

Foxconn C51GK8MB

Fab :A

nVIDIA C51G (A01) + MCP51 (A01) Chipset for AMD K8 939 CPU

(Mar./31B/2005)

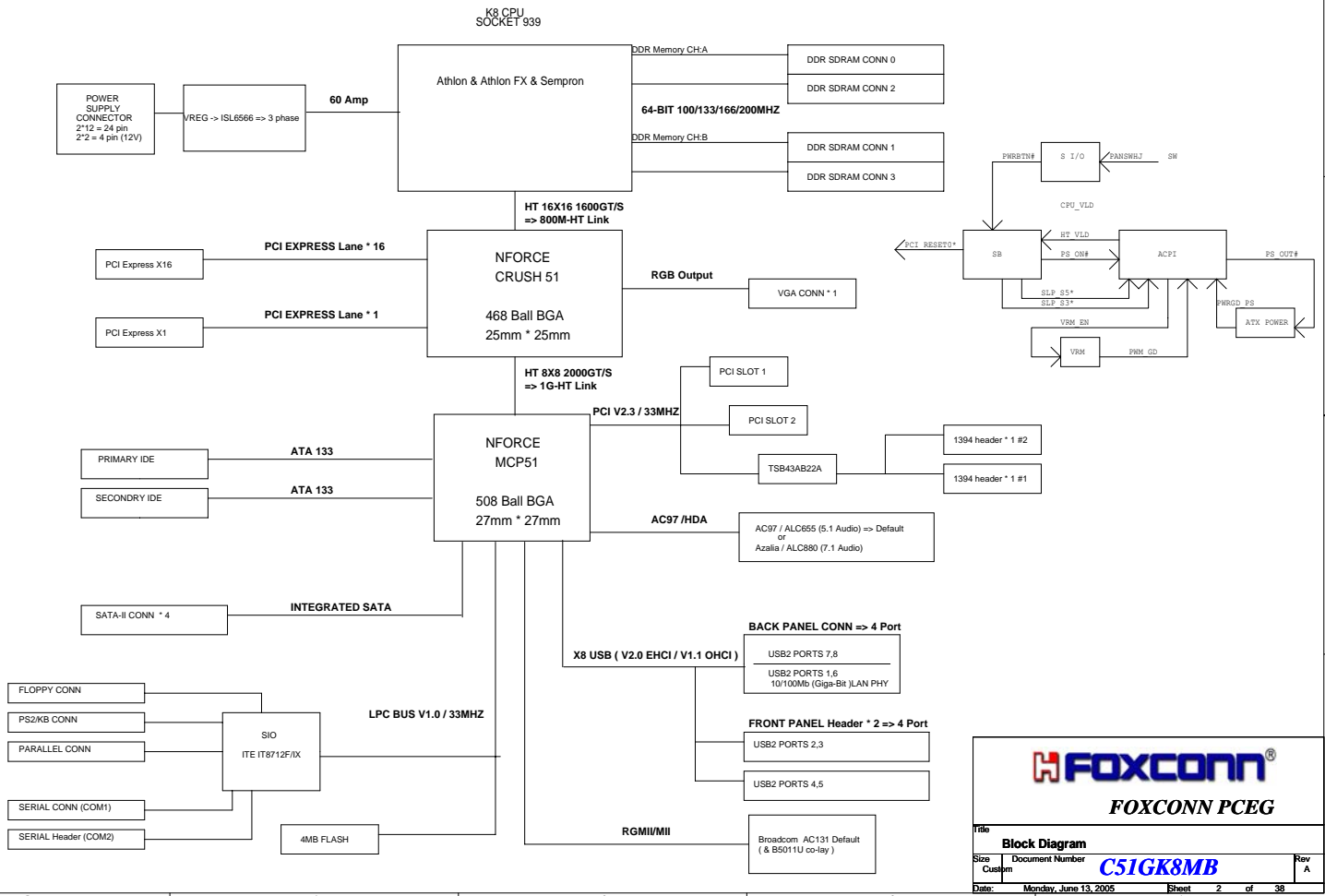


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C51GM02 Block Diagram



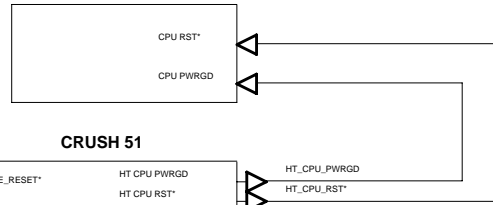
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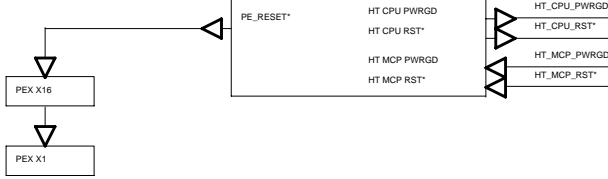
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RESET MAP

K8 Socket 939

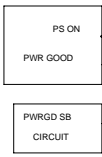


CRUSH 51

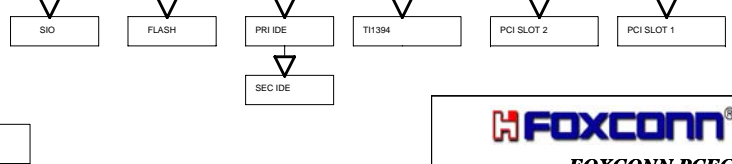
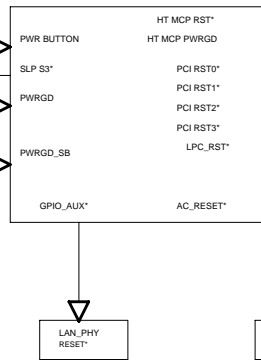



PWR SWITCH

PWR CONN

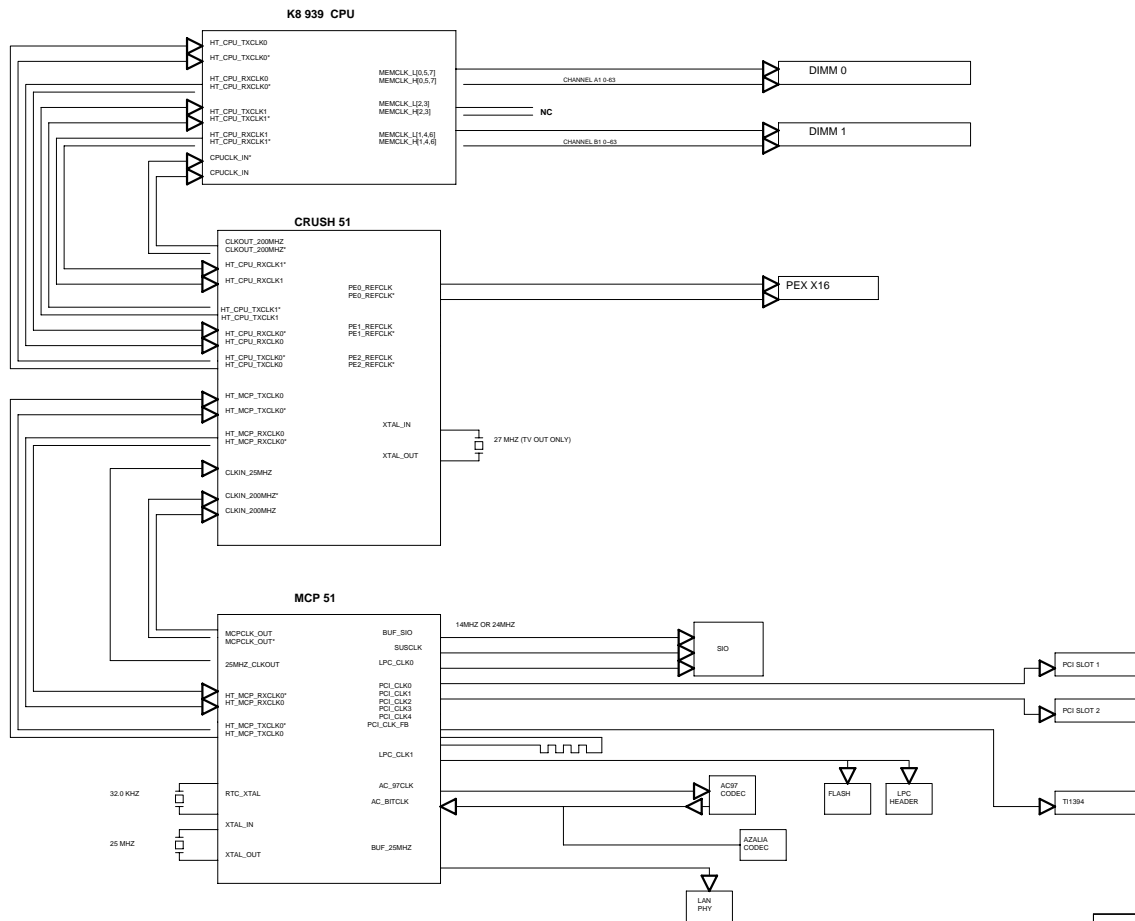


MCP 51




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CPU VID TABLE			
VID [H..0]	VDD	VID [H..0]	VDD
0X0000	1.550V	0X1000	1.150V
0X0001	1.525V	0X1001	1.125V
0X0010	1.500V	0X1010	1.100V
0X0011	1.475V	0X1011	1.075V
0X0100	1.450V	0X10100	1.050V
0X0101	1.425V	0X10101	1.025V
0X0110	1.400V	0X10110	1.000V
0X0111	1.375V	0X10111	0.975V
0X01000	1.350V	0X11000	0.950V
0X01001	1.325V	0X11001	0.925V
0X01010	1.300V	0X11010	0.900V
0X01011	1.275V	0X11011	0.875V
0X01100	1.250V	0X11100	0.850V
0X01101	1.225V	0X11101	0.825V
0X01110	1.200V	0X11110	0.800V
0X01111	1.175V	0X11111	OFF

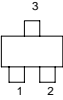
SMBUS ADDRESS MAP		
DEVICE	SMBUS #	ADDRESS
DDR0 0	0	1010 000 = 0X30
DDR0 1	0	1010 001 = 0X31
DDR0 2	0	1010 010 = 0X32
DDR0 3	0	1010 011 = 0X33
SD	1	0101 101 = 0X2D
PCI SLOT 1	1	ARP
PCI SLOT 2	1	ARP
TI 1394	1	ARP
DOC BUS	A	7
DOC BUS	B	7

PCI INTERRUPT/IDSEL MAP								
BACK PANEL SLOT	PCI BUS#	DEVICE#	IDSEL PIN	PCI SLOT INTA*	PCI SLOT INTB*	PCI SLOT INTC*	PCI SLOT INTD*	REQ/INT
TI 1394	01	0X06	22	P_INT2*				1/1
PCI 1	01	0X08	23	P_INTW*	P_INTX*	P_INTY*	P_INTZ*	2/2
PCI 2	01	0X09	24	P_INTX*	P_INTY*	P_INTZ*	P_INTW*	3/3

PCI DEVICE MAP

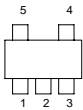
DEVICE	PCI BUS#	DEVICE#	FUNCTION	DEVICE ID
MCP 51	MCPS1 LOGICAL PCI BUS 0	0X01-0X0F	--	--
MAC MAC	0	XA	0	0X05F
PCI PCI BRIDGE	0	X9	0	0X05C
SATA1	0	X8	0	0X055
SATA2	0	X8	0	0X054
USB	0	X6	0	0X053
WIRELESS COBLOC	0	X4	1	0X050
WIRELESS COBLOC	0	X4	0	0X050
USB 2.0	0	X2	1	0X058
USB 1.1	0	X2	0	0X05A
SMART IRAM	0	X1	2	0X057
SDH	0	X0	0	0X056
SRMBUS	0	X1	1	0X05D
LEGACY SLAVE	0	7	7	0X020
LPC	0	X1	0	0X02051
LOGICAL PCI BUS	1	7	7	7
PCI SLOT 1				
PCI SLOT 2				
PCI SLOT 3				
PCI SLOT 4				
PCI SLOT 5				

