Release Note:

1.Rev 1.2 change list
- -Add TRST and SRST.
- -Add LSE Y1 (32.768kHz) C17/C18(2pF)
- -Add HSE Y2 (16MHz) C19/C21(22pF)

2.Rev 2.0 change list
- -Add Pull up resistor on SRST.
- -Separate header: J7,J19 for MCU and J11,J14 for CYW.
- -WL_JTAG connector(J20) change to DNI.
- -Change Auth IC footprint to Auth IC 3.0.
- -Change LED power supply from VDDIO.
- -Change power adaptor PN.
- -Change GND pin type to ring type.
- -Remove unused CYW RSVD2,3,4,5,6 connect to header.
- -Add FTDI-MCU UART CTS and RTS.
- -Add BT_UART bypass MCU mode(Add SW4 , J13)
- -Unused GPIO bring out to MCU header.
- -Remove I2S:MCU<->CYW, ETM, CYW<->Auth IC.
- -Remove BT PA external power supply selection.

3.Rev2.1 reference CYW9WLWCDEVAL3 rev1.0 Routing.

Block Diagram

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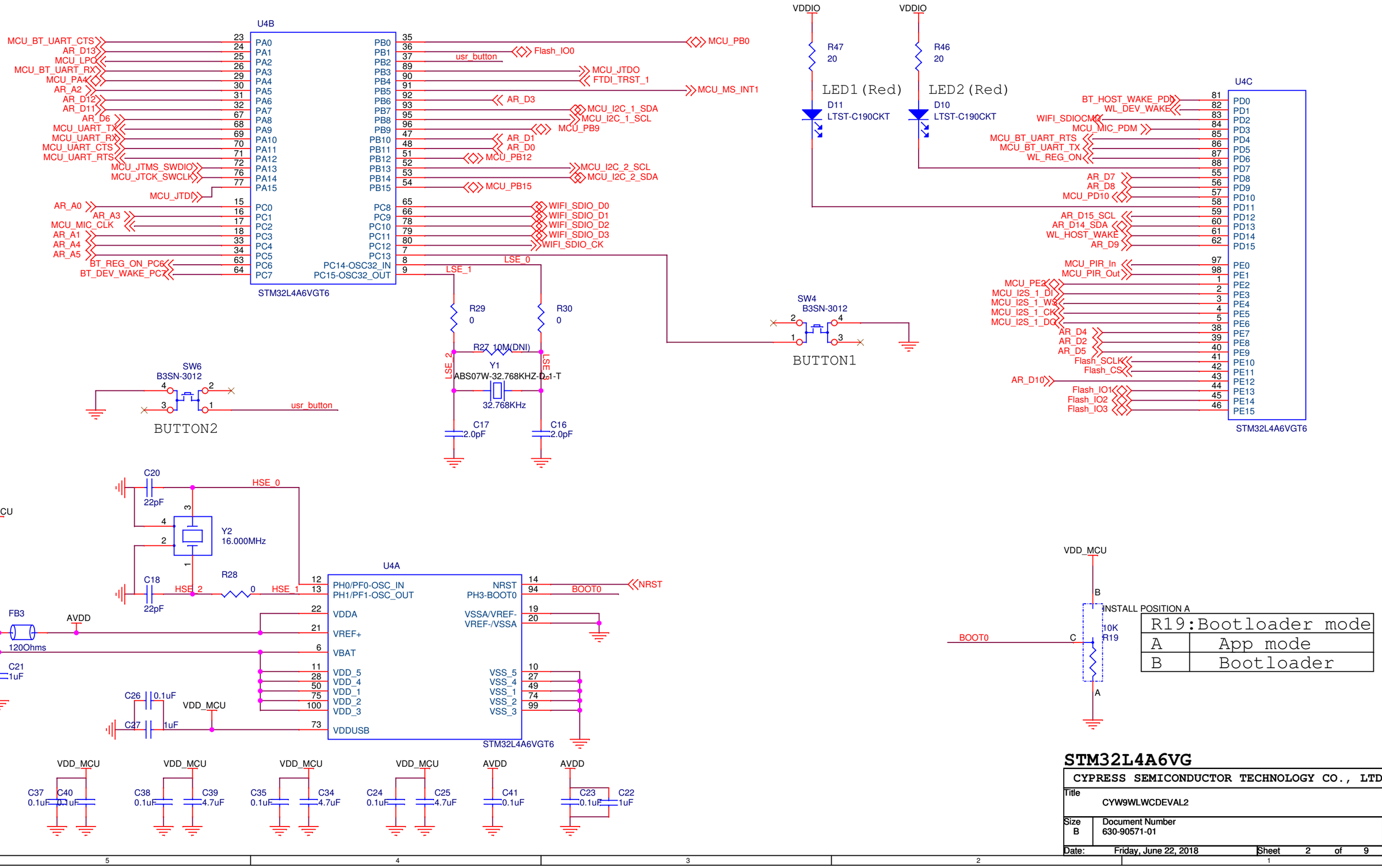

