

MALIBU-3 EXT SVT

1.TITLE PAGE
2.EC HISTORY
3.CPU(1/3)
4.CPU(2/3)
5.CPU(3/3)
6.ITE CONNECTOR
7.CANTIGA(1/8):HOST I/F
8.CANTIGA(2/8):DMI/CLK/CONTROL
9.CANTIGA(3/8):PEG/GRAPHICS
10.CANTIGA(4/8):DDR3 CHANNEL-A
11.CANTIGA(5/8):DDR3 CHANNEL-B
12.CANTIGA(6/8):POWER
13.CANTIGA(7/8):POWER/FILTER
14.CANTIGA(8/8):GND
15.DDR3 SO DIMM CHANNEL-A
16.DDR3 SO DIMM CHANNEL-B
17.DDR3 DECOUPLING
18.CLOCK GEN
19.M82XT-S(1/6):PEG I/F
20.M82XT-S(2/6):DIGITAL OUT I/F
21.M82XT-S(3/6):VRAM I/F
22.M82XT-S(4/6):GPIO
23.M82XT-S(5/6):POWER
24.M82XT-S(6/6):GND
25.BLANK
26.VRAM CHANNEL-A
27.BACK BIAS POWER
28.LVDS SWITCH
29.LCD CONNECTOR
30.RGB SWITCH
31.EXT CRT INTERFACE
32.BLANK
33.ICH9-M(1/6):SATA/HDA/GLAN/LPC
34.ICH9-M(2/6):DMI/PCIE/USB/SPI
35.ICH9-M(3/6):PCI/INTERRUPT
36.ICH9-M(4/6):GPIO/CLK/PM
37.ICH9-M(5/6):POWER
38.ICH9-M(6/6):GND
39.RTC BATTERY
40.SATA HDD CONN
41.SATA BAY I/F CONN
42.USB POWER/CONN
43.AUDIO CX20561
44.AUDIO MISC
45.AUDIO INT MIC
46.AUDIO HP&EXT MIC CONN
47.AUDIO EXT MIC AMP
48.AUDIO SPEAKER
49.AUDIO HDP AMP
50.AUDIO BEEP
51.CDC CONNECTOR

52.GBE	BOAZMAN
53.GBE	LAN SWITCH
54.GBE	MAGNETICS
55.RJ11/RJ45	CONNECTOR
56.PCIE	MINI CARD SLOT
57.PCIE	HALF MINI CARD SLOT
58.CARD	BUS CONTROLLER(1/2)
59.CARD	BUS CONTROLLER(2/2)
60.CARD	BUS SLOT
61.CARD	BUS POWER CONTROL
62.BLANK	
63.SPI	FLASH
64.DOCKING	CONNECTOR
65.H8S/2116B(1/2)	
66.H8S/2116B(2/2)	
67.KEYBOARD	CONNECTOR
68.TOUCH	PAD CONNECTOR
69.WIRELESS	DISABLE SW
70.FAN	CONNECTOR
71.G-SENSOR	
72.MISC	G/A(PMH7)
73.SUPER	I/O
74.THERMAL	SENSOR
75.EEPROM/SMBUS	SW/TPM
76.DC-IN	
77.BATTERY	INPUT
78.BATTERY	CHARGER
79.CHARGE	SELECTOR
80.BATTERY	MONITOR
81.POWER	SEQUENCE
82.DC/DC	VCC5M/VCC3M
83.DC/DC	VCCCPUCORE
84.VCCCPUCORE	DECOUPLING
85.DC/DC	VCCGFXCORE
86.BLANK	
87.BLANK	
88.DC/DC	VCC1R5A/VCC1R05AMT
89.DC/DC	VCC0R75AMT
90.DC/DC	VCC1R8VIDEO
91.SMPWRG	& CLPWRG
92.DC/DC	RINKAN
93.LOAD	SW AMT&LAN
94.LOAD	SW VIDEO
95.LOAD	SW AUX
96.LOAD	SW B
97.DC/DC	VCC1R8B
98.LOAD	SW UBAY&WWAN
99.CPU	POWER MONITOR
100.EMC	DECOUPLING
101.PTH	FOR SCREW HOLES

M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							1 / 101

MLB3D-6

VER.5.09

MAR/25/'08

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09
CHECKED	Y.I	03/25/08	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT
CLASS	H.K	03/25/08	TITLE PAGE
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

VER.5.09

EC HISTORY

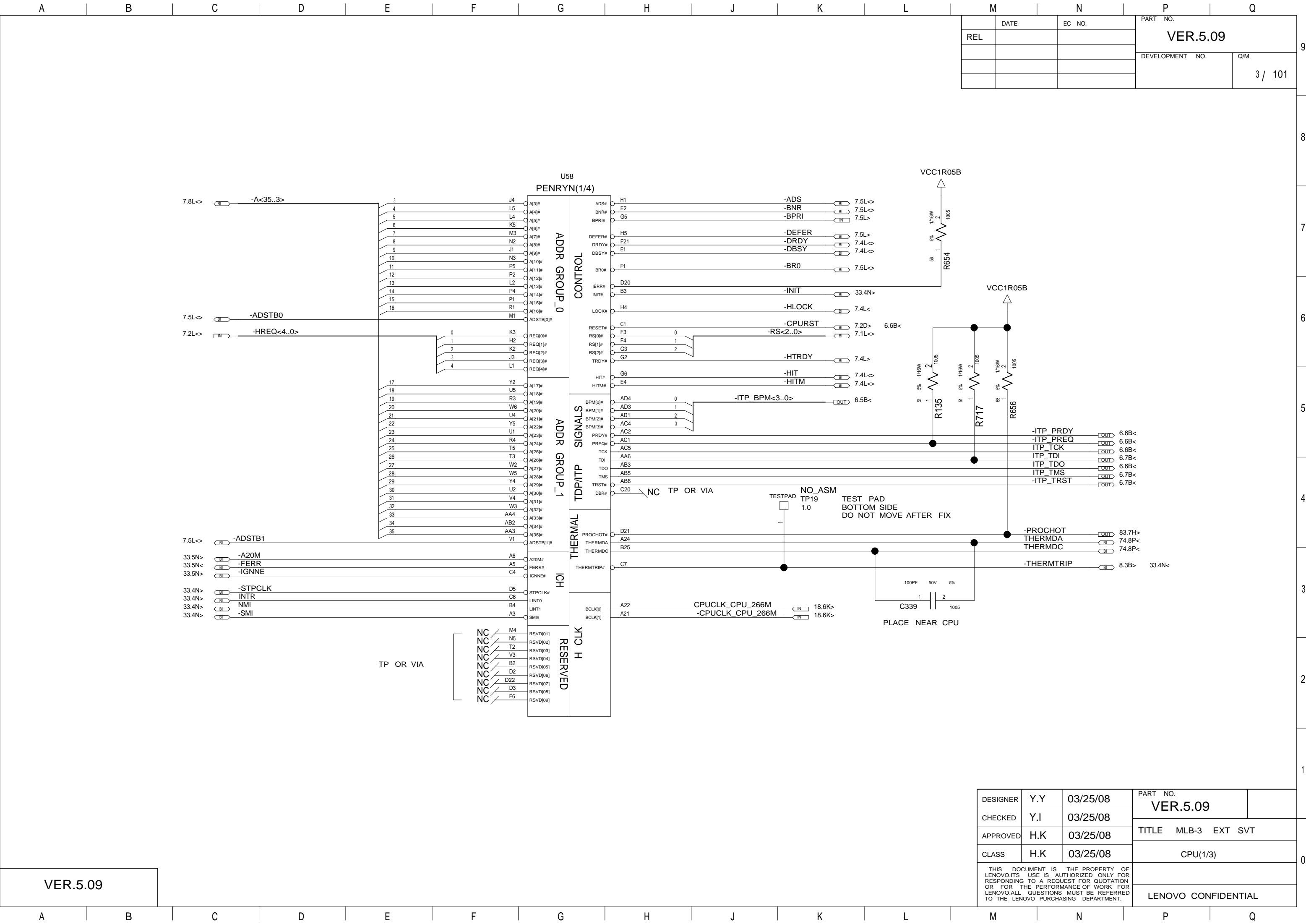
MALIBU-3 EXT SVT
BASE LOGIC MALIBU-3 EXT SIT VER.4.11

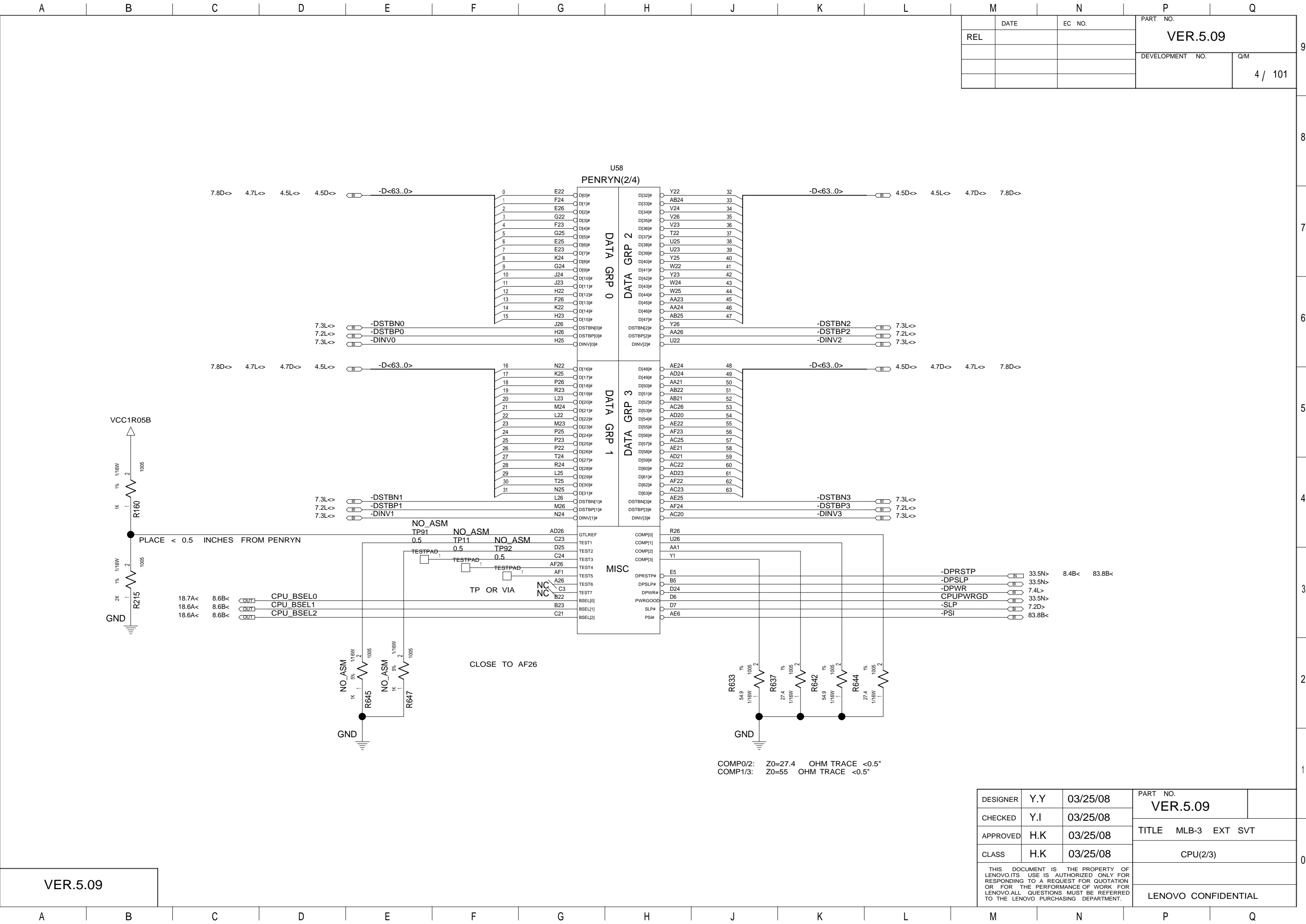
VER.5.00	APPLY	MLB3_SVT_EC500
VER.5.01	APPLY	MLB3_SVT_EC003,EC005,EC006
VER.5.02	APPLY	MLB3_SVT_EC007
VER.5.03	APPLY	MLB3_SVT_EC008
VER.5.04	APPLY	MLB3_SVT_EC009,EC010,EC011,EC012,EC013,EC501
VER.5.05	APPLY	MLB3_SVT_EC502
VER.5.06	APPLY	MLB3_SVT_EC014,EC015
VER.5.07	APPLY	MLB3_SVT_EC016
VER.5.08	APPLY	MLB3_SVT_EC017,EC018,EC503
VER.5.09	APPLY	MLB3_SVT_EC021

	DATE	EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			2 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	EC HISTORY	
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	

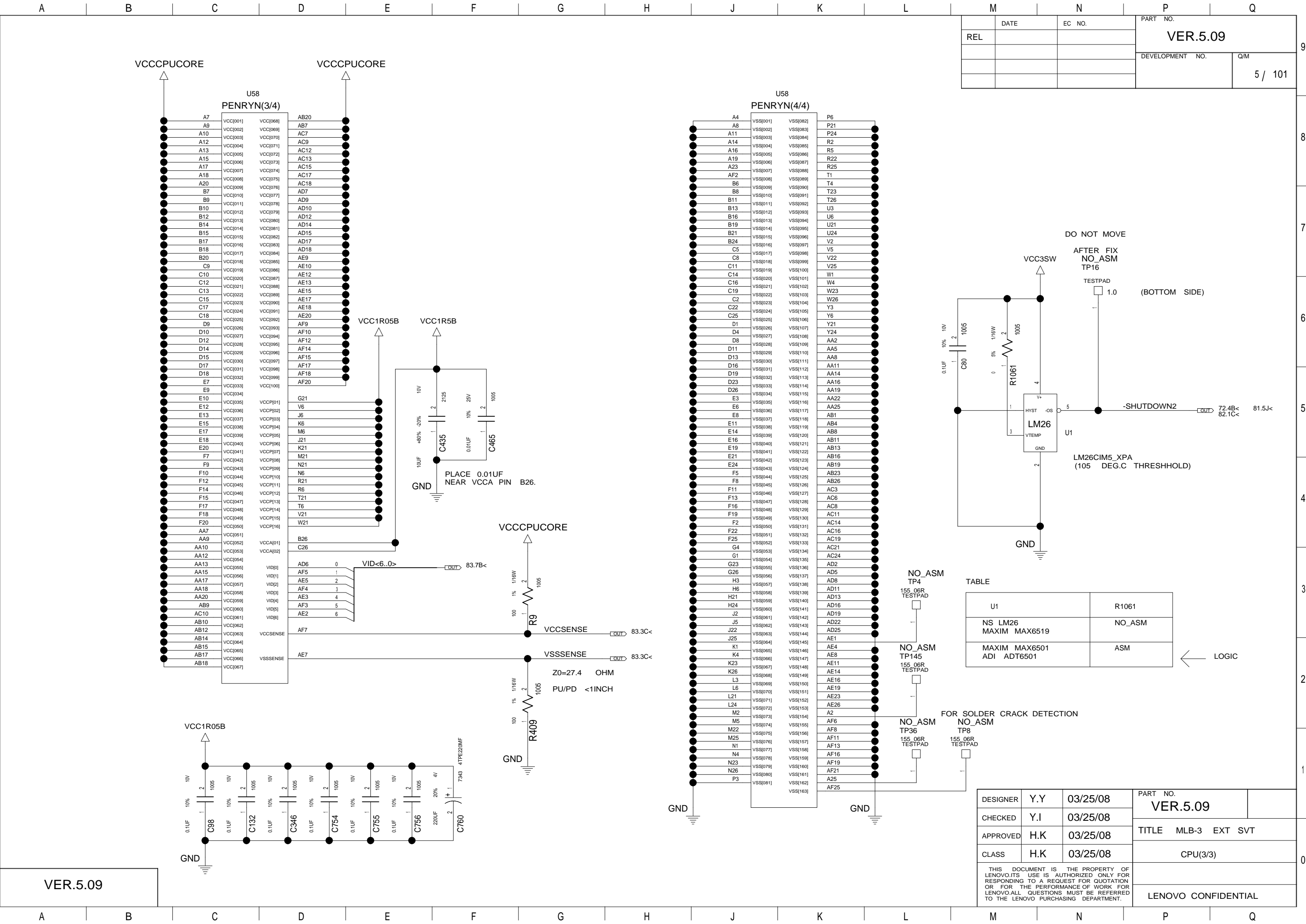




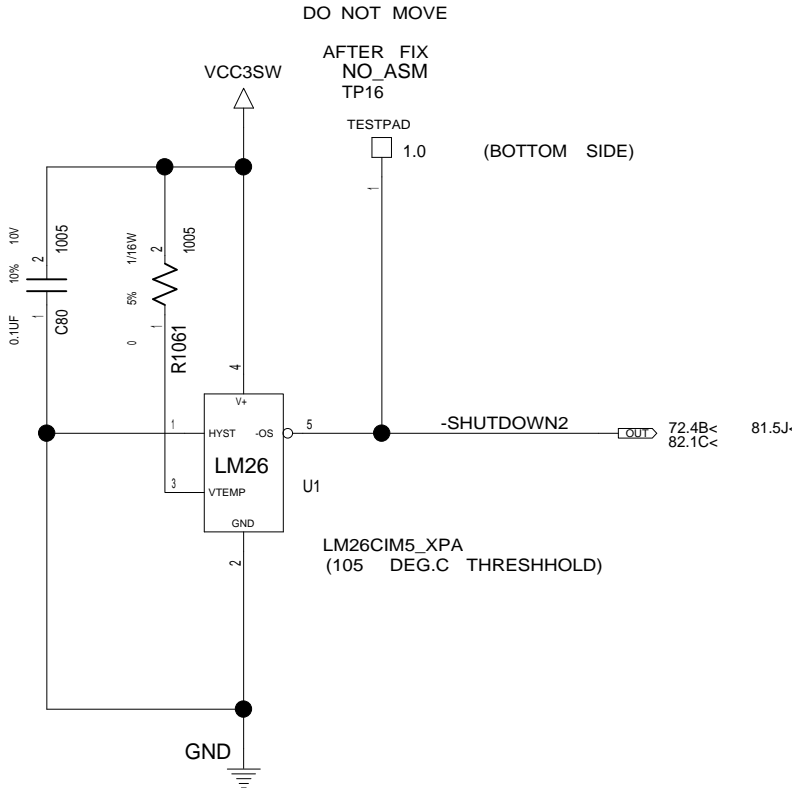
M		N		P		Q	
	DATE	EC NO.		PART NO. VER.5.09			
REL							
				DEVELOPMENT NO. Q/M 4 / 101			

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	CPU(2/3)		
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.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				5 / 101	



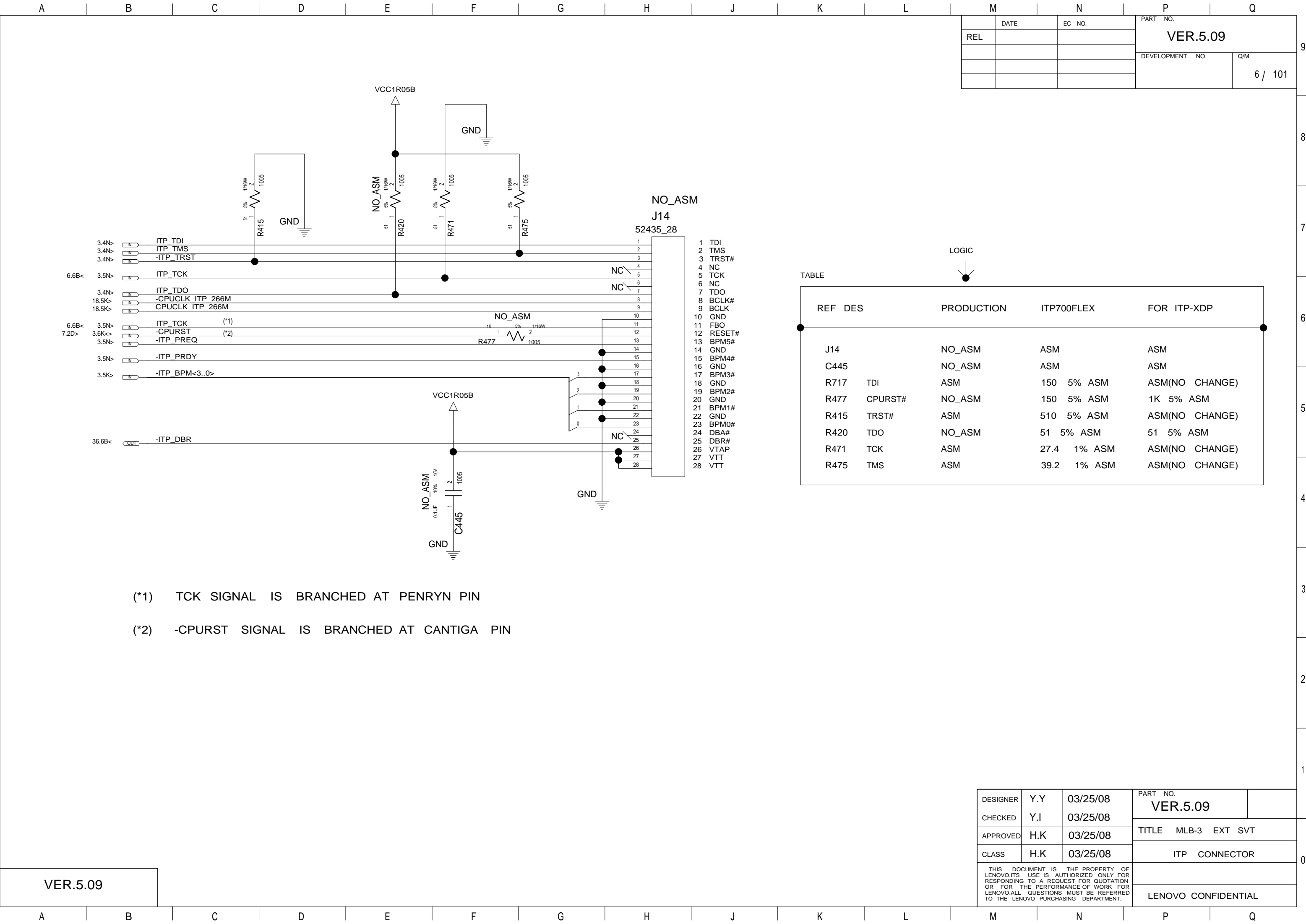
TABLE

U1	R1061
NS LM26 MAXIM MAX6519	NO_ASM
MAXIM MAX6501 ADI ADT6501	ASM

LOGIC

FOR SOLDER CRACK DETECTION

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	CPU(3/3)	
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	

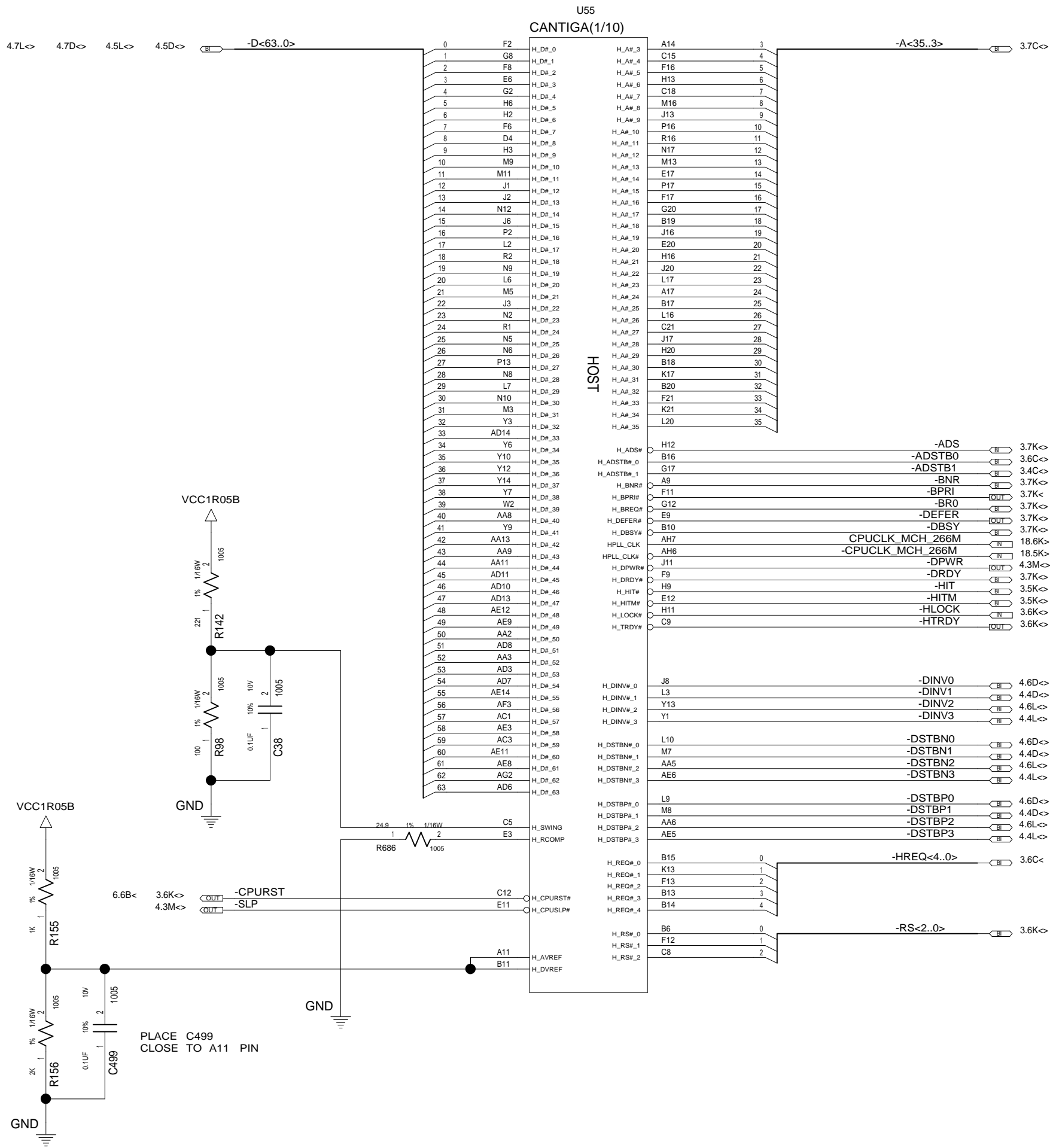


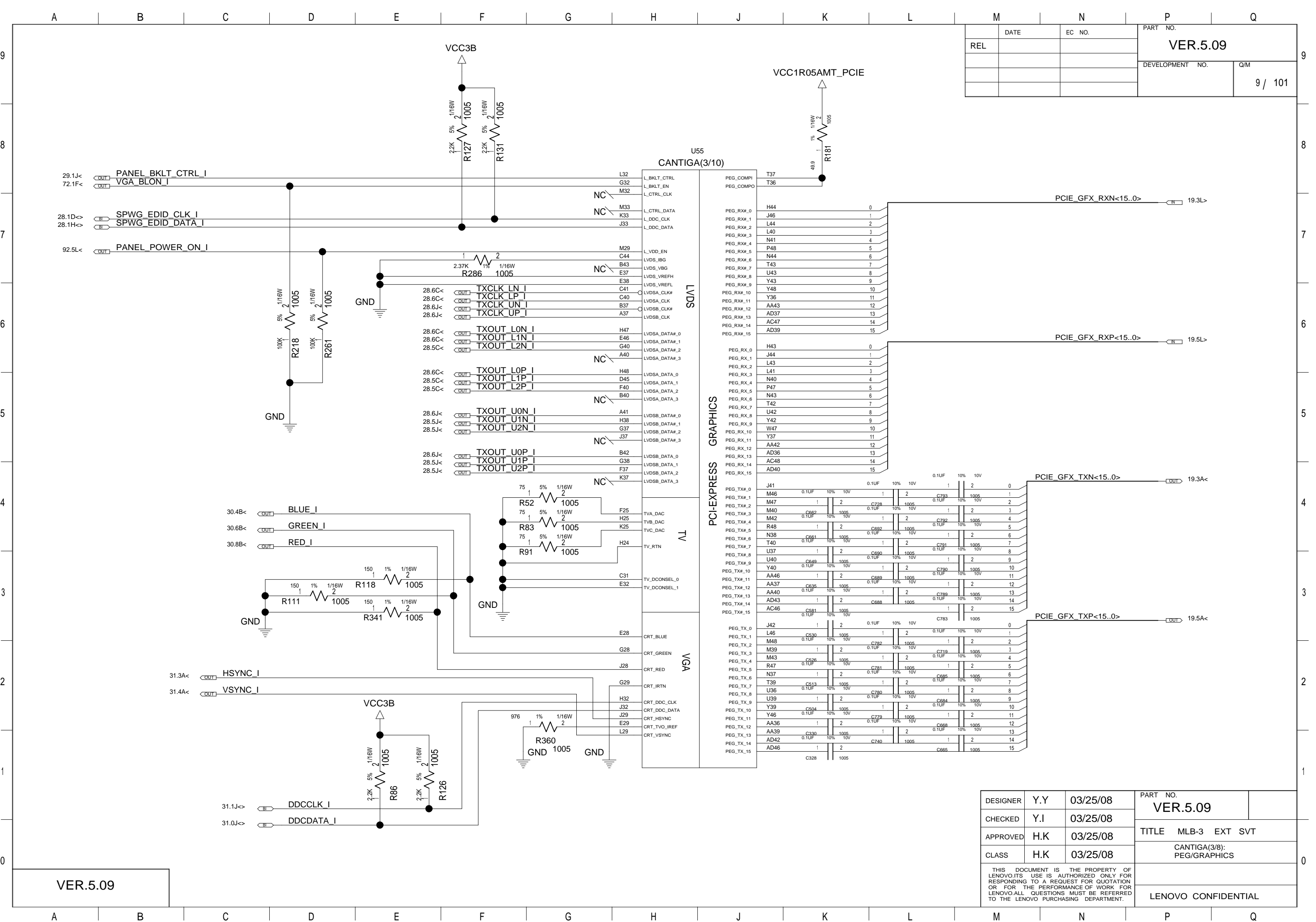
(*1) TCK SIGNAL IS BRANCHED AT PENRYN PIN

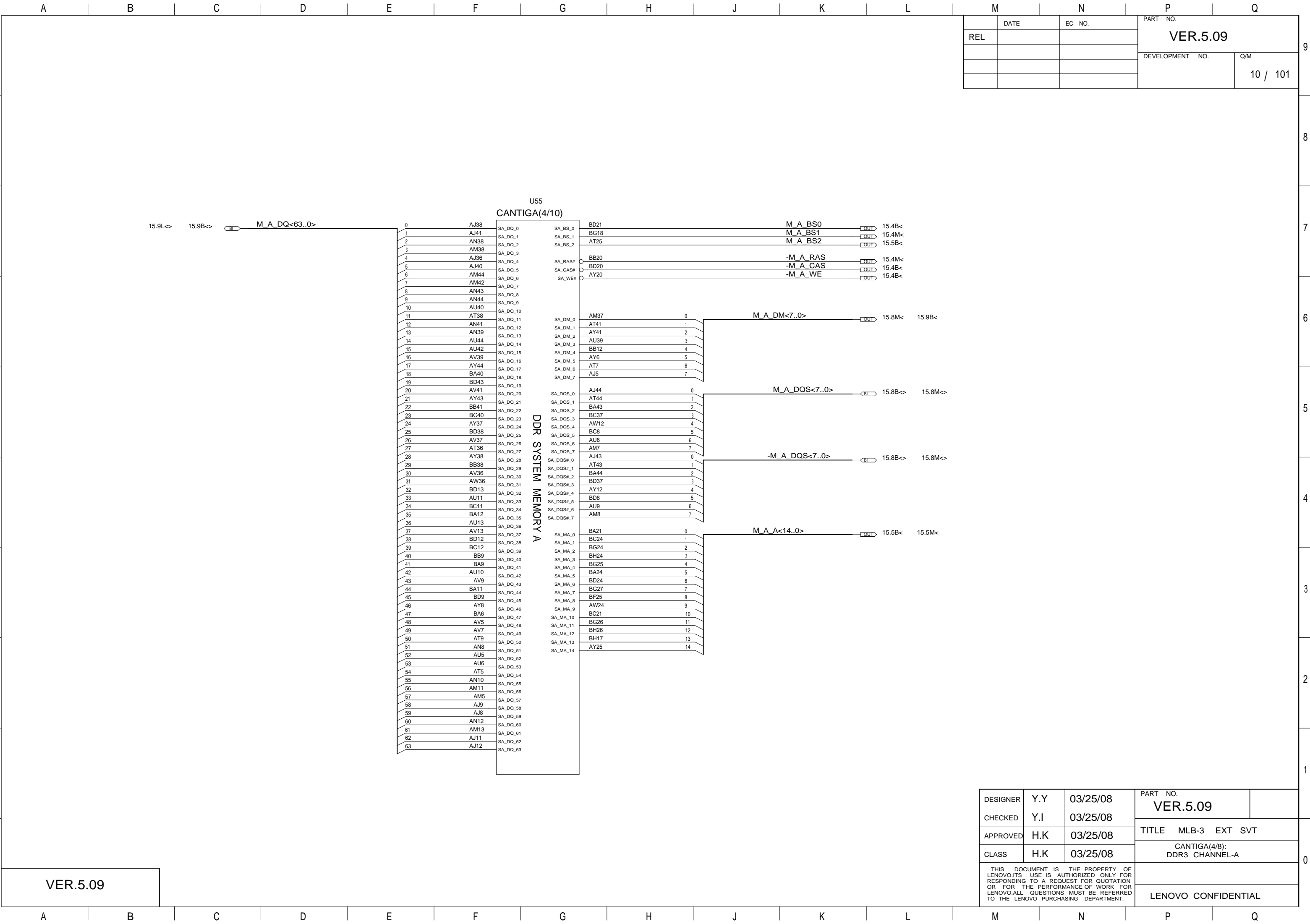
(*2) -CPURST SIGNAL IS BRANCHED AT CANTIGA PIN

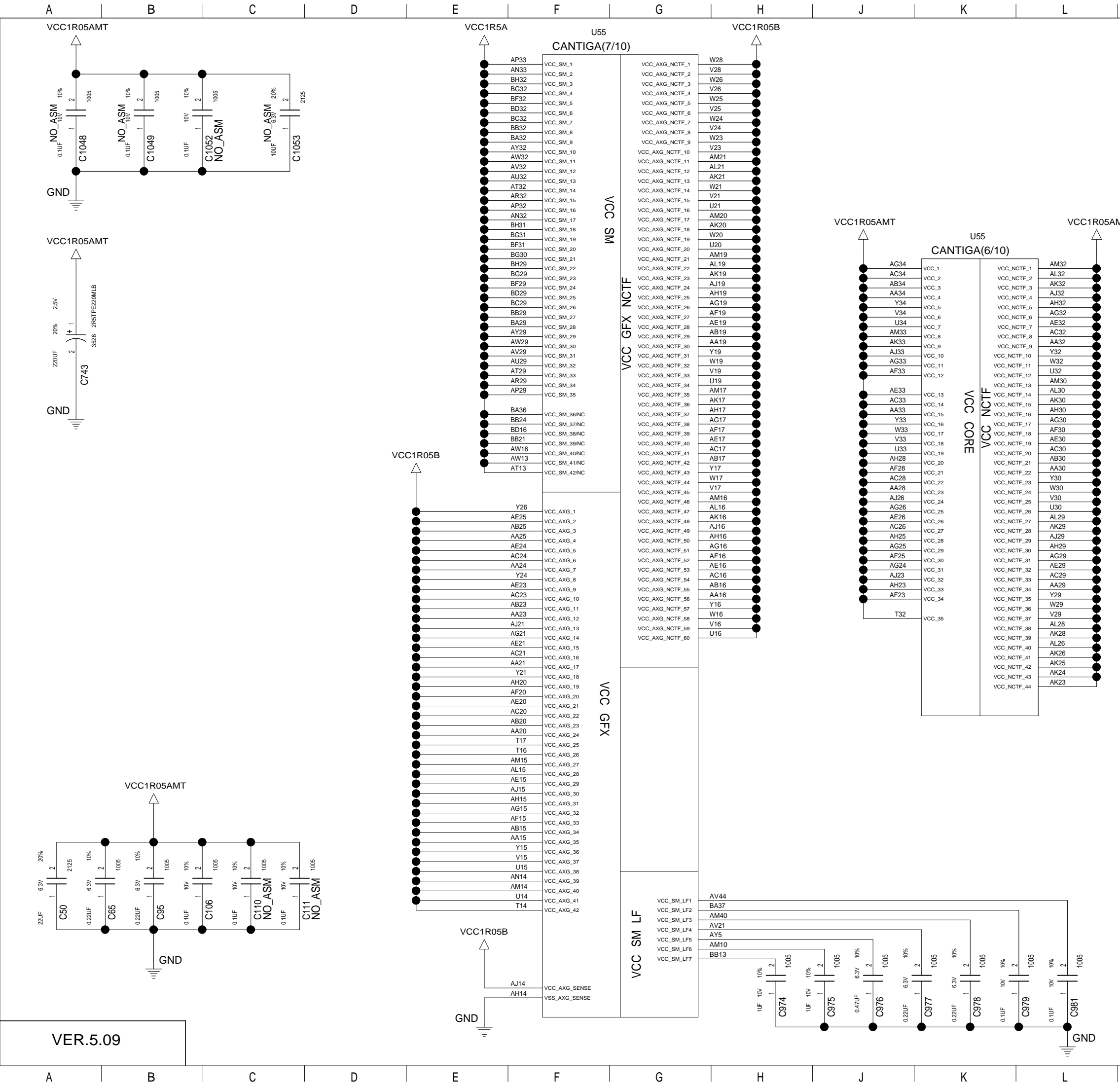
	DATE	EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				7 / 101

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09	
CHECKED	Y.I	03/25/08		
APPROVED	H.K	03/25/08		TITLE MLB-3 EXT SVT
CLASS	H.K	03/25/08		CANTIGA(1/8):HOST I/F
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	