SOT23

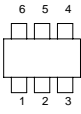


SOT23-5/SC70

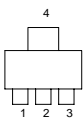
SOT89-5

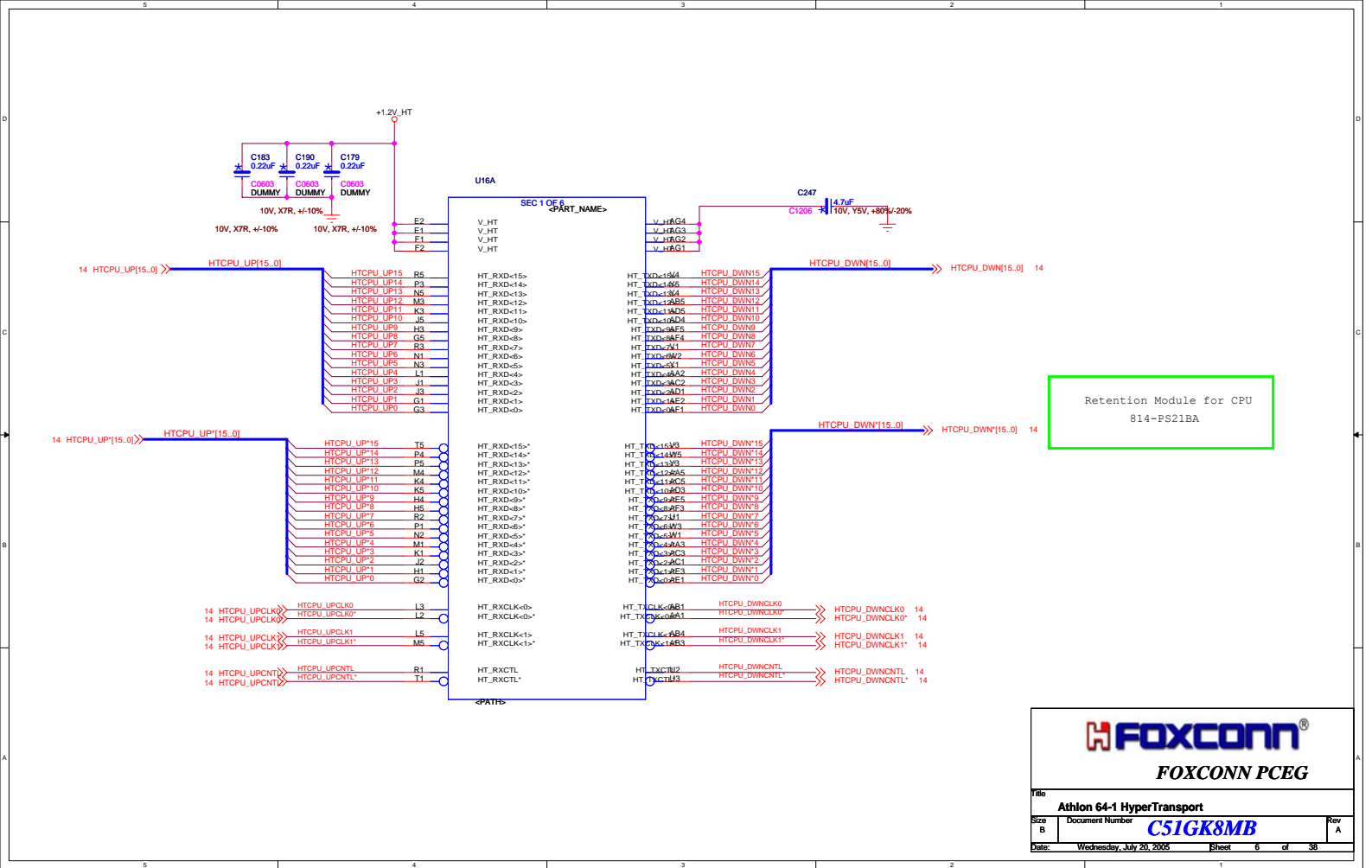


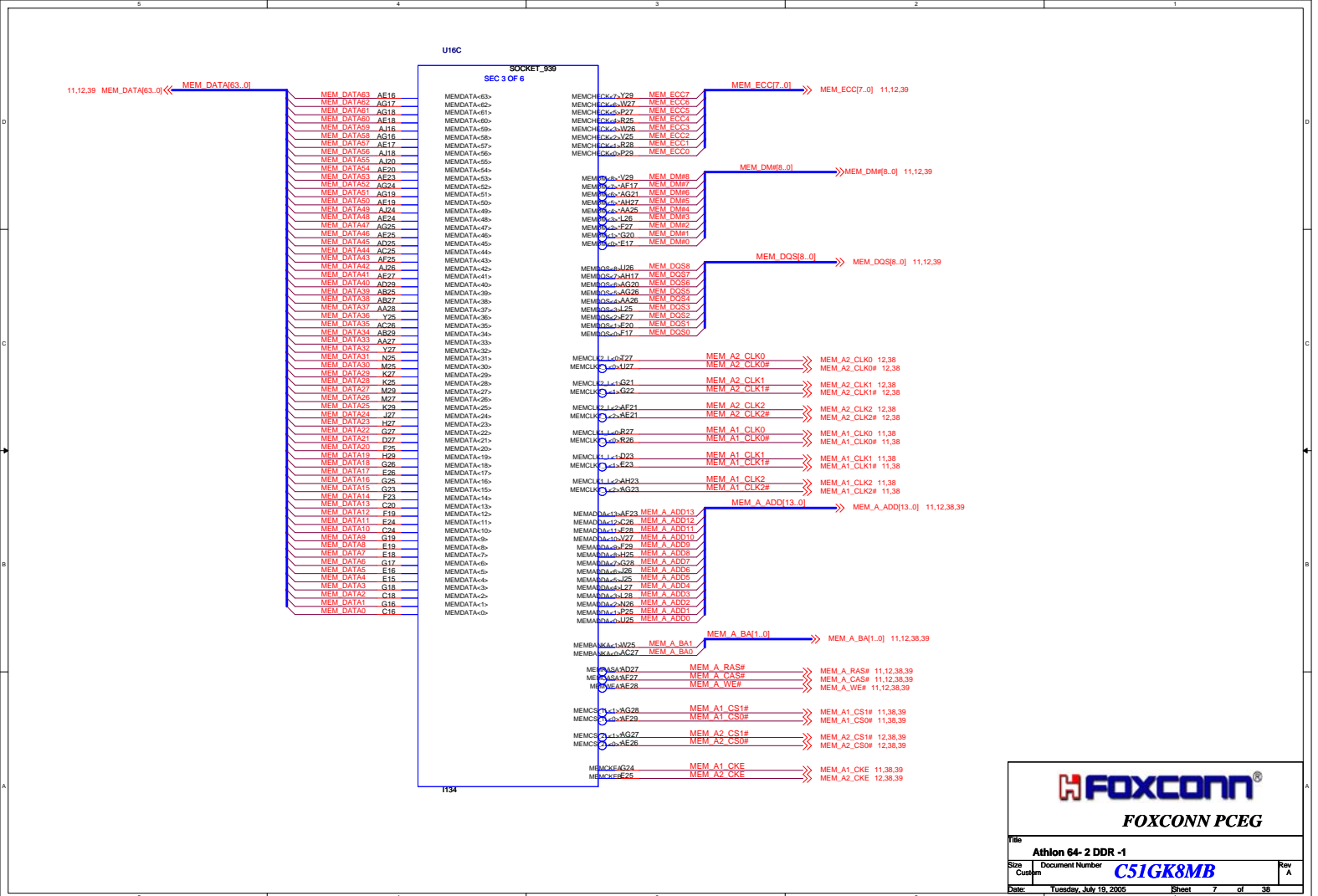
SOT23-6

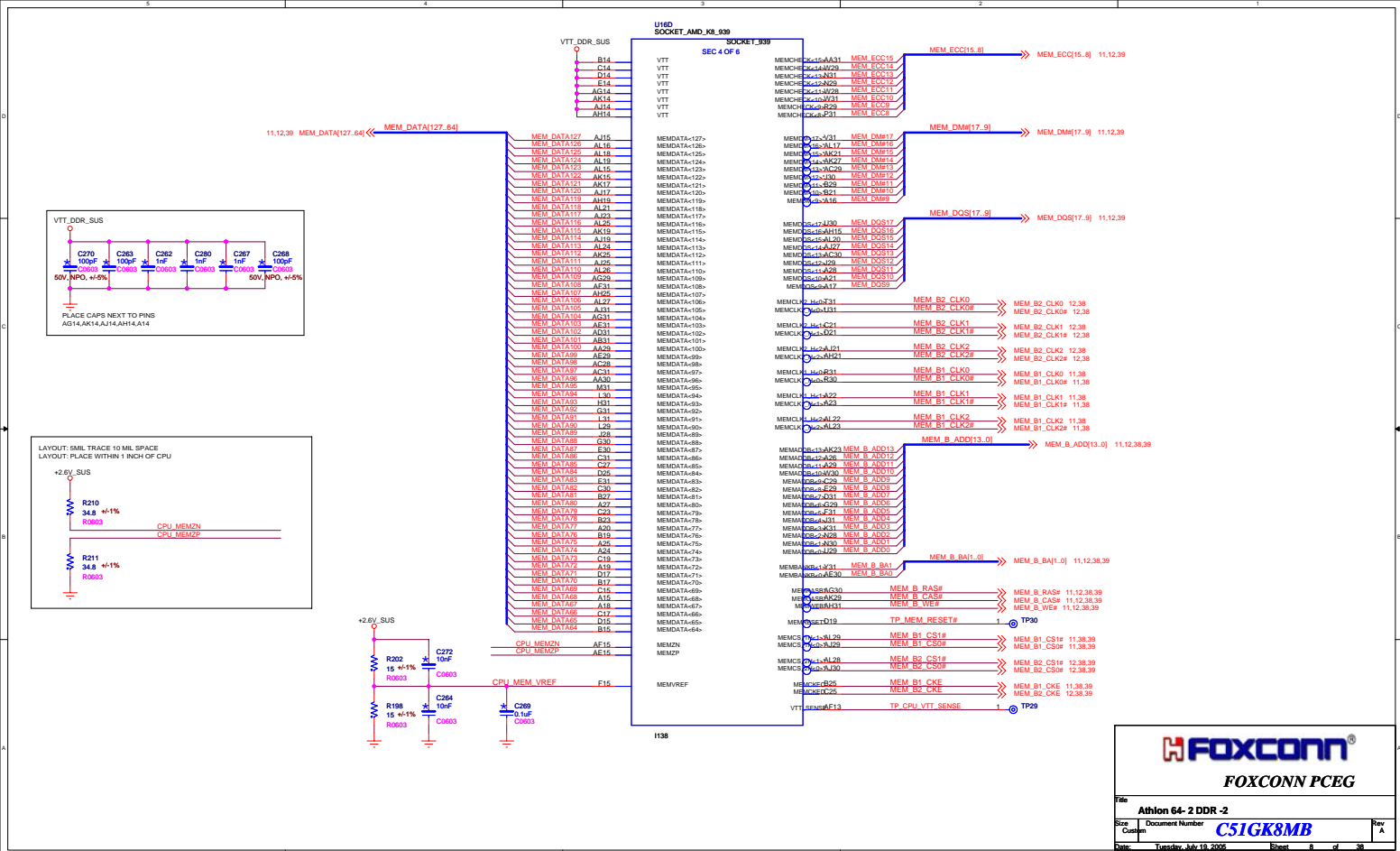


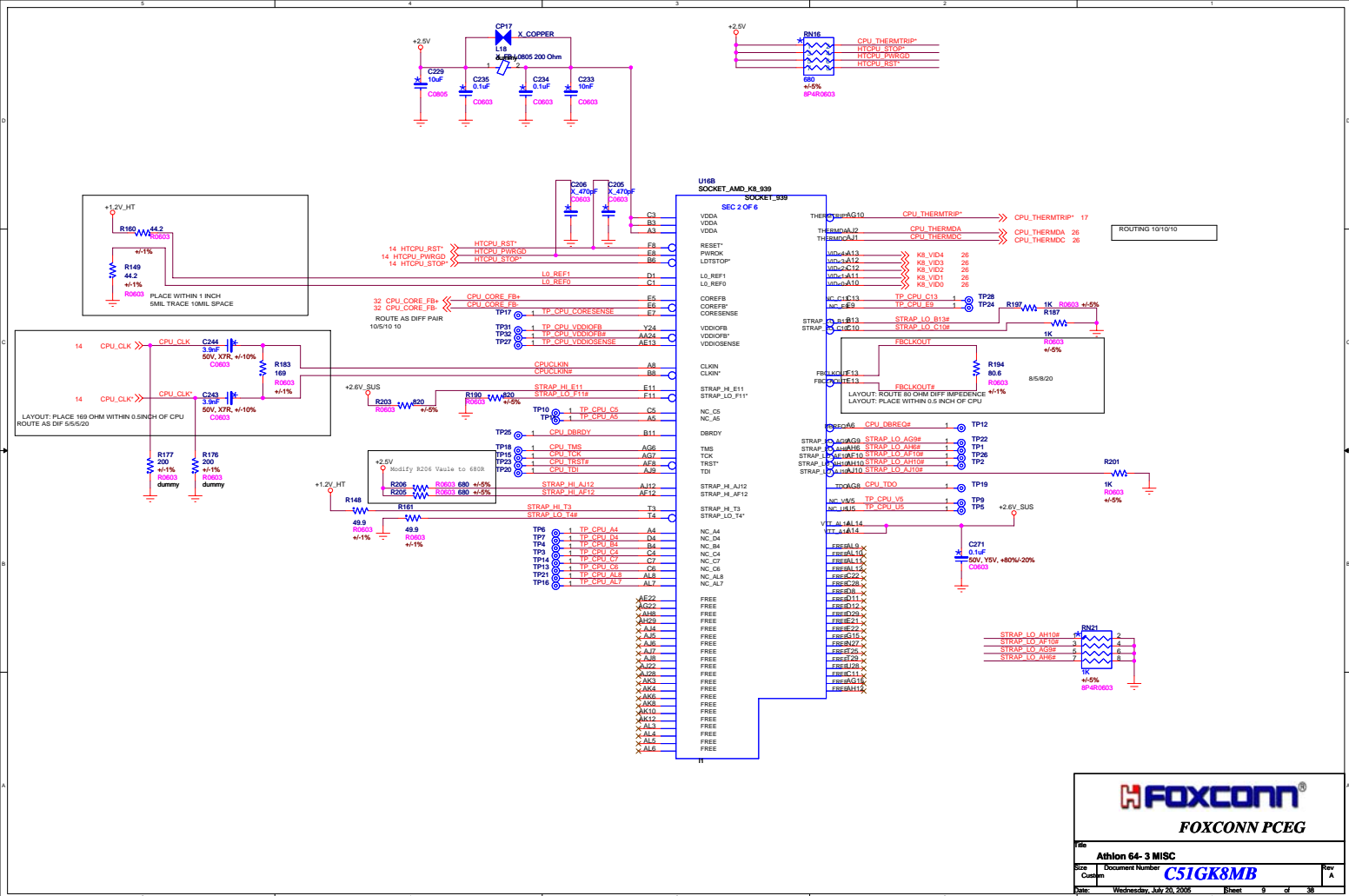
SOT223

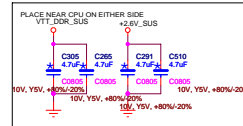
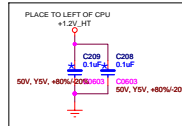
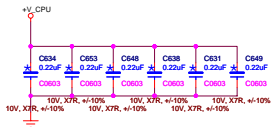
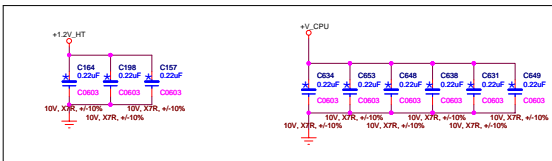
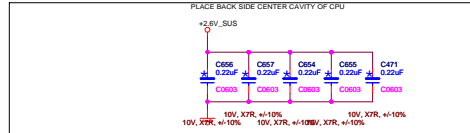