STM32L4A6VG

CYPRESS SEMICONDUCTOR TECHNOLOGY CO., LTD.		
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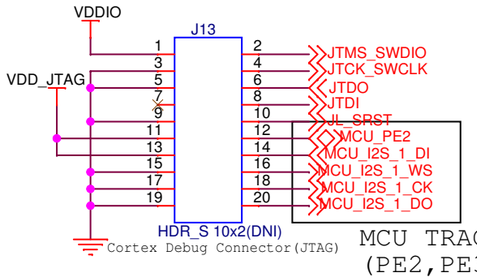
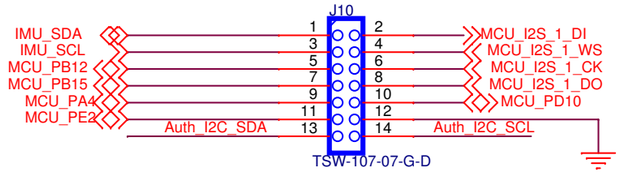
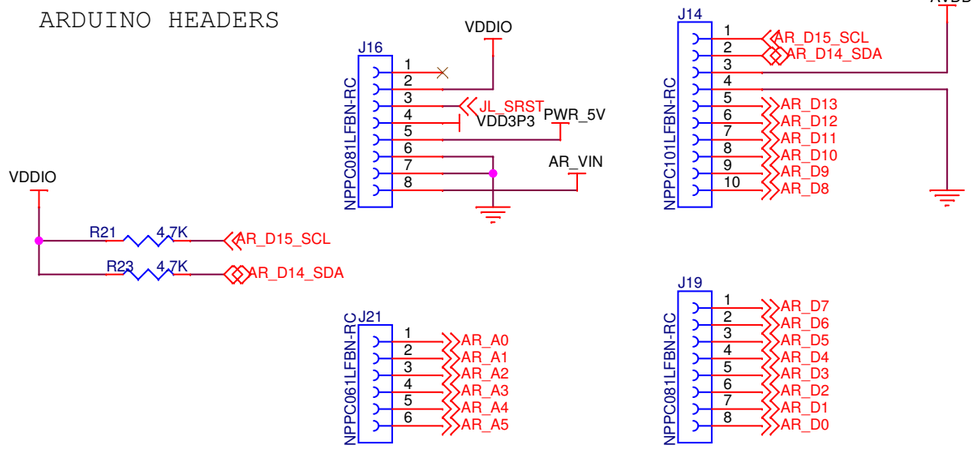
MCU Debug Connector