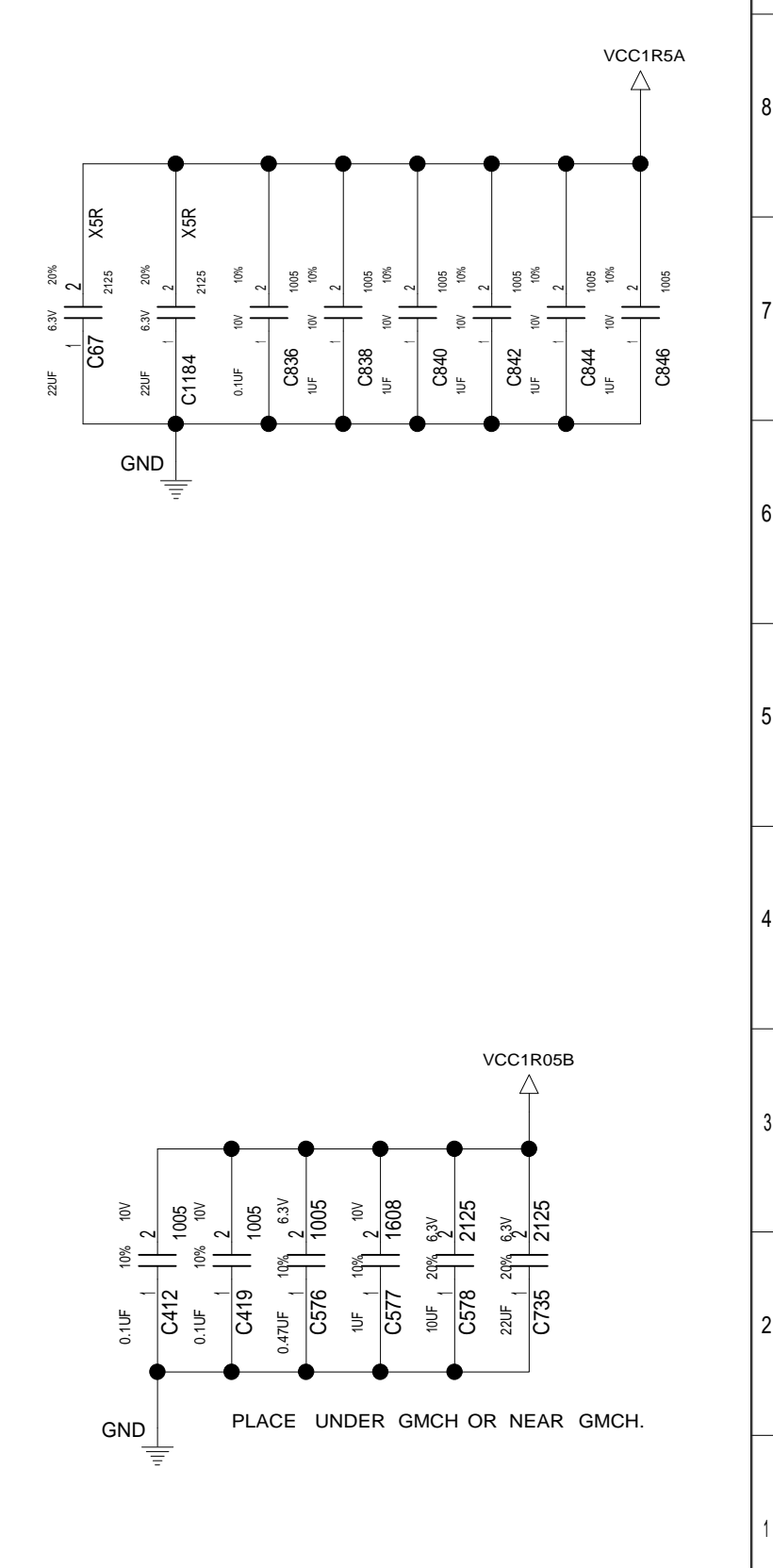




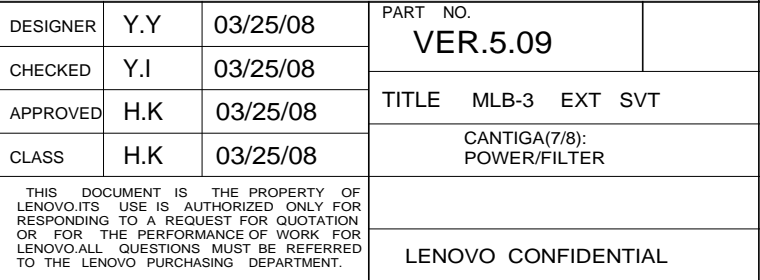


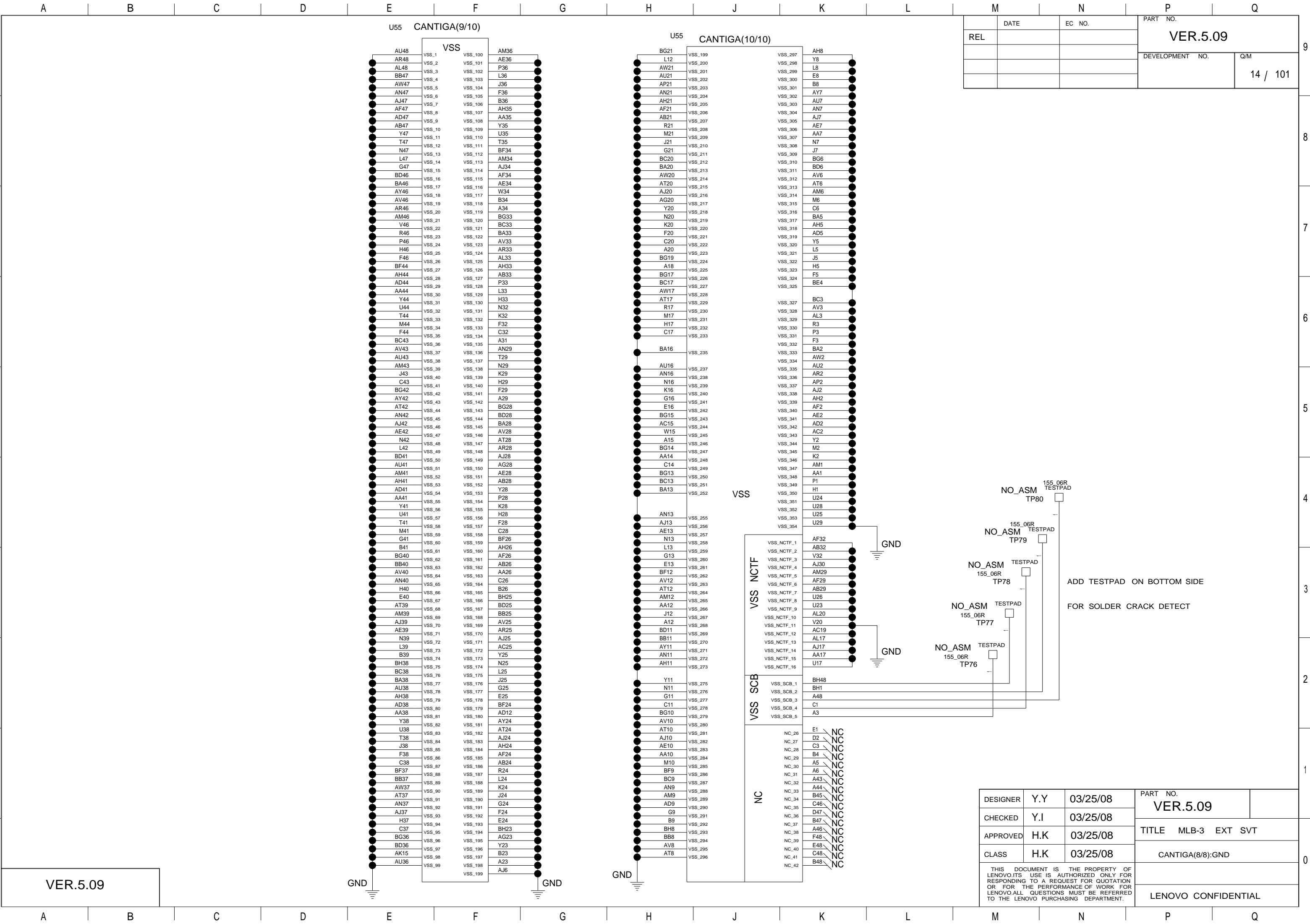


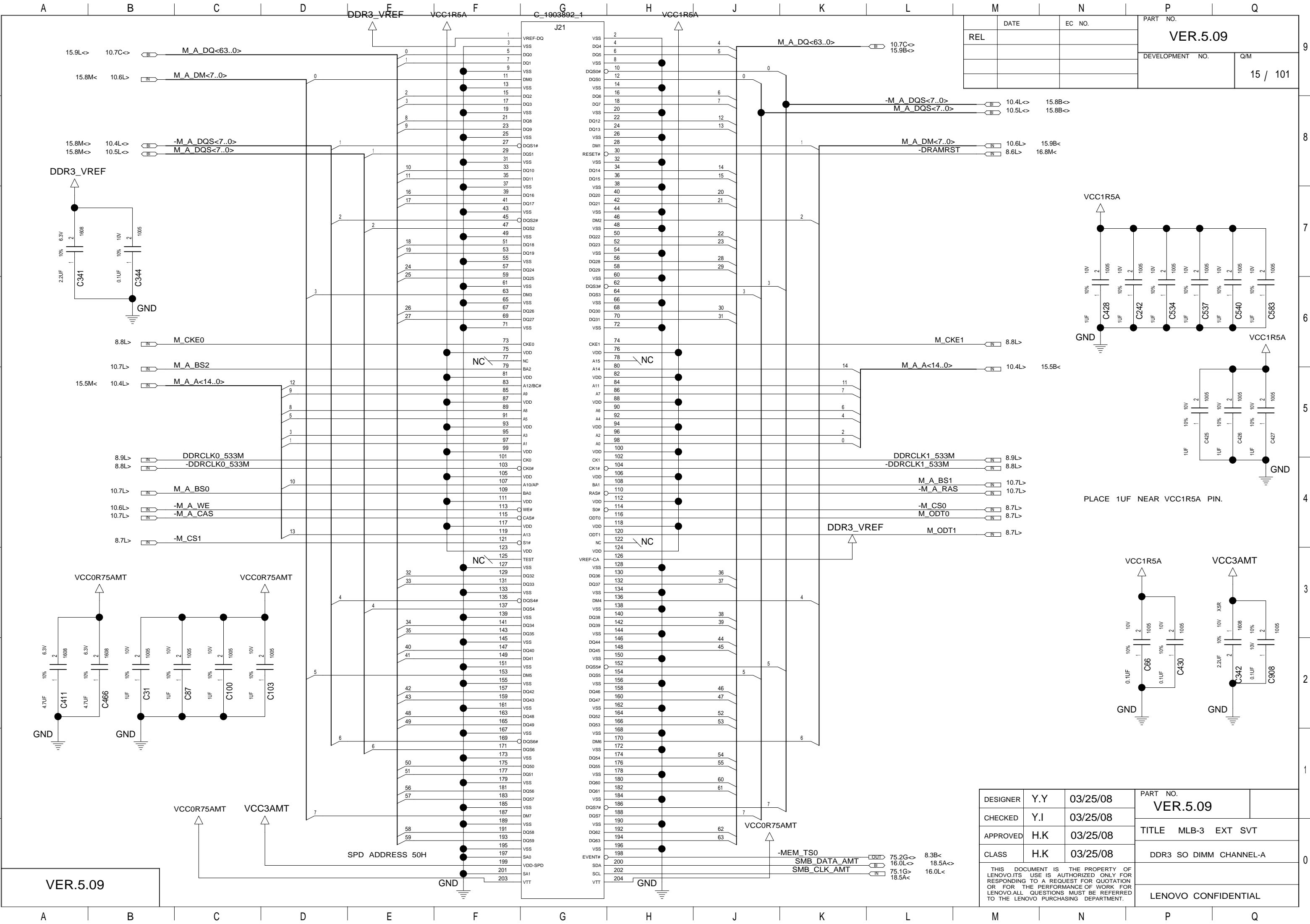
DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				12 / 101	



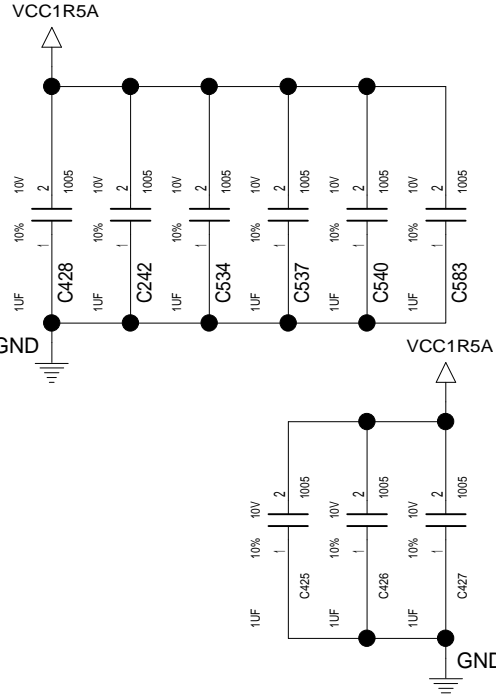
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	CANTIGA(6/8):POWER	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



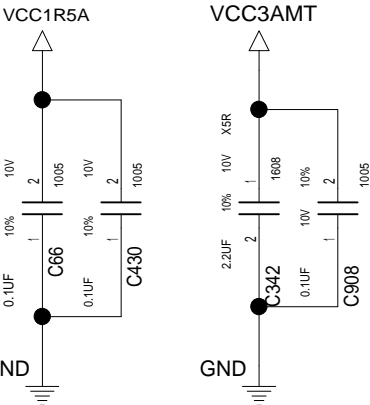




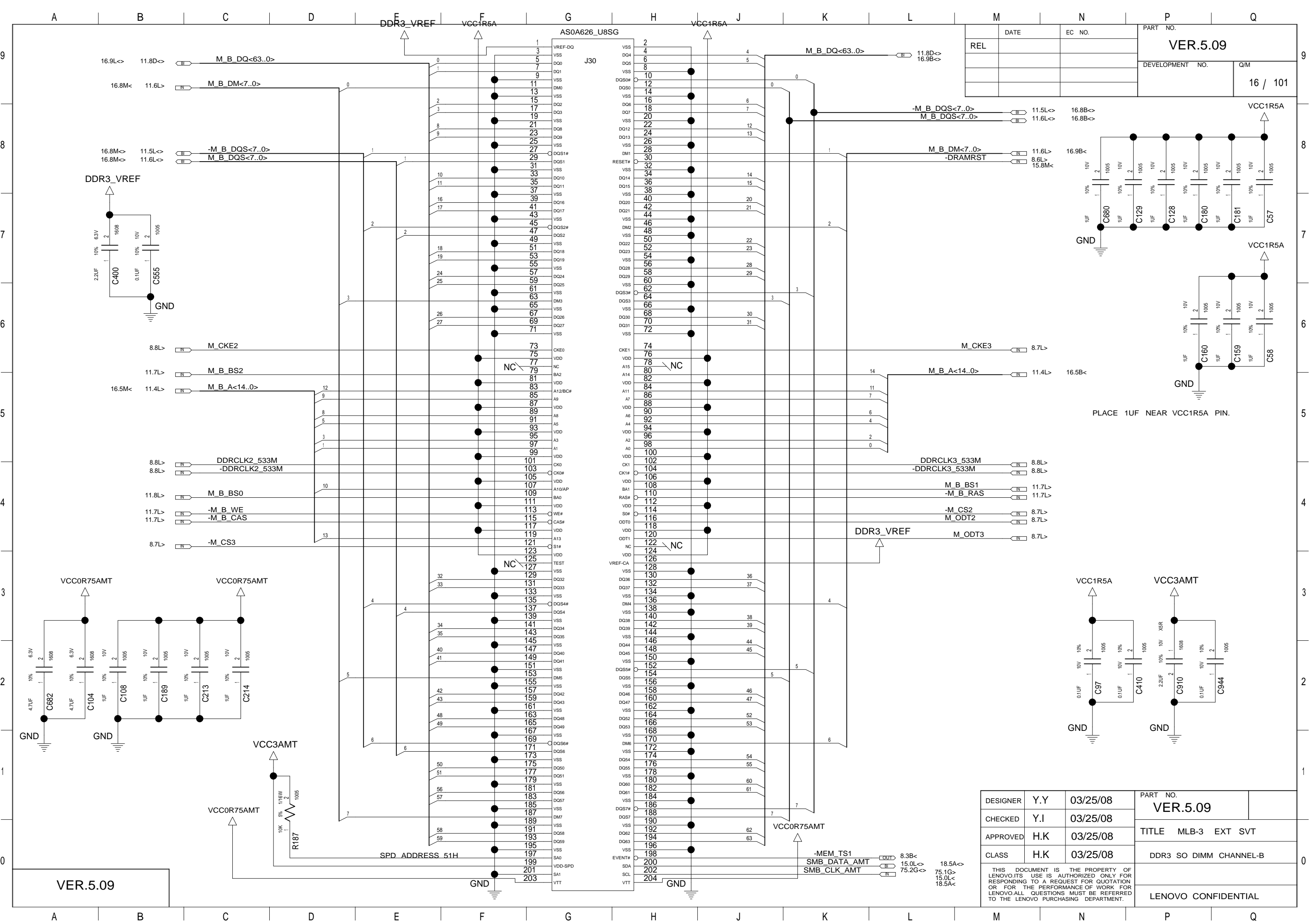
REL		DATE	EC NO.	PART NO.	
				VER.5.09	
				DEVELOPMENT NO.	Q/M
					15 / 101

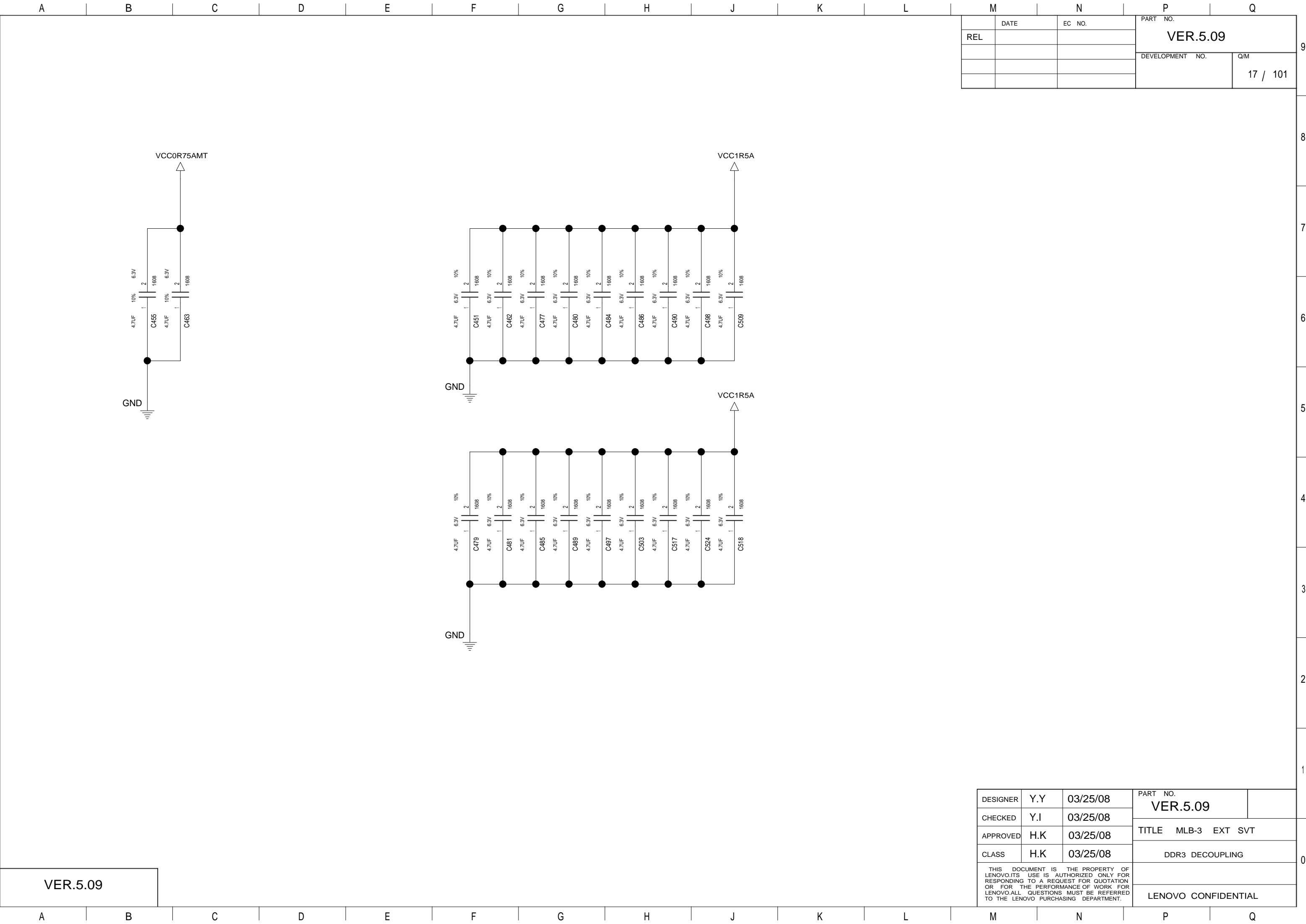


PLACE 1UF NEAR VCC1R5A PIN.



DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DDR3 SO DIMM CHANNEL-A	
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	





M		N		P		Q	
		DATE		EC NO.		PART NO.	
REL						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						17 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DDR3 DECOUPLING	
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	

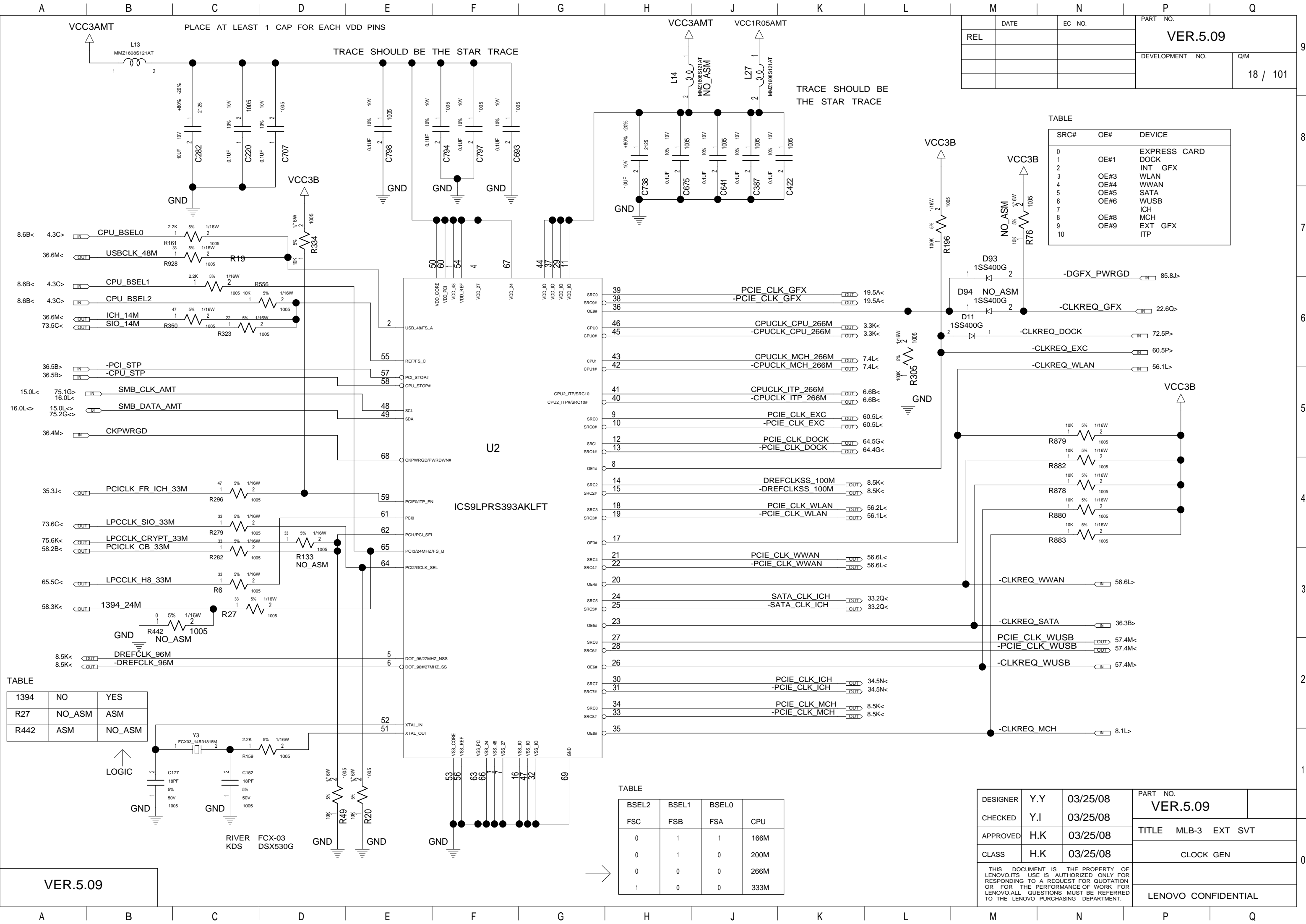


TABLE		
1394	NO	YES
R27	NO_ASM	ASM
R442	ASM	NO_ASM

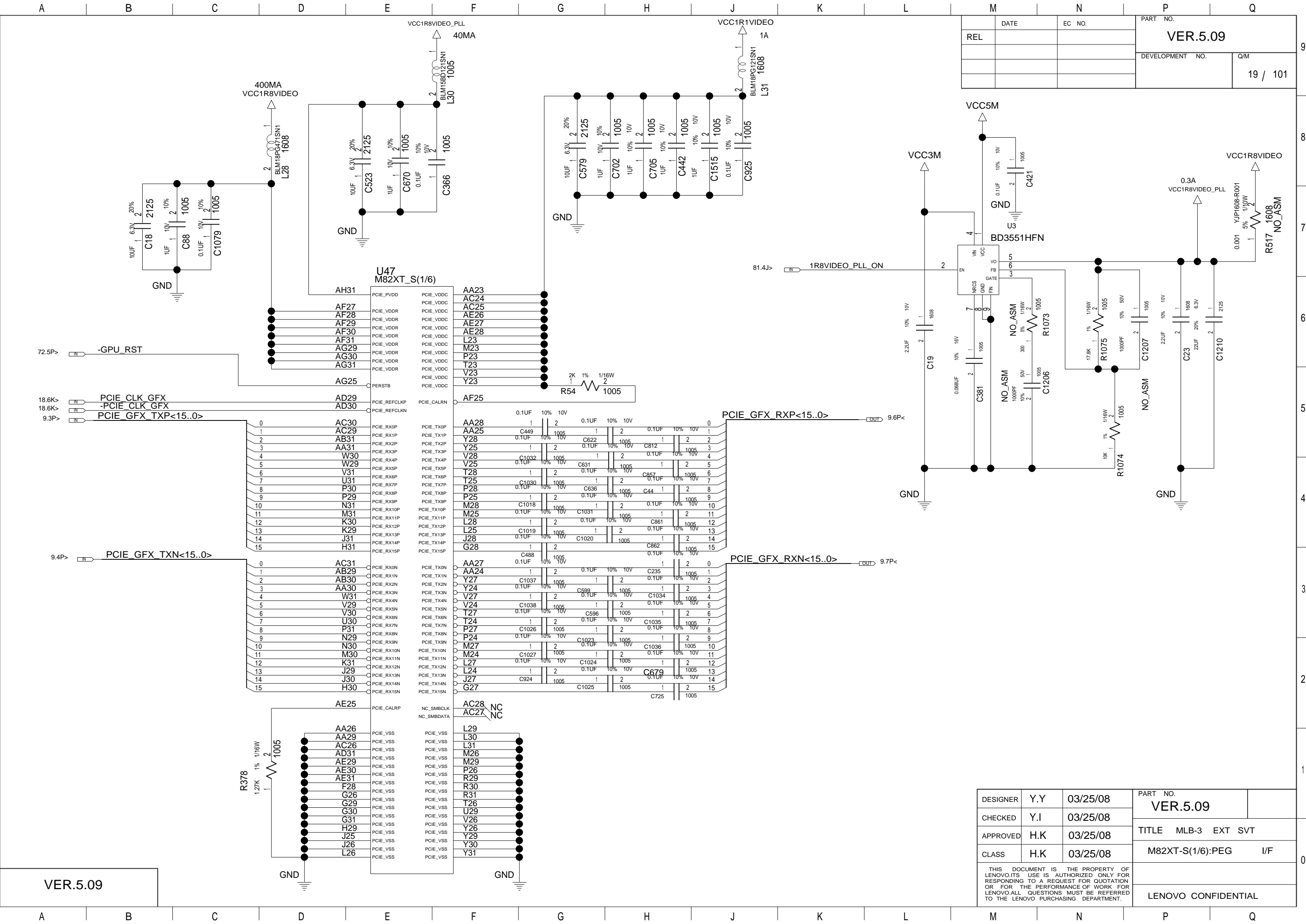
VER.5.09

BSEL2	BSEL1	BSEL0	
FSC	FSB	FSA	CPU
0	1	1	166M
0	1	0	200M
0	0	0	266M
1	0	0	333M

TABLE		
SRC#	OE#	DEVICE
0		EXPRESS CARD
1	OE#1	DOCK
2		INT GFX
3	OE#3	WLAN
4	OE#4	WWAN
5	OE#5	SATA
6	OE#6	WUSB
7		ICH
8	OE#8	MCH
9	OE#9	EXT GFX
10		ITP

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	CLOCK GEN	
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	

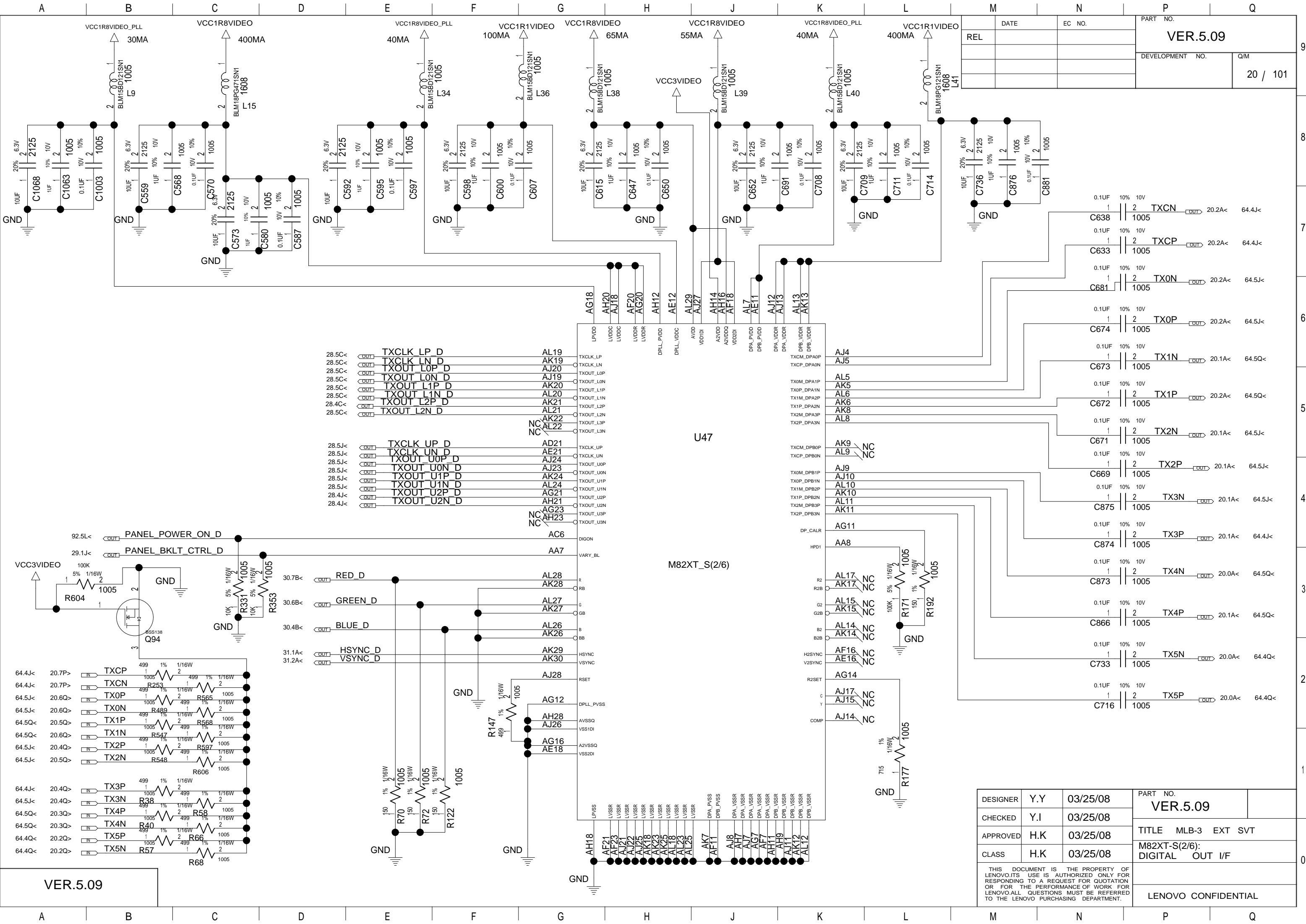
DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			18 / 101	



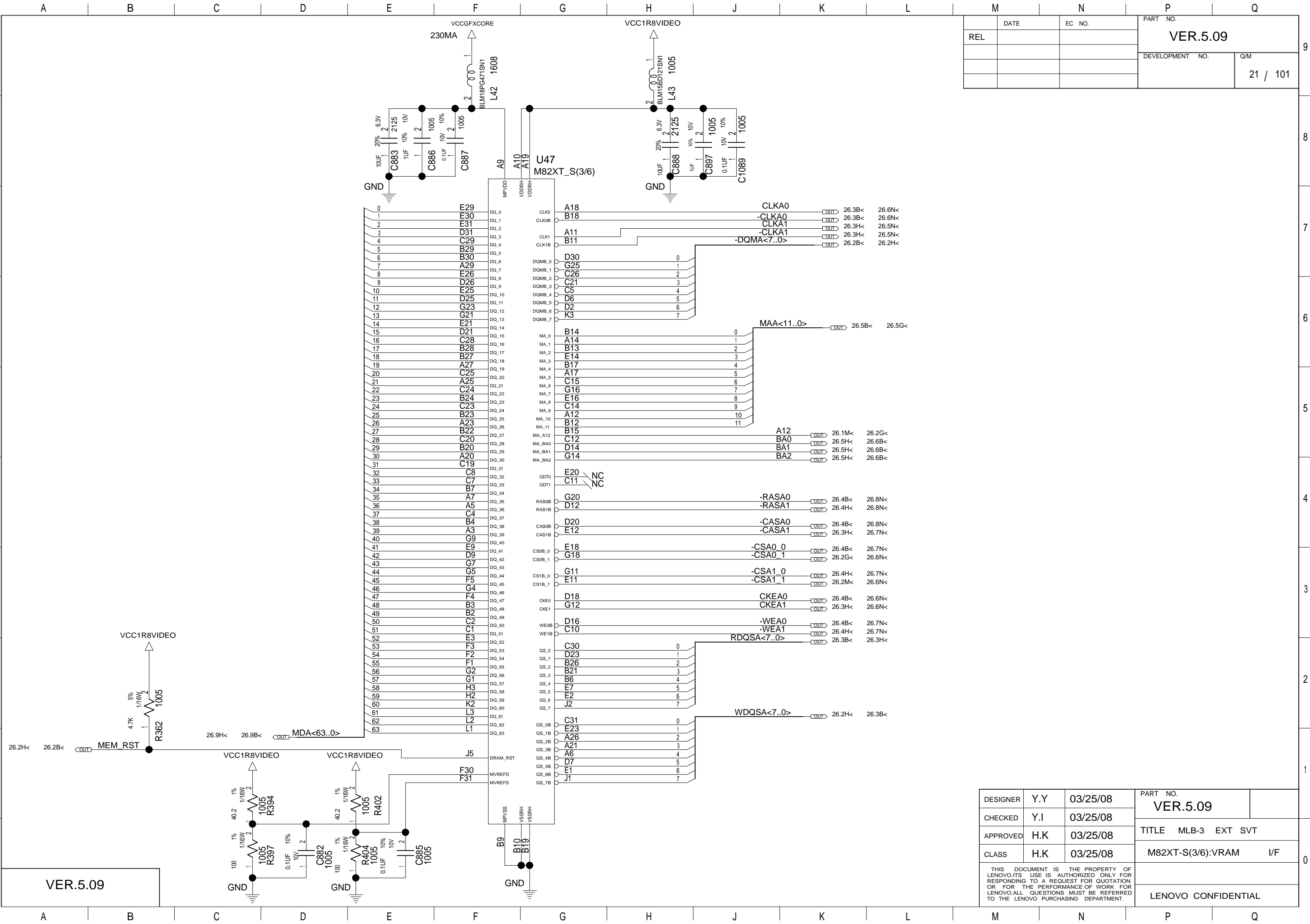
DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	Q/M
				19 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	M82XT-S(1/6):PEG I/F	
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	

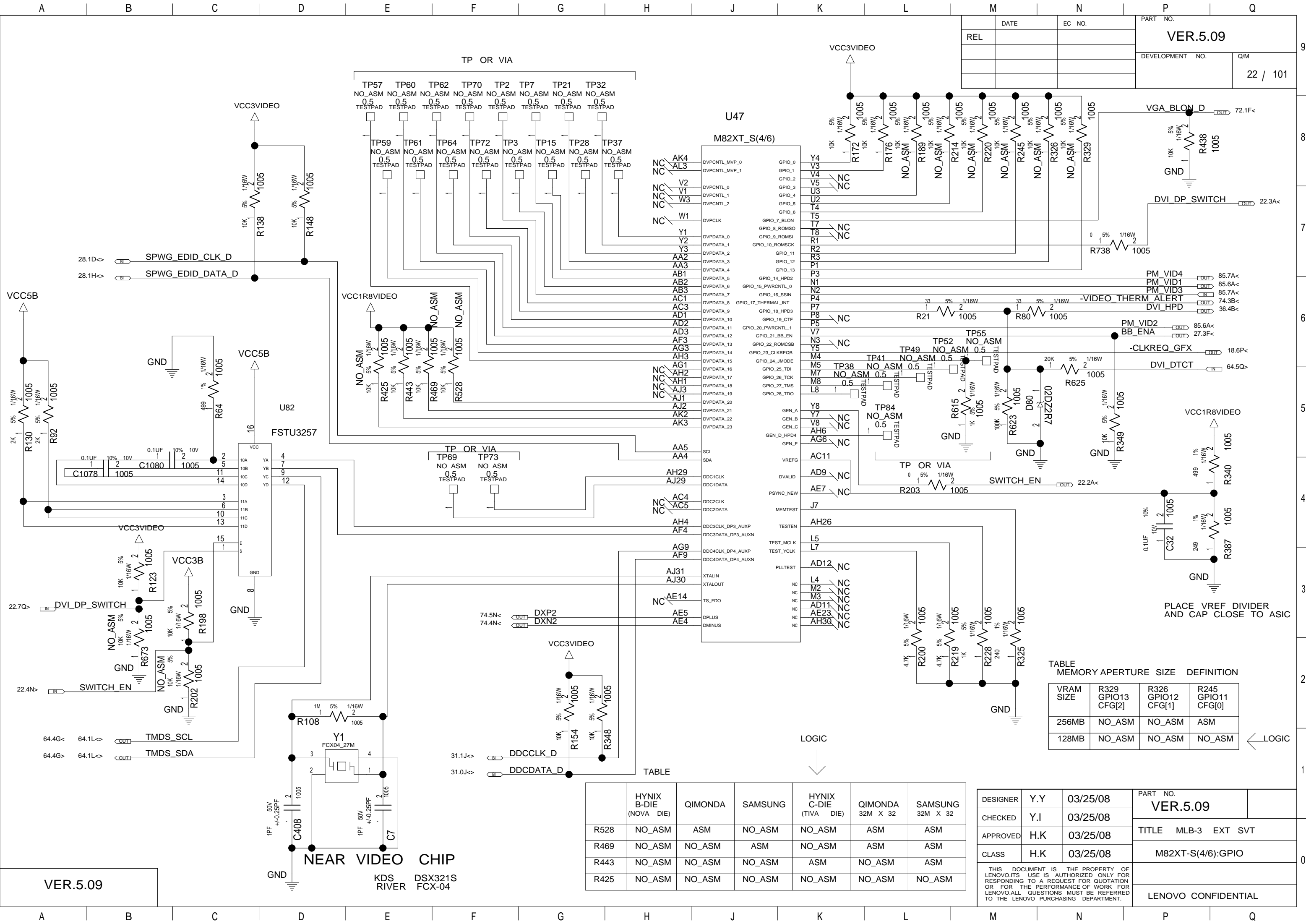


DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	M82XT-S(2/6): DIGITAL OUT I/F	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



