

软盘号

CAD

图
号

会签

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描校

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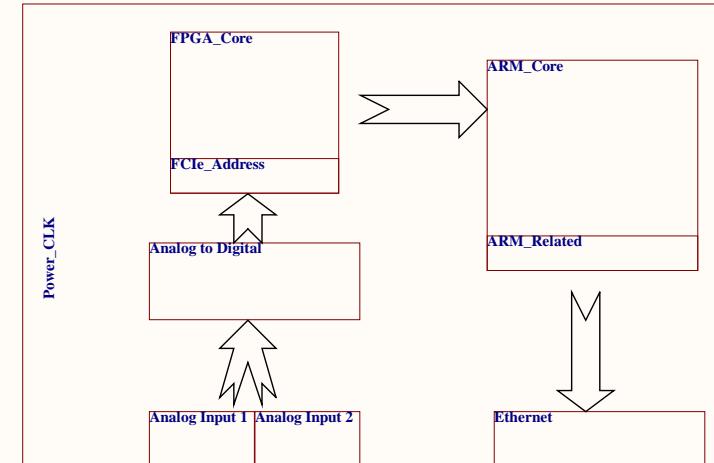
旧图登记号

CE

底图登记号

ESD

Pb



标记	处数	分区	更改文件号	签名	年月日	Mather		
设计	朱磊		工艺			制图日期	版本	比例
制图	朱磊		标准化			2020/12/2	VER2.0	1 : 1
校对			审批					
审核	郑松远		批准			共 10 张	第 1 张	8CH 振摆测量

华科同安
ELECTRIC POWER RESEARCH

原理图

软盘号

CAD

LAN_INT from Pin106 to Pin52

LAN INT
LAN MOSI

40	PA0_WKUP/TIM2_CH1/TIM5_CH1/TIM8_ETR/USART2_CTS/UART4_TX/ETH_MII_CRS/ADC123_IN0/WKUP
41	PA1/TIM2_CH2/TIM5_CH2/USART2 RTS/UART4_RX/ETH_MII_RX_CLK/ETH_RMII_REF_CLK/ADC123_IN1
42	PA2/TIM2_CH3/TIM4_CH3/USART2 RTS/UART4_RX/ETH_MII_RX_CLK/ETH_RMII_REF_CLK/ADC123_IN2
47	PA3/TIM2_CH4/TIM5_CH4/USART2_RX/OTG_HS_ULPI_D0/ETH_MII_COL/ADC123_IN3
50	PA4/SP1_NSS/SP1 NSS/SP1_WS/USART2_CK/OTG_HS_ULPI_D0/ETH_MII_COL/ADC123_IN4/DAC12_OUT
51	PA5/TIM2_CH5_ETR/TIM8_CHIN/SP1_SCK/OTG_HS_ULPI_CK/ADC123_IN5/DAC2_OUT
52	PA6/TIM1_BKIN/TIM1_CH1/TIM8_CHIN/SP1_MOSI/TIM13_CH1/DCMI_PIXCLK/ADC12_IN6
53	PA7/TIM1_CHIN/TIM3_CH2/TIM8_CHIN/SP1_MOSI/TIM14_CH1/ETH_MII_RX_DV/ETH_RMII_CRS_DV/ADC12_IN7
119	PA8/TIM1_CH2/IC2_SMBus/USART1_TX/DCMI_D0/OTG_FS_VBUS
120	PA9/TIM1_CH2/IC2_SMBus/USART1_CK/OTG_FS_SOF
121	PA10/TIM1_CH3/USART1_RX/OTG_FS_ID/DCMI_D1
122	PA11/TIM1_CH4/USART1_CTS/CANI_RX/OTG_FS_DM
123	PA12/TIM1_ETR/USART1_RTS/CANI_TX/OTG_FS_DP
124	PA13/TJMS-SWdio
137	PA14/JTCK-SWclk
138	PA15/JTDF/TIM2_CH1_ETR/SP1_NSS/SP1 NSS/12S3_WS

LAN_INT from Pin138 to Pin58

LAN CS
LAN SCK
LAN MISO

56	PB0/TIM1_CH2N/TIM3_CH2/TIM8_CH2N/OTG_HS_ULPI_D1/ETH_MII_RX_D2/ADC12_IN8
57	PB1/TIM1_CH2N/TIM3_CH4/TIM8_CH3N/OTG_HS_ULPI_D2/ETH_MII_RX_D3/ADC12_IN9
58	PB2/BOOT1
161	PB3/JTDO/TRACEWSO/TIM2_CH2_SPI1_SCK/SP1_SCK/12S3_CK
162	PB4/JTNRST/TIM3_CH1/SP1_MISO/SP1_MOSI/12S3_SD
163	PB5/TIM3_CH2/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_SD/CAN2_RX/OTG_HS_ULPI_D7/ETH_PPS_OUT/DCMI_D10
164	PB6/TIM4_CH1/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_SD/CAN2_RX/OTG_HS_ULPI_D8/ETH_PPS_OUT/DCMI_D11
165	PB7/TIM4_CH2/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_SD/CAN2_RX/OTG_HS_ULPI_D9/ETH_PPS_OUT/DCMI_D12
167	PB8/TIM4_CH3/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_SD/CAN2_RX/OTG_HS_ULPI_D10/ETH_PPS_OUT/DCMI_D13
168	PB9/TIM4_CH4/TIM11_CH1/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_WS/CANI_RX/OTG_HS_ID
79	PB10/TIM2_CH2/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_WS/CANI_RX/OTG_HS_ID
80	PB11/TIM2_CH4/IC2_SMBus/SP1_MOSI/SP1_MOSI/12S3_WS/CANI_RX/OTG_HS_ID
92	PB12/TIM1_BKIN/TIM2_CH2/TIM8_CH2N/SP1_NSS/12S2_WS/USART3_CK/CAN2_RX/OTG_HS_ULPI_D5/ETH_MII_TX_D0/ETH_RMII_TX_D0/OTG_HS_ID
93	PB13/TIM1_CHIN/SP1_SCK/12S2_CK/USART3_CTS/CAN2_RX/OTG_HS_ULPI_D6/ETH_MII_TX_D1/ETH_RMII_TX_D1/OTG_HS_VBUS
94	PB14/TIM1_CH2N/TIM2_CH2/TIM8_CH2N/SP1_NSS/12S2EXT_SD/USART3_RTS/TIM12_CH1/OTG_HS_DM
95	PB15/TIM1_CH3N/TIM2_CH2/TIM8_CH3N/SP1_MOSI/12S2_SD/TIM12_CH2/OTG_HS_DM

