

PICO-WIZARD REV:A2

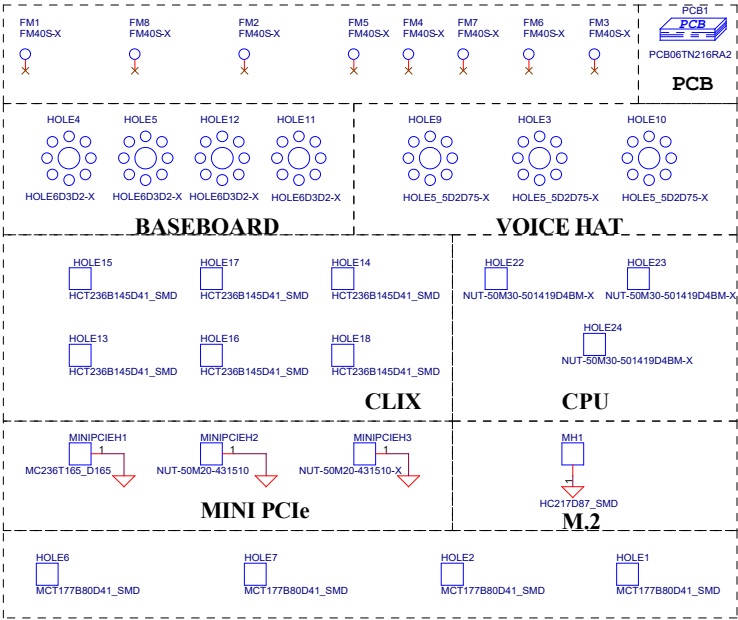
PCB 6 Layers, 170 x 170mm

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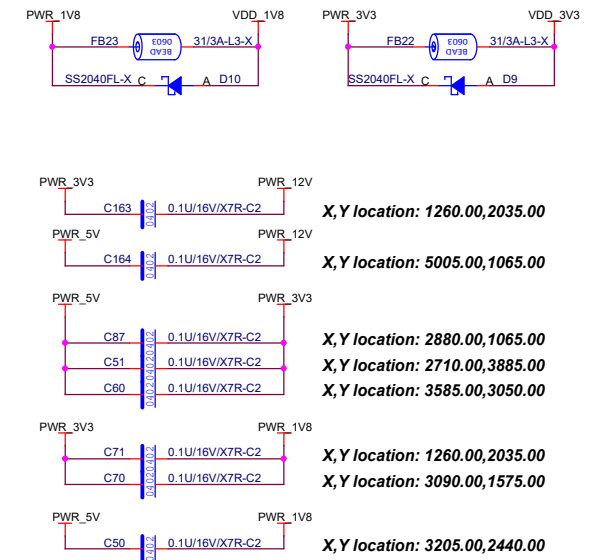
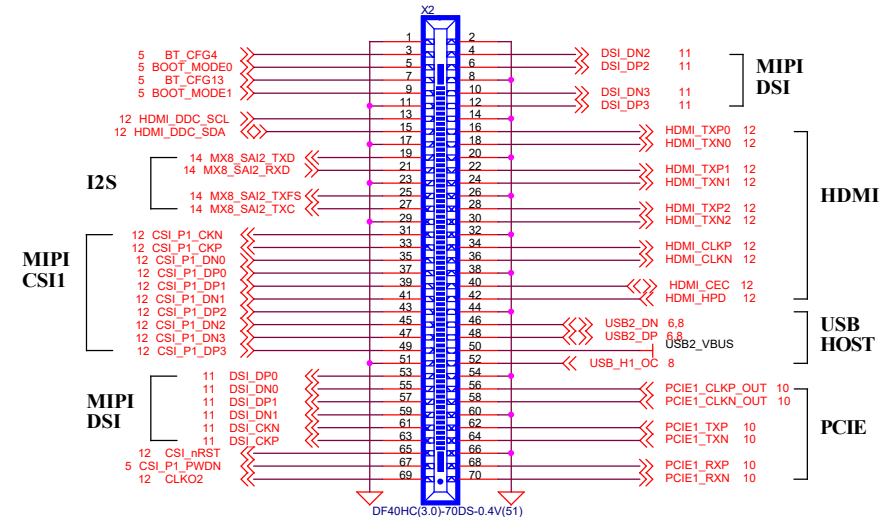
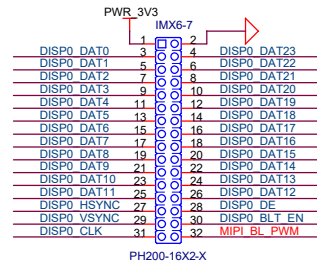
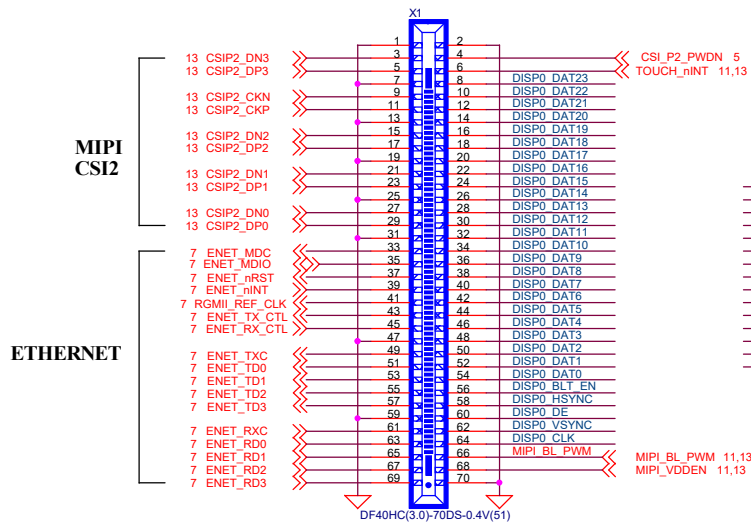
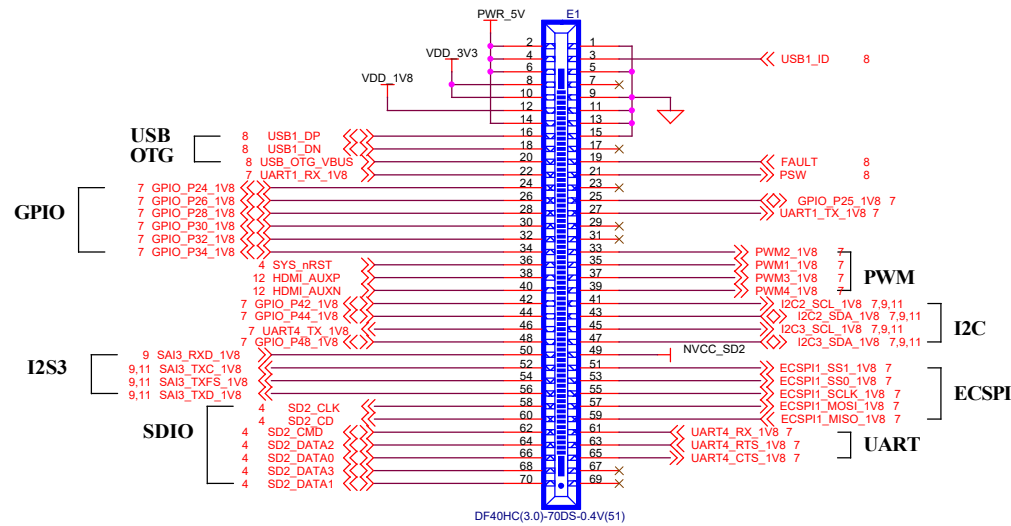
Components marked -X are not populated (DNP)

I2C	IMX6	IMX7	IMX8M	IMX8MM	WIZARD	DEVICE										
	I2C1	I2C1	I2C2	I2C2	I2C2	RTC	VOICE HAT	TUSB3320	MIPI1	NTAG	CC CONTROL	PCIE	CAMERA1			
	I2C3	I2C2	I2C3	I2C3	I2C3	CLIX1	CLIX2	PCA9554	PCA9555-1	PCA9555-2	CLOCK GEN	VOICE HAT	CAMERA2	LVDS	TOUCH	AUDIO
	I2C2	I2C4	DDC	DDC	DDC	HDMI										

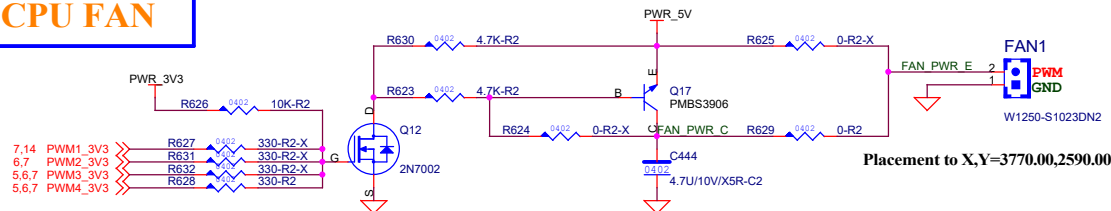


TechNexion			
INDEX			
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BOARD TO BOARD