		DATE		EC NO.		PART NO.	
REL						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						21 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	M82XT-S(3/6):VRAM I/F	
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.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				22 / 101

PM_VID4	OUT	85.7A<
PM_VID1	OUT	85.6A<
PM_VID3	IN	85.7A<
-VIDEO THERM ALERT	OUT	74.3B<
DVI_HPD	OUT	36.4B<

PM_VID2	OUT	85.6A<
BB_ENA	OUT	27.3F<

-CLKREQ GFX	OUT	18.6P<
DVI_DTCT	IN	64.5Q<

PLACE VREF DIVIDER
AND CAP CLOSE TO ASIC

TABLE
MEMORY APERTURE SIZE DEFINITION

VRAM SIZE	R329 GPIO13 CFG[2]	R326 GPIO12 CFG[1]	R245 GPIO11 CFG[0]
256MB	NO_ASM	NO_ASM	ASM
128MB	NO_ASM	NO_ASM	NO_ASM

← LOGIC

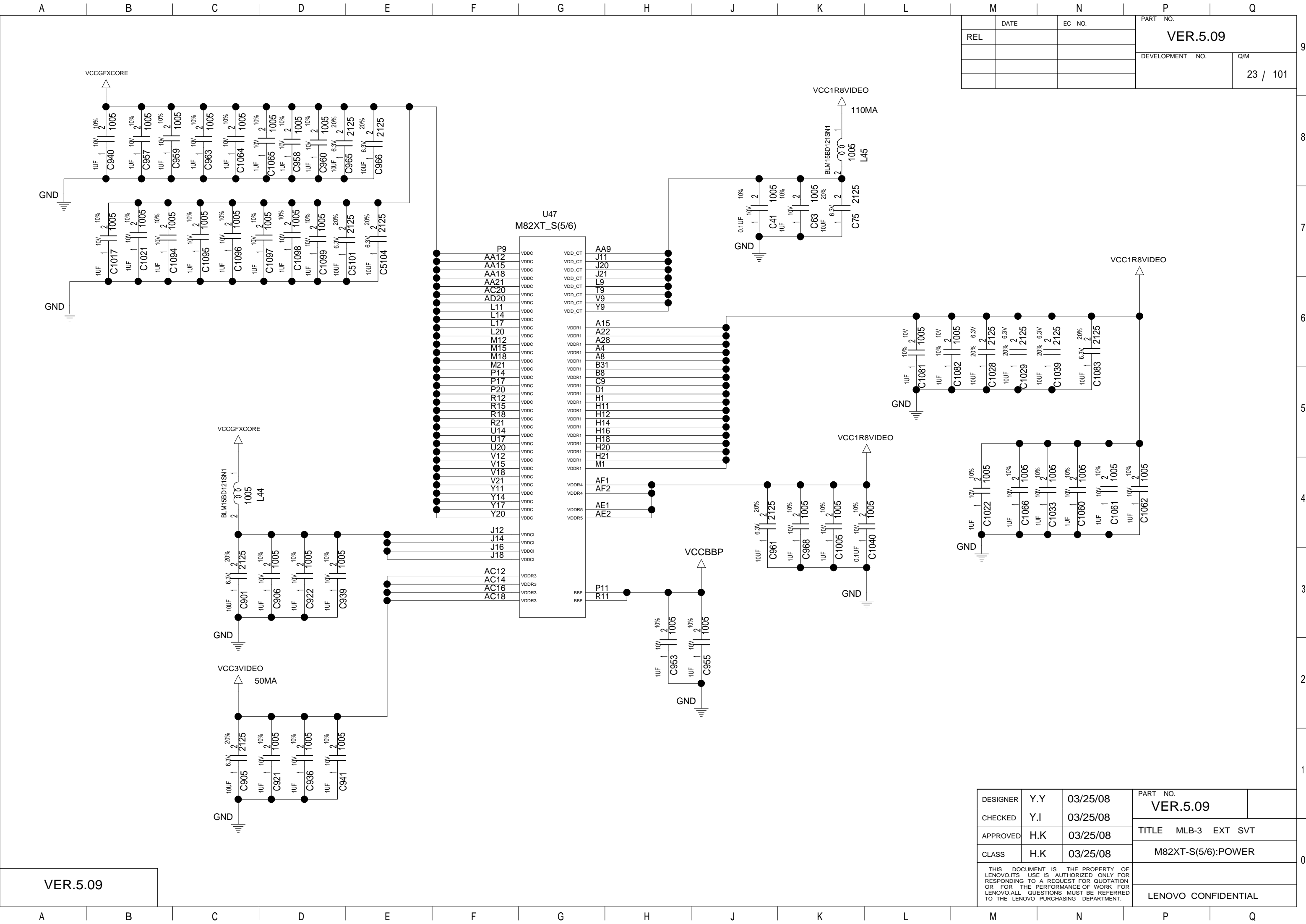
	HYNIX B-DIE (NOVA DIE)	QIMONDA	SAMSUNG	HYNIX C-DIE (TIVA DIE)	QIMONDA 32M X 32	SAMSUNG 32M X 32
R528	NO_ASM	ASM	NO_ASM	NO_ASM	ASM	ASM
R469	NO_ASM	NO_ASM	ASM	NO_ASM	ASM	ASM
R443	NO_ASM	NO_ASM	NO_ASM	ASM	NO_ASM	ASM
R425	NO_ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM	NO_ASM

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	M82XT-S(4/6):GPIO	
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

VER.5.09

NEAR VIDEO CHIP

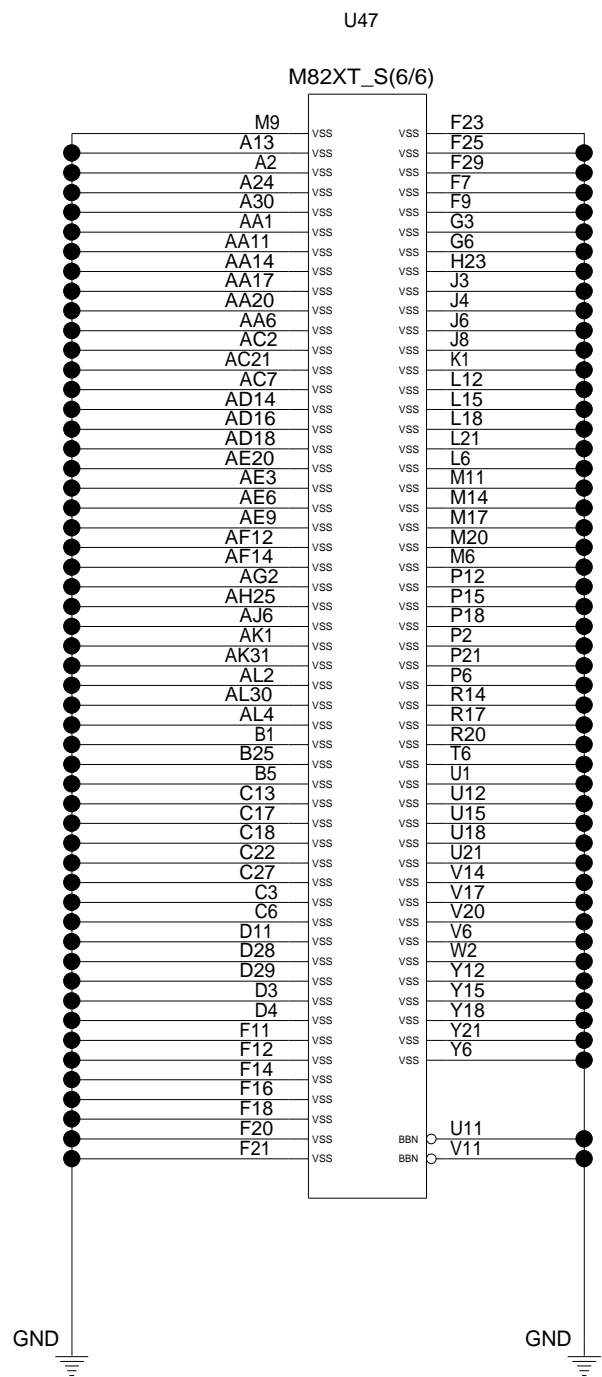
KDS DSX321S
RIVER FCX-04



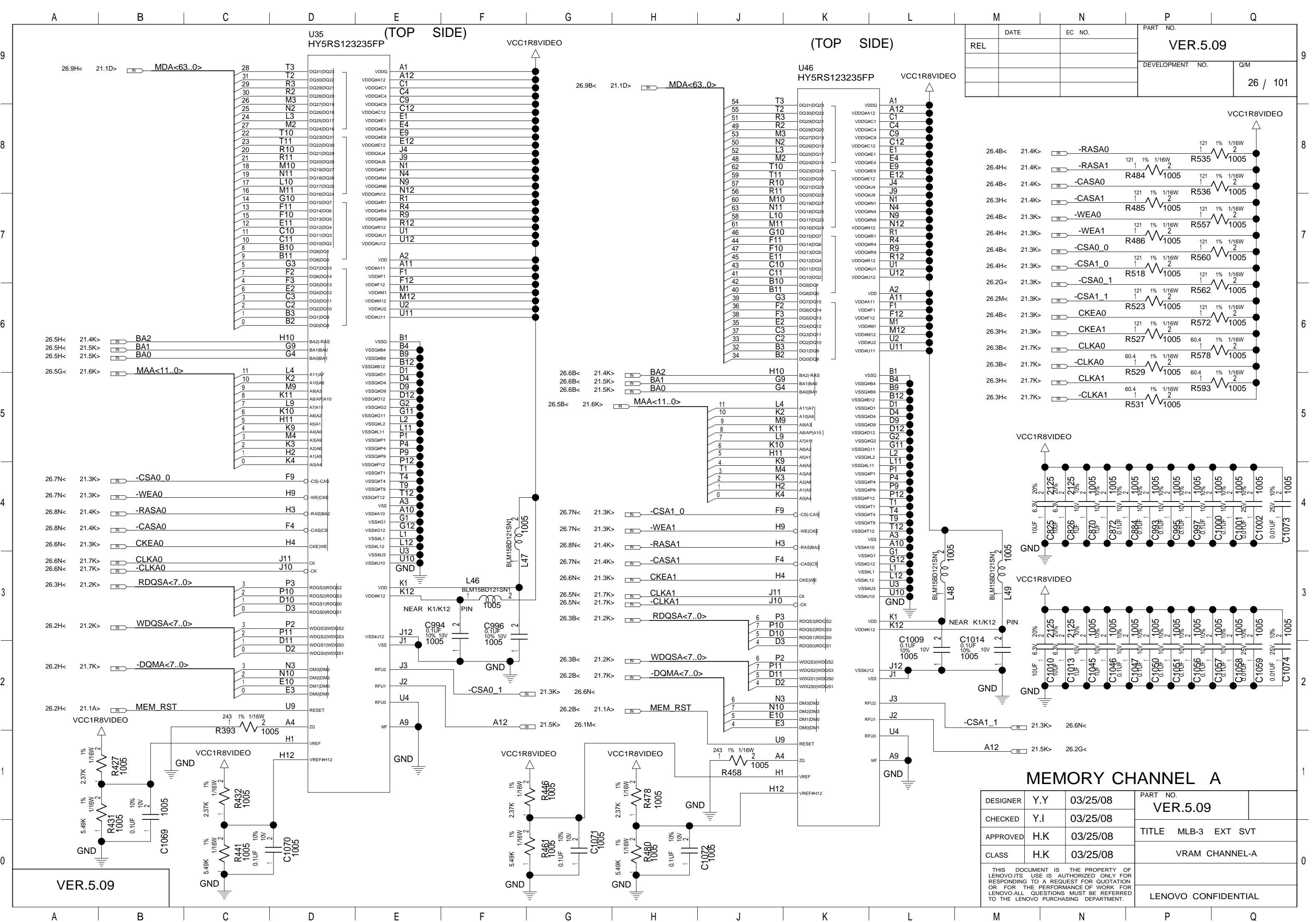
DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				23 / 101	

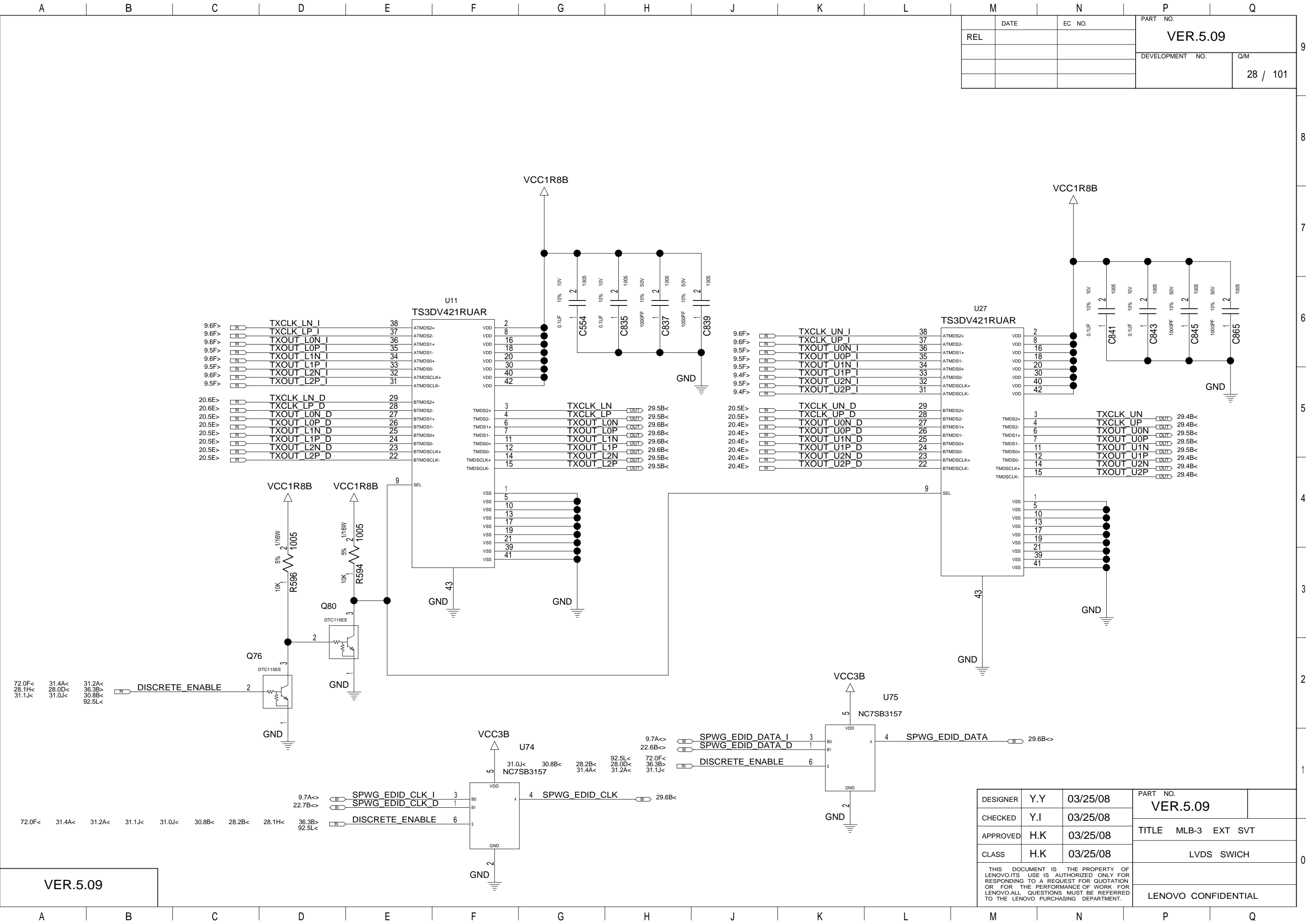
VER.5.09

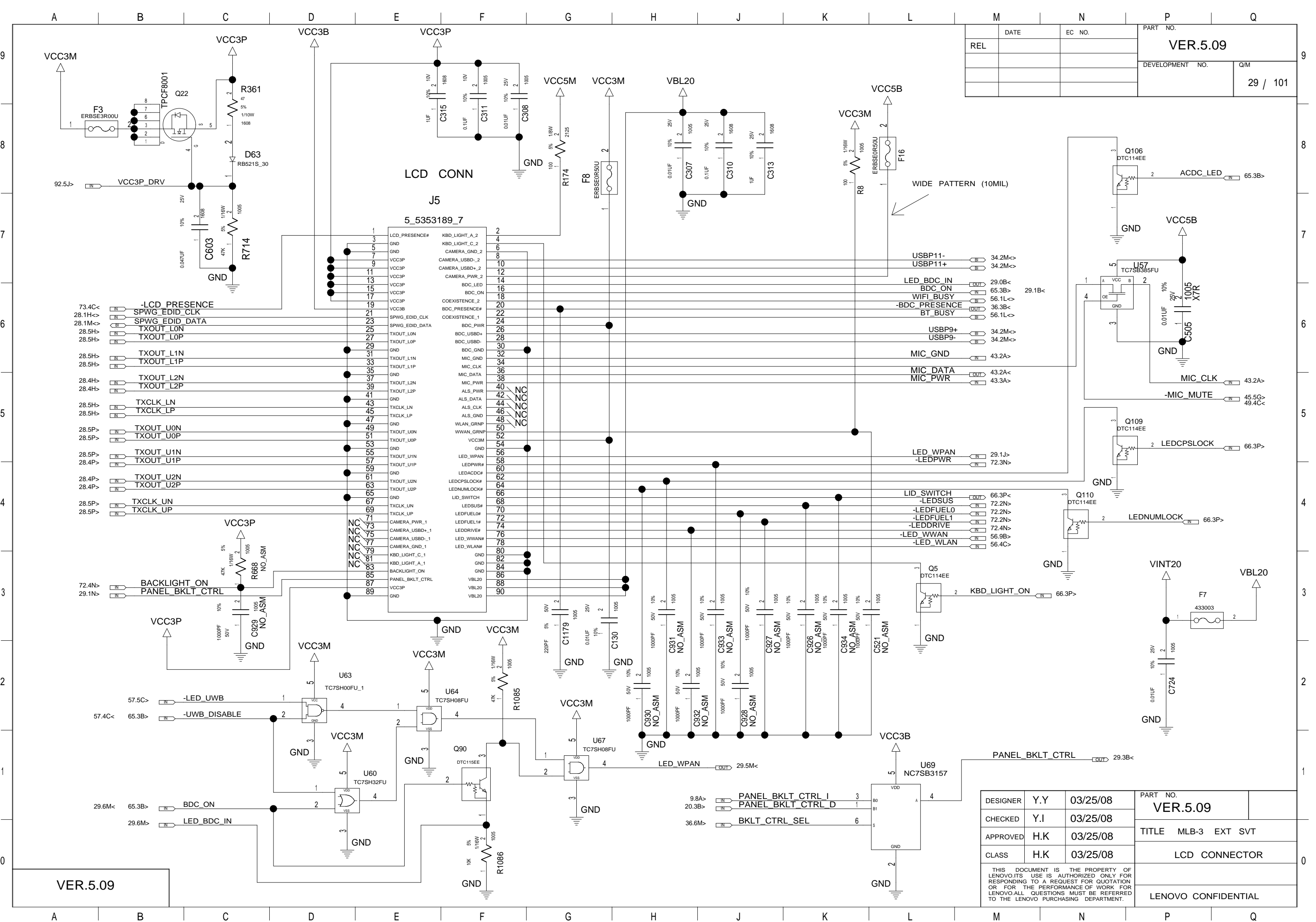
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	M82XT-S(5/6):POWER	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	

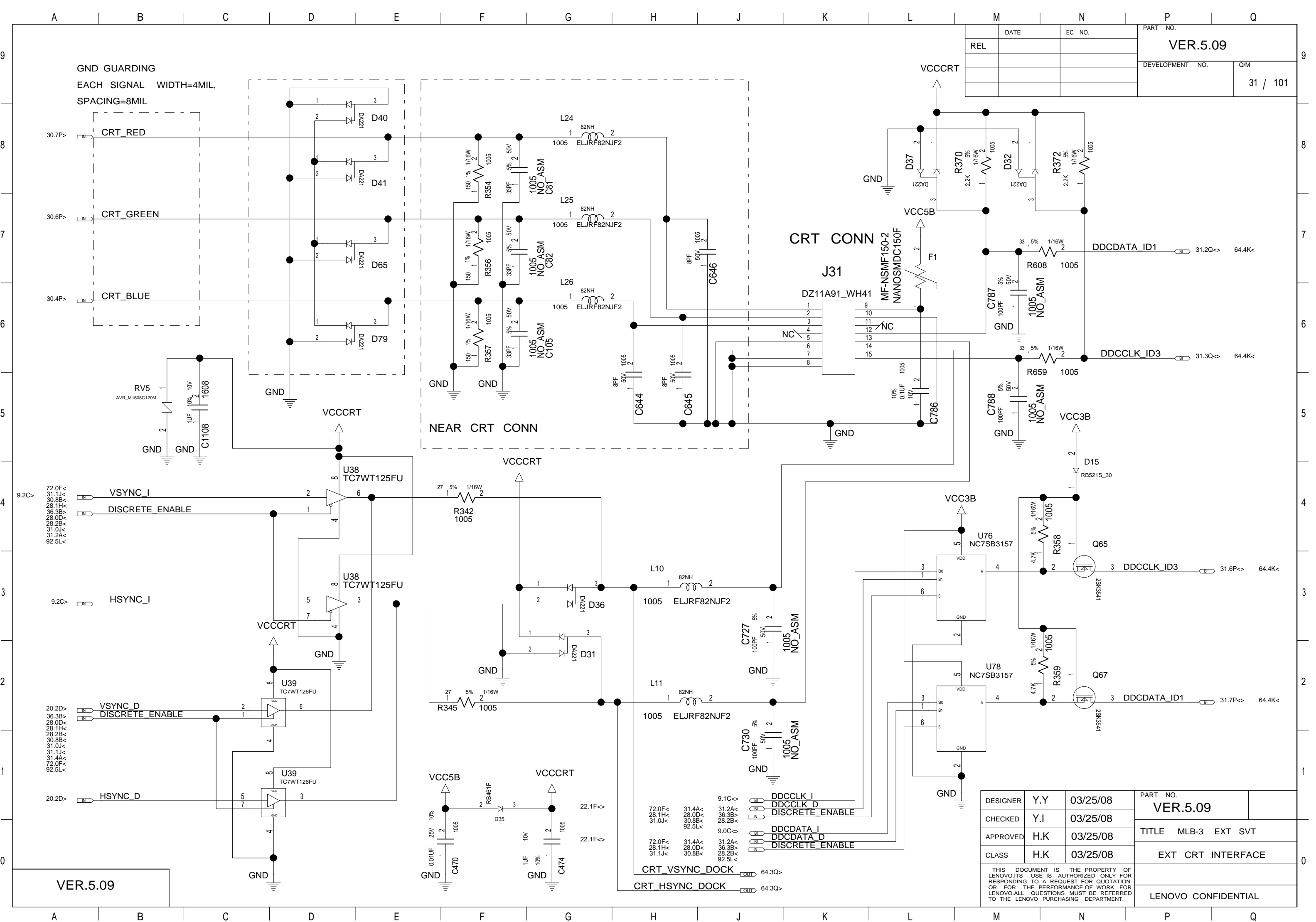


	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q					
9														DATE	EC NO.	PART NO. VER.5.09		9		
													REL			DEVELOPMENT NO. Q/M 25 / 101				
8																			8	
7																			7	
6																			6	
5																			5	
4																			4	
3																			3	
2																			2	
1																			1	
0																			0	
	VER.5.09												DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09				
													CHECKED	Y.I	03/25/08	TITLE MLB-3 EXT SVT				
													APPROVED	H.K	03/25/08					
													CLASS	H.K	03/25/08	BLANK				
													THIS DOCUMENT IS THE PROPERTY OF LENOVO.IT'S 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		
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q					

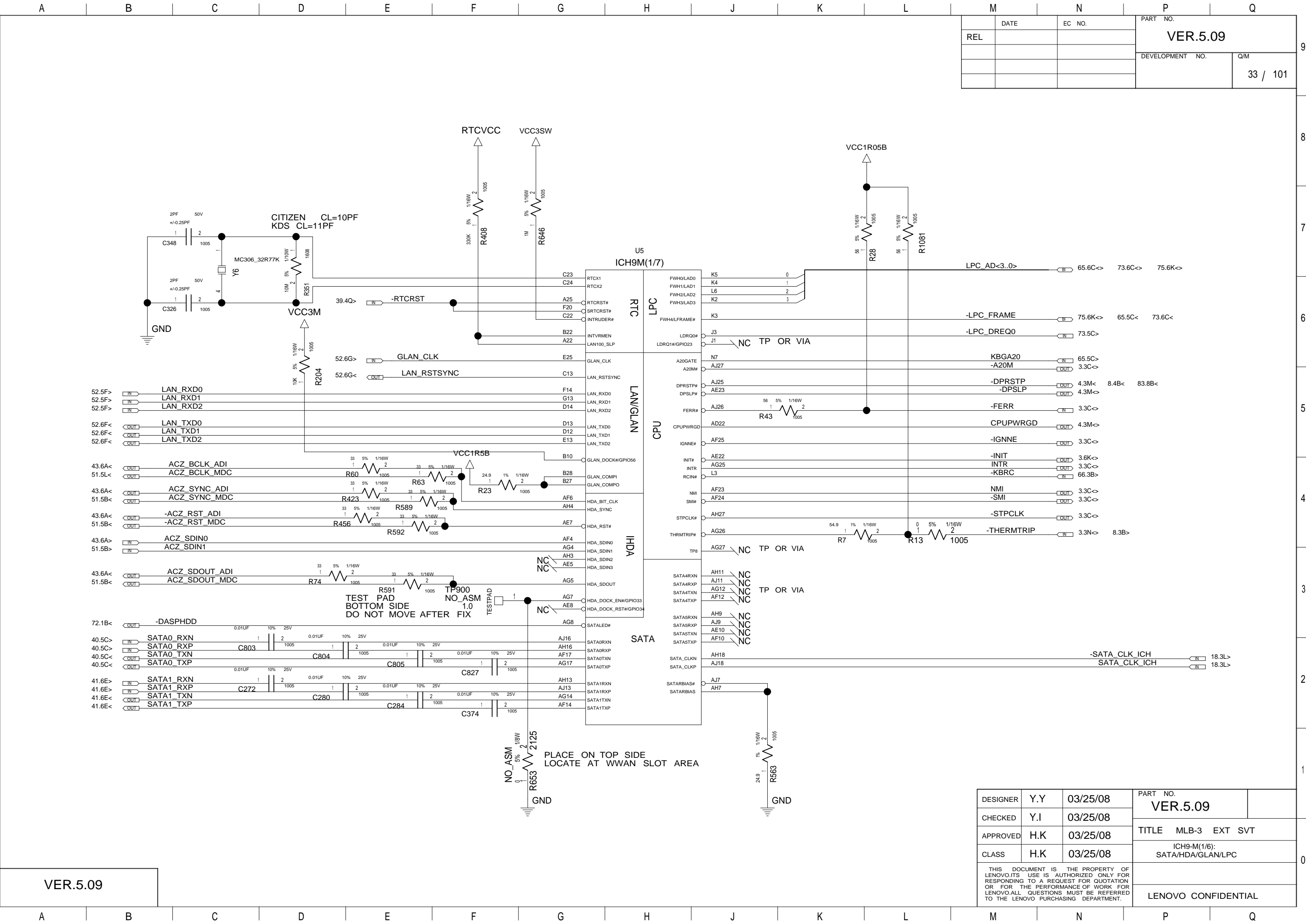






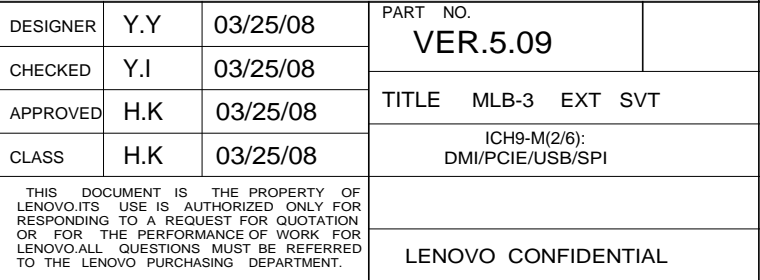


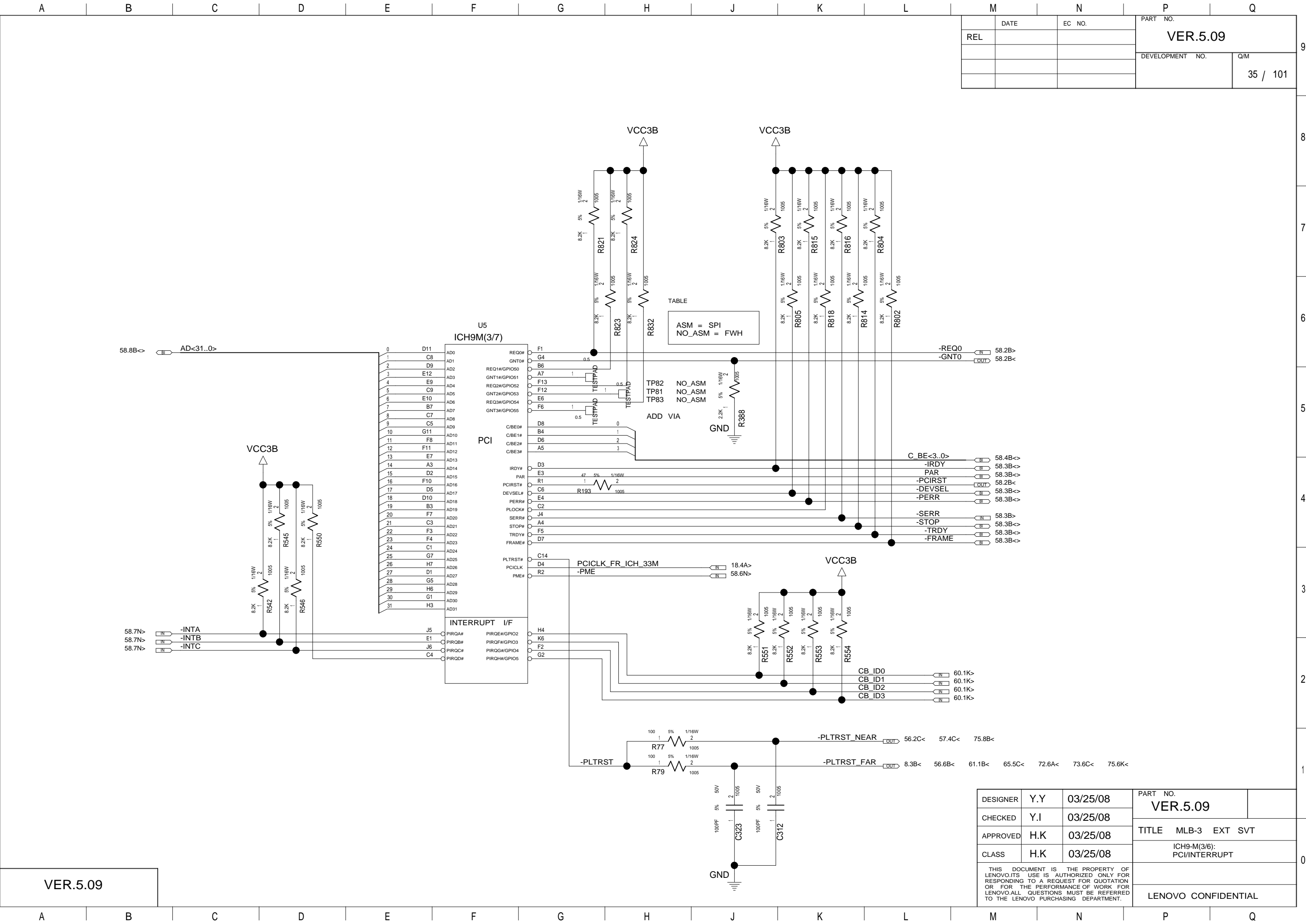
[illegible]



DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09	
CHECKED	Y.I	03/25/08		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	ICH9-M(1/6): SATA/HDA/GLAN/LPC	
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	

VER.5.09

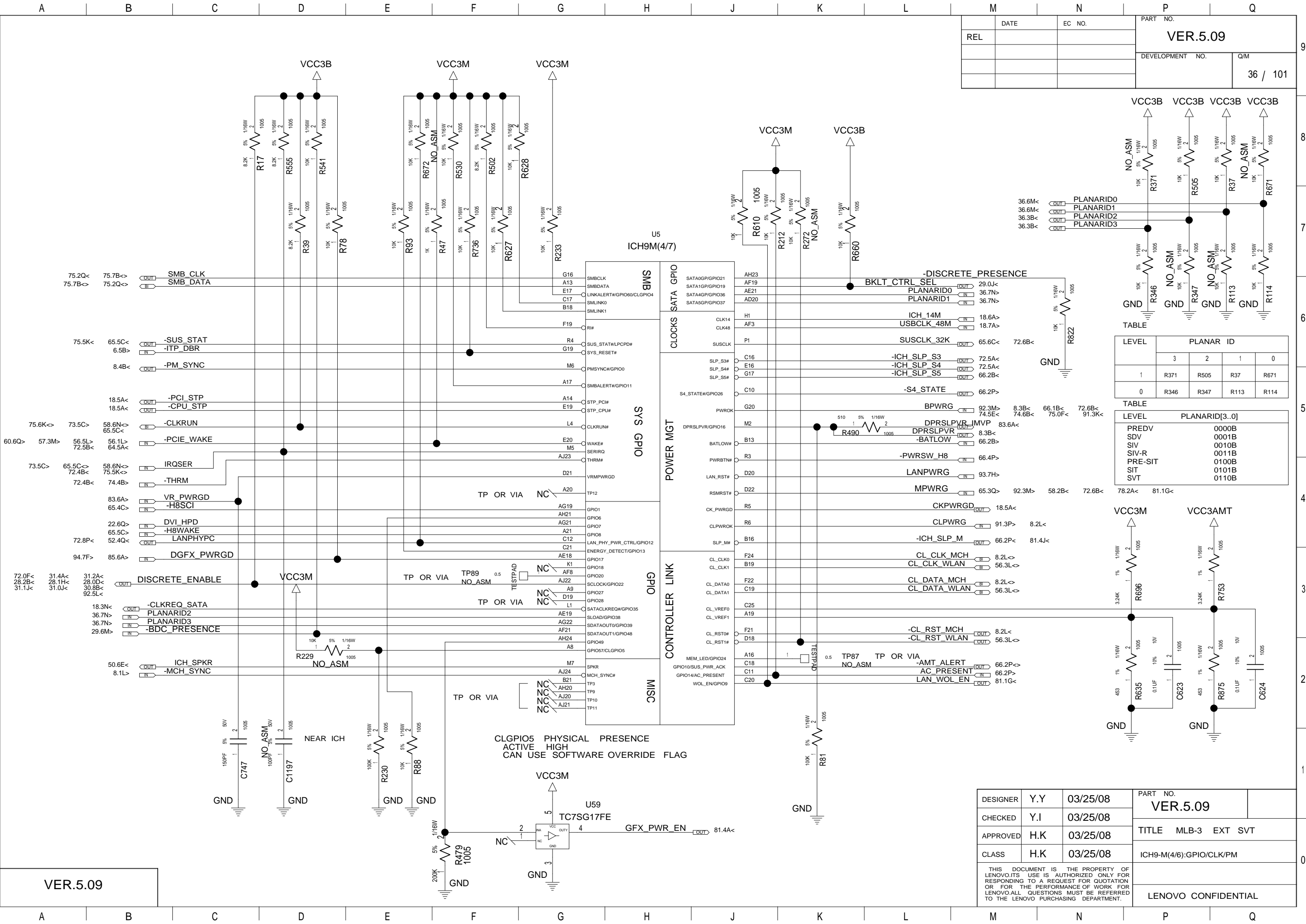




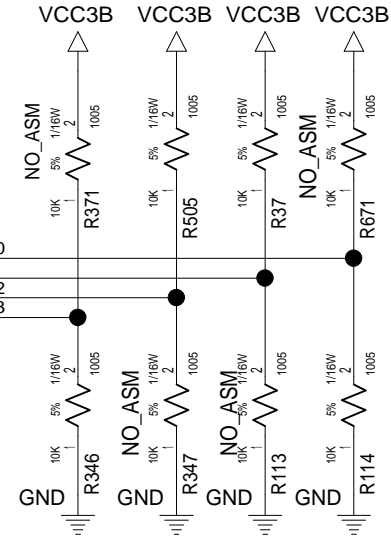
DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				35 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	ICH9-M(3/6): PCI/INTERRUPT	
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	

