

FCI-800 Board Schematics

System Overview:

The eN-Display Board is a hardware platform based on Atmel'S SAM9X35 microcontroller.
It's mainly used in LCD display, communication.
The product provides different communication ports, including RS-232,RS-485,CAN,10/100M Ethernet port,USB, SD card.

Hardware Specification:

Power Supply:
+24V Power input, maximum input current 500mA.
CPU:
AT91SAM9X35 400MHz ARM926EJ-S
RAM:
128MB 16bit DDR2 (up to 256MB)
NAND:
256MB(K9F2G08) (up to 1G)
Dataflash:
4M bits
Serial Interfaces:
3 * RS-232
1* RS-485
2*CAN, one with isolator
10/100M ethernet
USB 2.0 full-speed host
SD Card:
Micro SD connector
LCD Panel:
7" TFT panel
Buzzer:
Min 85dB&30 cm, optional
Key:
22 keys

Honeywell Confidential & Proprietary

<Variant Name>

Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China			霍尼韦尔消防安防系统 (上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号	
Title/标题: Cover Page/封面			Document Number/文档号: FCI-800	
Size/尺寸: B	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2
Date/日期:	2016-12-19		Sheet/页码:	1 / 14

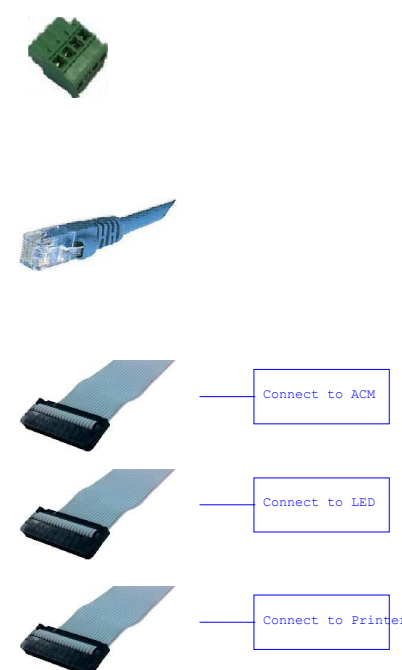
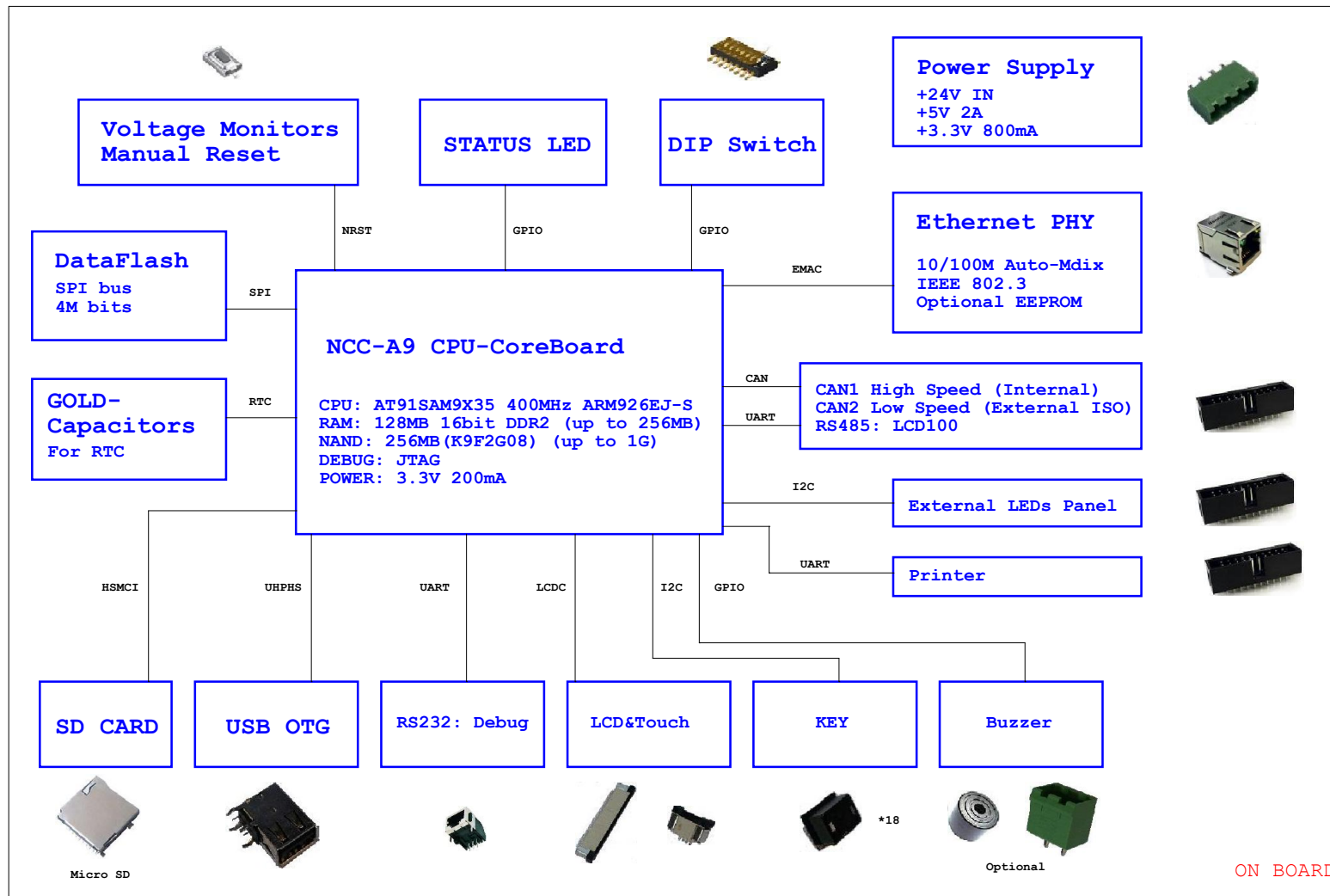
Revision History