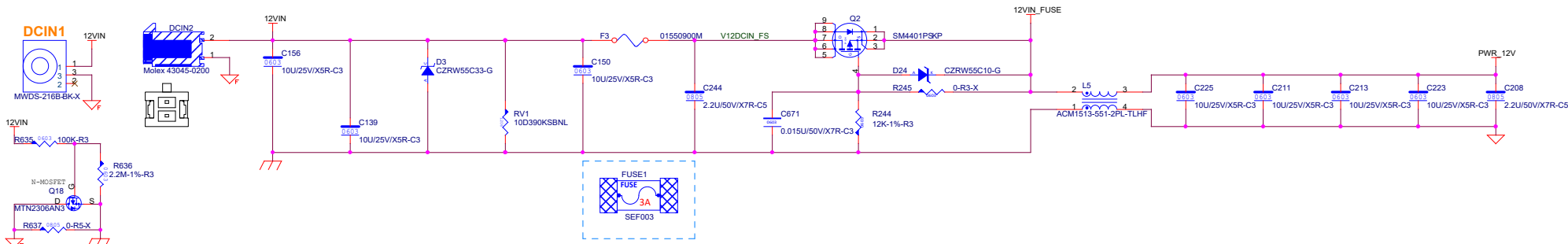


CPU FAN

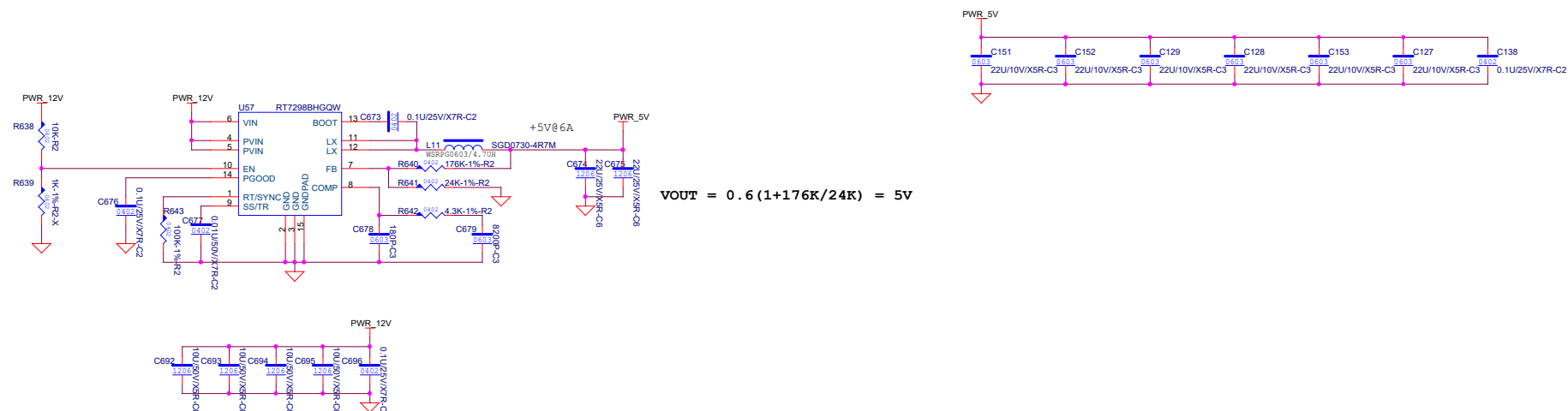


12VSB

4.5V ~ 18V @6A



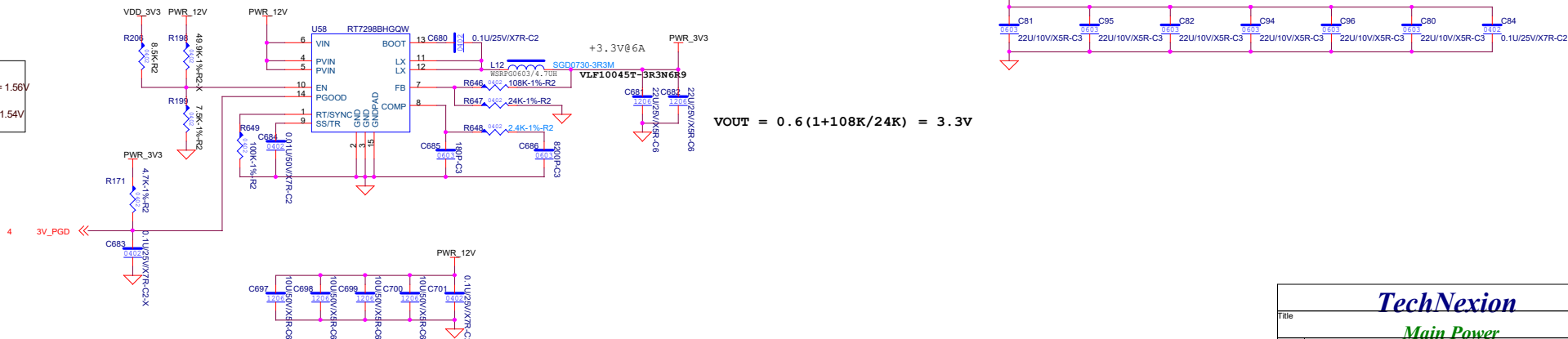
5VSB



3V3SB

RT7298BHGQW BUCK
 $E_n = 1.2V @ 1.21V \sim 1.3V$ (High)
 $= 1V @ 1.1V \sim 1.17V$ (Low)
 High active,

12V
 $R_{up} = 49.9K, R_{dn} = 7.5K @ V_{en} = 1.56V$
 3.3V
 $R_{up} = 8.5K, R_{dn} = 7.5K @ V_{en} = 1.54V$

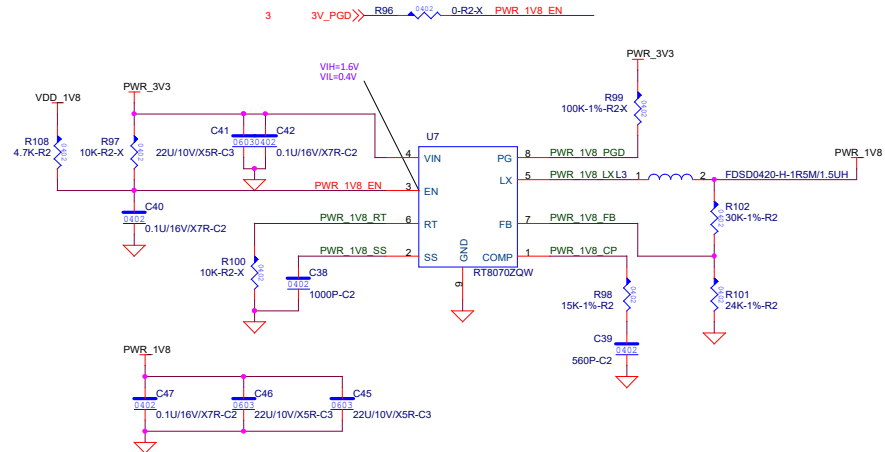


TechNexion

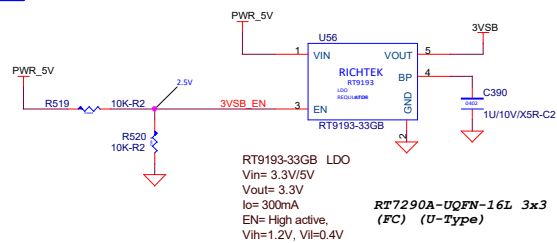
Main Power

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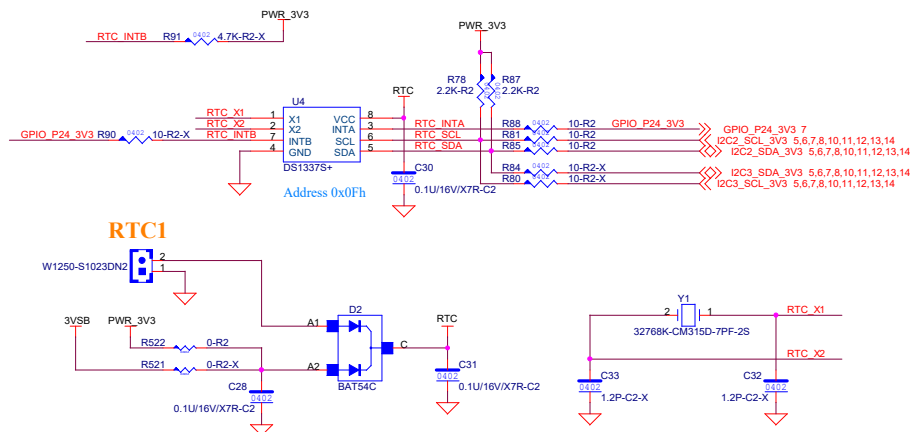
1.8VSB