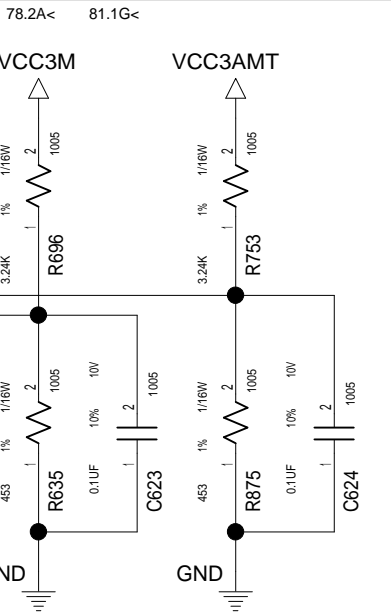


DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				36 / 101

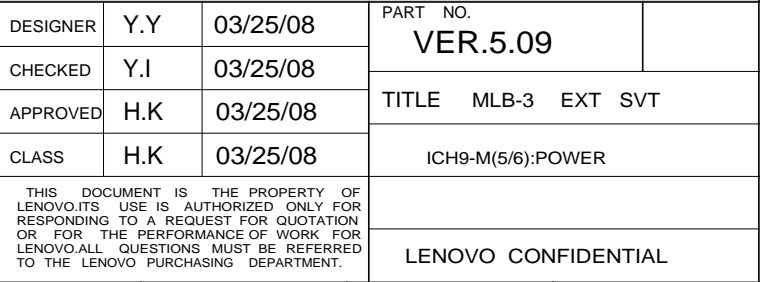


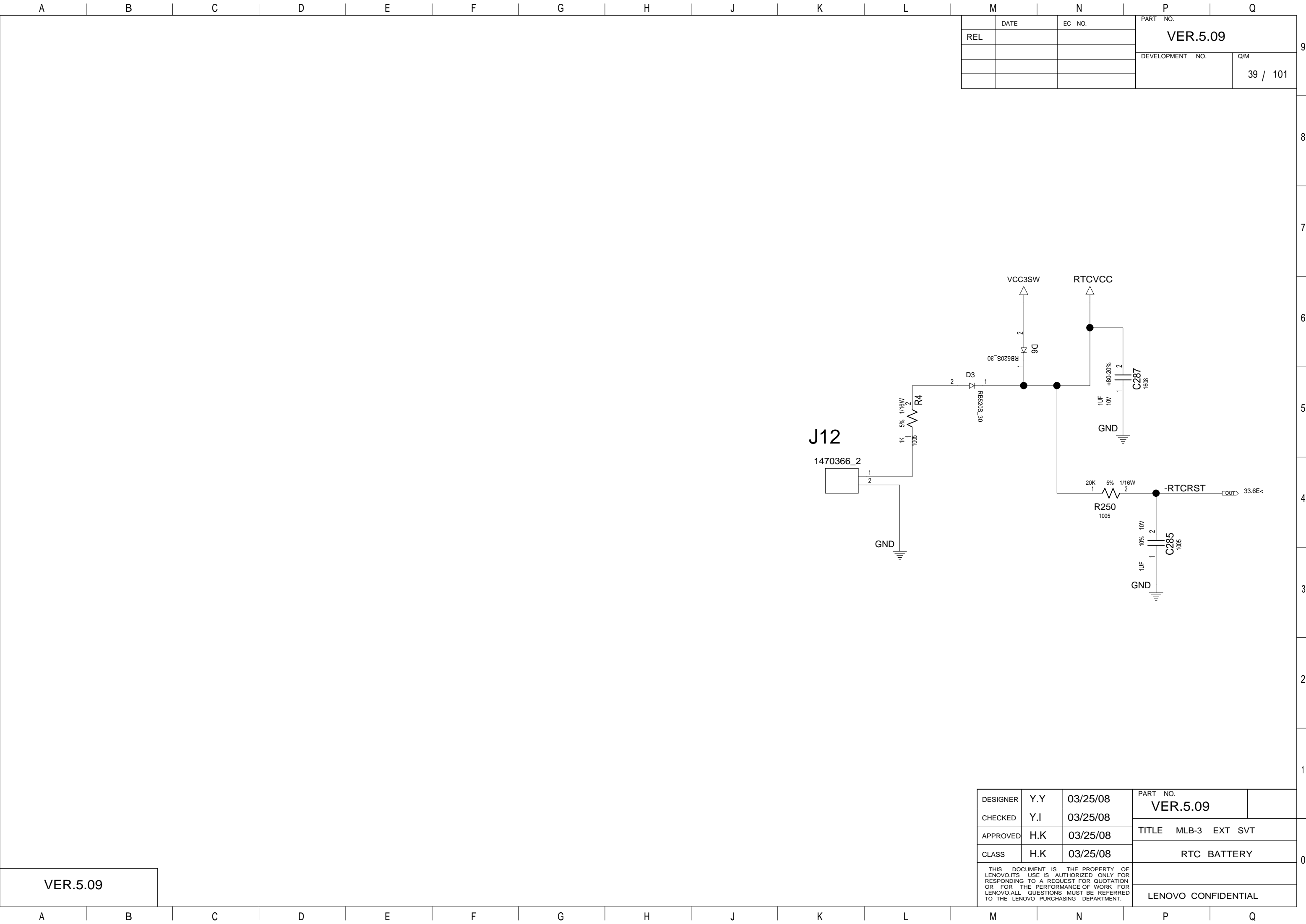
LEVEL	PLANAR ID			
	3	2	1	0
1	R371	R505	R37	R671
0	R346	R347	R113	R114

LEVEL	PLANARID[3..0]			
	3	2	1	0
PREDV				0000B
SDV				0001B
SIV				0010B
SIV-R				0011B
PRE-SIT				0100B
SIT				0101B
SVT				0110B



DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	ICH9-M(4/6):GPIO/CLK/PM	
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	

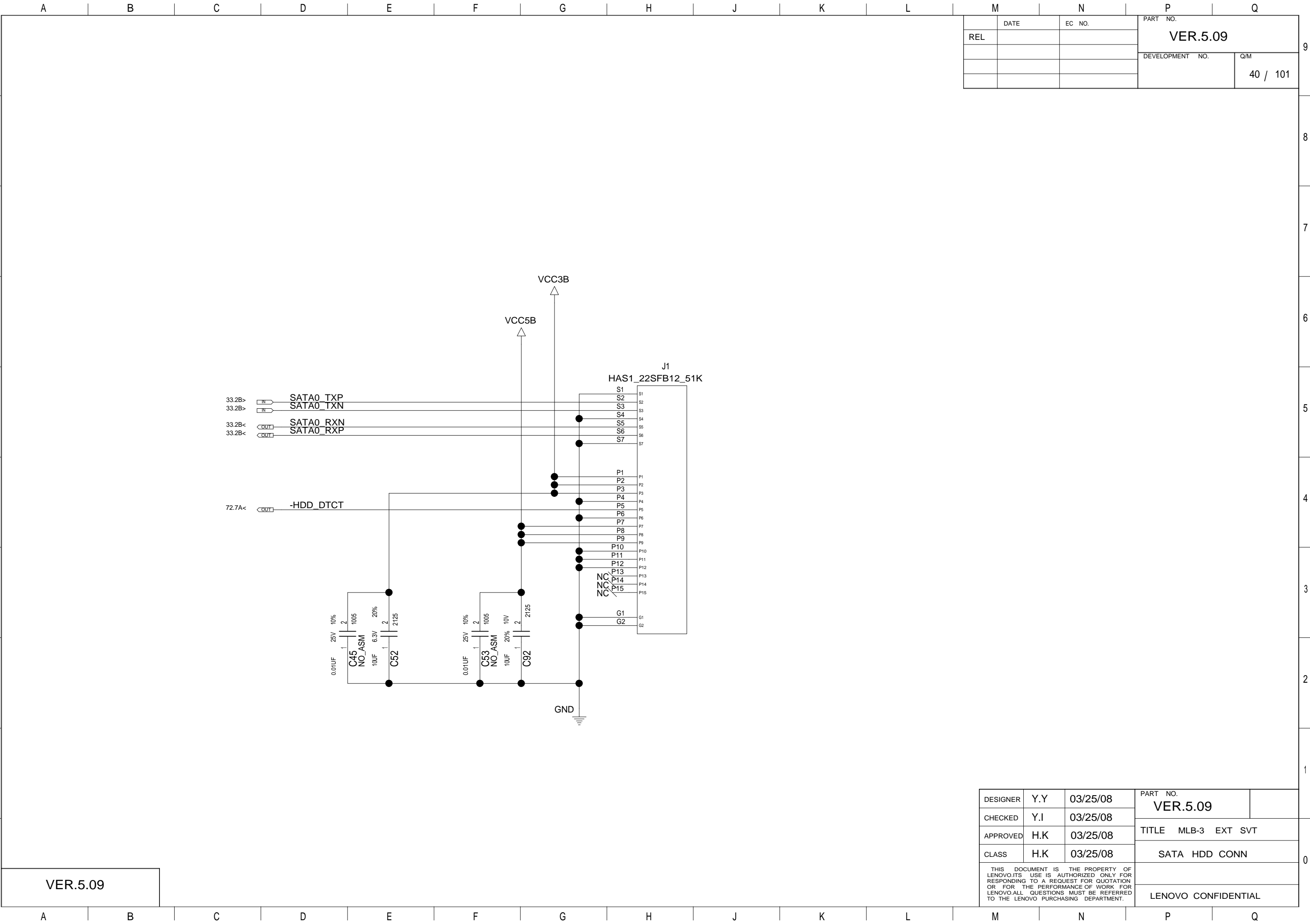


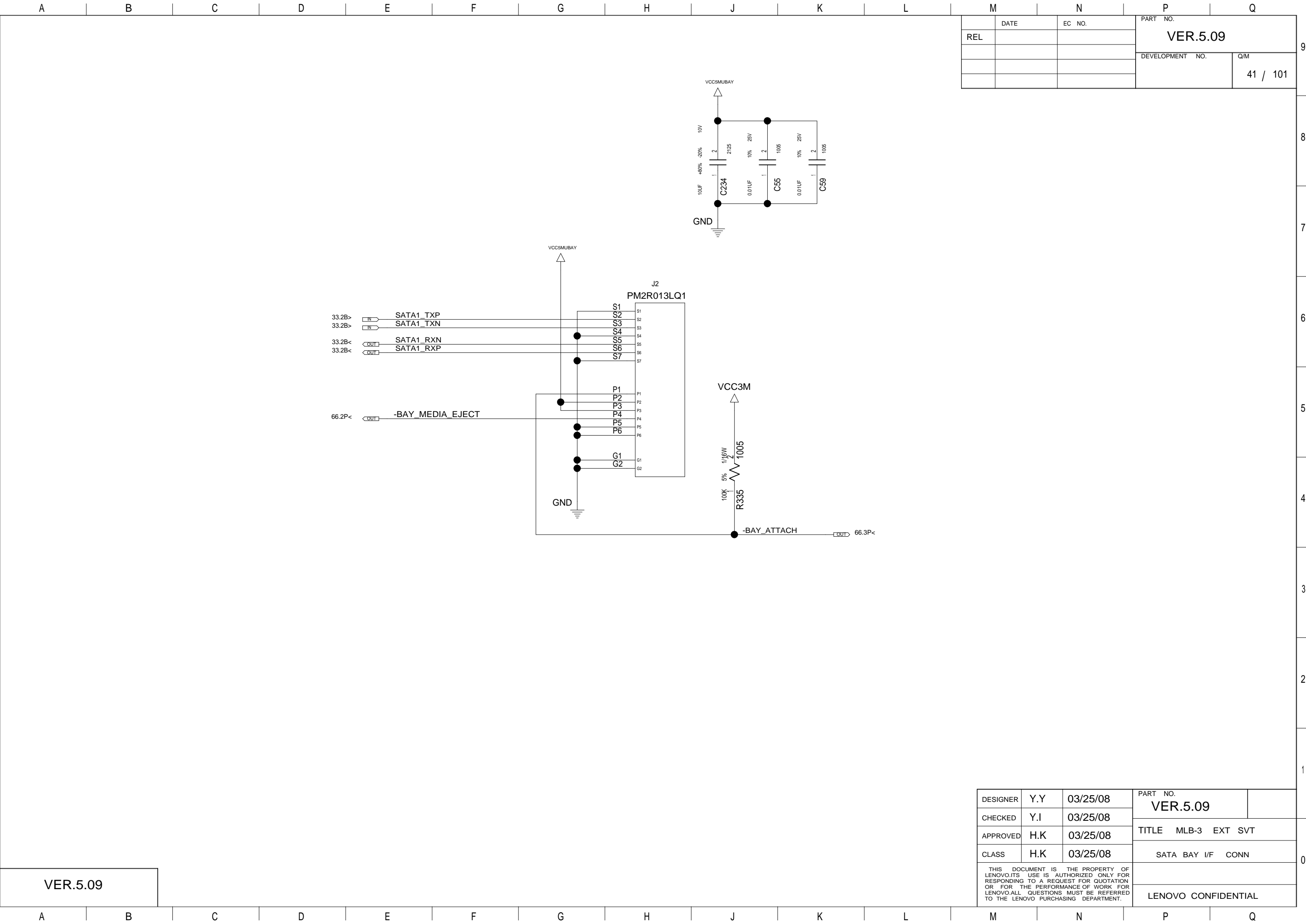


DATE		EC NO.	PART NO. VER.5.09	
REL				
			DEVELOPMENT NO.	Q/M
				39 / 101

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09	
CHECKED	Y.I	03/25/08		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	RTC BATTERY	
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	

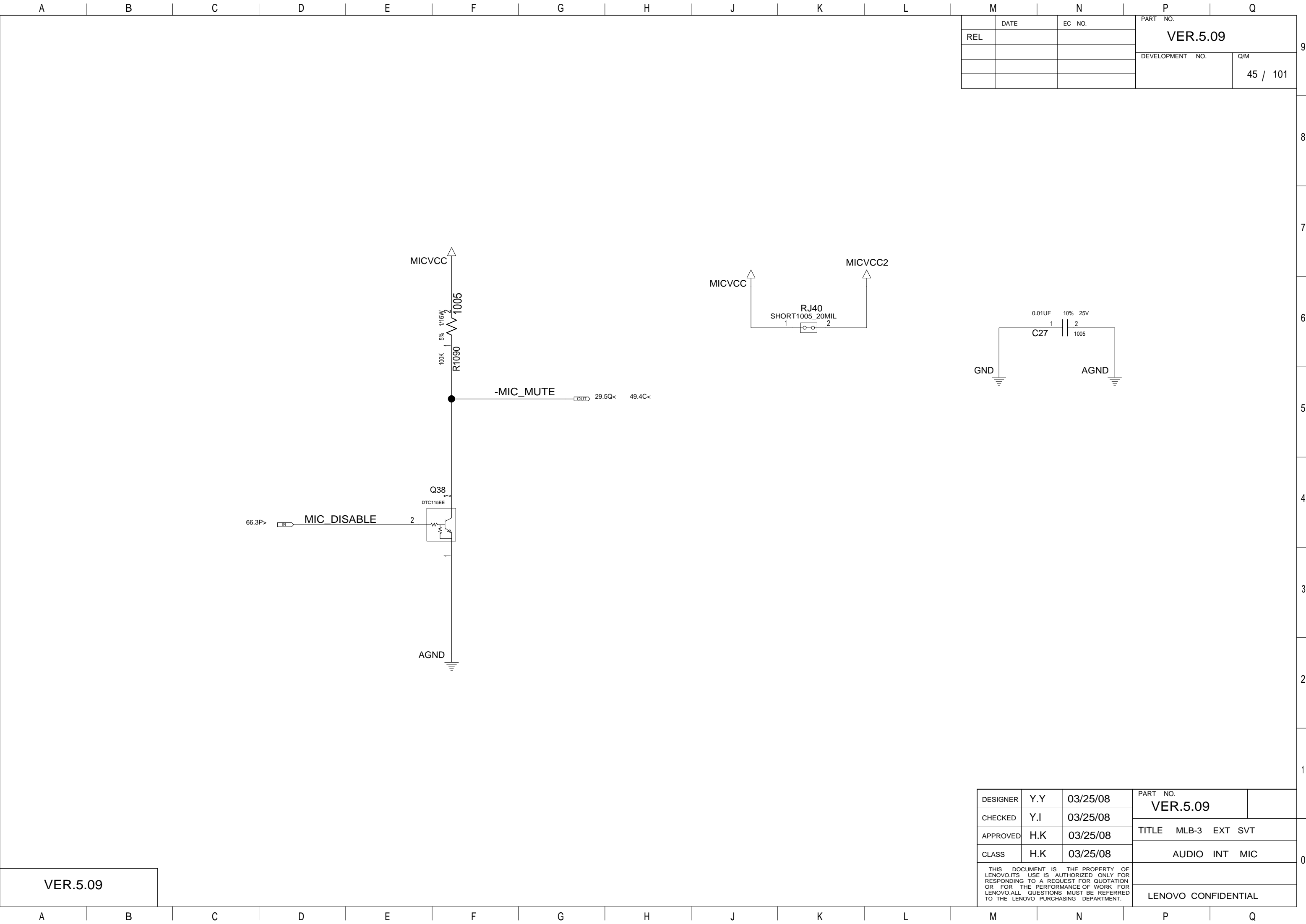




M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			
						Q/M	
						41 / 101	

VER.5.09

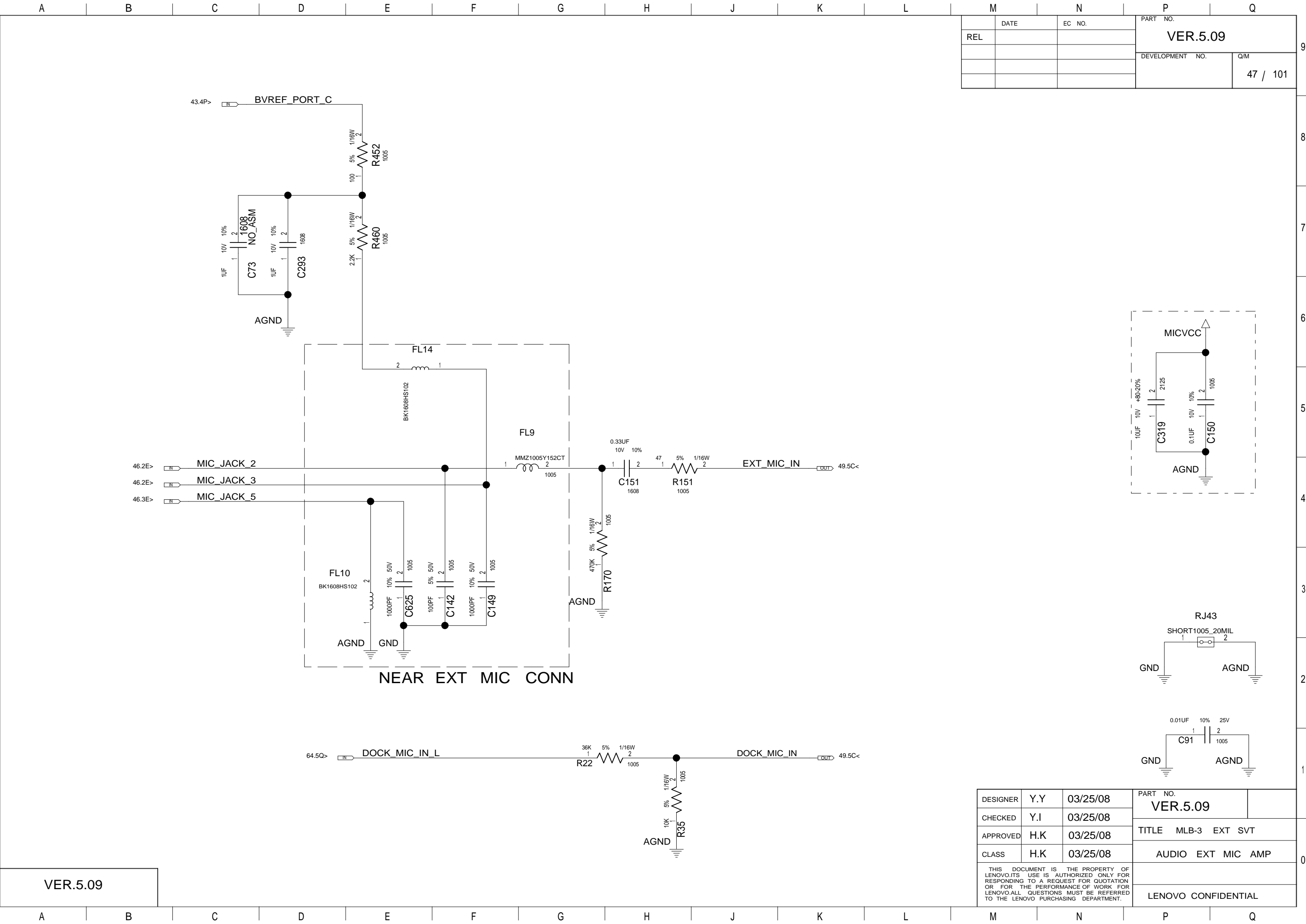
DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	SATA BAY I/F CONN		
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.					
			LENOVO CONFIDENTIAL		



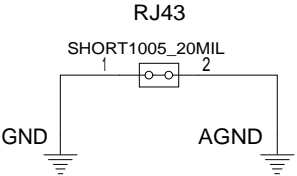
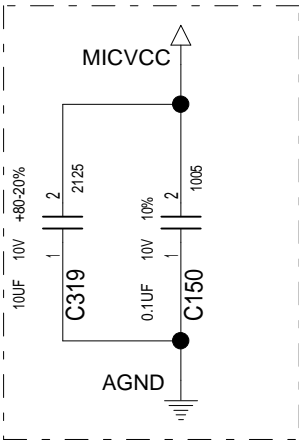
M		N		P		Q	
		DATE		EC NO.		PART NO.	
REL						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						45 / 101	

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09		
CHECKED	Y.I	03/25/08			
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	AUDIO INT MIC		
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		

VER.5.09

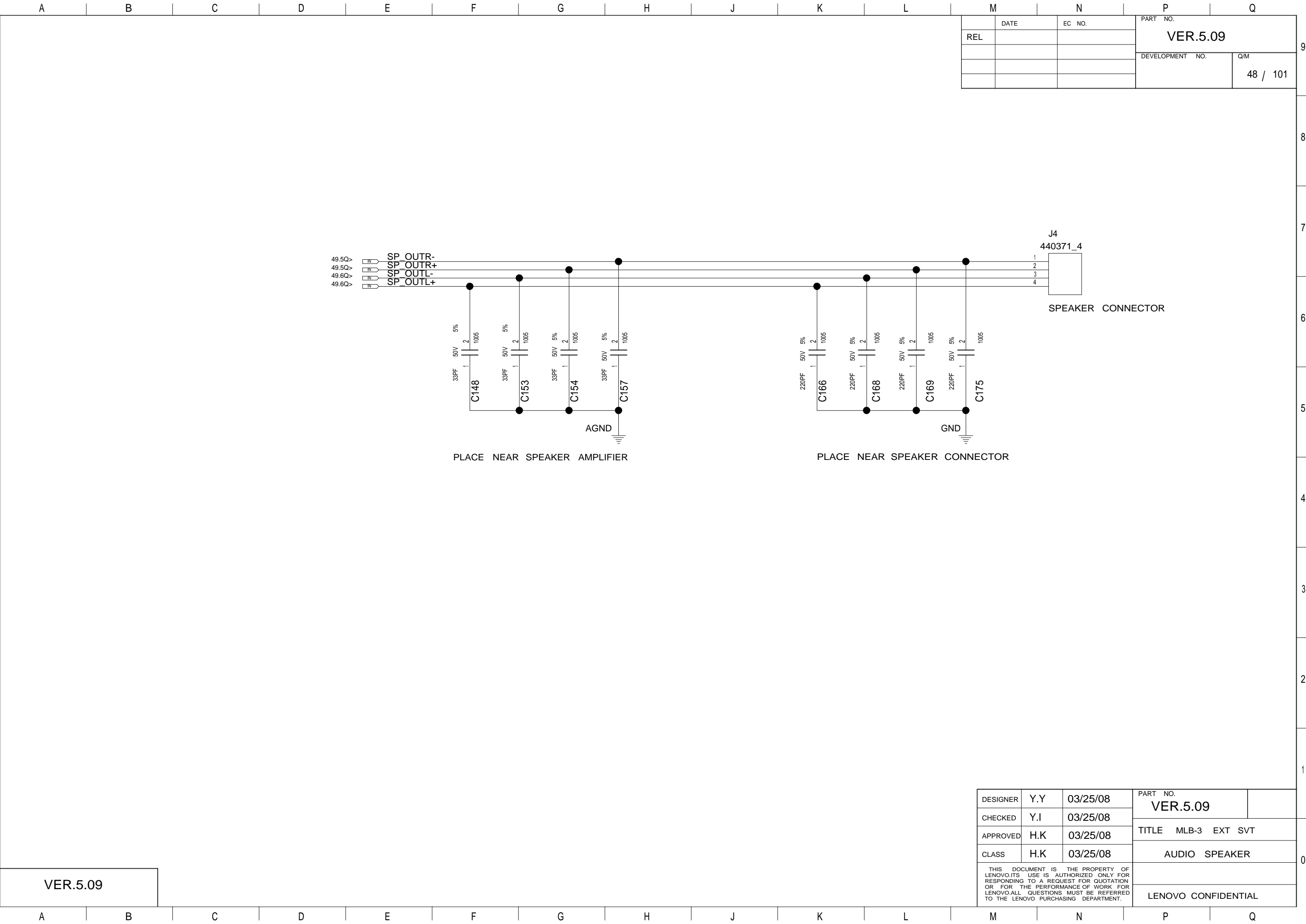


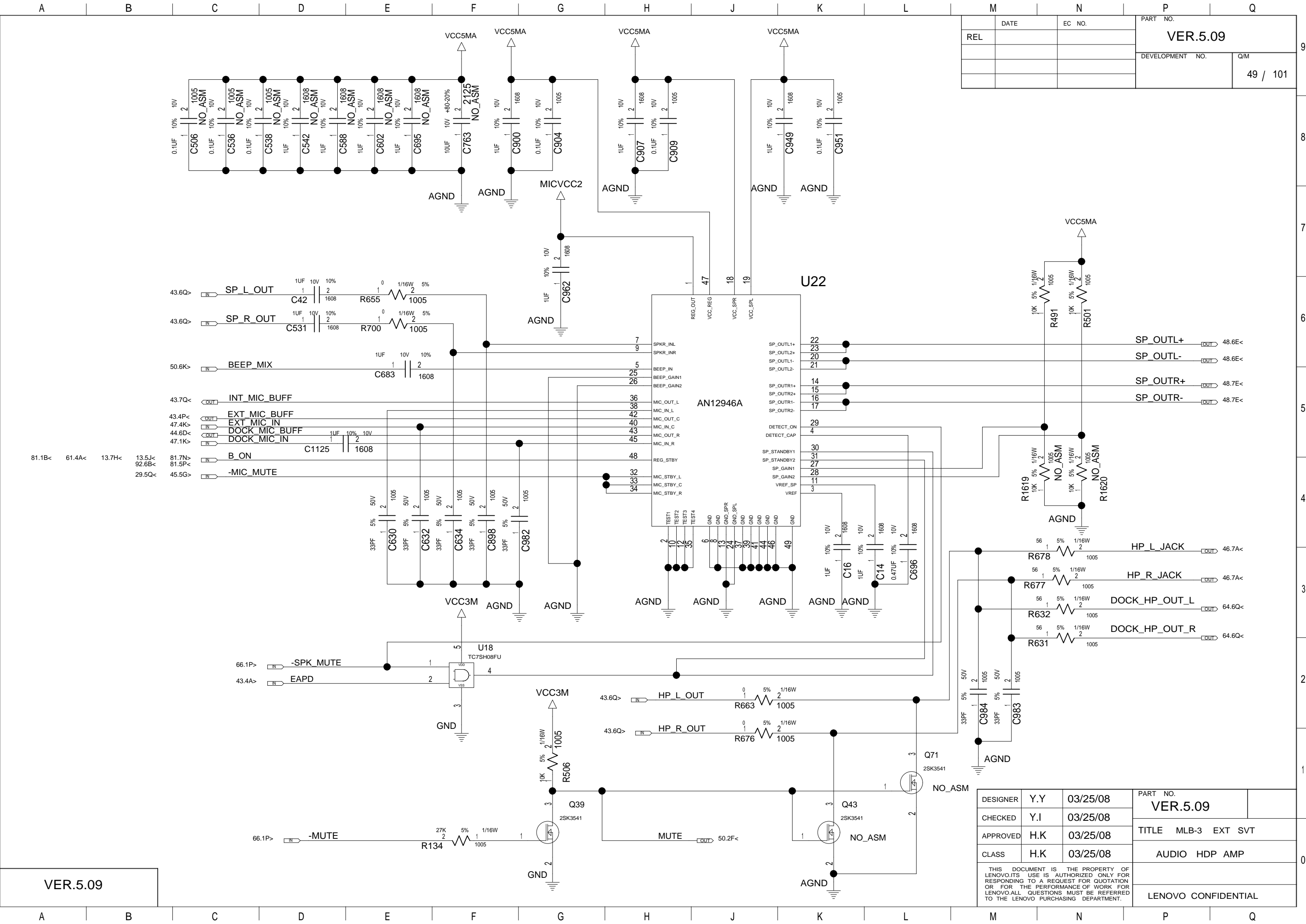
M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.		Q/M	
						47 / 101	



VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	AUDIO EXT MIC AMP	
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	

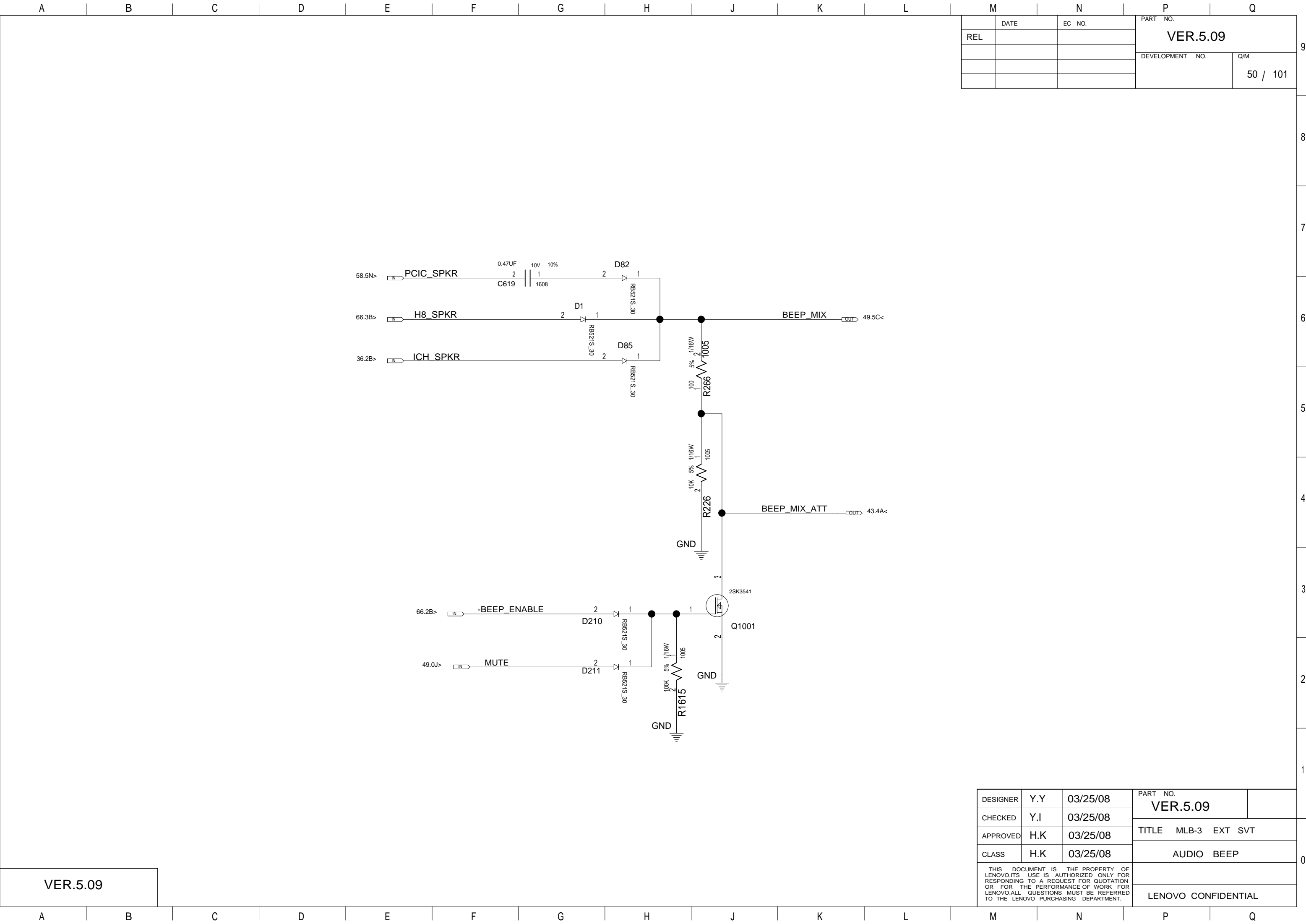




DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
			49 / 101	

VER.5.09

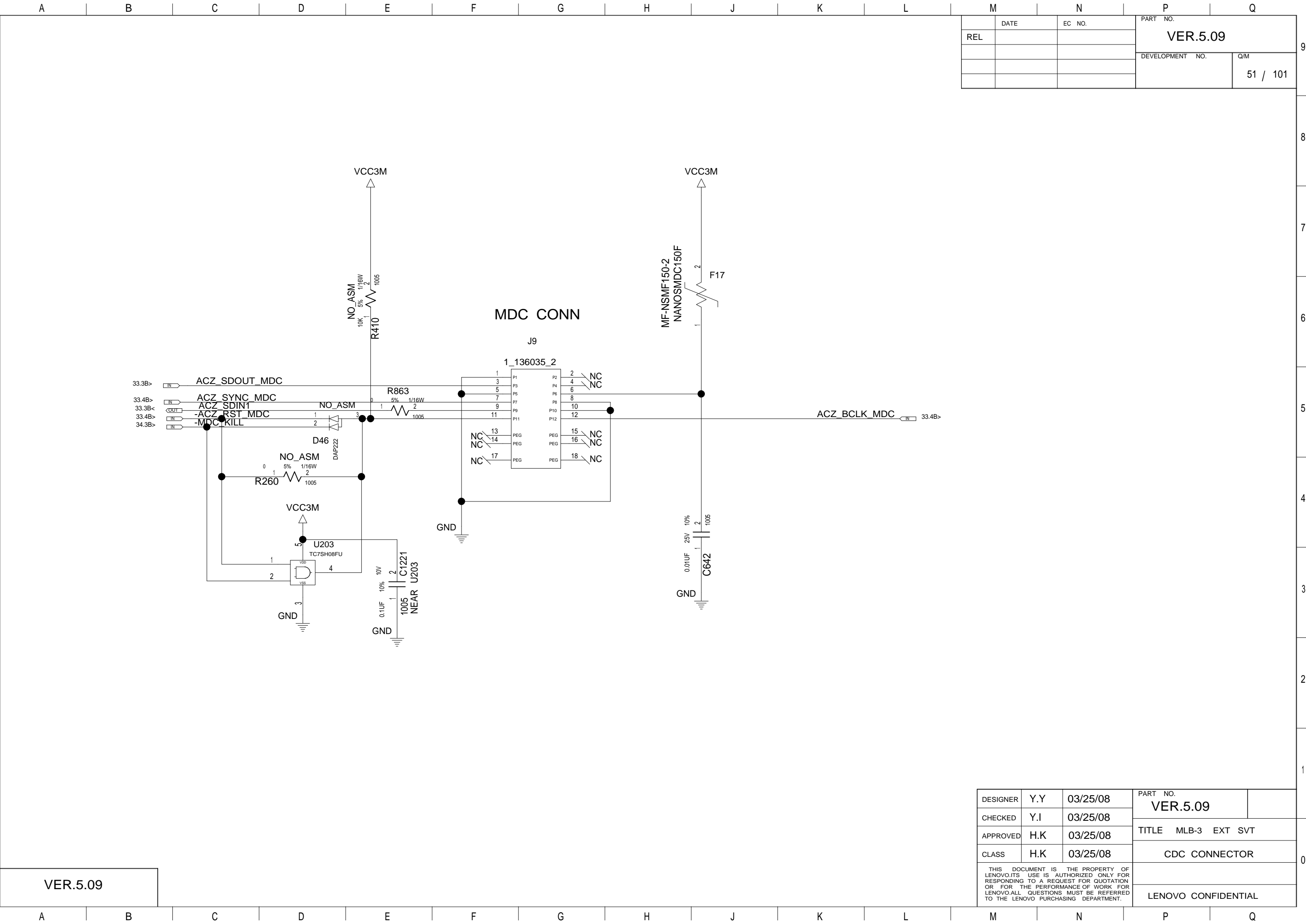
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	AUDIO HDP AMP	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							50 / 101

VER.5.09

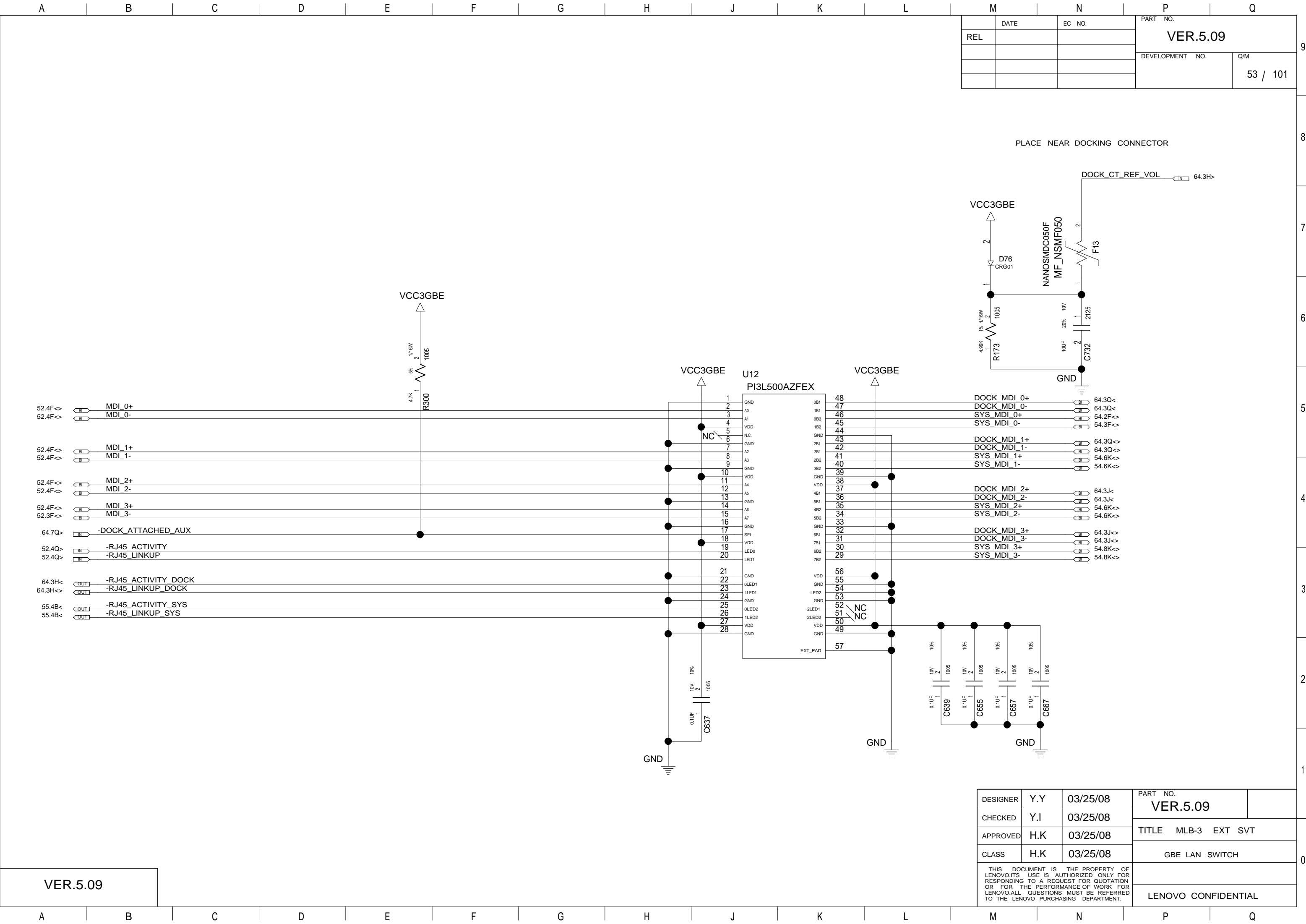
DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	AUDIO BEEP		
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.					
			LENOVO CONFIDENTIAL		



