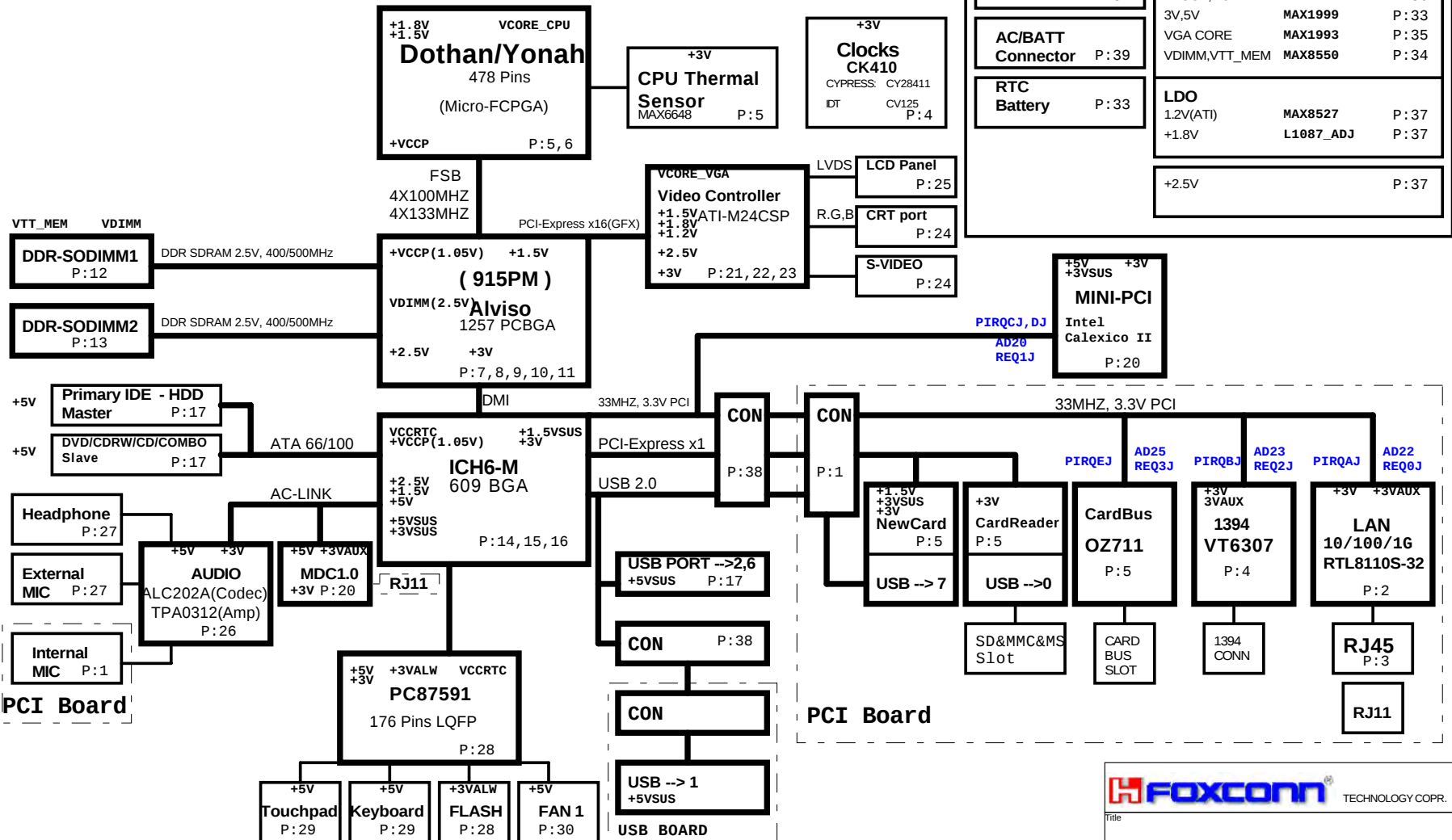


S04

BLOCK DIAGRAM

Dothan(Yonah)/Alviso



Power & Ground

Label1	Pg#	S0	S3	S4	S5	Control Signal
 MBATA+  MBATA+ 39		Y	Y	Y	Y	9V-12.6V,3X2 cells
 VIN  VIN 25,31,33,34,35,36,39		Y	Y	Y	Y	20V-9V
 VCCRTC  VCCRTC 14,16,28,33		Y	Y	Y	Y	3V
 +3VALW  +3VALW 19,25,28,29,33,39		Y	Y	Y	Y	3VAUXEN
 +5VALW  +5VALW 32,33		Y	Y	Y	Y	3VAUXEN
 3VAUX  3VAUX 20,33,38		Y	Y	Y		3VAUXEN
 +1.5VSUS  +1.5VSUS 16,36,37		Y	Y			SUSD
 VDIMM  VDIMM 7,9,10,12,13,34,37		Y	Y			SUSON
 +3VSUS  +3VSUS 15,16,19,20,32,33,34,35		Y	Y			SUSD
 +5VSUS  +5VSUS 16,17,32,33,36,38		Y	Y			SUSD
 +1.5V  +1.5V 6,10,11,15,16,23,32,36,37,38		Y				MAIND
 +1.8V  +1.8V 6,22,23,32,37		Y				+3V
 VCORE_VGA  VCORE_VGA 23,35		Y				MAIND
 VMEM_VGA  VMEM_VGA 22,23		Y				+1.8V
 +3V  +3V 4,5,10,12,13,14,15,16,17,18,19,20,21,23,24,25,26,28,29,30,31,32,33,35,37,38		Y				MAIND
 +5V  +5V 16,17,20,24,25,26,27,28,29,30,31,32,33,38		Y				MAIND
 +5VA  +5VA 26		Y				+5V
 +5VAA  +5VAA 26,27		Y				+5V
 +5V_FAN  +5V_FAN 30		Y				VFAN,+5V
 M_VREF  M_VREF 7,12,13,34		Y				MAINON
 VCORE_CPU  VCORE_CPU 6,31		Y				VRON
 +VCCP  +VCCP 4,5,6,7,9,10,14,16,36		Y				VRON
 +1.2V  +1.2V 23,37		Y				MAIND
 +2.5V  +2.5V 7,8,10,11,16,23,32,37		Y				MAIND
 5VAUX  5VAUX 33,34,35,36,38		Y	Y	Y		3VAUXEN
 VTT_MEM  VTT_MEM 12,13,34		Y				MAINON
 MOSVCC  MOSVCC 32,33		Y	Y	Y		5VAUX
 MOSVCC_RUN  MOSVCC_RUN 25,30,32,33,38		Y				MAINON
 GND ALL PAGES						
 AUDGND  AUDGND 26,27,38						



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Frontpage

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PWR_LED STATUS

	S0	S1&S3	S4&S5
PWR_LED	ON	Blinking	OFF

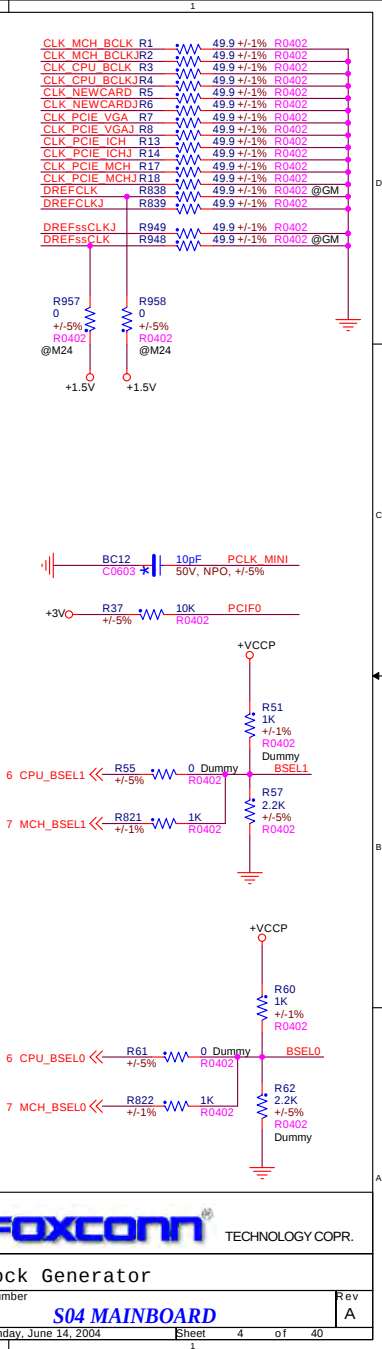
LAN LED STATUS

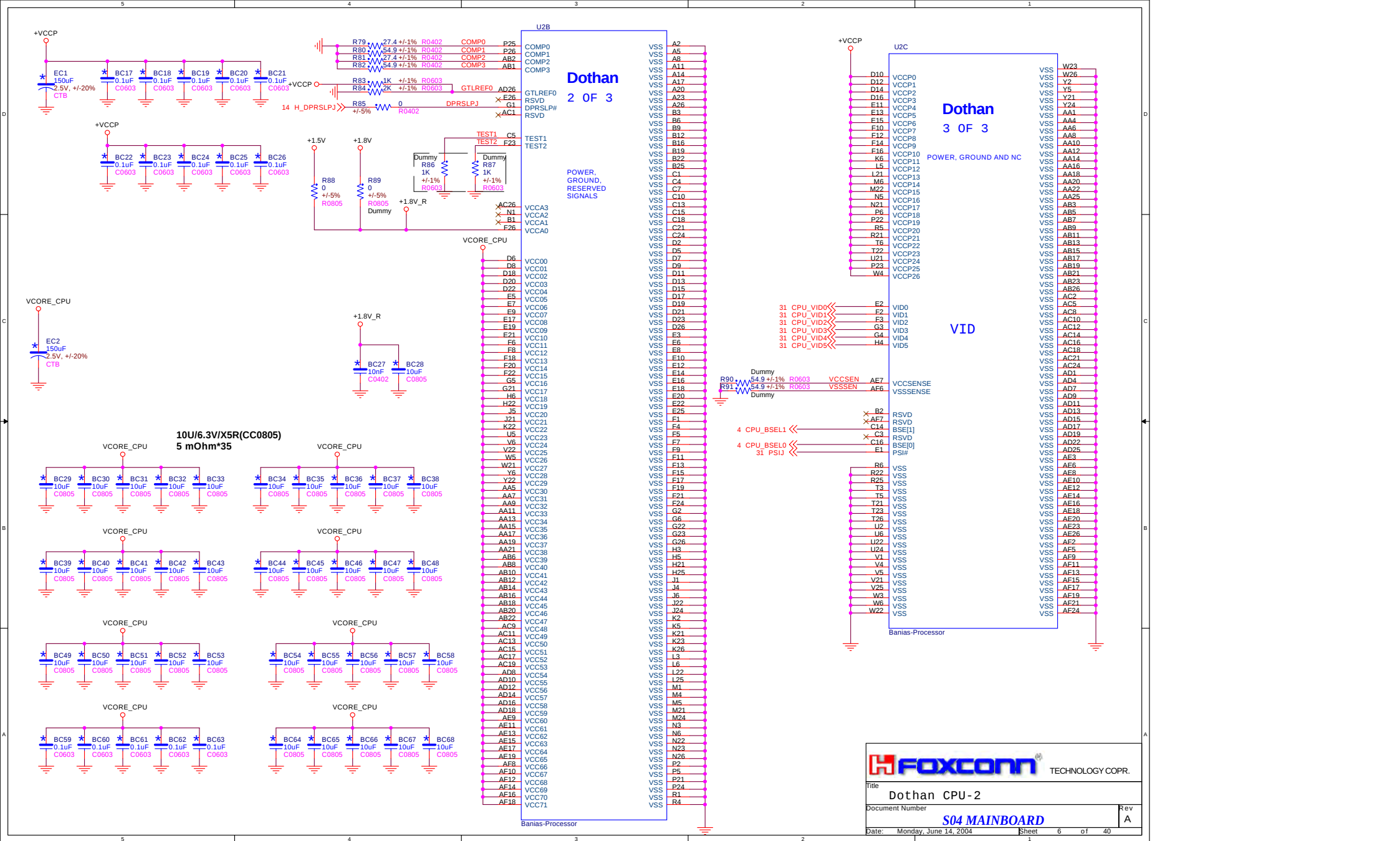
	Green	Amber	Yellow
10M/100M	Blinking	OFF	ON
1000M	Blinking	Blinking	ON