3.3 VSB

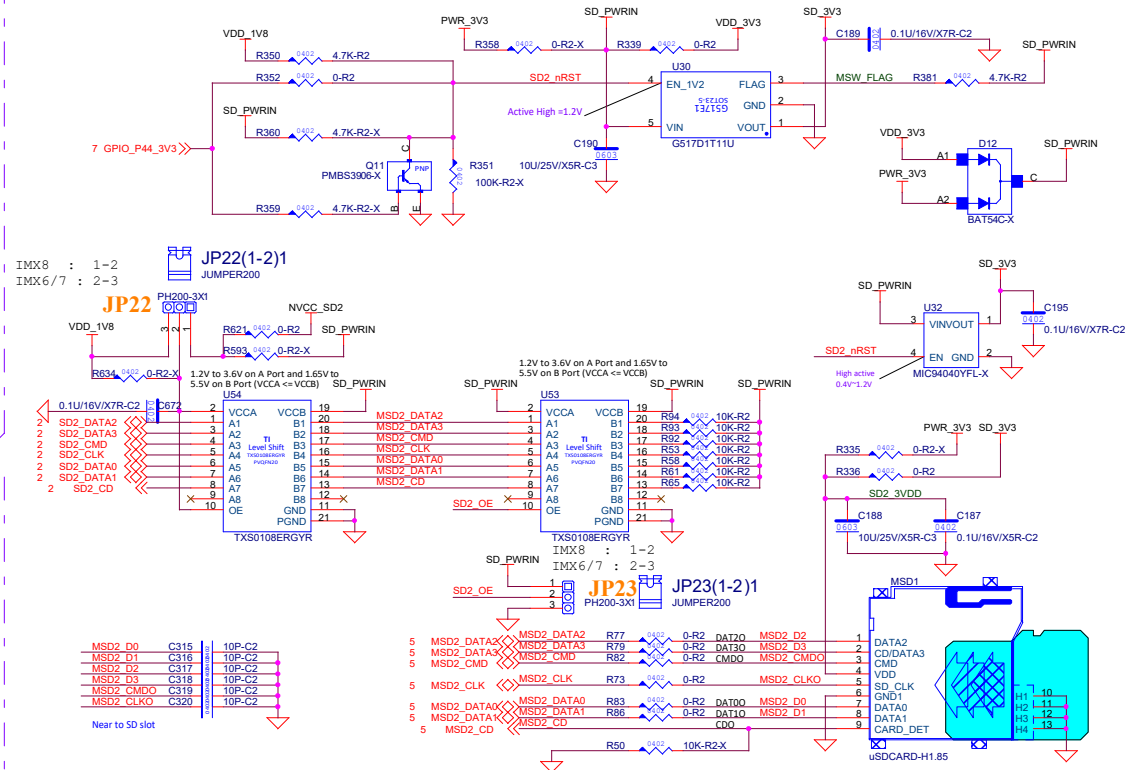


RTC

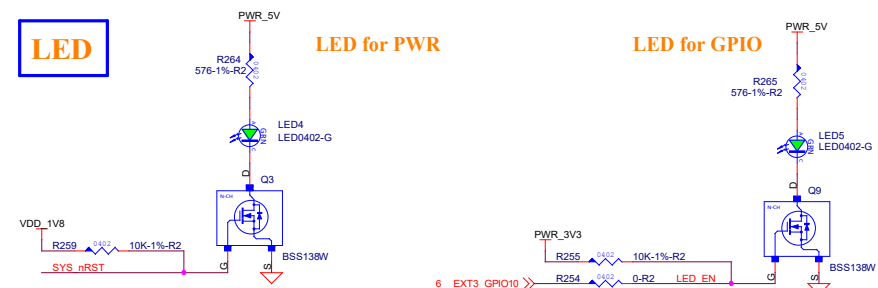


M-SD

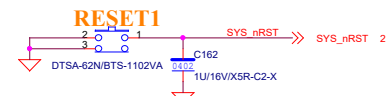
Load Switch For SD card power



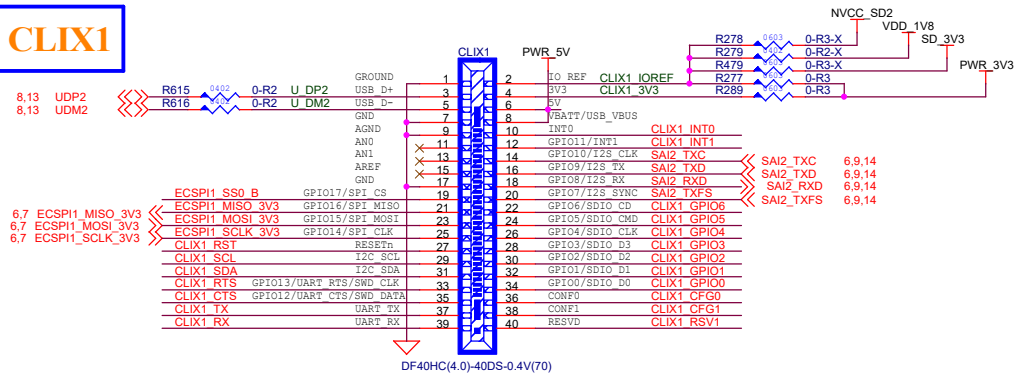
LED



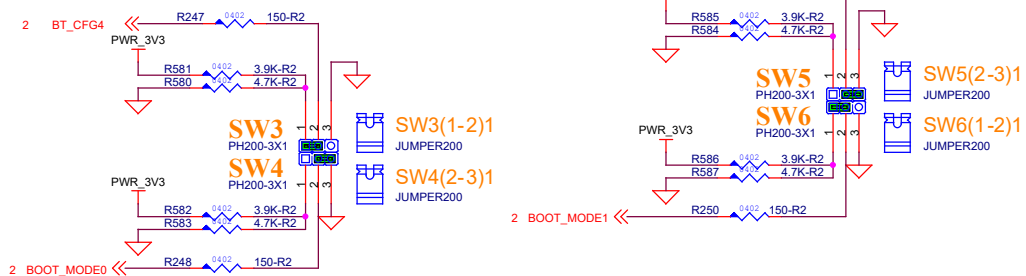
RESET



CLIX1

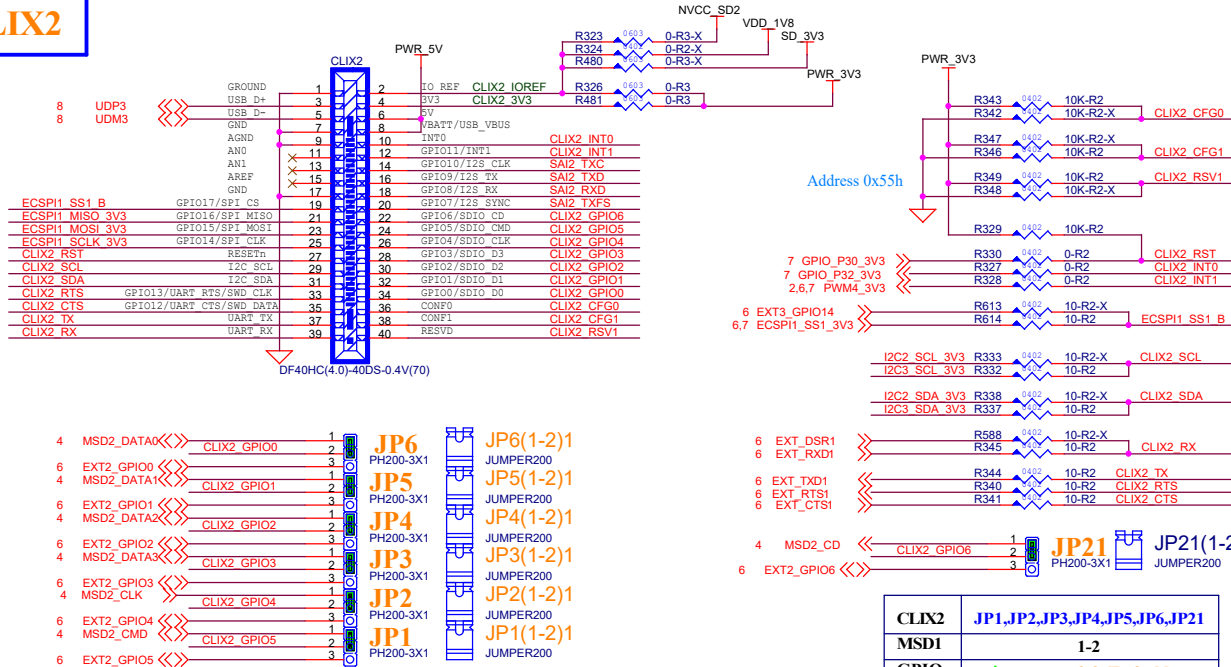


BOOT MODE SETTING

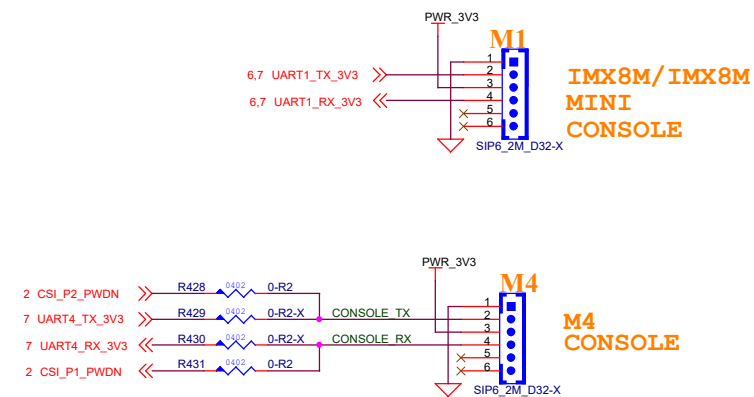


Module	SWITCH	SW3	SW4	SW5	SW6
IMX6-EMMC	eMMC(Default)	1-2	1-2	2-3	1-2
	SD Card	2-3	2-3	1-2	2-3
IMX6-SD	SD(Default)	1-2	2-3	1-2	2-3
	SD Card	2-3	2-3	1-2	2-3
IMX7-EMMC	eMMC(Default)	1-2	1-2	2-3	1-2
	SD Card	2-3	1-2	1-2	2-3
IMX7-SD	SD(Default)	1-2	2-3	1-2	2-3
	SD Card	2-3	2-3	1-2	2-3
IMX8M	eMMC(Default)	2-3	2-3	1-2	1-2
	SD Card	1-2	2-3	2-3	1-2
IMX8MM	eMMC(Default)	2-3	2-3	1-2	1-2
	SD Card	1-2	2-3	2-3	1-2
Serial Downloader		X	1-2	X	2-3