STM32F427IG

会签

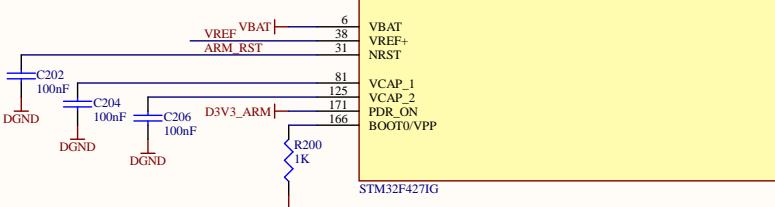
FSMC_NBL0
FSMC_NBL1
A23
A19_A19
A20_A20
A21
A22
DB4
DB5
DB6
DB7
DB8
DB9
DB10
DB11
DB12
A0
A1
A2
A3
A4
A5
A6
A7
A8
A9

169	PE0/TIM4_ETR/FSMC_NBL0/DCMI_D2
170	PE1/FSMC_NBL1/DCMI_D3
1	PE2/TRACEELD/ETH_MII_TXD3/FSMC_A23
2	PE3/TRACEED0/FSMC_A19
3	PE4/TRACEED1/FSMC_A20/DCMI_D4
4	PE5/TRACEED2/TIM9_CH1/FSMC_A21/DCMI_D6
5	PE6/TRACEED3/TIM9_CH2/FSMC_A22/DCMI_D7
68	PE7/TIM1_ETR/FSMC_D4
69	PE8/TIM1_CH1/FSMC_D5
70	PE9/TIM1_CH1/FSMC_D6
73	PE10/TIM1_CH2/FSMC_D7
74	PE11/TIM1_CH2/FSMC_D8
75	PE12/TIM1_CH3/FSMC_D9
76	PE13/TIM1_CH3/FSMC_D10
77	PE14/TIM1_CH4/FSMC_D11
78	PE15/TIM1_BKIN/FSMC_D12
16	A0/12C2_SDA/FSMC_A0
17	PF1/12C2_SCL/FSMC_A1
18	PF2/12C2_SMBus/FSMC_A2
19	PF3/FSMC_A3/ADC3_IN9
20	PF4/FSMC_A4/ADC3_IN14
21	PF5/FSMC_A5/ADC3_IN15
24	PF6/TIM10_CH1/FSMC_NIORD/ADC3_IN4
25	PF7/TIM11_CH1/FSMC_NREG/ADC3_IN5
26	PF8/TIM12_CH1/FSMC_NIOWR/ADC3_IN6
27	PF9/TIM14_CH1/FSMC_CD/ADC3_IN7
28	PF10/FSMC_INTR/ADC3_IN8
29	PF11/DCMI_D12
60	PF12/FSMC_A6
63	PF13/FSMC_A7
64	PF14/FSMC_A8
65	PF15/FSMC_A9
66	PG0/FSMC_A10
67	PG1/FSMC_A11
106	PG2/FSMC_A12
107	PG3/FSMC_A13
108	PG4/FSMC_A14
109	PG5/FSMC_A15
110	PG6/FSMC_INT2
111	PG7/USART6_CK/FSMC_INT3
112	PG8/USART6_RTS/ETH_PPS_OUT
152	PG9/USART6_RX/FSMC_NE2/FSMC_NCE3
153	PG10/FSMC_NCE4_1/FSMC_NE3
154	PG11/ETH_MII_TX_EN/ETH_RMII_TX_EN/FSMC_NCE4_2
155	PG12/USART6_RTS/FSMC_NE4
156	PG13/USART6_CTS/ETH_MII_TX_D0/ETH_RMII_TX_D0/FSMC_A24
157	PG14/USART6_TX/ETH_MII_TX_D1/ETH_RMII_TX_D1/FSMC_A25
160	PG15/USART6_CTS/DCMI_D13
29	PH0/OSC_IN
30	PH1/OSC_OUT
43	PH2/ETH_MII_CRS
44	PH3/ETH_MII_COL
45	PH4/12C2_SCL/OTG_HS_ULPI_NXT
83	PH5/12C2_SDA
84	PH6/12C2_SMBus/TIM12_CH1/ETH_MII_RX_D2
85	PH7/12C3_SCL/ETH_MII_RX_D3
86	PH8/12C3_SDA/DCMI_HSYNC
88	PH9/12C3_SMBus/TIM12_CH2/DCMI_D0
89	PH10/TIM5_CH1/DCMI_D1
90	PH11/TIM5_CH2/DCMI_D2
91	PH12/TIM5_CH3/DCMI_D3
128	PH13/TIM8_CH1/CANI_TX
129	PH14/TIM8_CH2/DCMI_D4
130	PH15/TIM8_CH3N/DCMI_D11
131	PS_DATA0
86	PS_DCLK
88	nCONFIG
89	nSTATUS
90	CONF_DONE
91	CONF_DONE