DATE	Rev	Description	Author
2012-09-19	V1.0	创建	朱家虎
2013-07-04	V1.1	增加: C55=10nF/C22=C24=C25=C26=C62=C63=C64=C65=100nF/C45=10uF±16V; R2=10K/R24=R27=R69=10K/R25=R28=1K/R31=1.5K/R75=75/R78=R79=R80=R81=620/R82=R83=0; J5/J9/J10; D5=SD101AW 变更: D7=SS24 D4=SD101AW	朱家虎
2013-12-04	V1.2	增加: R45/R49/R57 C55=10nF/C22=C24=C25=C26=C62=C63=C64=C65=100nF/C45=10uF±16V; R2=10K/R24=R27=R69=10K/R25=R28=1K/R31=1.5K/R75=75/R78=R79=R80=R81=620/R82=R83=0; J5/J9/J10; D5=SD101AW 变更: R53/R55/R58/R61/R91/R97/R98/R99=100 D4=SD101AW	朱家虎
2014-03-03	V1.3	增加: R49/R77=10K R48=1K R51=0R Q8 J9更换新型号 增加Q13/Q14 增加R37/R65/R66/Q7 R42=24K 去除RS485上下拉电阻 增加R46	朱家虎

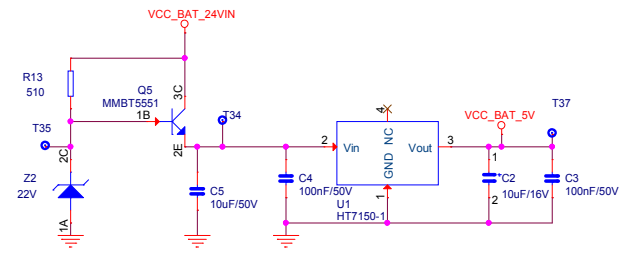
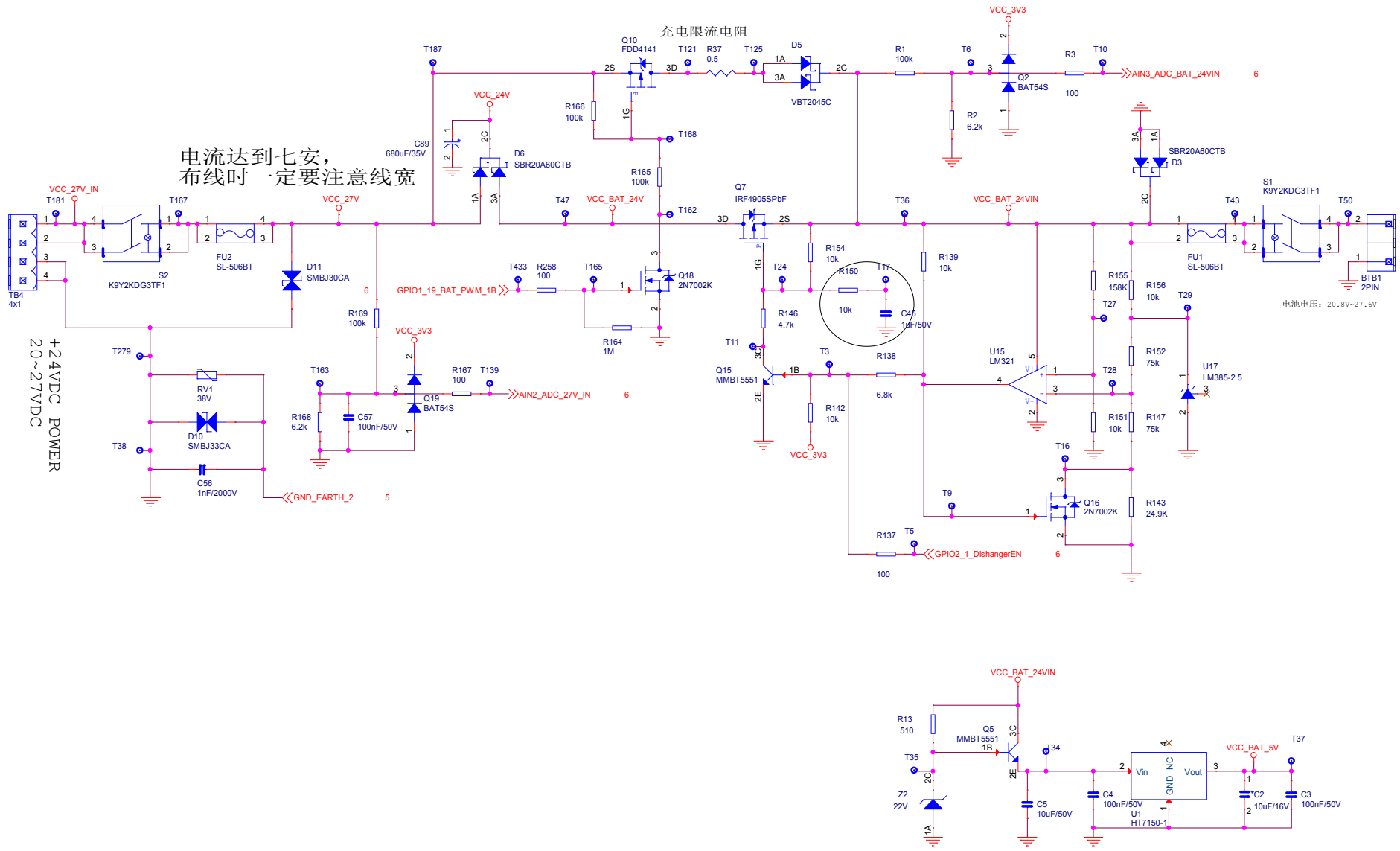
<Variant Name>

Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China Yao 陈超			霍尼韦尔消防安防系统 (上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号		
Revision History/历史修改			Document Number/文档号: FCI-800		
Size/尺寸: C	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/符勇	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2	
Date/日期: 2016-12-16			Sheet/页码: 2 / 14		