MCU Reserve GPIO Connector

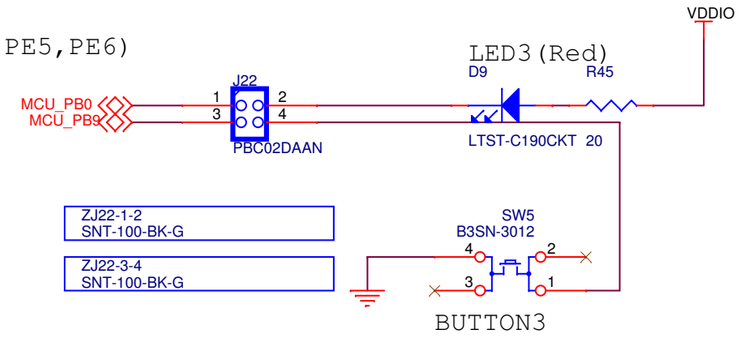


ARDUINO HEADERS

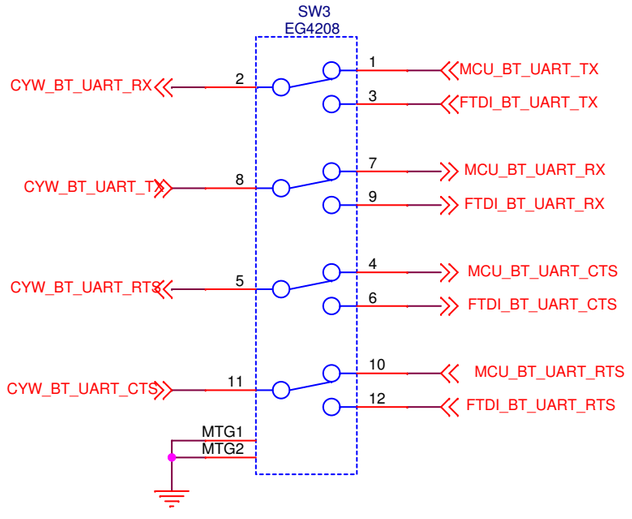


MCU TRACE (PE2,PE3,PE4,PE5,PE6)

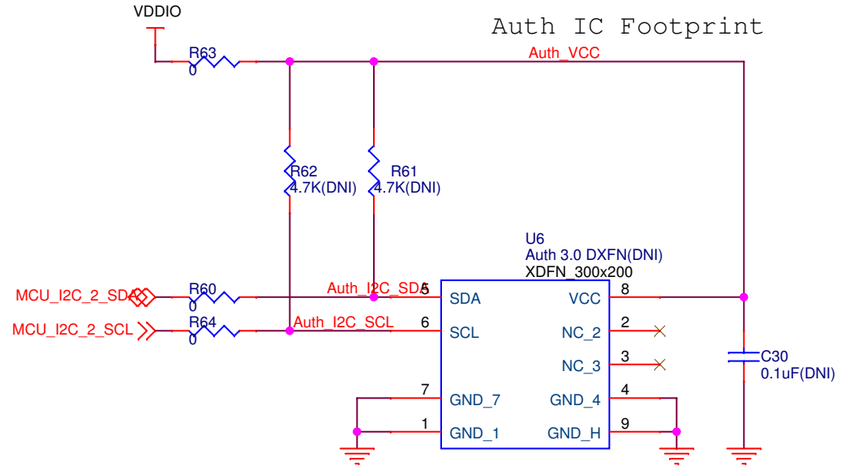
MCU	I2S	TRACE
PE2	MCU_PE2	TRACE_CLK
PE3	MCU_I2S_DI	TRACE_D0
PE4	MCU_I2S_WS	TRACE_D1
PE5	MCU_I2S_CK	TRACE_D2
PE6	MCU_I2S_DO	TRACE_D3



