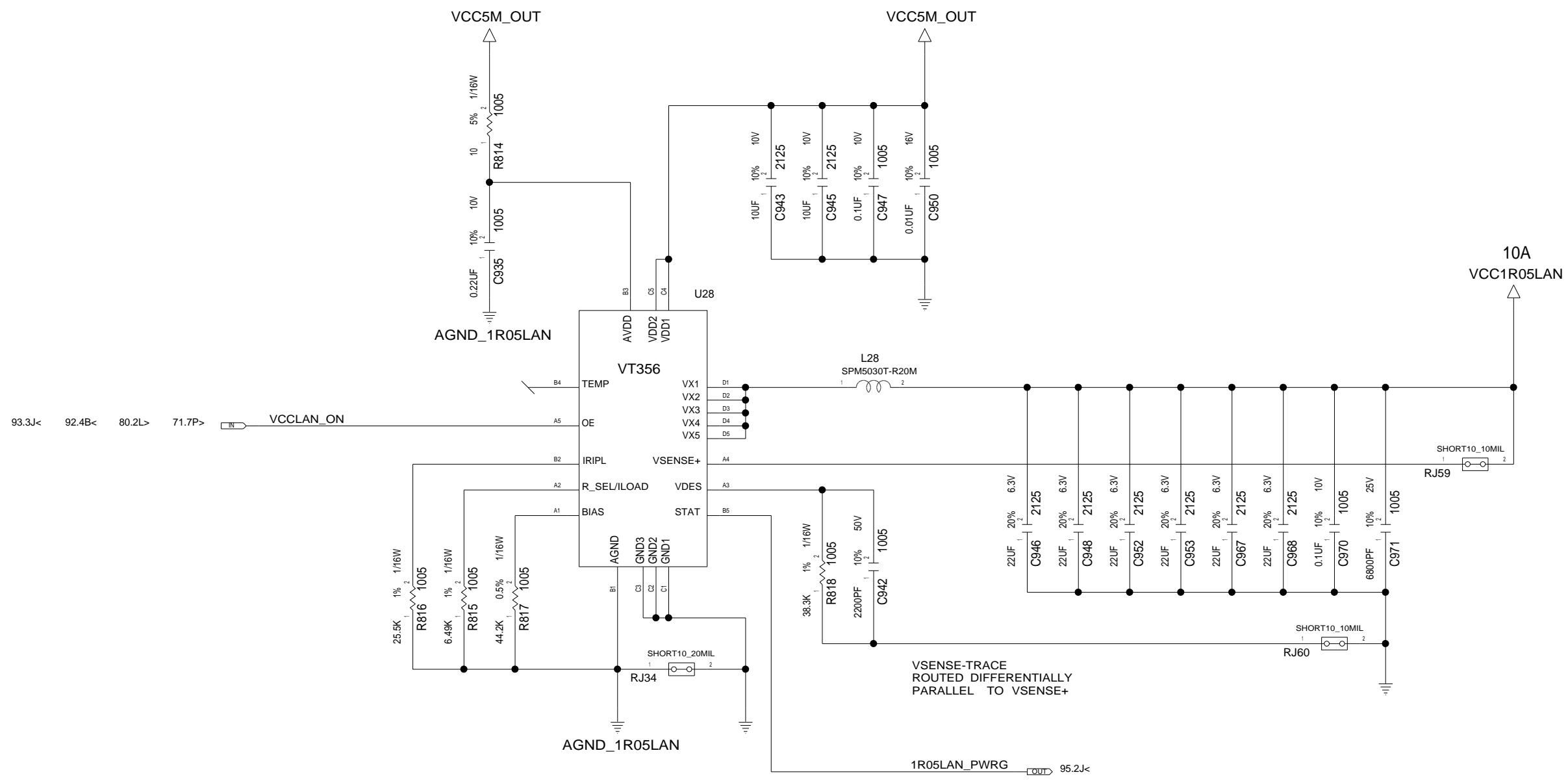


1.10V R810 = 40.2K
 1.05V R810 = 38.3K
 $V_{OUT} = 1.212 \cdot R_{810} / 44.2K$

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC VCC1R05B_VTT
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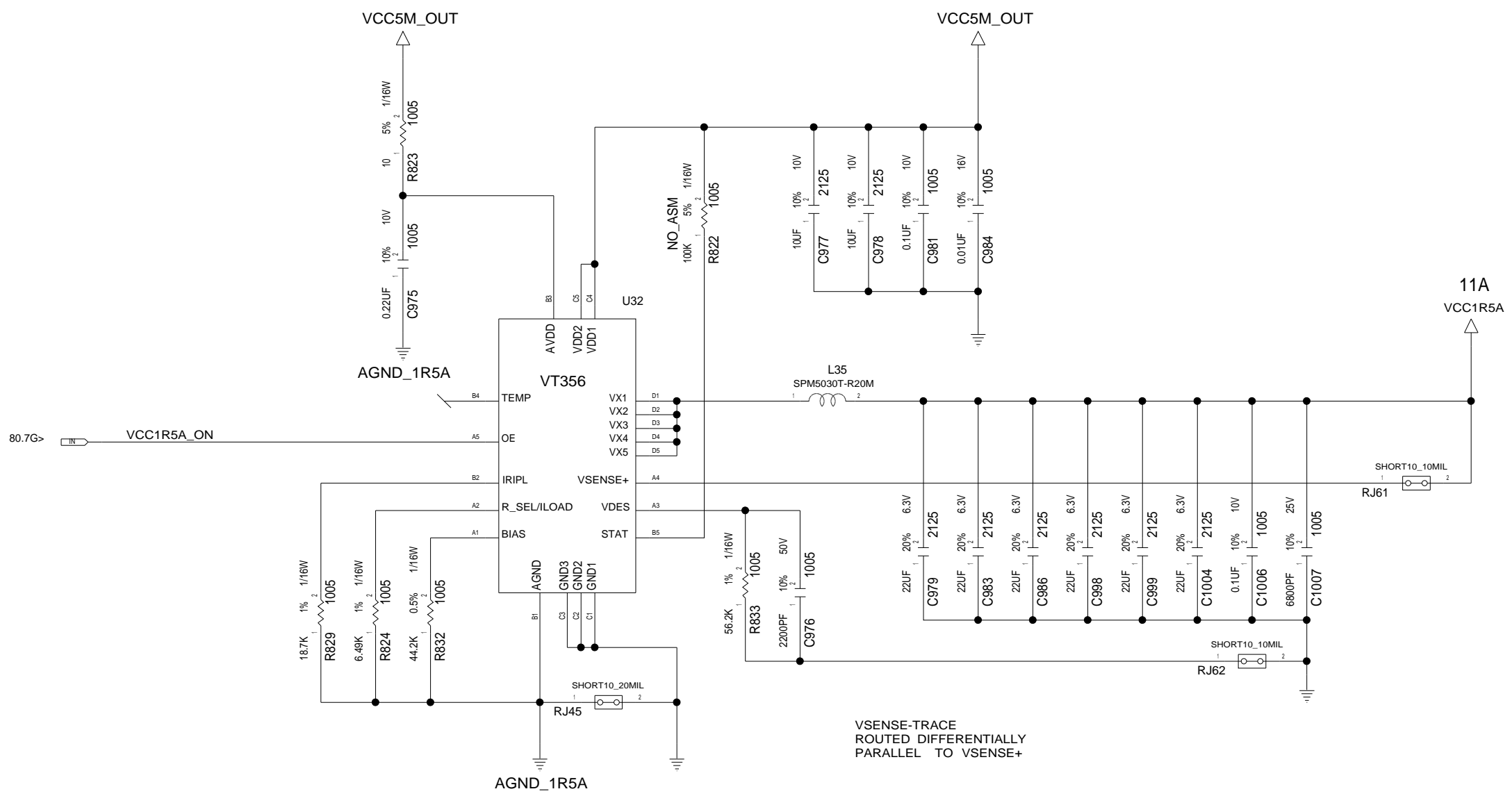
	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				87 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	DC/DC VCC1R05LAN	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			88 / 99