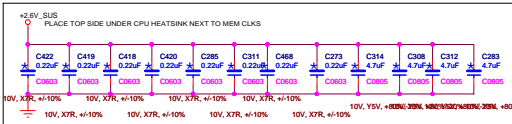
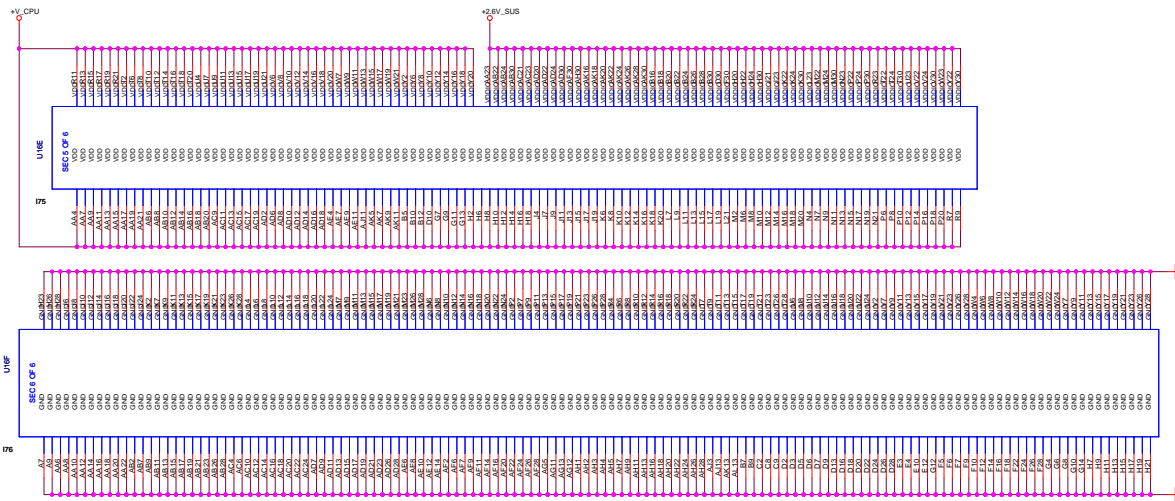












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Document Number: CS1GK8MB
Rev: A

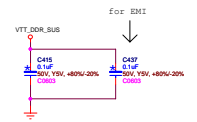
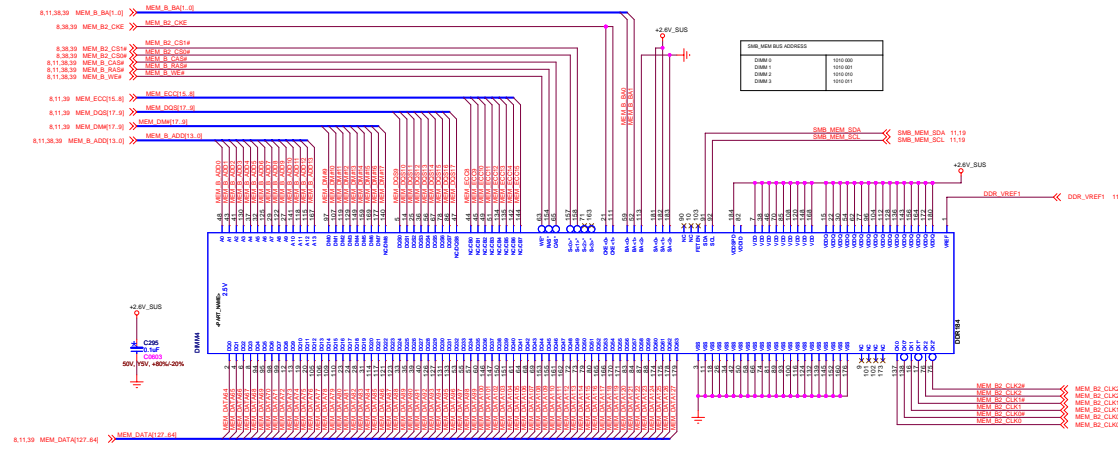
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CLOSEST DIMM TO CPU

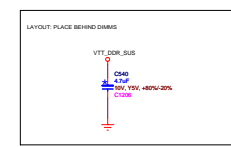
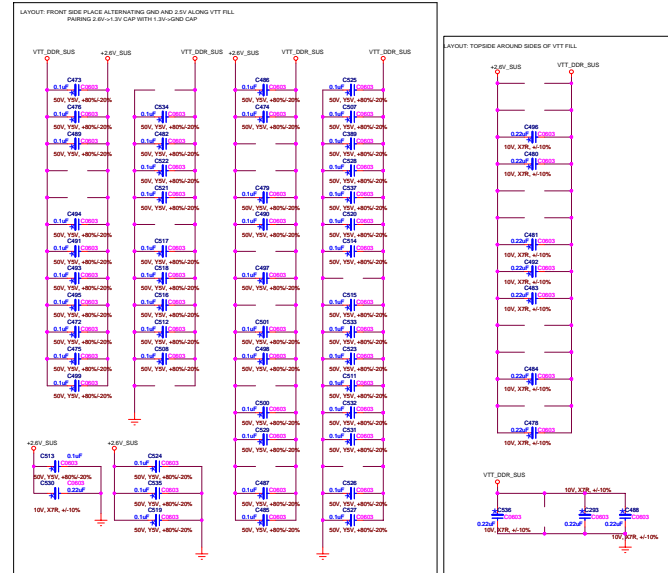
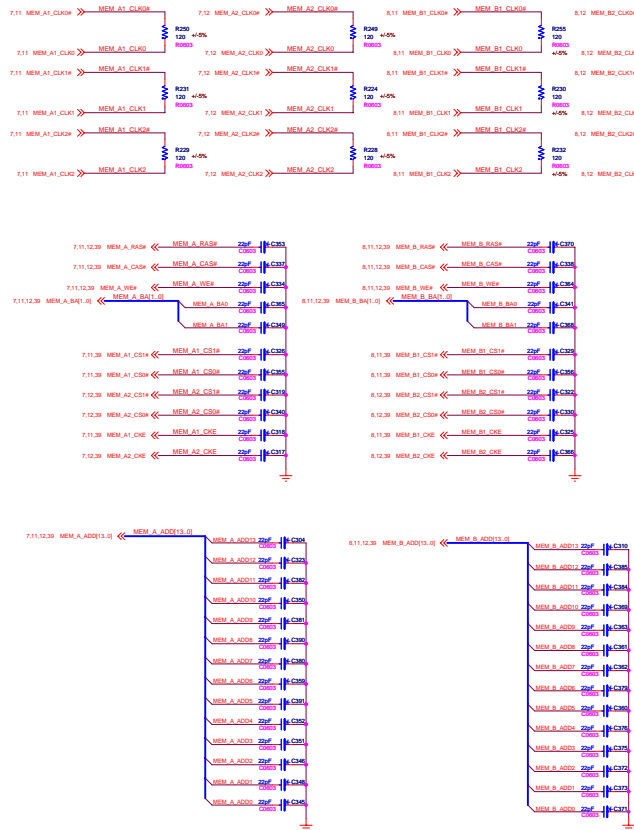




