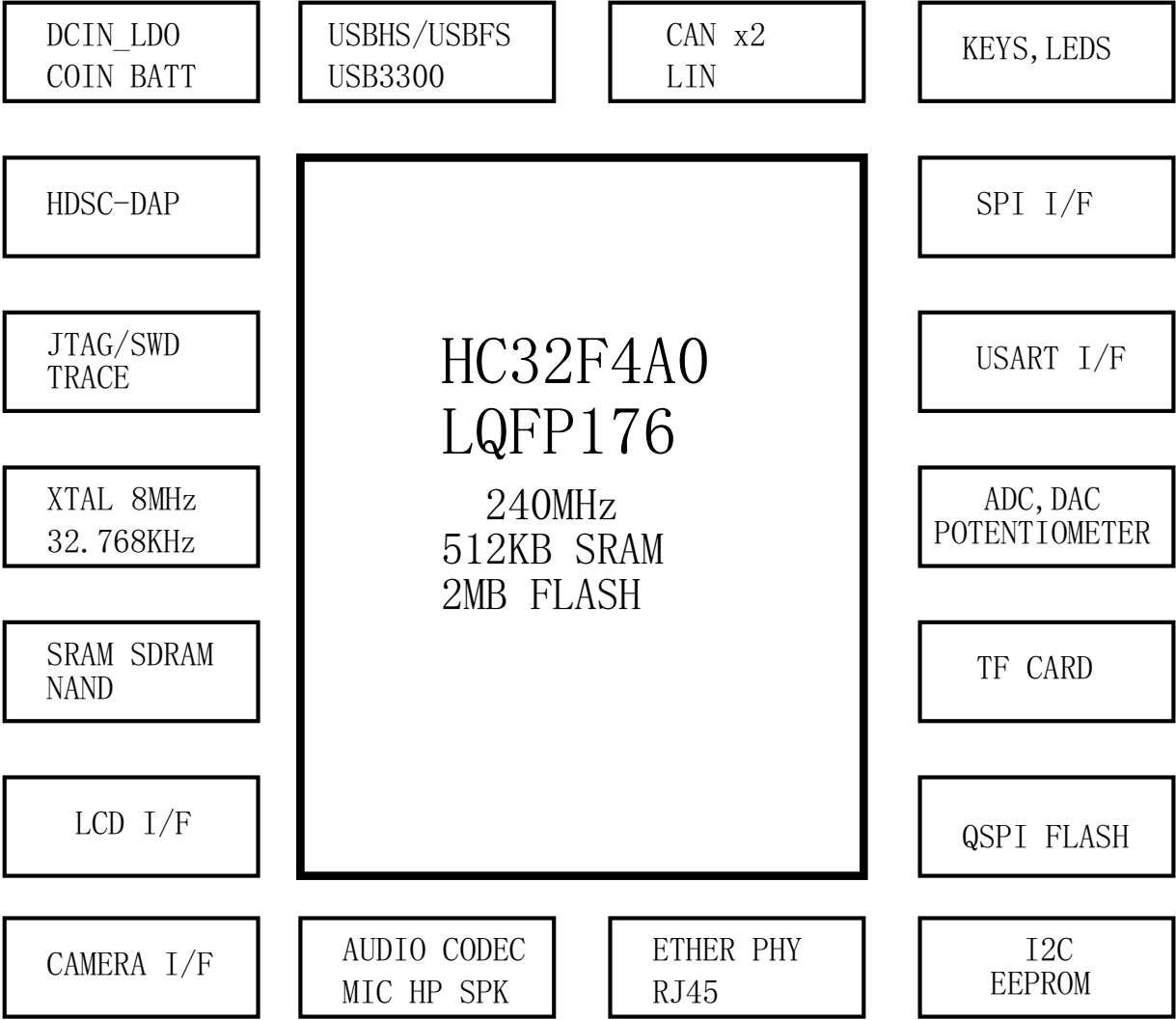


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Revision History

Rev	Date	Description
V10	04/26/2021	- Initial release.