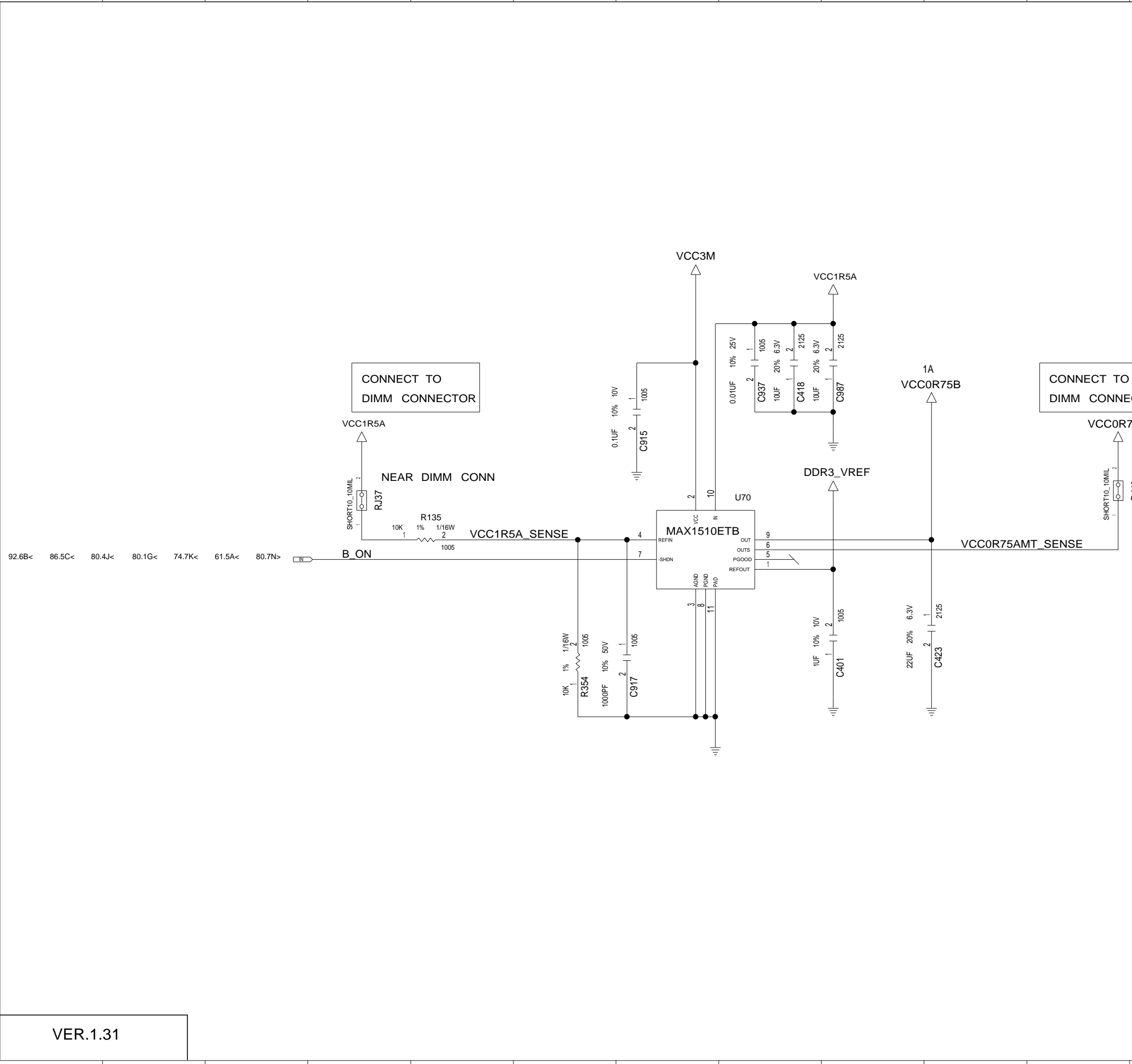


VSENSE-TRACE
ROUTED DIFFERENTIALLY
PARALLEL TO VSENSE+

VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	DC/DC VCC1R5A	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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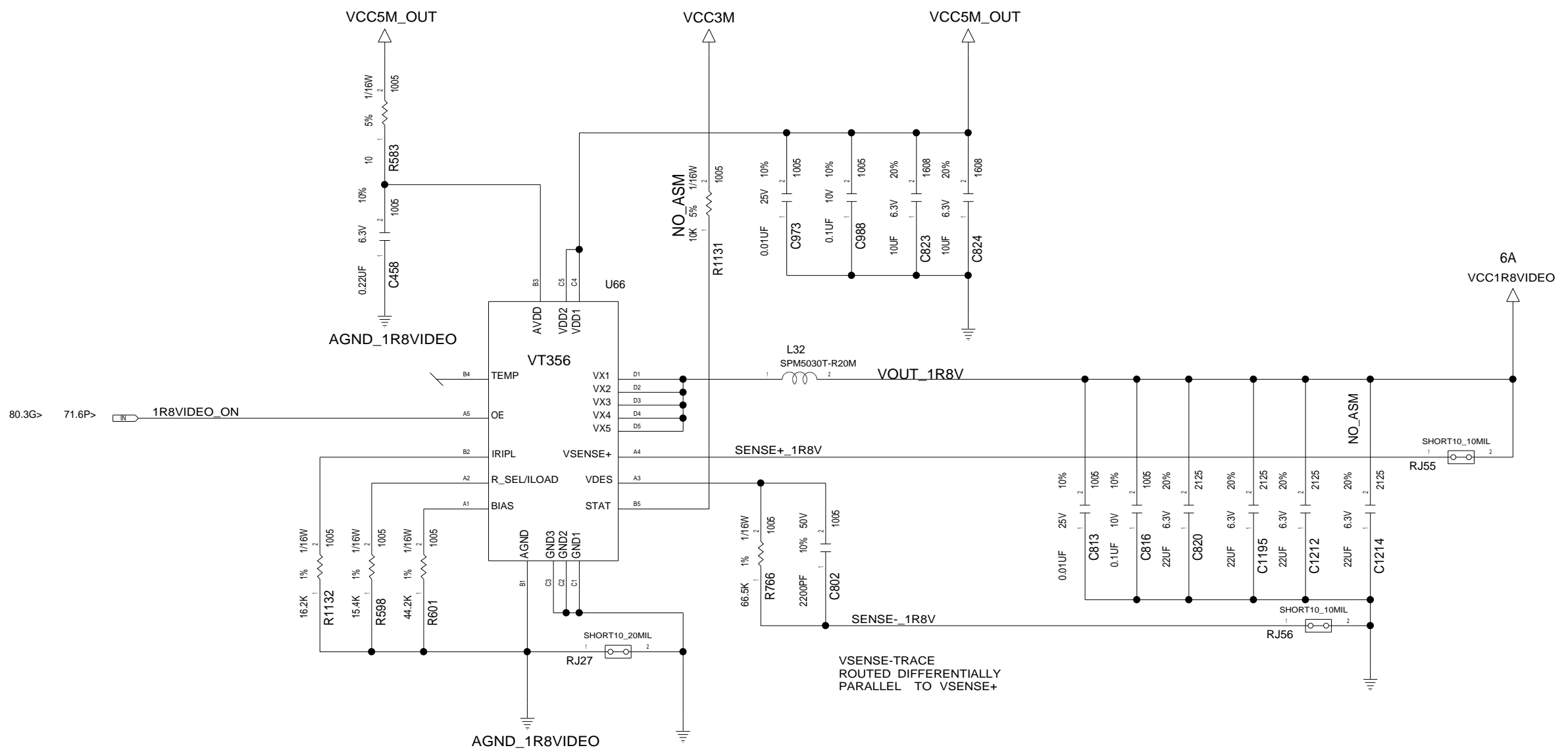
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			89 / 99