DIMM 4



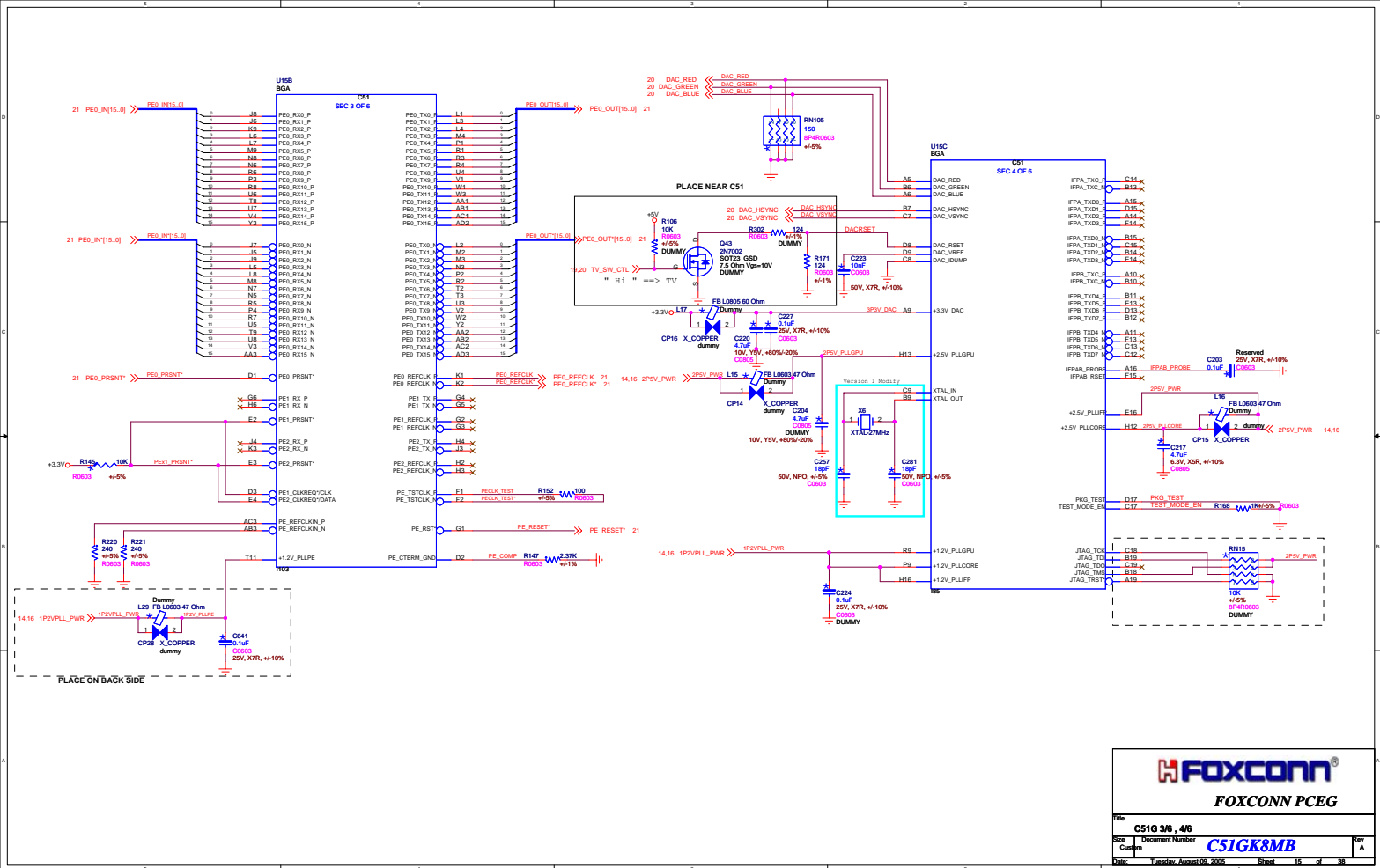
PLACE ALL PARTS 0.25 TO 0.50 INCH FROM CPU

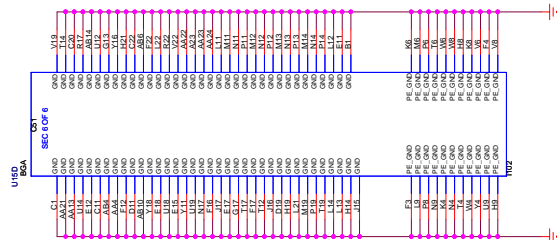


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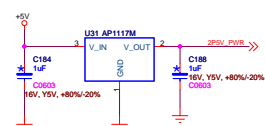
SSTL-2 Termination Resistors
CS1GK8MB

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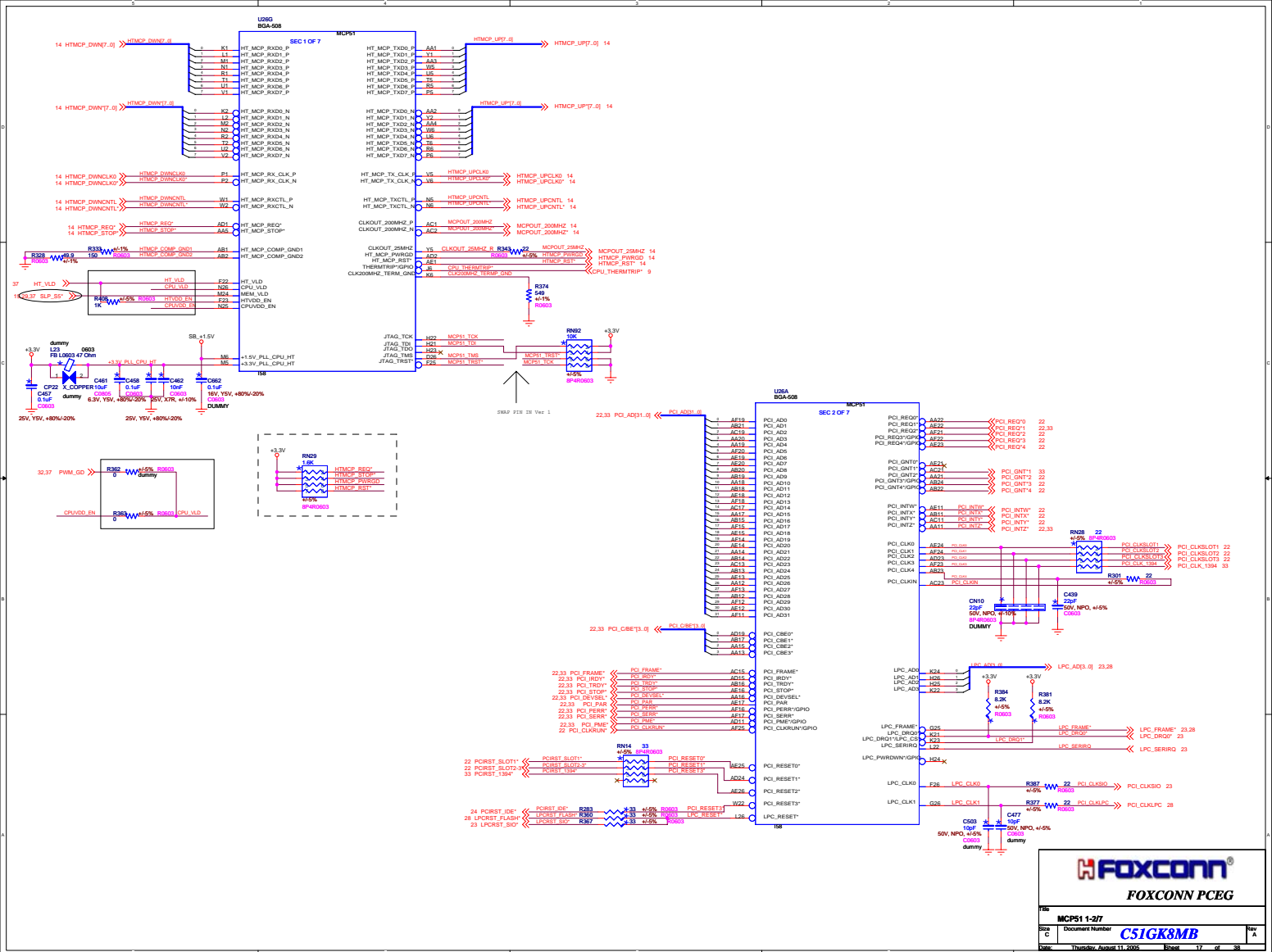
+2.5V VDDA @ 105mA AMPS MAX