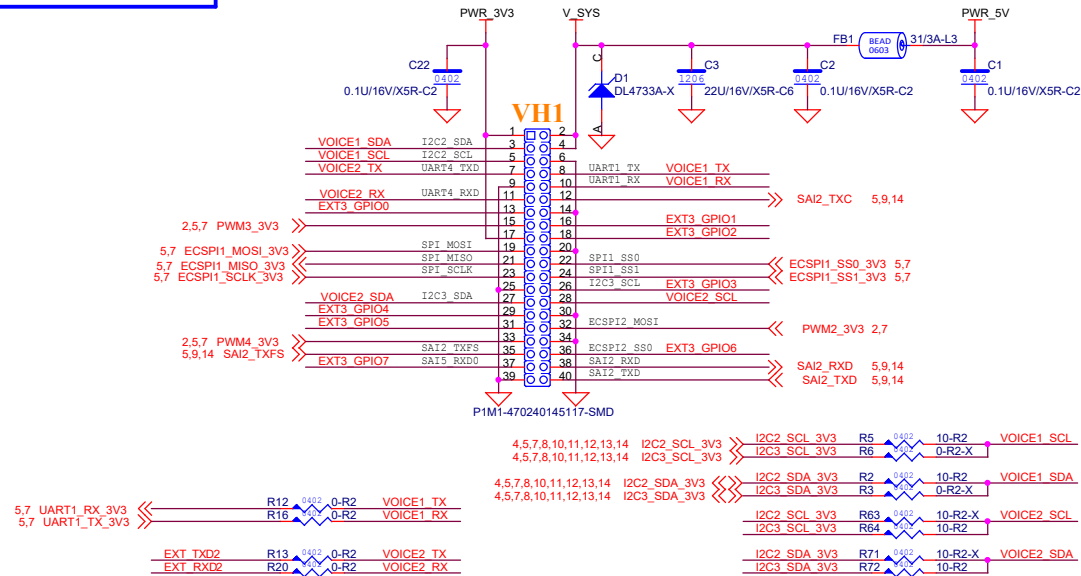
CLIX2



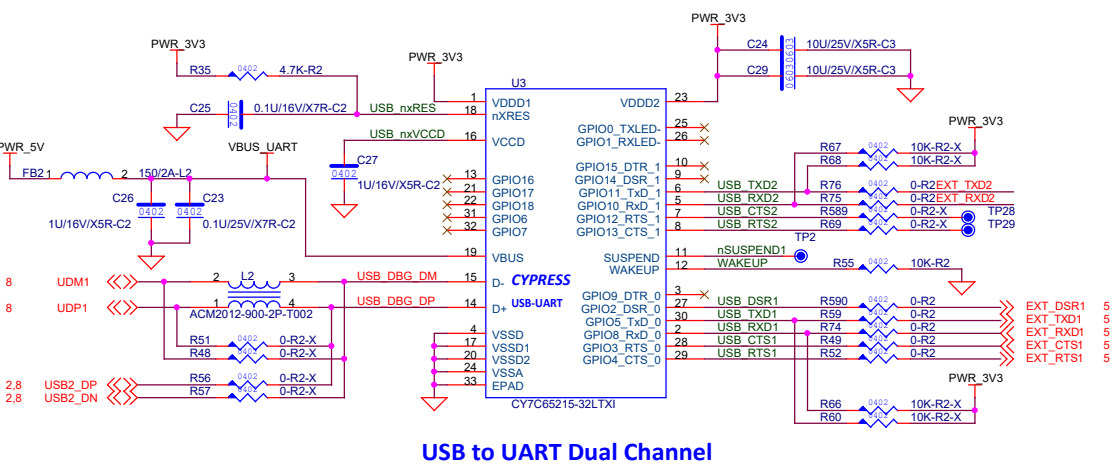
CONSOLE



VOICE HAT

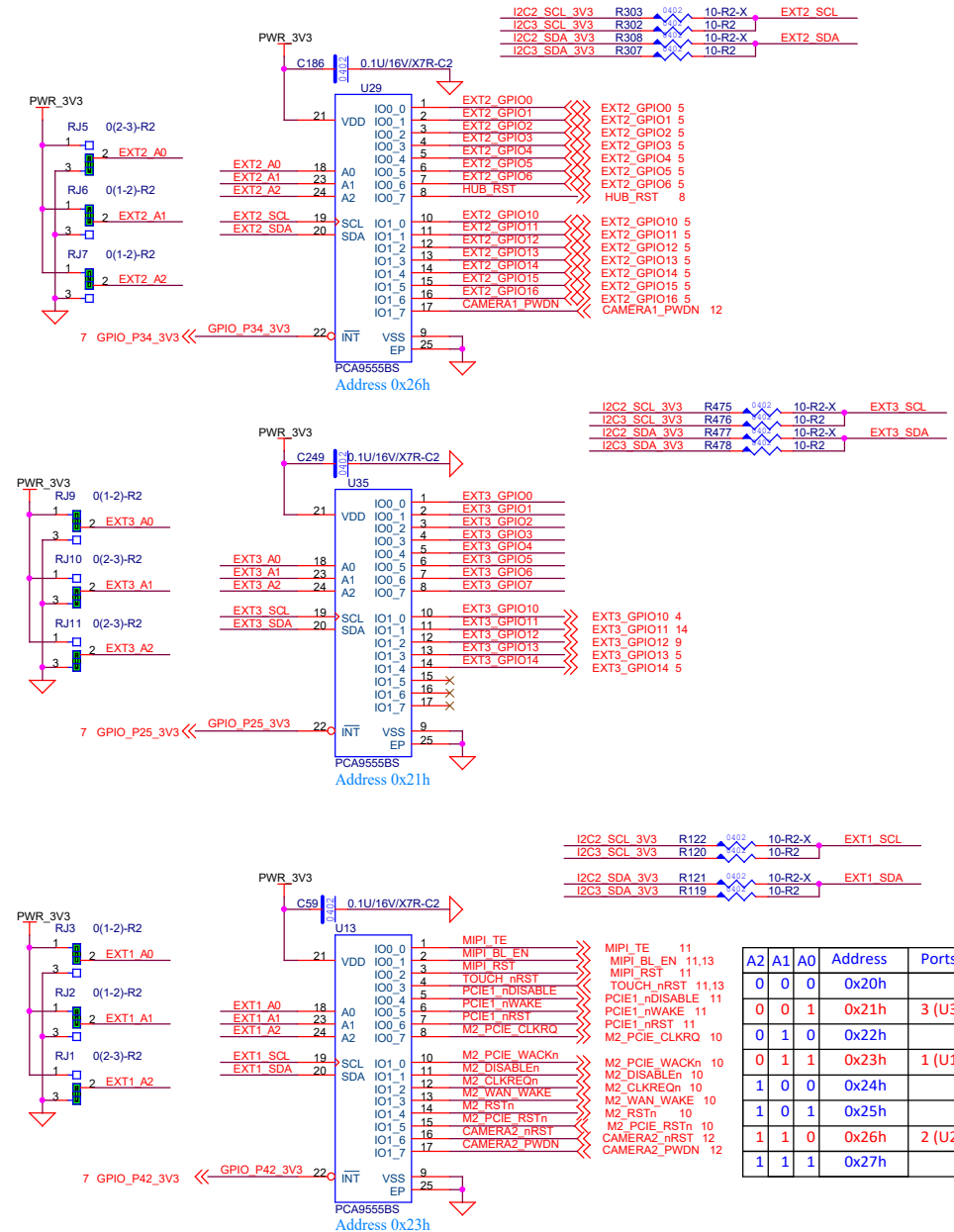


UART



USB to UART Dual Channel

EXPANSION IC



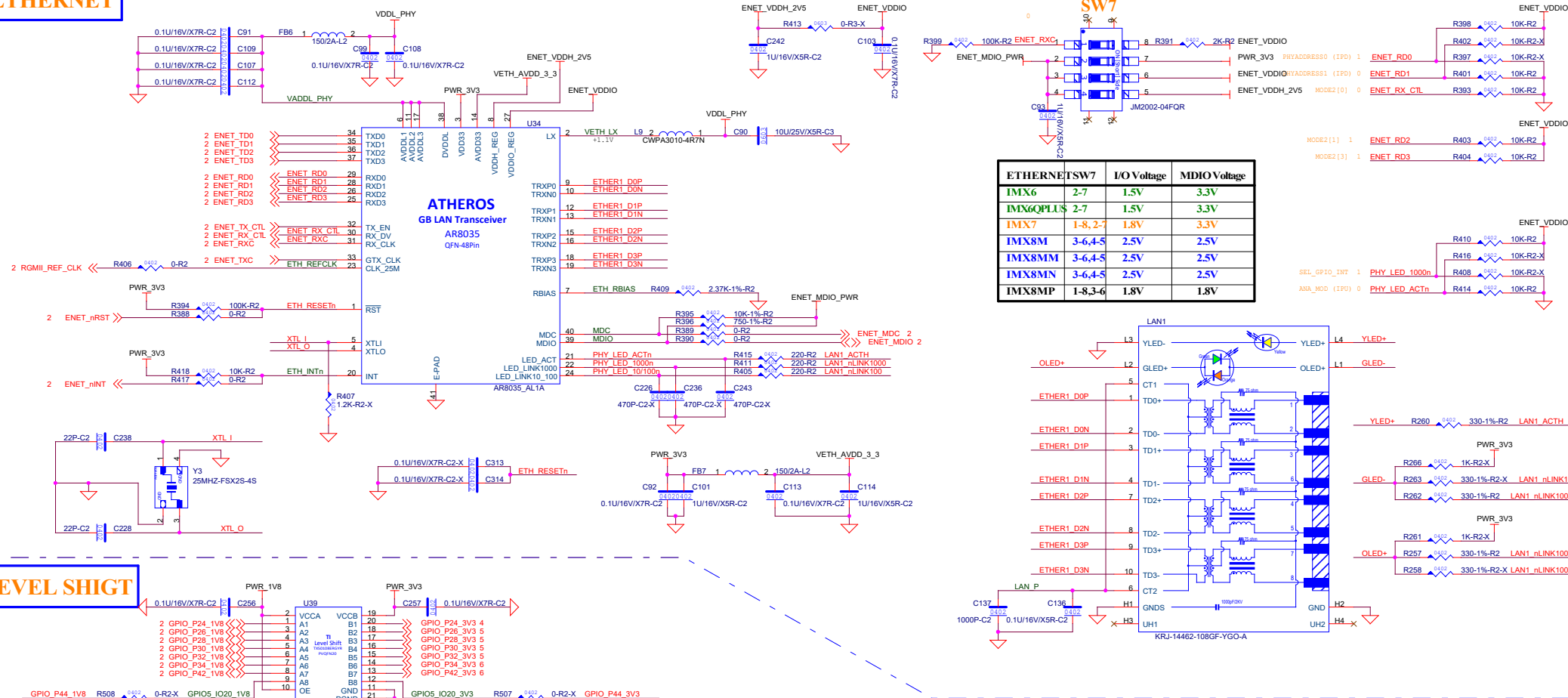
A2	A1	A0	Address	Ports
0	0	0	0x20h	
0	0	1	0x21h	3 (U35)
0	1	0	0x22h	
0	1	1	0x23h	1 (U13)
1	0	0	0x24h	
1	0	1	0x25h	
1	1	0	0x26h	2 (U29)
1	1	1	0x27h	