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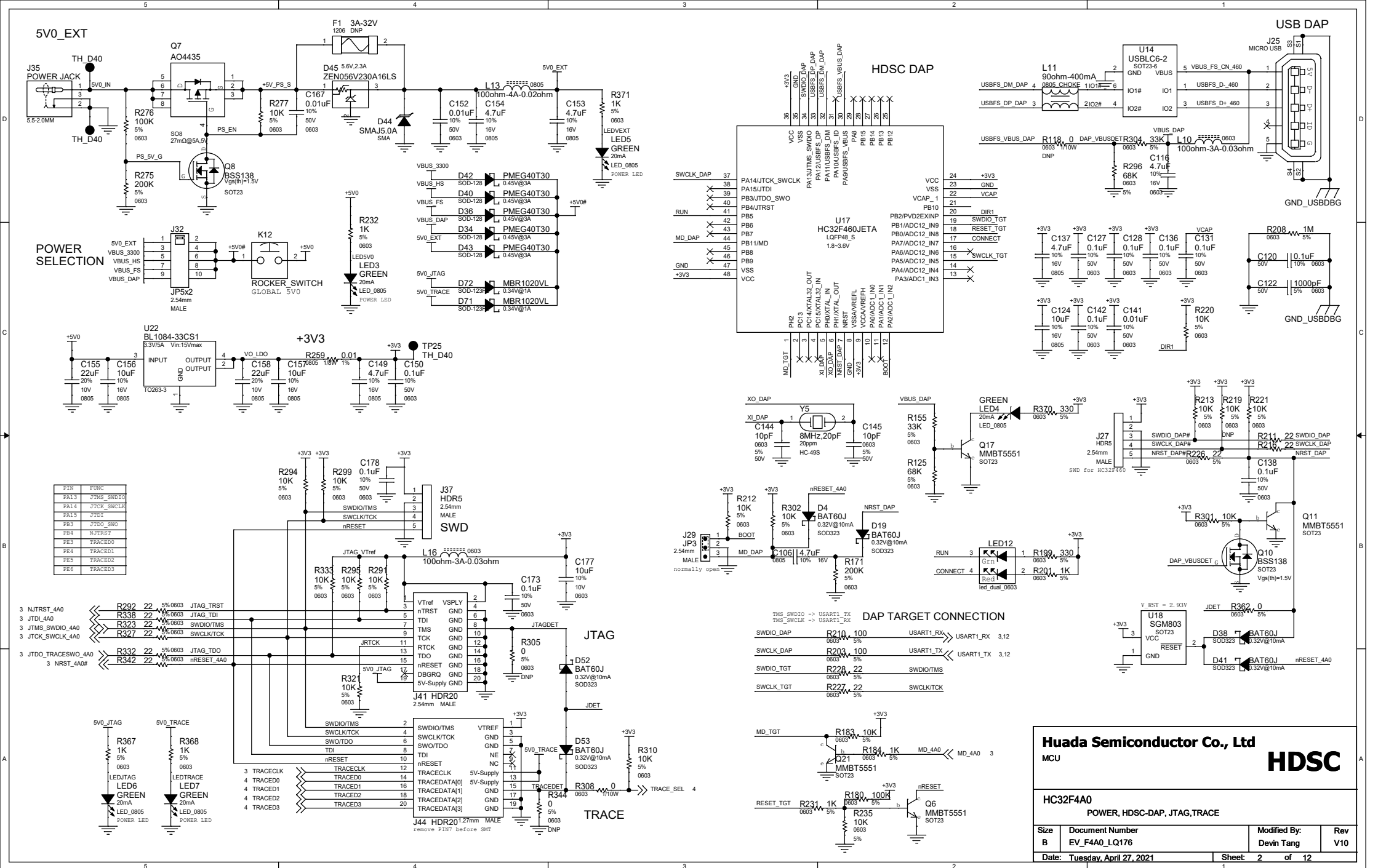
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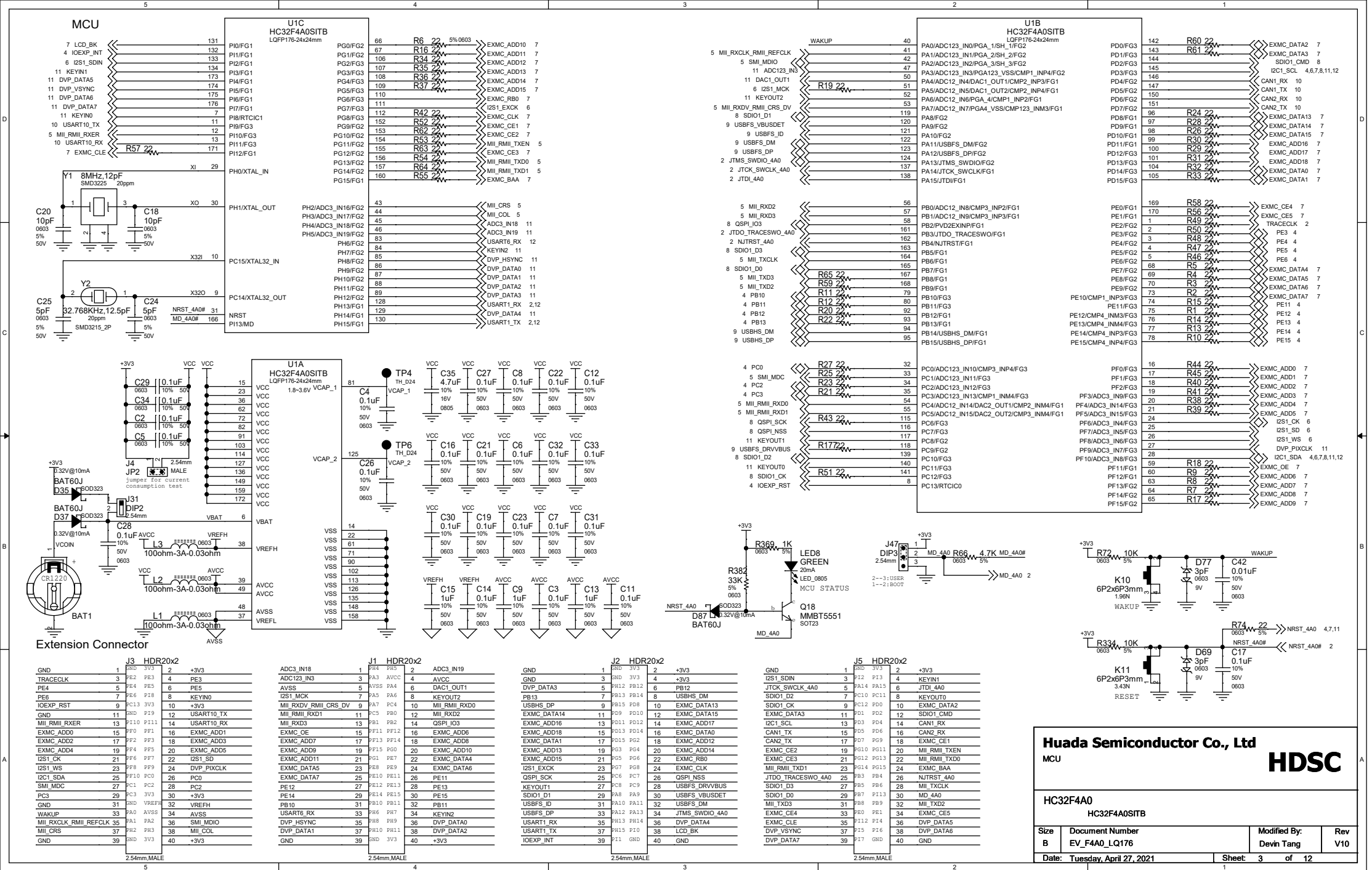
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HC32F4A0

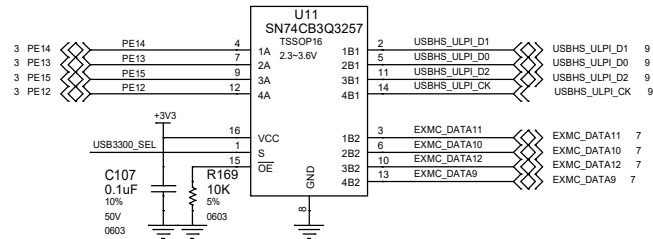
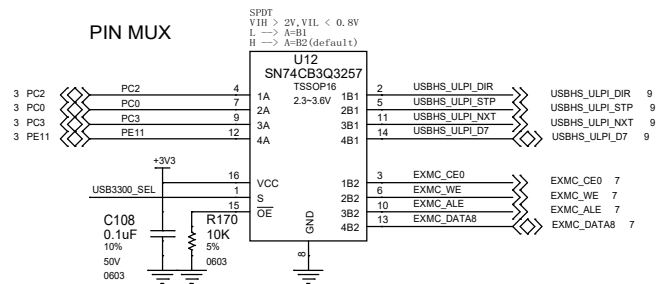
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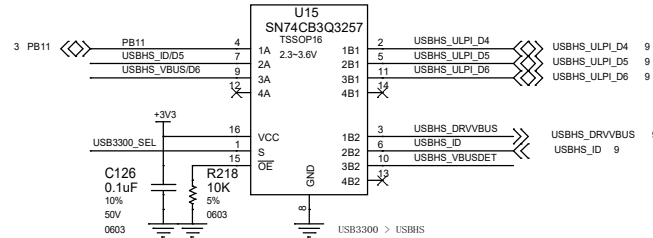
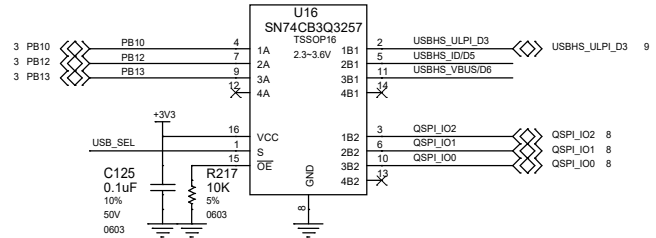