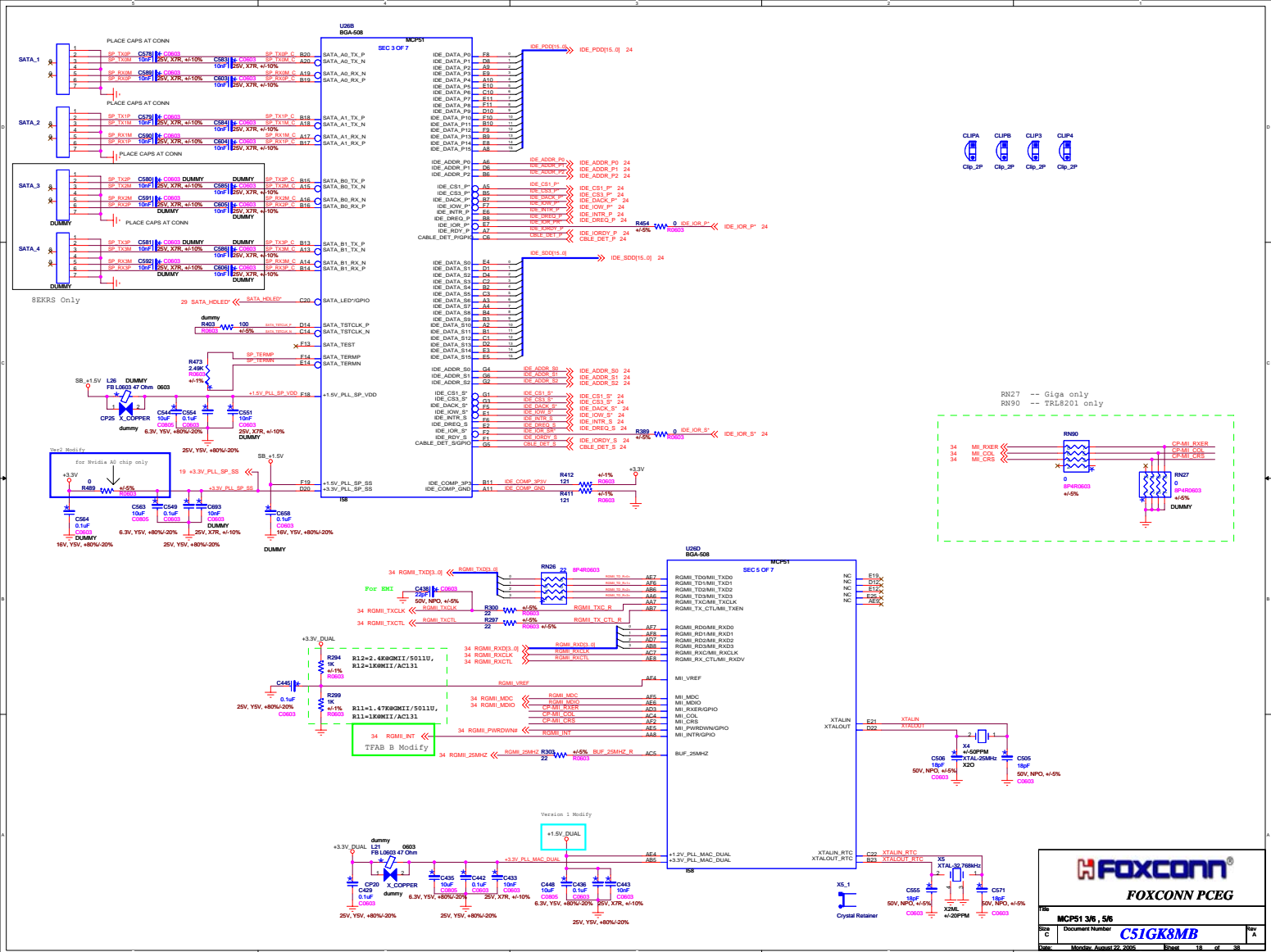


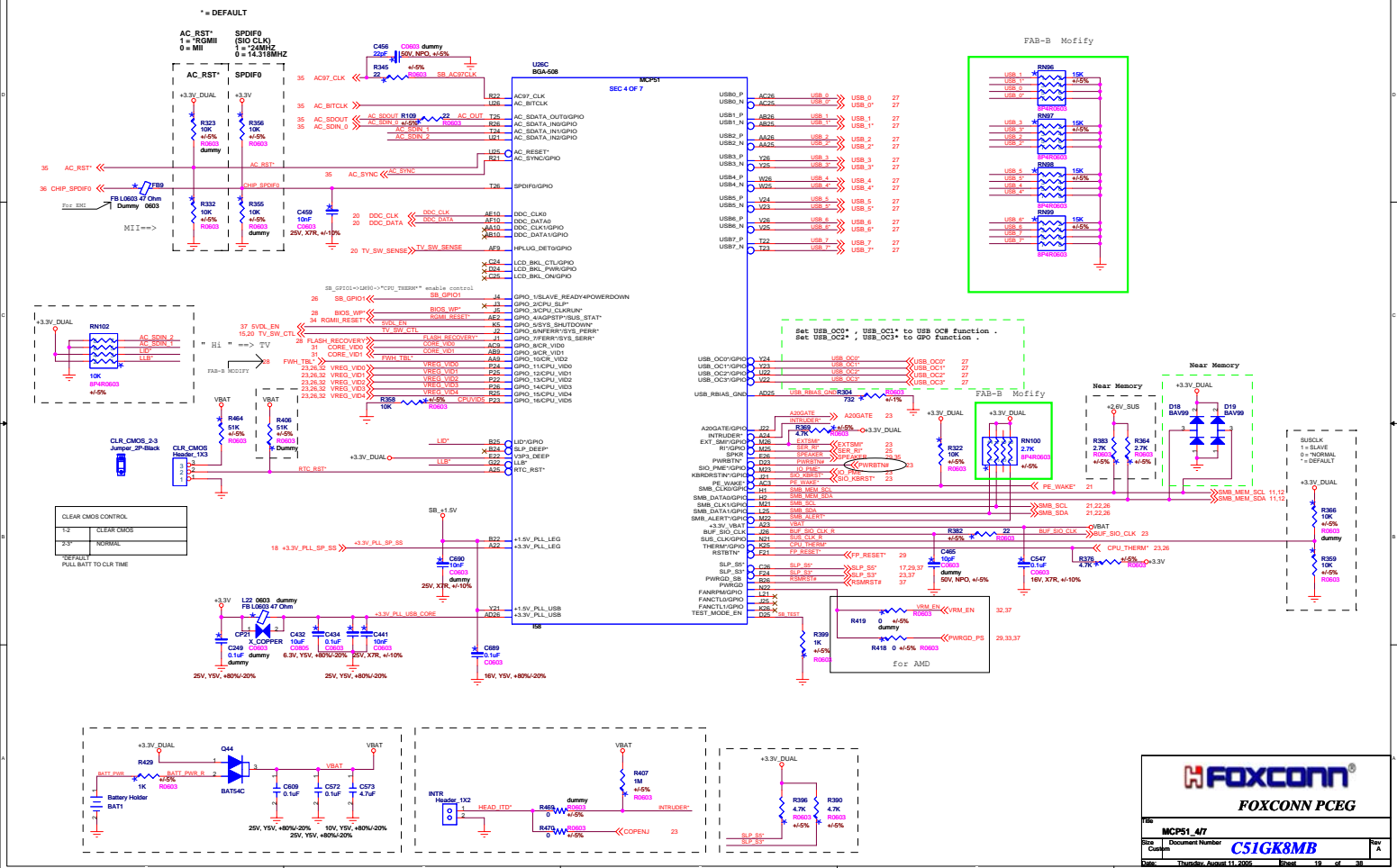
SPEC い才
AME1117

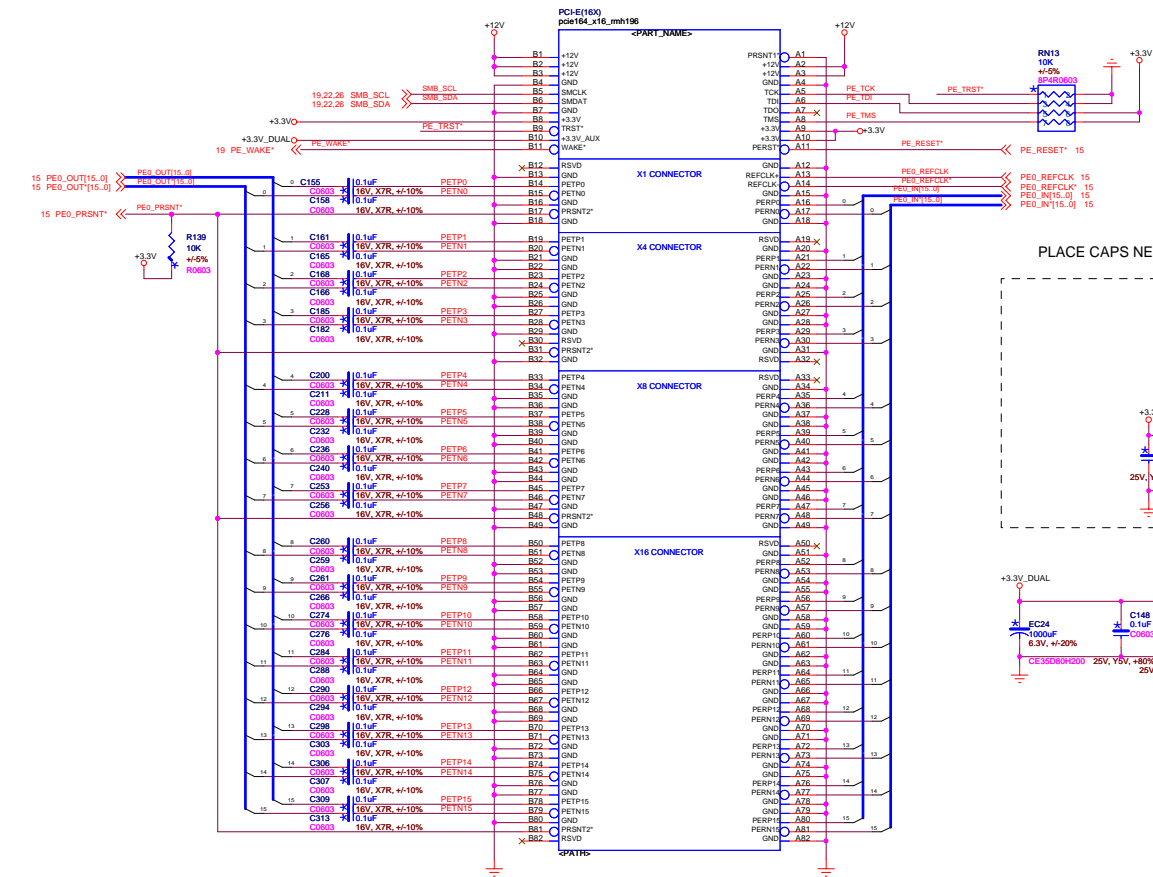


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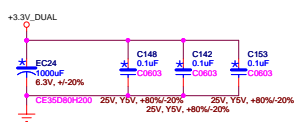
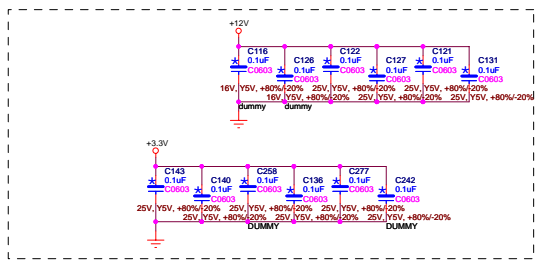








PLACE CAPS NEAR PEX CONNECTORS

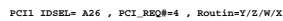




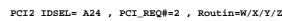
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File	PCI Express Slot x16 & X1		
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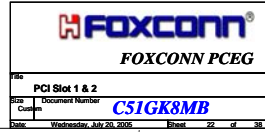
IDSEL23



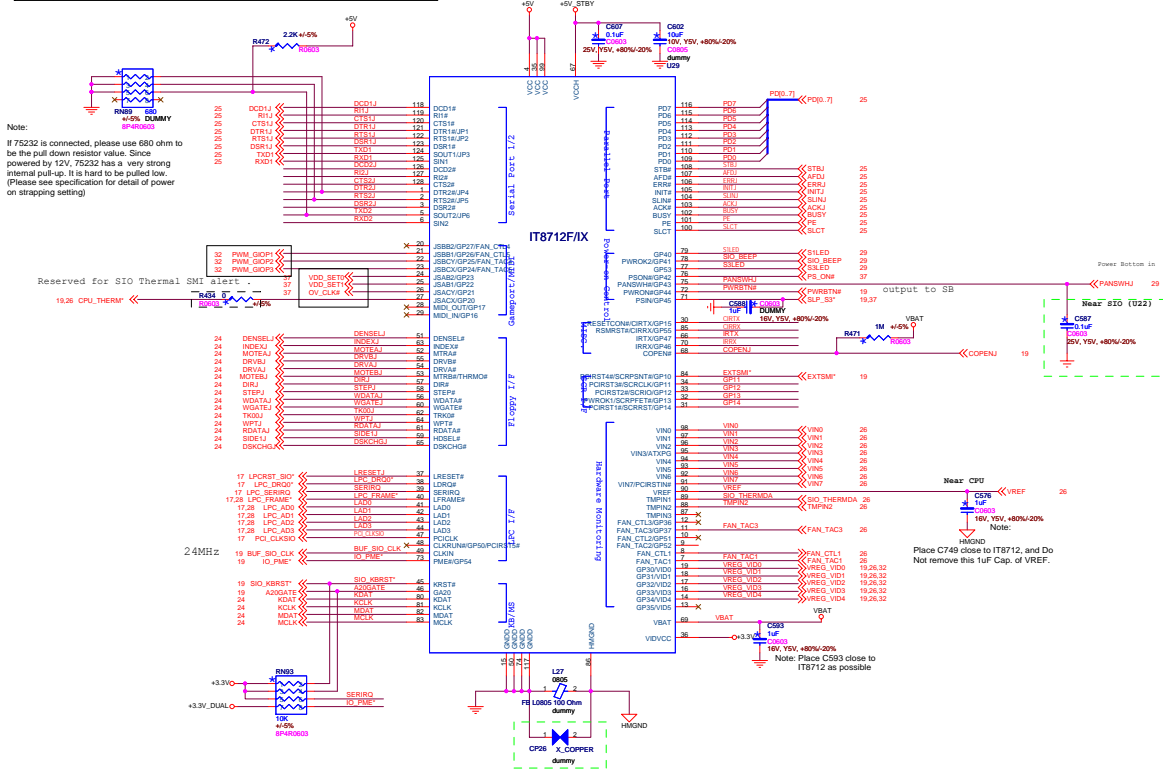
IDSEL24



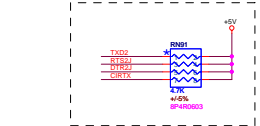
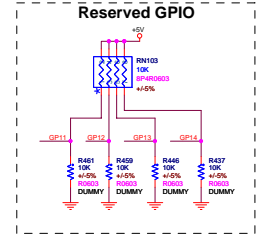
IDSEL25