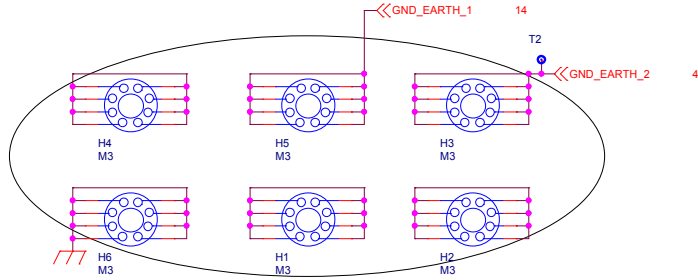
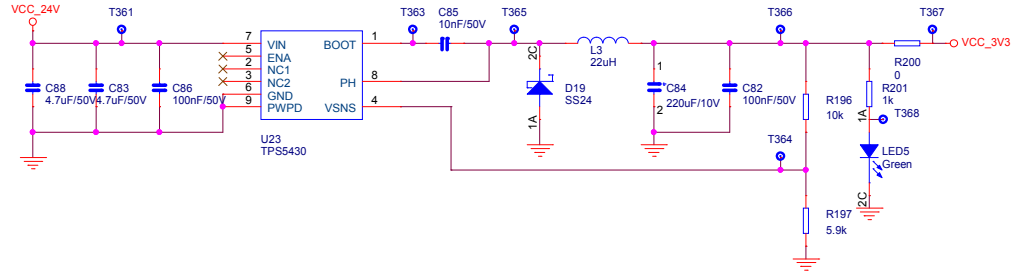
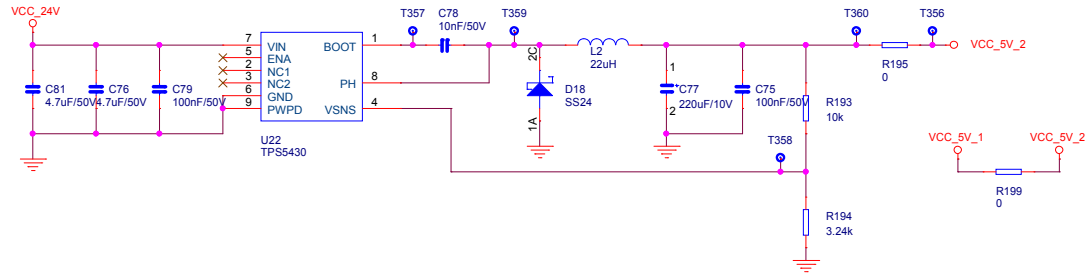
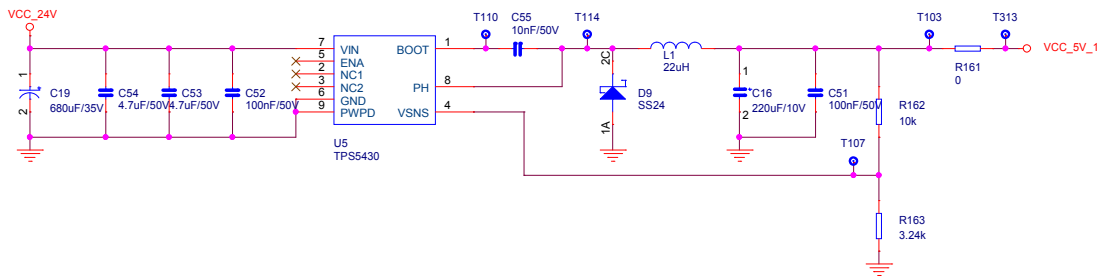
System Block Diagram



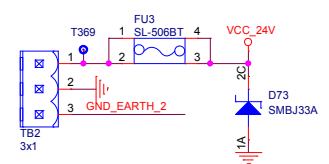
Honeywell Fire Systems			
No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China			
System Block Diagram/模块图			
FCI400			
Size/尺寸: A2	Author/设计: Zhu Jiahui/朱家贵	Electric Eng/电气: Yan Yu/闫宇	Approved By/审核: Han Bin/韩斌
Date/日期: 2016-12-19	Rev/版本: 1.2		Sheet/页码: 3 / 14



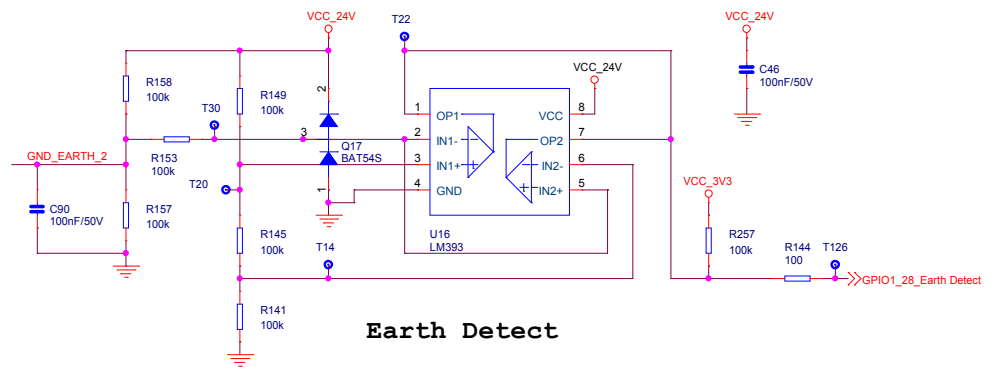
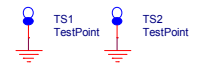
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Honeywell Fire Systems				
No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China				
Title/标题: Power1/电源		Document Number/文档号: FCI-800		
Size/尺寸: A3	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2
Date/日期: 2016-12-20		Sheet/页码: 4 / 14		