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.		Q/M	
						51 / 101	

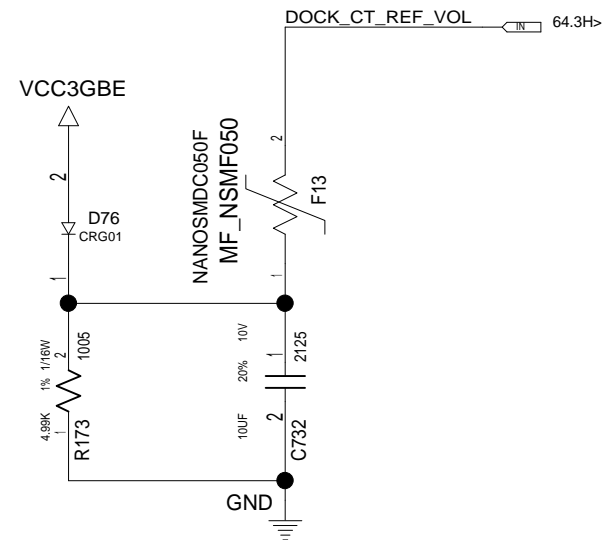
VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	CDC CONNECTOR		
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		

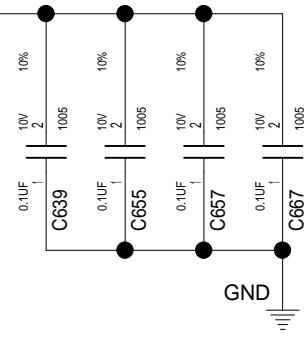


M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							53 / 101

PLACE NEAR DOCKING CONNECTOR

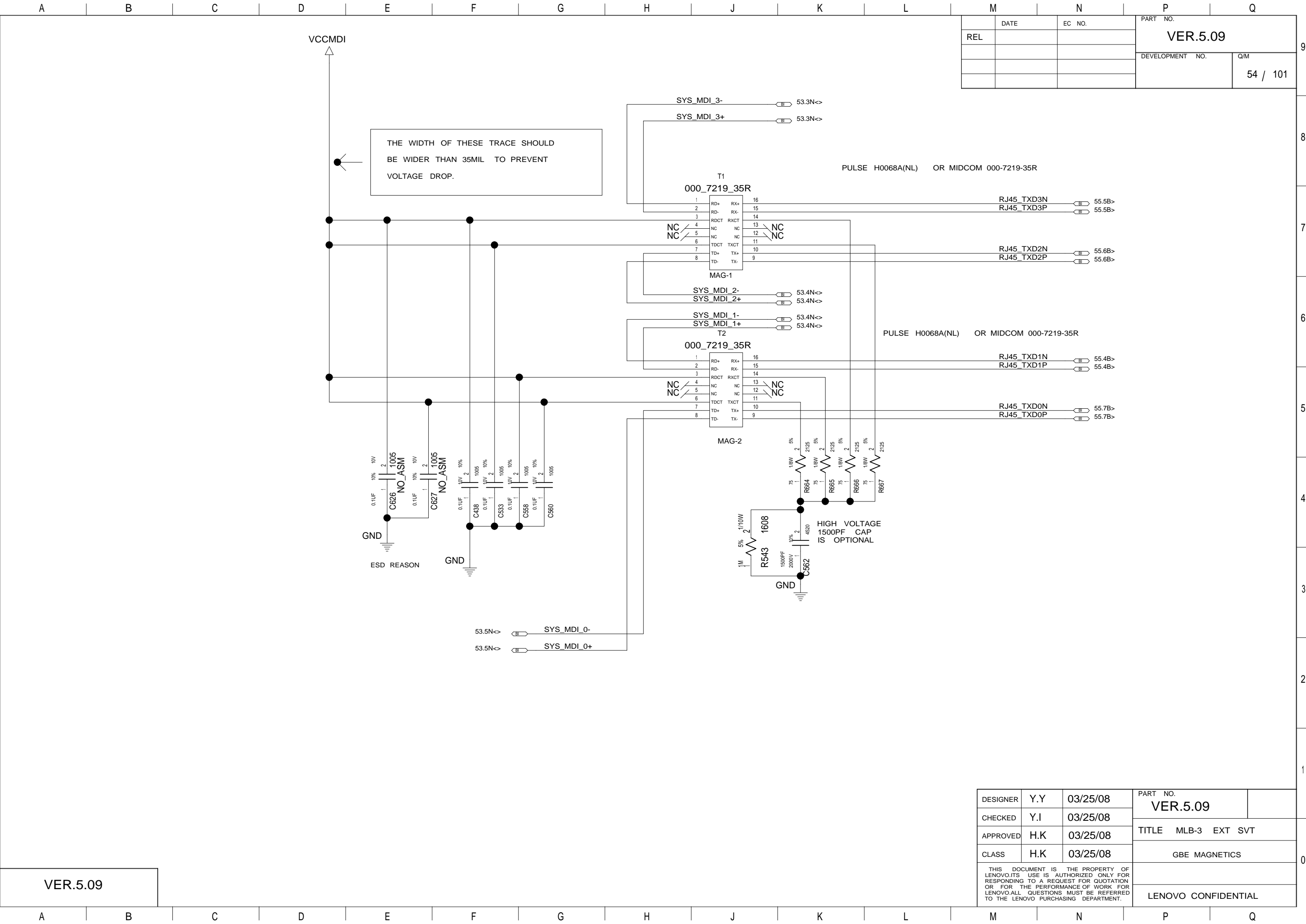


0B1	48	DOCK_MDI_0+	64.3Q<
1B1	47	DOCK_MDI_0-	64.3Q<
0B2	46	SYS_MDI_0+	54.2F<
1B2	45	SYS_MDI_0-	54.3F<
GND	44		
2B1	43	DOCK_MDI_1+	64.3Q<
3B1	42	DOCK_MDI_1-	64.3Q<
2B2	41	SYS_MDI_1+	54.6K<
3B2	40	SYS_MDI_1-	54.6K<
GND	39		
VDD	38		
4B1	37	DOCK_MDI_2+	64.3J<
5B1	36	DOCK_MDI_2-	64.3J<
4B2	35	SYS_MDI_2+	54.6K<
5B2	34	SYS_MDI_2-	54.6K<
GND	33		
6B1	32	DOCK_MDI_3+	64.3J<
7B1	31	DOCK_MDI_3-	64.3J<
6B2	30	SYS_MDI_3+	54.8K<
7B2	29	SYS_MDI_3-	54.8K<
VDD	56		
GND	55		
LED2	54		
GND	53		
2LED1	52	NC	
2LED2	51	NC	
VDD	50		
GND	49		
EXT_PAD	57		



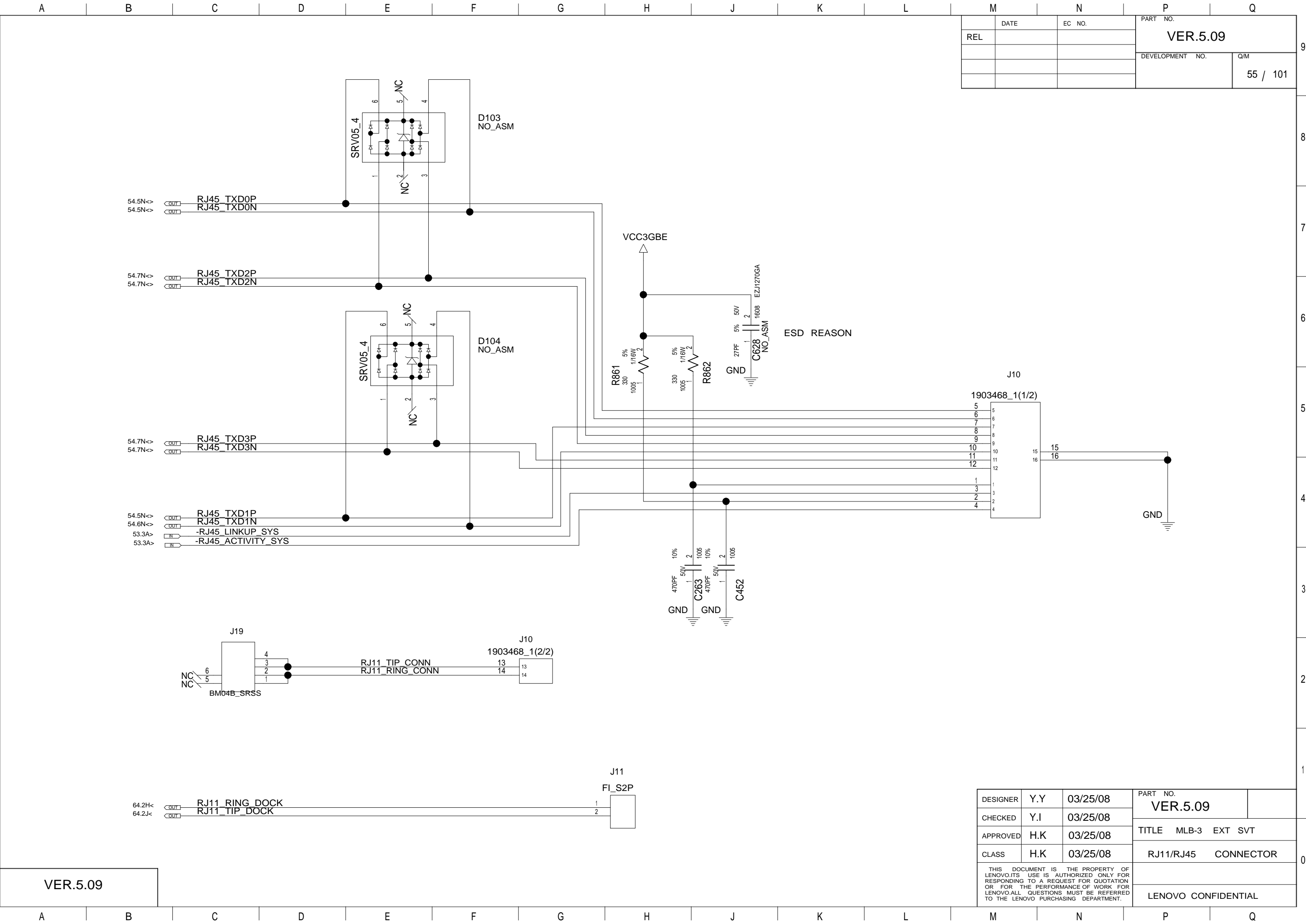
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	GBE LAN SWITCH	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.				
			LENOVO CONFIDENTIAL	

VER.5.09



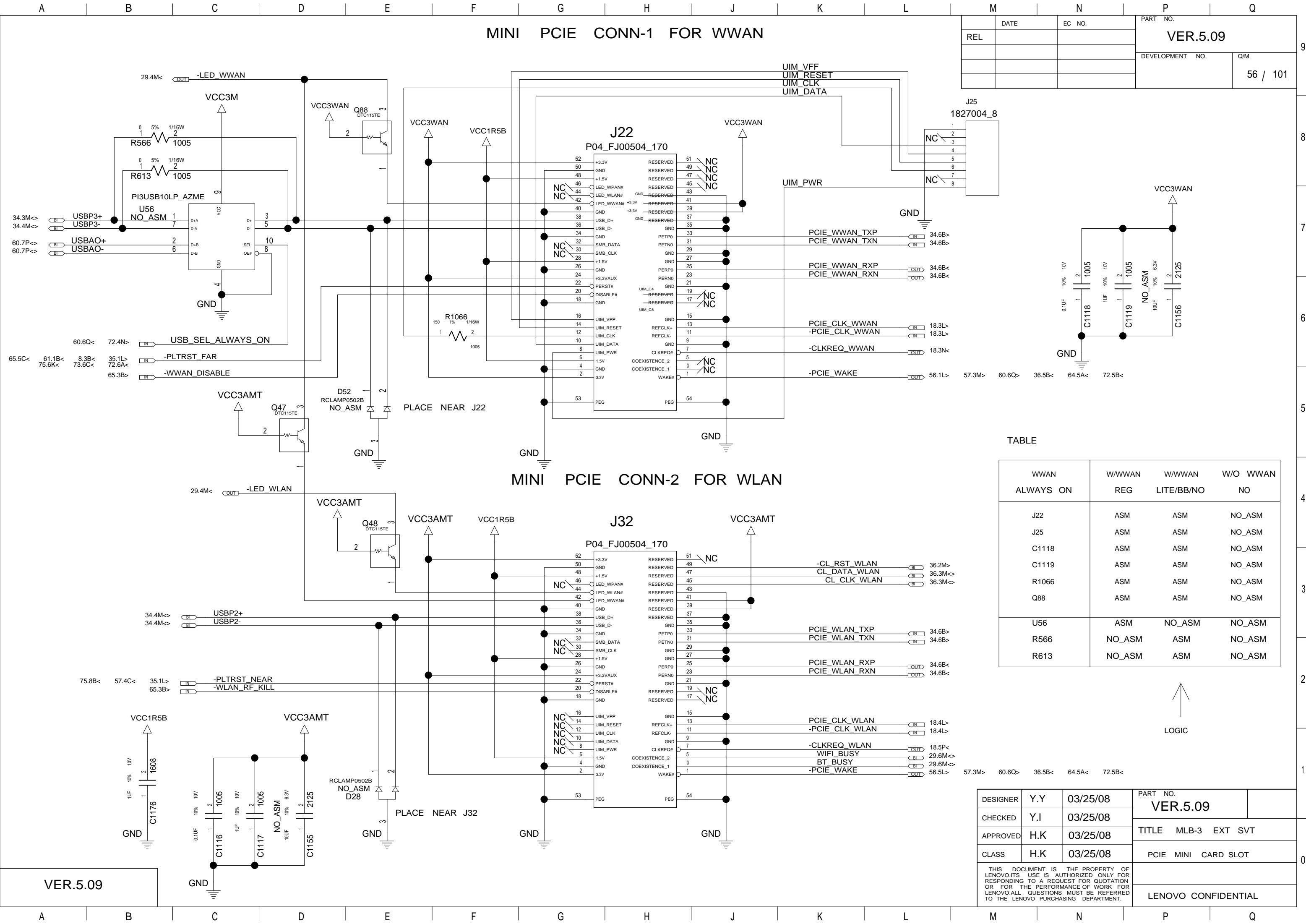
M		N		P		Q	
REL		EC NO.		PART NO.		VER.5.09	
				DEVELOPMENT NO.		Q/M	
						54 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.		VER.5.09	
CHECKED	Y.I	03/25/08				
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT			
CLASS	H.K	03/25/08	GBE MAGNETICS			
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.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			55 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	RJ11/RJ45 CONNECTOR	
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	



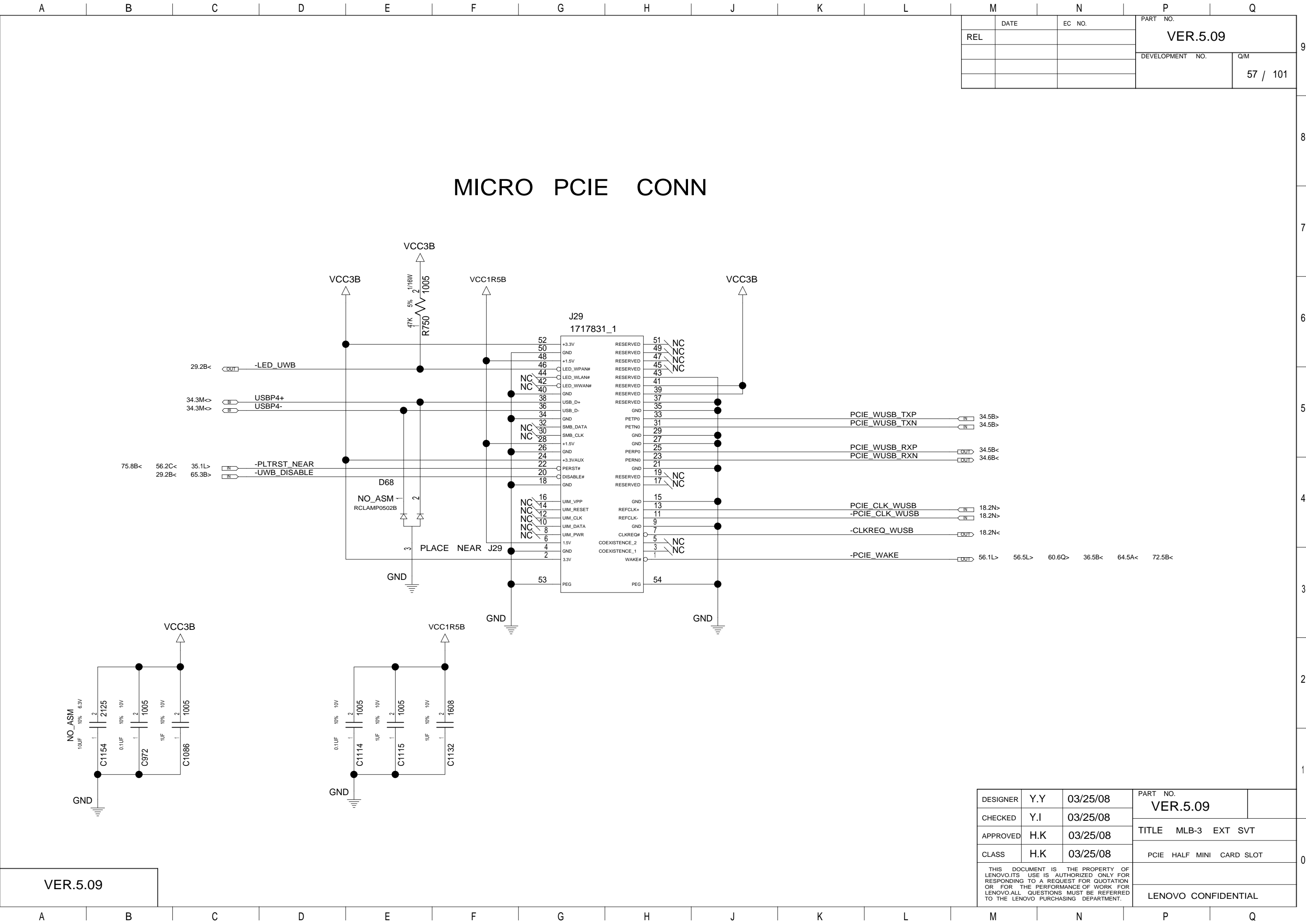
	DATE	EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				56 / 101

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
Q88	ASM	ASM	NO_ASM
U56	ASM	NO_ASM	NO_ASM
R566	NO_ASM	ASM	NO_ASM
R613	NO_ASM	ASM	NO_ASM

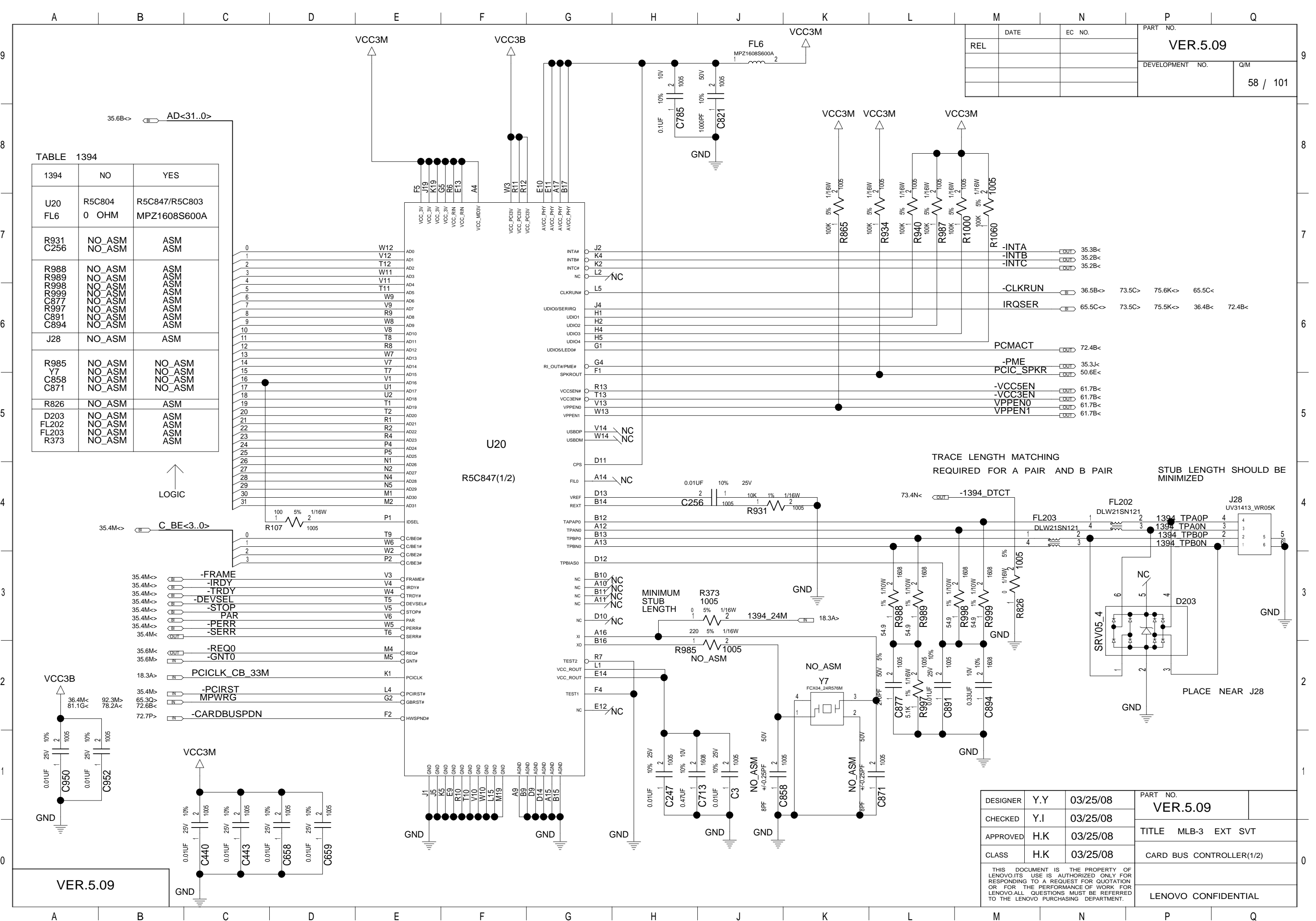
↑
LOGIC

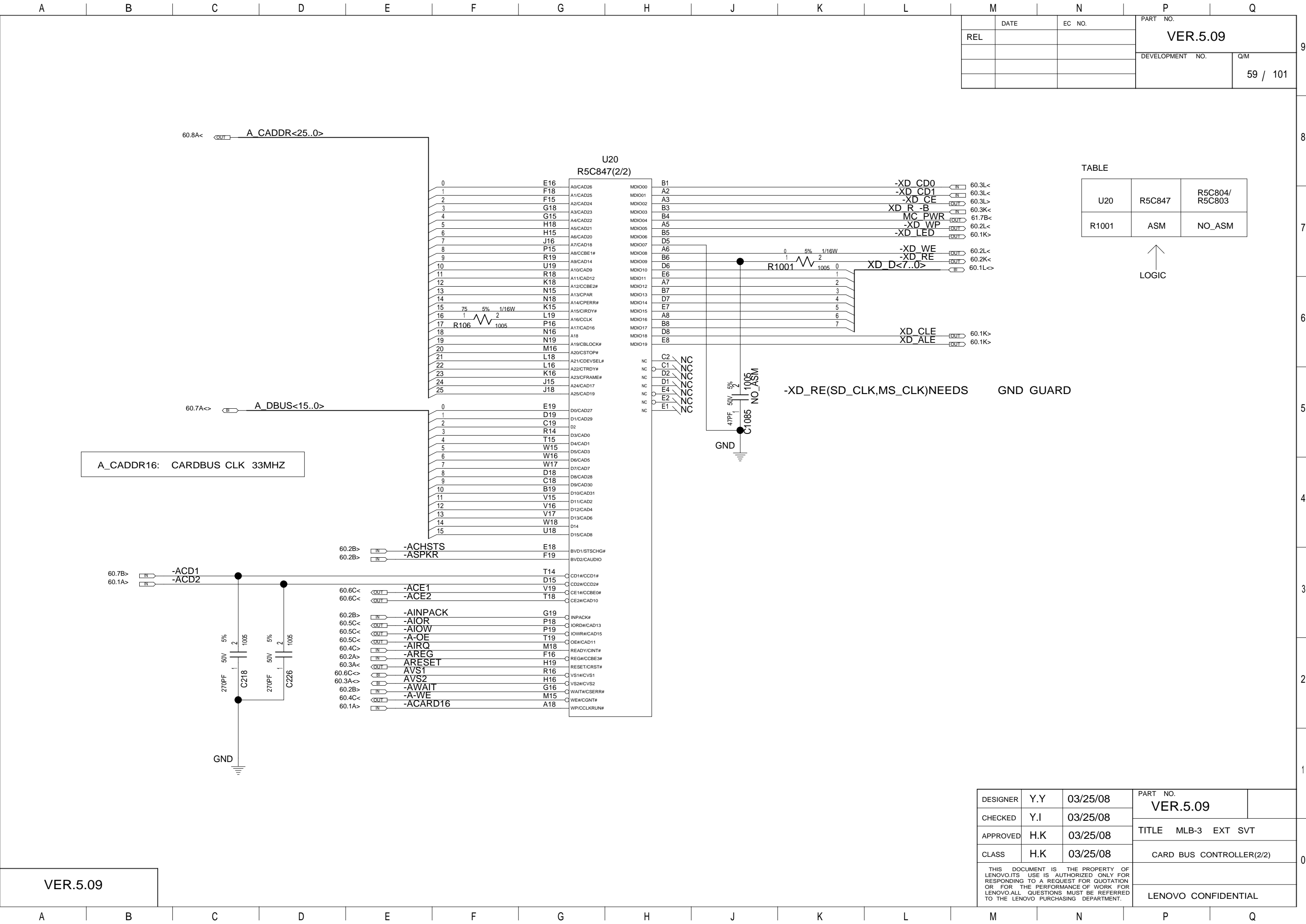
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	PCIE MINI CARD SLOT	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



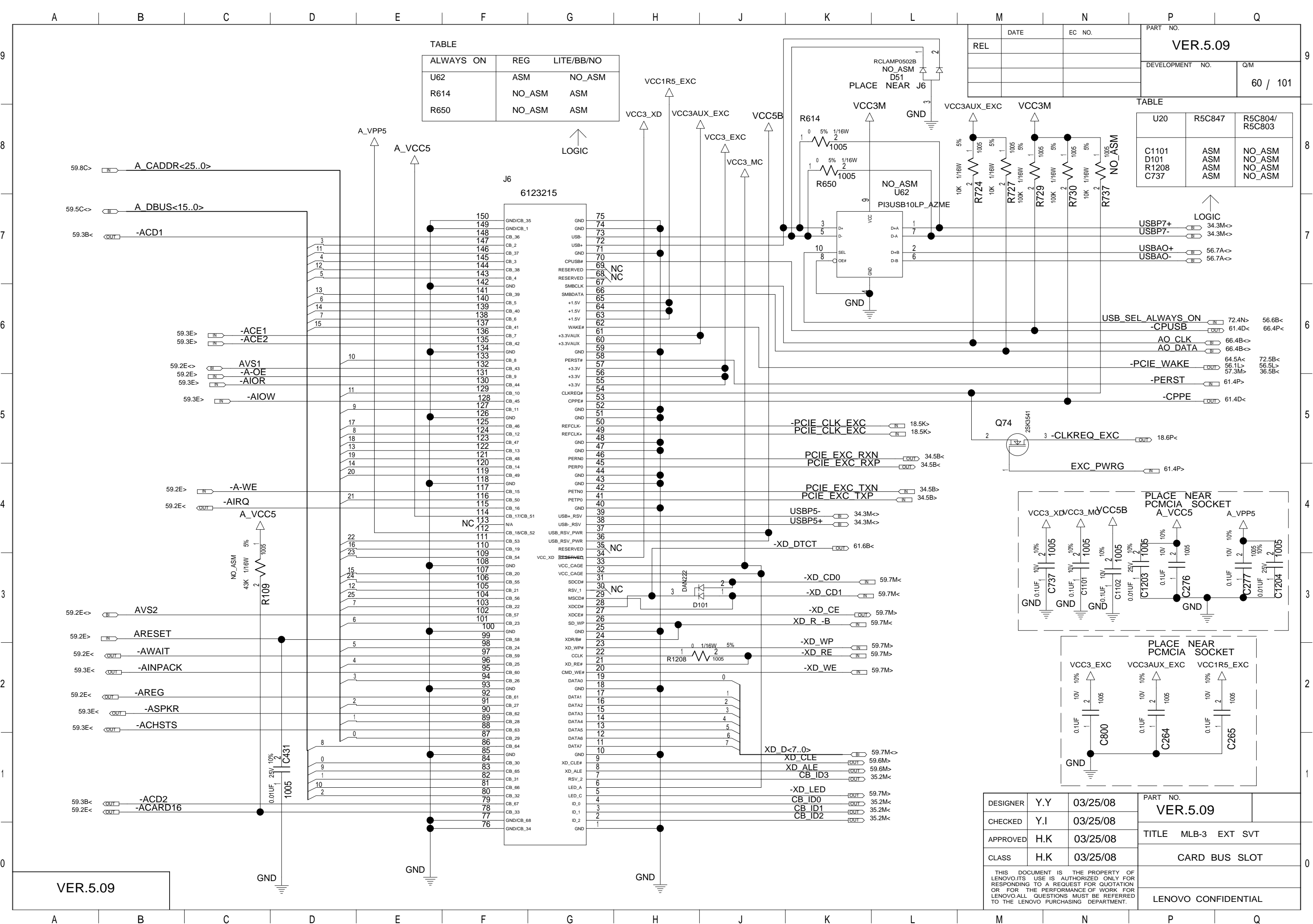
M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							57 / 101

DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	PCIE HALF MINI CARD SLOT		
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		

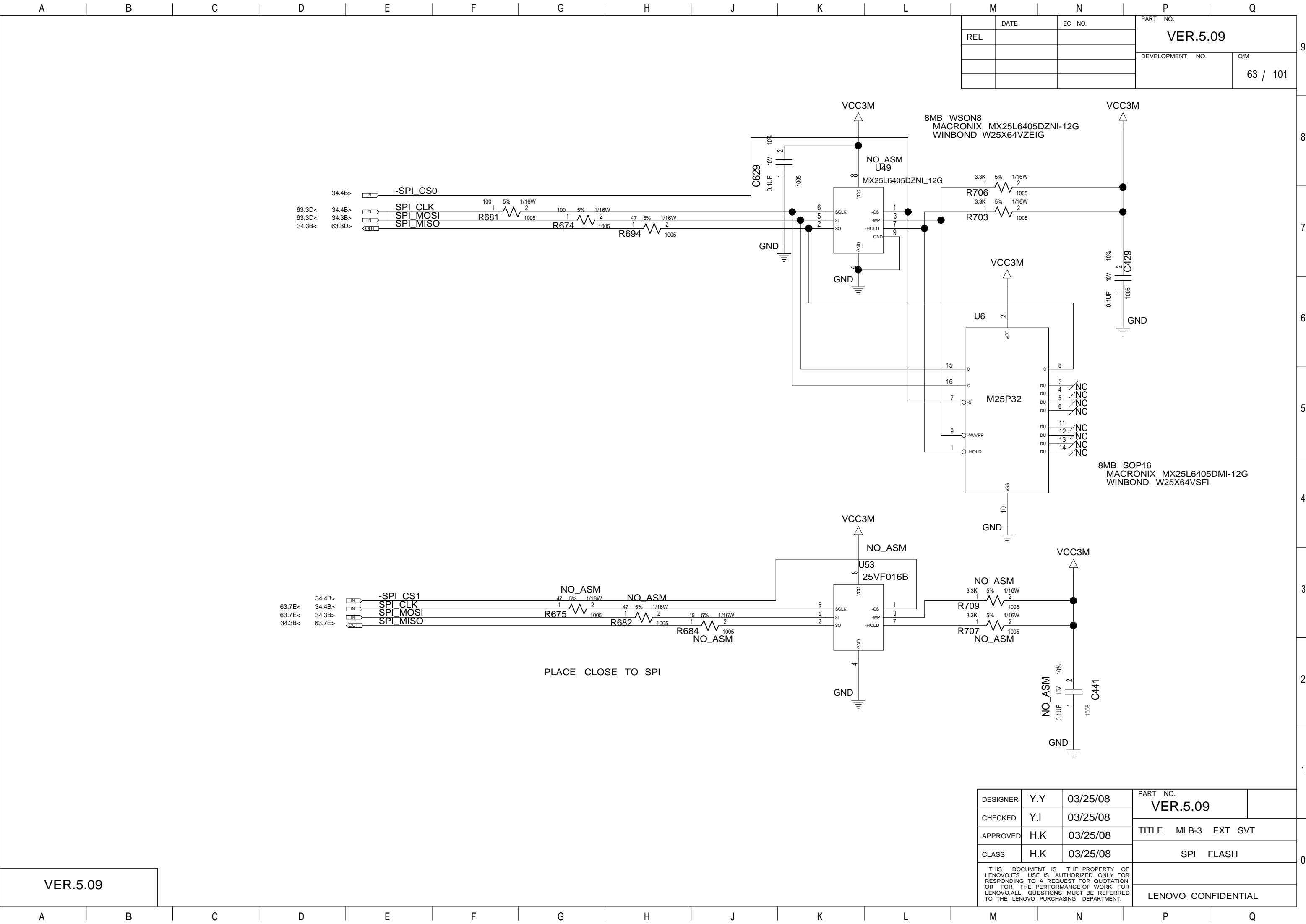




DESIGNER	Y.Y	03/25/08	PART NO.	VER.5.09
CHECKED	Y.I	03/25/08	TITLE MLB-3 EXT SVT	
APPROVED	H.K	03/25/08	CARD BUS CONTROLLER(2/2)	
CLASS	H.K	03/25/08	LENovo CONFIDENTIAL	



A		B		C		D		E		F		G		H		J		K		L		M		N		P		Q	
		REL		DATE		EC NO.		PART NO.																					
								VER.5.09																					
								DEVELOPMENT NO.														Q/M							
																						62 / 101							

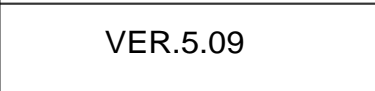


DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				63 / 101	

8MB WSON8
MACRONIX MX25L6405DZNI-12G
WINBOND W25X64VZEIG

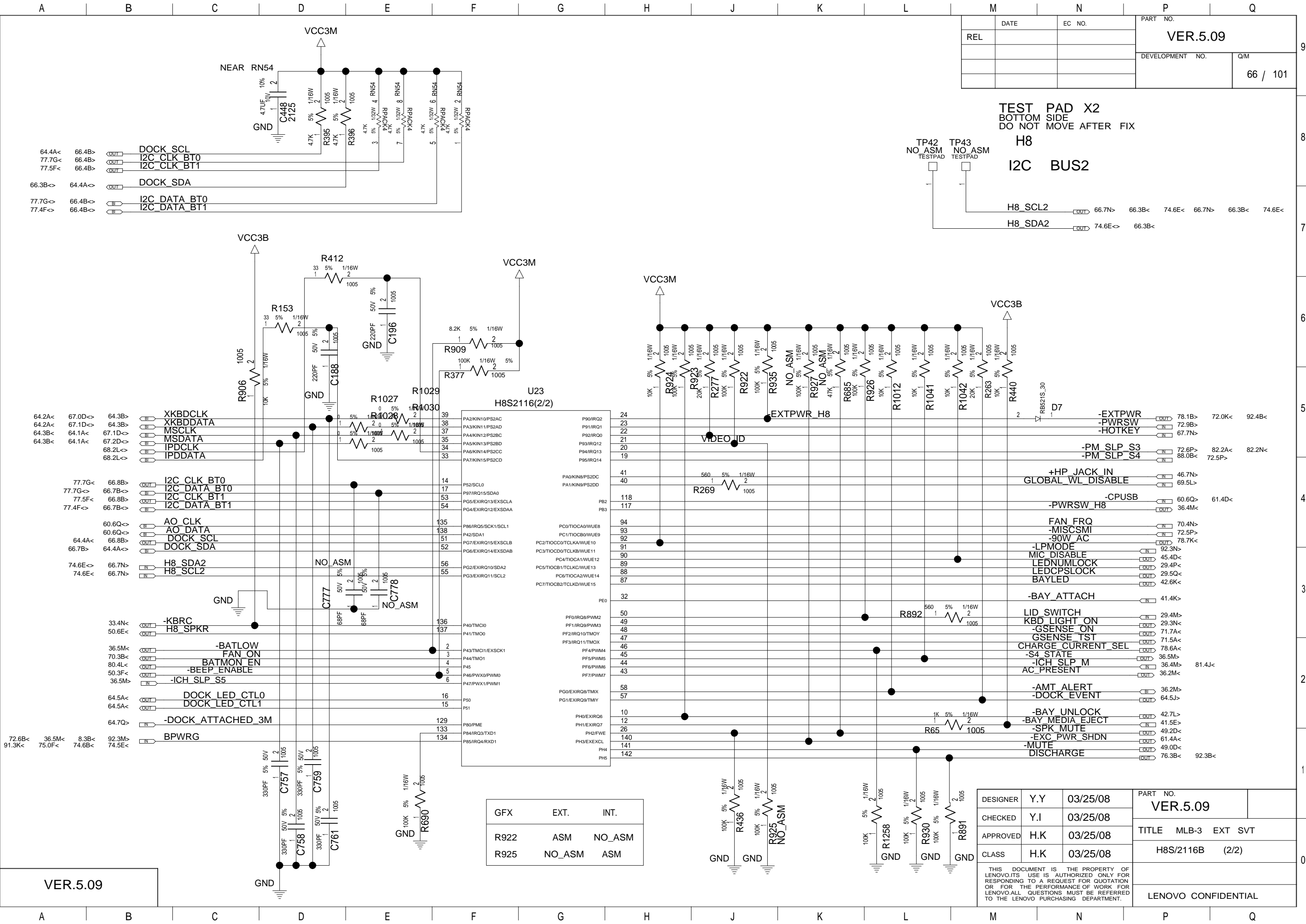
8MB SOP16
MACRONIX MX25L6405DMI-12G
WINBOND W25X64VSFI

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	SPI FLASH	
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	



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							65 / 101

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09	
CHECKED	Y.I	03/25/08		
APPROVED	H.K	03/25/08		TITLE MLB-3 EXT SVT
CLASS	H.K	03/25/08		H8S/2116B (1/2)
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	