	Symbol	value	Description
JP1	KBCEN	1	KBC is enabled.
		0	KBC is disabled.
JP2	KBC_ROM	1	KBC's ROM is built in.
		0	KBC's ROM is external.
JP3	CHIP_SEL	--	Chip selection in configuration.
JP4	BUF_SEL	1	The output buffers of PCIRST1#, PCIRST2#, PCIRST3#, and PCIRST4# are enhanced open-drain. It will drive high about 10-20ms when the signal trans from low to high, and then Hi-Z.
		0	The output buffers are push-pull.
JP5	RTS2#	1	Fan_Ctrl output default duty 100%
		0	Fan_Ctrl output default duty 50%
JP6	SOUT2	1	VID pins threshold voltage select. Vih / Vil : 2.0 / 0.8V
		0	VID pins threshold voltage select. Vih / Vil : 0.8 / 0.4V

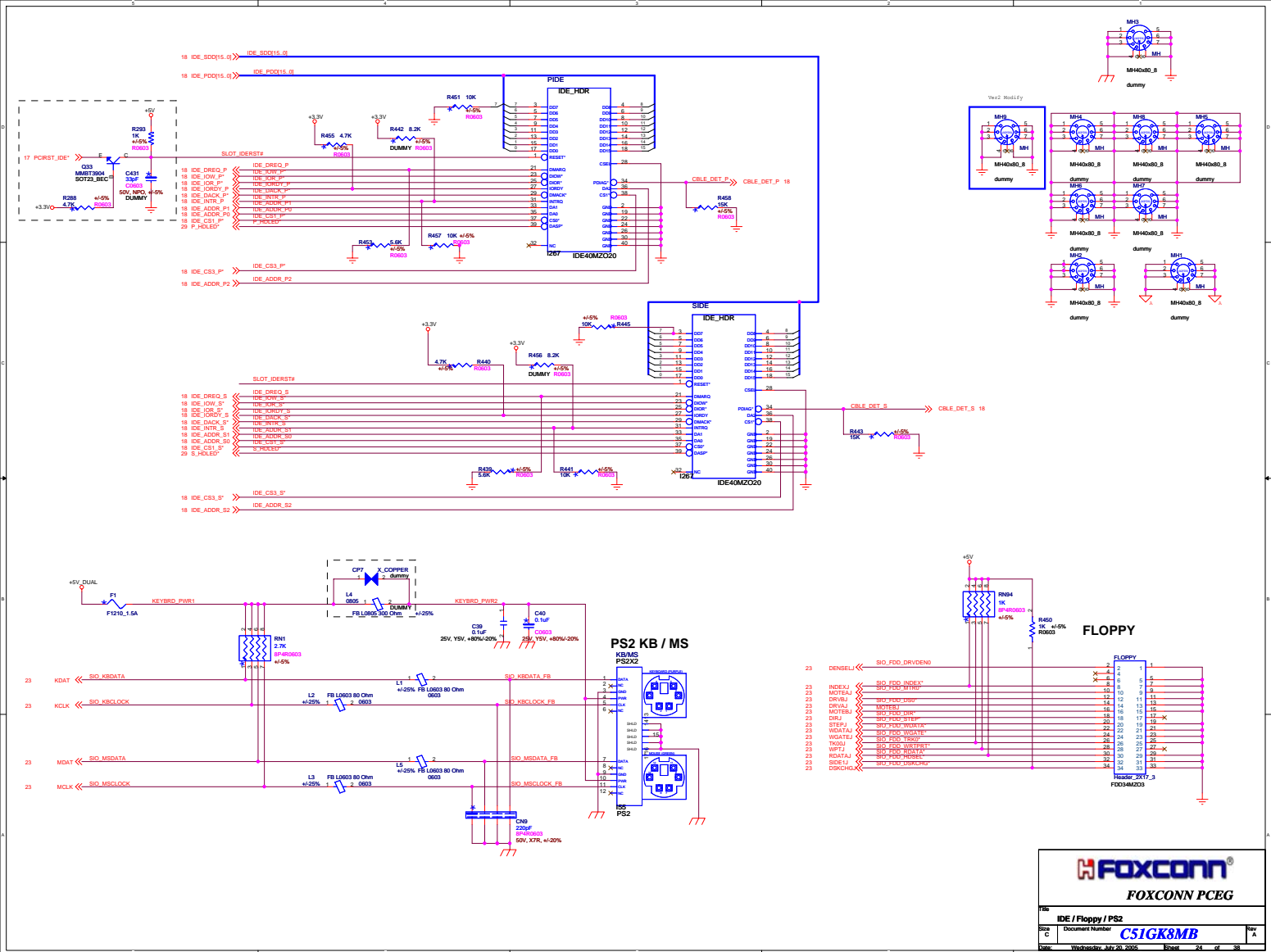


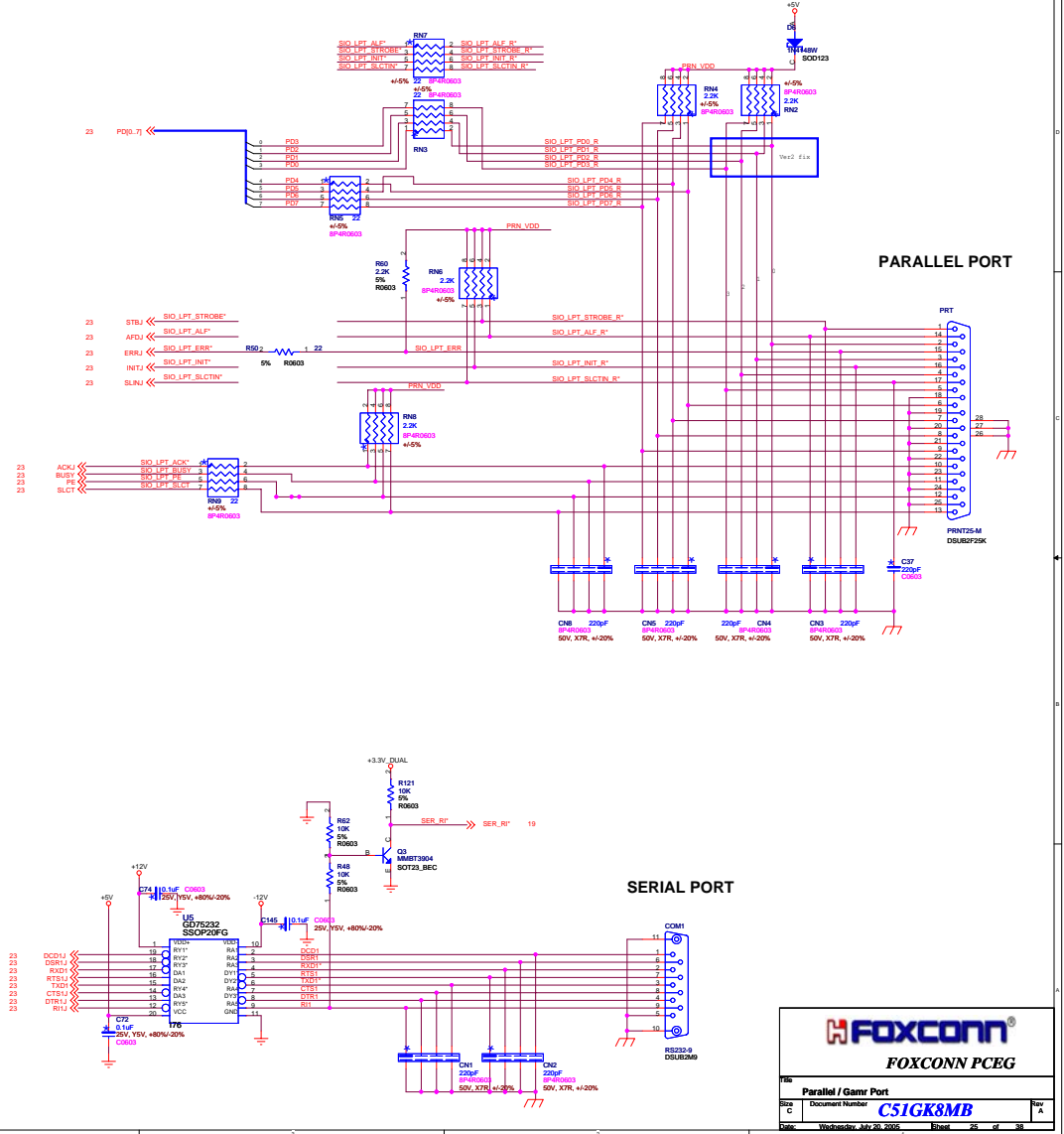
IR Connector



SIO_MARGIN_CTL	SIO_MARGIN_1	SIO_MARGIN_2	OVER VOLTAGE ENABLE/DISABLE	MEM_VDD VOLTAGE
0	0/1	0/1	DISABLED	DEFAULT 2.5V
1	1	0	ENABLED	2.7V
1	0	1	ENABLED	2.8V
1	1	1	ENABLED	2.9V

			
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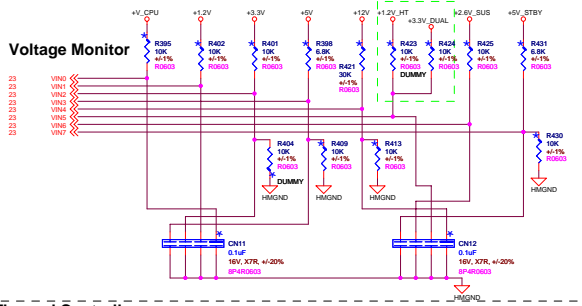




CPU FAN

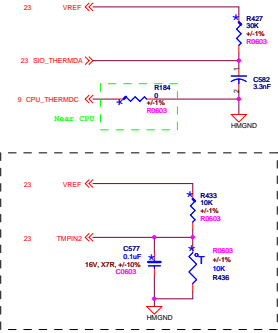
New FAN Header Definition
pin1. GND
pin2. +12V
pin3. Sense
pin4. Control

Voltage Monitor

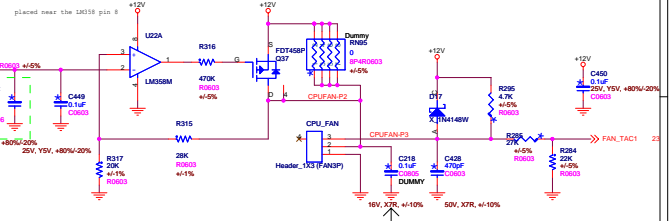
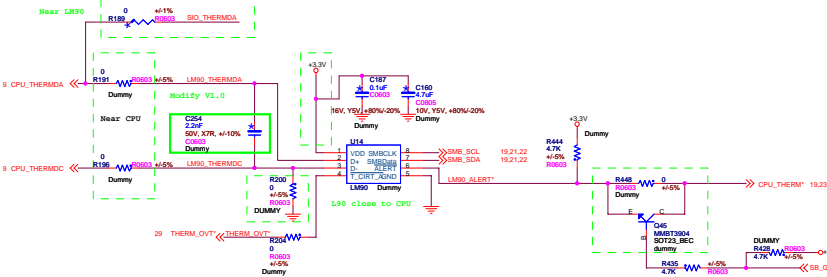


Thermal Controller

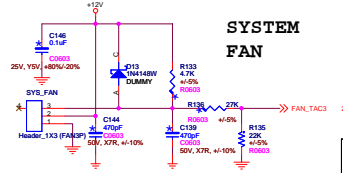
Thermal Diode layout notes:
a. Place T.O. diode to T187T2FH.
b. Recommended trace widths & spacings is 10 mils.
c. Keep the trace away from +12V, Fast data bus, CRTs.
d. Isolate GNDs, GND.