+24VDC POWER SUPPLY

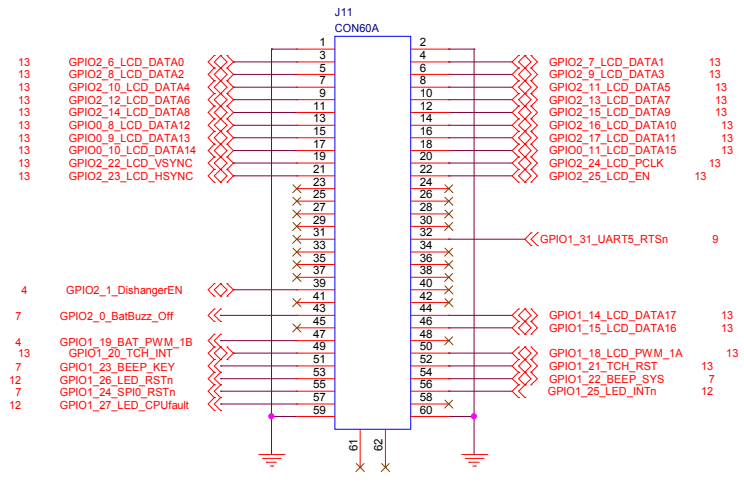
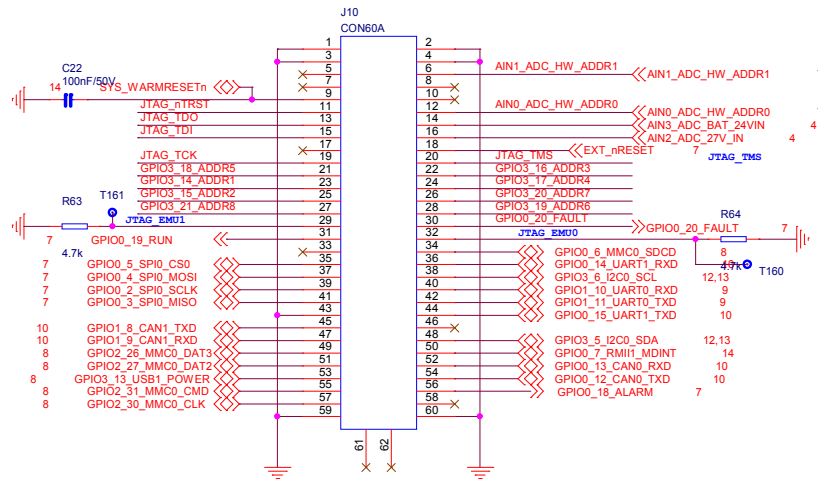
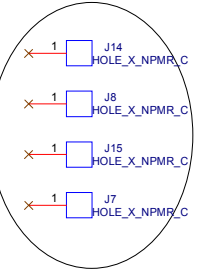
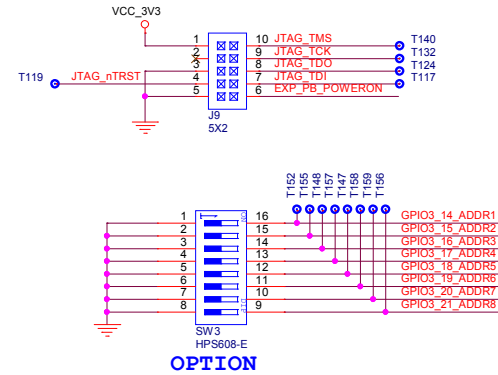
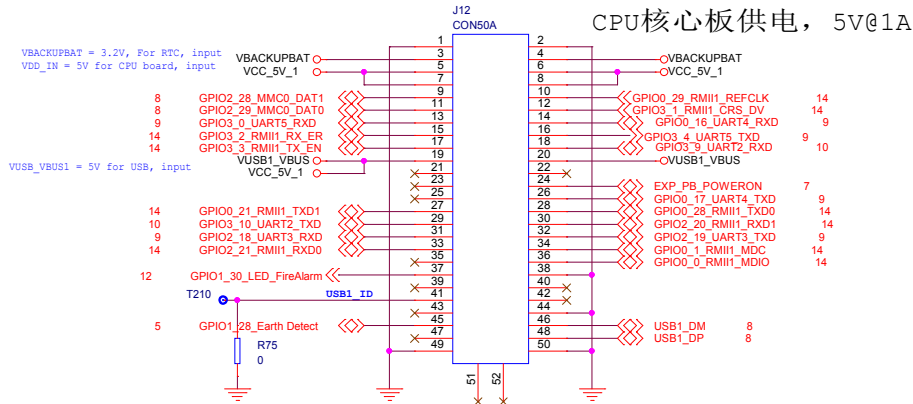


给楼显（送检），2A



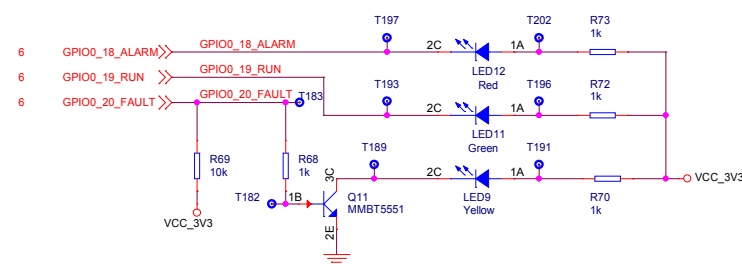
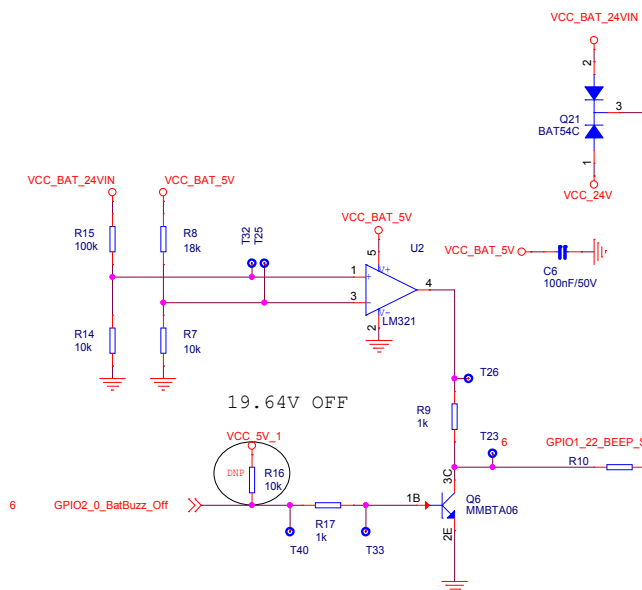
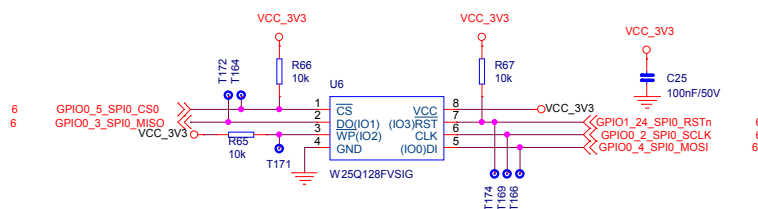
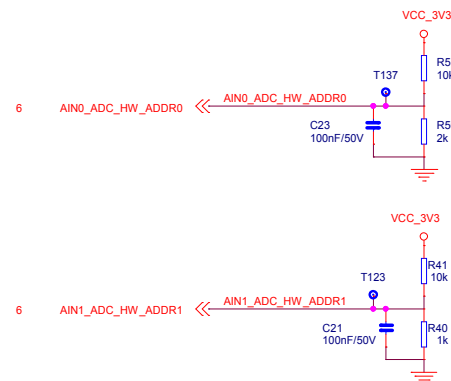
Earth Detect