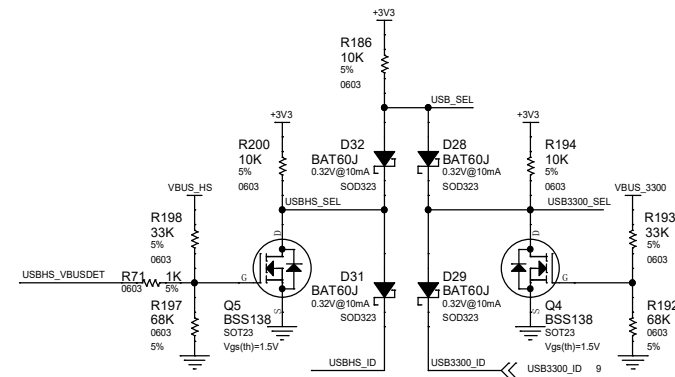
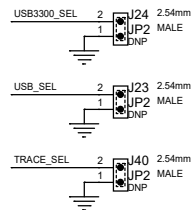
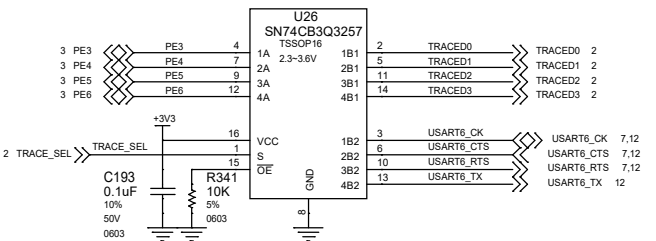
PIN MUX



PCN	DEFAULT	USB3300 DETECTED	USB3S DETECTED
F10	EXMC_WB	USBH5_ULPI_STP	
PC2	EXMC_CSD	USBH5_ULPI_DIR	
PC3	EXMC_ALE	USBH5_ULPI_NXT	
PE11	EXMC_DATA8	USBH5_ULPI_D7	
PE12	EXMC_DATA9	USBH5_ULPI_CK	
PE13	EXMC_DATA10	USBH5_ULPI_D6	
PE14	EXMC_DATA11	USBH5_ULPI_D1	
PE15	EXMC_DATA12	USBH5_ULPI_D2	
PE10	QSPI_102	USBH5_ULPI_D3	
PE11	USBH5_DRVBUSV	USBH5_ULPI_D4	
PE12	QSPI_101	USBH5_ULPI_D5	USBMS_ID
PE13	QSPI_100	USBH5_ULPI_D6	USBMS_VBUS

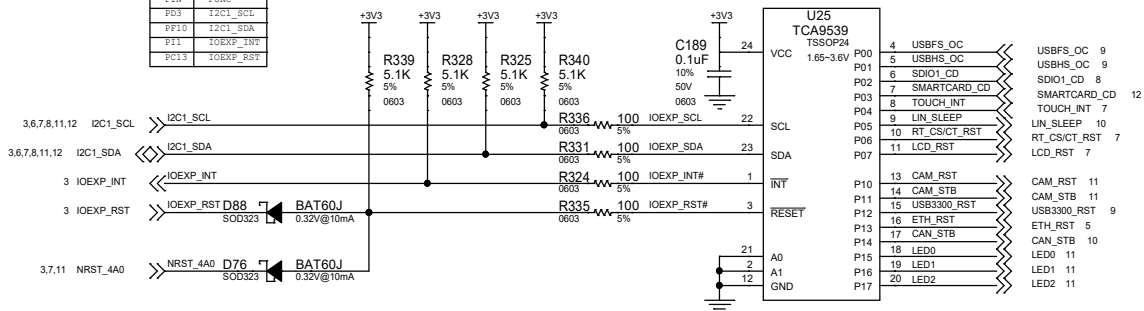


PIN	DEFAULT	TRACE DETECTED
PE3 (FG2)	USART6_CK	TRACED0
PE4 (FG2)	USART6_CTS	TRACED1
PE5 (FG2)	USART6_RTS	TRACED2
PE6 (FG2)	USART6_TX	TRACED3