TechNexion

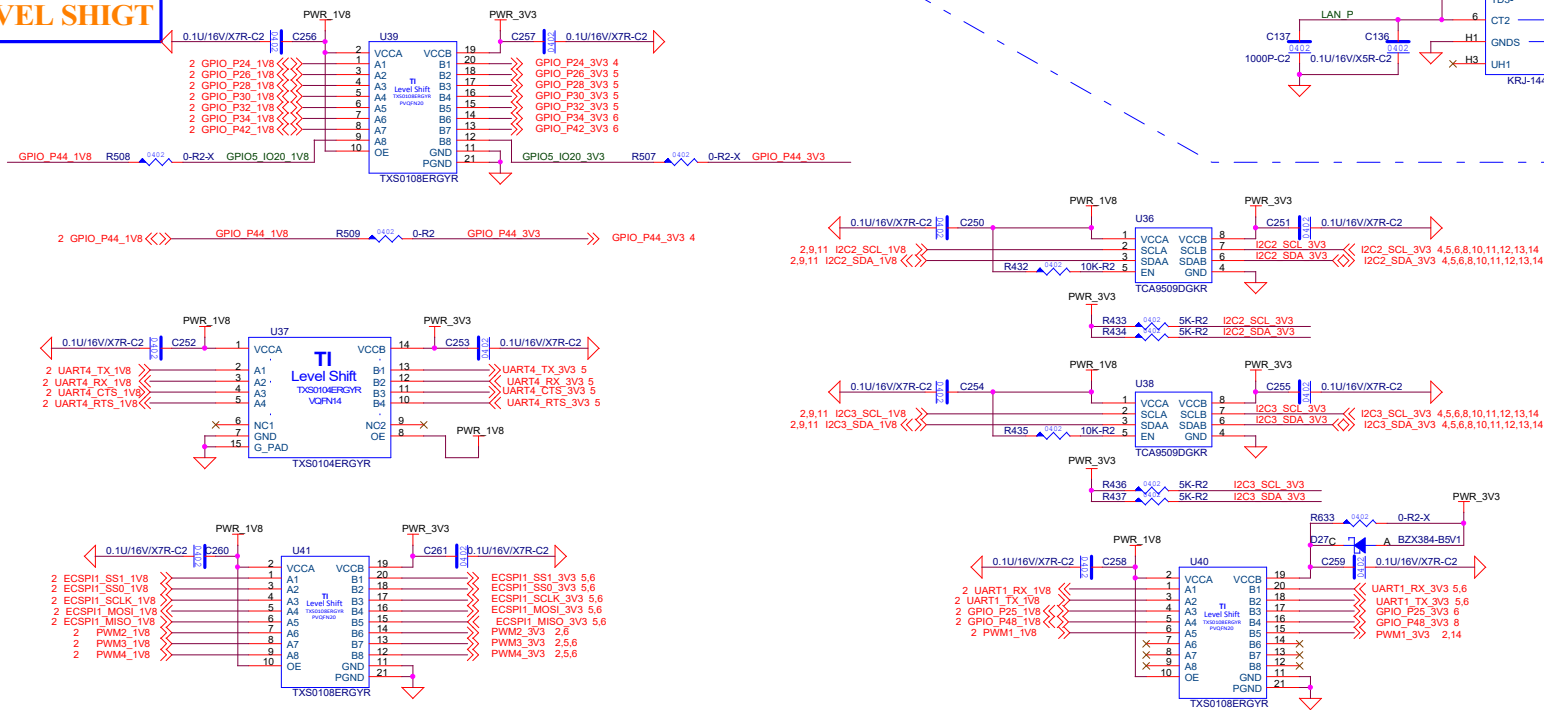
VOICE & UART

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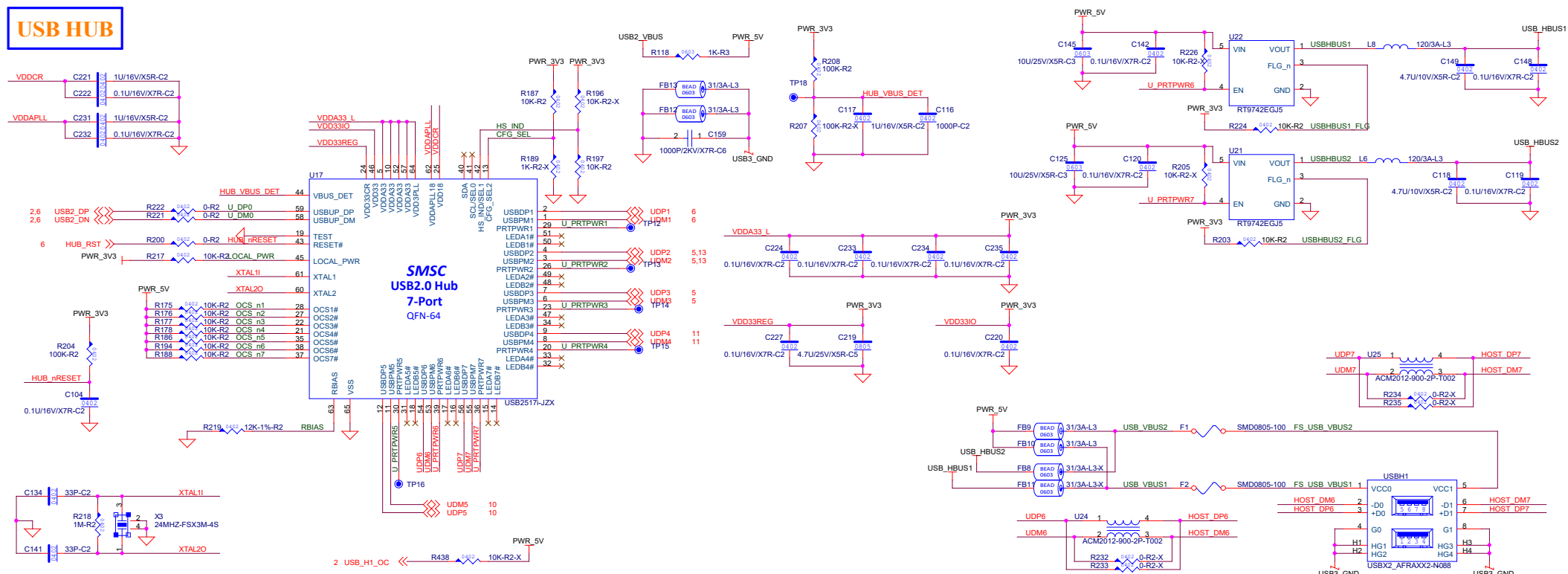
ETHERNET



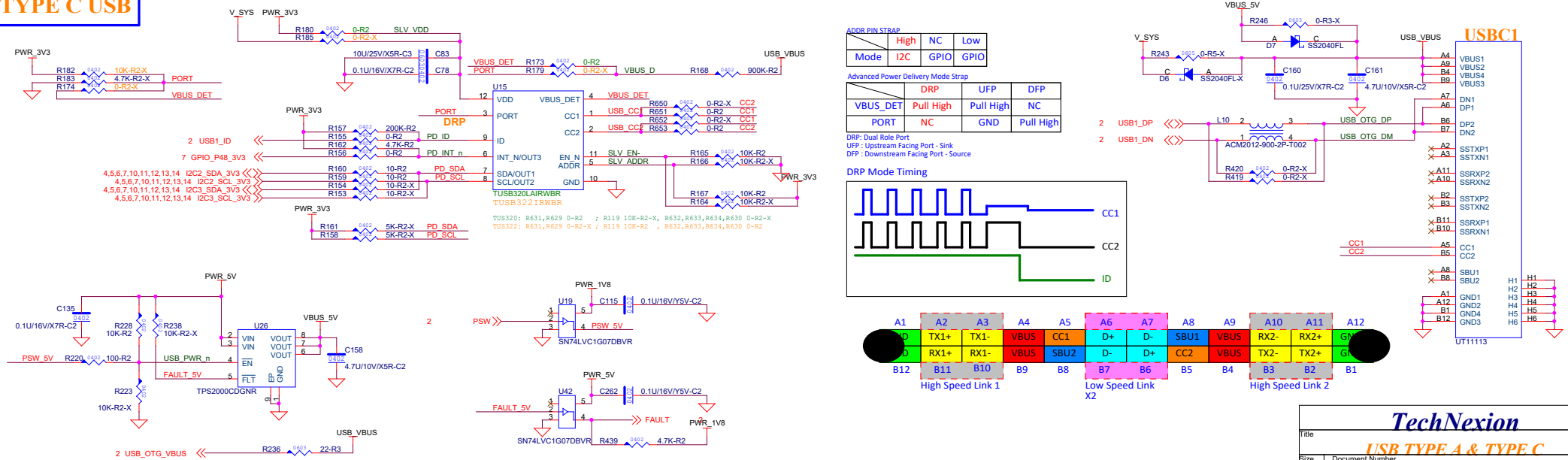
LEVEL SHIFT



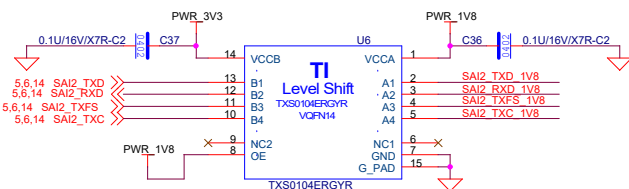
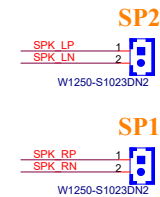
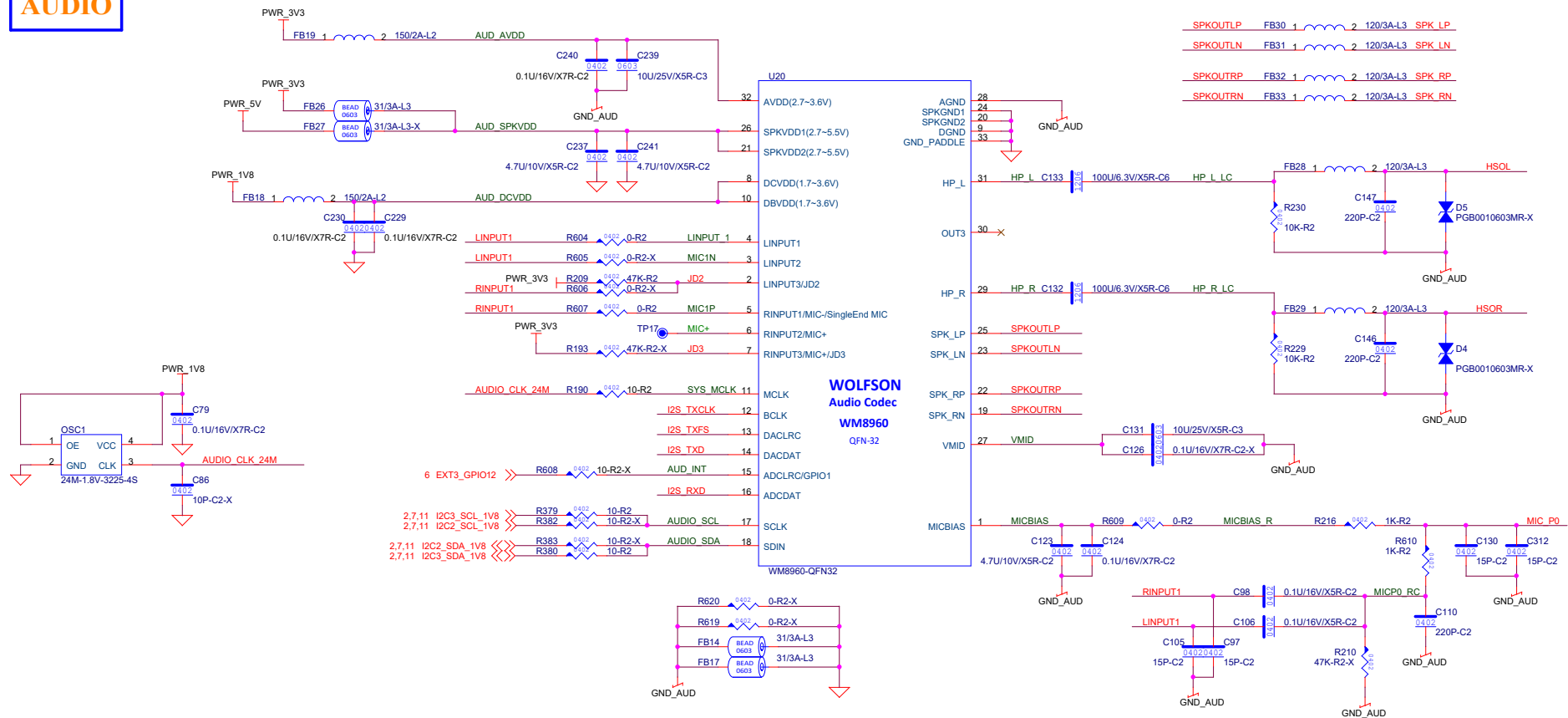
USB HUB