<Variant Name>				
Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China			霍尼韦尔消防安防系统 (上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号	
Title/标题: Power2/电2源			Document Number/文档号: FCI-800	
Size/尺寸: A3	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2
Date/日期: 2016-12-19			Sheet/页码: 5 / 14	

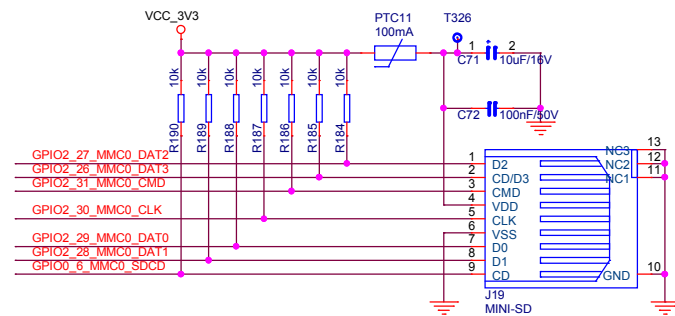


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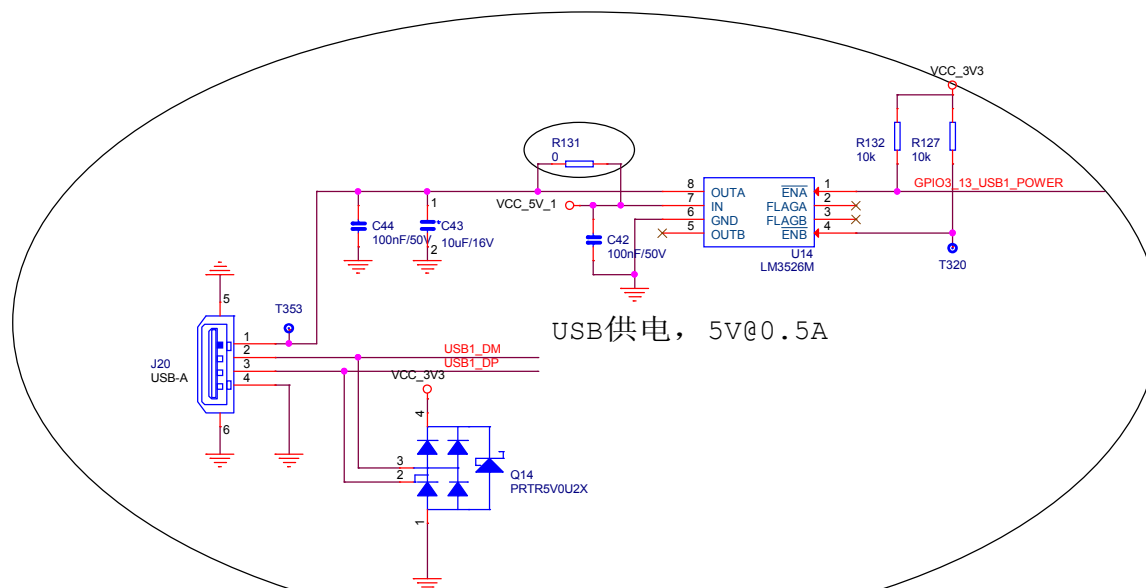
Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China		霍尼韦尔消防安防系统 (上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号	
Title/标题: Core_Output/内核输出		Document Number/文档号: FCI-800	
Size/尺寸: A3	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌
Date/日期: 2016-12-19		Rev/版本: 1.2	
Sheet/页码: 6 / 14		1	



<p><Variant Name></p>			
<p>Honeywell Fire Systems</p> <p>No 430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China</p> <p>Title/标题: _____ Core_Ent_Function/内核外国</p>		<p>霍尼韦尔消防安防系统</p> <p>(上海)有限公司</p> <p>中国上海浦东新区张江高科技园区 李冰路430号</p> <p>Document Number/文档号: _____ FCI-900</p>	
Size/尺寸:	Author/设计:	Electric Eng/审核:	Approved By/批准:
A3	Zhu Jiahui/朱家汇	Yan Yu/闫雨	Han Bin/韩斌
Date/日期:	2016-12-16	Sheet/页码:	7 / 12
			Rev/版本: 1.2