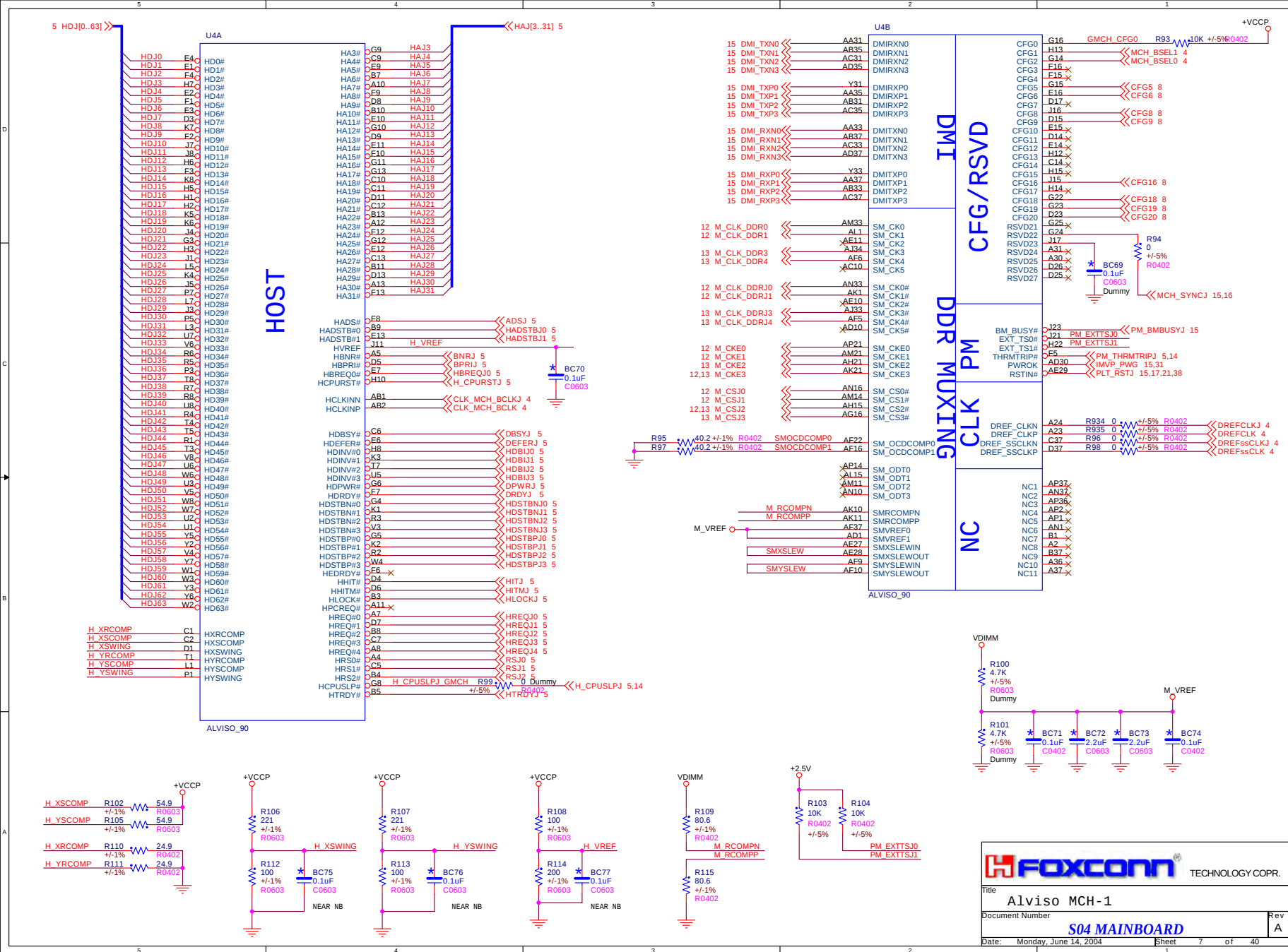
WAKE UP EVENT

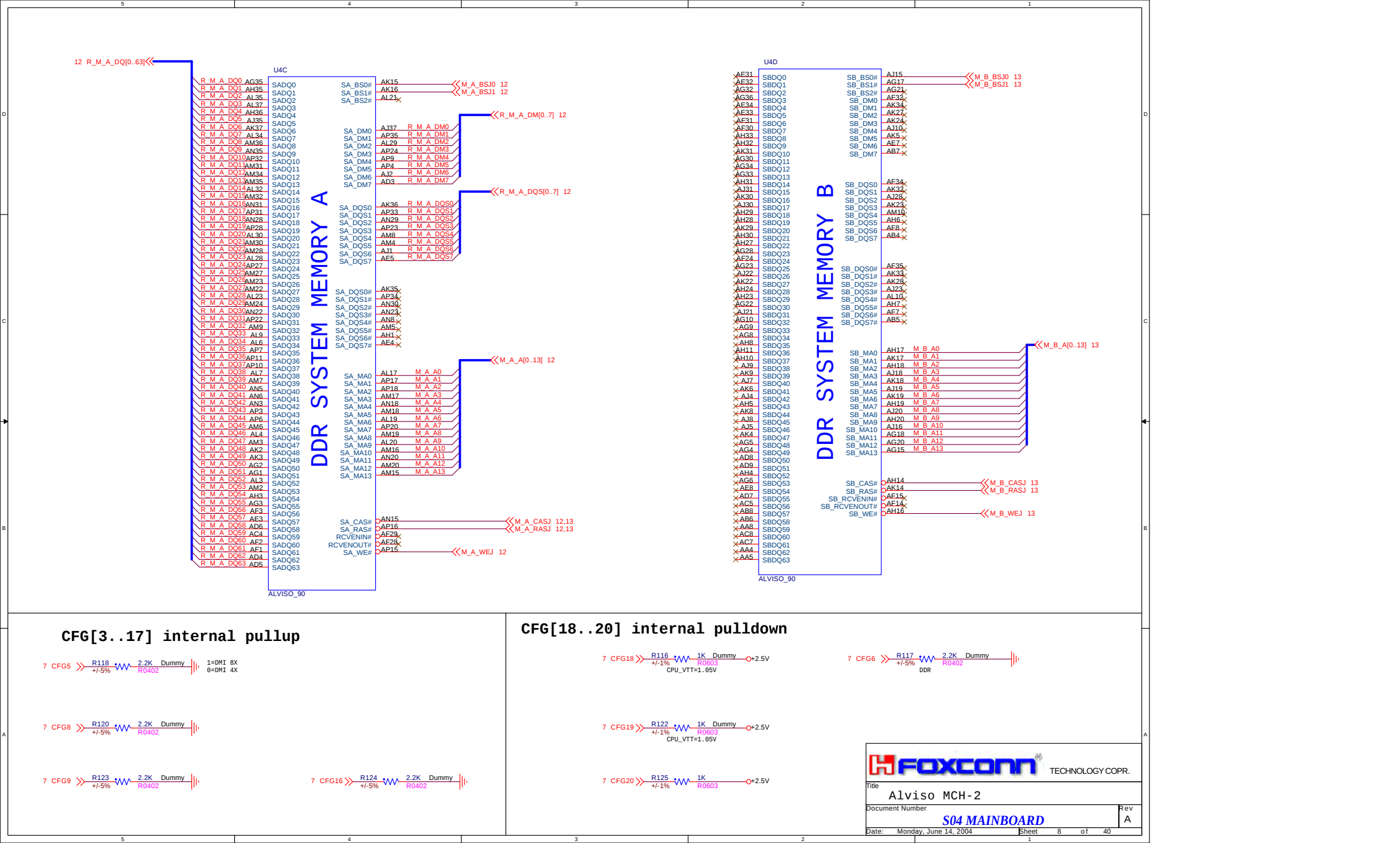
WAKE UP EVENT	FROM ACPI STATE	COMMENTS
POWER BUTTON	S1,S3,*S4,S5	Default set all support by BIOS
RTC ALARM	S5	Default set all support by BIOS
LAN (PCI LAN)	S1,S3,*S4	*S4 support set by BIOS,or not support
USB	S1,S3	S3 set by BIOS,or not support
TOUCH PAD/INTERNAL KB	S1,S3	Default support
MODEM WAKEUP	S3	Default support
1394		not support
WIRELESS LAN		not support

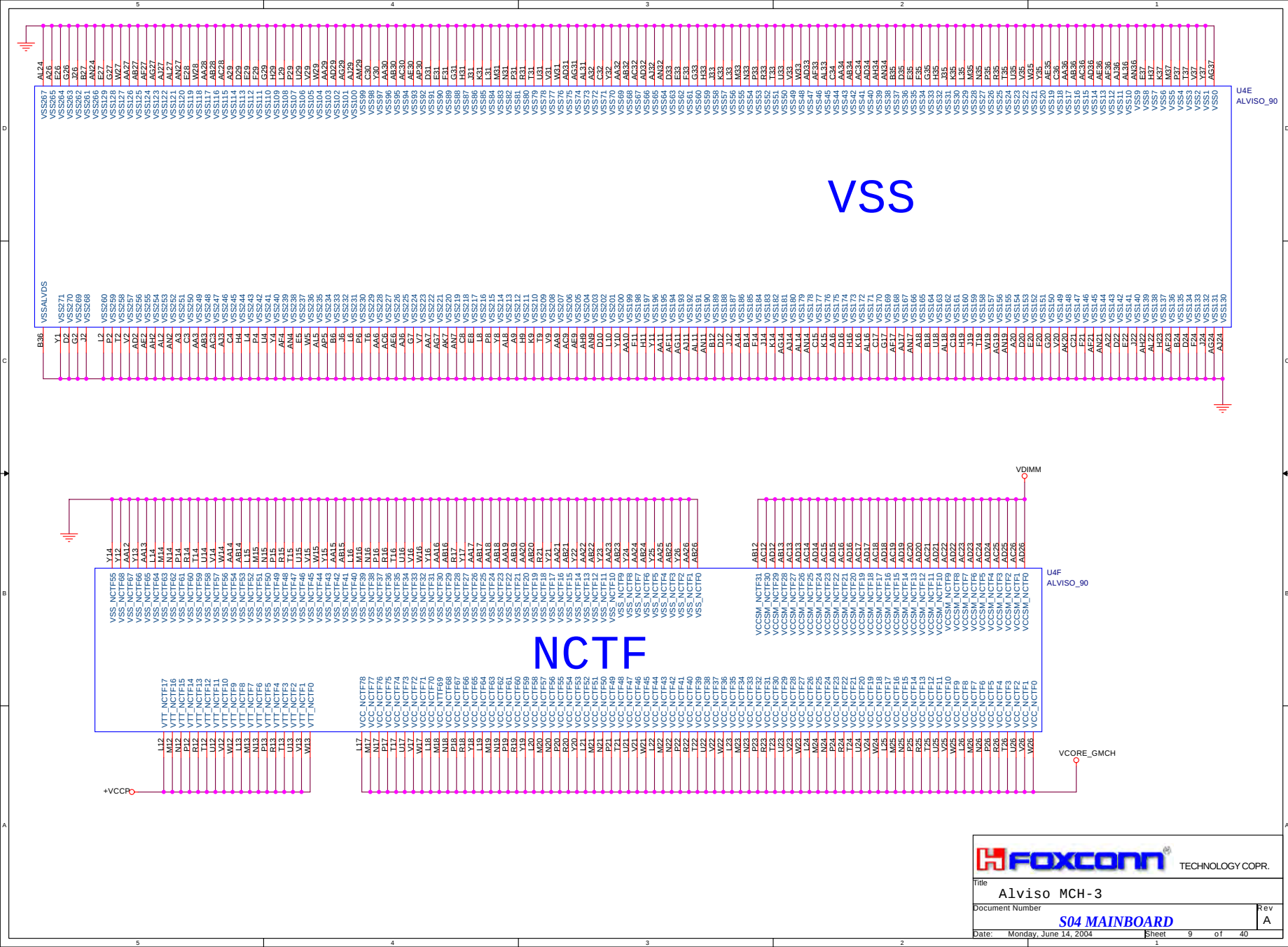
	
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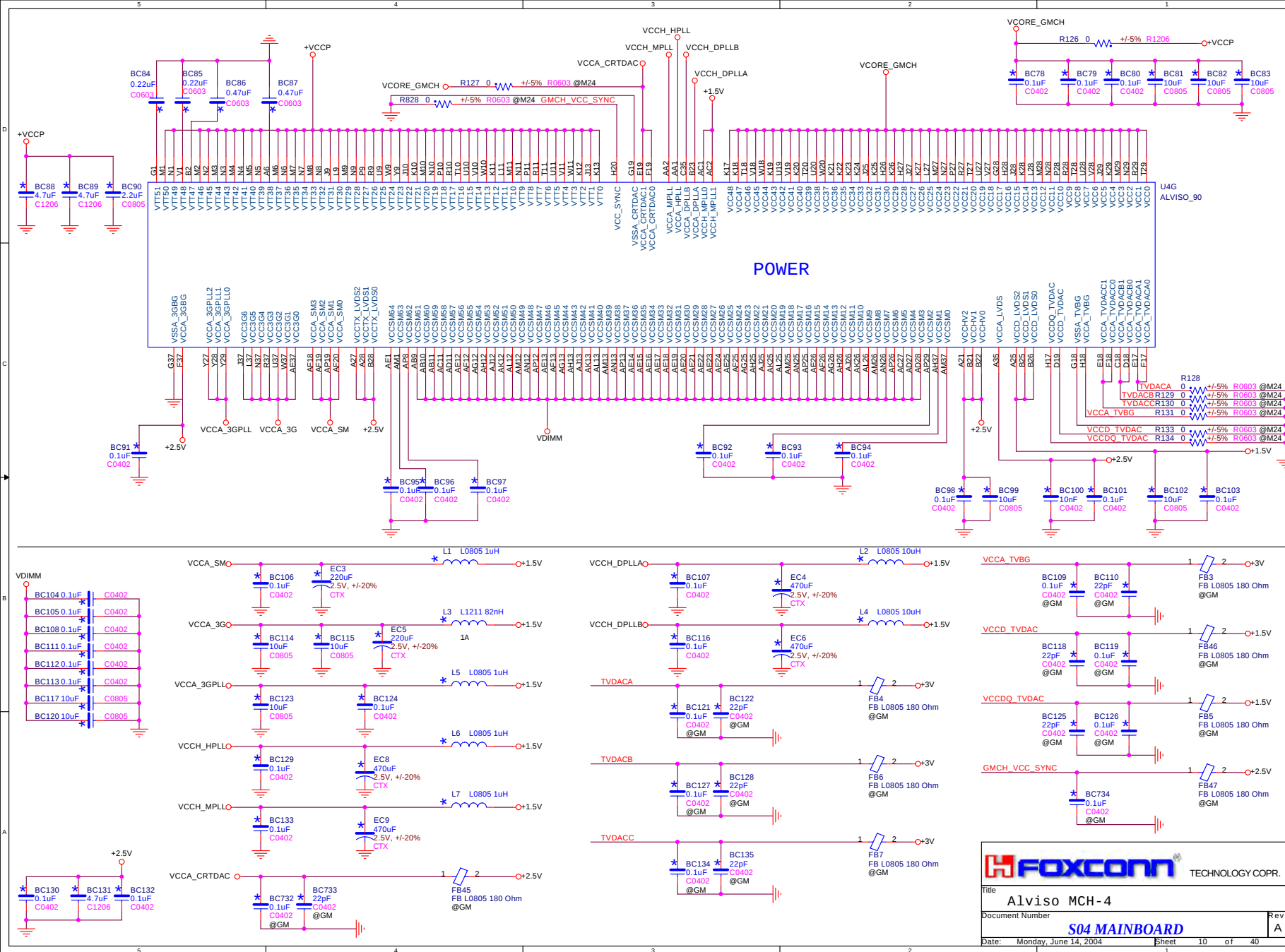