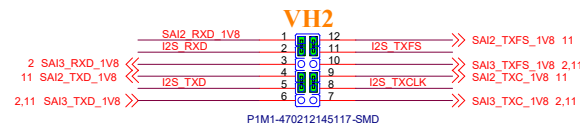
TYPE C US



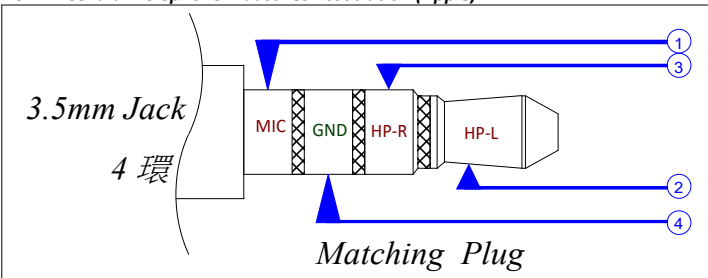
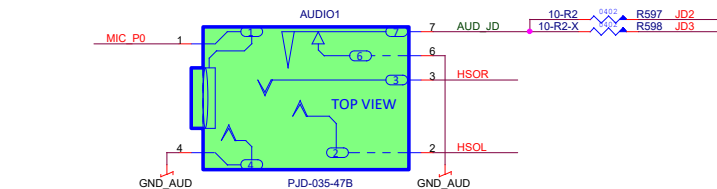
AUDIO



VOICE HAT I2S





I2S BUS SETTING	
I2S2	★(1-2) , (4-5) , (8-9) , (11-12)
I2S3	(2-3) , (5-6) , (7-8) , (10-11)



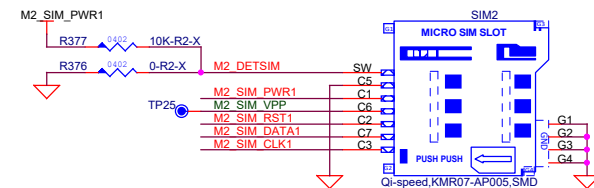
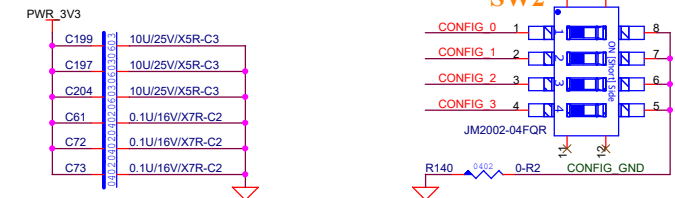
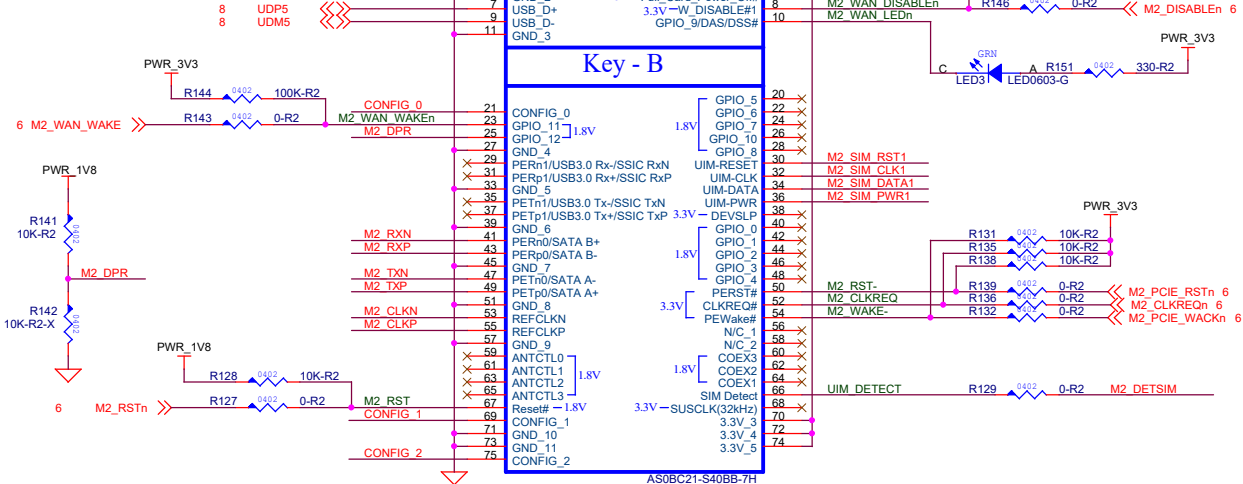
TechNexion

Audio Jack

RICO WIZARD

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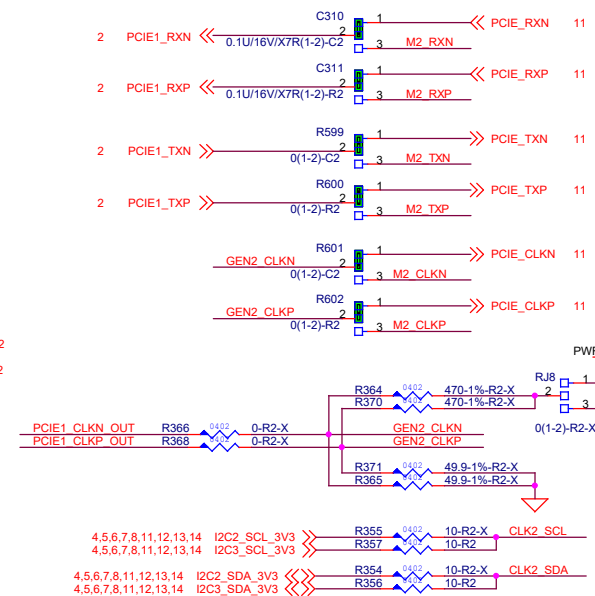
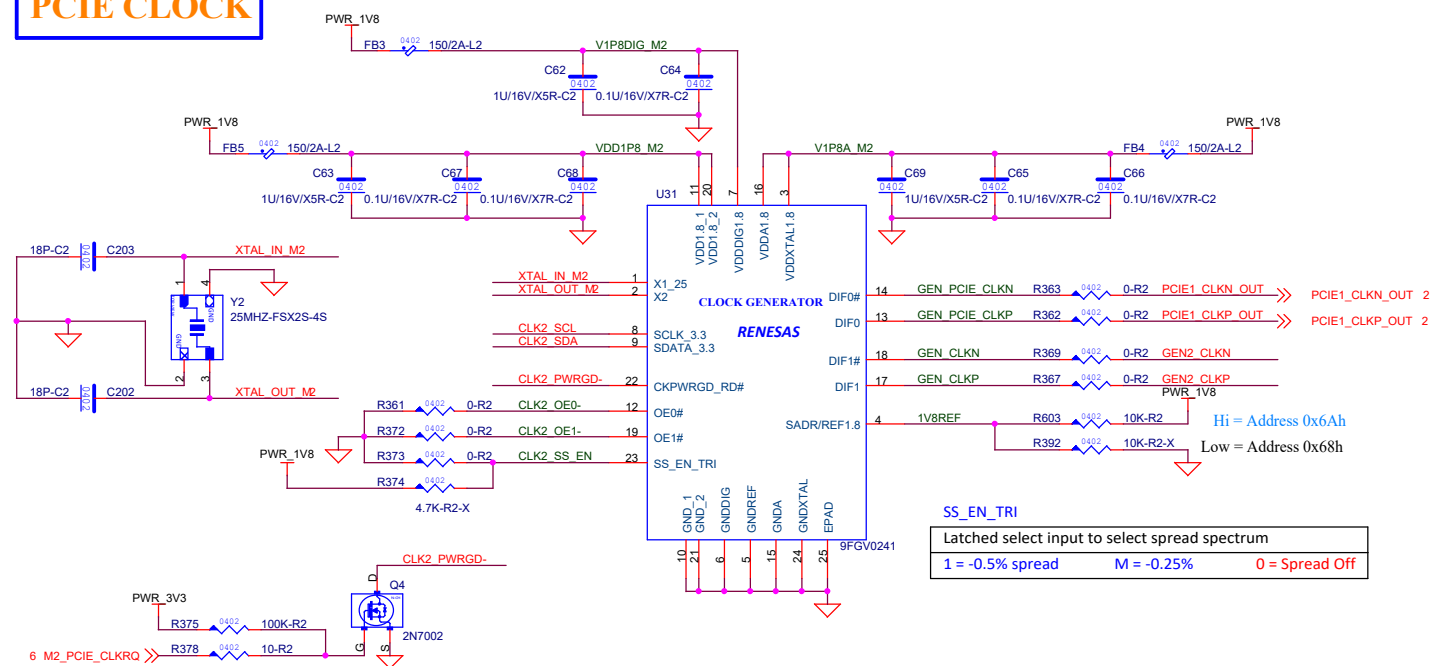
M.2 KEY B