TEST PAD X2
BOTTOM SIDE
DO NOT MOVE AFTER FIX

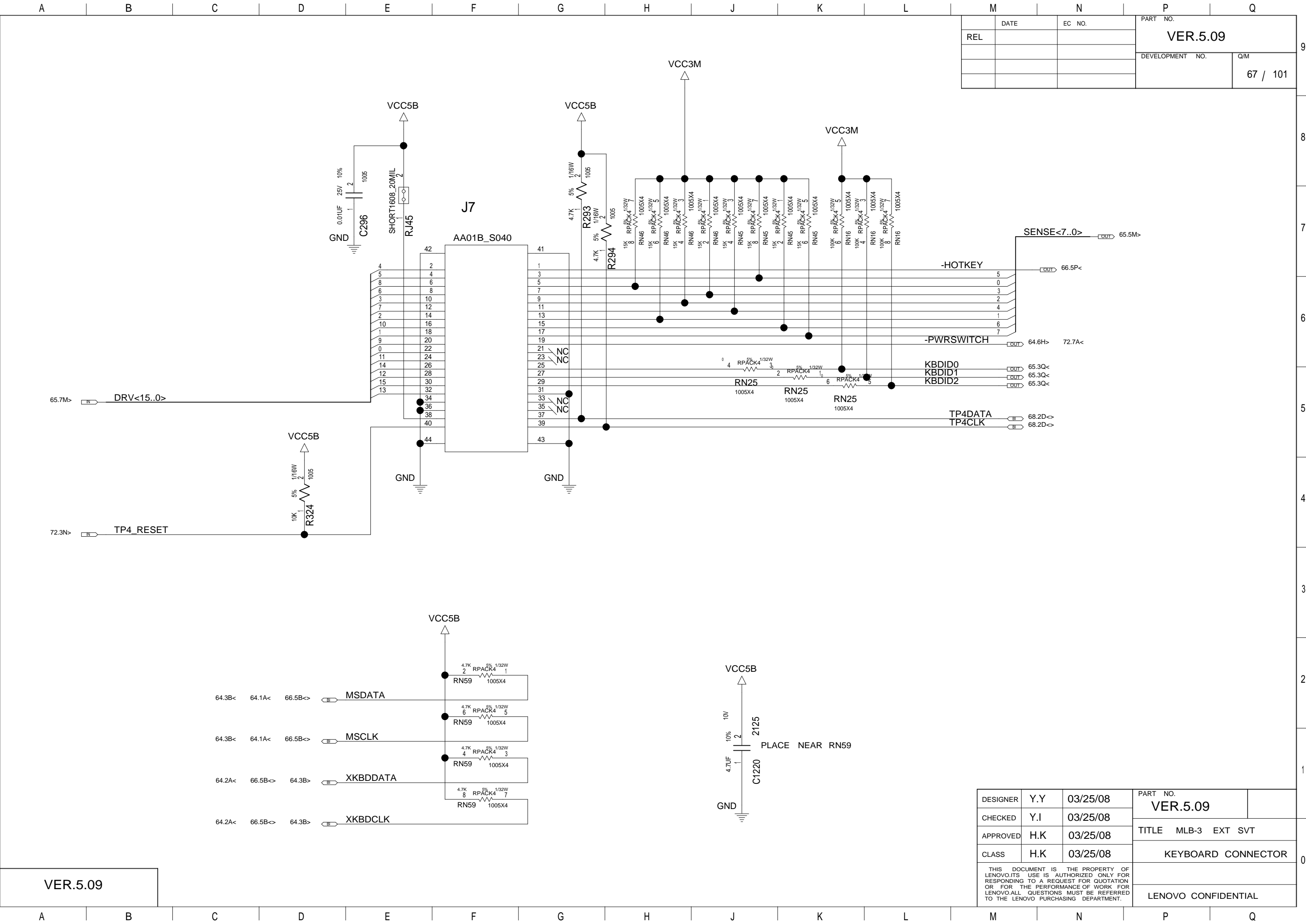
H8
I2C BUS2

H8_SCL2
H8_SDA2

66.7N> 66.3B< 74.6E< 66.7N> 66.3B< 74.6E<
74.6E< 66.3B<

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	H8S/2116B (2/2)	
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	

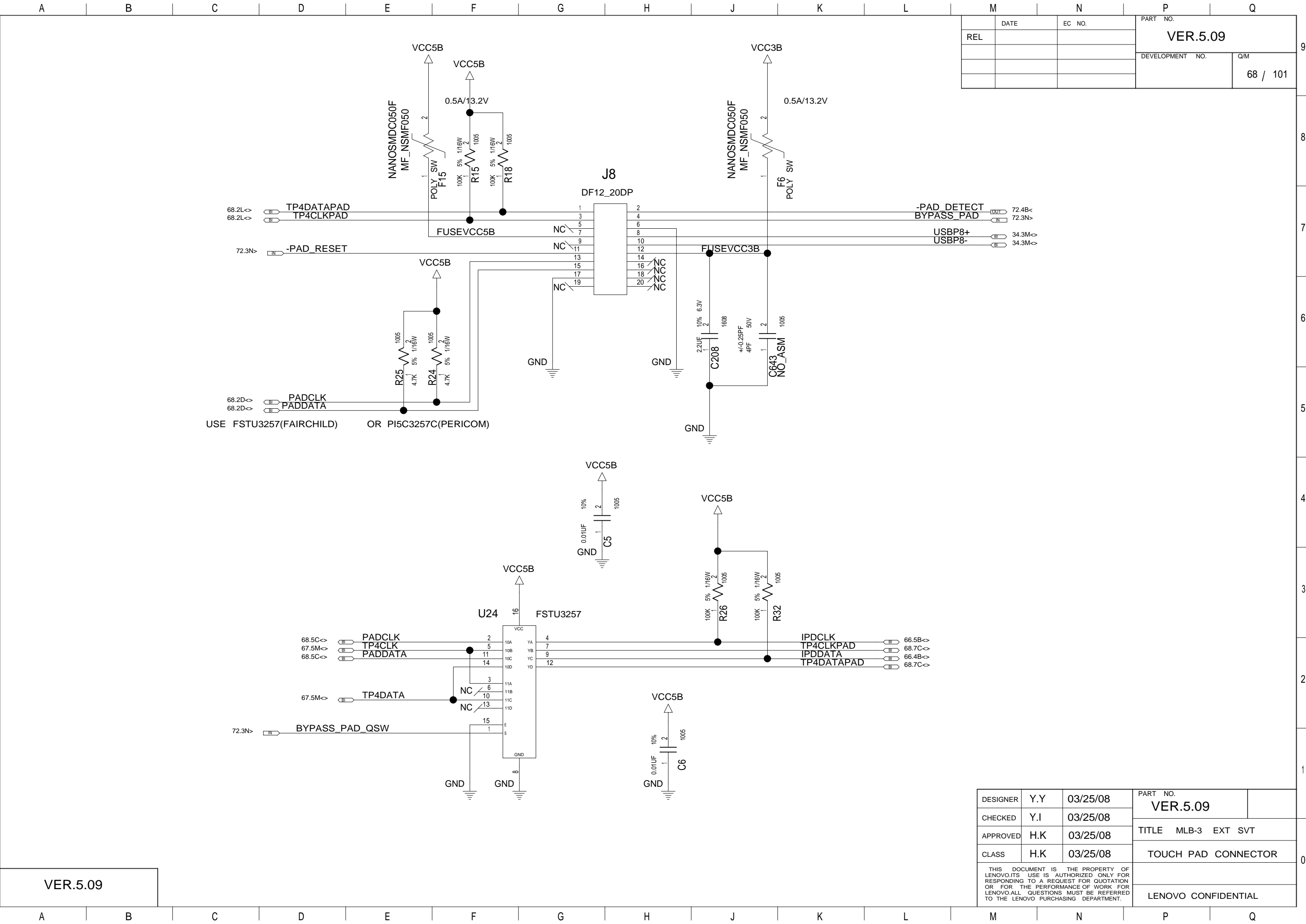
GFX	EXT.	INT.
R922	ASM	NO_ASM
R925	NO_ASM	ASM



		DATE		EC NO.		PART NO.	
REL						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						67 / 101	

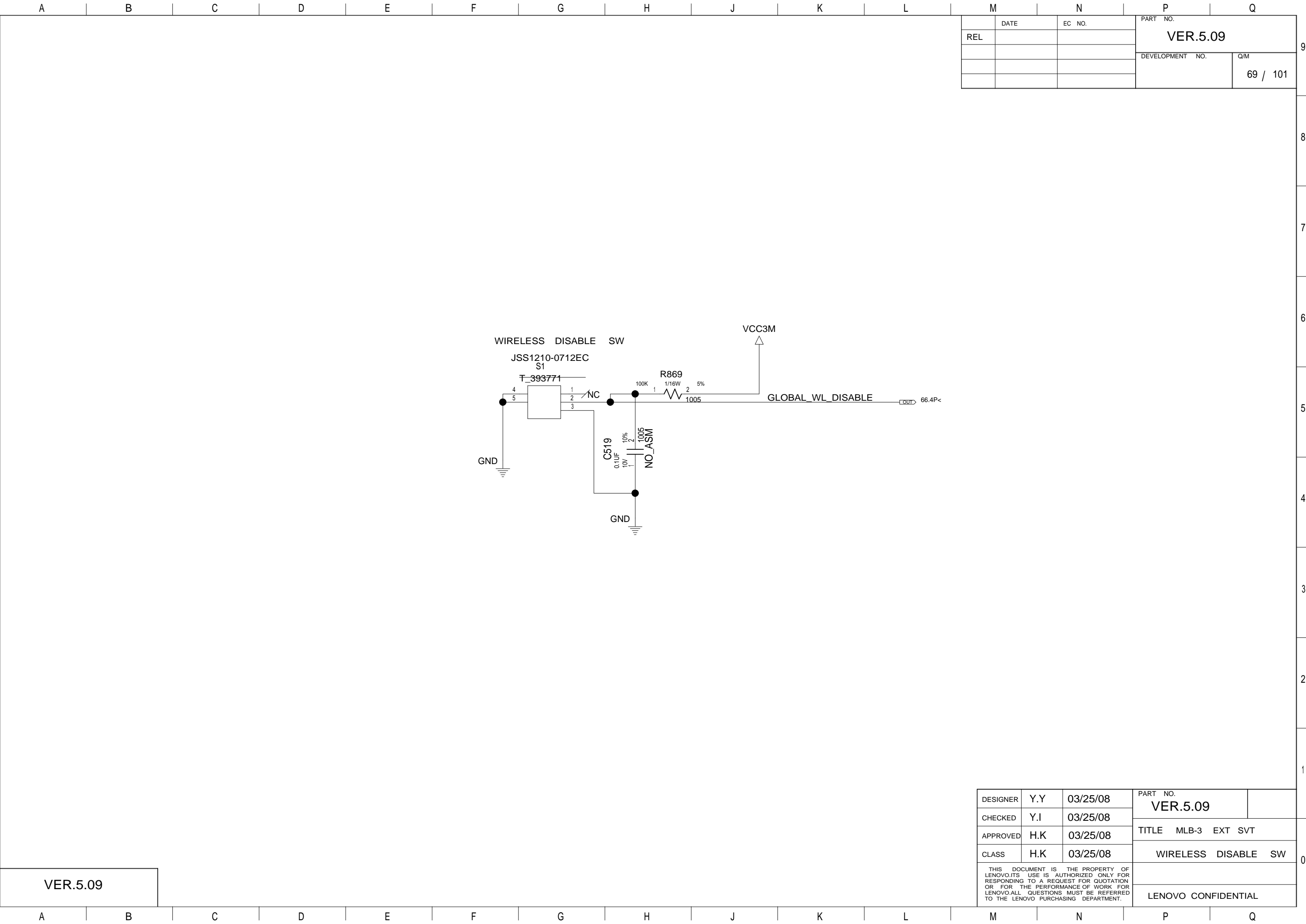
VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	KEYBOARD CONNECTOR	
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	



VER.5.09

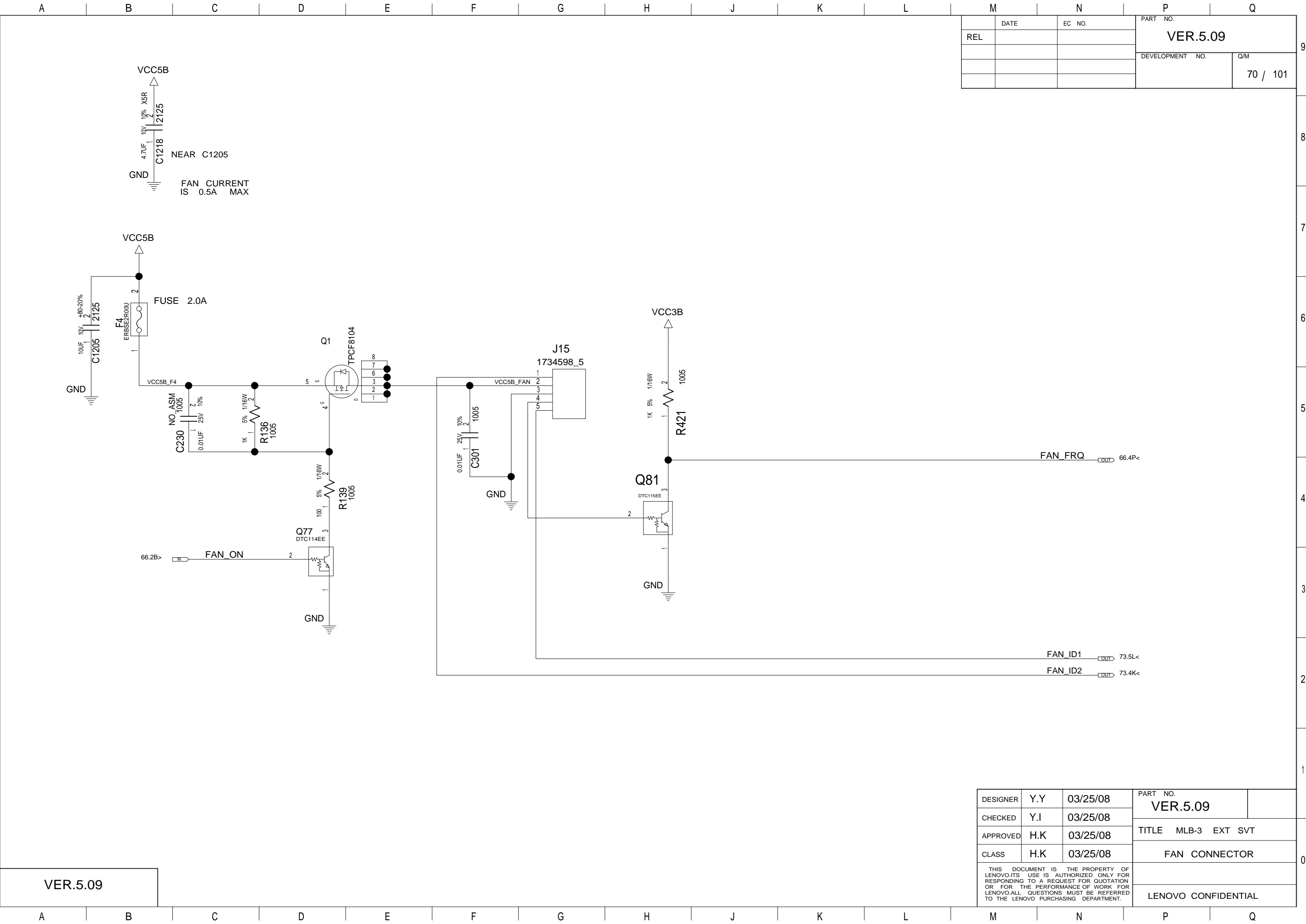
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	TOUCH PAD CONNECTOR	
THIS DOCUMENT IS THE PROPERTY OF LENOVO. ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO. ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



	DATE	EC NO.	PART NO. VER.5.09	
REL				
			DEVELOPMENT NO.	Q/M
				69 / 101

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.		VER.5.09	
CHECKED	Y.I	03/25/08				
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT			
CLASS	H.K	03/25/08	WIRELESS DISABLE SW			
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			



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			
				Q/M			
				70 / 101			

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.		
CHECKED	Y.I	03/25/08	VER.5.09		
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	FAN CONNECTOR		
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		

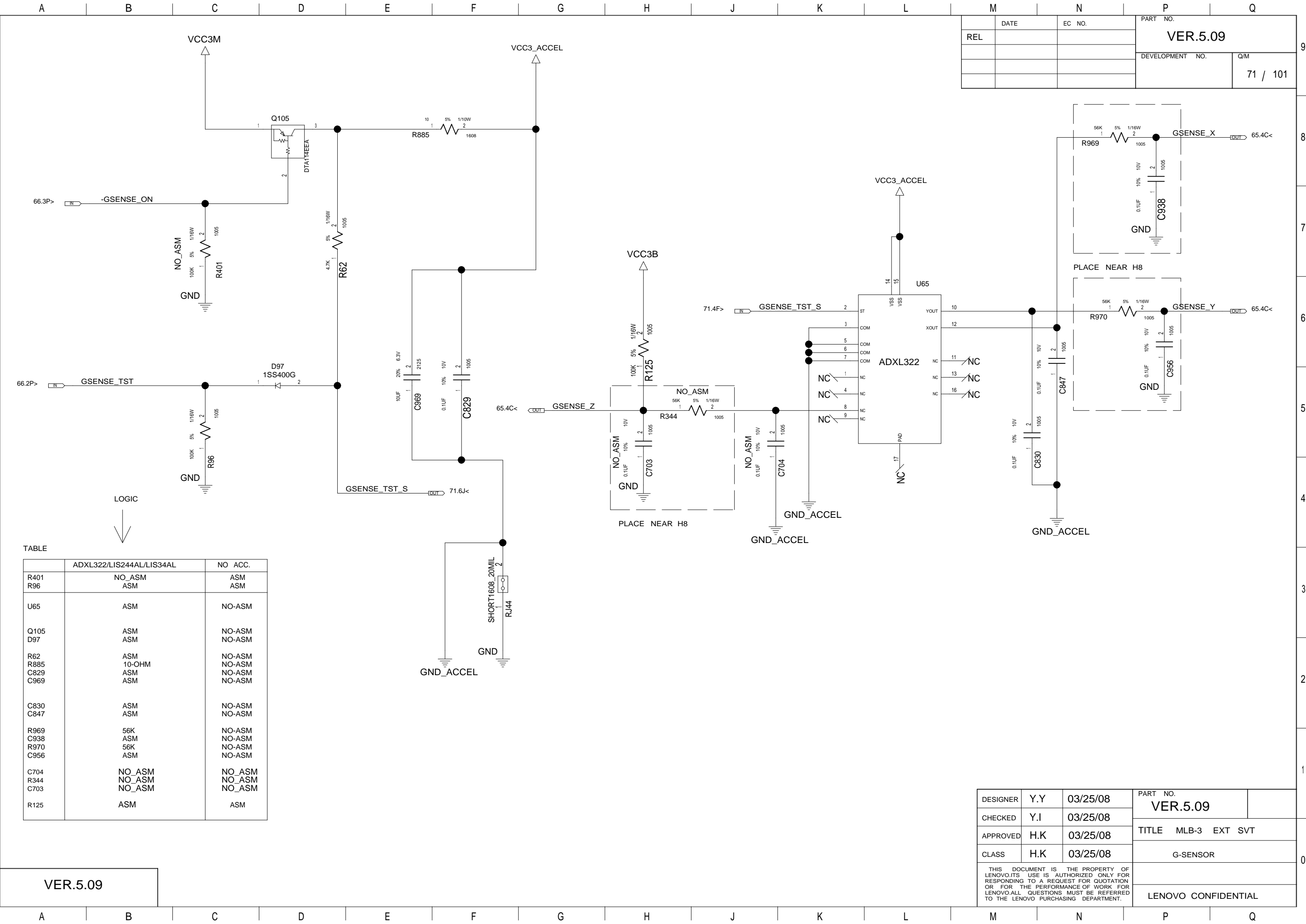
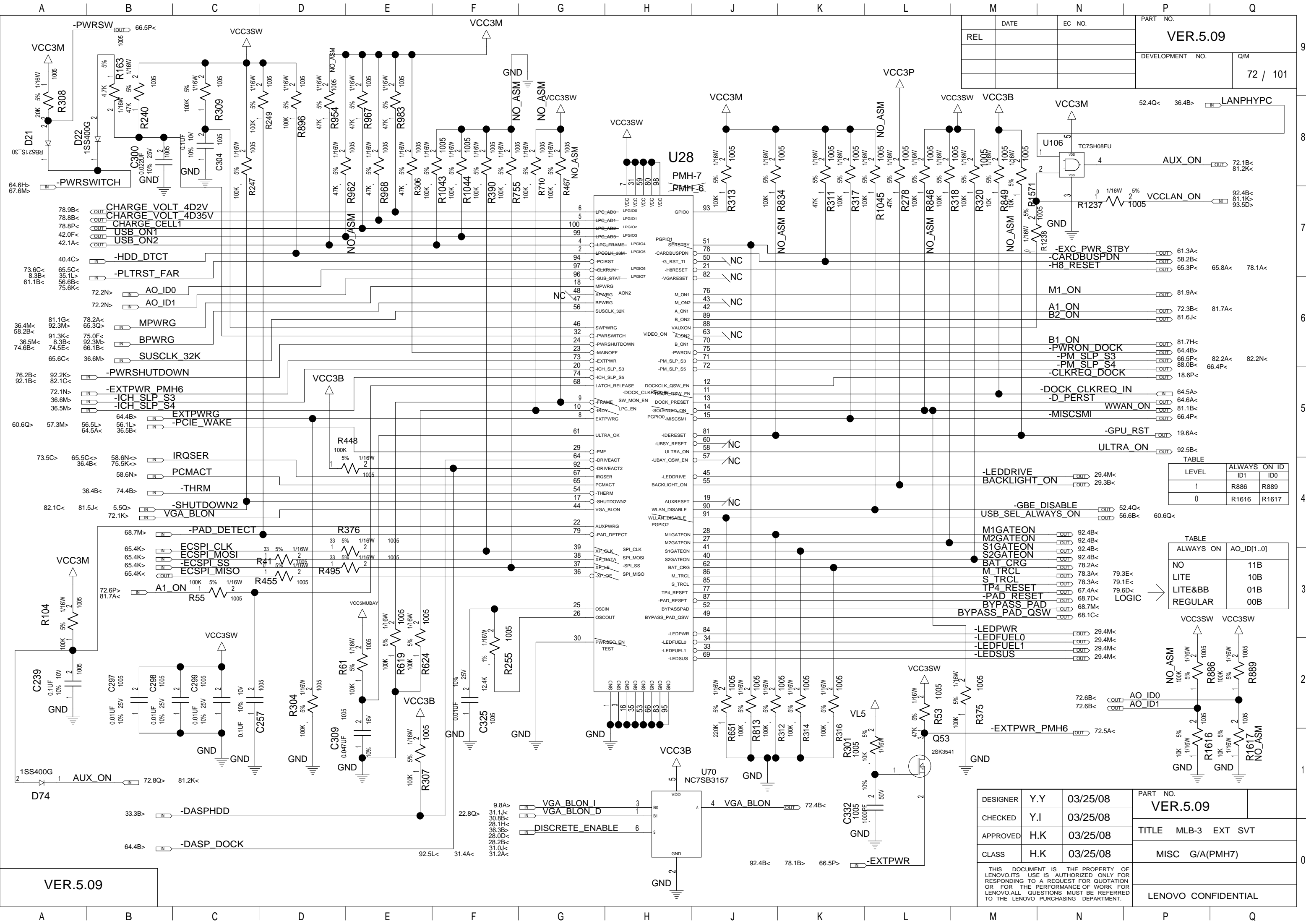


TABLE		
	ADXL322/LIS244AL/LIS34AL	NO ACC.
R401	NO_ASM	ASM
R96	ASM	ASM
U65	ASM	NO-ASM
Q105	ASM	NO-ASM
D97	ASM	NO-ASM
R62	ASM	NO-ASM
R885	10-OHM	NO-ASM
C829	ASM	NO-ASM
C969	ASM	NO-ASM
C830	ASM	NO-ASM
C847	ASM	NO-ASM
R969	56K	NO-ASM
C938	ASM	NO-ASM
R970	56K	NO-ASM
C956	ASM	NO-ASM
C704	NO_ASM	NO_ASM
R344	NO_ASM	NO_ASM
C703	NO_ASM	NO_ASM
R125	ASM	ASM

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	G-SENSOR	
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	

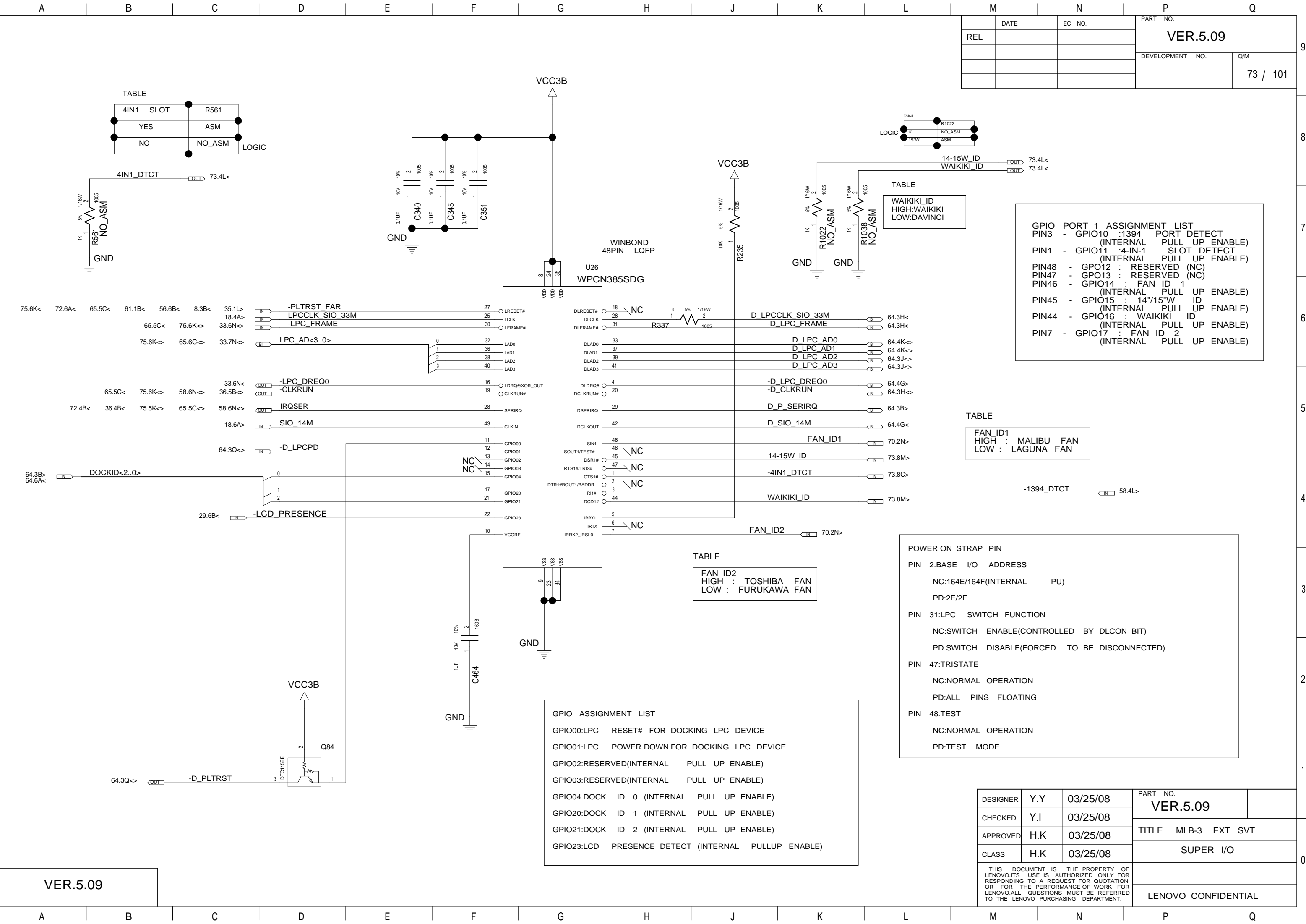


REL	DATE	EC NO.	PART NO.	
			VER.5.09	
			DEVELOPMENT NO.	Q/M
			72 / 101	

LEVEL		ALWAYS ON ID	
		ID1	ID0
1		R886	R889
0		R1616	R1617

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

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	MISC G/A(PMH7)	
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.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				73 / 101	

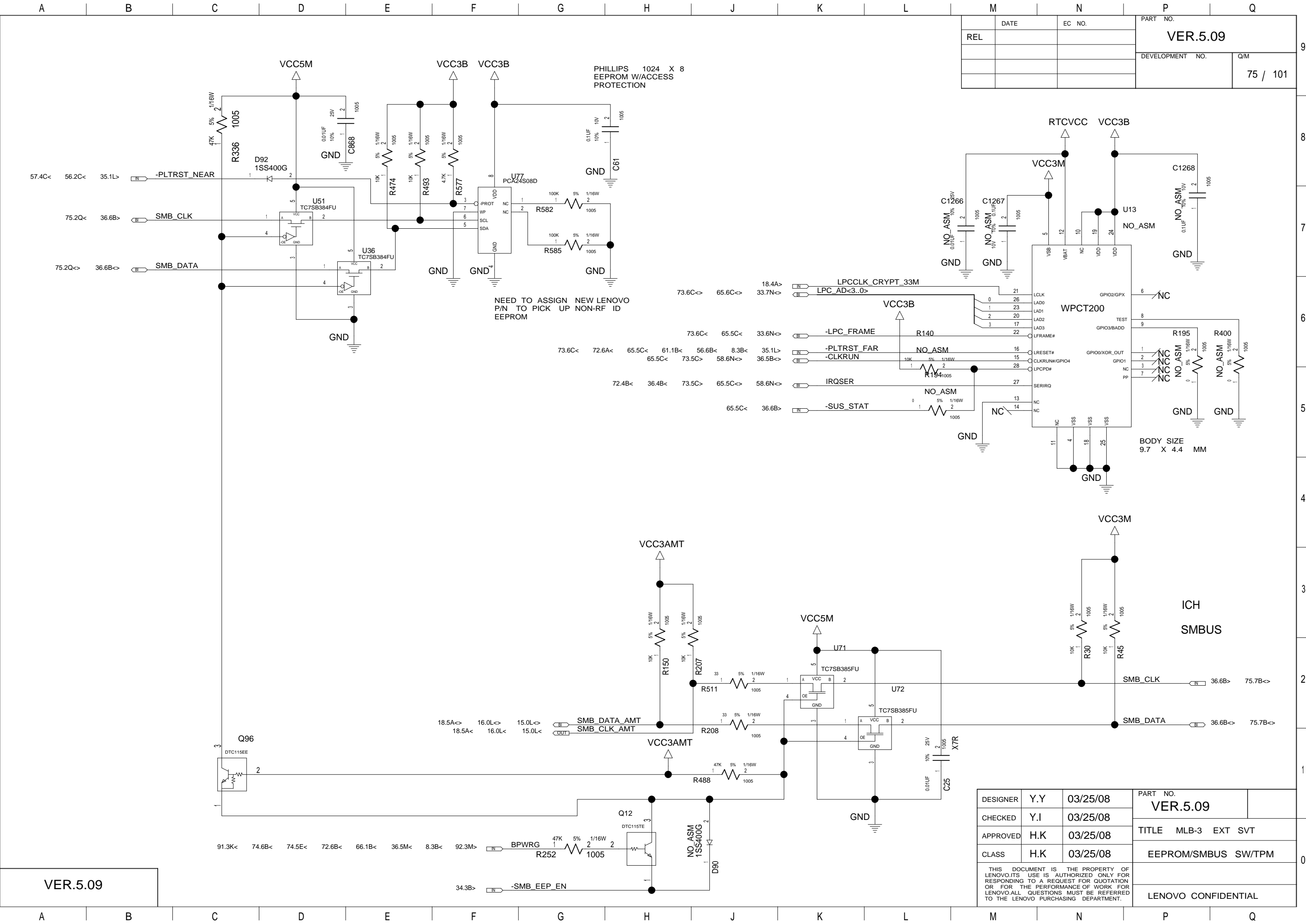
GPIO PORT 1 ASSIGNMENT LIST		
PIN3	- GPIO10 :1394	PORT DETECT (INTERNAL PULL UP ENABLE)
PIN1	- GPIO11 :4-IN-1	SLOT DETECT (INTERNAL PULL UP ENABLE)
PIN48	- GPO12 :	RESERVED (NC)
PIN47	- GPO13 :	RESERVED (NC)
PIN46	- GPIO14 :	FAN ID 1 (INTERNAL PULL UP ENABLE)
PIN45	- GPIO15 :	14"/15"W ID (INTERNAL PULL UP ENABLE)
PIN44	- GPIO16 :	WAIKIKI ID (INTERNAL PULL UP ENABLE)
PIN7	- GPIO17 :	FAN ID 2 (INTERNAL PULL UP ENABLE)

FAN_ID1	
HIGH : MALIBU FAN	
LOW : LAGUNA FAN	

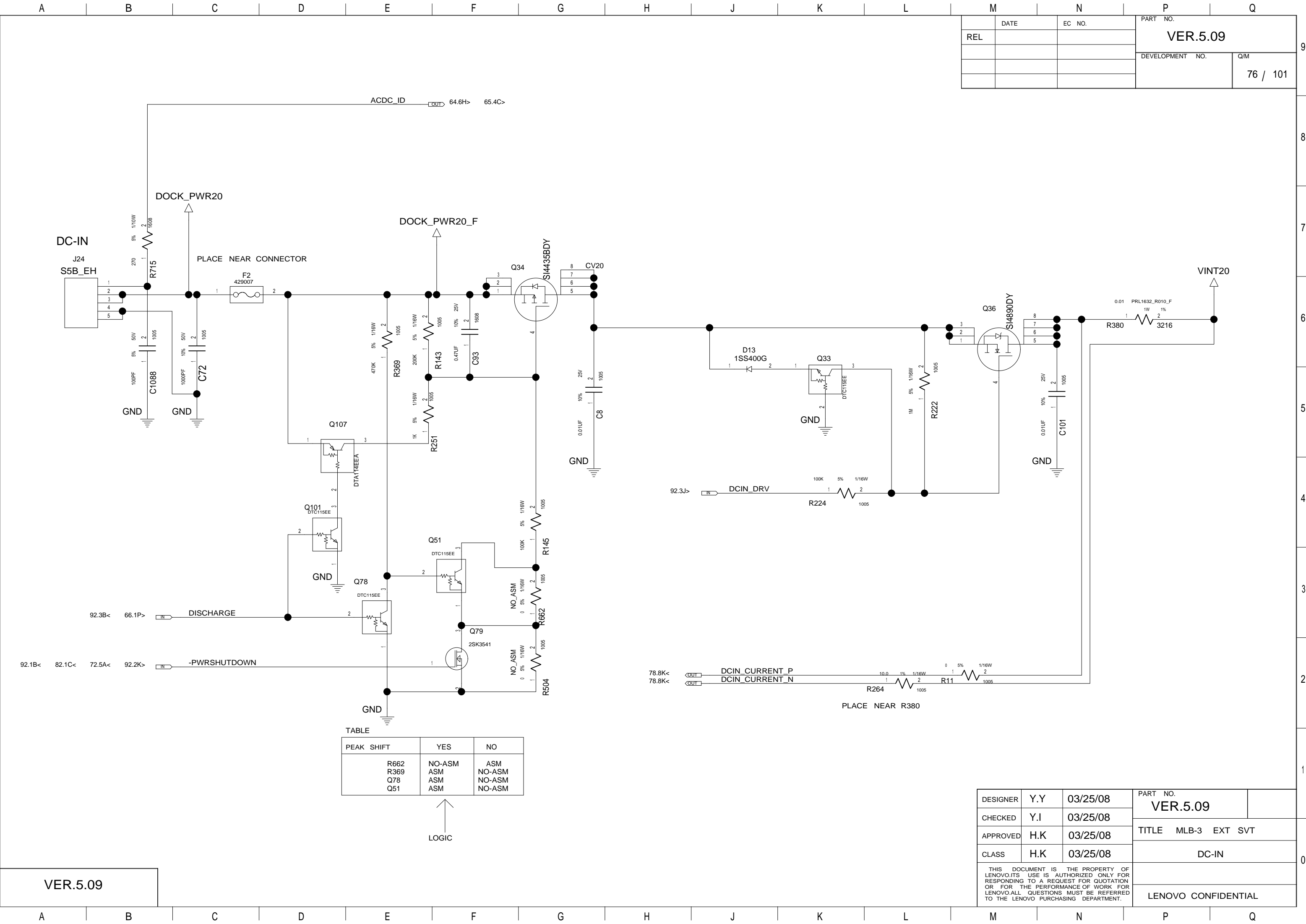
POWER ON STRAP PIN	
PIN 2:BASE	I/O ADDRESS
NC:164E/164F(INTERNAL PU)	
PD:2E/2F	
PIN 31:LPC	SWITCH FUNCTION
NC:SWITCH ENABLE(CONTROLLED BY DLCON BIT)	
PD:SWITCH DISABLE(FORCED TO BE DISCONNECTED)	
PIN 47:TRISTATE	
NC:NORMAL OPERATION	
PD:ALL PINS FLOATING	
PIN 48:TEST	
NC:NORMAL OPERATION	
PD:TEST MODE	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	SUPER I/O	
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	

GPIO ASSIGNMENT LIST	
GPIO00:LPC	RESET# FOR DOCKING LPC DEVICE
GPIO01:LPC	POWER DOWN FOR DOCKING LPC DEVICE
GPIO02:RESERVED(INTERNAL	PULL UP ENABLE)
GPIO03:RESERVED(INTERNAL	PULL UP ENABLE)
GPIO04:DOCK	ID 0 (INTERNAL PULL UP ENABLE)
GPIO20:DOCK	ID 1 (INTERNAL PULL UP ENABLE)
GPIO21:DOCK	ID 2 (INTERNAL PULL UP ENABLE)
GPIO23:LCD	PRESENCE DETECT (INTERNAL PULLUP ENABLE)



DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	EEPROM/SMBUS SW/TPM	
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	