FSMC

PS Signal

描图



STM32F427IG

旧图登记号

Y_aY_b

底图登记号

HKBMP

标记	处数	分区	更改文件号	签名	年月日
设计	朱磊		工艺		
制图	朱磊		标准化		
校对			审批		
审核	郑松远		批准		

制图日期	版本	比例
2020/12/2	VER2.0	1 : 1
		共 10 张 第 2 张

原理图		8CH振摆测量

软盘号

CAD

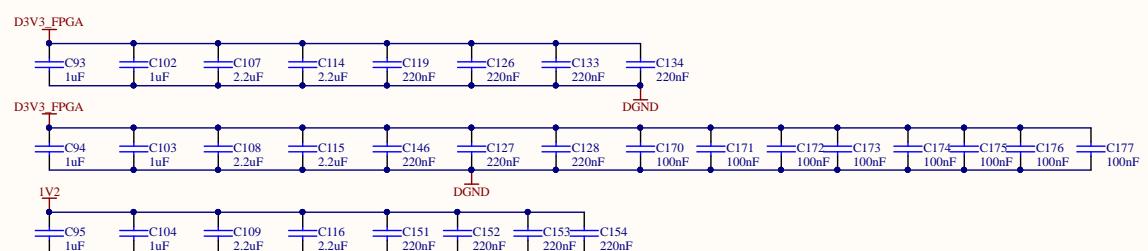
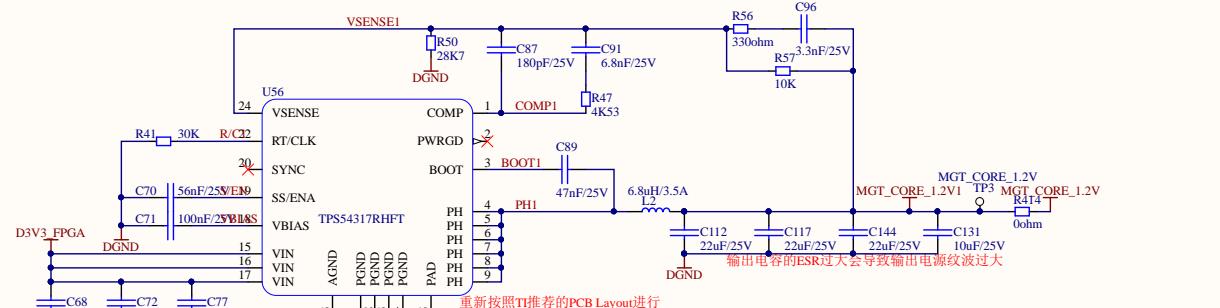
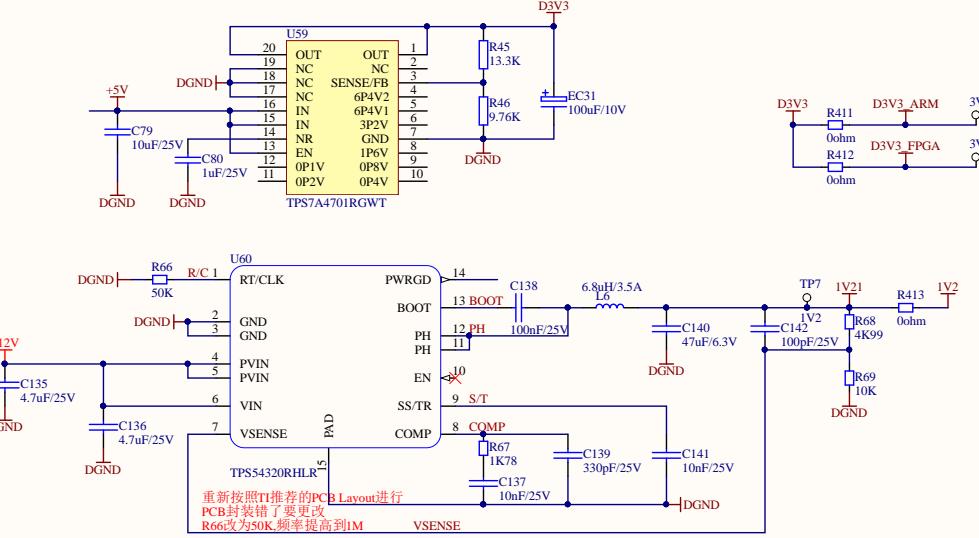
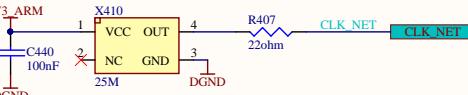
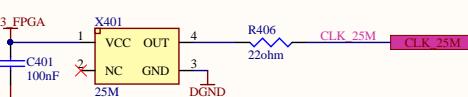
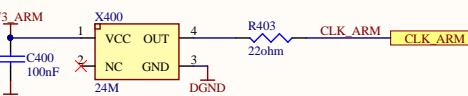
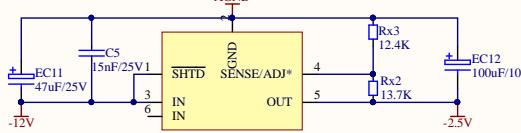
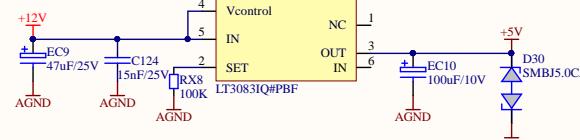
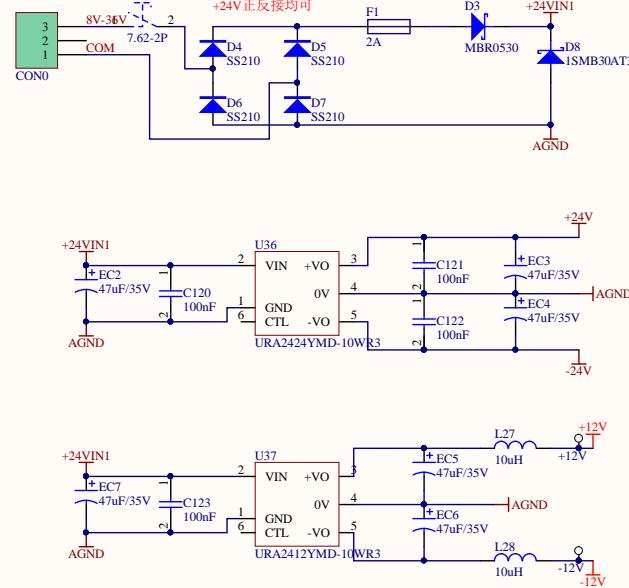
会签

描图

描校

旧图登记号

底图登记号



Power_Clk							华科同安		
标记	处数	分区	更改文件号	签名	年月日		ELECTRIC POWER RESEARCH		
设计	朱磊				工艺				
制图	朱磊				标准化				
校对					审批				
审核	郑松远				批准				
共 10 张 第 3 张							8CH 振摆测量		