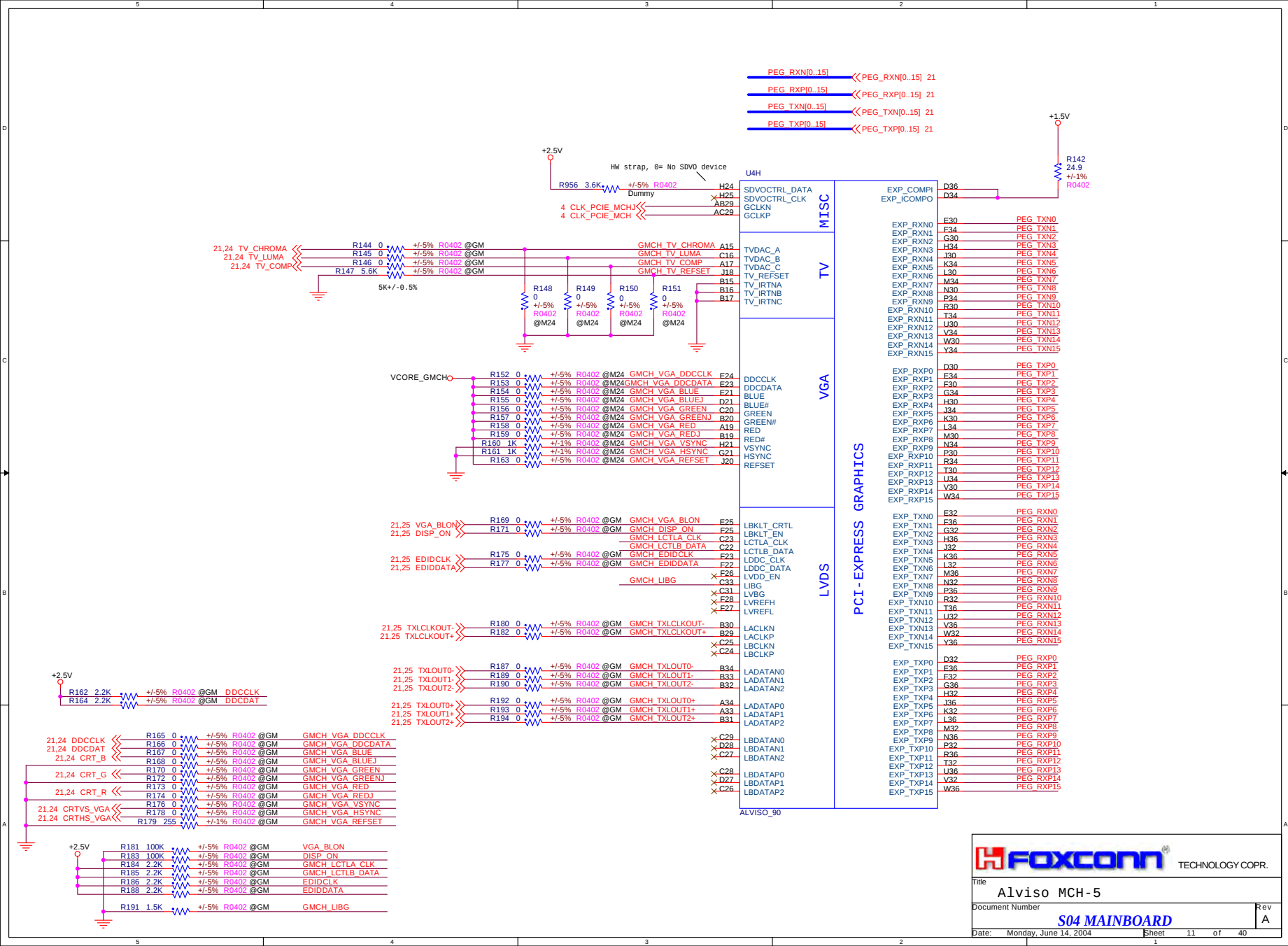


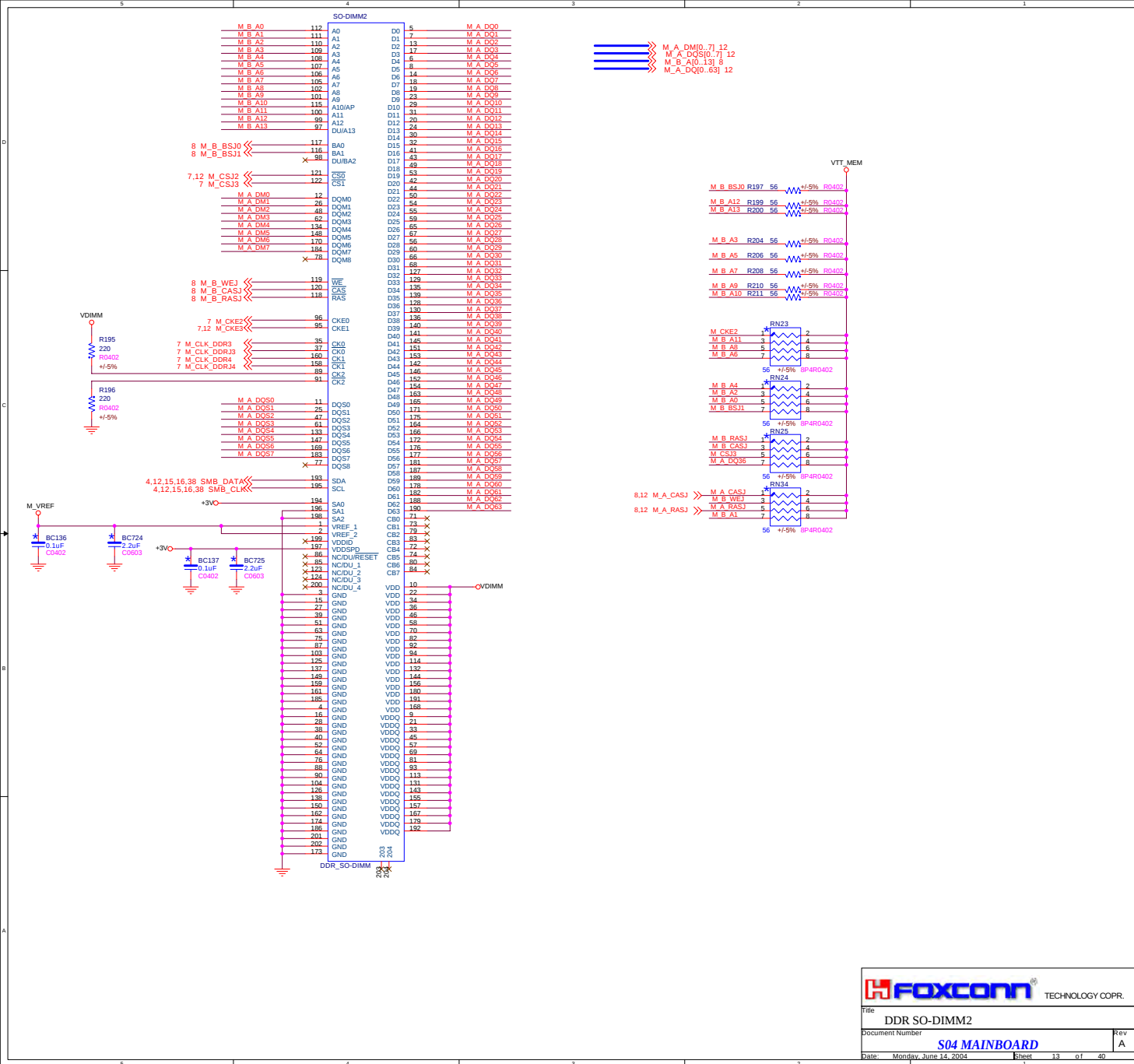


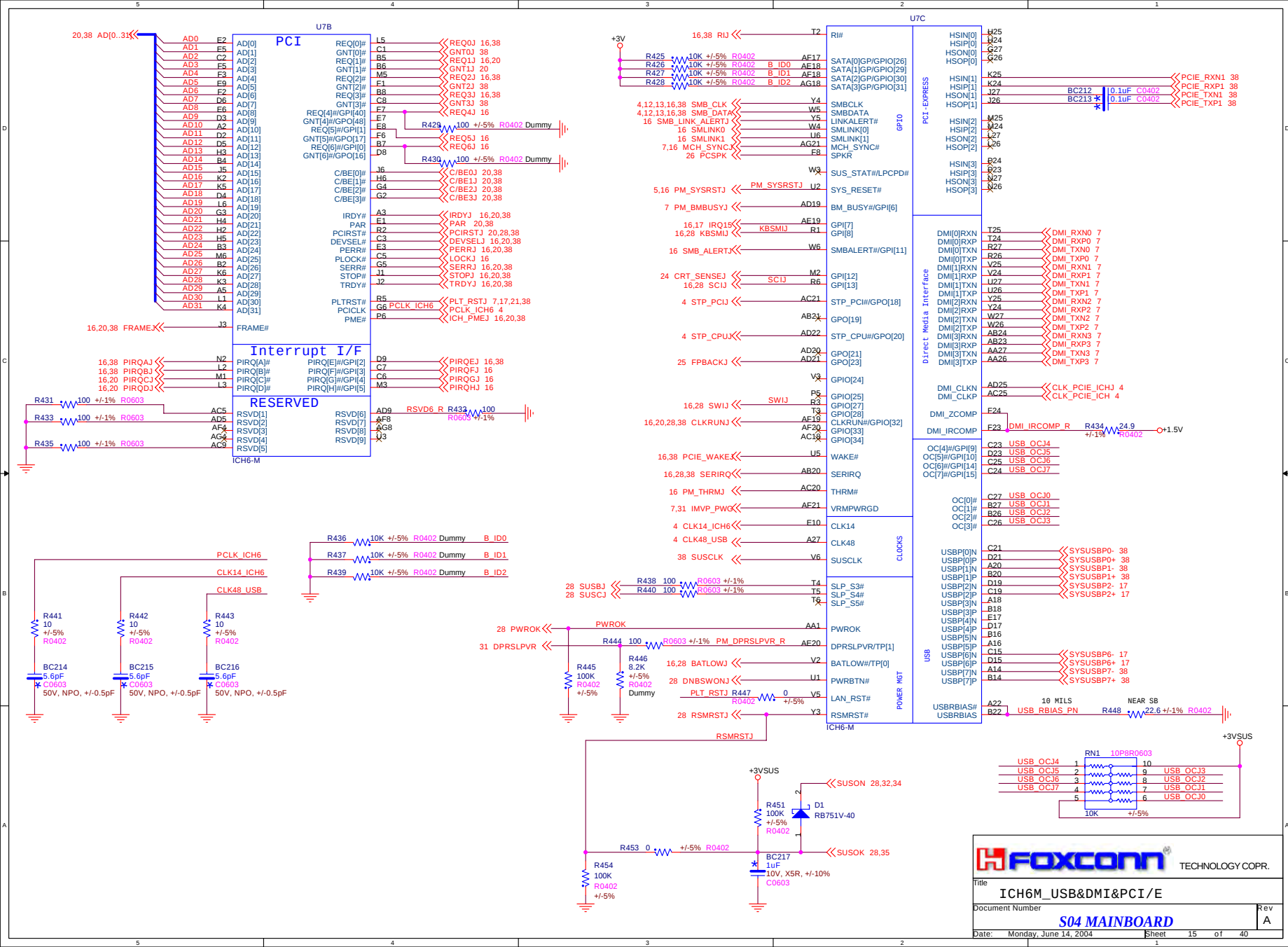


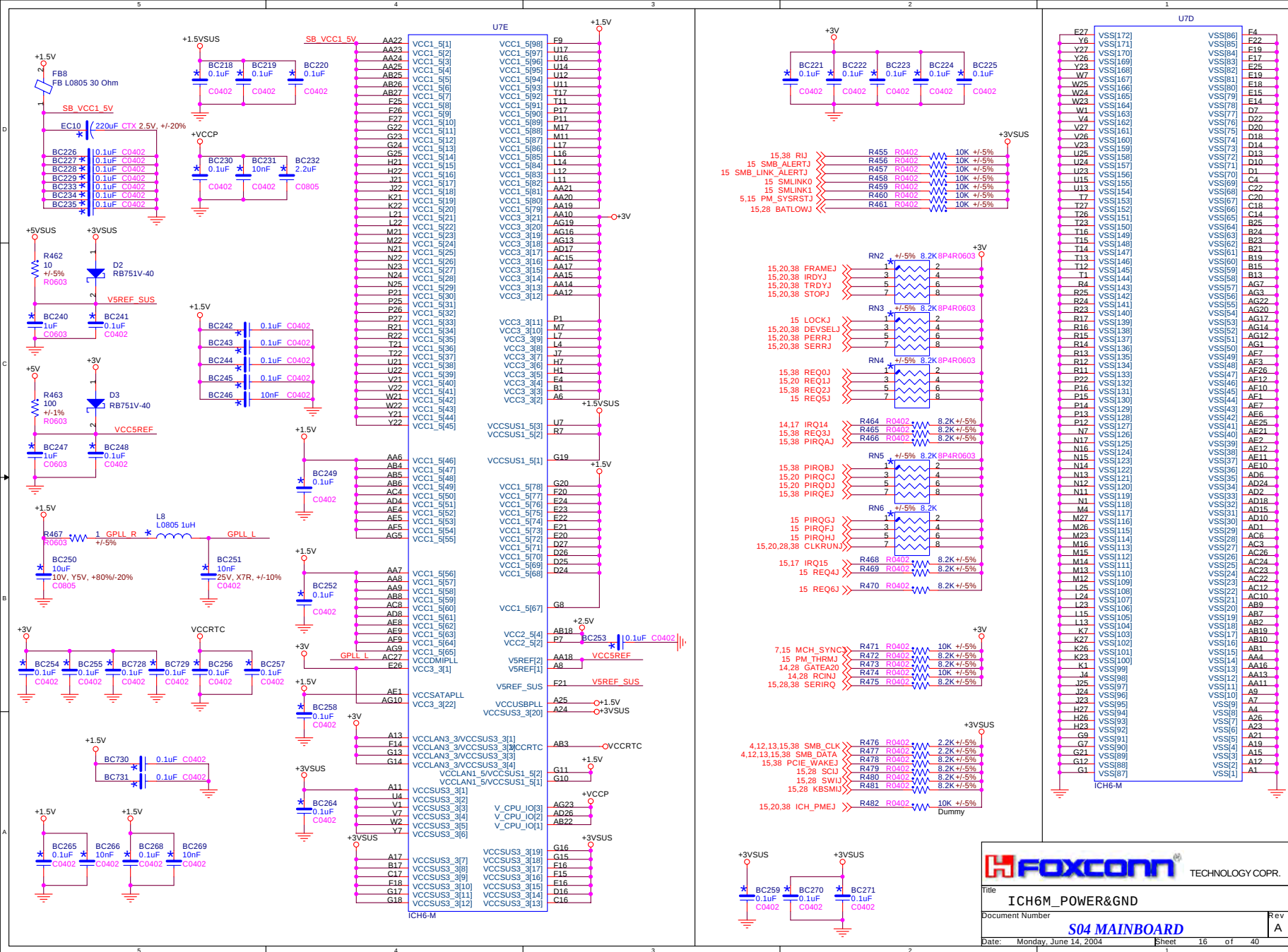




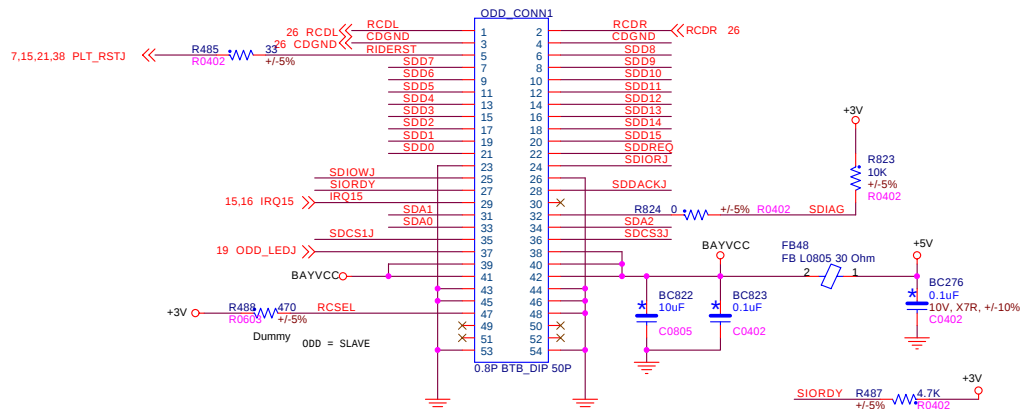




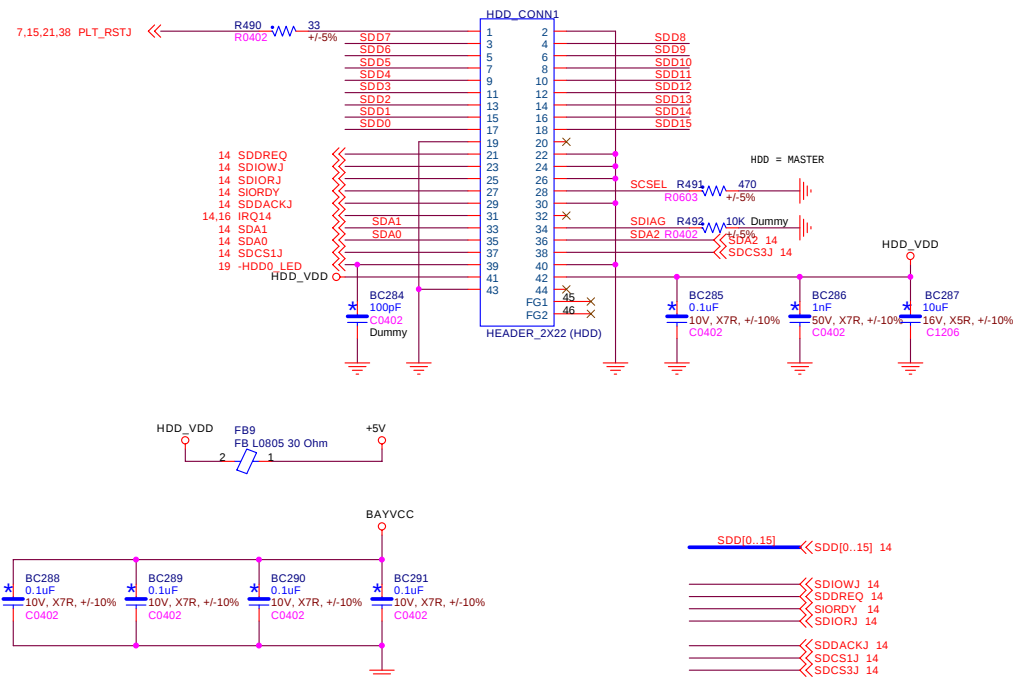




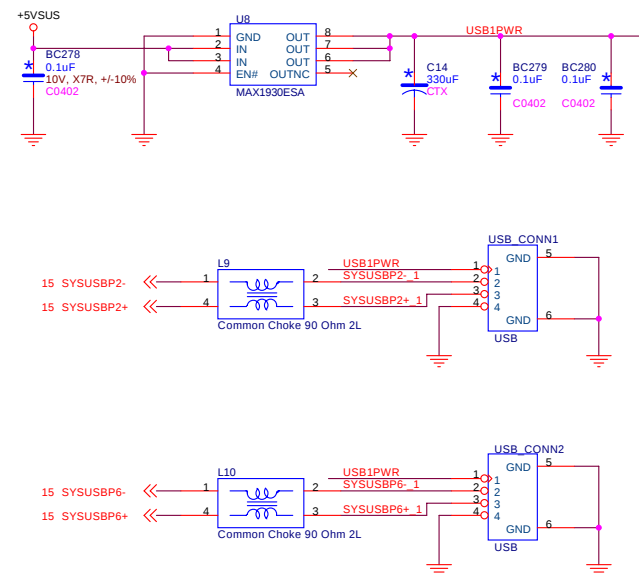
ODD CONNECTOR



HDD CONNECTOR



Del ODD hot plug function



Title	HDD/ODD/USBX2