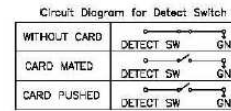
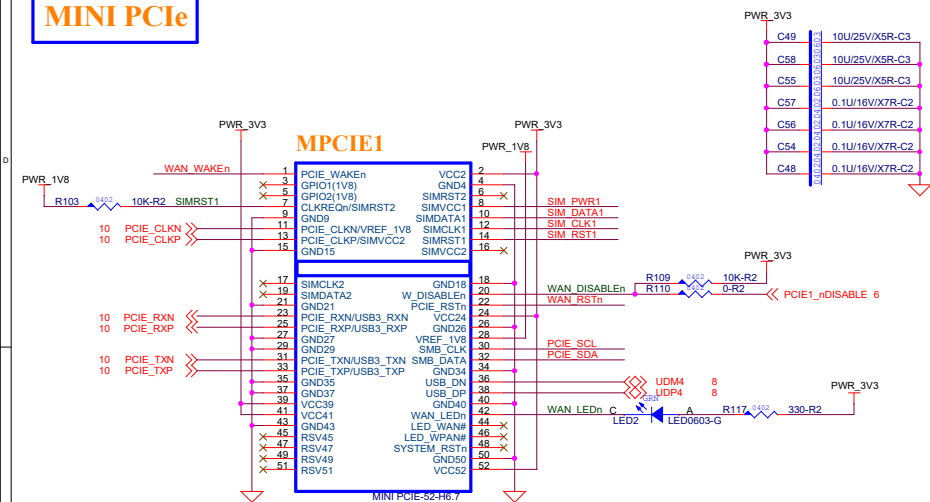
Circuit Diagram for Detect Switch

WITHOUT CARD	
CARD MATED	
CARD PUSHED	

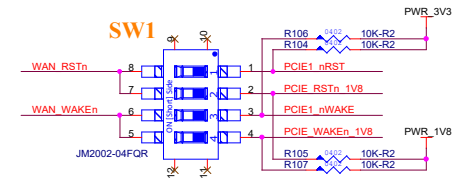
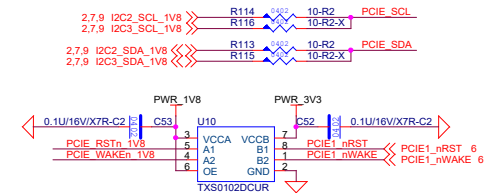
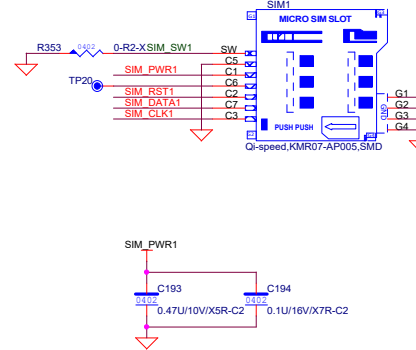
PCIE CLOCK



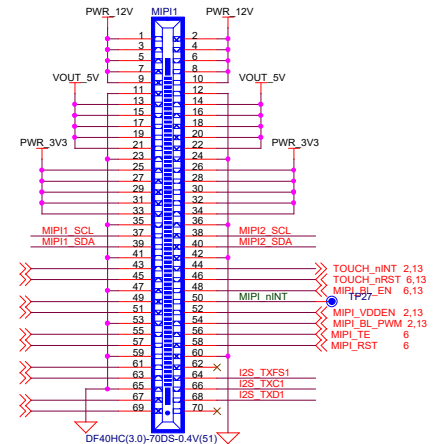
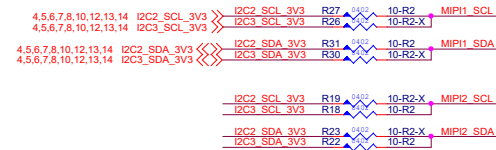
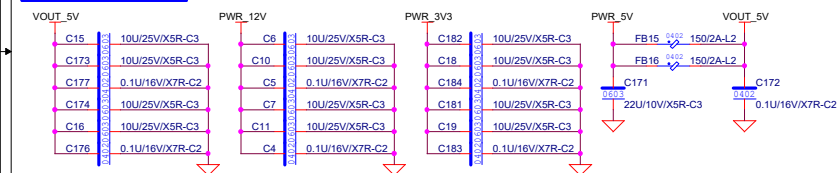
MINI PCIe



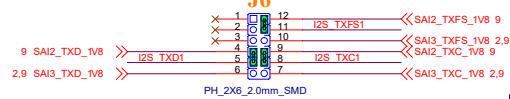
SIM Card



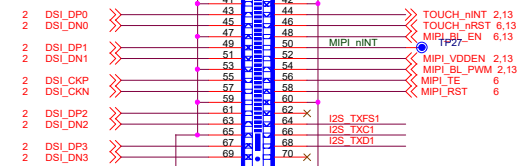
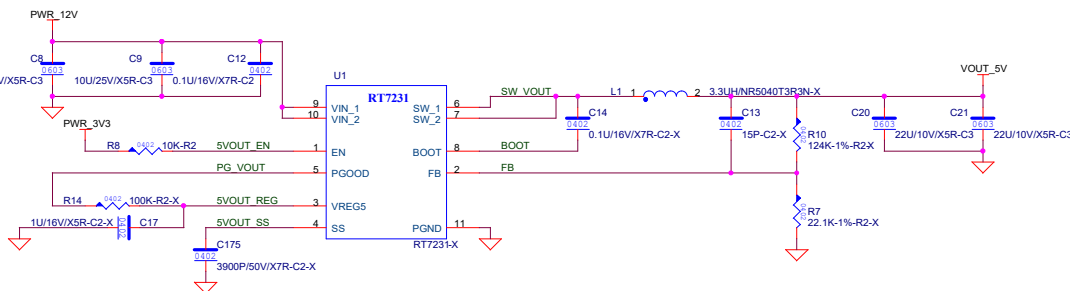
MIPI-LCD



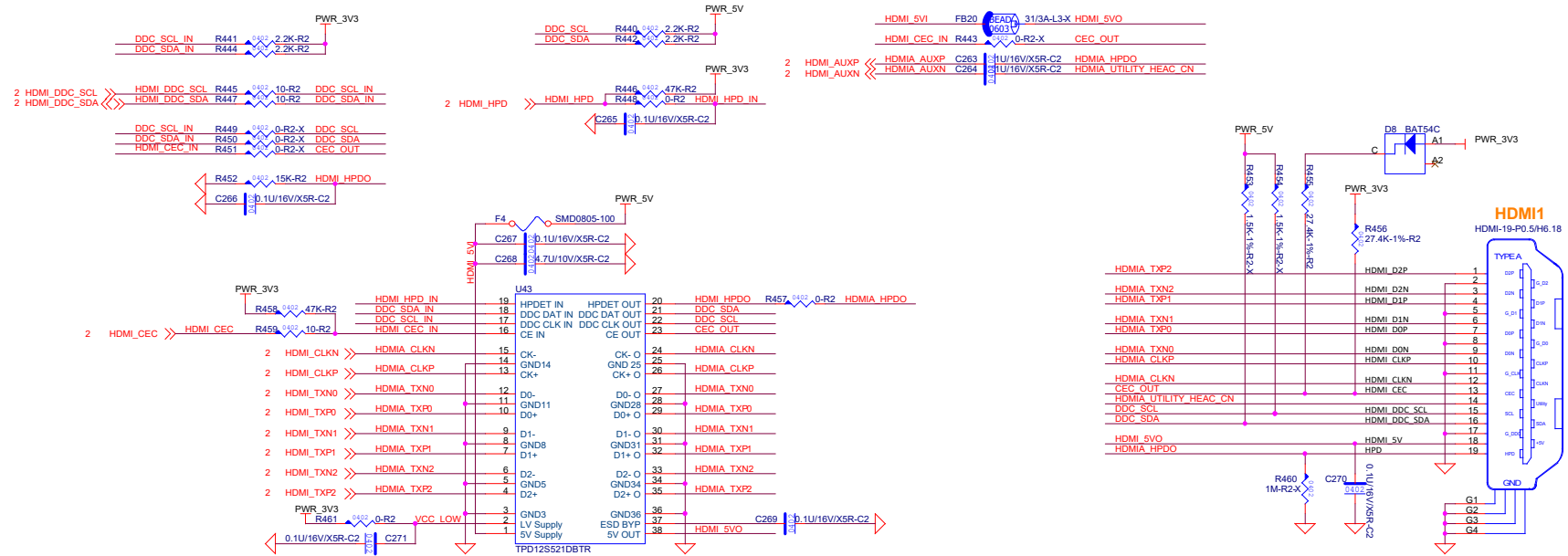
Is not for voice hat.