IO-EXPANDER

PIN	FUNC
PD3	I2C1_SCL
PF10	I2C1_SDA
PI1	IOEXP_INT
PC13	IOEXP_RST



I2C ADDRESS:1110 100

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MCU

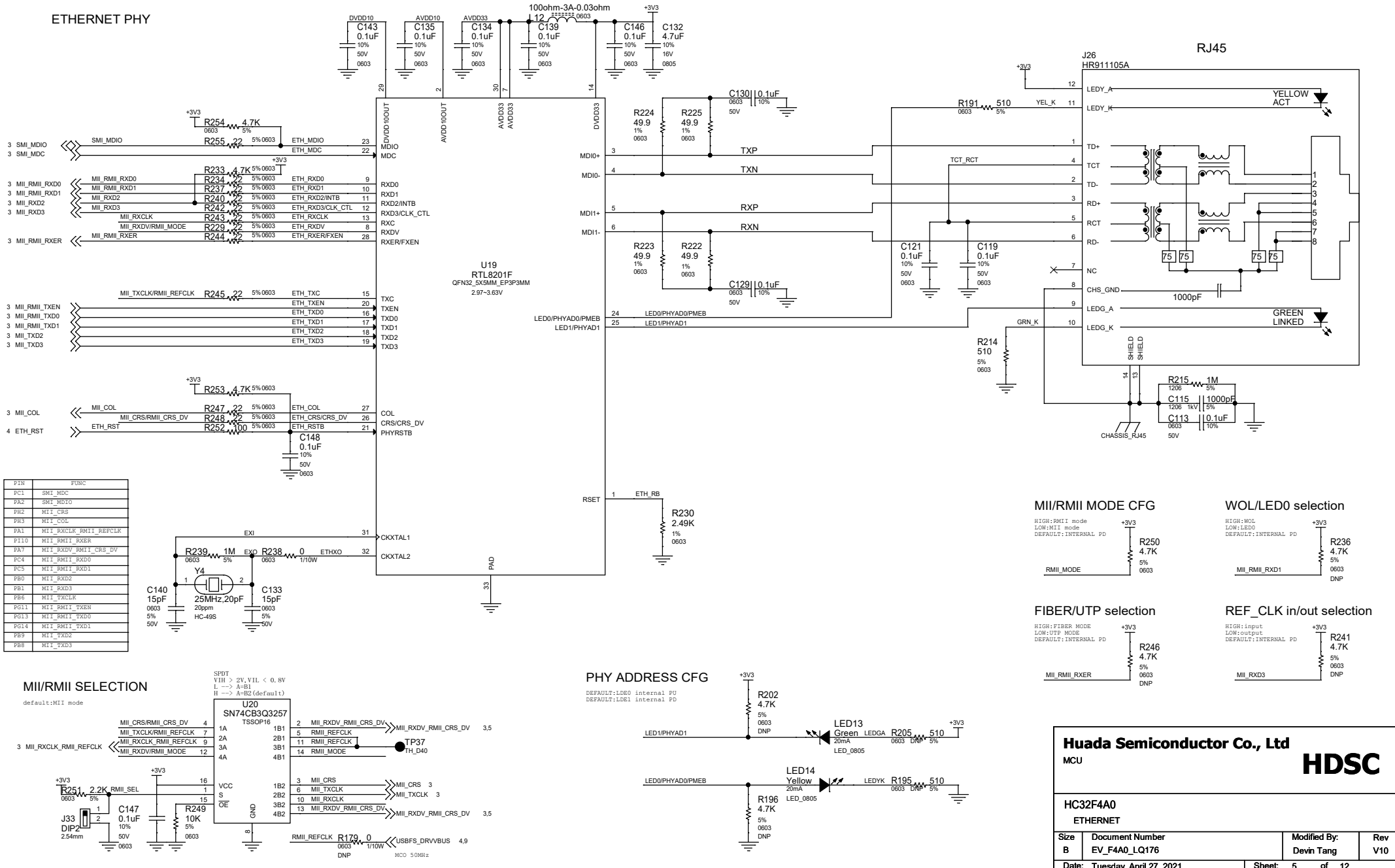
HDSC

HC32F4A0

PIN MUX, IO EXPANDER

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ETHERNET PHY



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MCU

HDSC

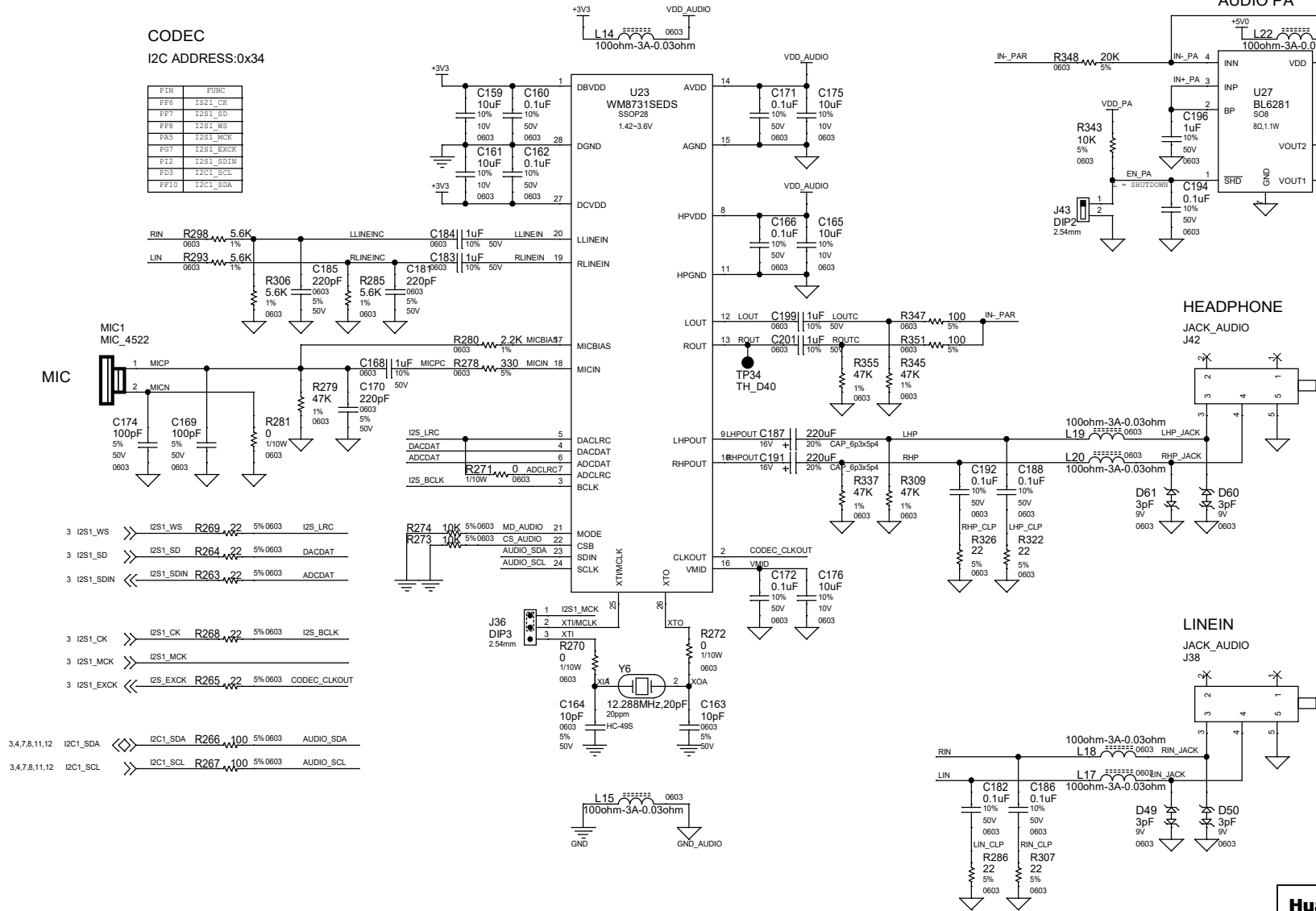
HC32F4A0

ETHERNET

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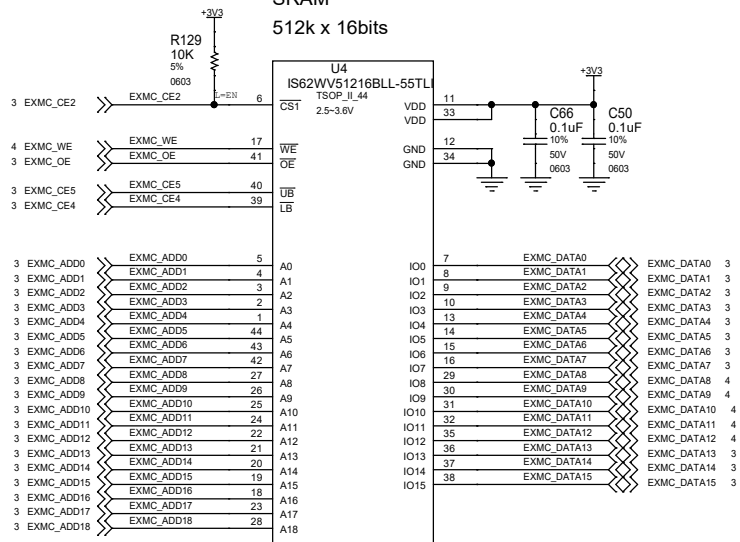
CODEC
I2C ADDRESS:0x34