原理图

软盘号

CAD

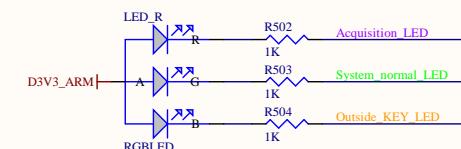
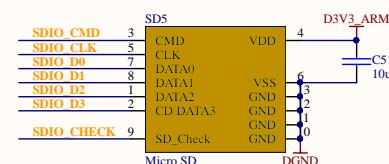
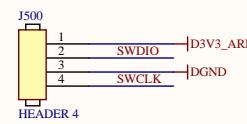
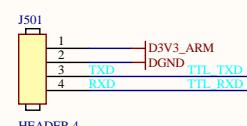
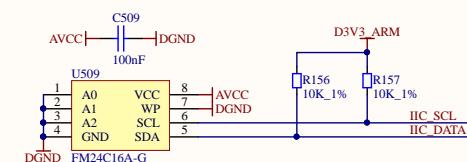
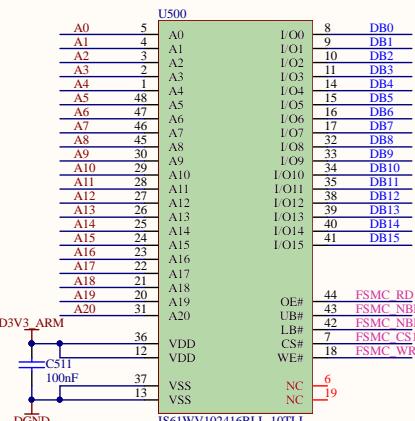
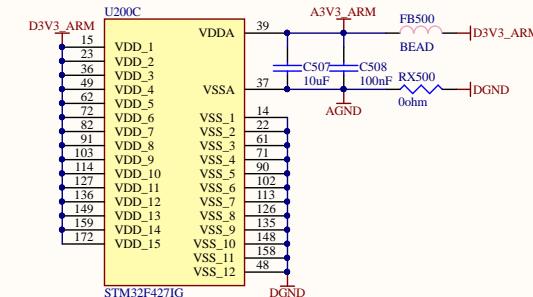
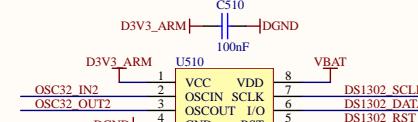
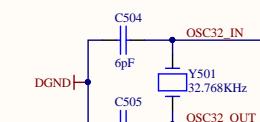
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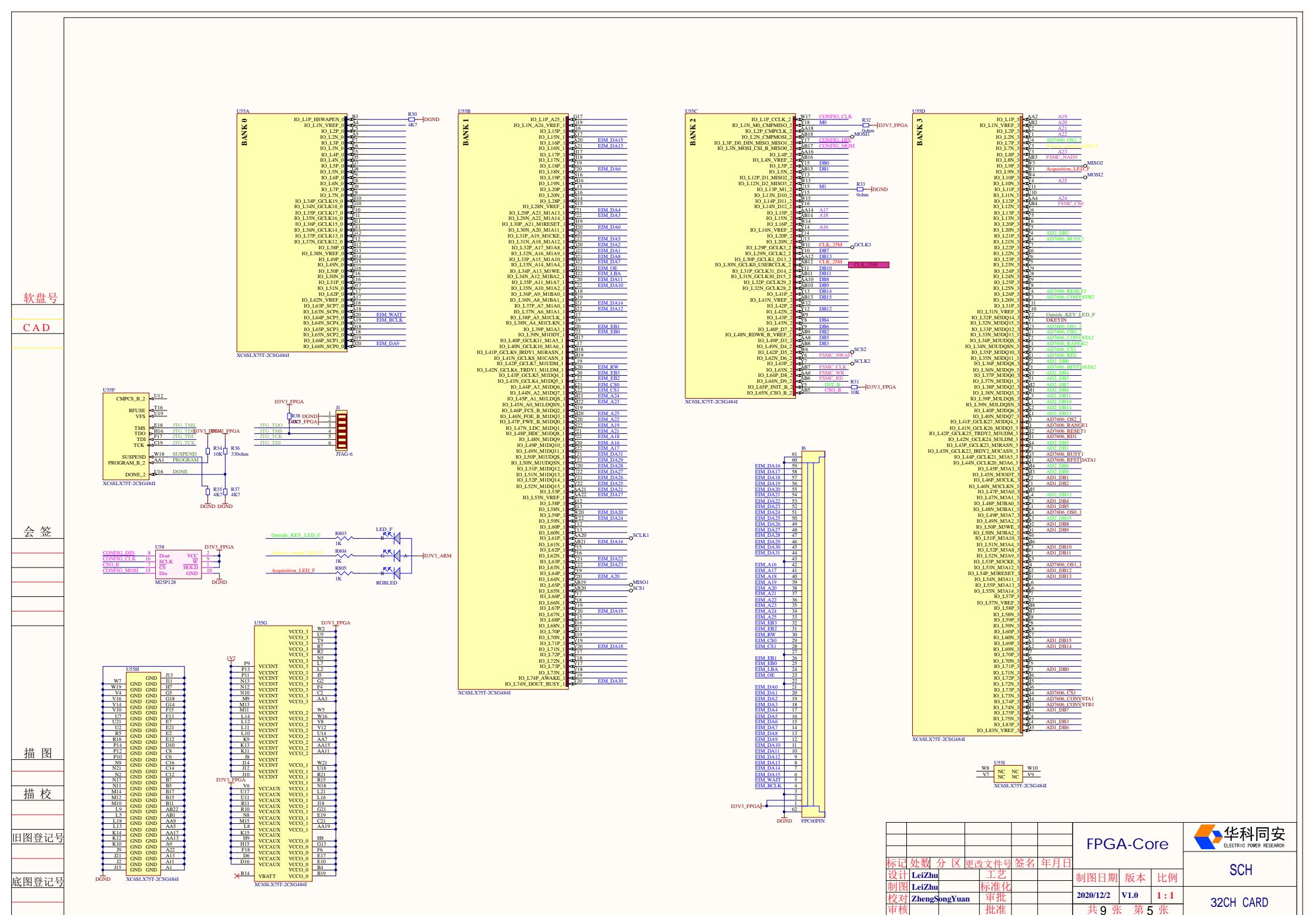
描校

旧图登记号

底图登记号



ARM-related							原理图		
标记	处数	分区	更改文件号	签名	年月日		制图日期	版本	比例
设计	朱磊				工艺		2020/12/2	VER2.0	1 : 1
制图	朱磊				标准化				
校对					审批				
审核	郑松远				批准		共 10 张	第 4 张	8CH 振摆测量