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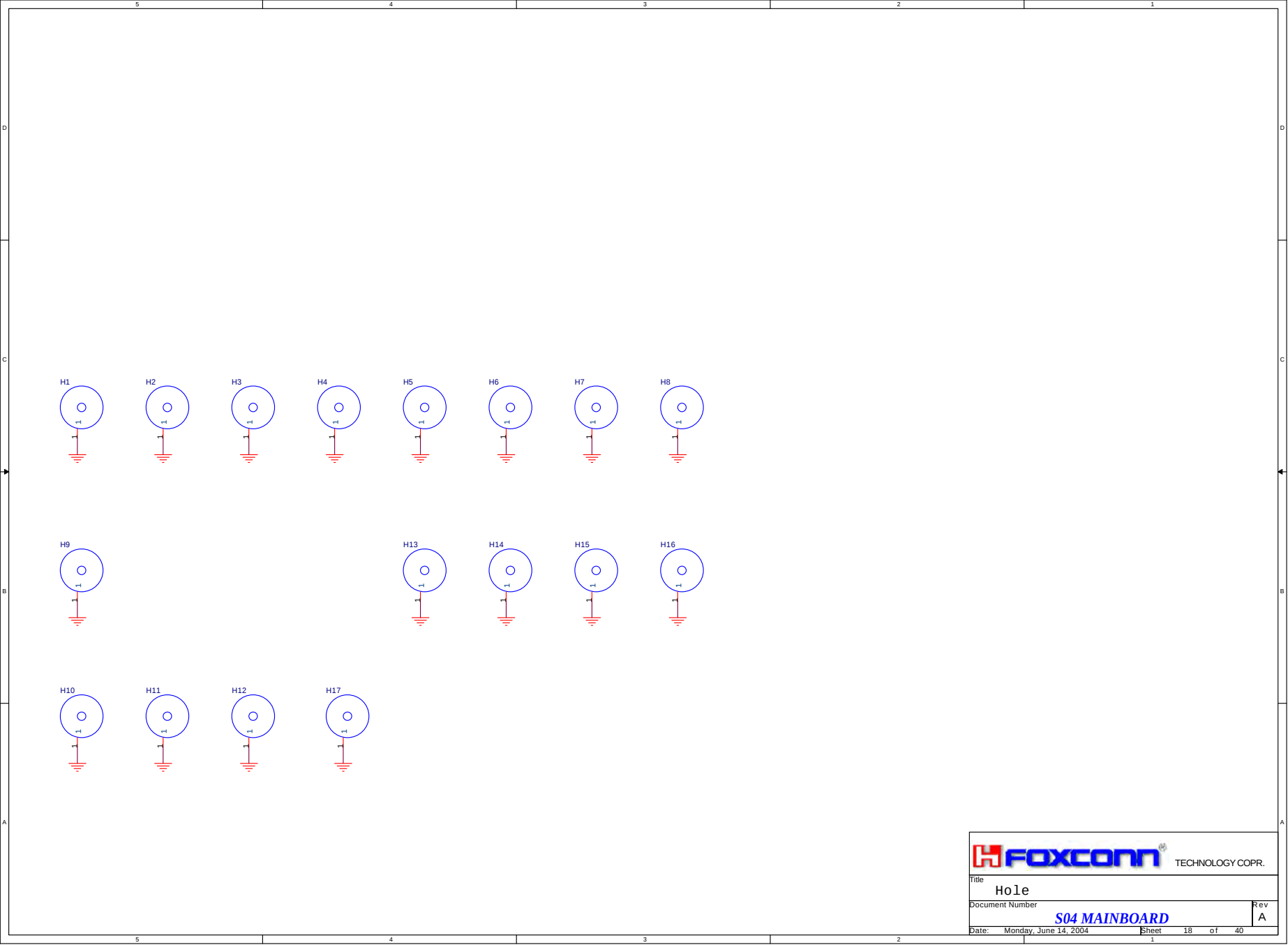
Document Number

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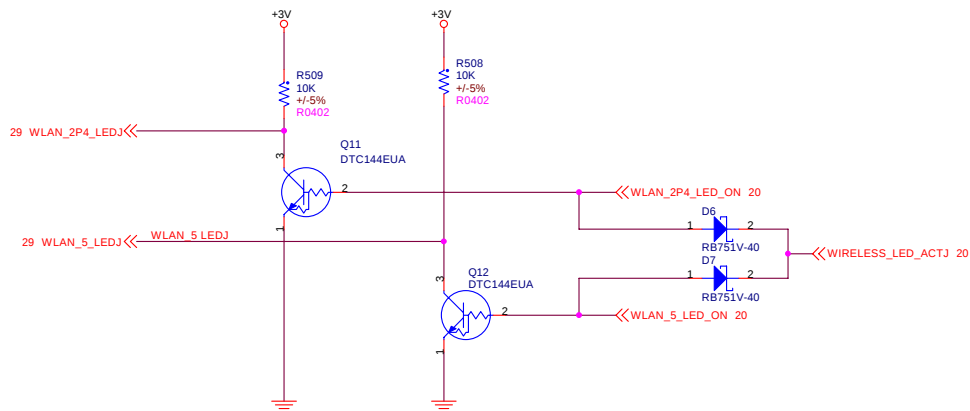
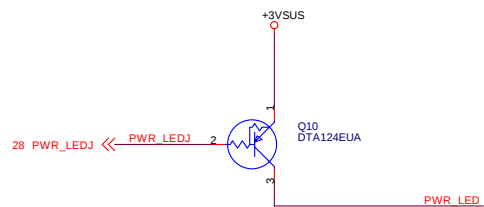
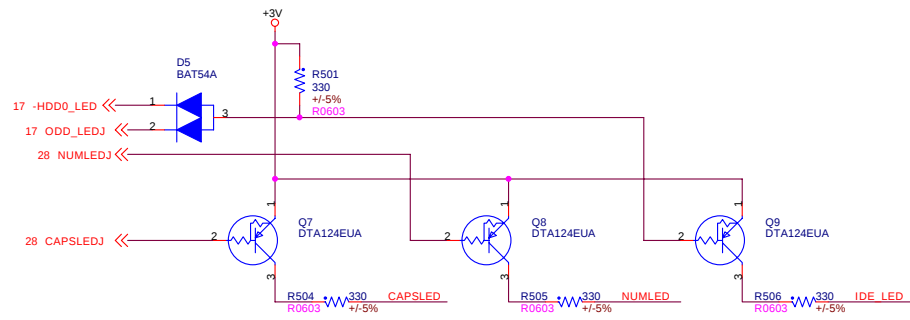
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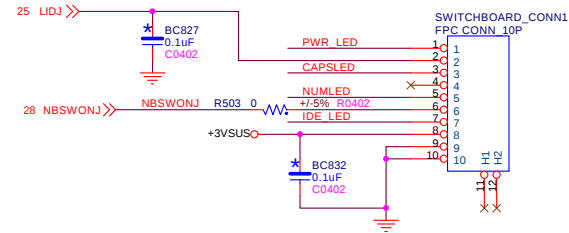
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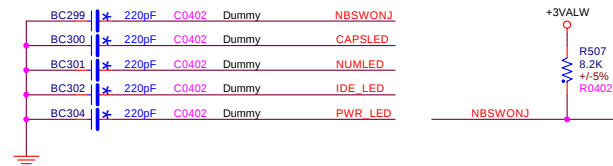
	