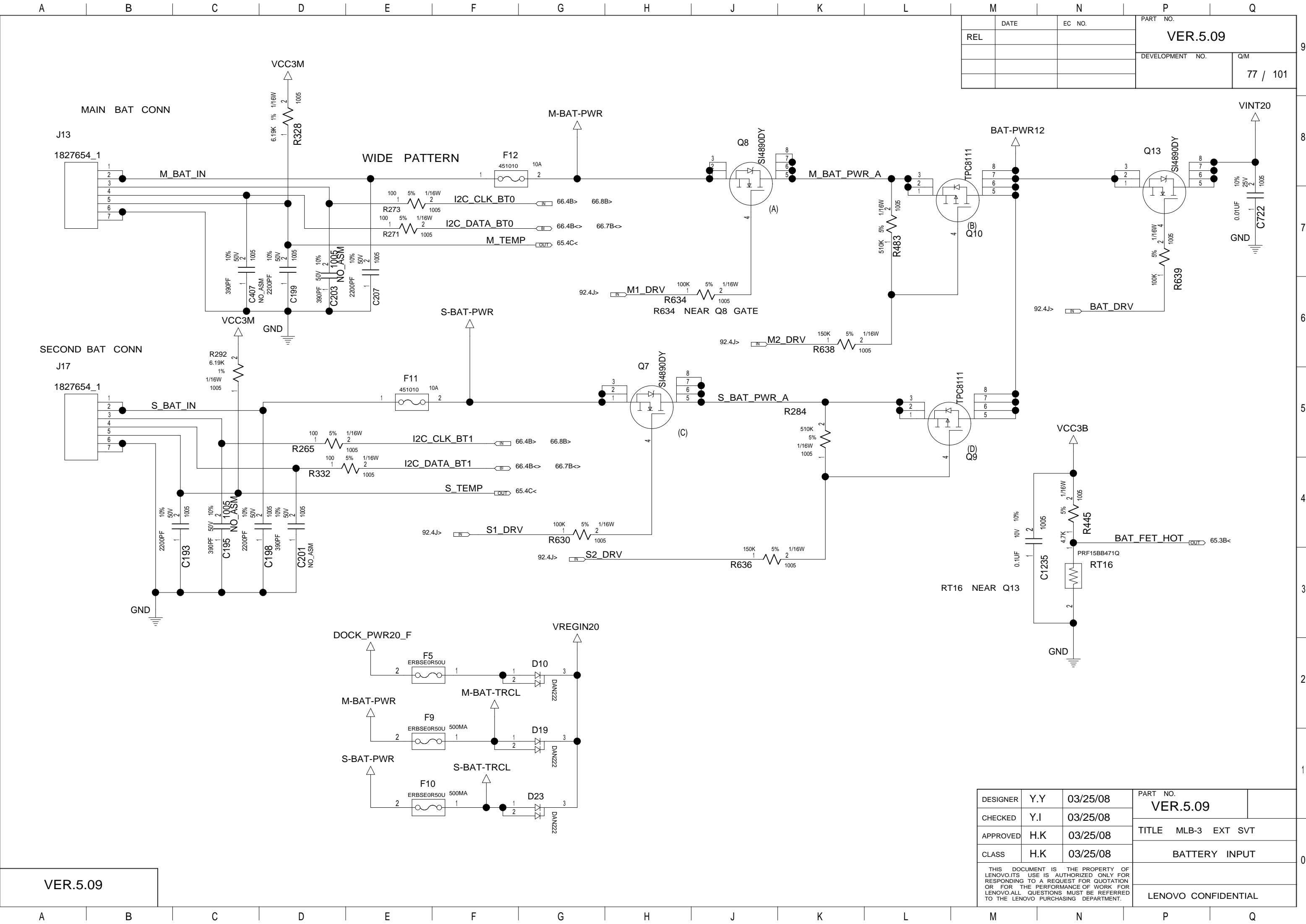


DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			76 / 101	

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

↑
LOGIC

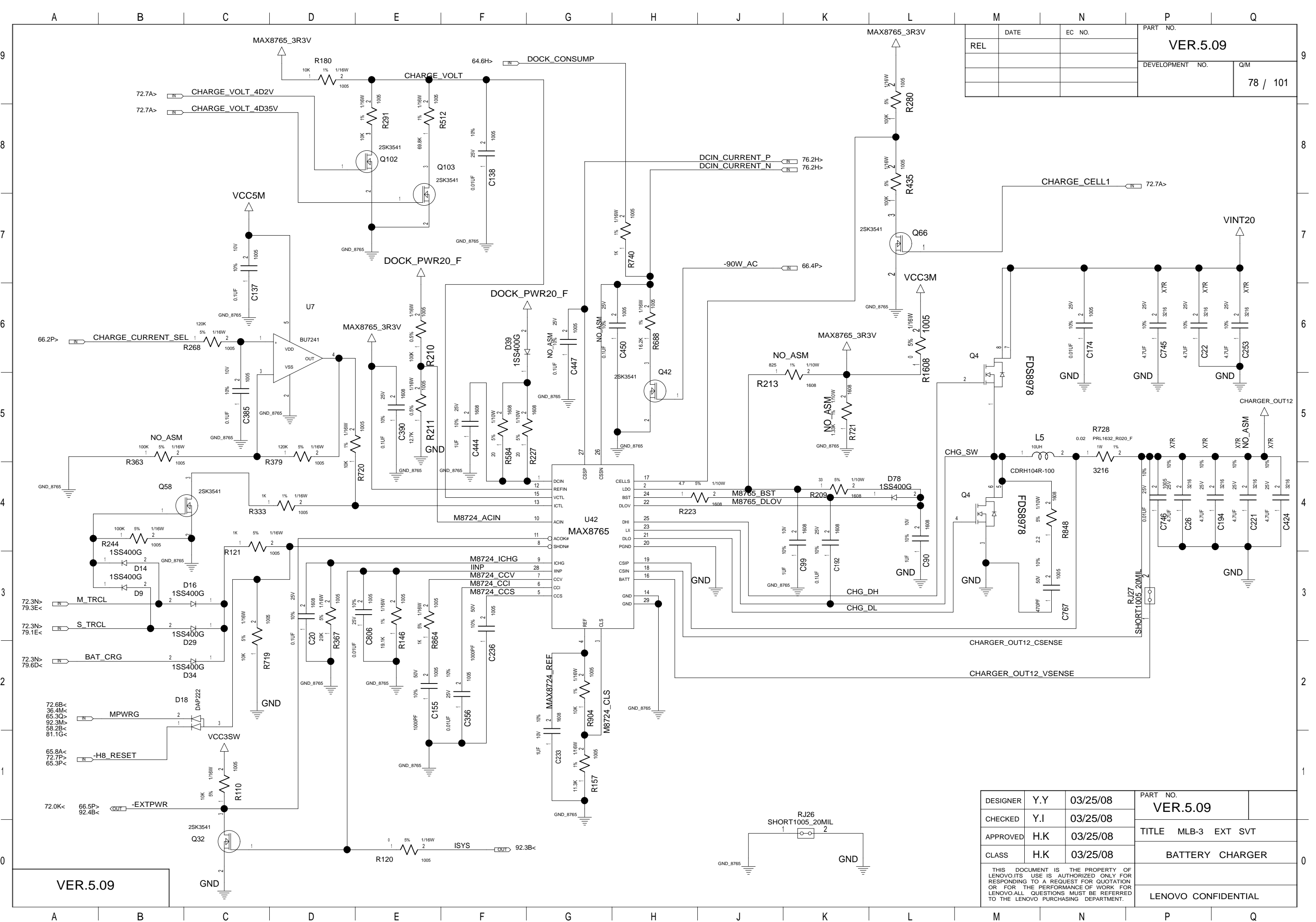
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC-IN	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	

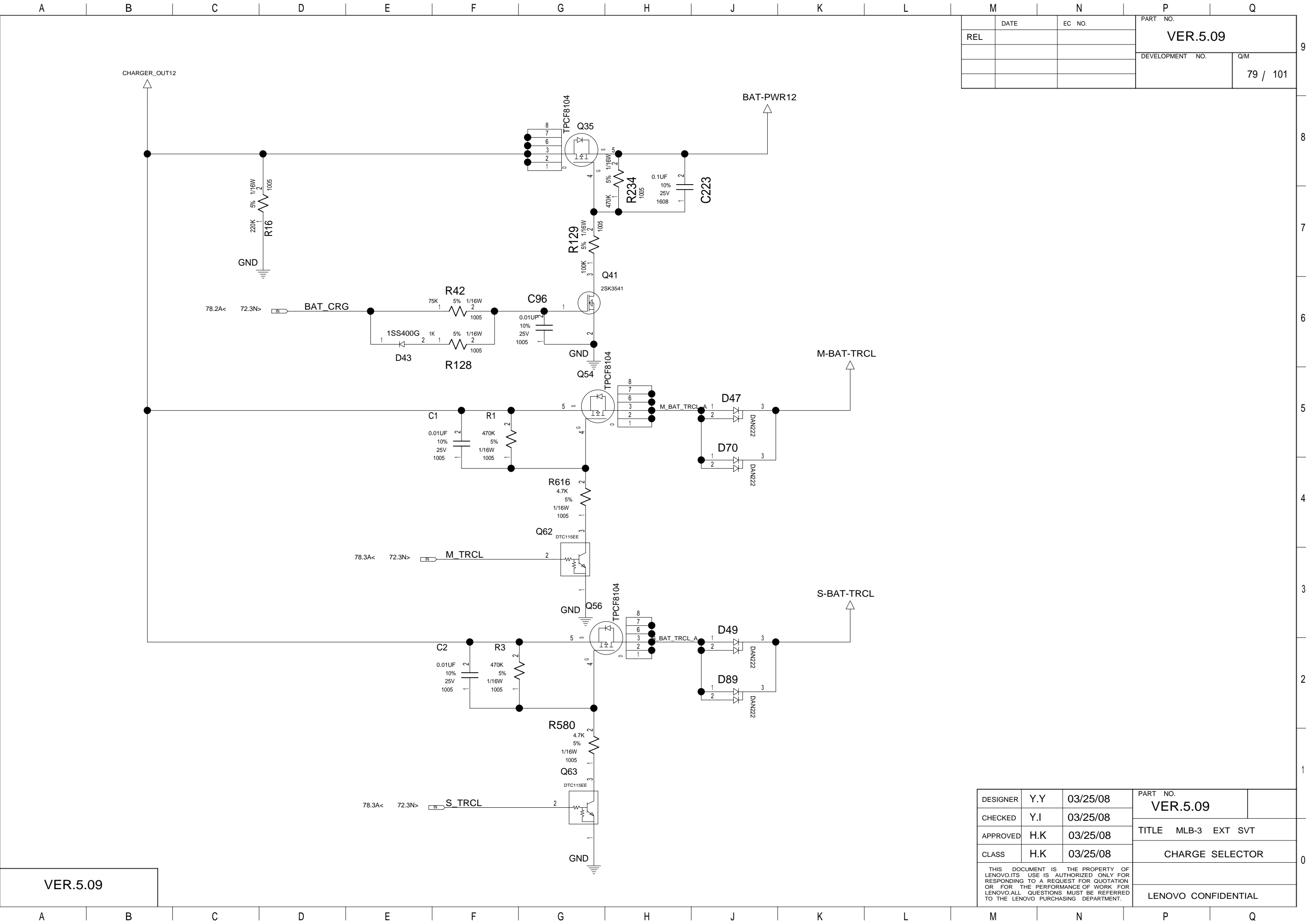


DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				77 / 101

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	BATTERY INPUT	
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	

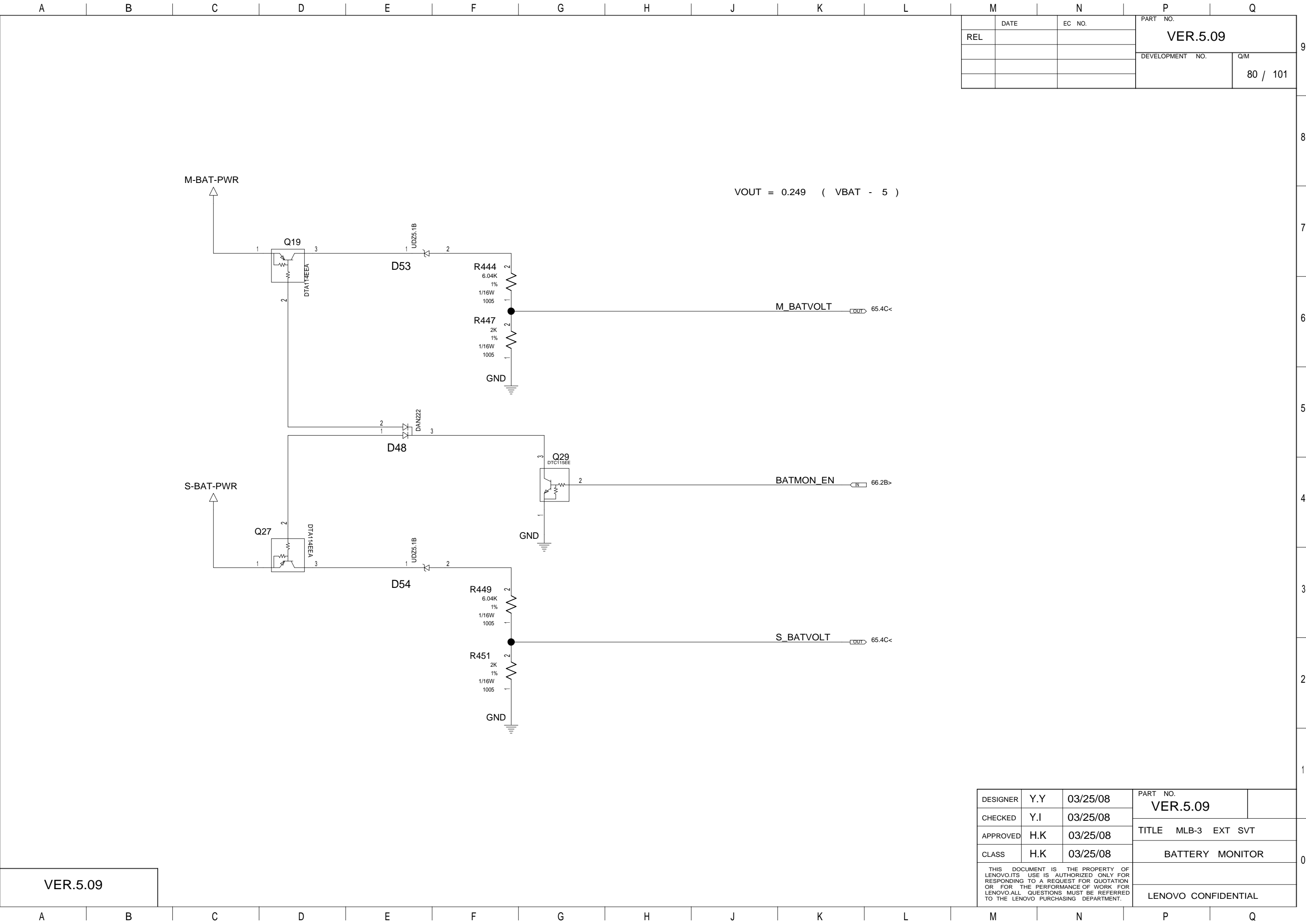




DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				79 / 101	

VER.5.09

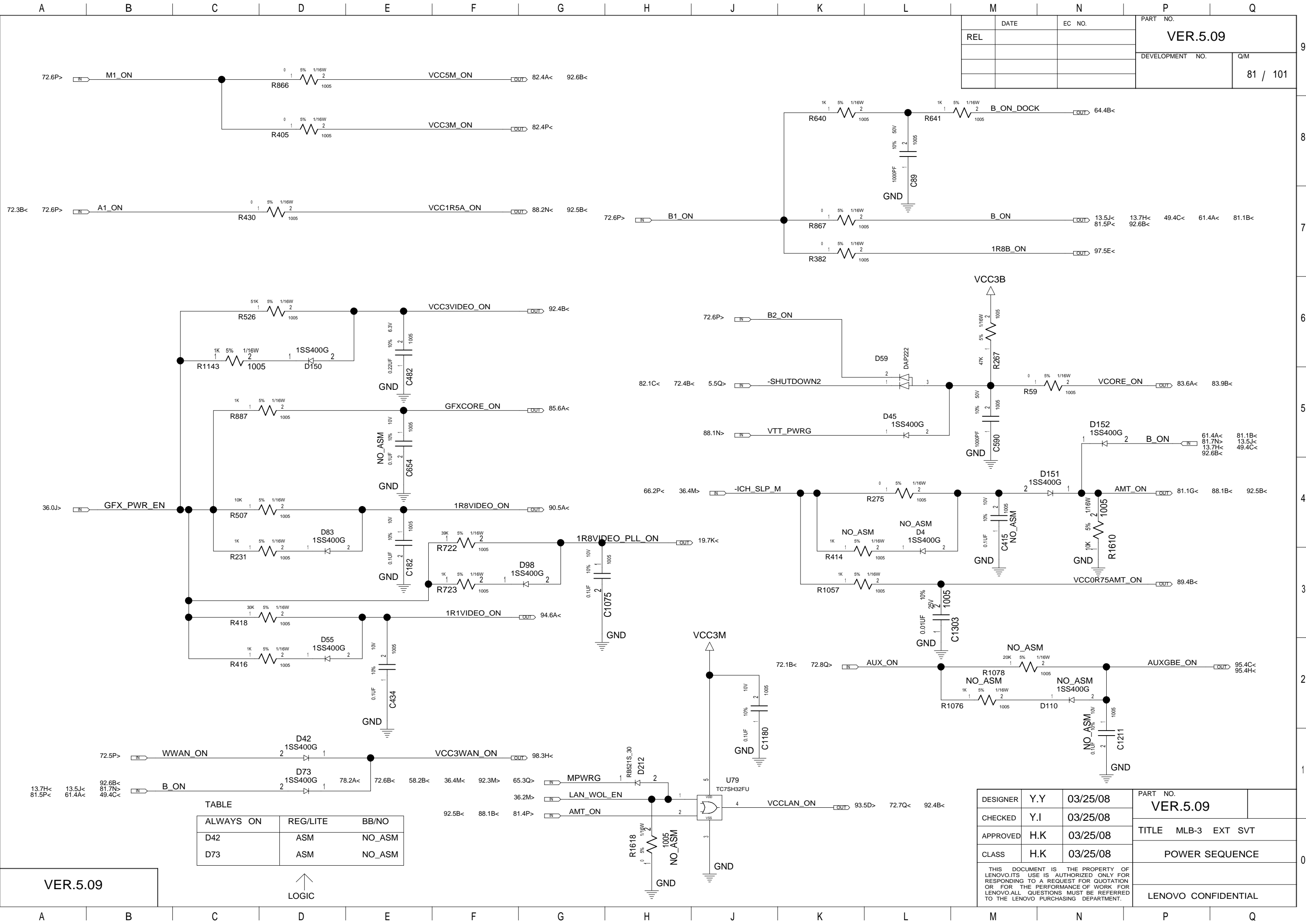
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	CHARGE SELECTOR	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.				
			LENOVO CONFIDENTIAL	



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			
						Q/M	
						80 / 101	

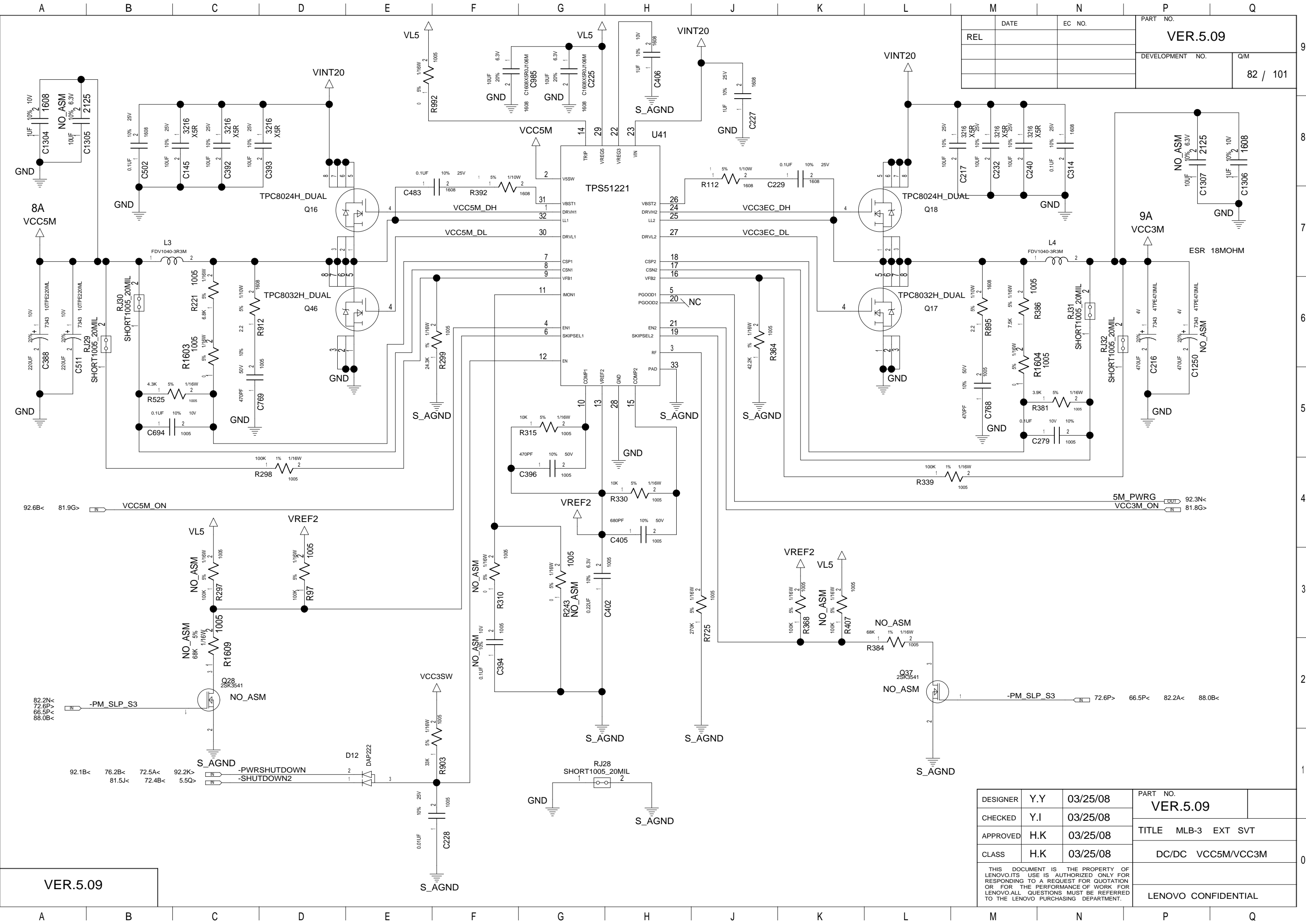
VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.		VER.5.09	
CHECKED	Y.I	03/25/08				
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT			
CLASS	H.K	03/25/08	BATTERY MONITOR			
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			



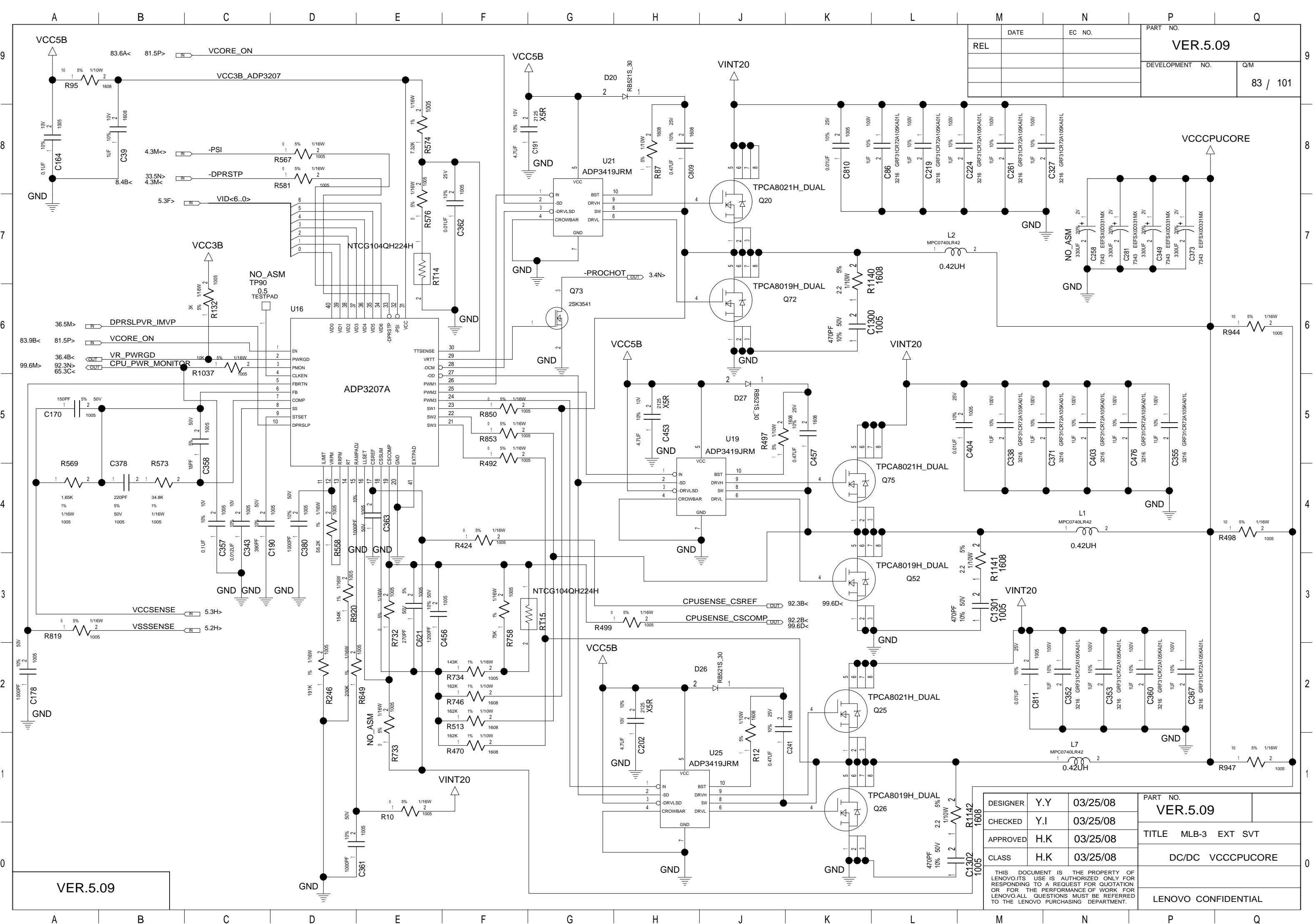
	DATE	EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	Q/M
				81 / 101

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	POWER SEQUENCE	
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.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				82 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC/DC VCC5M/VCC3M	
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	



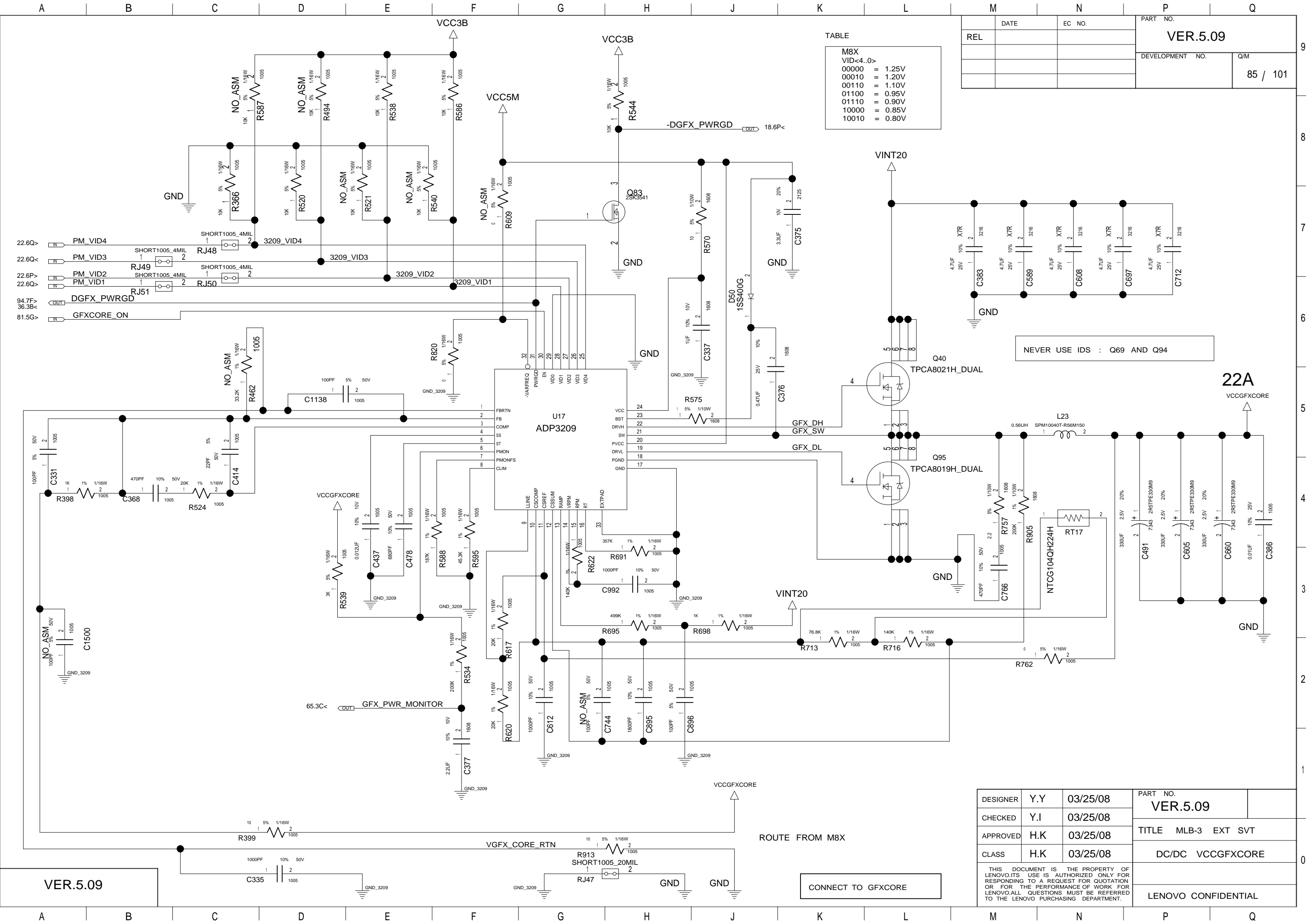


TABLE	
M8X	VID<4.0>
00000	1.25V
00010	1.20V
00110	1.10V
01110	0.95V
01110	0.90V
10000	0.85V
10010	0.80V

REL		DATE	EC NO.	PART NO.	
				VER.5.09	
				DEVELOPMENT NO.	Q/M
					85 / 101

NEVER USE IDS : Q69 AND Q94

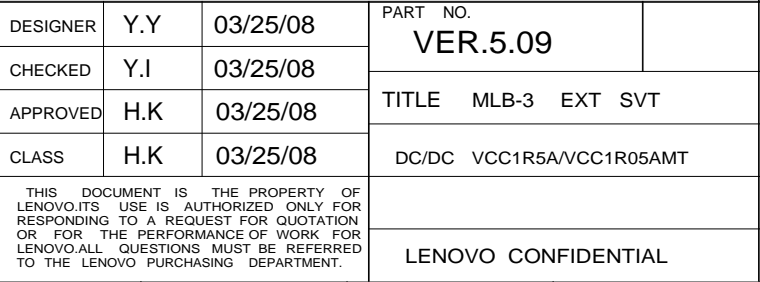
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC/DC VCCGFXCORE	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENVO CONFIDENTIAL	

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q			
													DATE	EC NO.	PART NO.		
												REL			VER.5.09		
															DEVELOPMENT NO.		Q/M
															86 / 101		
BLANK																	
												DESIGNER	Y.Y	03/25/08	PART NO.		
												CHECKED	Y.I	03/25/08	VER.5.09		
												APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
												CLASS	H.K	03/25/08	BLANK		
												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					
A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q			

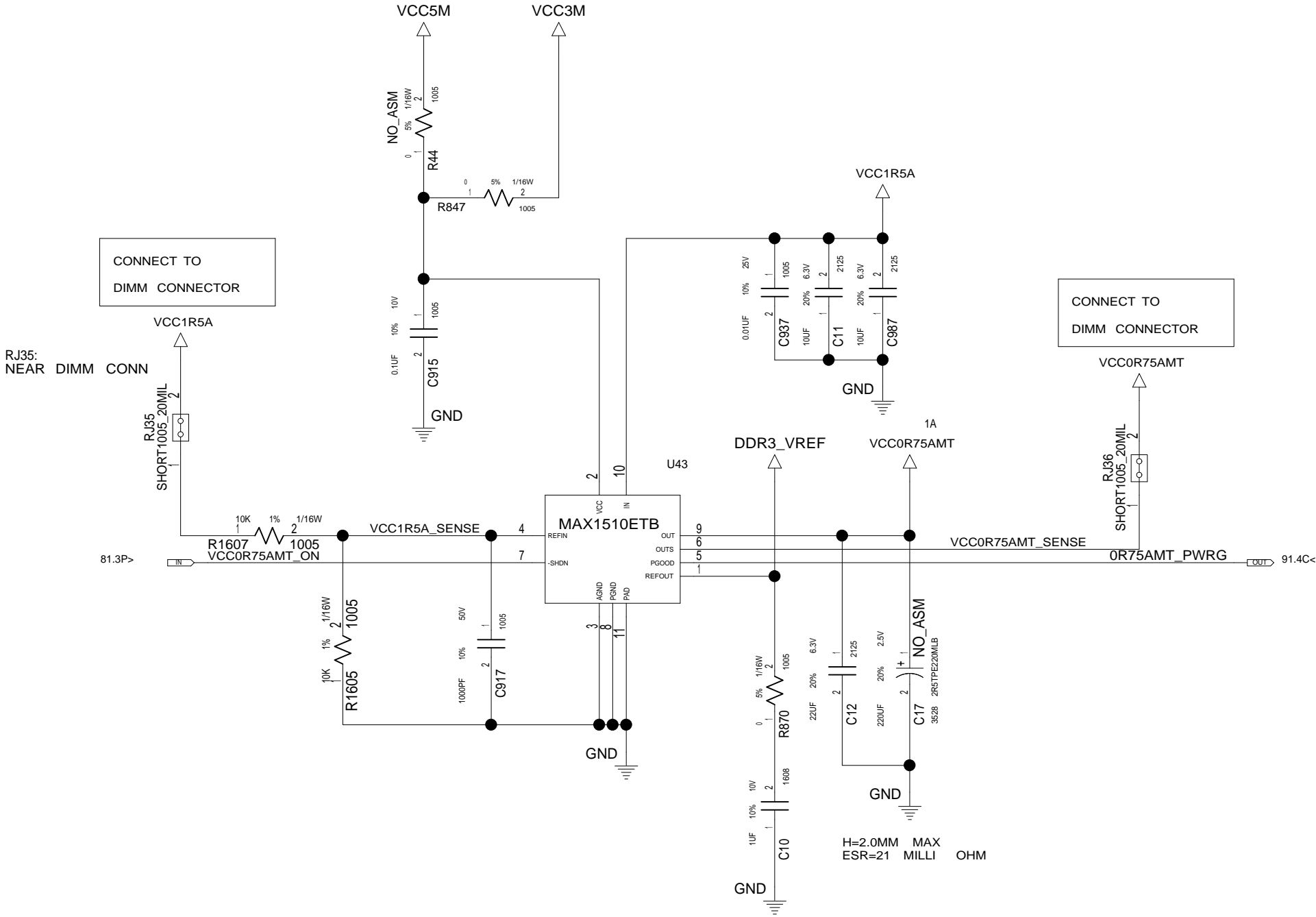
VER.5.09

BLANK

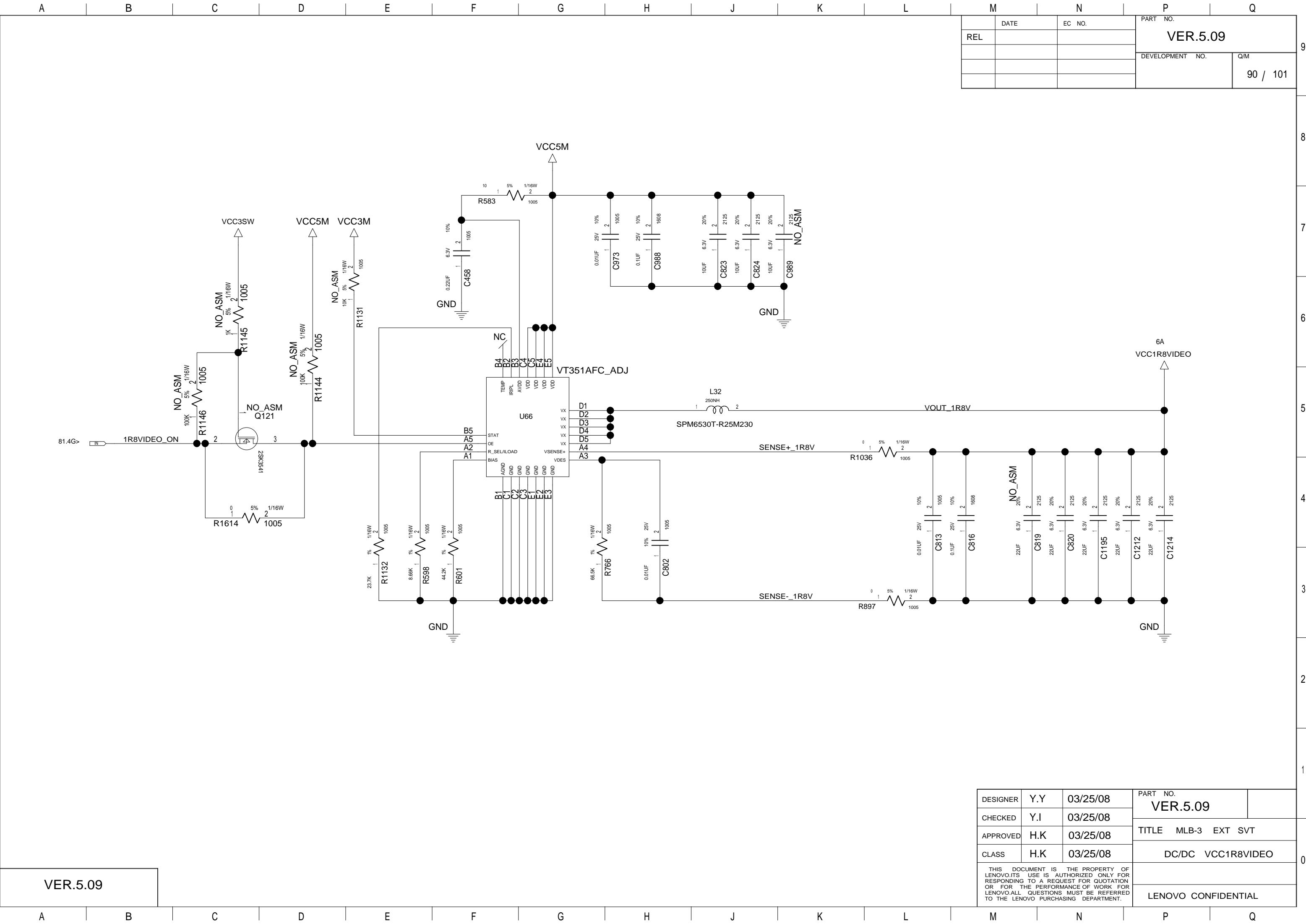
												M		N		P		Q											
													DATE		EC NO.		PART NO.												
												REL				VER.5.09													
															DEVELOPMENT NO.		Q/M												
															87 / 101														
BLANK																													
												DESIGNER	Y.Y	03/25/08	PART NO.														
												CHECKED	Y.I	03/25/08	VER.5.09														
												APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT														
												CLASS	H.K	03/25/08	BLANK														
												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											
A		B		C		D		E		F		G		H		J		K		L		M		N		P		Q	



		DATE		EC NO.		PART NO.	
REL						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						89 / 101	



DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC/DC VCC0R75AMT	
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.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				90 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC/DC VCC1R8VIDEO	
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	