软盘号

CAD

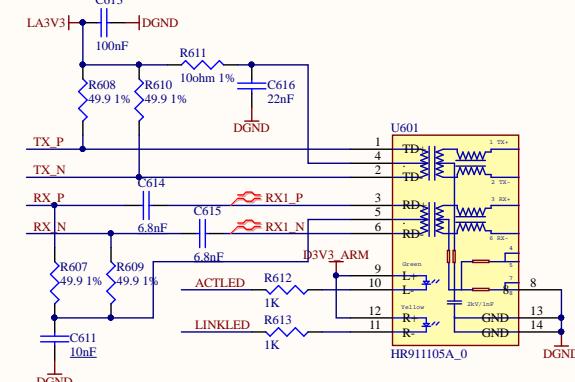
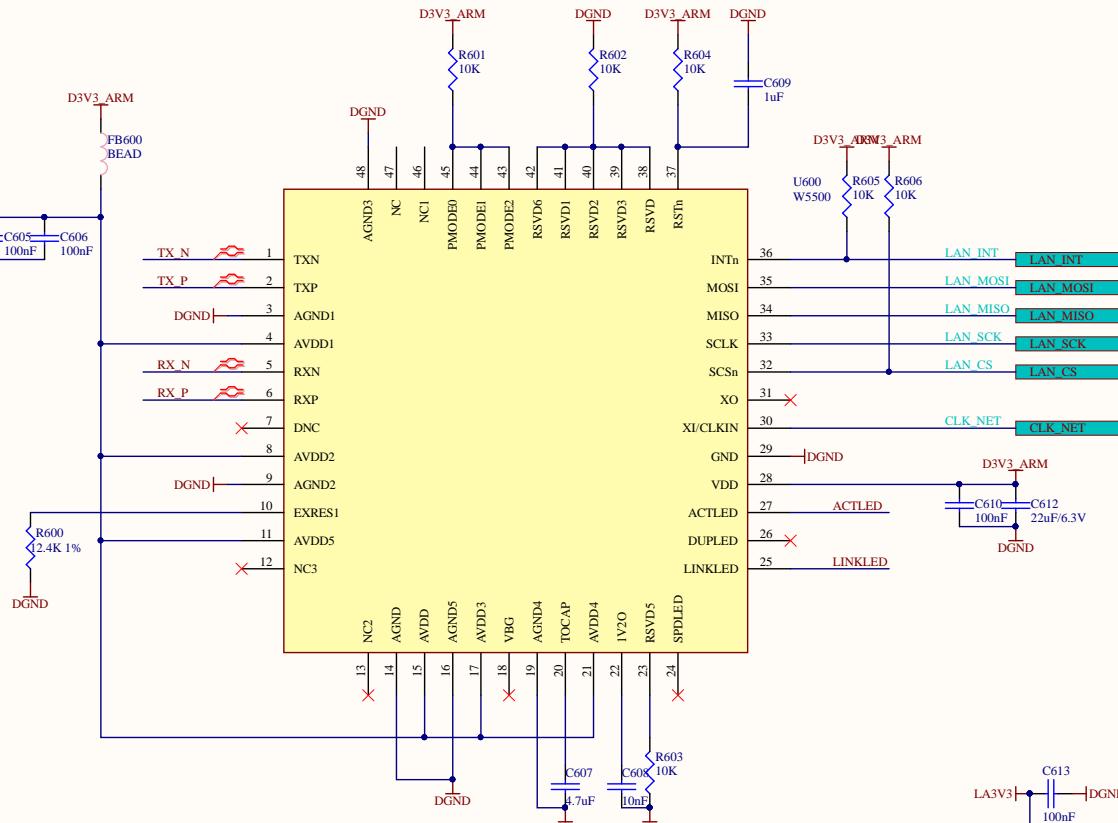
公 签

描 图

描 校

旧图登记号

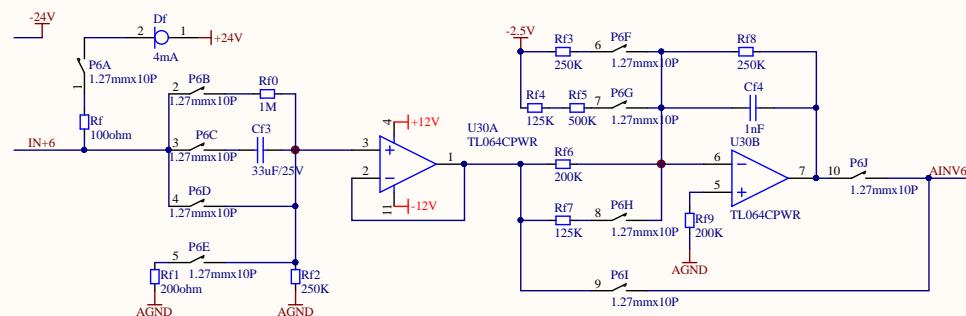
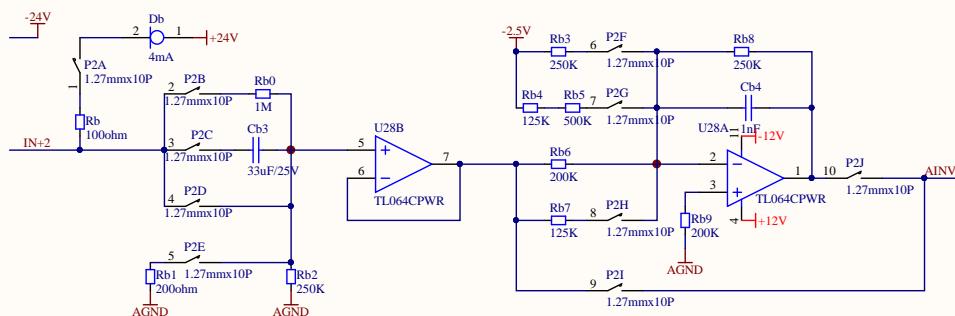
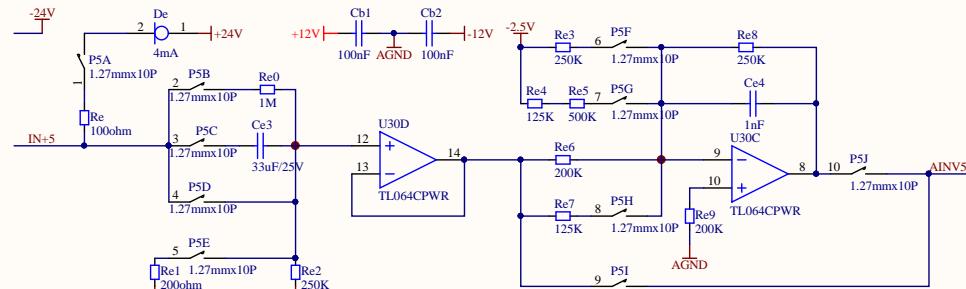
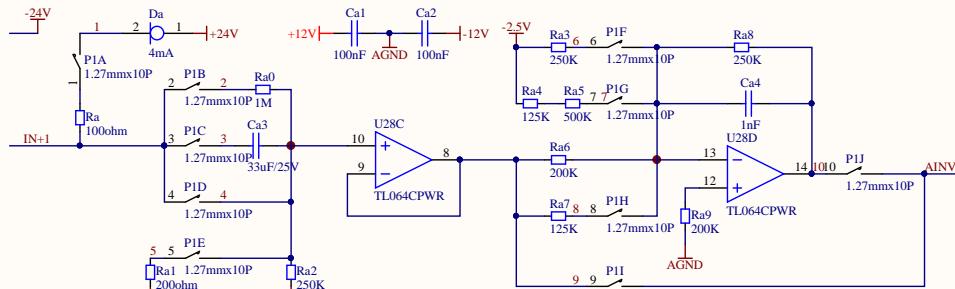
底图登记号