Peak fan current draw: 1.5A
Average fan current draw: 1.1A
Fan start-up current draw: 2.2A
Fan start-up current draw maximum duration: 1.0 second
Fan header voltage: 12V +/- 10%

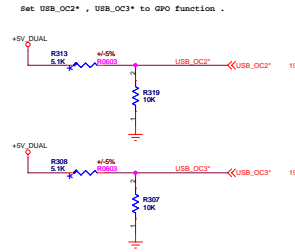
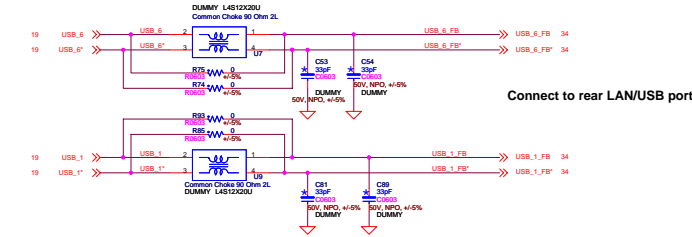


SYSTEM FAN

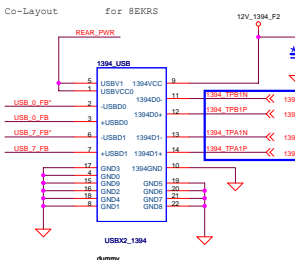
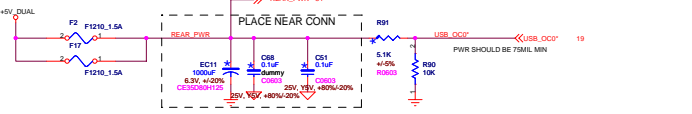


Hardware Monitor / Over Volt. CKT		
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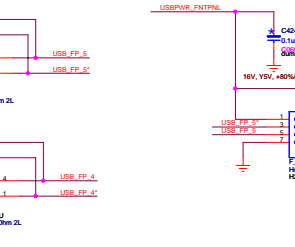
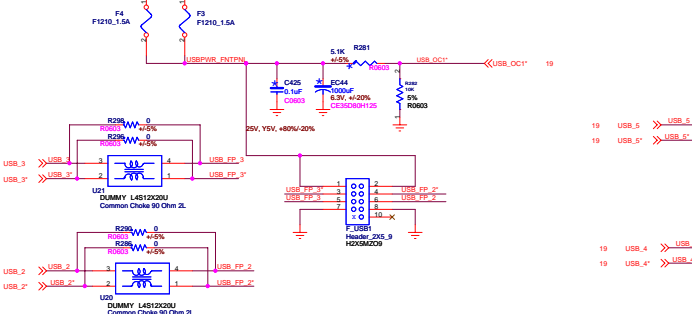
BACK PANEL LAN/USB -> Near Connector



PLACE NEAR CONN

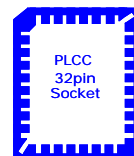


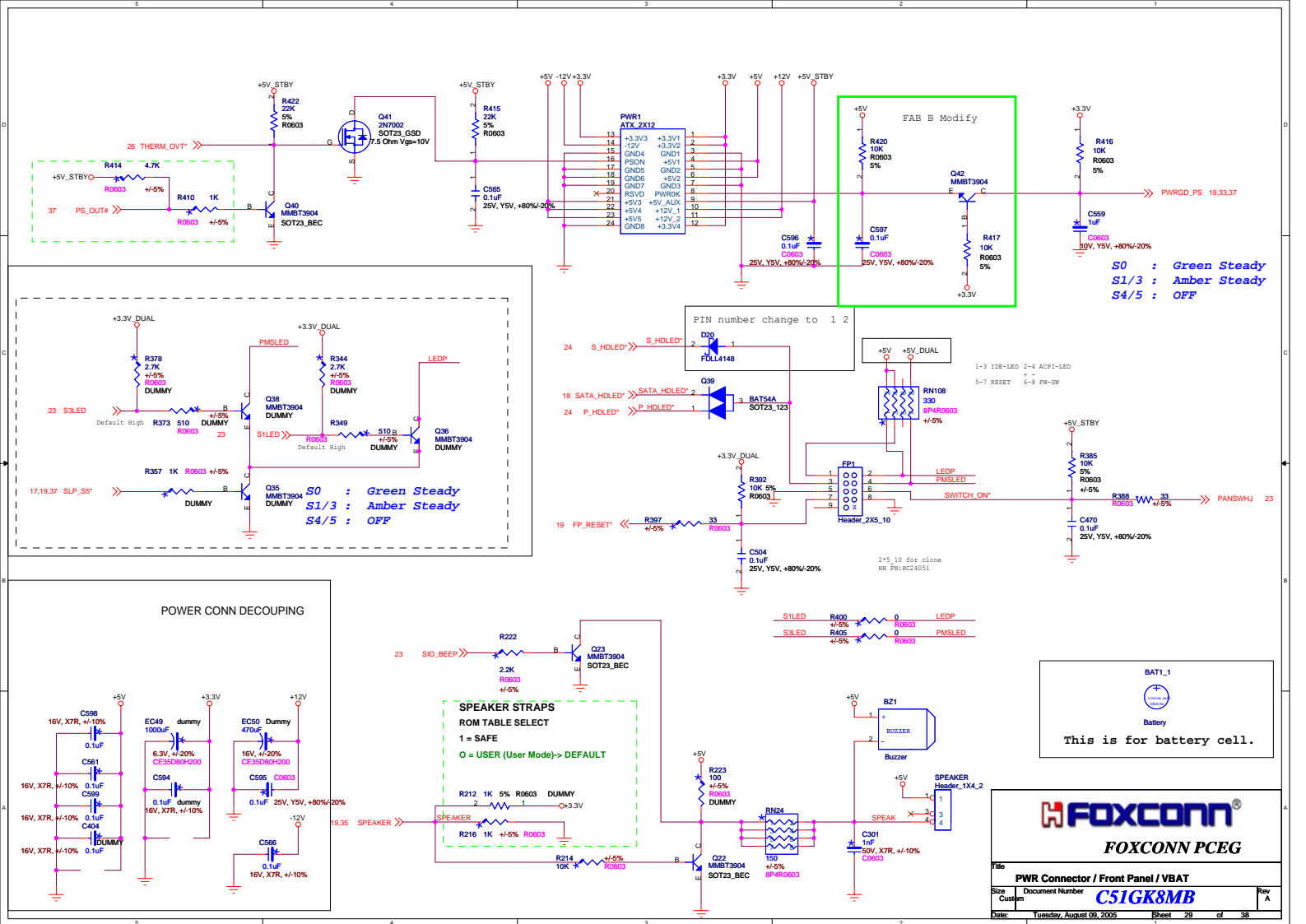
FRONT PANEL USB

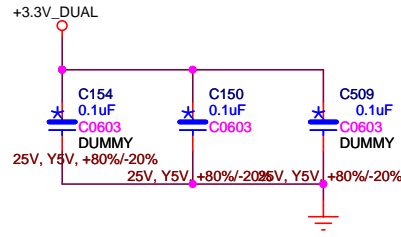
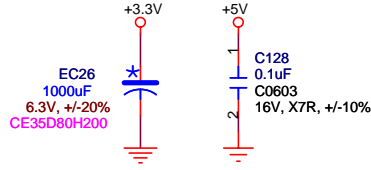
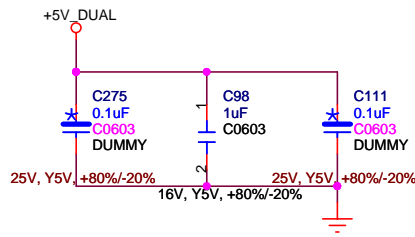
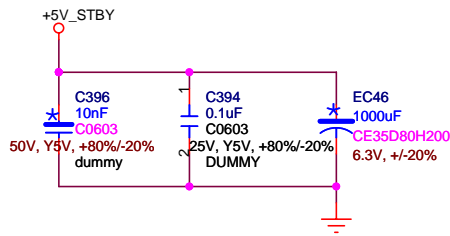



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USB Connector		
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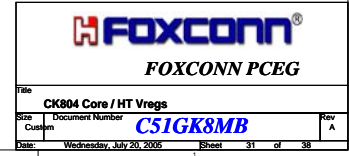
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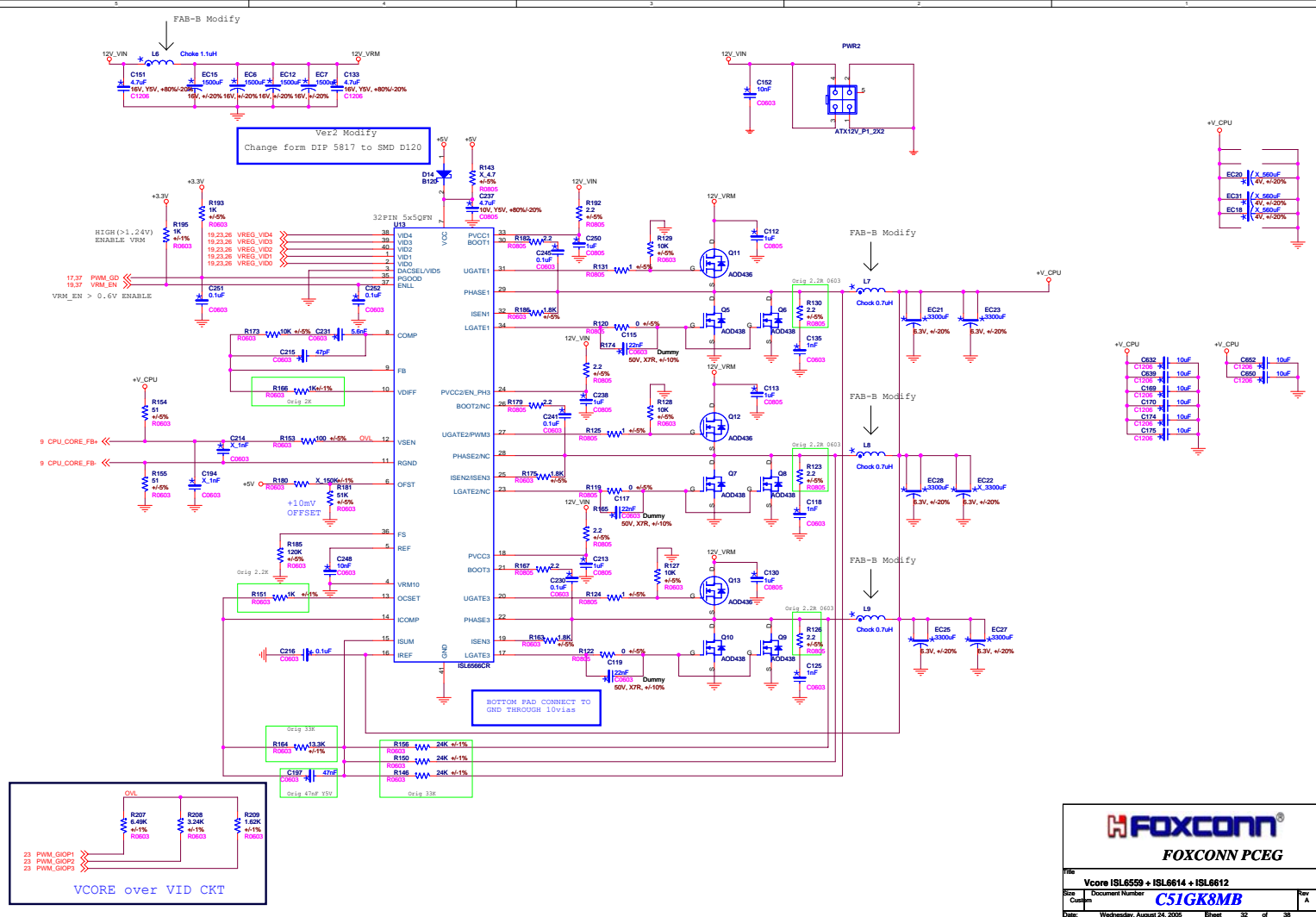