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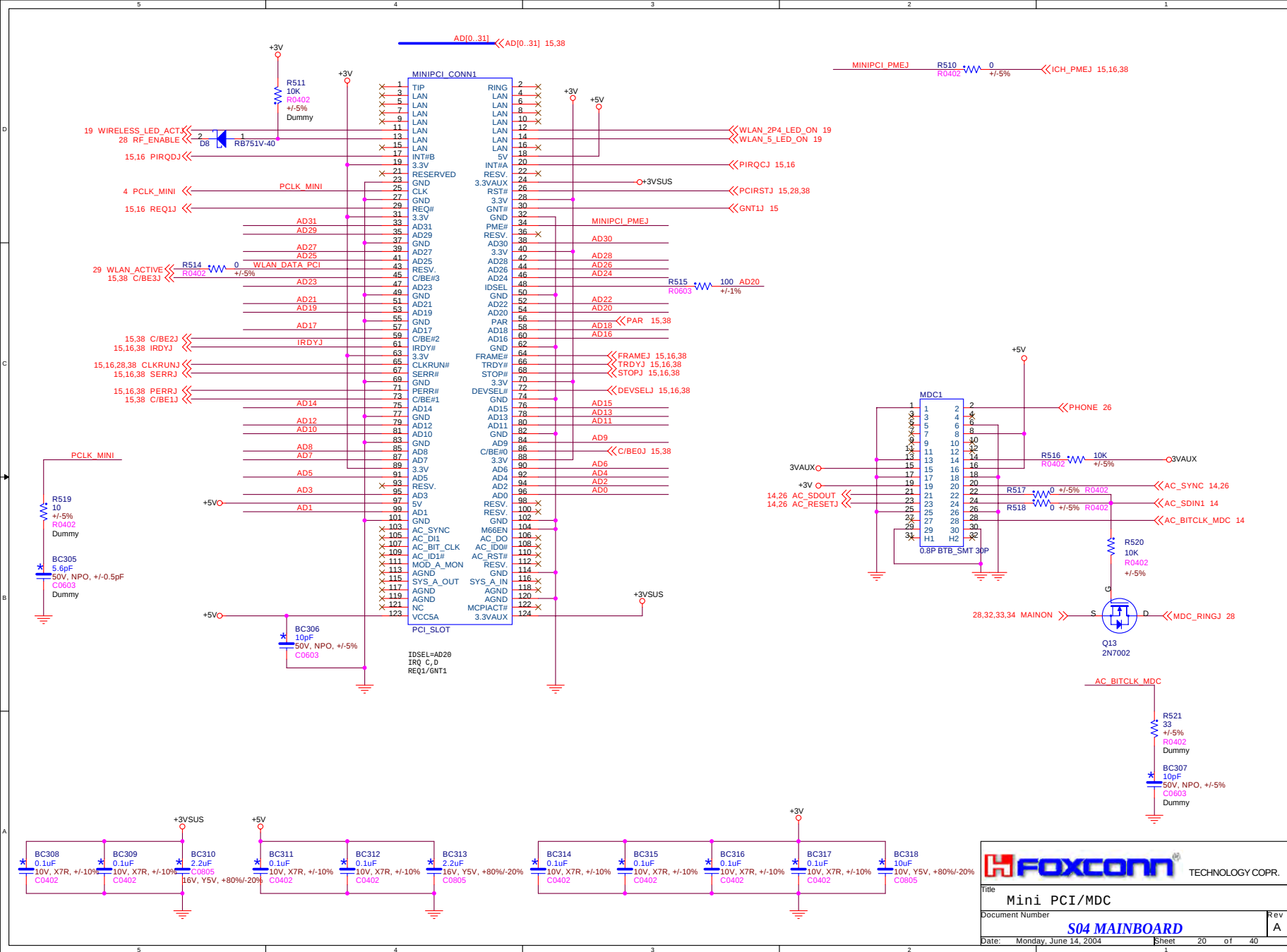