Ethernet							华科同安 ELECTRIC POWER RESEARCH		
标记	处数	分区	更改文件号	签名	年月日		制图日期	版本	比例
设计	朱磊			工艺			2020/12/2	VER2.0	1 : 1
制图	朱磊			标准化					
校对				审批					
审核	郑松远			批准			共 10 张	第 5 张	8CH 振摆测量

软盘号

C A D



会 签

描 图

描 校

旧图登记号

三线制传感器时，开关如下设置 两线制传感器时，Px.1 ON，其他开关如下设置

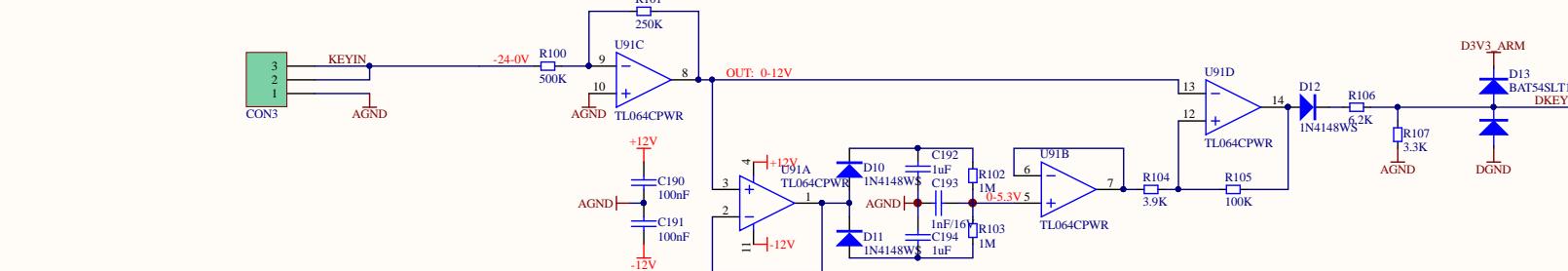
(1) 摆度 0V—-20V：Px.2,Px.10 ON,another Px.x OFF(0.25 times)
 (2) 軸振(有偏置) 0V—-10V：Px.2,Px.6,Px.10 ON,another Px.x OFF(1.25 times)
 [无偏置]+10V—-10V：Px.2,Px.6,Px.10 ON,another Px.x OFF
 (3) 水电振动 -2.0V—+2.0V：Px.4,Px.6,Px.10 ON,another Px.x OFF
 (4) 火电振动 -0.7V—+0.7V：Px.4,Px.6,Px.8,Px.10 ON,another Px.x OFF
 [振动隔直时，则：Px.4 OFF,Px.3 ON]
 (5) 端部振动 : Px.4,Px.6,Px.10 ON,another Px.x OFF
 (6) 4—20mA : Px.4,Px.5,Px.9 ON,another Px.x OFF
 (7) 0V—5V : Px.4,Px.9 ON,another Px.x OFF

Analog Input 1							原理图		
标记	处数	分区	更改文件号	签名	年月日		制图日期	版本	比例
设计	朱磊			工艺			2020/12/2	VER2.0	1 : 1
制图	朱磊			标准化					
校对				审批					
审核	郑松远			批准			共 10 张	第 8 张	8CH 振摆测量

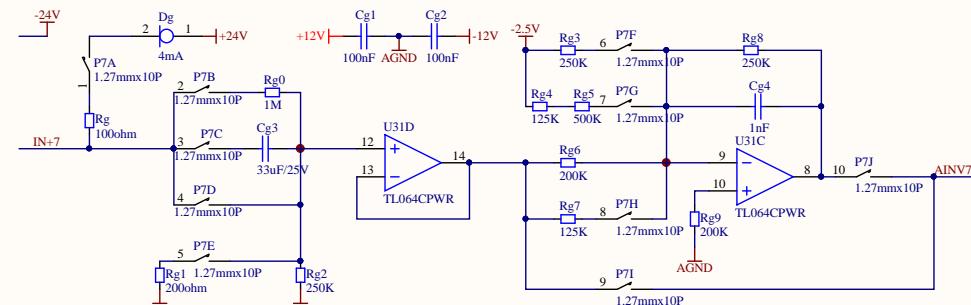
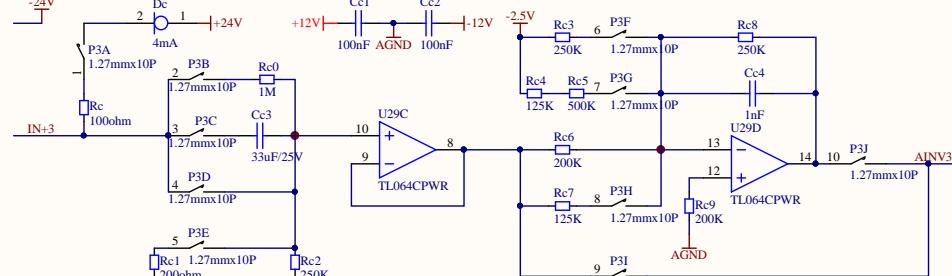
原理图