SW3:CYW BT UART Routing	
Position A	CYW-MCU
Position B	CYW-FTDI



Auth IC Footprint



Periphery

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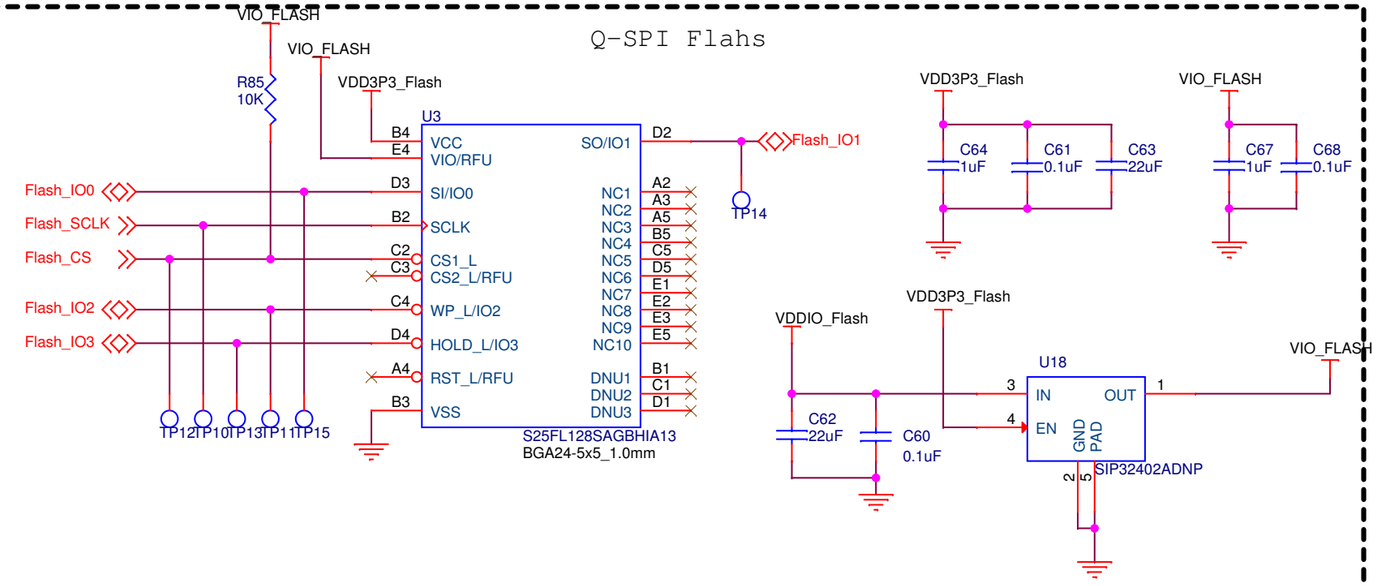
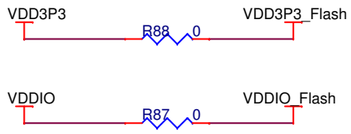
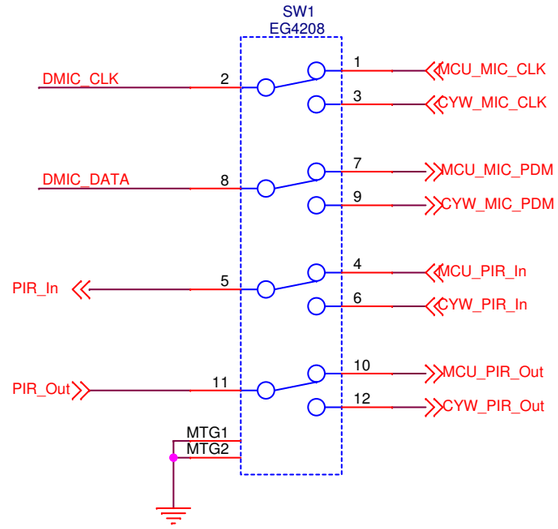
Q-SPI Flahs

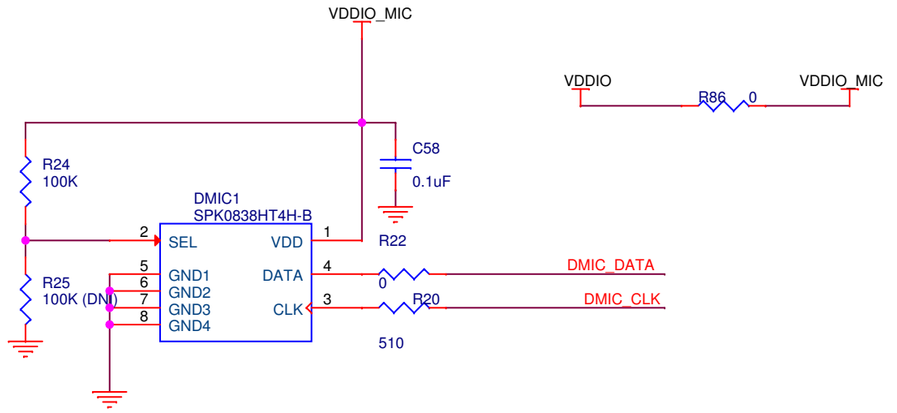




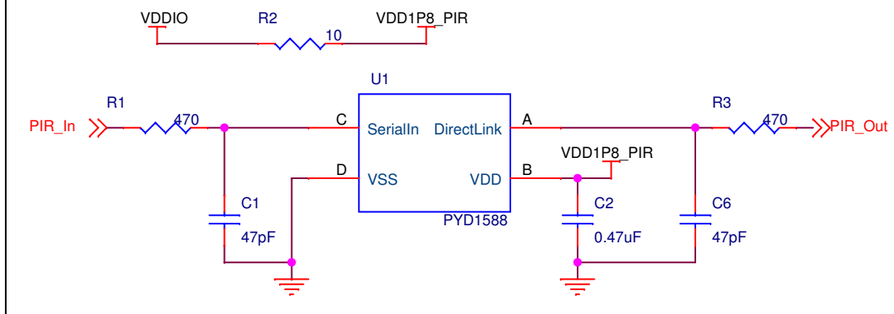
SW1:PIR Sensor/MIC select	
Position A	MIC+PIR => MCU
Position B	MIC+PIR => CYW