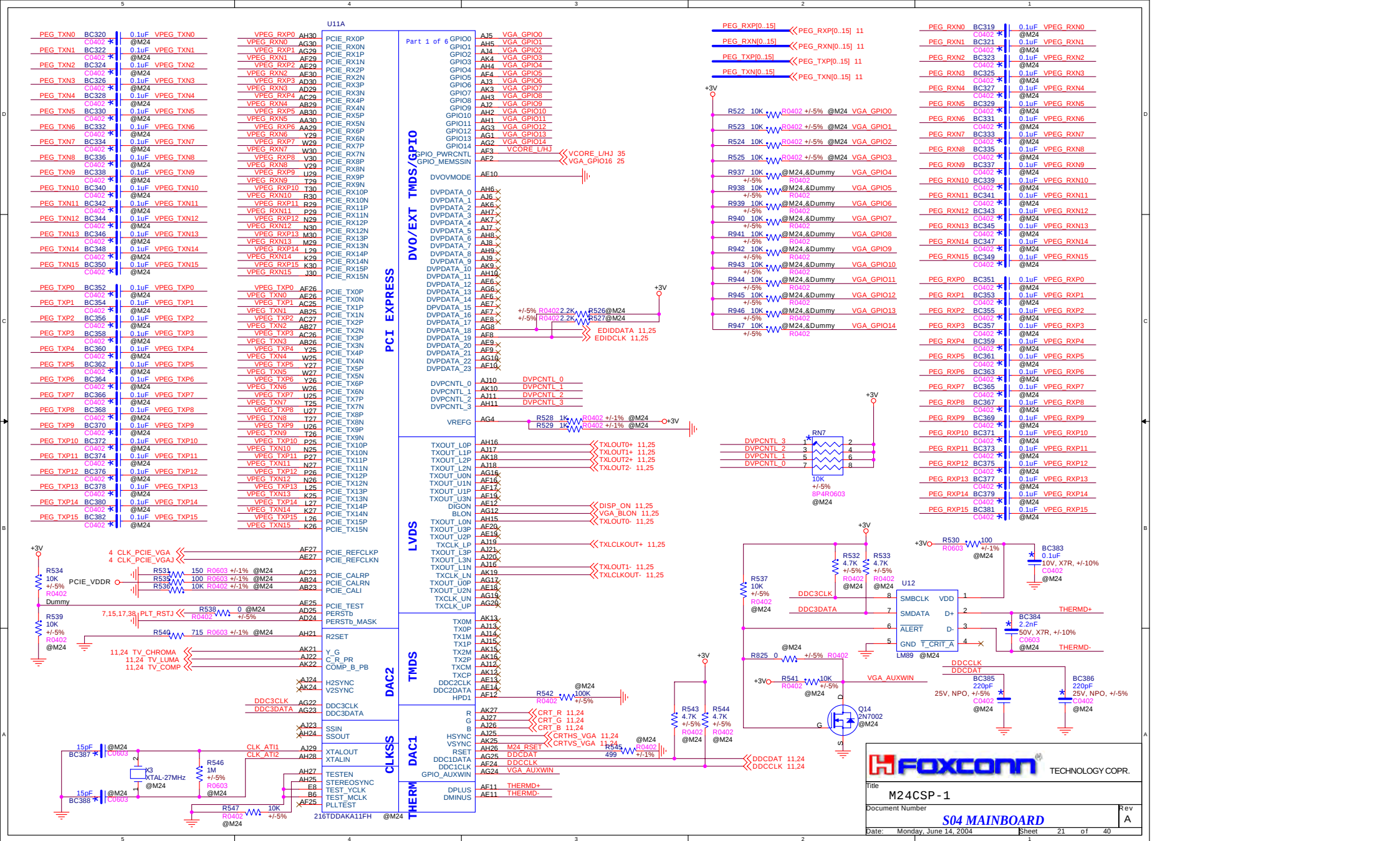
Switch Board Connector

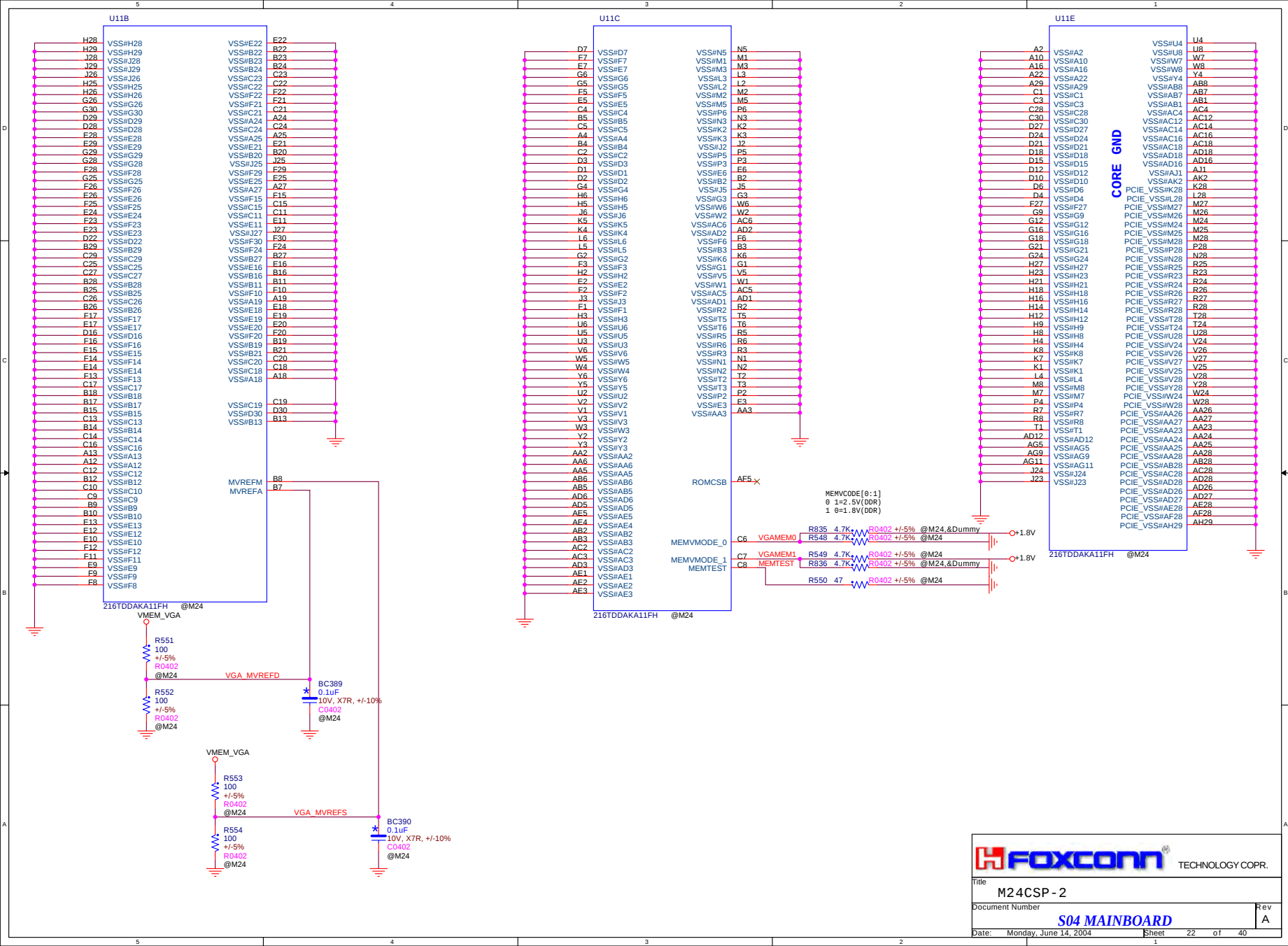


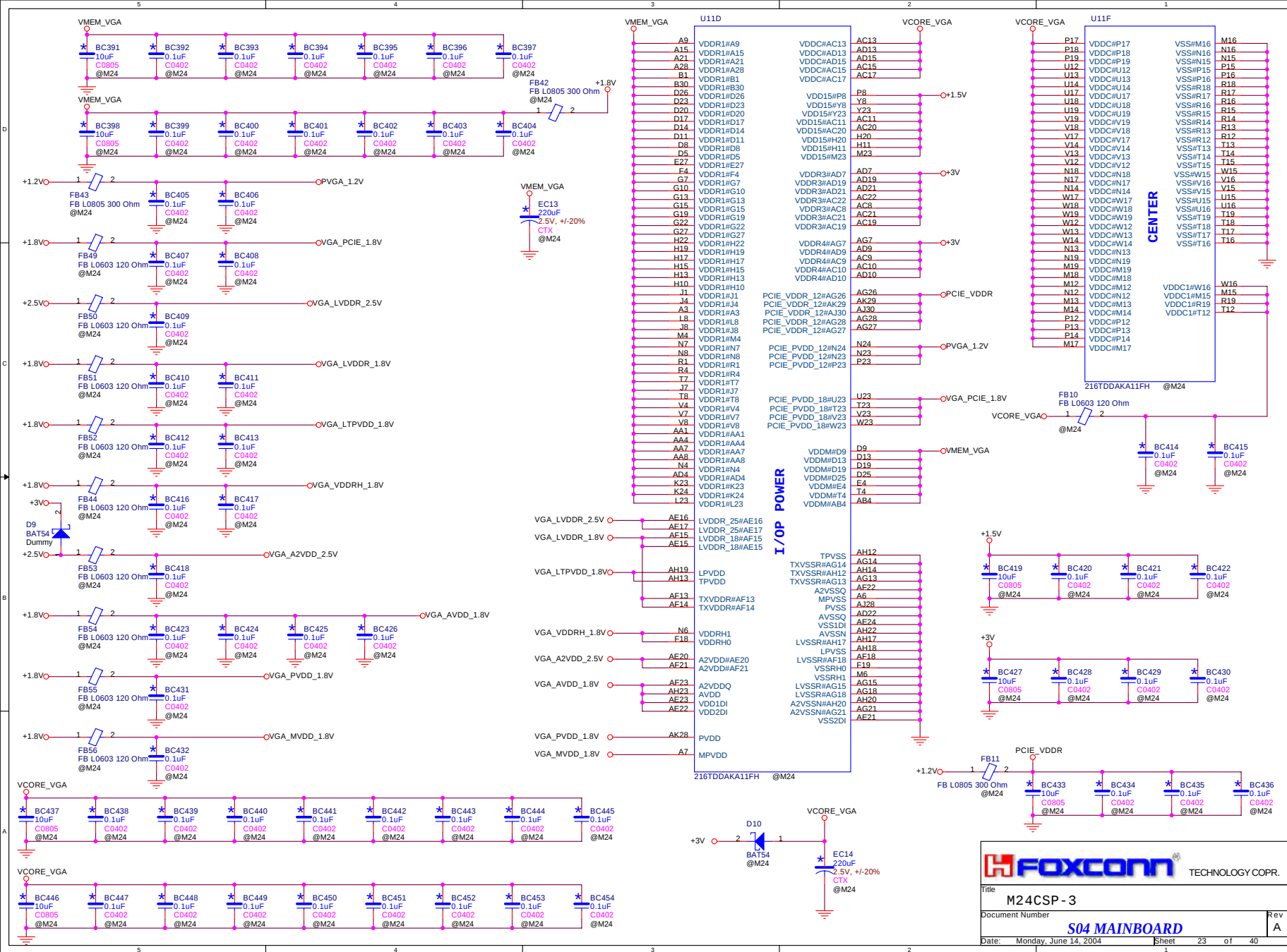
Switch Board EMI CAPS

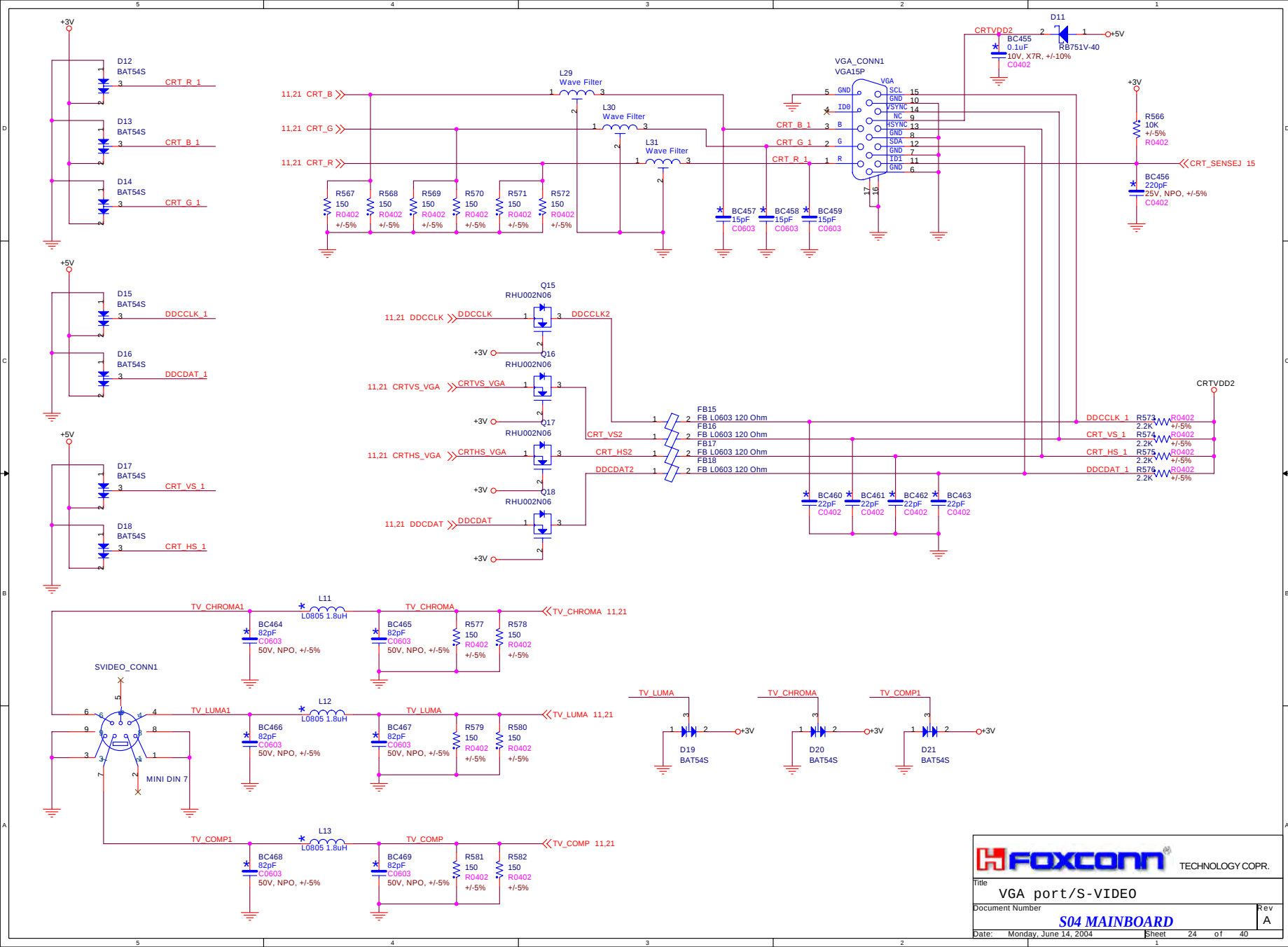




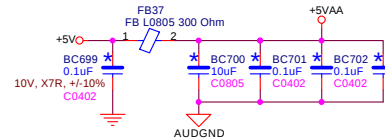
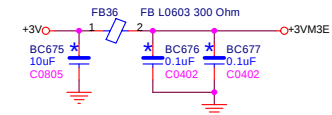
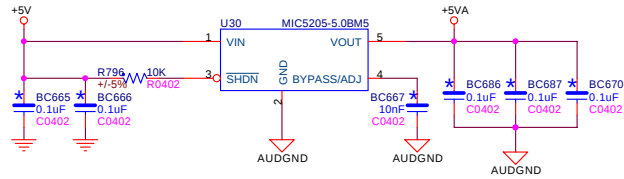
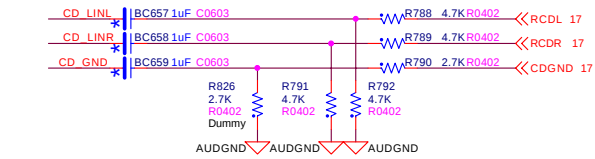
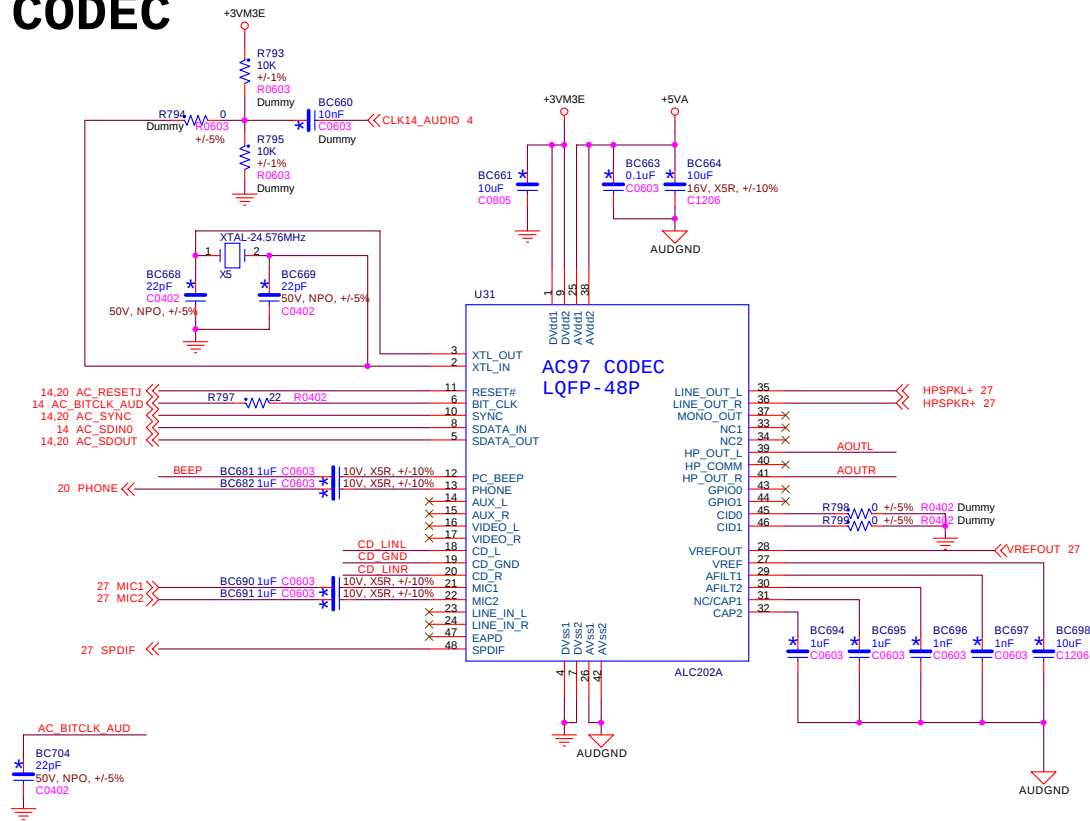




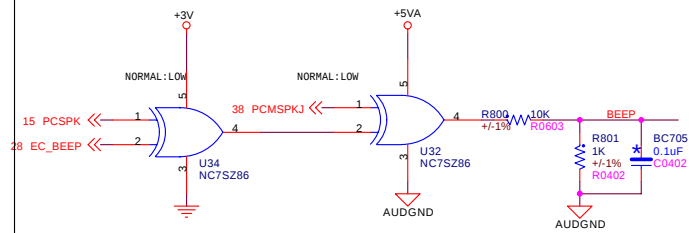
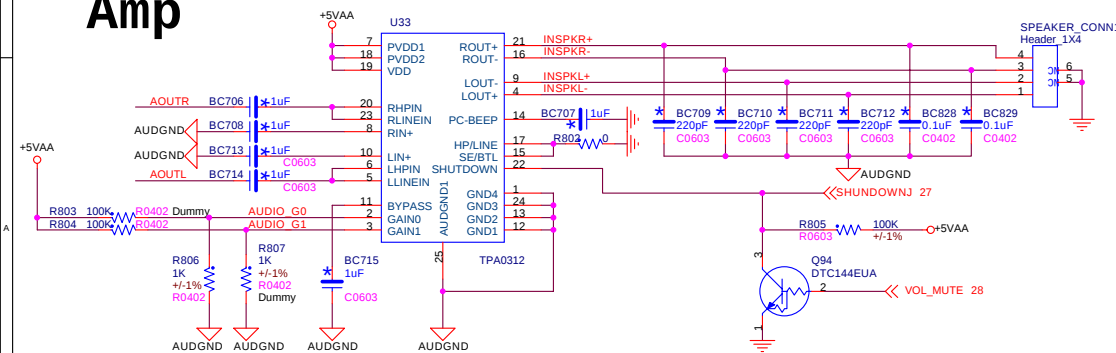




CODEC



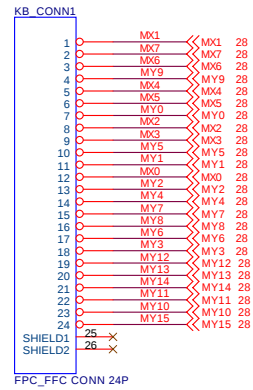
Amp



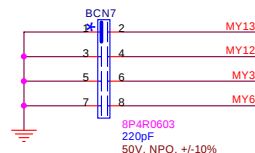
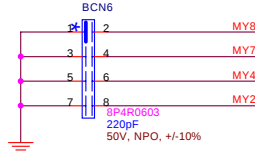
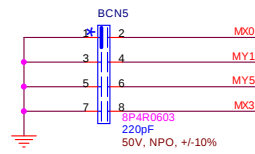
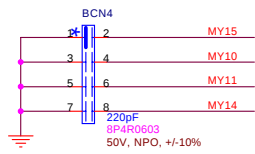
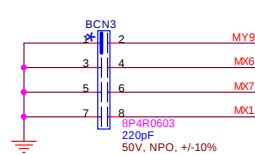
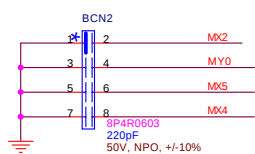
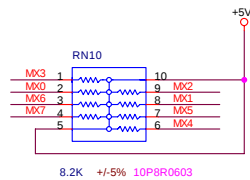
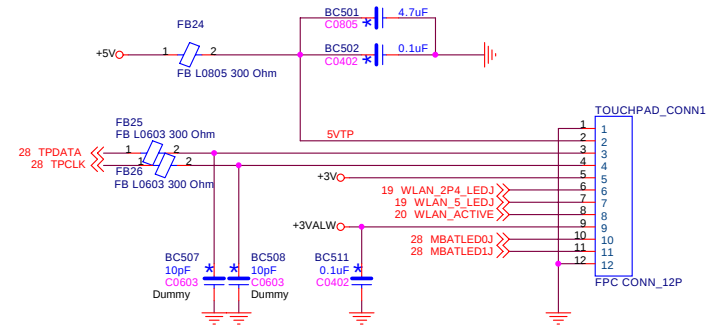
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PC87591 & FLASH