软盘号

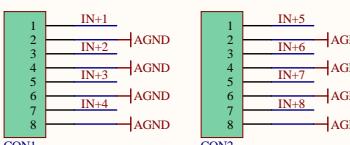
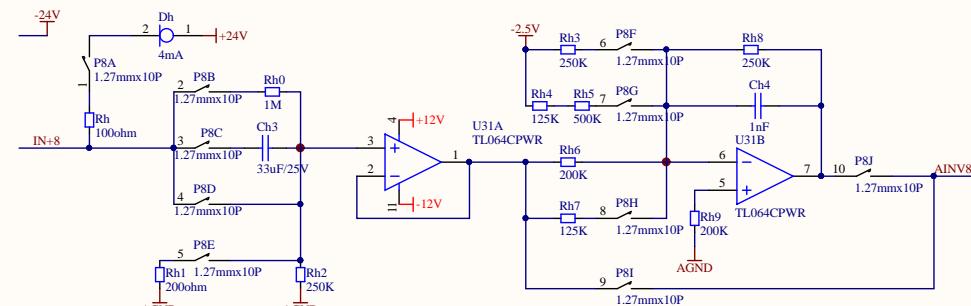
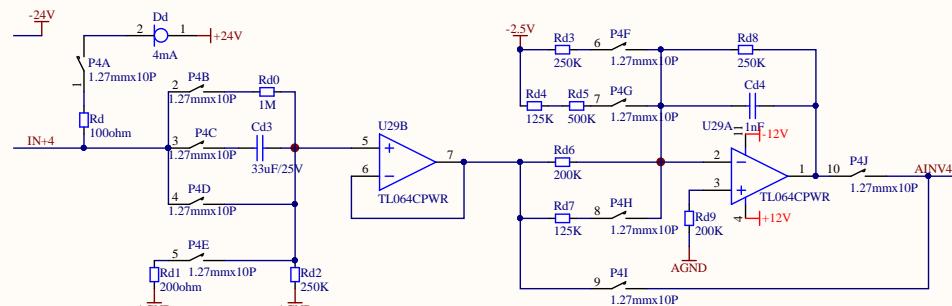
CAD



会签



描图



Analog Input 2							华科同安		
标记	处数	分区	更改文件号	签名	年月日	ELECTRIC POWER RESEARCH			
设计	朱磊				工艺				
制图	朱磊				标准化				
校对					审批				
审核	郑松远				批准				
2020/12/2 VER2.0 1 : 1							共 10 张 第 9 张		
8CH 振摆测量									

软盘号

CAD

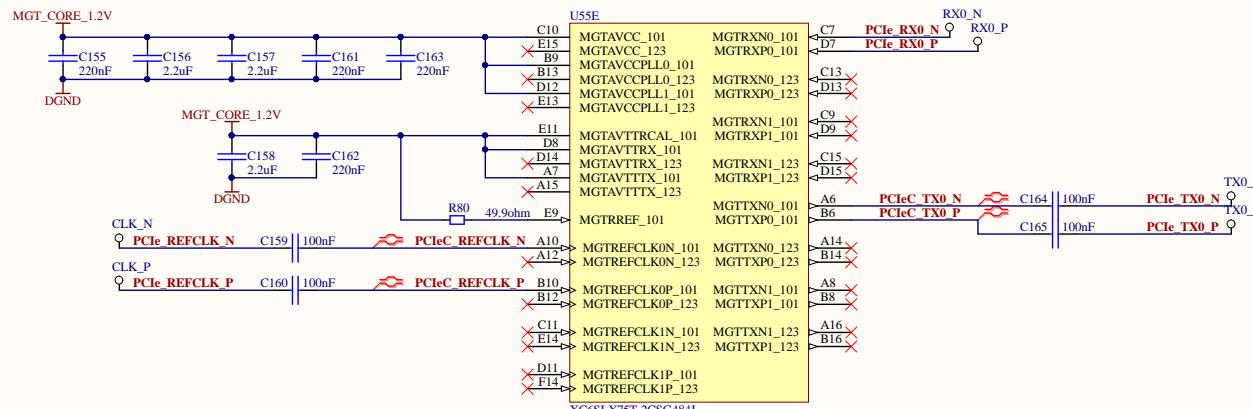
会签

描图

描校

旧图登记号

底图登记号



PCIe							SCH			32CH CARD		
设计	LeiZhu			工艺			制图日期	版本	比例	2020/12/2	VER1.0	1 : 1
制图	LeiZhu			标准化								
校对				审批								
审核				批准								
							共 9 张	第 9 张				