PDM MICs



PIR Sensor
Operate voltage:1.8V



Flash, PIR Sensor

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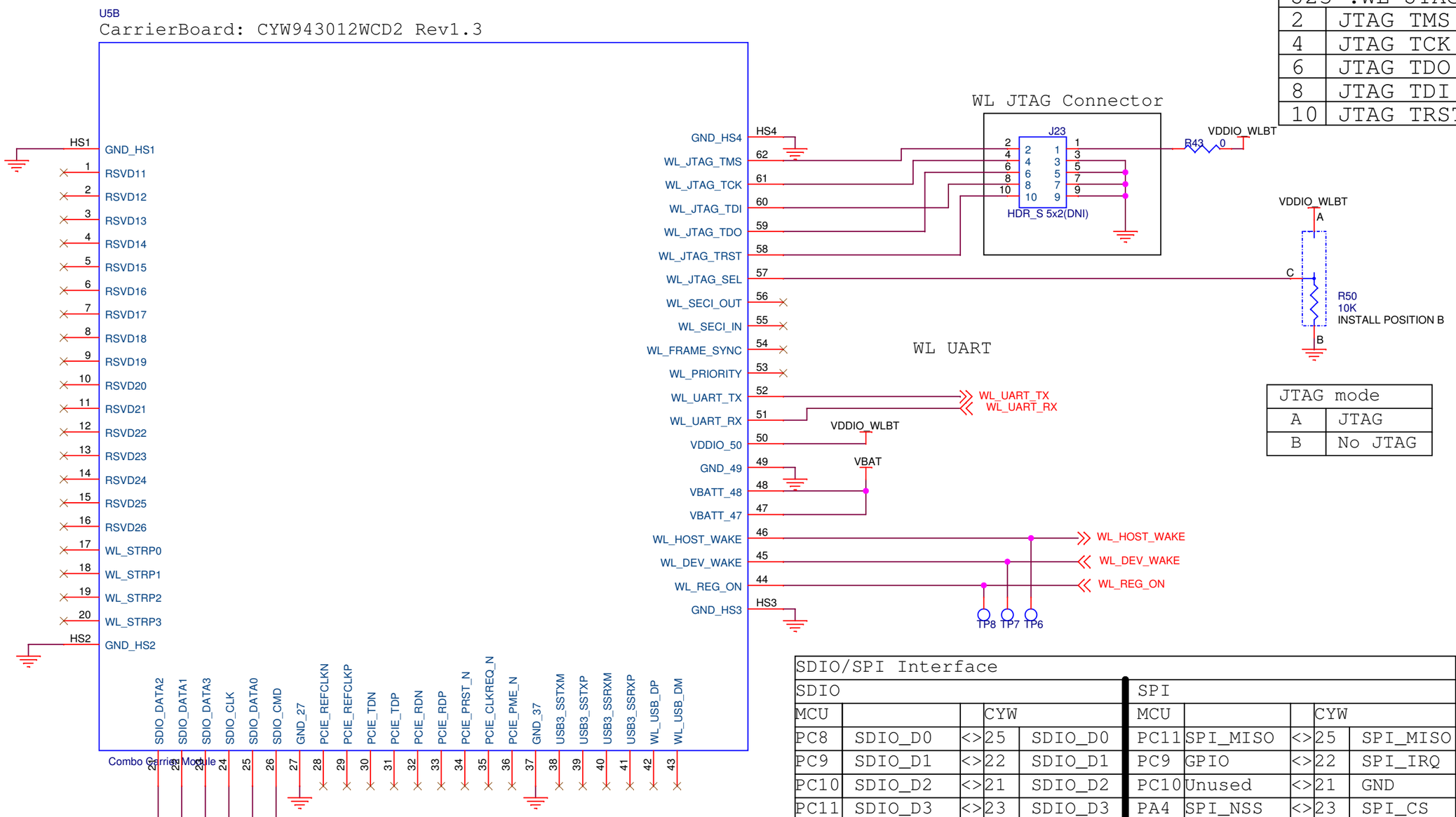
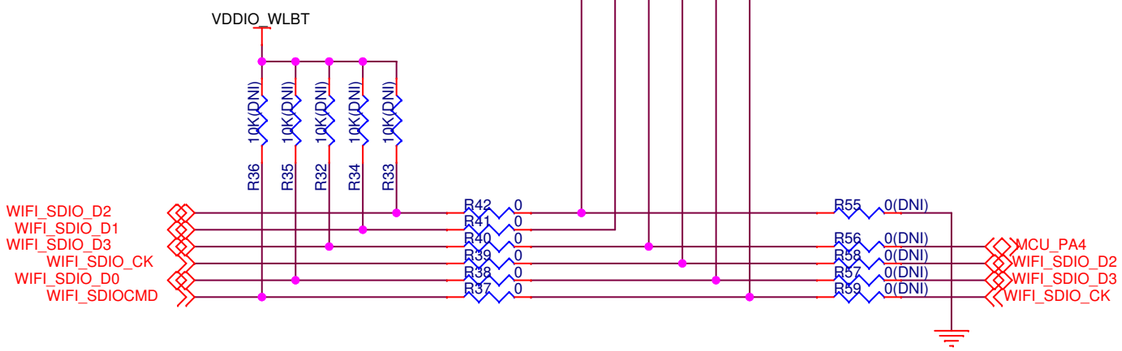
U5B