PIN	FUNC
PF6	I2S1_CK
PF7	I2S1_SD
PF8	I2S1_WS
PAS	I2S1_MCK
PG7	I2S1_EXCK
PI2	I2S1_RDIN
PD3	I2C1_SCL
PF10	I2C1_SDA

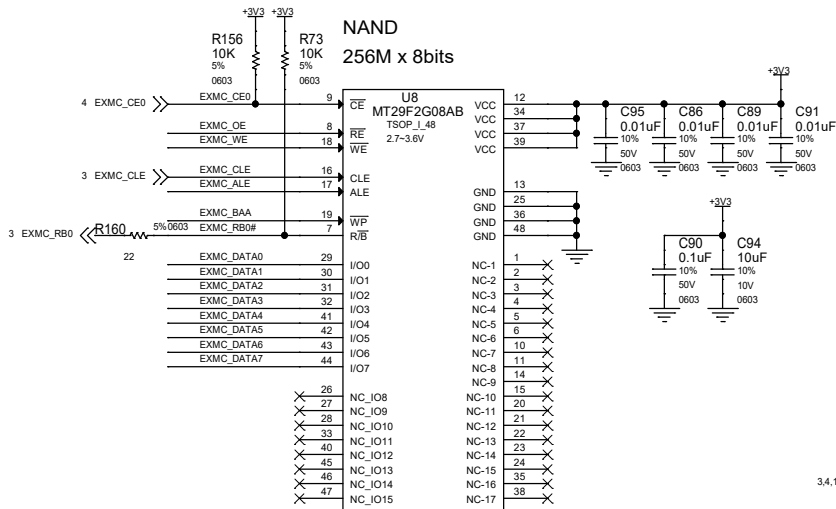


Huada Semiconductor Co., Ltd			
MCU			
HDSC			
HC32F4A0			
AUDIO			
Size	Document Number	Modified By:	Rev
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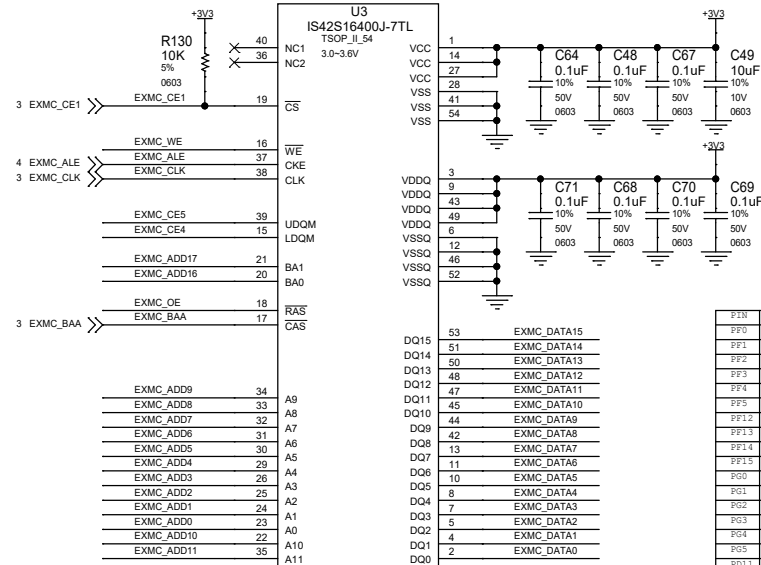
SRAM
512k x 16bits



NAND
256M x 8bits

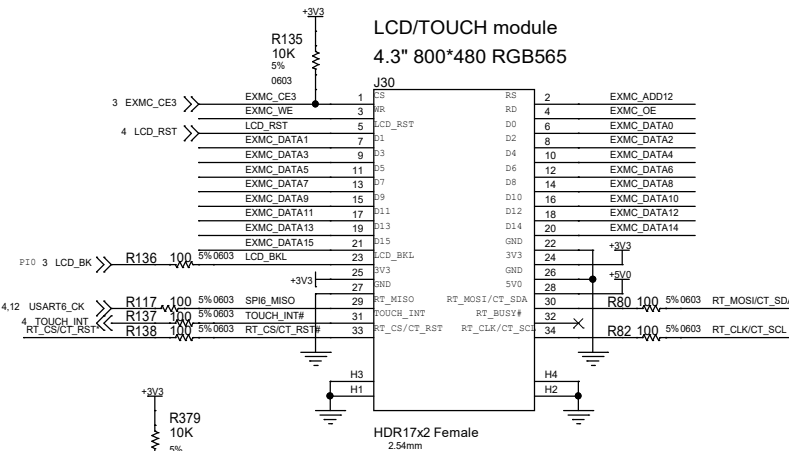


SDRAM
1M x 16bits x 4Banks

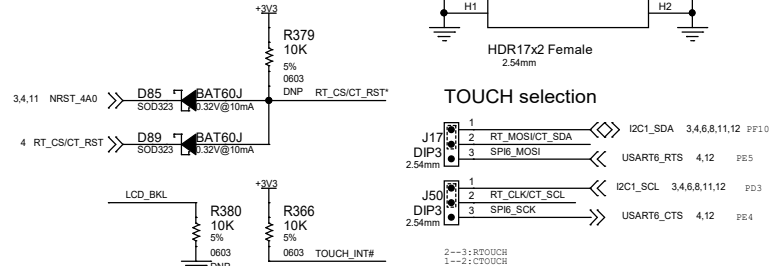


PIN	FUNC	PIN	FUNC	PIN	FUNC
PF0	EXMC_A00	PD14	EXMC_DAT0	PC2	EXMC_C02
PF1	EXMC_A01	PD15	EXMC_DAT1	PG9	EXMC_C01
PF2	EXMC_A02	PD0	EXMC_DAT2	PG10	EXMC_C02
PF3	EXMC_A03	PD1	EXMC_DAT3	PG12	EXMC_C03
PF4	EXMC_A04	PE7	EXMC_DAT4	PE0	EXMC_C04
PF5	EXMC_A05	PE8	EXMC_DAT5	PE1	EXMC_C05
PF12	EXMC_A06	PE9	EXMC_DAT6	PC0	EXMC_C06
PF13	EXMC_A07	PE10	EXMC_DAT7	PF11	EXMC_C06
PF14	EXMC_A08	PE11	EXMC_DAT8	PC3	EXMC_C06
PF15	EXMC_A09	PE12	EXMC_DAT9	PG12	EXMC_C06
FG0	EXMC_A010	PE13	EXMC_DAT10	PG15	EXMC_C06
FG1	EXMC_A011	PE14	EXMC_DAT11	PG6	EXMC_C06
FG2	EXMC_A012	PE15	EXMC_DAT12	PG8	EXMC_C06
FG3	EXMC_A013	PD8	EXMC_DAT13		
FG4	EXMC_A014	PD9	EXMC_DAT14		
FG5	EXMC_A015	PD10	EXMC_DAT15		
PD1	EXMC_A016				
PD2	EXMC_A017				
PD13	EXMC_A018				

LCD/TOUCH module
4.3" 800*480 RGB565



TOUCH selection



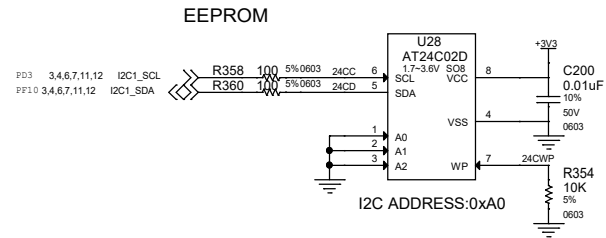
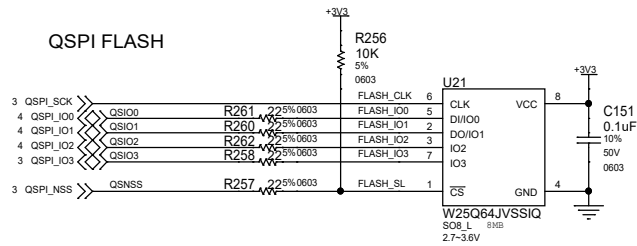
Huada Semiconductor Co., Ltd
MCU