软盘号

CAD

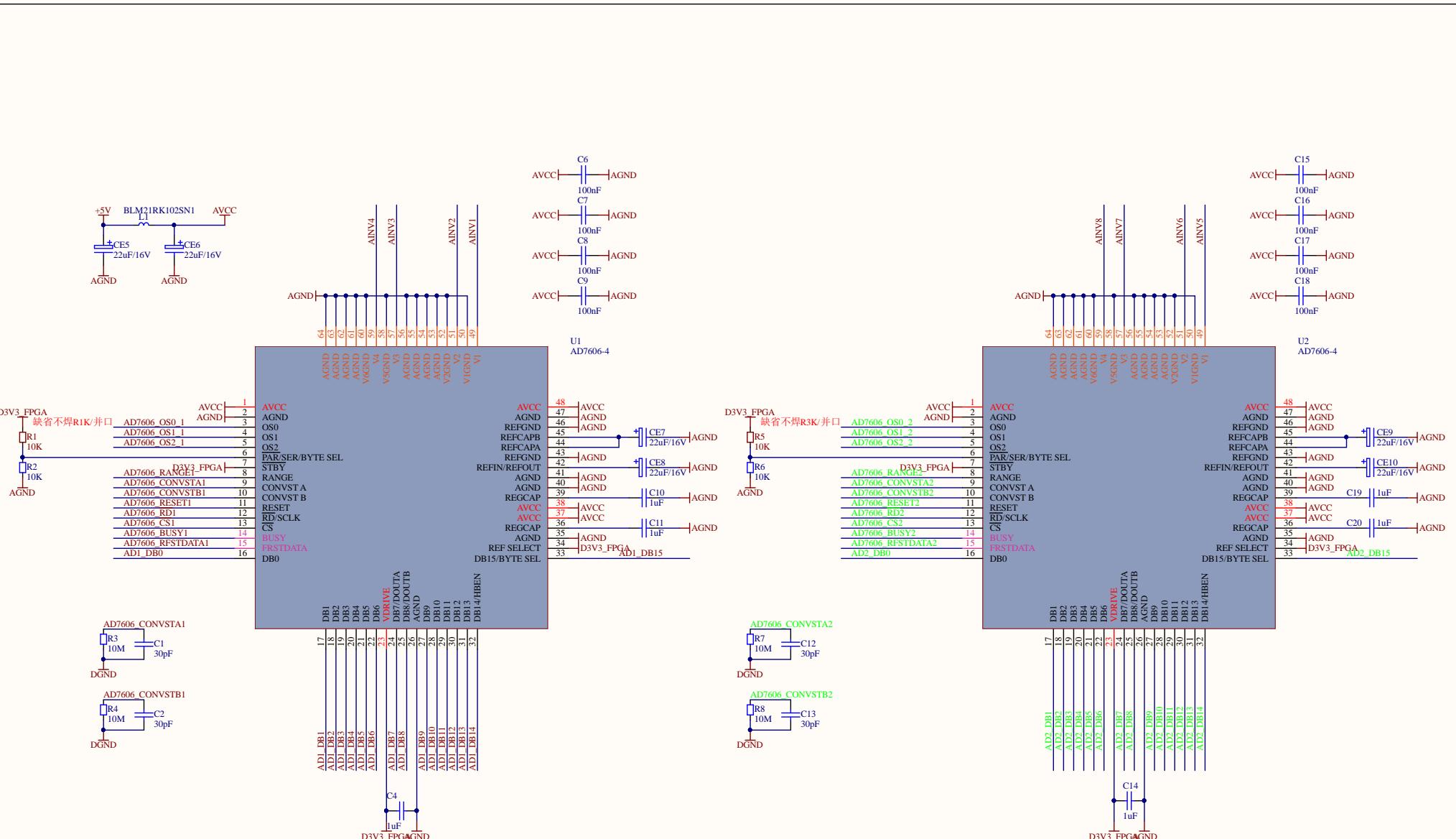
会签

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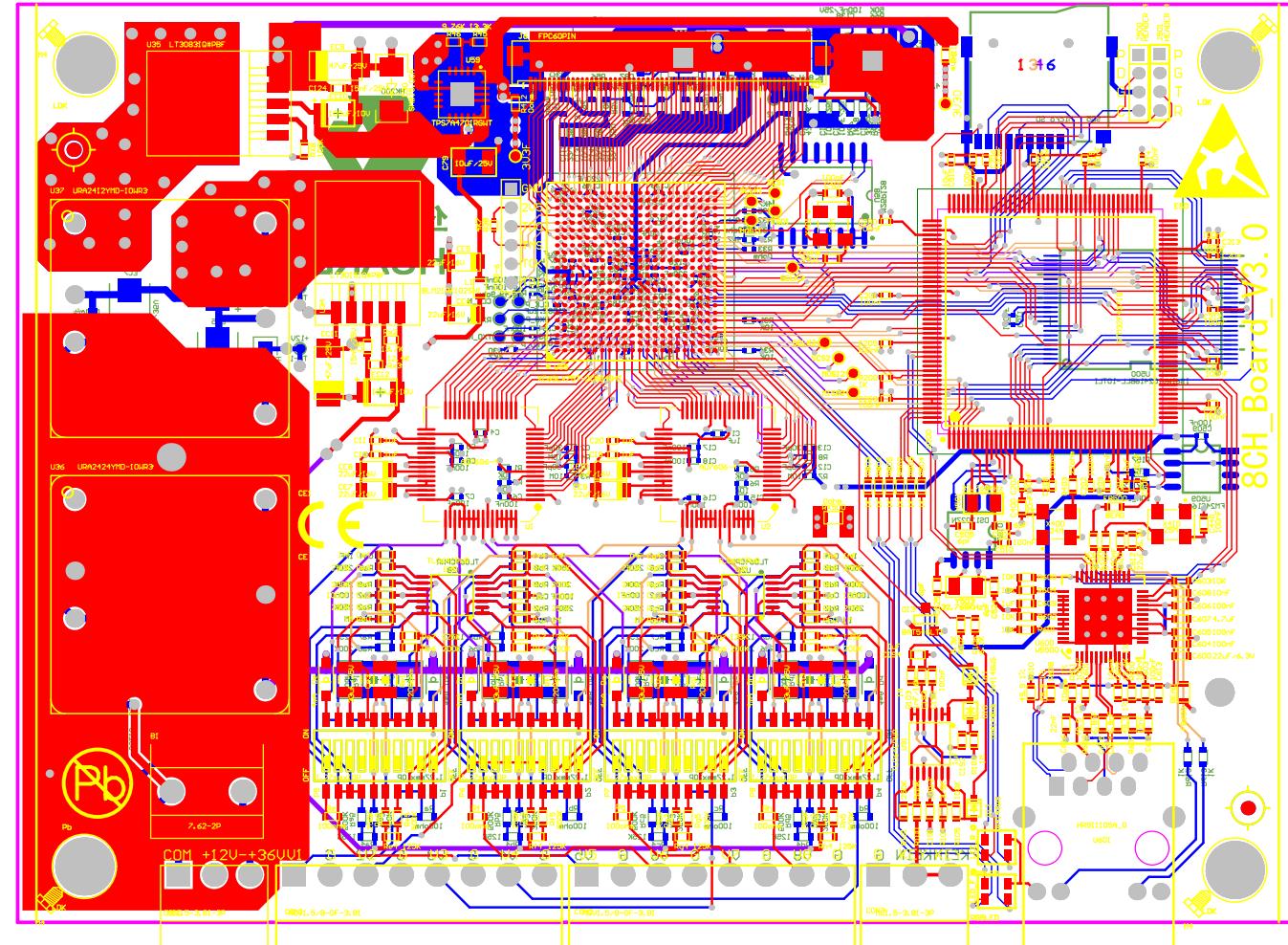
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旧图登记号

底图登记号



Analog to Digital							华科同安 ELECTRIC POWER RESEARCH	
标记	处数	分区	更改文件号	签名	年月日	制图日期	版本	比例
设计	朱磊				工艺			
制图	朱磊				标准化			
校对					审批			
审核	郑松远				批准			
共 10 张 第 10 张							8CH 振摆测量	



Layer	Name	Material	Thickness	Constant
	TopOverlay			
	TopSolder	Solder Resist	0.40mil	3.5
1	TopLayer	Copper	1.40mil	
	Dielectric 1	PP-006	2.80mil	4.1
2	GND	Copper	1.38mil	
	Dielectric 2	FR-4	13.78mil	4.8
3	Layer 1	Copper	1.38mil	
	Dielectric3	FR-4	23.62mil	4.8
4	Layer 2	Copper	1.38mil	
	Dielectric 5	FR-4	13.78mil	4.8
5	PWR	Copper	1.38mil	
	Dielectric 6	PP-006	2.80mil	4.1
6	BottomLayer	Copper	1.40mil	
	BottomSolder	Solder Resist	0.40mil	3.5
	BottomOverlay			