MINI SD CARD INTERFACE

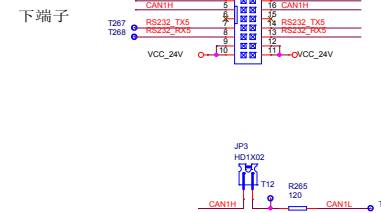
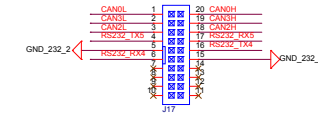
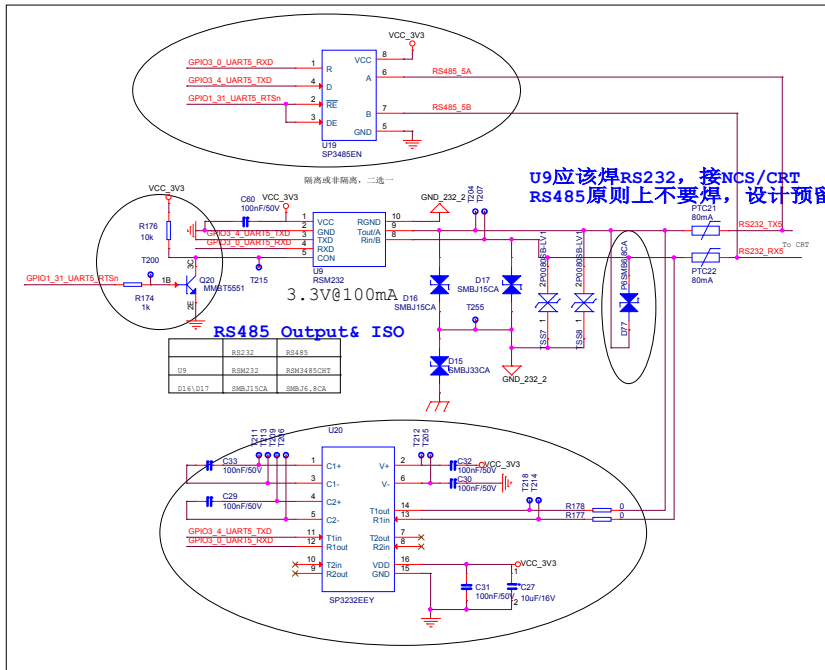
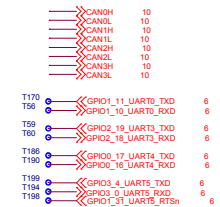
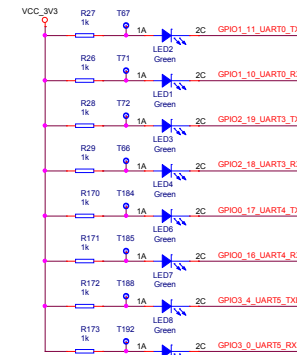
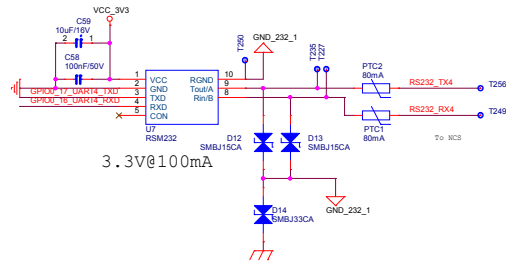
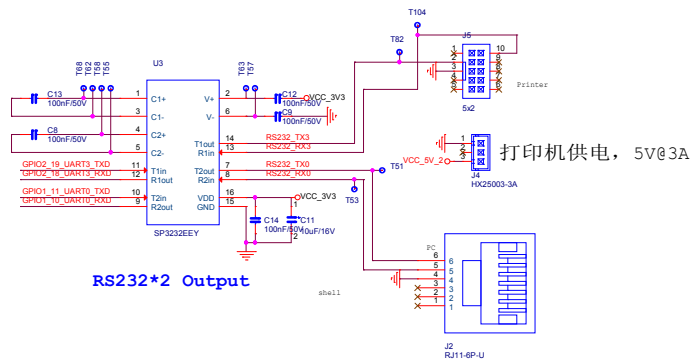


USB A HOST/DEVICE INTERFACE

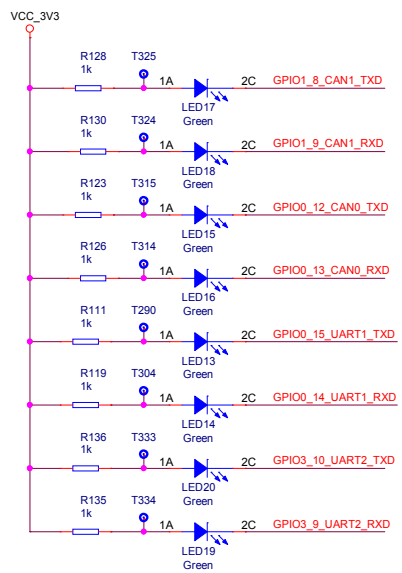
- T338 << GPIO2_29_MMC0_DAT0 6
- T337 << GPIO2_28_MMC0_DAT1 6
- T344 << GPIO2_27_MMC0_DAT2 6
- T336 << GPIO2_26_MMC0_DAT3 6
- T340 << GPIO2_31_MMC0_CMD 6
- T335 << GPIO2_30_MMC0_CLK 6
- T343 << GPIO0_6_MMC0_SDCD 6
- T354 << USB1_DM 6
- T350 << USB1_DP 6
- T330 << GPIO3_13_USB1_POWER 6

<Variant Name>

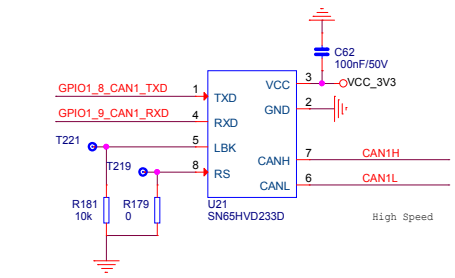
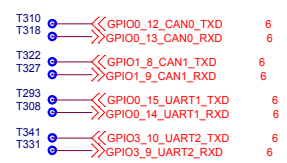
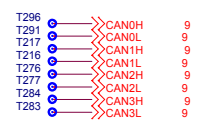
Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China		霍尼韦尔消防安防系统 (上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号	
Title/标题: SD&USB&BT/SD卡&USB&蓝牙		Document Number/文档号: FCI-800	
Size/尺寸: B	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫南	Approved By/批准: Han Bin/韩斌
Date/日期: 2016-12-19		Sheet/页码: 8 / 14	



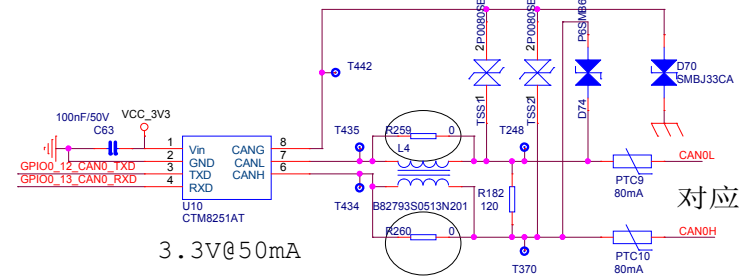
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Honeywell Fire Systems		霍尼韦尔消防安防系统	
No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China		中国上海浦东新区张江高科技园区 张江路430号	
Communication/通信: RS232/RS485		Document Number/文档号: FC4800	
Size/尺寸: A2	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/电路: Yan Yu/闫宇	Approved By/核准: Han Bin/韩斌
Date/日期: 2016-12-19		Rev/版本: 1.2	
Sheet/页码: 9		/ 14	