HDSC

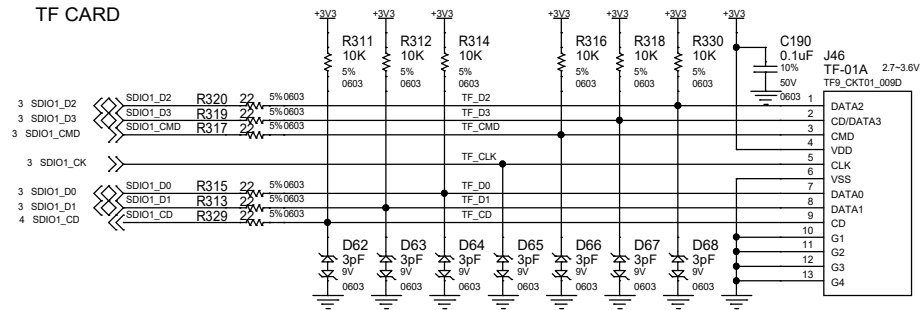
HC32F4A0
SRAM, SDRAM, NAND,LCD

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PIN	FUNC
PB13	QSPI_EO0
PB12	QSPI_EO1
PB10	QSPI_EO2
PB2	QSPI_EO3
PC6	QSPI_SCK
PC7	QSPI_NSS

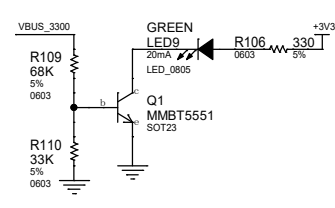
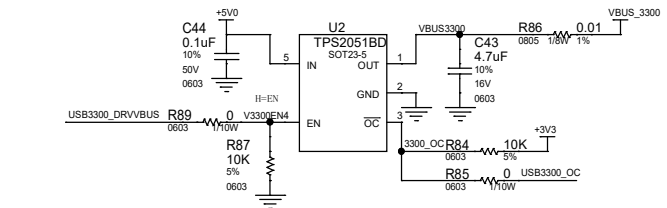
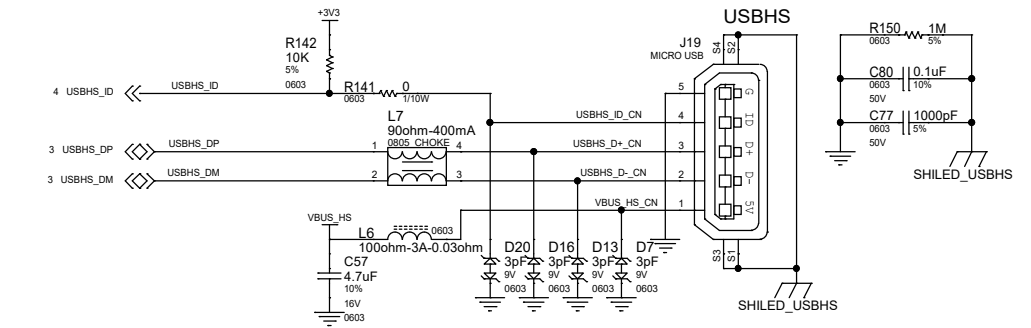
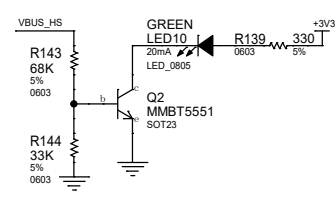
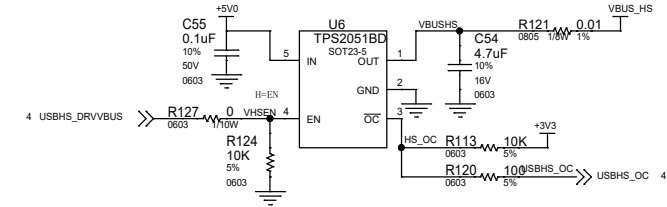
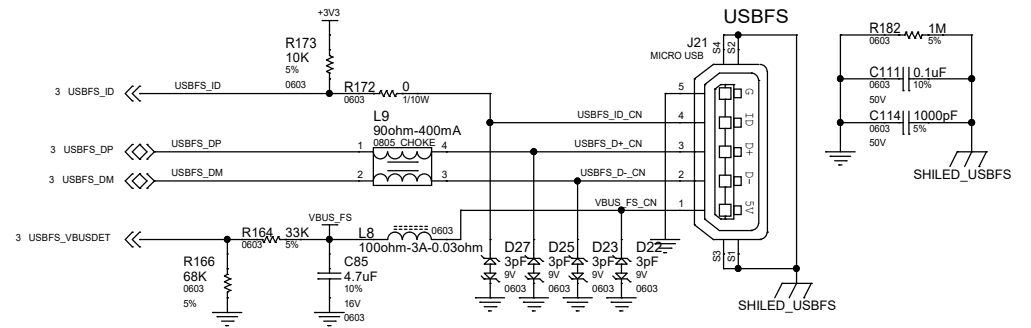
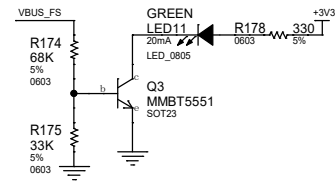
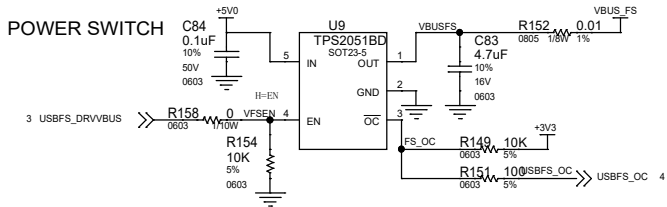