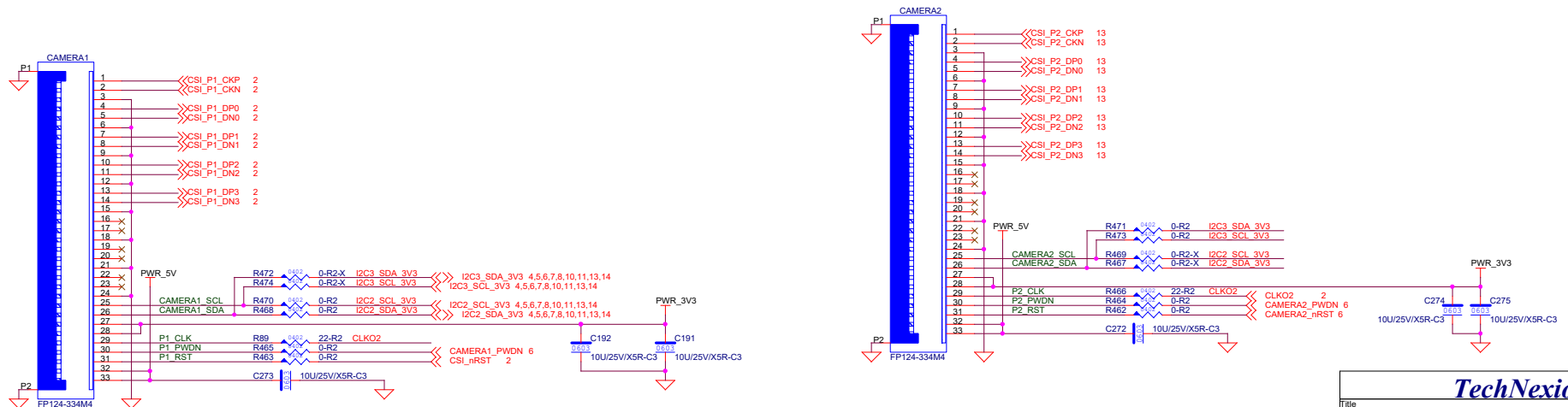
J6 SETTING	
I2S2	(4-5) , (8-9) , (11-12)
I2S3	★(5-6) , (7-8) , (10-11)



HDMI



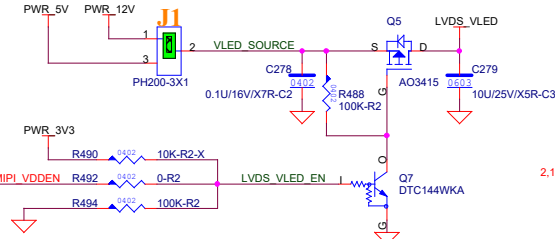
CAMERA



LVDS

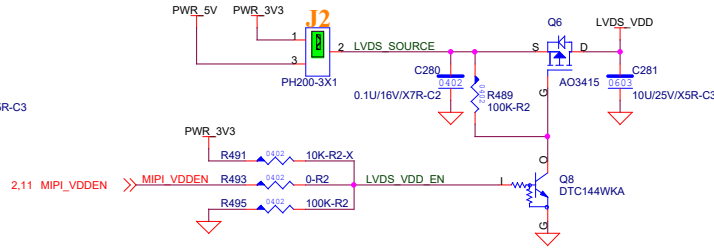
J1(1-2)1
JUMPER200

J1	VLED Voltage Select
1-2	12V
2-3	5V



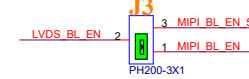
J2(1-2)1
JUMPER200

J2	VDD Voltage Select
1-2	3.3V
2-3	5V



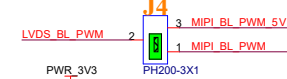
J3(1-2)1
JUMPER200

J3	Backlight Enable Voltage Select
1-2	3.3V
2-3	5V



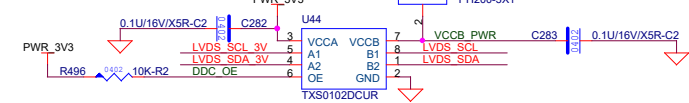
J4(1-2)1
JUMPER200

J4	Backlight PWM Voltage Select
1-2	3.3V
2-3	5V

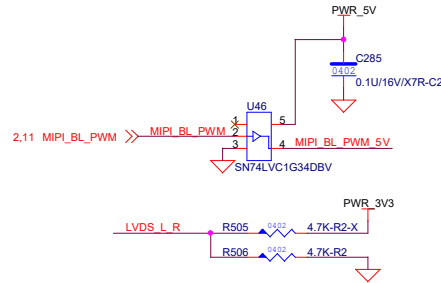
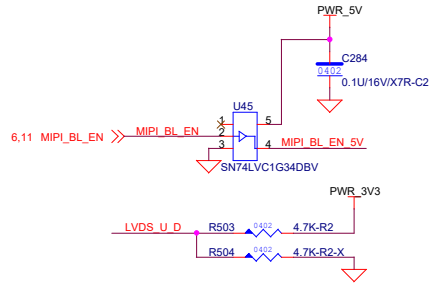


J5(2-3)1
JUMPER200

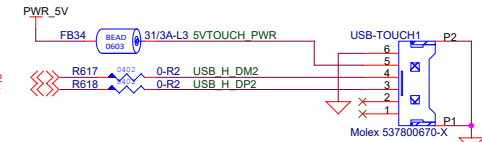
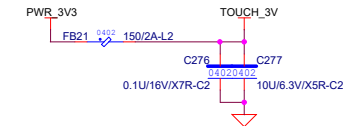
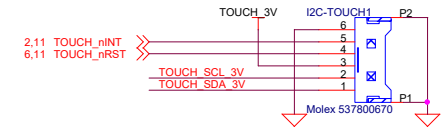
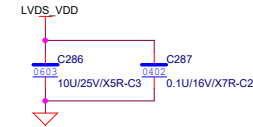
J5	I2C Voltage Select
1-2	3.3V
2-3	5V



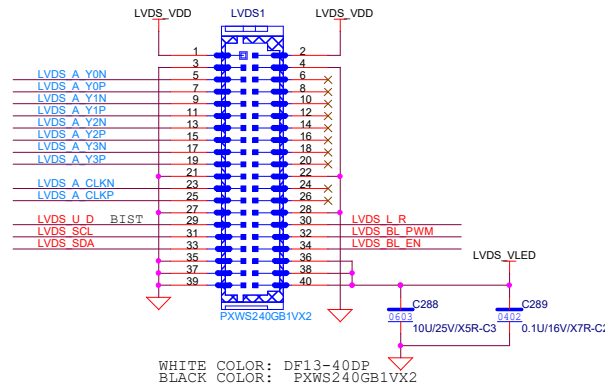
4,5,6,7,8,10,11,12,14 I2C2_SCL_3V3 R497 10-R2-X LVDS_SCL_3V
4,5,6,7,8,10,11,12,14 I2C3_SCL_3V3 R498 10-R2-X LVDS_SCL_3V
4,5,6,7,8,10,11,12,14 I2C2_SDA_3V3 R499 10-R2-X LVDS_SDA_3V
4,5,6,7,8,10,11,12,14 I2C3_SDA_3V3 R500 10-R2-X LVDS_SDA_3V
I2C2_SCL_3V3 R551 10-R2-X TOUCH_SCL_3V
I2C3_SCL_3V3 R552 10-R2-X TOUCH_SCL_3V
I2C2_SDA_3V3 R553 10-R2-X TOUCH_SDA_3V
I2C3_SDA_3V3 R554 10-R2-X TOUCH_SDA_3V



TOUCH



- 12 CSI_P2_DN3 >>> 1 JP7 PH200-3X1 JP7(1-2)1 JUMPER200
- 2 CSI_P2_DN3 >>> 2 JP7 PH200-3X1 JP7(1-2)1 JUMPER200
- 3 CSI_P2_DN3 >>> 3 JP7 PH200-3X1 JP7(1-2)1 JUMPER200
- 12 CSI_P2_DP3 >>> 1 JP8 PH200-3X1 JP8(1-2)1 JUMPER200
- 2 CSI_P2_DP3 >>> 2 JP8 PH200-3X1 JP8(1-2)1 JUMPER200
- 3 CSI_P2_DP3 >>> 3 JP8 PH200-3X1 JP8(1-2)1 JUMPER200
- 12 CSI_P2_CKN >>> 1 JP9 PH200-3X1 JP9(1-2)1 JUMPER200
- 2 CSI_P2_CKN >>> 2 JP9 PH200-3X1 JP9(1-2)1 JUMPER200
- 3 CSI_P2_CKN >>> 3 JP9 PH200-3X1 JP9(1-2)1 JUMPER200
- 12 CSI_P2_CKP >>> 1 JP10 PH200-3X1 JP10(1-2)1 JUMPER200
- 2 CSI_P2_CKP >>> 2 JP10 PH200-3X1 JP10(1-2)1 JUMPER200
- 3 CSI_P2_CKP >>> 3 JP10 PH200-3X1 JP10(1-2)1 JUMPER200
- 12 CSI_P2_DN2 >>> 1 JP11 PH200-3X1 JP11(1-2)1 JUMPER200
- 2 CSI_P2_DN2 >>> 2 JP11 PH200-3X1 JP11(1-2)1 JUMPER200
- 3 CSI_P2_DN2 >>> 3 JP11 PH200-3X1 JP11(1-2)1 JUMPER200
- 12 CSI_P2_DP2 >>> 1 JP12 PH200-3X1 JP12(1-2)1 JUMPER200
- 2 CSI_P2_DP2 >>> 2 JP12 PH200-3X1 JP12(1-2)1 JUMPER200
- 3 CSI_P2_DP2 >>> 3 JP12 PH200-3X1 JP12(1-2)1 JUMPER200
- 12 CSI_P2_DN1 >>> 1 JP13 PH200-3X1 JP13(1-2)1 JUMPER200
- 2 CSI_P2_DN1 >>> 2 JP13 PH200-3X1 JP13(1-2)1 JUMPER200
- 3 CSI_P2_DN1 >>> 3 JP13 PH200-3X1 JP13(1-2)1 JUMPER200
- 12 CSI_P2_DP1 >>> 1 JP14 PH200-3X1 JP14(1-2)1 JUMPER200
- 2 CSI_P2_DP1 >>> 2 JP14 PH200-3X1 JP14(1-2)1 JUMPER200
- 3 CSI_P2_DP1 >>> 3 JP14 PH200-3X1 JP14(1-2)1 JUMPER200
- 12 CSI_P2_DN0 >>> 1 JP15 PH200-3X1 JP15(1-2)1 JUMPER200
- 2 CSI_P2_DN0 >>> 2 JP15 PH200-3X1 JP15(1-2)1 JUMPER200
- 3 CSI_P2_DN0 >>> 3 JP15 PH200-3X1 JP15(1-2)1 JUMPER200
- 12 CSI_P2_DP0 >>> 1 JP16 PH200-3X1 JP16(1-2)1 JUMPER200
- 2 CSI_P2_DP0 >>> 2 JP16 PH200-3X1 JP16(1-2)1 JUMPER200
- 3 CSI_P2_DP0 >>> 3 JP16 PH200-3X1 JP16(1-2)1 JUMPER200



WHITE COLOR: DF13-40DP
BLACK COLOR: PXWS240GB1VX2

LVDS	JP7-JP16
CSI	★ 1-2
LVDS	2-3

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LVDS

Title	Document Number	Rev
Size	PICO-WIZARD	A2
Custom		
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Revision History

Revision	Date	Change Description
A1	2019-09-28	First Release
A2	2020-11-17	Add LED2

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REVISION HISTORY

PICO-WIZARD

Title

Document Number

Date: Tuesday, December 08, 2020

Size Custom

Rev A2

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