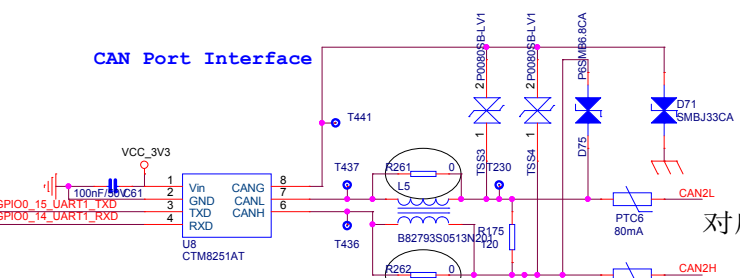
Communication LED Indicator



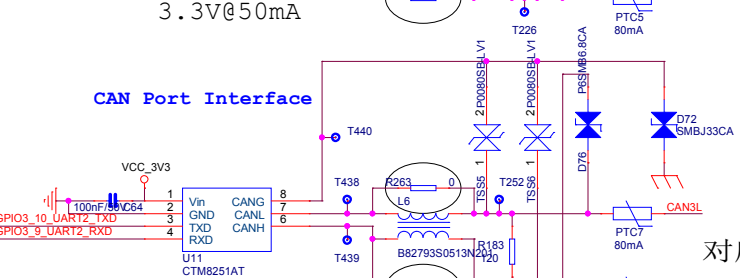
对应MB板CAN0



对应MB板CAN3



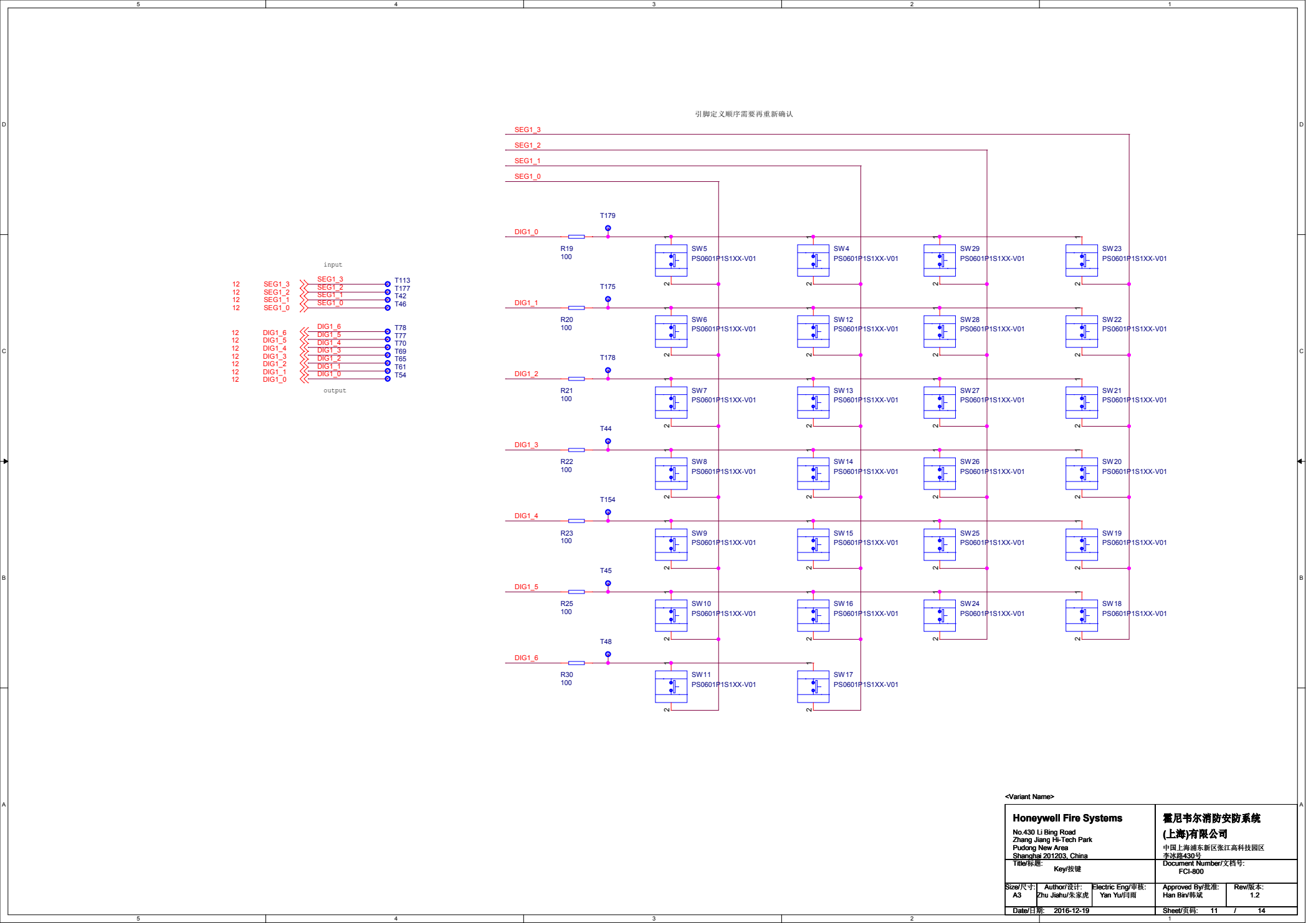
对应MB板CAN1



对应MB板CAN2

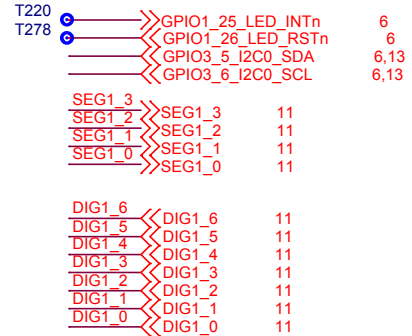
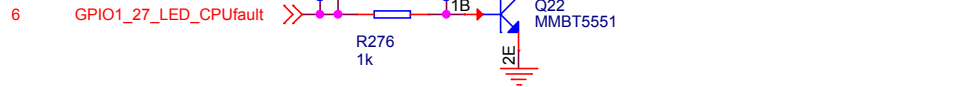
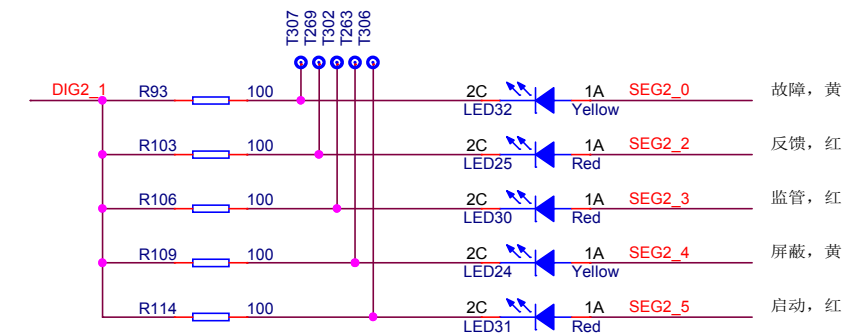
CAN Port Interface