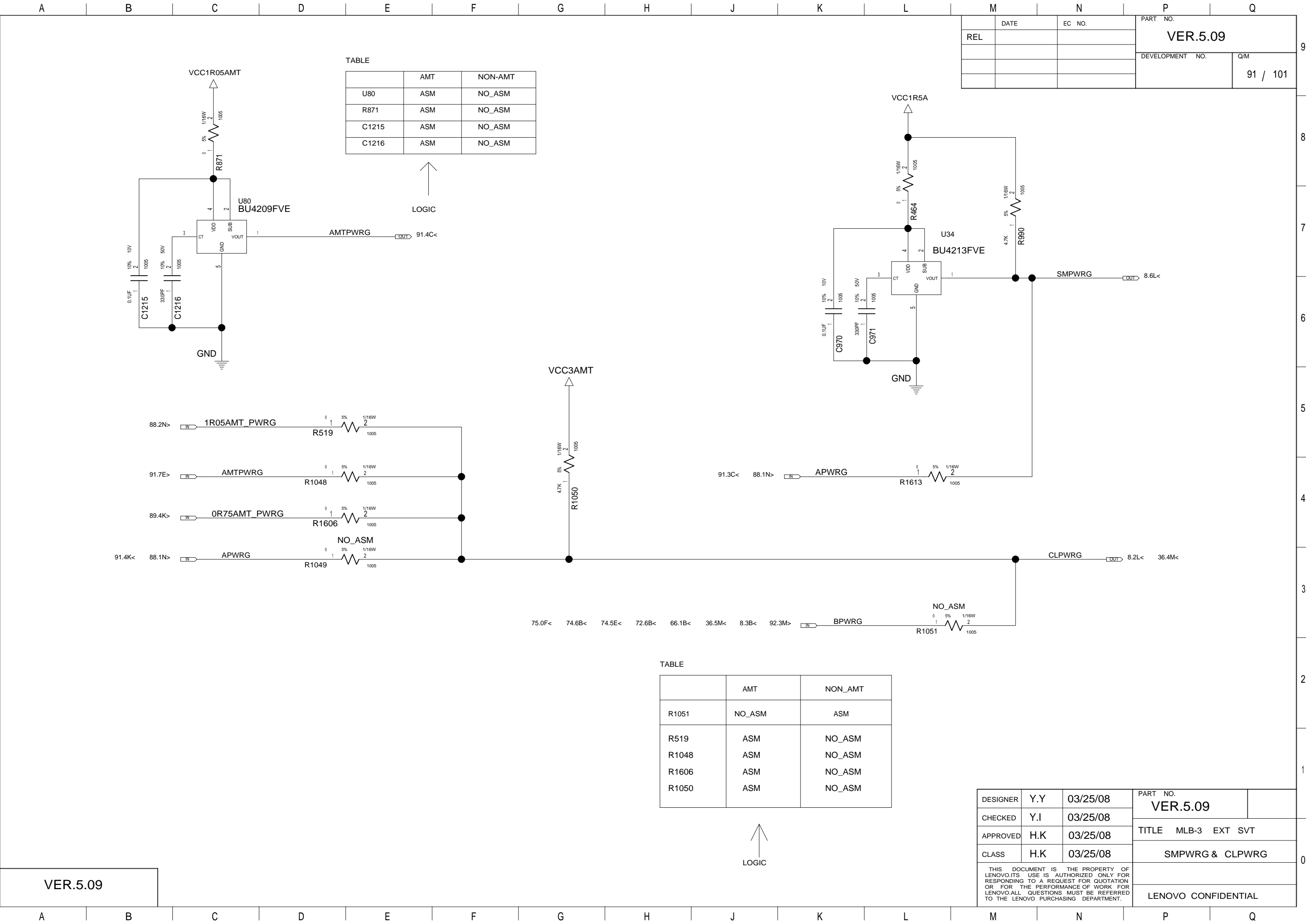


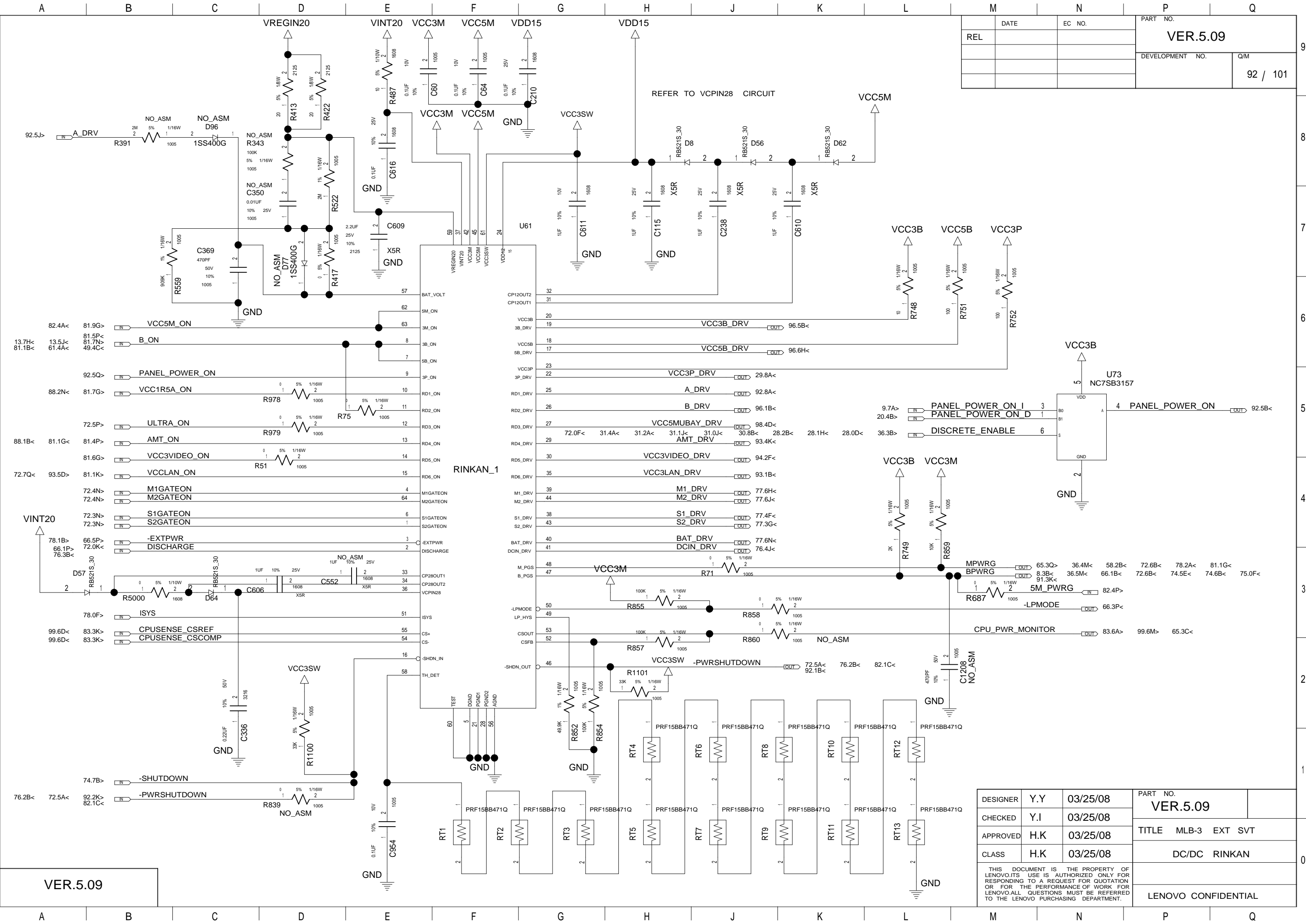
TABLE		
	AMT	NON-AMT
U80	ASM	NO_ASM
R871	ASM	NO_ASM
C1215	ASM	NO_ASM
C1216	ASM	NO_ASM

LOGIC

TABLE		
	AMT	NON_AMT
R1051	NO_ASM	ASM
R519	ASM	NO_ASM
R1048	ASM	NO_ASM
R1606	ASM	NO_ASM
R1050	ASM	NO_ASM

LOGIC

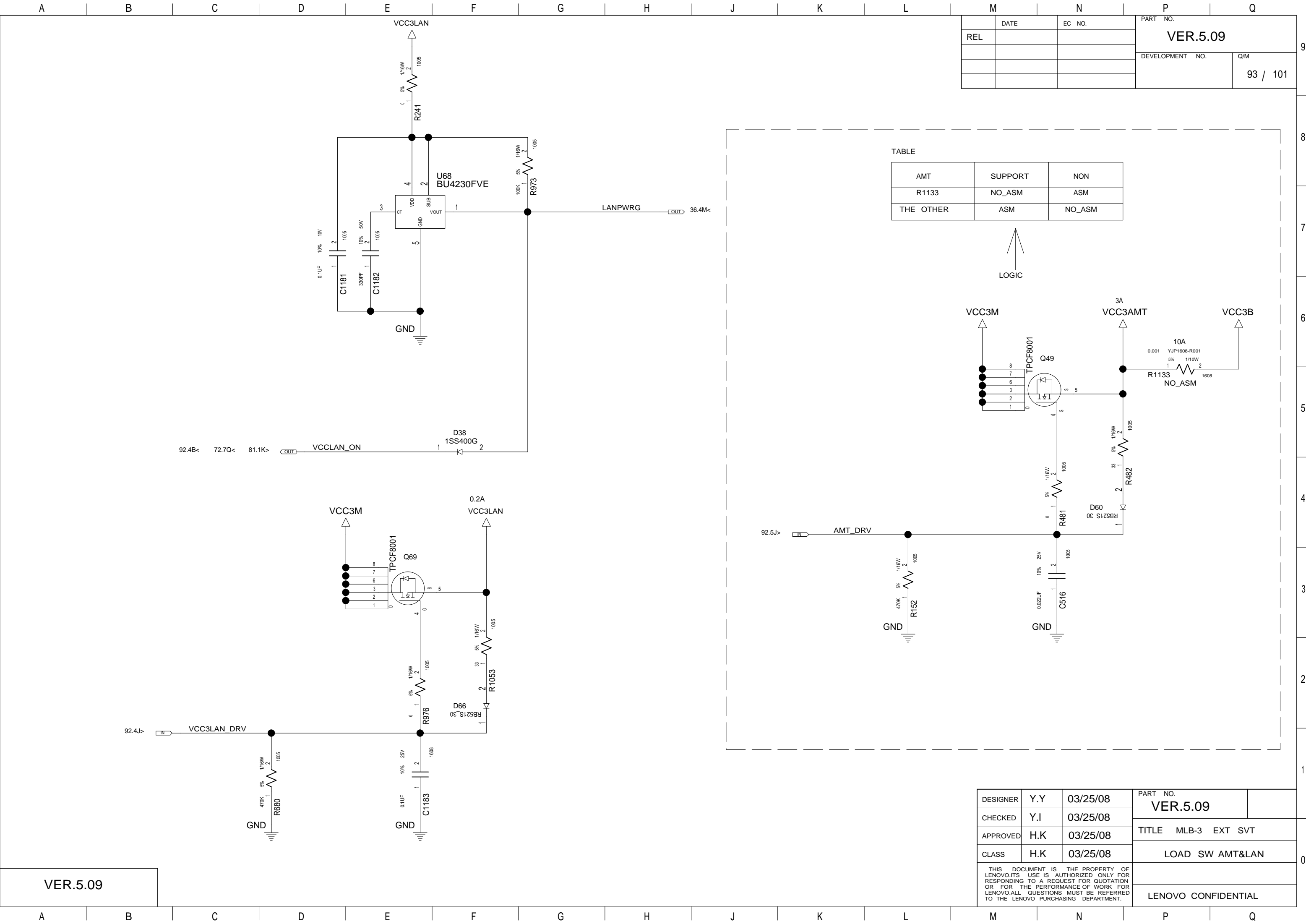
M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.		Q/M	
						91 / 101	



DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				92 / 101	

VER.5.09

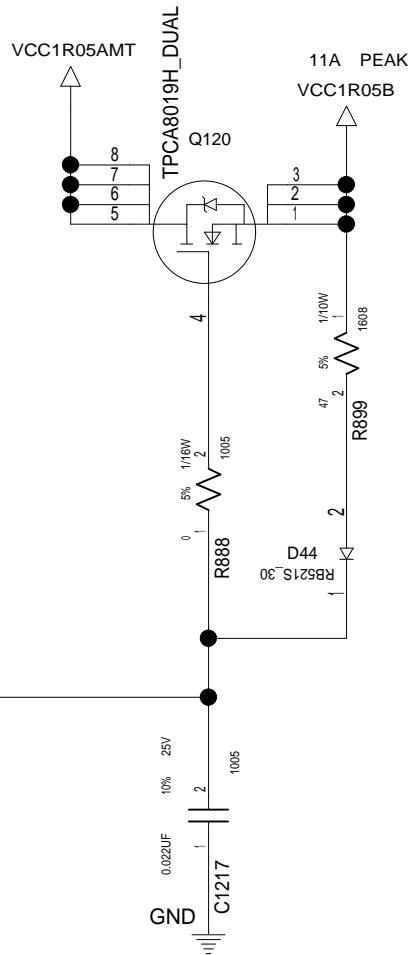
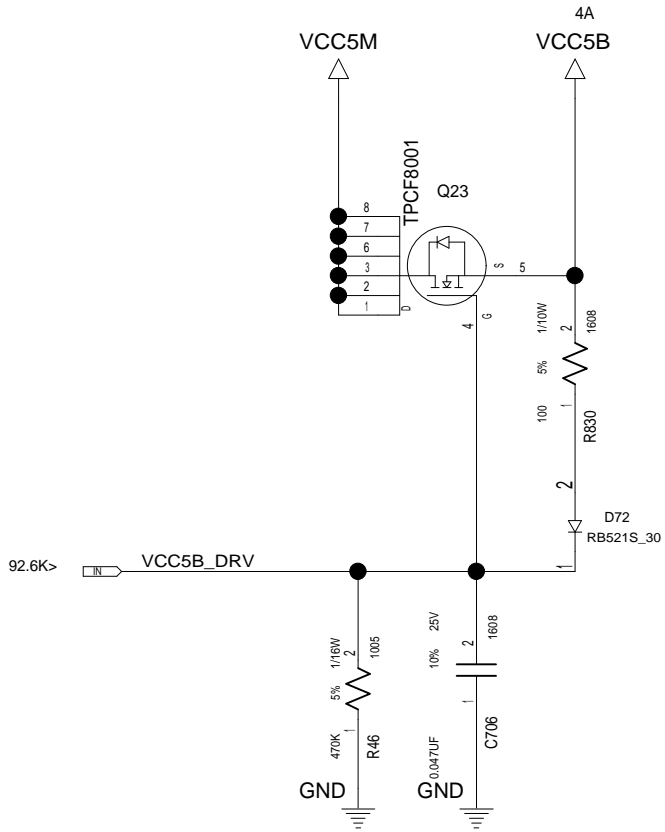
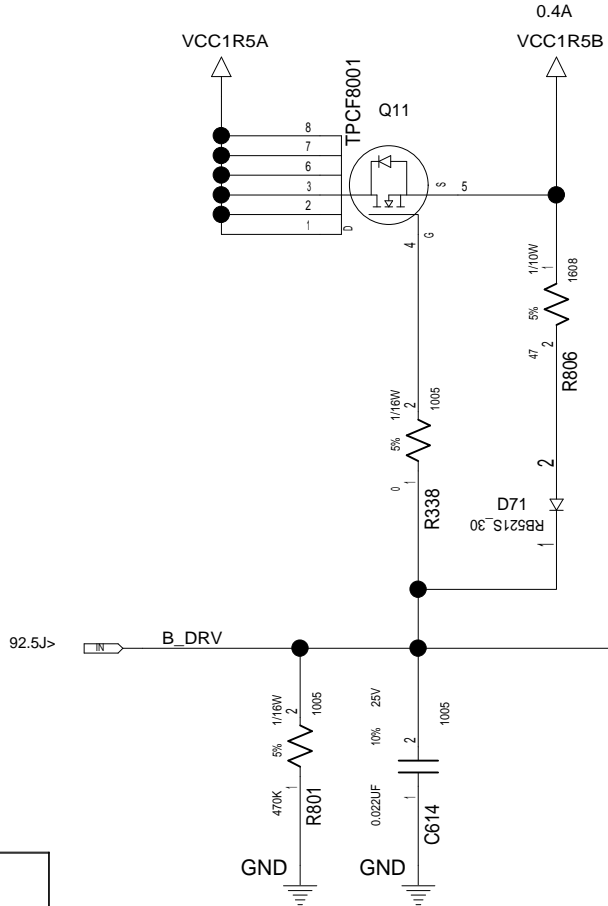
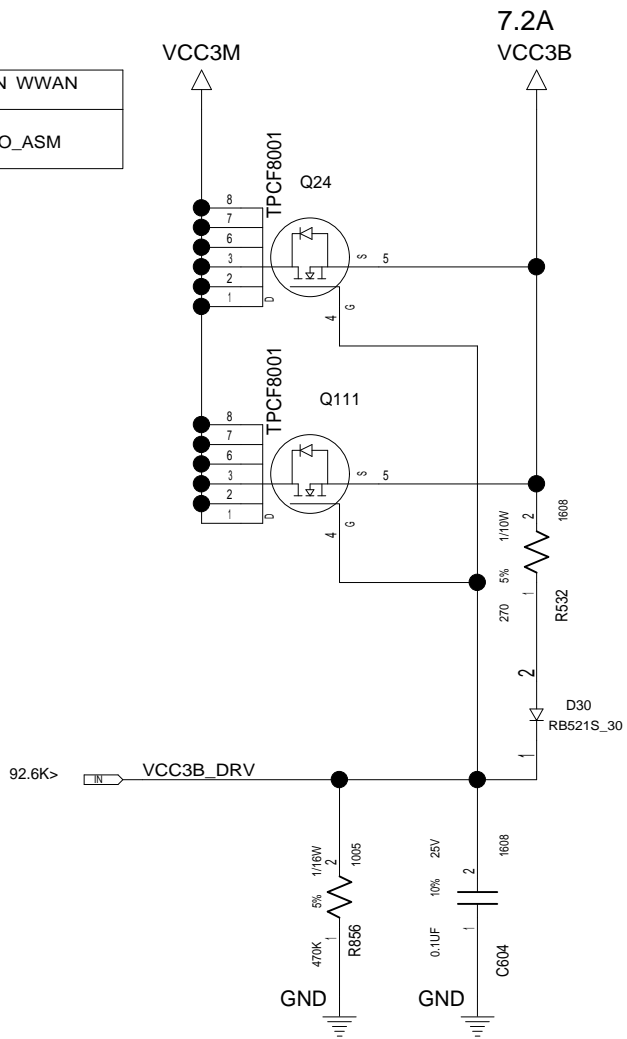
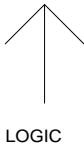
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	DC/DC RINKAN	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			93 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	LOAD SW AMT&LAN	
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	

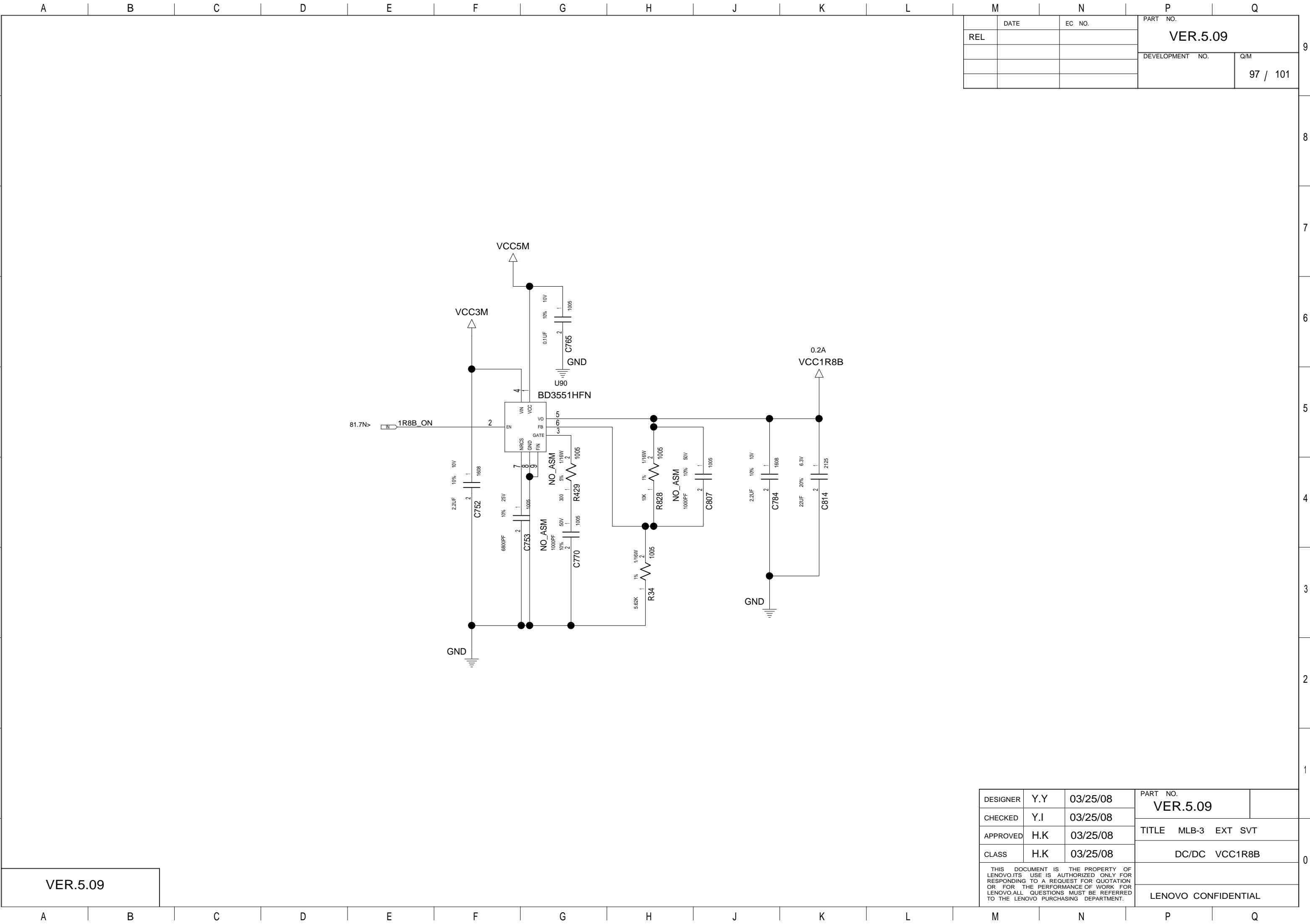
TABLE		
	WWAN	NON WWAN
Q111	ASM	NO_ASM

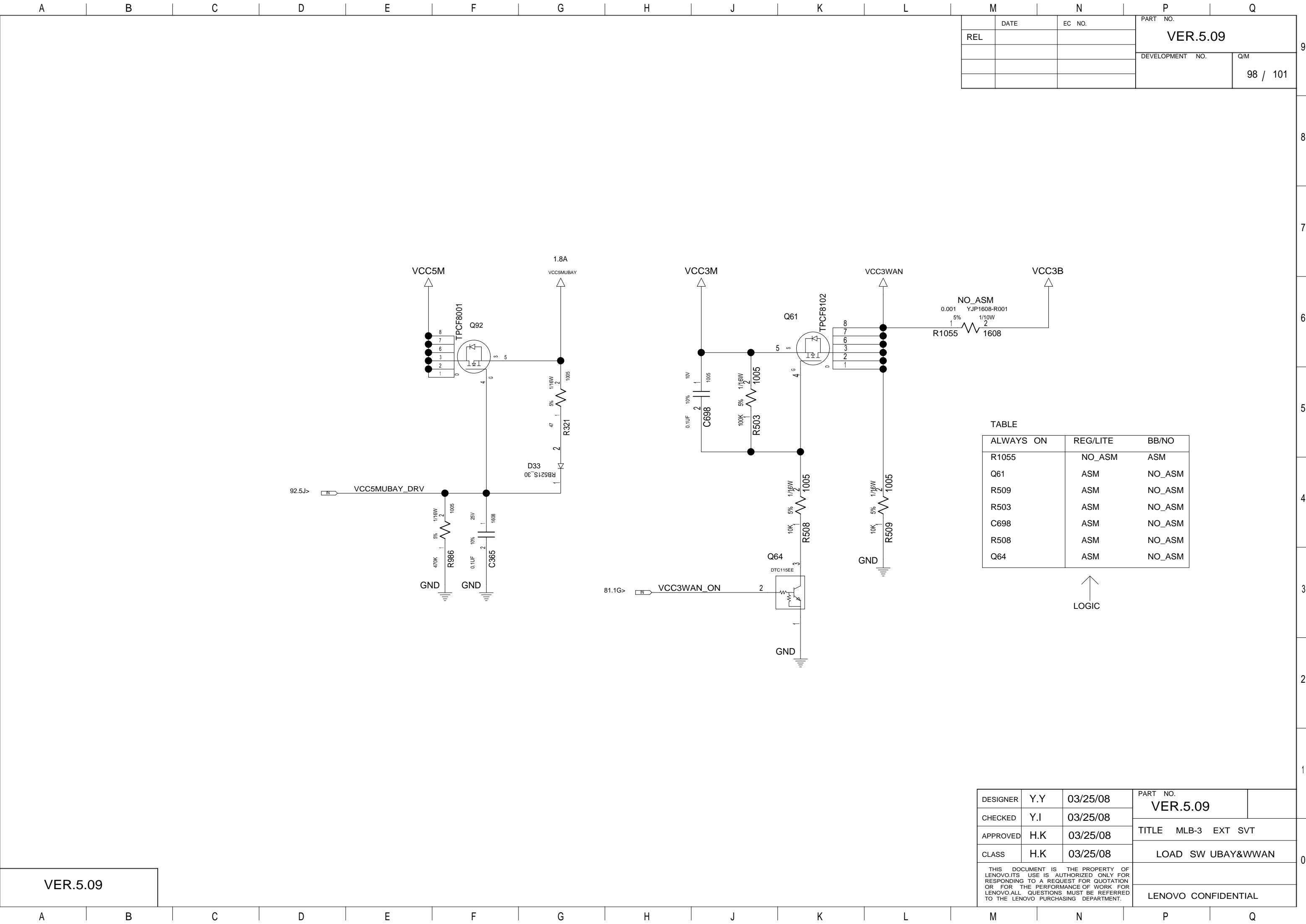


M		N		P		Q	
REL		DATE		EC NO.		PART NO.	
						VER.5.09	
						DEVELOPMENT NO.	
						Q/M	
						96 / 101	

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	LOAD SW B	
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	

VER.5.09





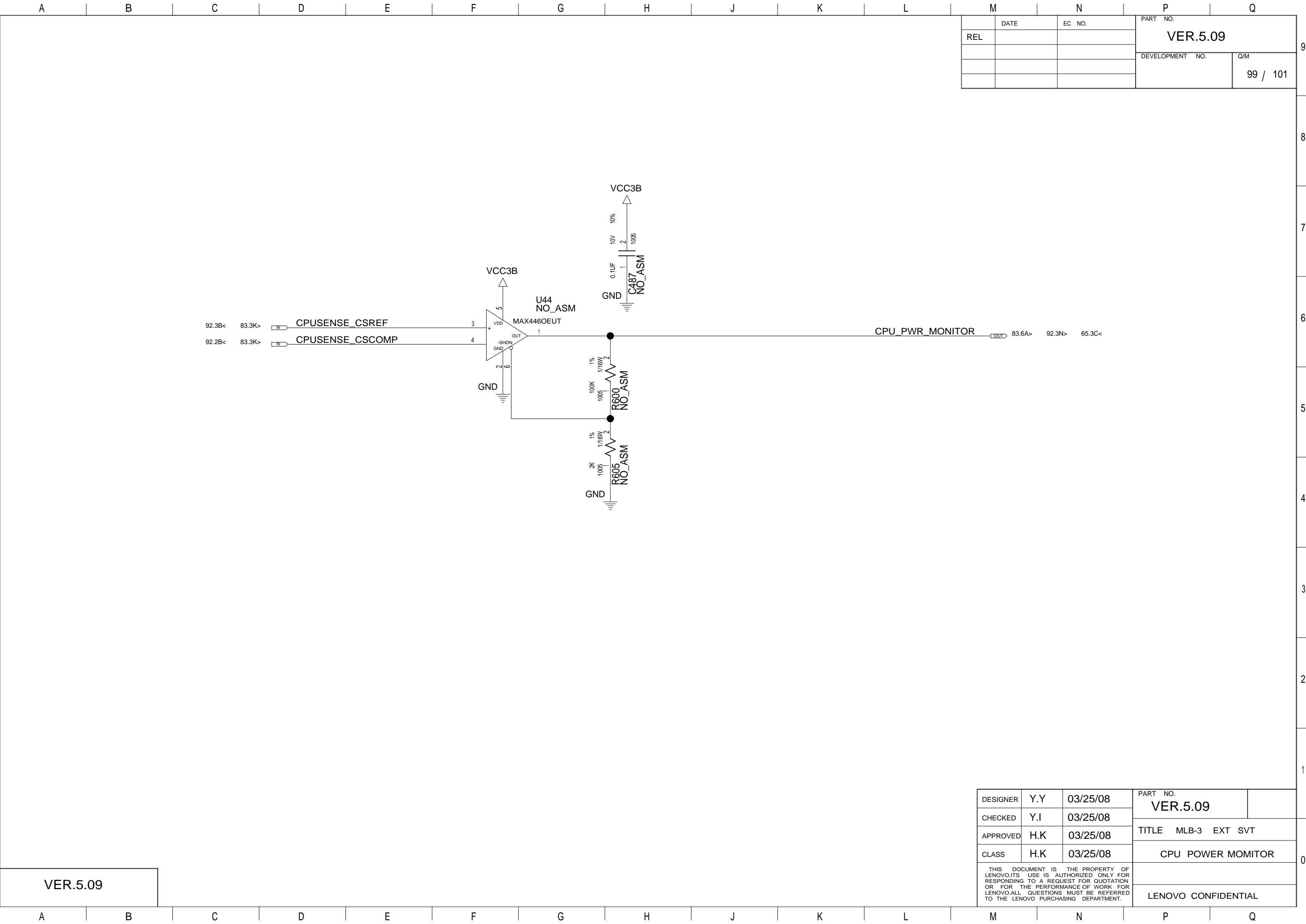
DATE		EC NO.	PART NO.	
REL			VER.5.09	
			DEVELOPMENT NO.	
			Q/M	
			98 / 101	

TABLE

ALWAYS ON	REG/LITE	BB/NO
R1055	NO_ASM	ASM
Q61	ASM	NO_ASM
R509	ASM	NO_ASM
R503	ASM	NO_ASM
C698	ASM	NO_ASM
R508	ASM	NO_ASM
Q64	ASM	NO_ASM

LOGIC

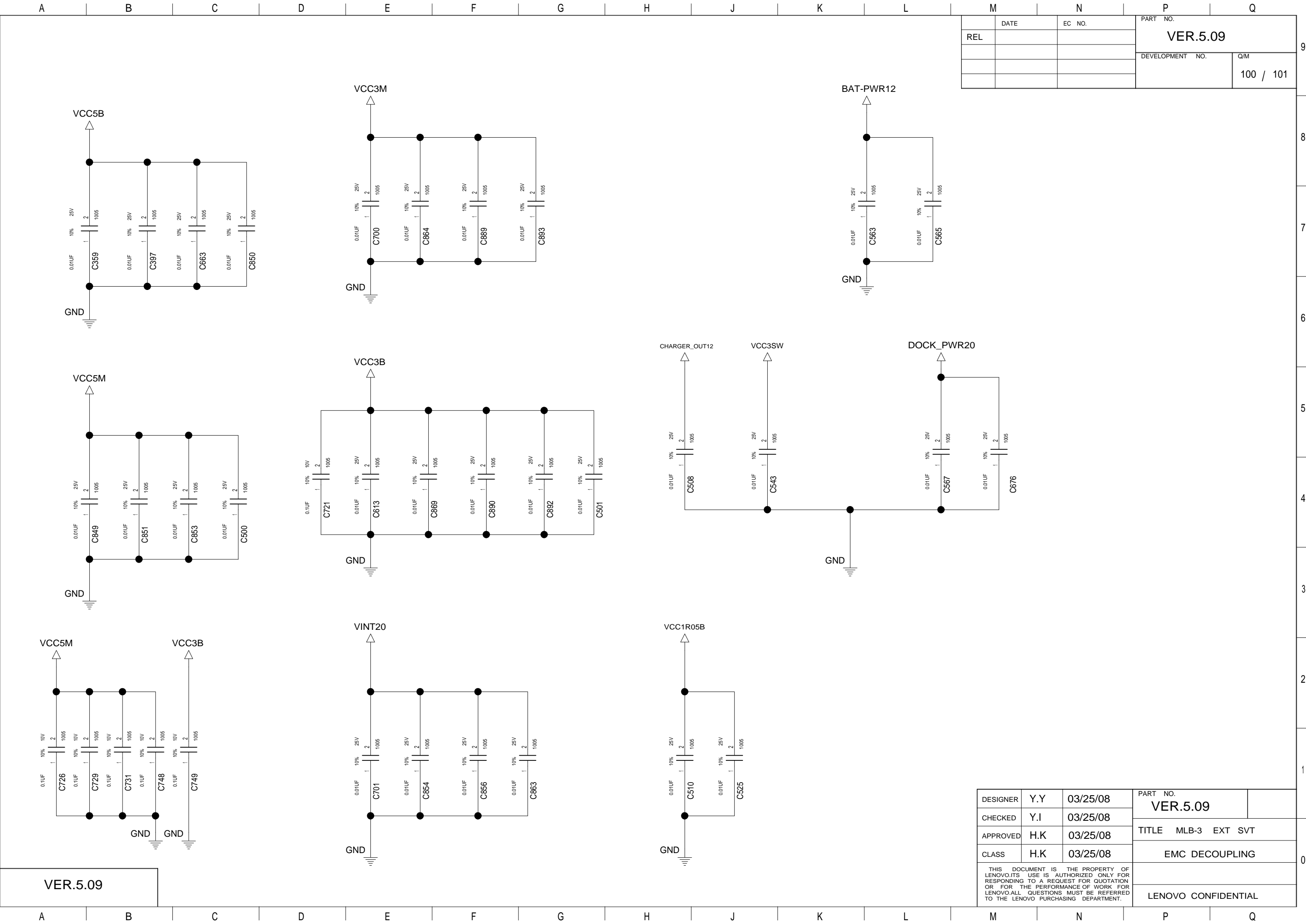
DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	LOAD SW UBAY&WWAN	
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.			LENOVO CONFIDENTIAL	



M		N		P		Q	
	DATE	EC NO.		PART NO.			
REL				VER.5.09			
				DEVELOPMENT NO.			Q/M
							99 / 101

VER.5.09

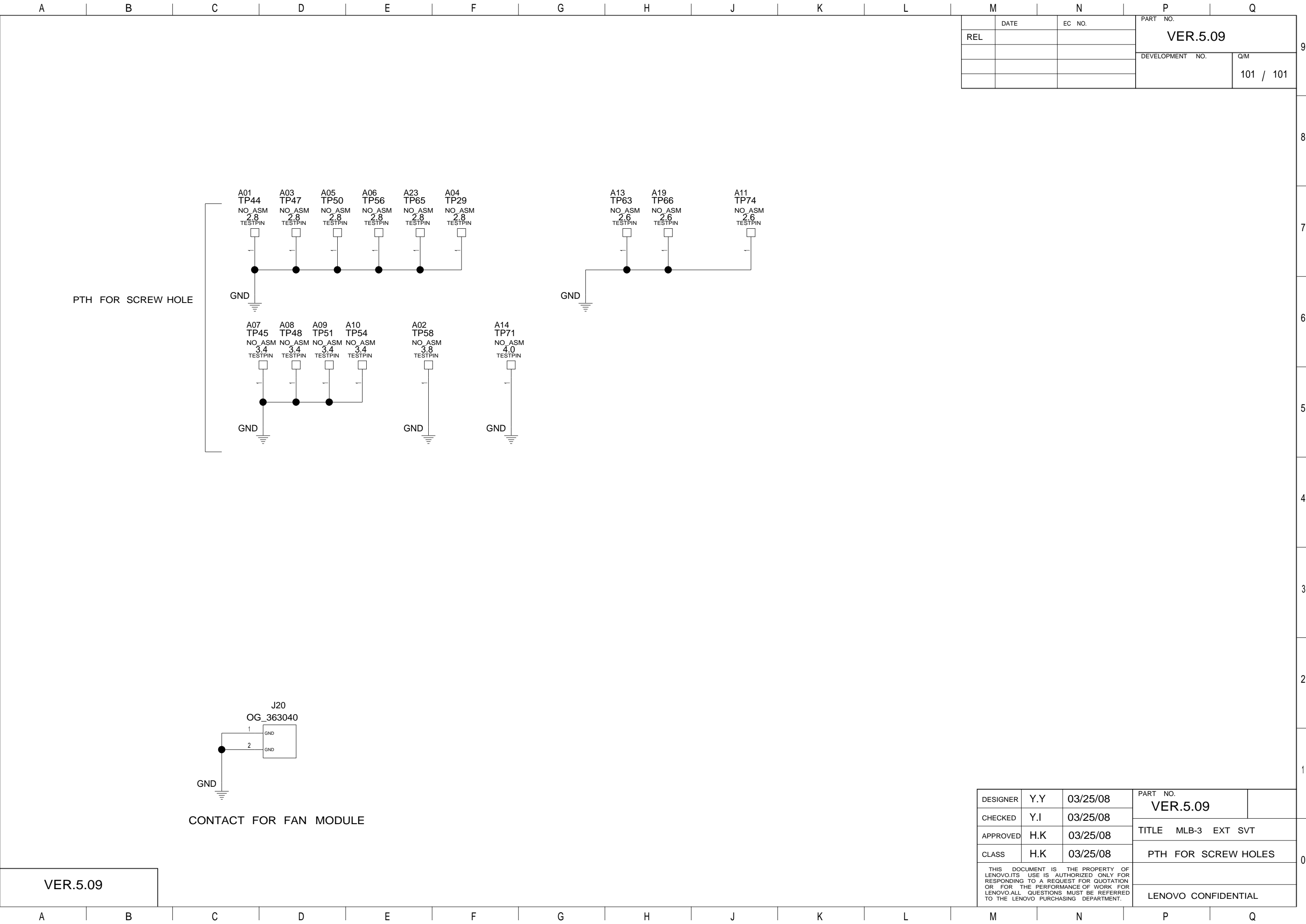
DESIGNER	Y.Y	03/25/08	PART NO.		VER.5.09	
CHECKED	Y.I	03/25/08				
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT			
CLASS	H.K	03/25/08	CPU POWER MOMITOR			
THIS DOCUMENT IS THE PROPERTY OF LENOVO.ITS USE IS AUTHORIZED ONLY FOR RESPONDING TO A REQUEST FOR QUOTATION OR FOR THE PERFORMANCE OF WORK FOR LENOVO.ALL QUESTIONS MUST BE REFERRED TO THE LENOVO PURCHASING DEPARTMENT.						
			LENOVO CONFIDENTIAL			



DATE		EC NO.		PART NO.	
REL				VER.5.09	
				DEVELOPMENT NO.	
				Q/M	
				100 / 101	

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO.	
CHECKED	Y.I	03/25/08	VER.5.09	
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT	
CLASS	H.K	03/25/08	EMC DECOUPLING	
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.5.09	
REL				
			DEVELOPMENT NO.	Q/M
				101 / 101

VER.5.09

DESIGNER	Y.Y	03/25/08	PART NO. VER.5.09		
CHECKED	Y.I	03/25/08			
APPROVED	H.K	03/25/08	TITLE MLB-3 EXT SVT		
CLASS	H.K	03/25/08	PTH FOR SCREW HOLES		
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		