VER.1.31

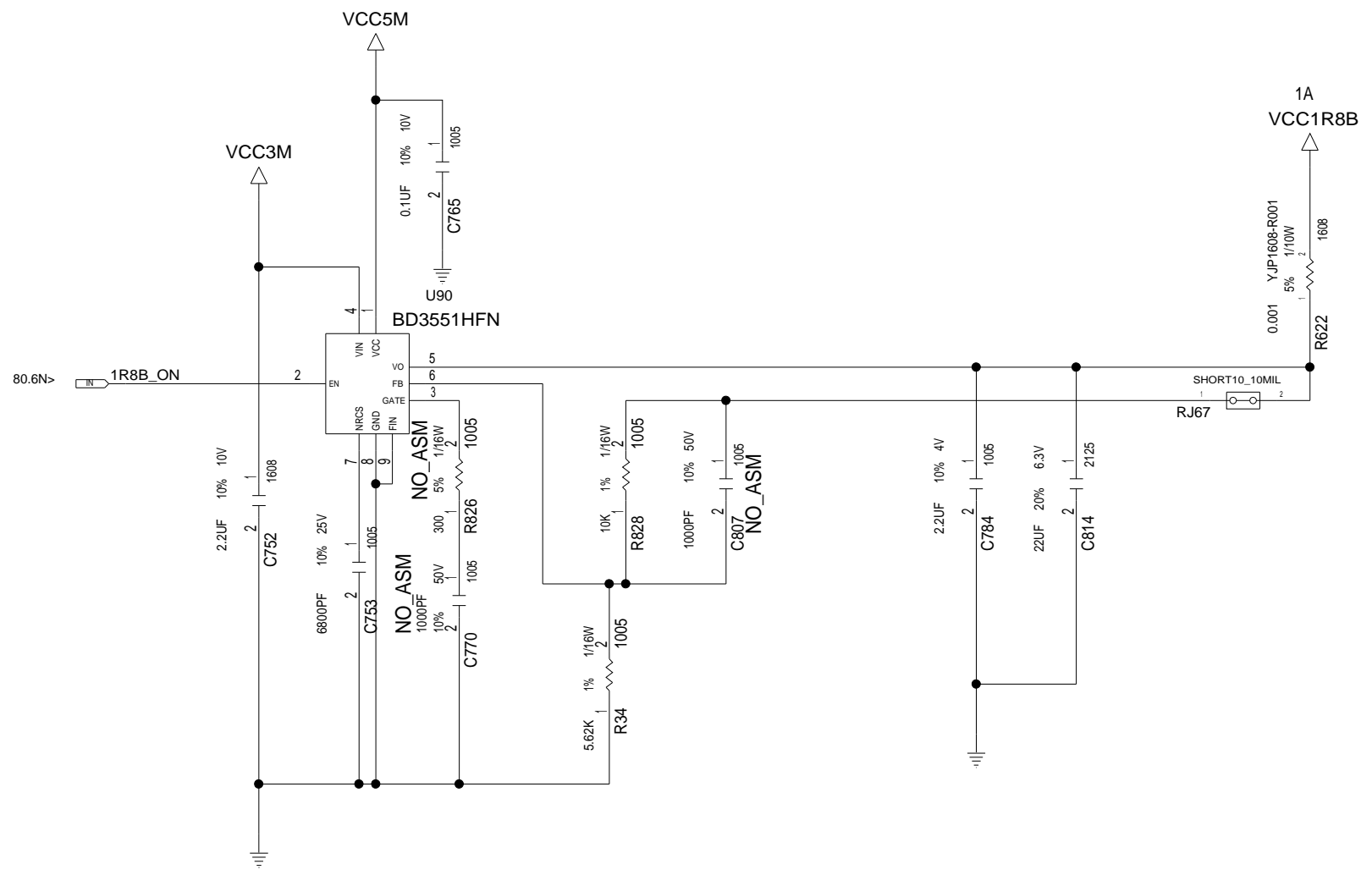
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CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	DC/DC VCC0R75B	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			90 / 99



DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC VCC1R8VIDEO
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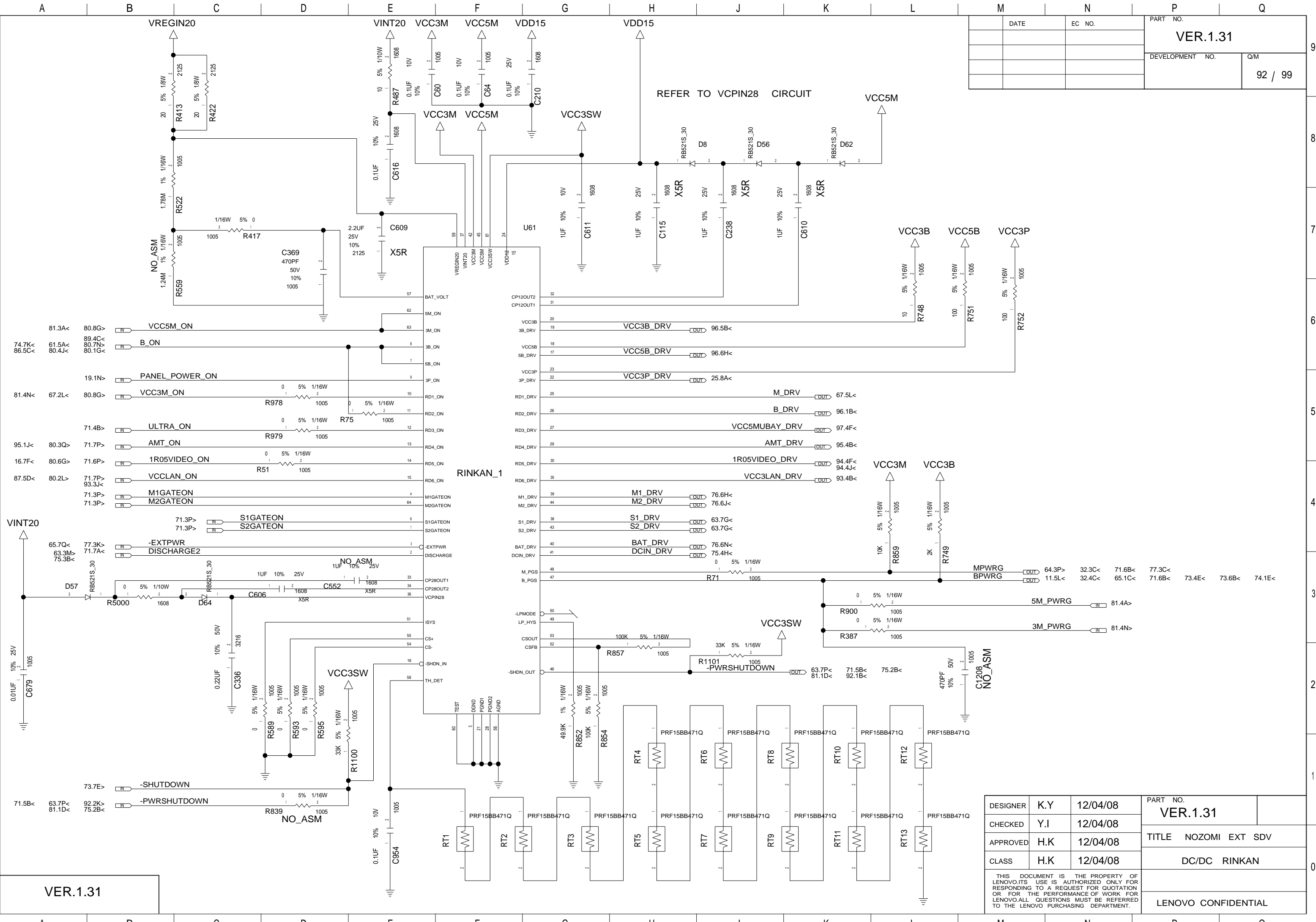
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			91 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	DC/DC VCC1R8B	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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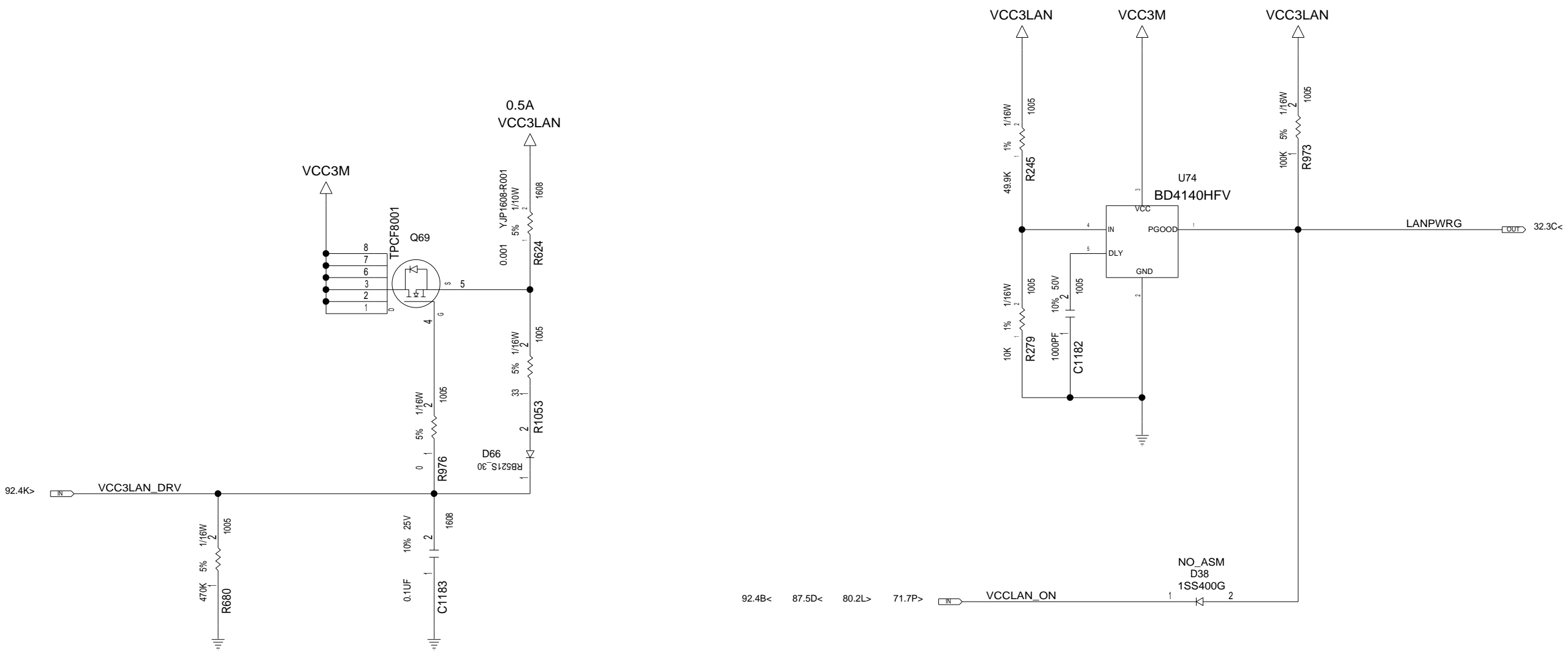
DATE	EC NO.	PART NO.
		VER.1.31
		DEVELOPMENT NO.
		Q/M
		92 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.
CHECKED	Y.I	12/04/08	VER.1.31
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV
CLASS	H.K	12/04/08	DC/DC RINKAN
THIS DOCUMENT IS THE PROPERTY OF LENOVO. ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO. ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL