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Honeywell Fire Systems		霍尼韦尔消防安防系统		
No.430 Li Bing Road		中国上海浦东新区张江高科技园区		
Zhang Jiang Hi-Tech Park		李冰路430号		
Pudong New Area		Document Number/文档号:		
Shanghai 201203, China		FCI-800		
Title/标题:		Communication/通讯CAN		
Size/尺寸:		Author/设计:		
A3		Zhu Jiahui/朱家虎		
Date/日期:		Electric Eng/审核:		
2016-12-19		Yan Yu/闫雨		
		Approved By/批准:		
		Han Bin/韩斌		
		Rev/版本:		
		1.2		
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		10 / 14		



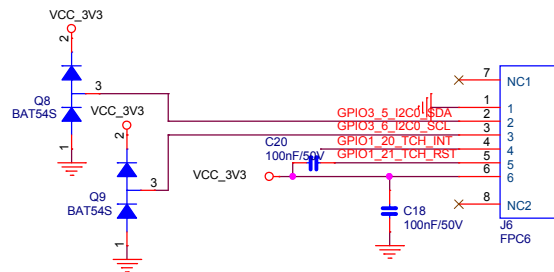
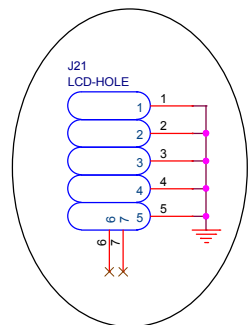
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Honeywell Fire Systems			霍尼韦尔消防安防系统		
No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China			(上海)有限公司 中国上海浦东新区张江高科技园区 李冰路430号		
Title/标题: Key/按键			Document Number/文档号: FCI-800		
Size/尺寸: A3	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2	
Date/日期: 2016-12-19	Sheet/页码: 11 / 14				

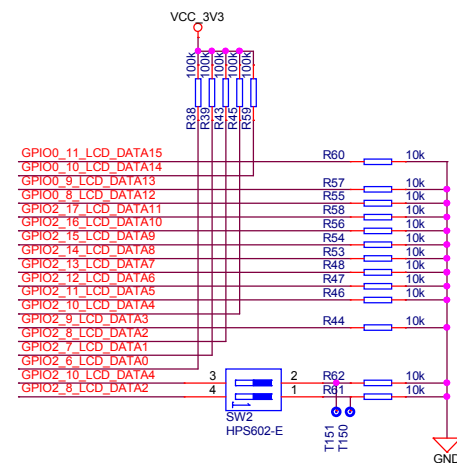


<p>Honeywell Fire Systems</p> <p>No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China</p>			<p>霍尼韦尔消防安防系统 (上海)有限公司</p> <p>中国上海浦东新区张江高科技园区 李冰路430号</p>		
<p>Title/标题: LEDs/LED灯</p>			<p>Document Number/文档号: FCI-800</p>		
Size/尺寸: A4	Author/设计: Zhu Jiahui/朱家虎	Electric Eng/审核: Yan Yu/闫雨	Approved By/批准: Han Bin/韩斌	Rev/版本: 1.2	
Date/日期: 2016-12-19			Sheet/页码: 12 / 14		

Note: MODE: 1 DE Mode0 ; HV Mode



T115		GPIO2_6_LCD_DATA0	6
T118		GPIO2_7_LCD_DATA1	6
T122		GPIO2_8_LCD_DATA3	6
T128		GPIO2_9_LCD_DATA5	6
T127		GPIO2_10_LCD_DATA4	6
T129		GPIO2_11_LCD_DATA5	6
T129		GPIO2_12_LCD_DATA6	6
T133		GPIO2_13_LCD_DATA7	6
T134		GPIO2_14_LCD_DATA8	6
T136		GPIO2_15_LCD_DATA9	6
T142		GPIO2_16_LCD_DATA10	6
T142		GPIO2_17_LCD_DATA11	6
T135		GPIO0_8_LCD_DATA12	6
T138		GPIO0_9_LCD_DATA13	6
T143		GPIO0_10_LCD_DATA14	6
T143		GPIO0_11_LCD_DATA15	6
T176		GPIO1_15_LCD_DATA16	6
T173		GPIO1_14_LCD_DATA17	6
T180		GPIO1_18_LCD_PWM_1A	6
T145		GPIO2_22_LCD_VSYNC	6
T153		GPIO2_23_LCD_HSYNC	6
T149		GPIO2_25_LCD_EN	6
T146		GPIO2_24_LCD_PCLK	6
T112		GPIO1_21_TCH_RST	6
T105		GPIO20_TCH_INT	6
T109		GPIO3_5_I2CO_SDA	6.12
T111		GPIO3_6_I2CO_SCL	6.12



	Eth	SD	Nand
GPIO2_10_LCD_DATA4	0	1	1
GPIO2_8_LCD_DATA2	1	1	0

<Variant Name>

Honeywell Fire Systems No.430 Li Bing Road Zhang Jiang Hi-Tech Park Pudong New Area Shanghai 201203, China		霍尼韦尔消防安防系统 (上海)有限公司 中国·上海浦东新区张江高科技园区 李冰路430号	
Title/标题: LCD液晶屏		Document Number/文档号: FCI-800	
Size/尺寸:	Author/设计: Zhu Jiahua/朱家伙	Electric Eng/审核: Yan Yu/闫南	Approved By/批准: Han Bin/韩斌
Date/日期:	2016-12-19		Rev/版本: 1.2
		Sheet/页码:	13 / 14