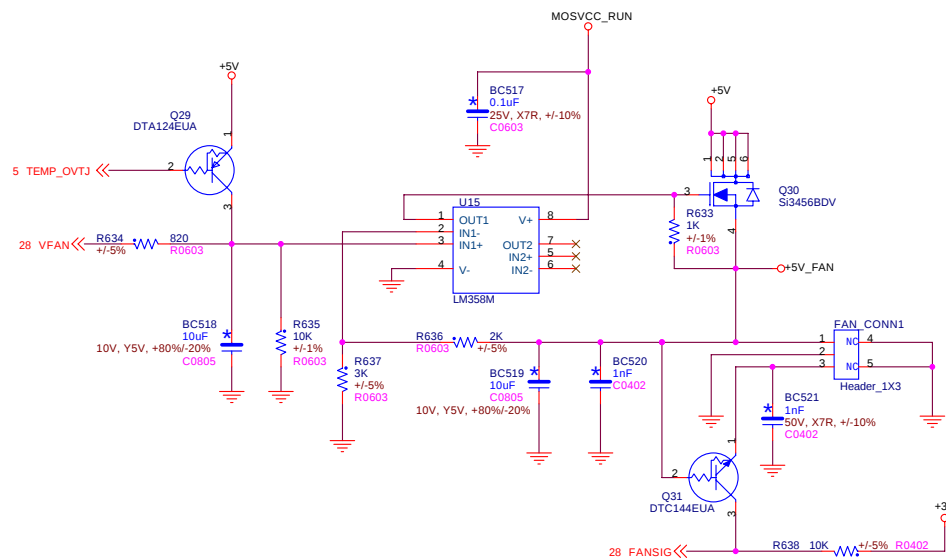
KEY BOARD

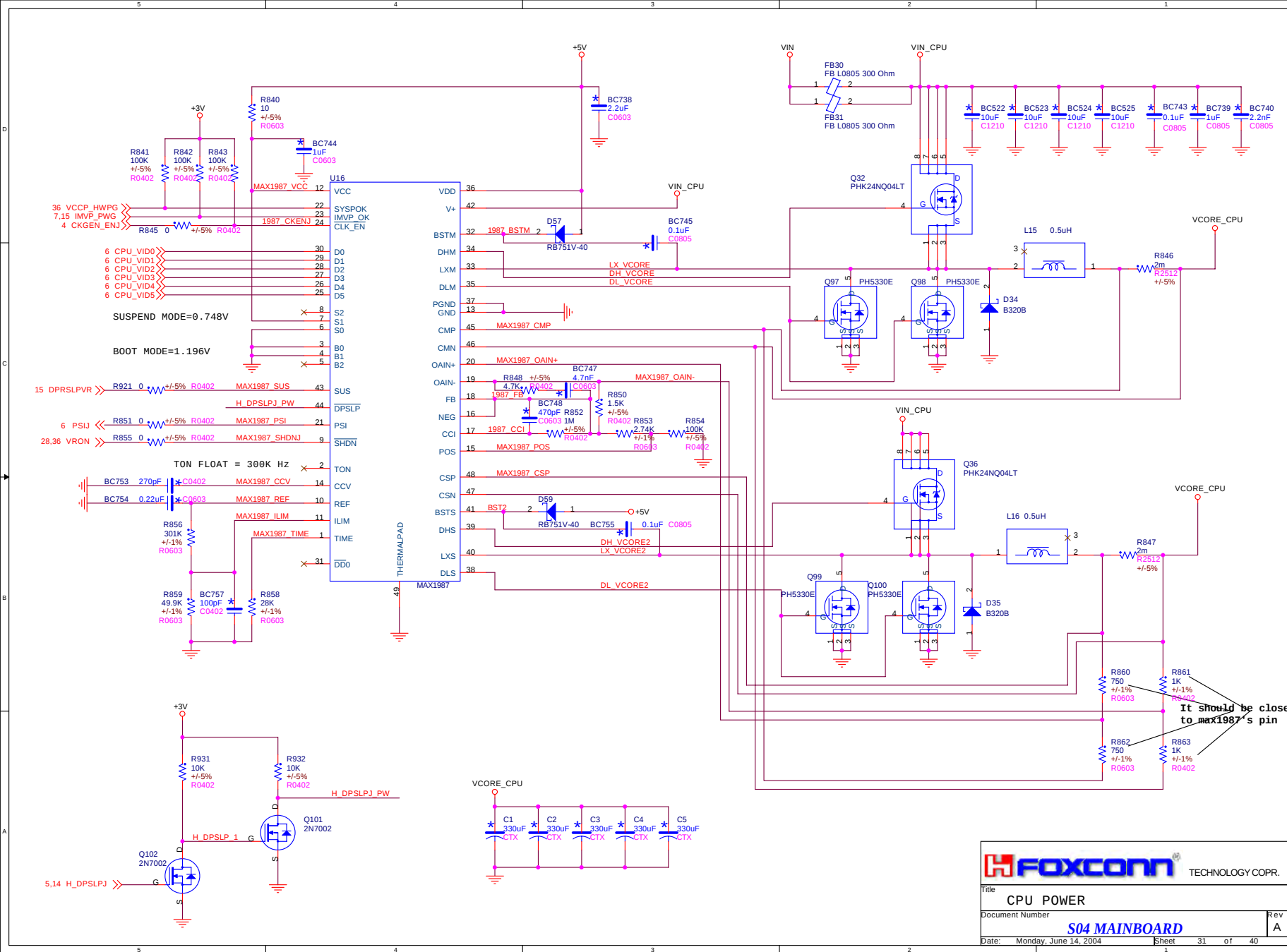


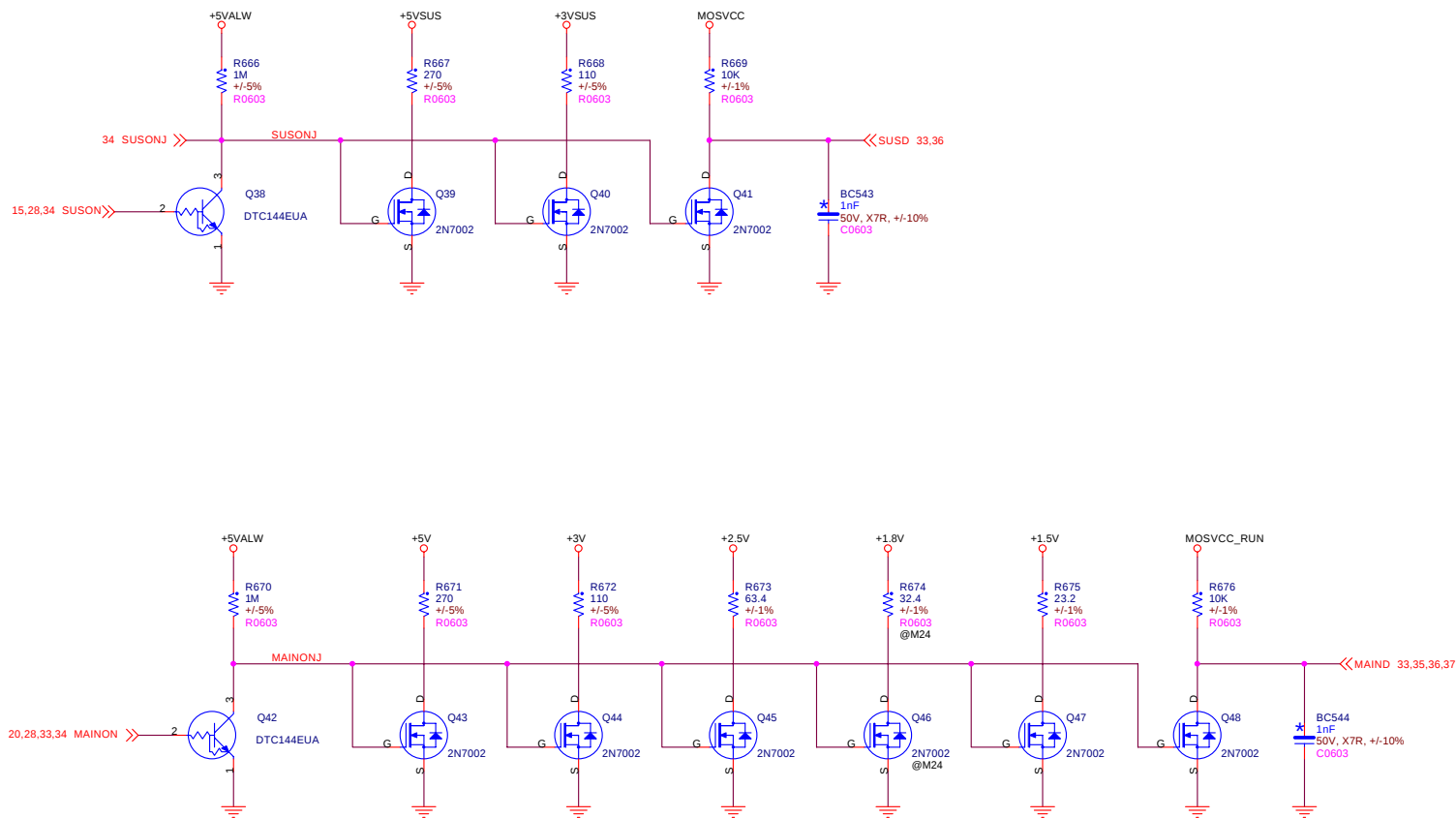
TOUCH PAD



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SKIP#=AVdd: PWM
SKIP#=GND: Skip mode