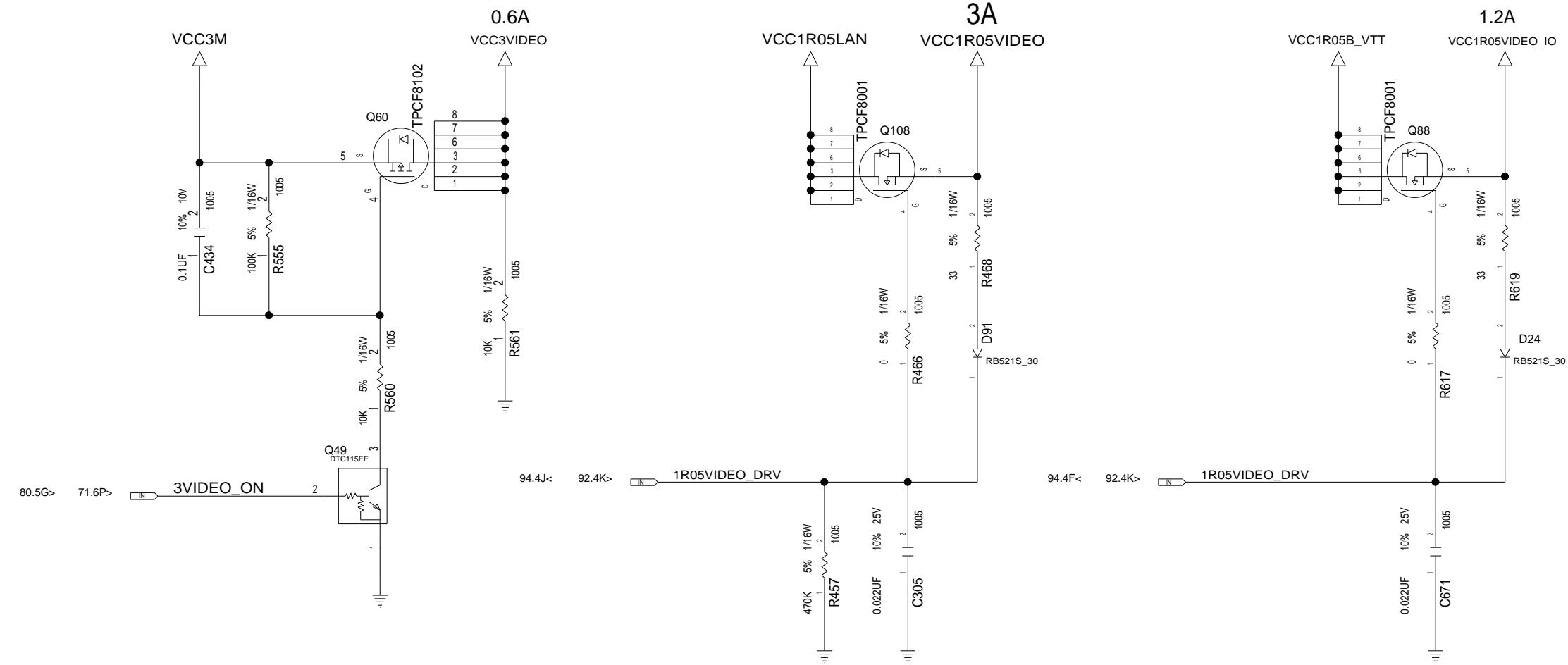
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			93 / 99



VER.1.31

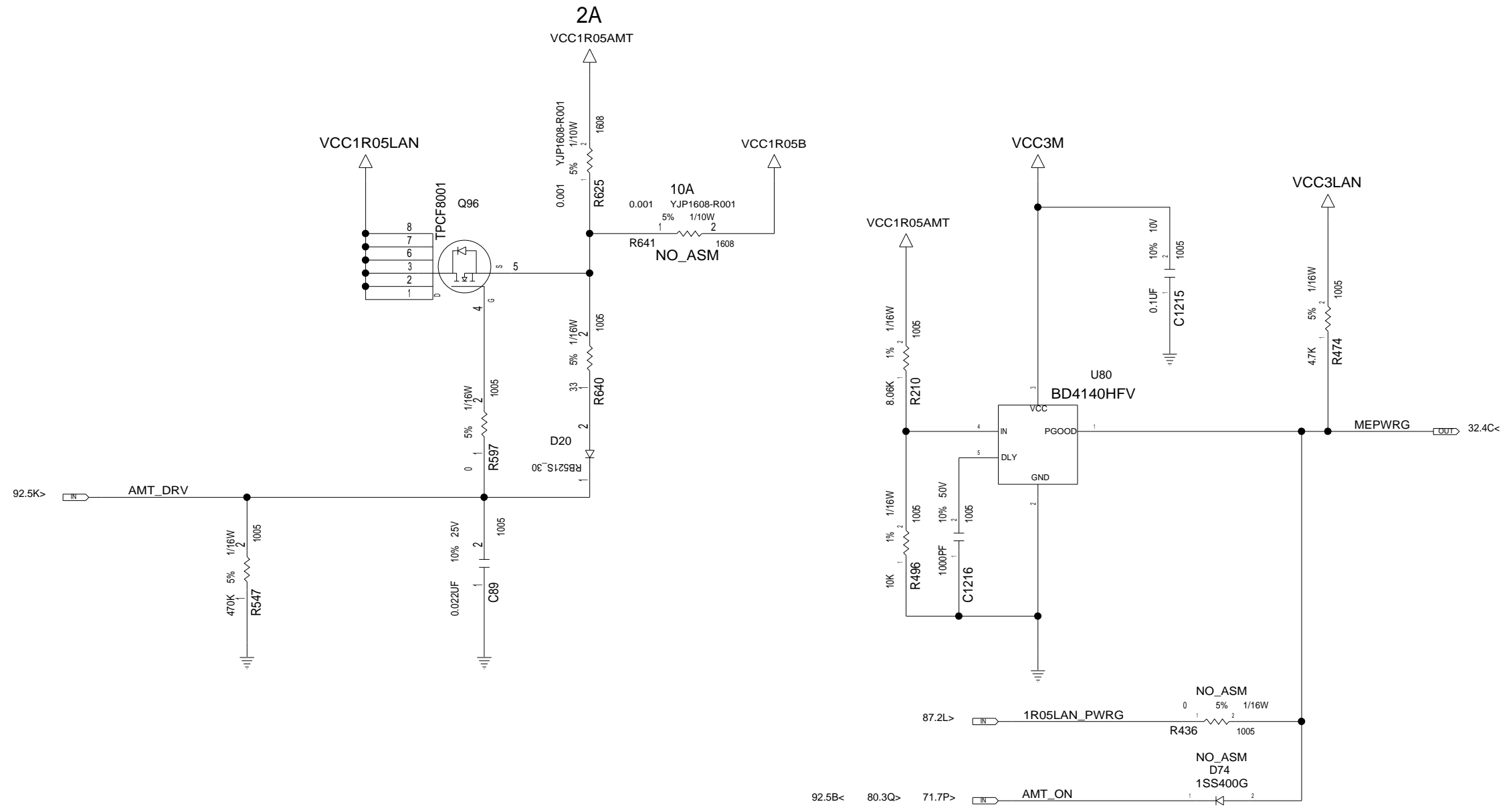
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APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	LOAD SW LAN & LANPWRG	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			94 / 99



DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08		
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	LOAD SW VIDEO	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.				LENOVO CONFIDENTIAL

DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			95 / 99

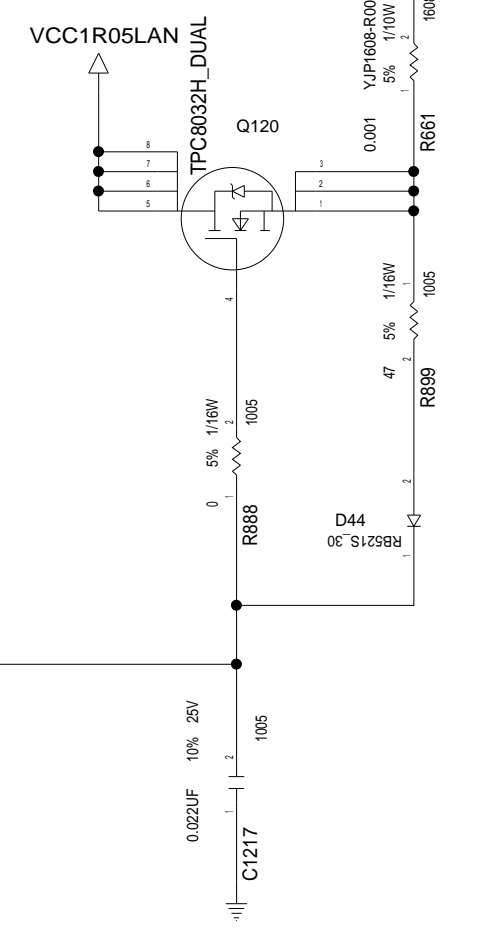
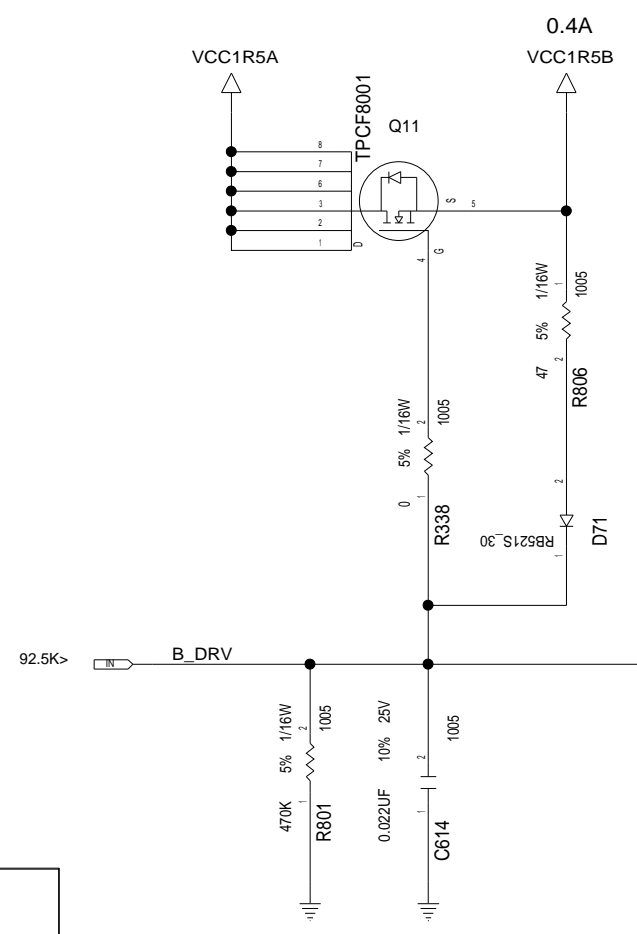
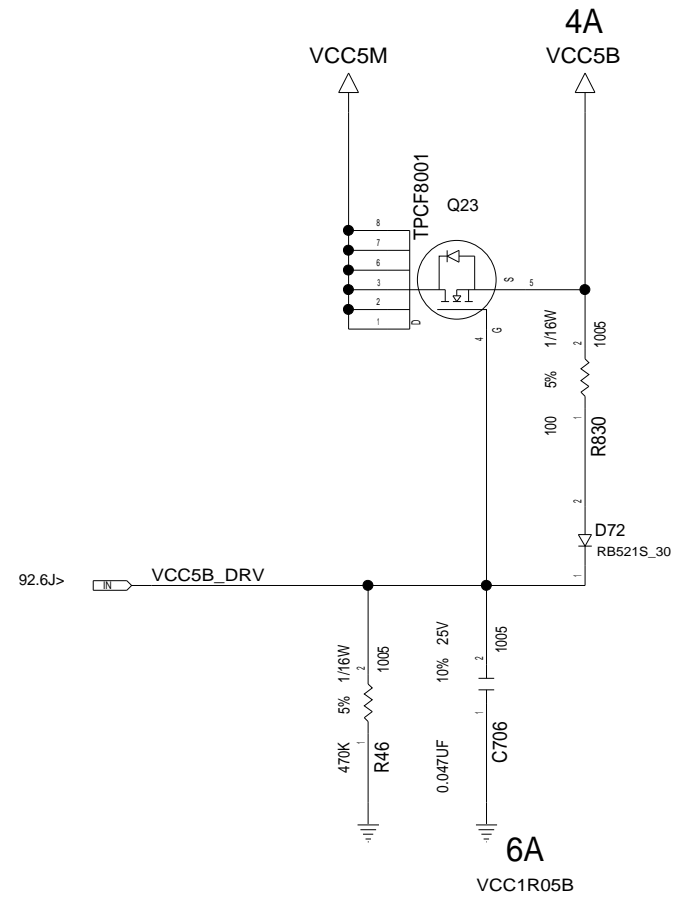
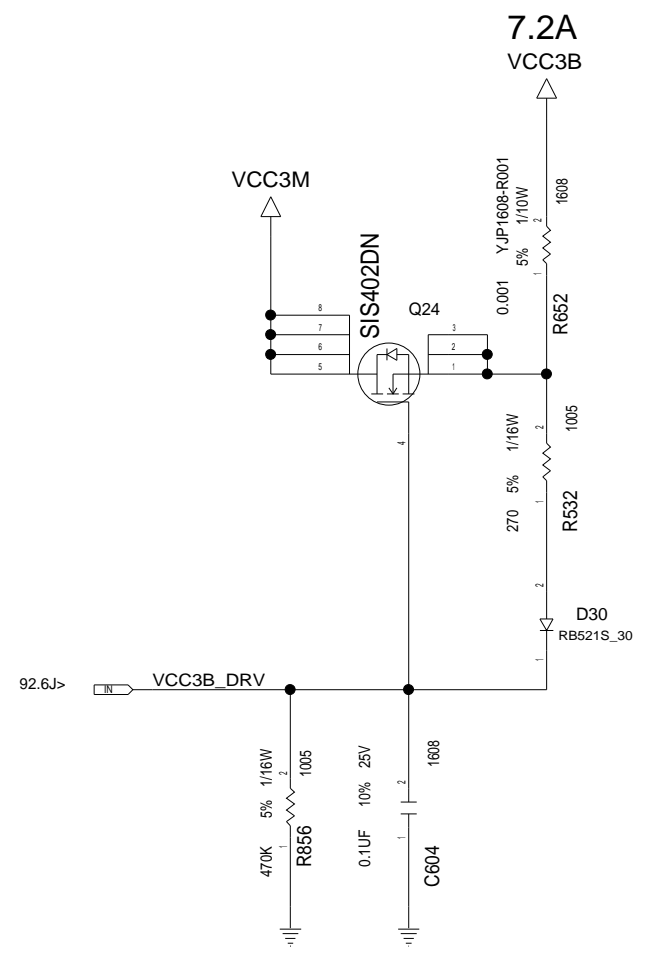


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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	LOAD SW AMT / MEPWRG	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			96 / 99