PIN	FUNC
PB7	SDIO1_D0
PA8	SDIO1_D1
PC10	SDIO1_D2
PB5	SDIO1_D3
PD2	SDIO1_CMD
PC12	SDIO1_CLK

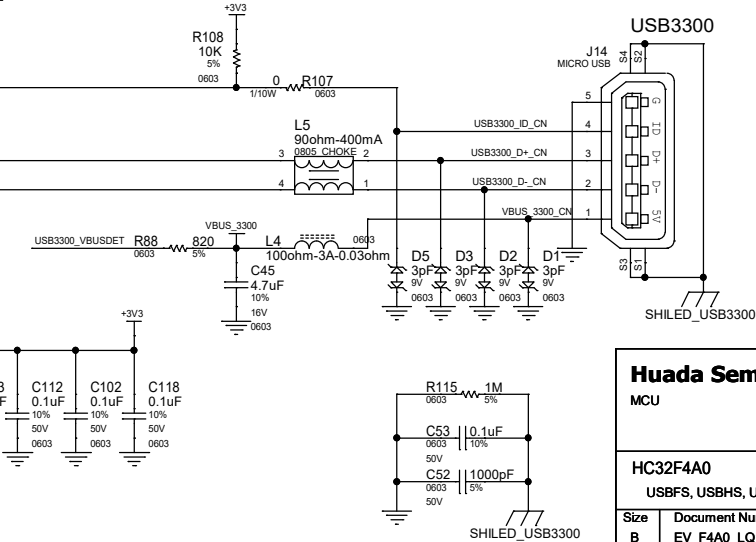
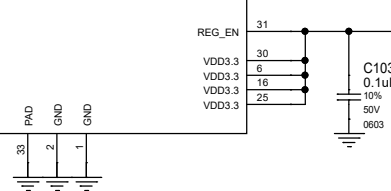
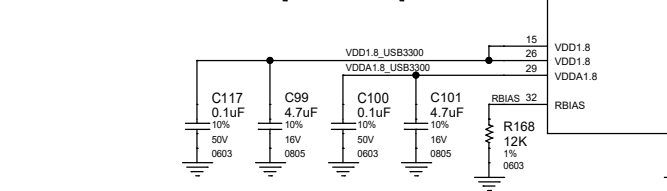
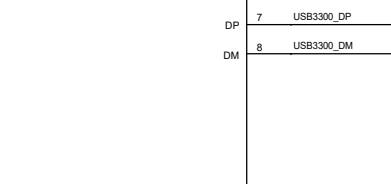
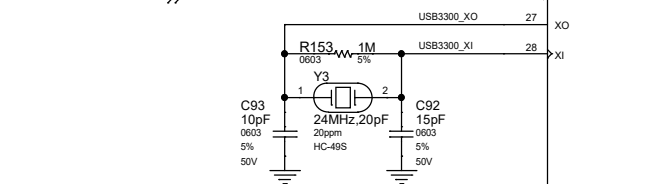
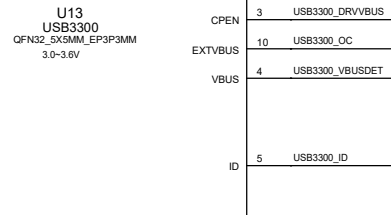
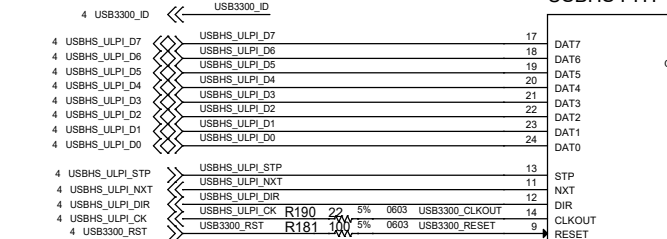


Huada Semiconductor Co., Ltd			
MCU			
HDSC			
HC32F4A0			
QSPI FLASH, EEPROM, TF CARD			
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POWER SWITCH



USBHS PHY



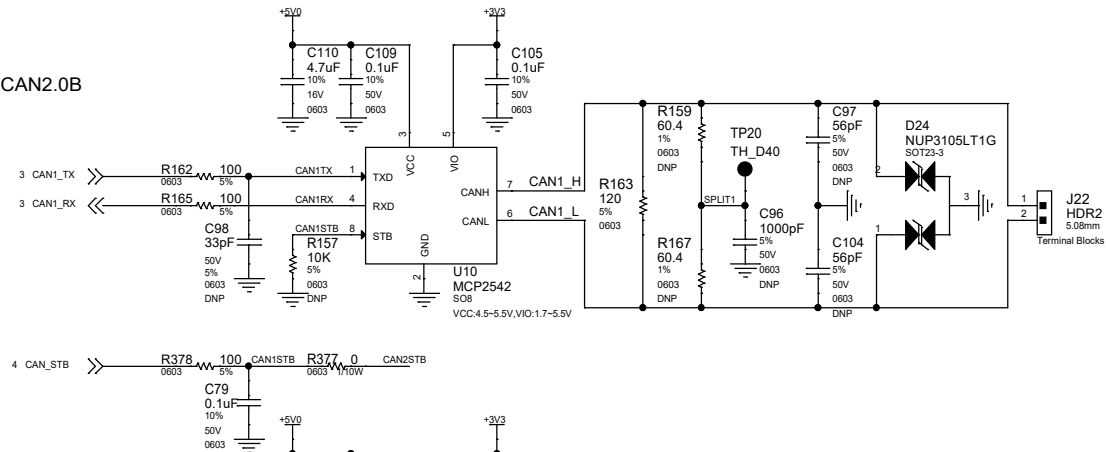
PIN	FUNC	PIN	FUNC
PC0	USBHS_ULPI_STP	PA11	USBFS_DM
PC2	USBHS_ULPI_DIR	PA12	USBFS_DP
PC3	USBHS_ULPI_NXT	PC9	USBFS_DRVVBUS
PE12	USBHS_ULPI_CLK	PA9	USBFS_VBUSDET
PE13	USBHS_ULPI_D0	PA10	USBFS_ID
PE14	USBHS_ULPI_D1	PB14	USBHS_DM
PE15	USBHS_ULPI_D2	PB15	USBHS_DP
PE10	USBHS_ULPI_D3	PB11	USBHS_DRVVBUS
PE11	USBHS_ULPI_D4	PB12	USBHS_ID
PE12	USBHS_ULPI_D5	PB13	USBHS_VBUSDET
PE13	USBHS_ULPI_D6		
PE11	USBHS_ULPI_D7		

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MCU

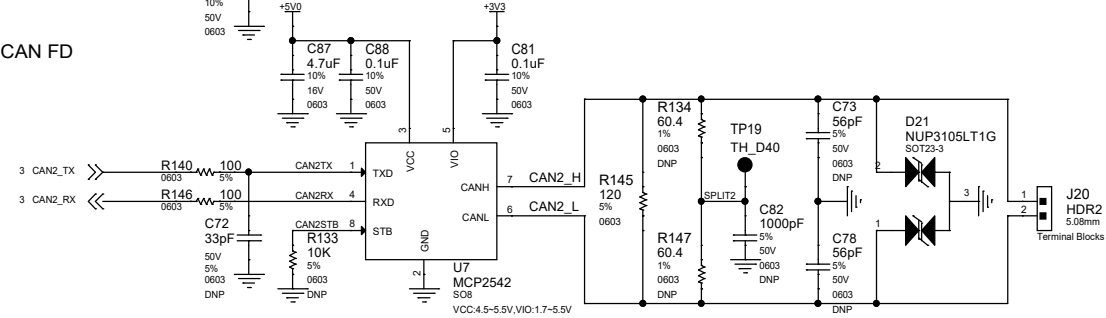
HC32F4A0
USBFS, USBHS, USB3300

Size B	Document Number EV_F4A0_LQ176	Modified By: Devin Tang	Rev V10
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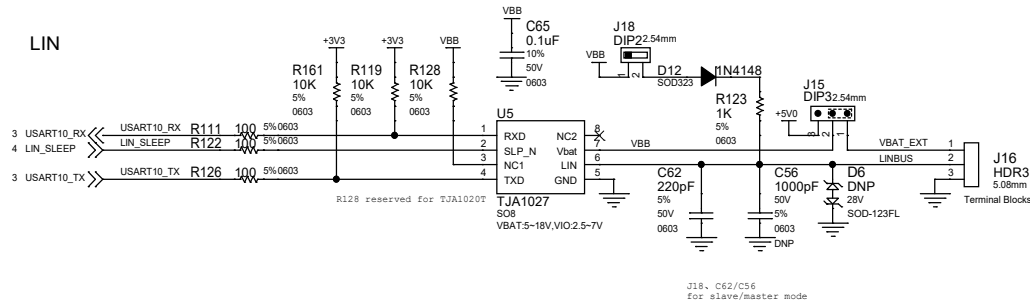
CAN2.0B