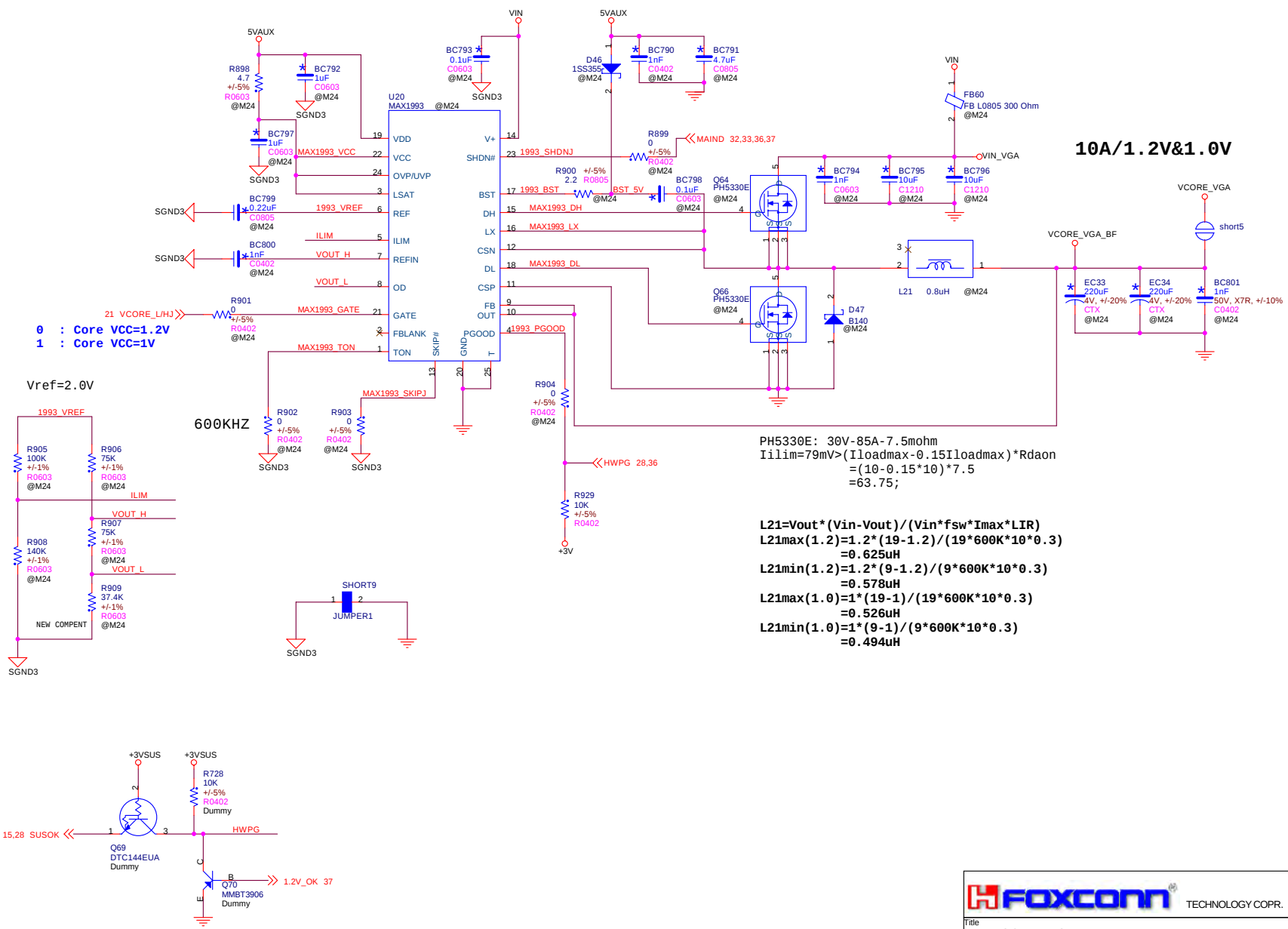
TON=open: 300KHZ
TON=GND: 600KHZ

FB=AVdd: 1.8V Output
FB=GND: 2.5V output

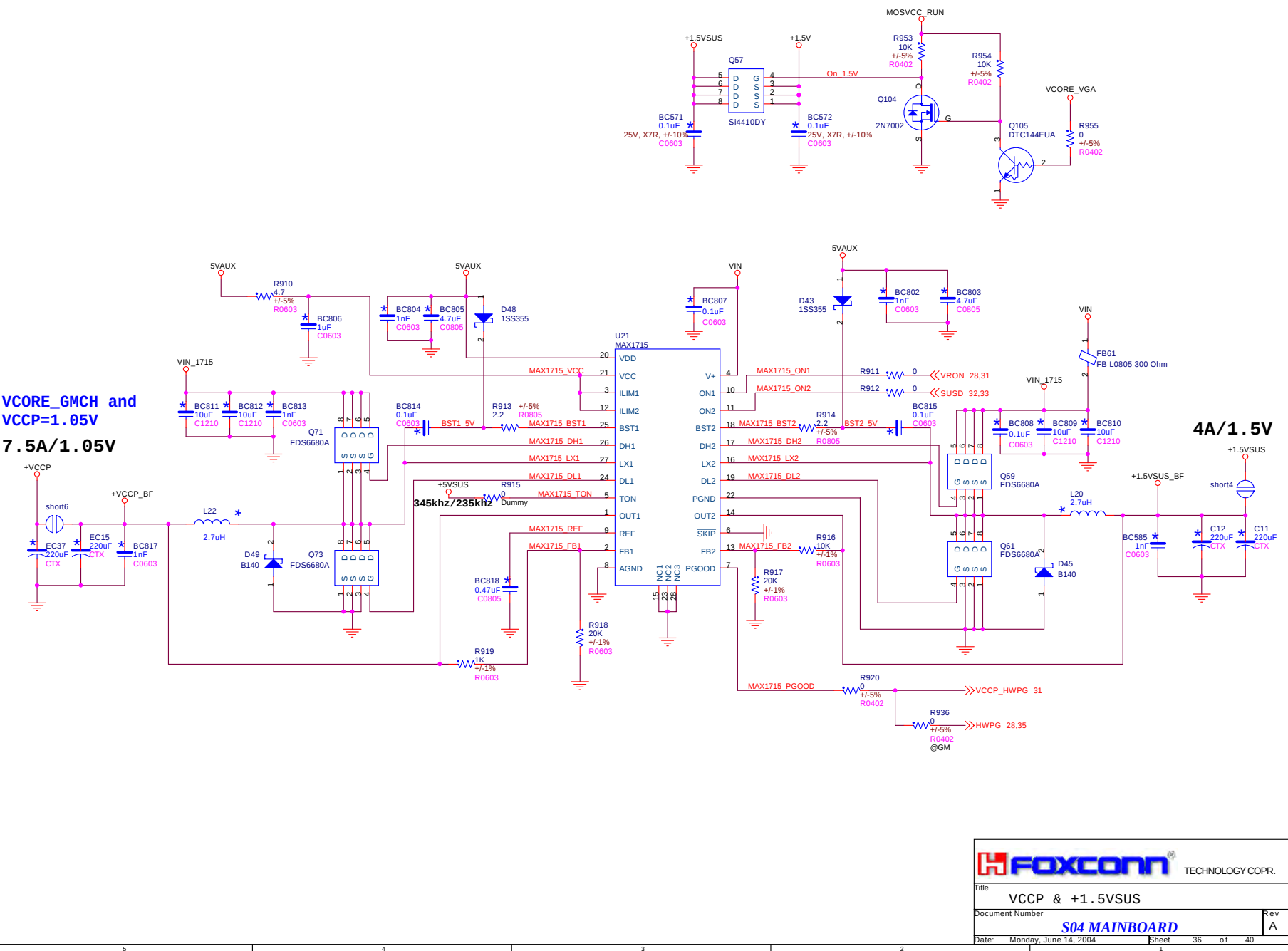
$$\begin{aligned} \text{Vilim(min)} &= 10 * \text{Ioutmax} * (1 - \text{LIR} / 2) * \text{Rdsonlow} * 25^{\circ}\text{C} * 1.25 \\ &= 10 * 6 * 0.85 * 7.5 * 1.25 \\ &= 478.125\text{mV} \end{aligned}$$

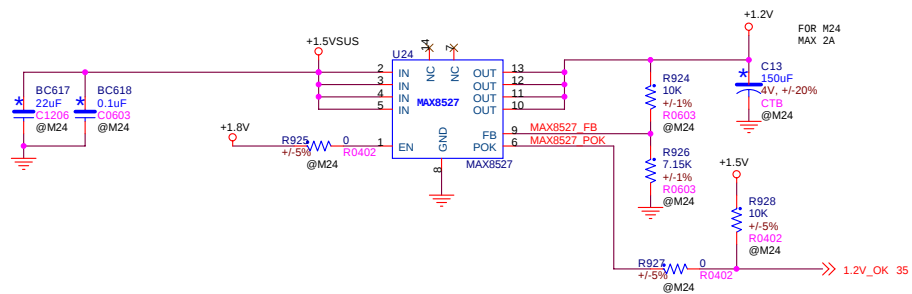
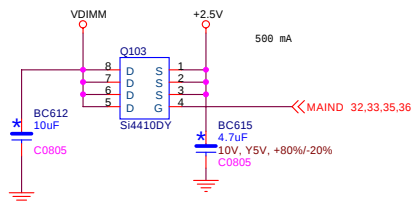
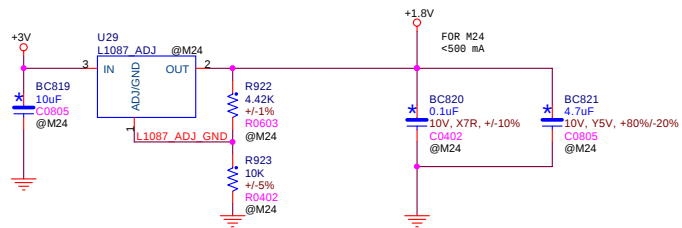
$$\begin{aligned} \text{Vilim_rating} &= 478.125 * 1.15 = 549.84375\text{mV} \\ \text{R895} &= (2\text{V} - 0.3 * \text{Vilim_rating}) / 10 = 183.5\text{Kohm}; \\ \text{R896} \parallel \text{R897} &= 2\text{V} / 10\mu - 183.5\text{K} = 16.5\text{Kohm}; \\ \text{R896} &= 19.8\text{Kohm}; \\ \text{R897} &= 98.3\text{Kohm} \end{aligned}$$

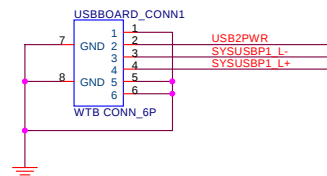
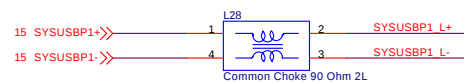
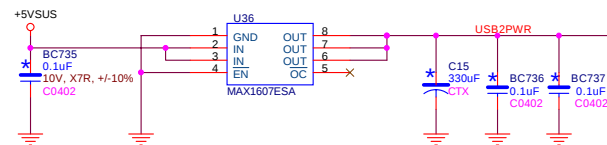
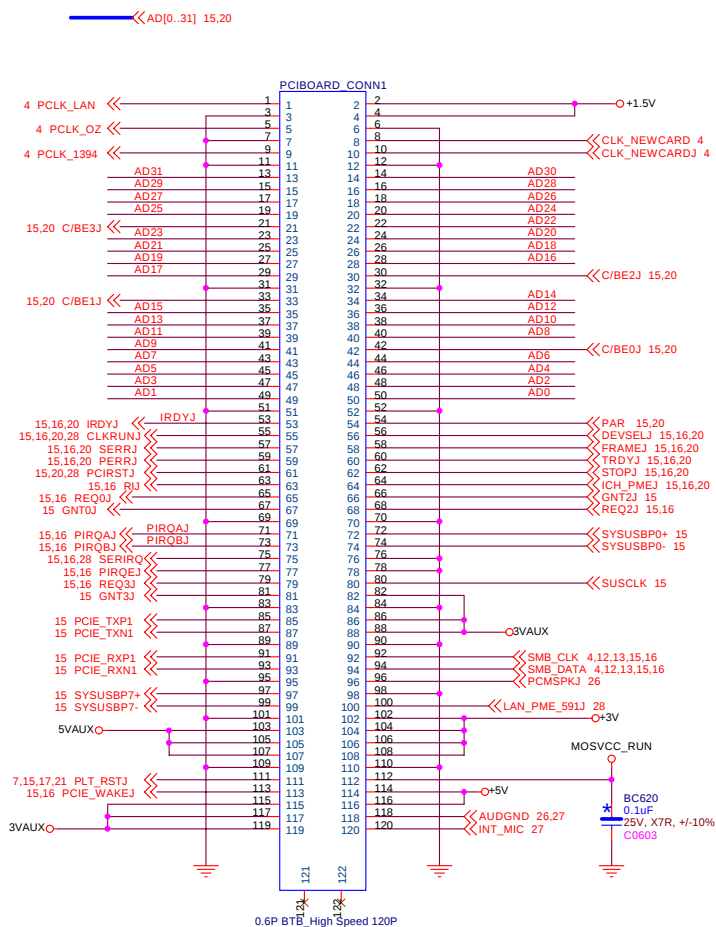
$$\begin{aligned} \text{L19} &= \text{Vout} * (\text{Vin} - \text{Vout}) / (\text{Vin} * \text{fsw} * \text{Imax} * \text{LIR}) \\ \text{L19max} &= 2.5 * (19 - 2.5) / (19 * 600\text{K} * 6 * 0.3) \\ &= 2.01\mu\text{H} \\ \text{L19min} &= 2.5 * (9 - 2.5) / (9 * 600\text{K} * 6 * 0.3) \\ &= 1.67\mu\text{H} \end{aligned}$$

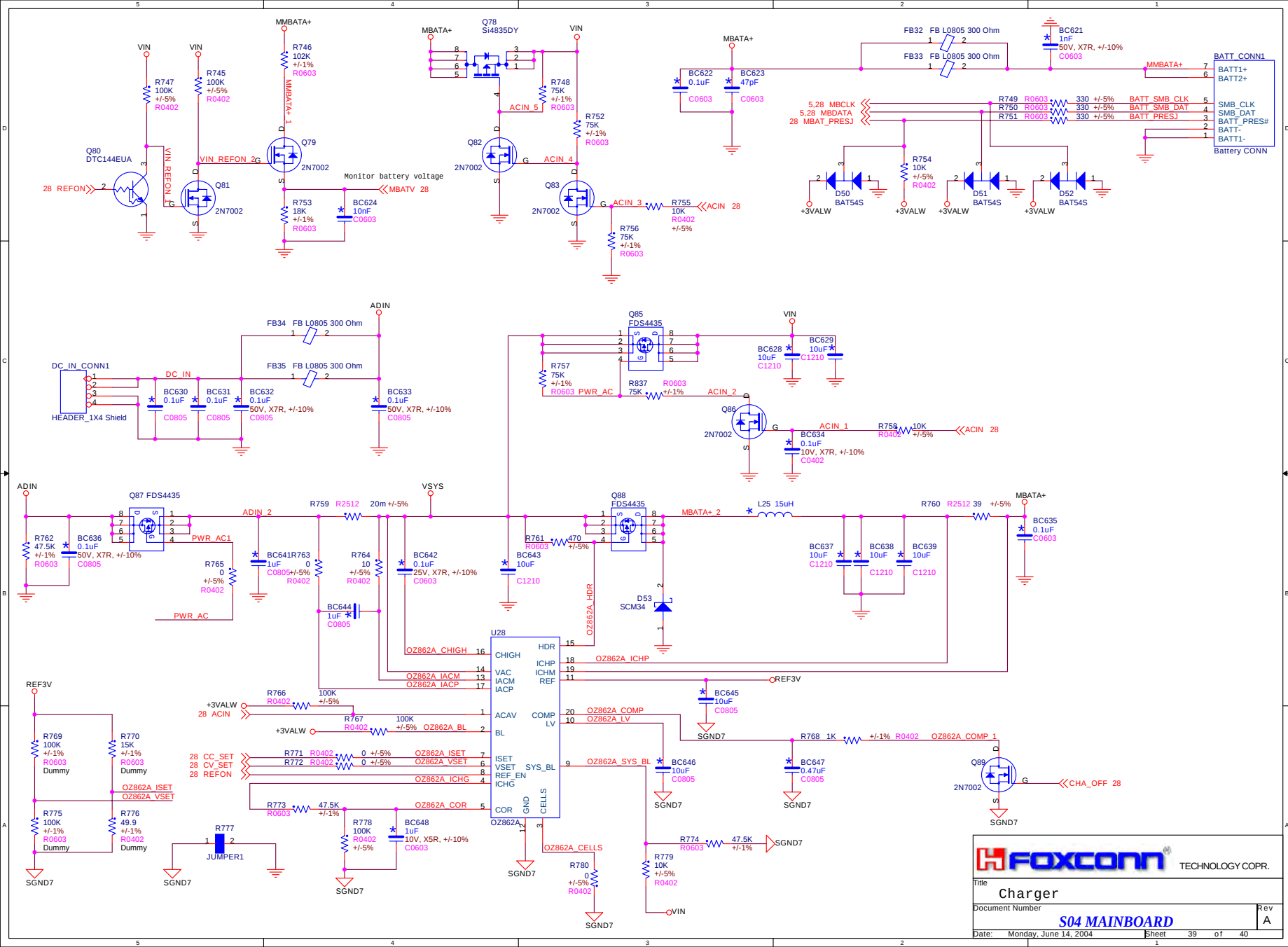


**VCORE_GMCH and
VCCP=1.05V
7.5A/1.05V**









```

0608:
P4,connect DREFSCLK/J to pin 17,18 of U1 through R950,R951;and pull down them through R948,R949;
P7,connect DREFSCLK/J to pin C37,D37 of U4B;
P36,update the control circuit of Q57;
P37,change MAIND to +1.8V to connect to U24 pin 1 EN.
P18,del 4 EMI caps,update the holes in the MB;
P37,change R922 to 4.42K;
P11,pull up SDVOCRTL_DATA(pin H24) to +2.5V through R956(3.6kohm);

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6613:
P12, Del some caps:BC163,BC164,BC165,BC166,BC167,BC200,BC201,BC203,BC205,BC206,BC208,BC209,BC210,BC211,BC204;
change BC485,BC486,BC142,BC143 to 4.7pF 0402;
```

		TECHNOLOGY CORP.
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