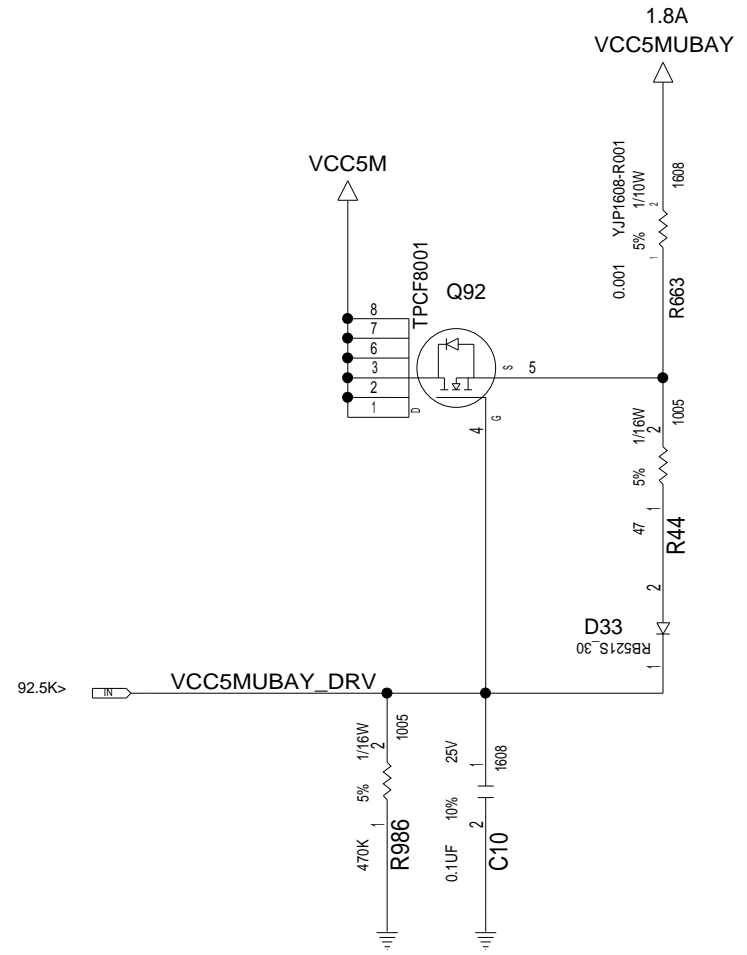


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DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	LOAD SW B	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	

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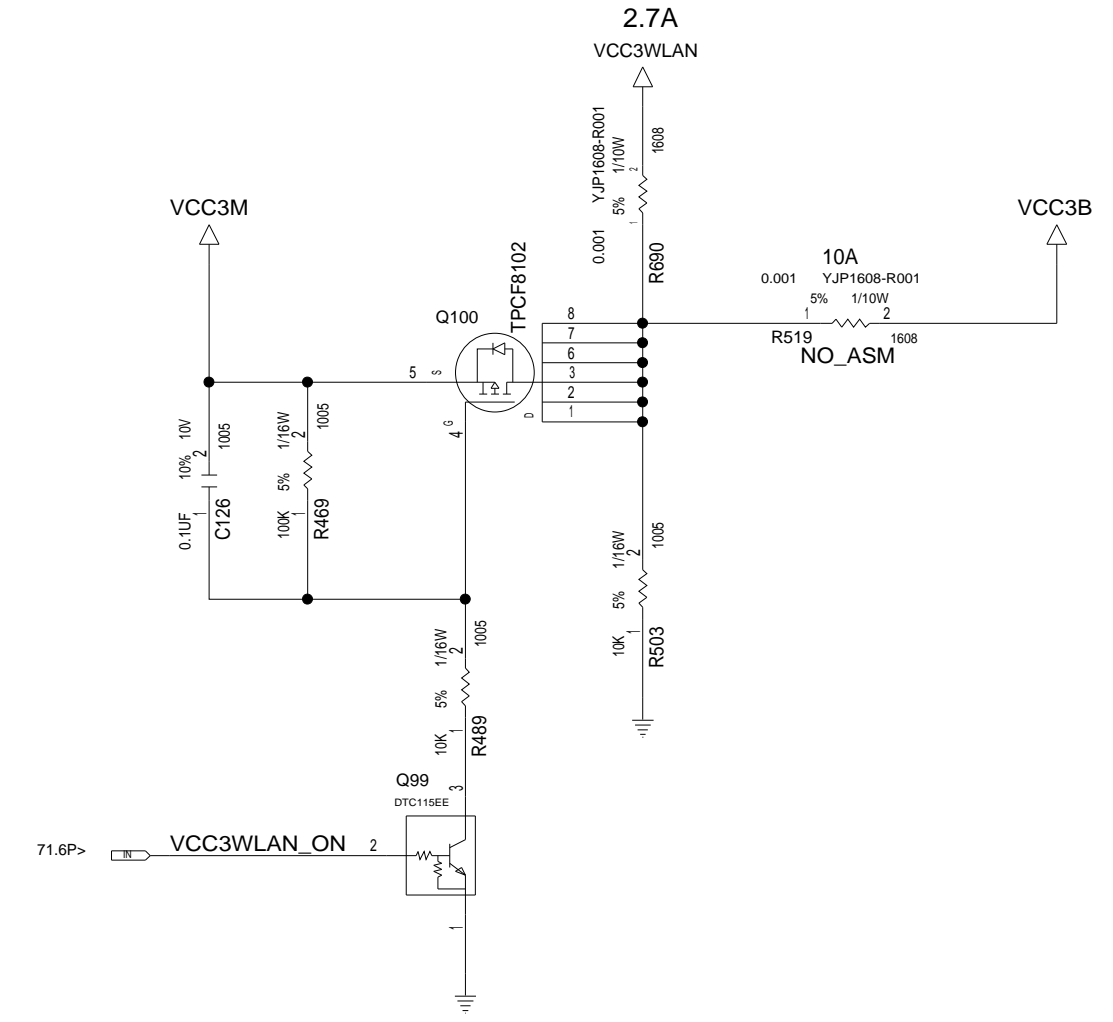
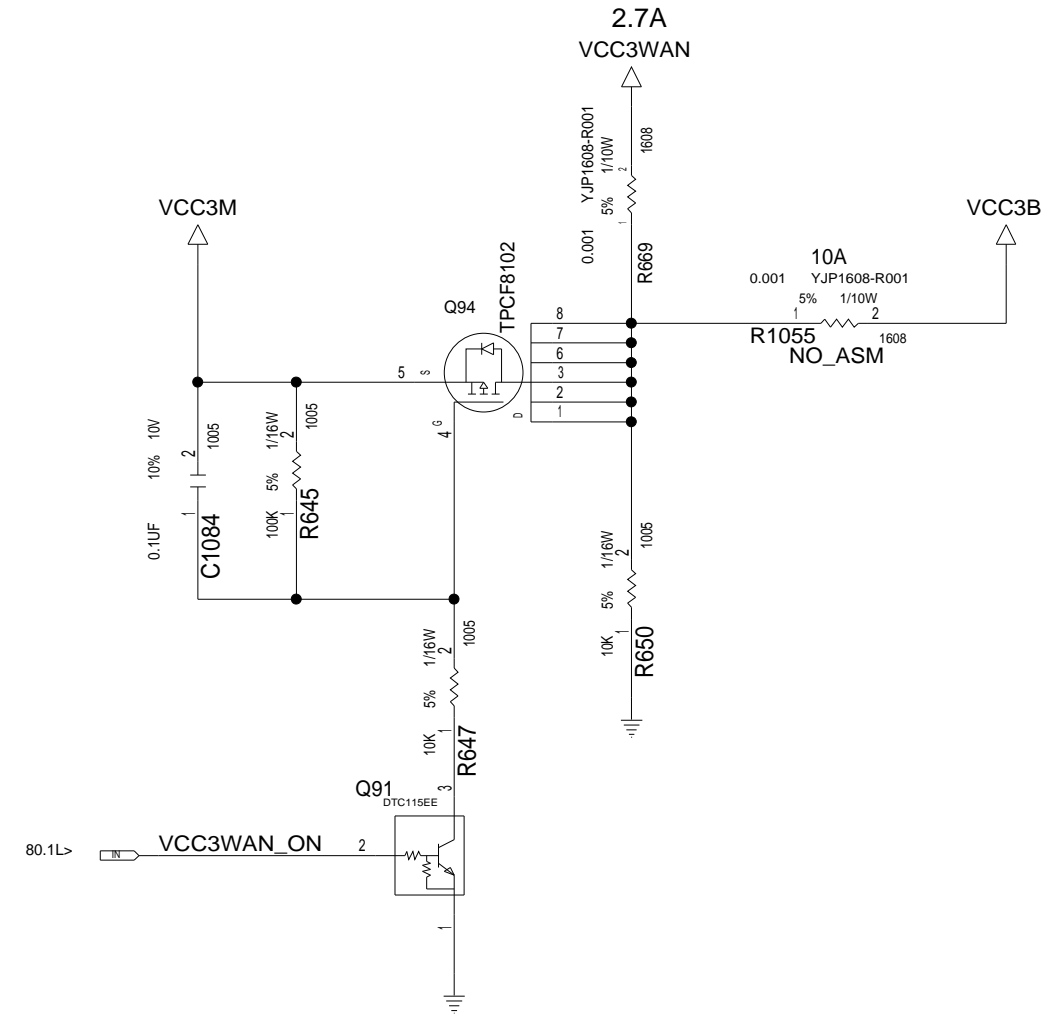
DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			97 / 99