CAN FD



LIN



PIN	FUNC
PD4	CAN1_RX
PD5	CAN1_TX
PD6	CAN2_RX
PD7	CAN2_TX
PI9	USART10_RX
PI11	USART10_TX

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MCU

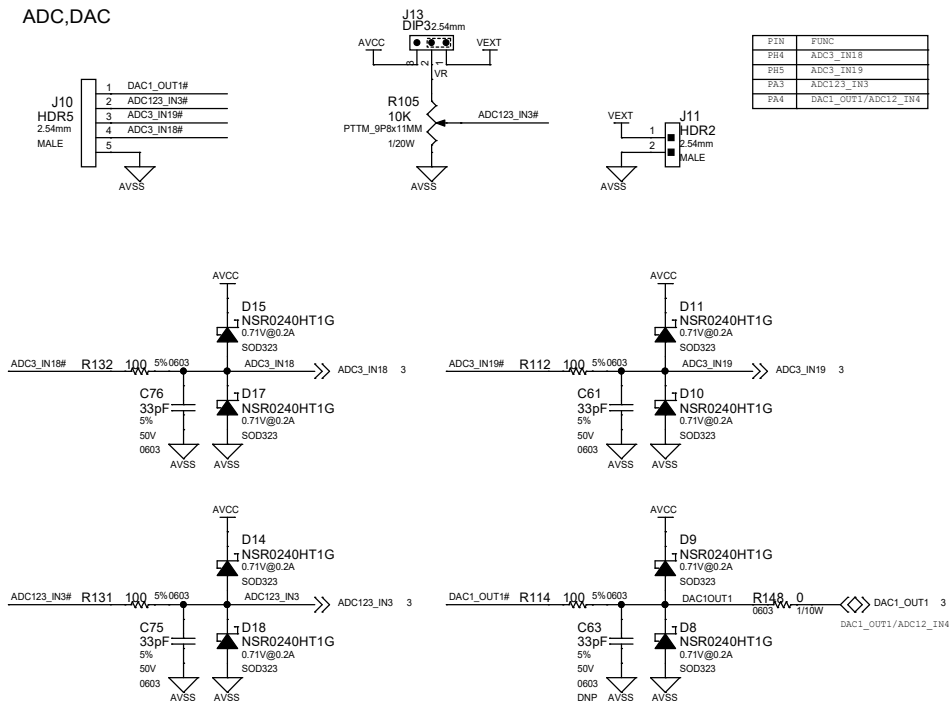
HDSC

HC32F4A0

CAN,LIN

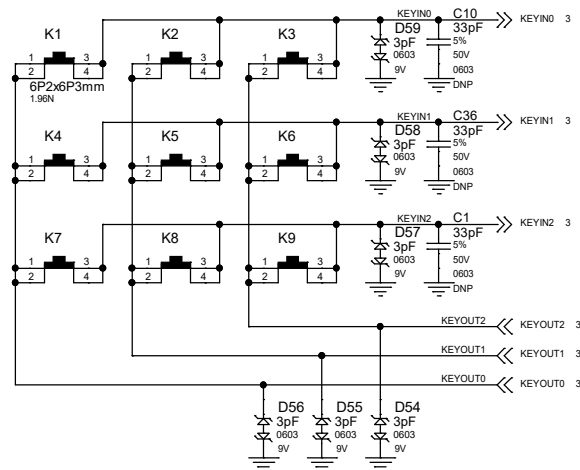
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ADC,DAC



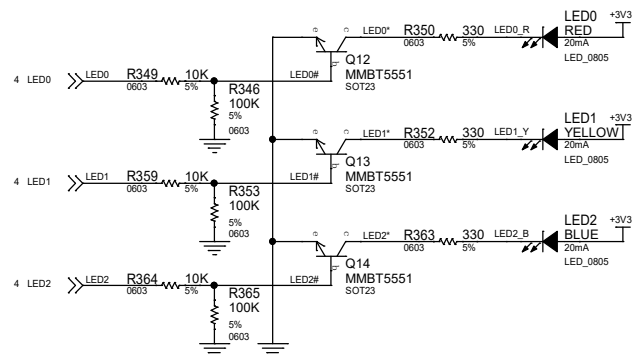
PIN	FUNC
PR4	ADC3_IN18
PR5	ADC3_IN19
PA3	ADC123_IN3
PA4	DAC1_OUT1/ADC12_IN4

MATRIX KEYBOARD

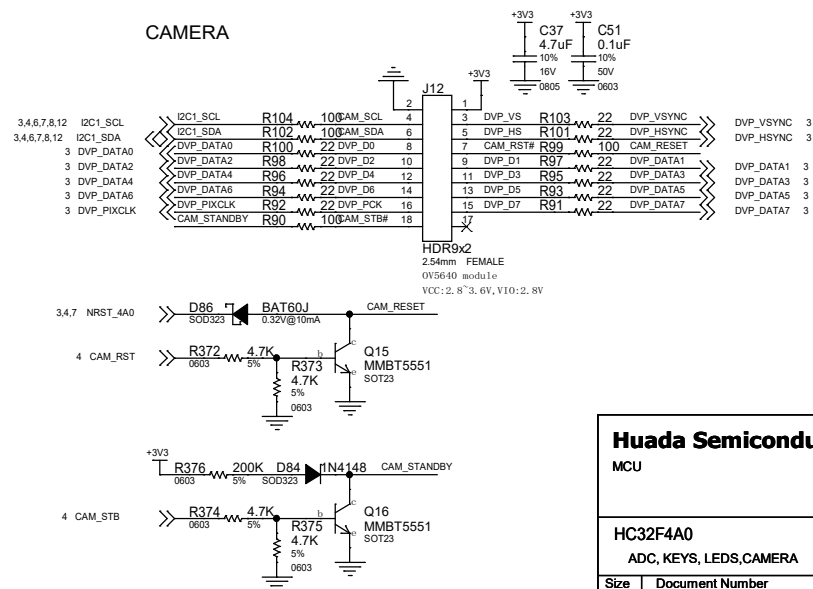


PIN	FUNC
PI8	KEYIN0
PI7	KEYIN1
PI3	KEYIN2
PC11	KEYOUT0
PC8	KEYOUT1
PA6	KEYOUT2

LEDS



CAMERA



PIN	FUNC
PF9	DVP_PIXCLK
PI5	DVP_VSYNC
PR8	DVP_HSYNC
PR9	DVP_DATA0
PH10	DVP_DATA1
PH11	DVP_DATA2
PH12	DVP_DATA3
PH14	DVP_DATA4
PI4	DVP_DATA5
PI6	DVP_DATA6
P27	DVP_DATA7
PD3	I2C1_SCL
PF10	I2C1_SDA

Huada Semiconductor Co., Ltd
MCU

HDSC

HC32F4A0
ADC, KEYS, LEDS, CAMERA

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USART/SPI

PIN	USART6	SMART CARD	SPI6	TRACE
PE3(FG2)	CK	CLK	SCK	TRACED0
PE4(FG2)	CTS	RESET	MOSI	TRACED1
PE5(FG2)	RTS	PWR_EN	MISO	TRACED2
PE6(FG2)	TX	TX	NSS0	TRACED3
PH6(FG2)	RX	RX		

SMART CARD

3V3/5V0 OUT

I2C1

USART1

TP/FID/FAB HOLES

Huada Semiconductor Co., Ltd MCU		HDSC
HC32F4A0 USART, SPI, I2C, SMART CARD		
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