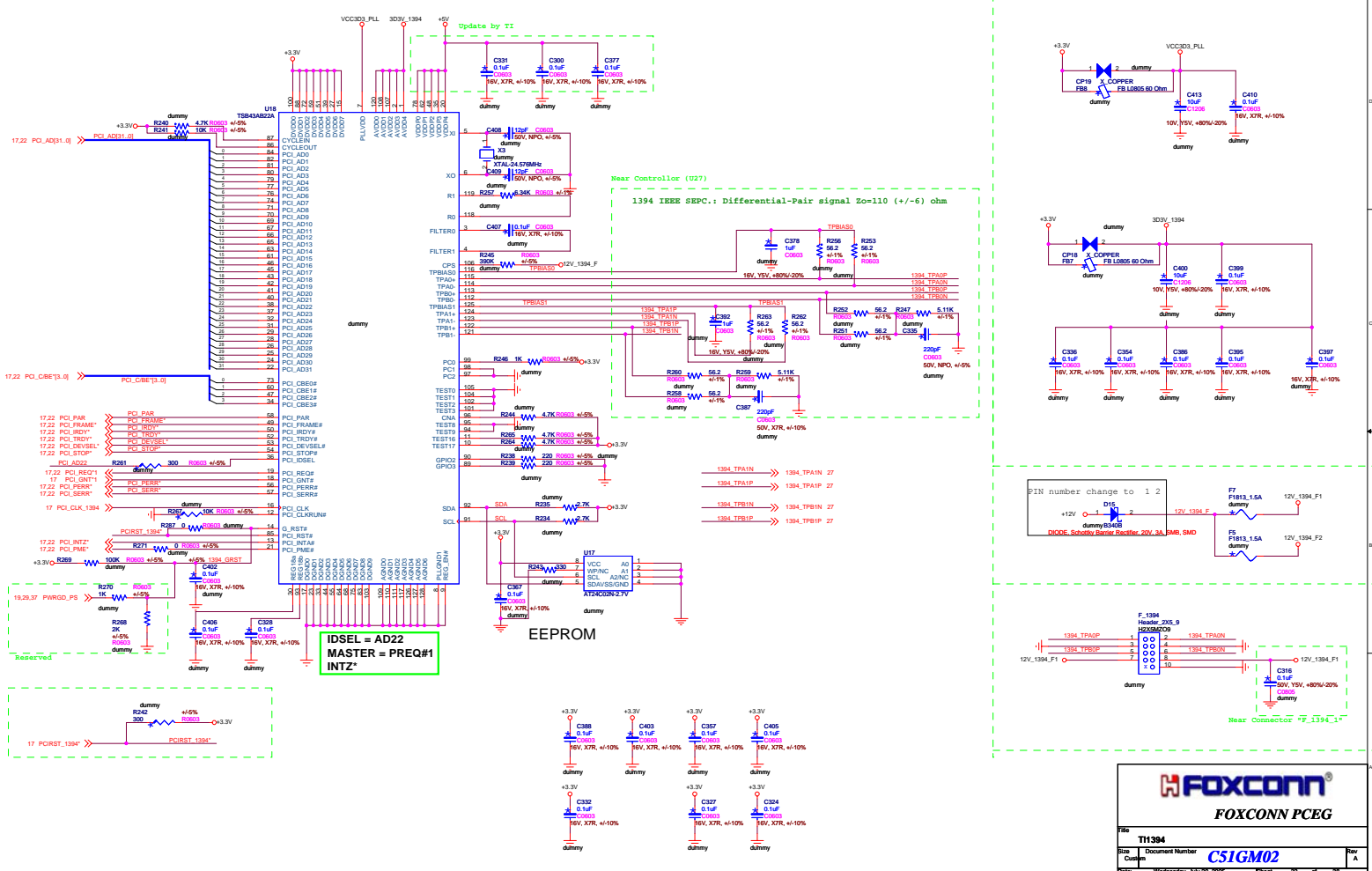


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Title		
ACPI / Mem VDD / Mem Vtt Vreg		
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	C51GK8MB	
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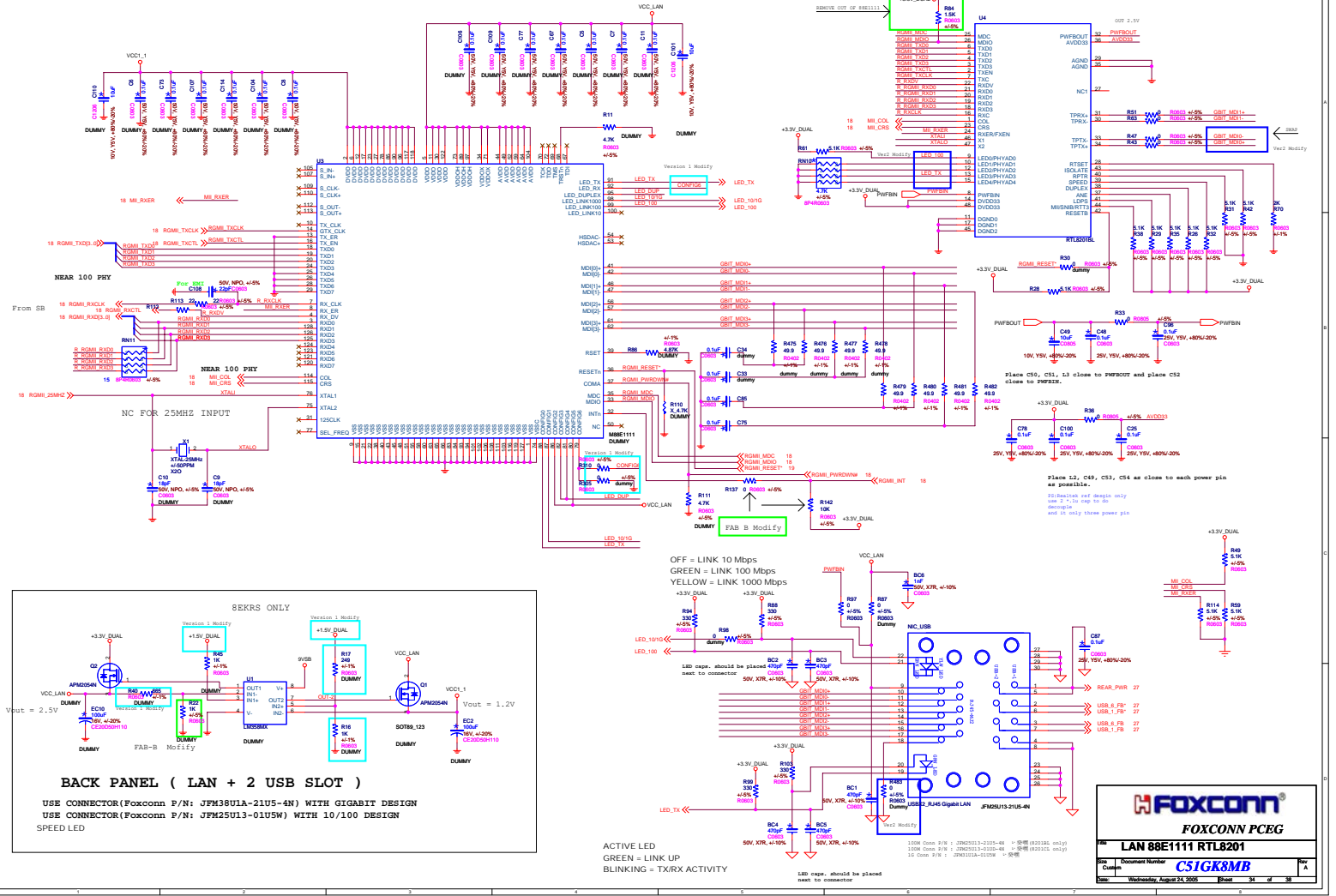
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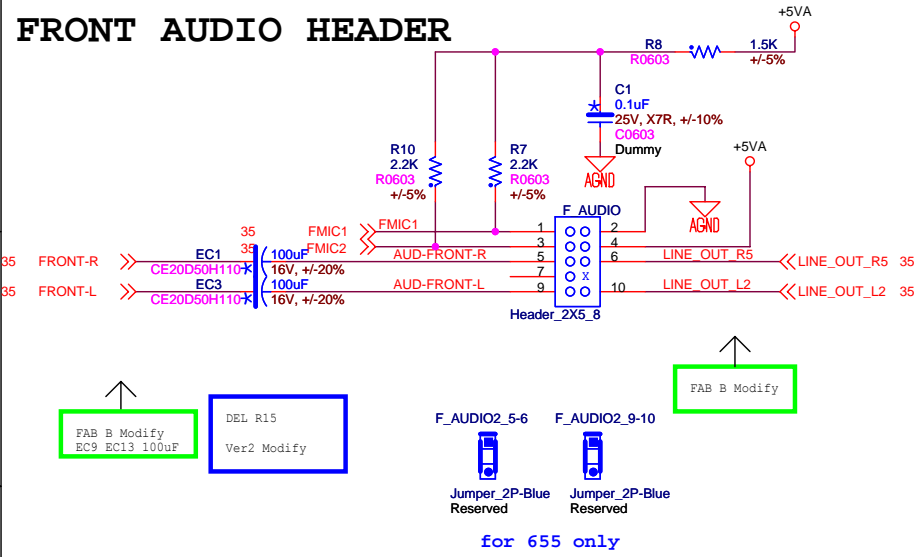


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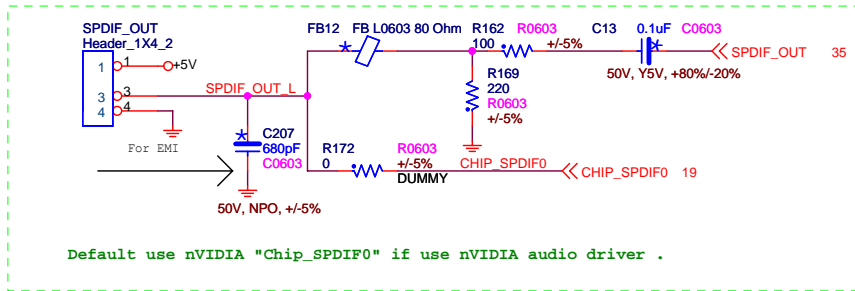
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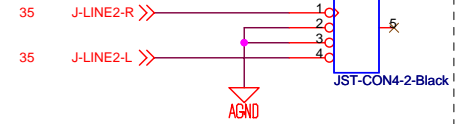


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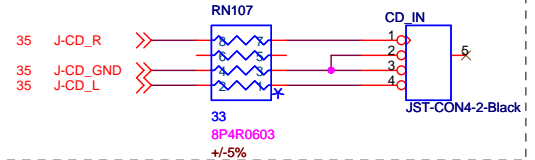


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