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	LOAD SW VCC5MUBAY	
CLASS	H.K	12/04/08	LENOVO CONFIDENTIAL	
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	DATE	EC NO.	PART NO.	
			VER.1.31	
			DEVELOPMENT NO.	Q/M
				98 / 99



TABLE

ALWAYS ON	REG/LITE	BB/NO
R1055	NO_ASM	ASM
Q94	ASM	NO_ASM
R650	ASM	NO_ASM
R645	ASM	NO_ASM
C1084	ASM	NO_ASM
R647	ASM	NO_ASM
Q91	ASM	NO_ASM

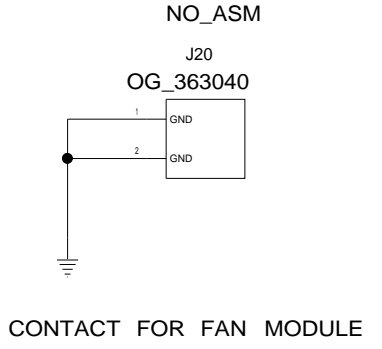
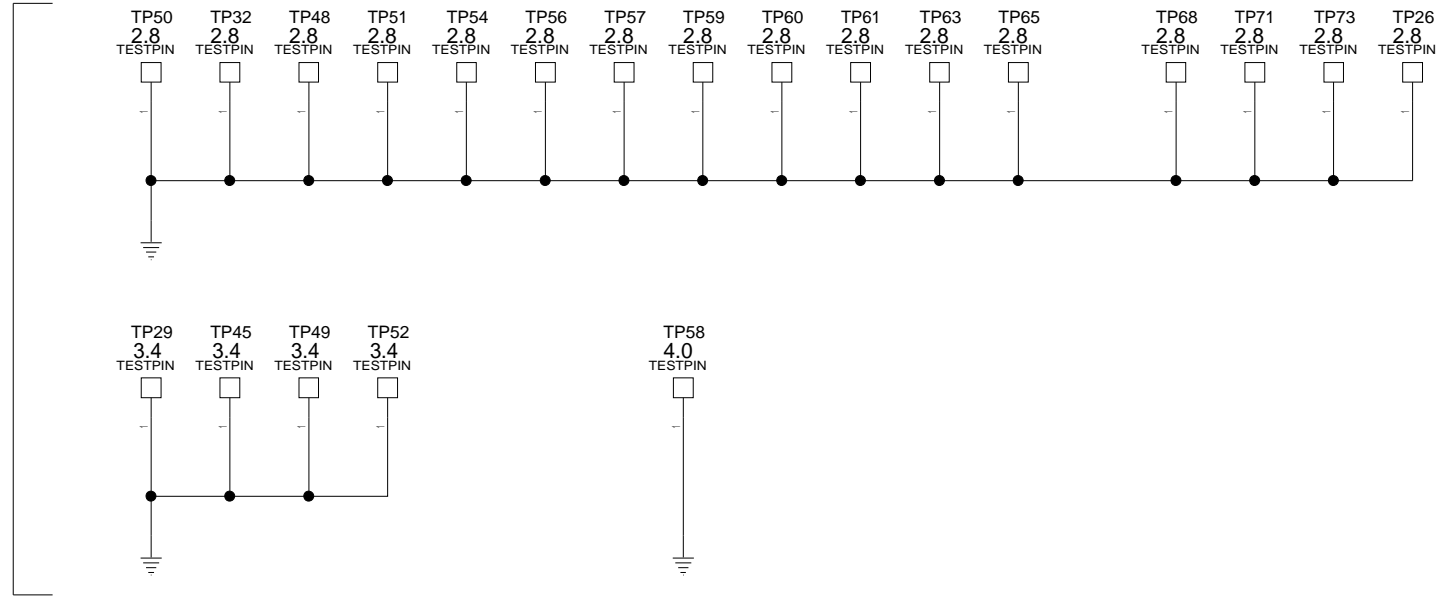
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VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	
CHECKED	Y.I	12/04/08	VER.1.31	
APPROVED	H.K	12/04/08	TITLE NOZOMI EXT SDV	
CLASS	H.K	12/04/08	LOAD SW WAN & WLAN	
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DATE	EC NO.	PART NO.	
		VER.1.31	
		DEVELOPMENT NO.	Q/M
			99 / 99

PTH FOR SCREW HOLE



VER.1.31

DESIGNER	K.Y	12/04/08	PART NO.	VER.1.31
CHECKED	Y.I	12/04/08	TITLE NOZOMI EXT SDV	
APPROVED	H.K	12/04/08	PTH FOR SCREW HOLES	
CLASS	H.K	12/04/08	THIS DOCUMENT IS THE PROPERTY OF LENOVO. ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO. ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.	
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