CarrierBoard: CYW943012WCD2 Rev1.3

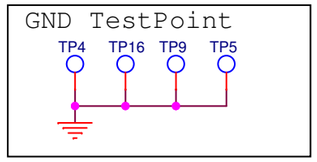
J23 :WL JTAG	
2	JTAG TMS
4	JTAG TCK
6	JTAG TDO
8	JTAG TDI
10	JTAG TRST



JTAG mode	
A	JTAG
B	No JTAG



SDIO/SPI Interface									
SDIO					SPI				
MCU			CYW		MCU			CYW	
PC8	SDIO_D0	<>	25	SDIO_D0	PC11	SPI_MISO	<>	25	SPI_MISO
PC9	SDIO_D1	<>	22	SDIO_D1	PC9	GPIO	<>	22	SPI_IRQ
PC10	SDIO_D2	<>	21	SDIO_D2	PC10	Unused	<>	21	GND
PC11	SDIO_D3	<>	23	SDIO_D3	PA4	SPI_NSS	<>	23	SPI_CS
PC12	SDIO_CK	<>	24	SDIO_CK	PC10	SPI_CLK	<>	24	SPI_CLK
PD2	SDIO_CMD	<>	26	SDIO_CMD	PC12	SPI_MOSI	<>	26	SPI_MOSI
PA4	MCU_PA4				PC8	Unused			



Carrier Board-WLAN Part

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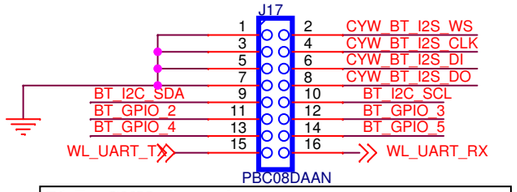
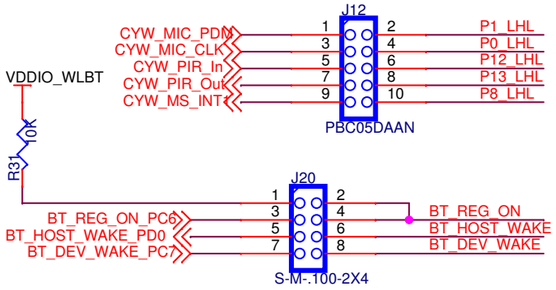
CYW RSVD header & Audio off-load



J17:CYW header			
2,4,6,8:CYW BT I2S			
9	BT_I2C_SDA	10	BT_I2C_SCL
11	BT_GPIO_2	12	BT_GPIO_3
13	BT_GPIO_4	14	BT_GPIO_5
15	WL UART TX	16	WL UART RX



J12:PDM MIC ,PIR sensor and IMS_INT to CYW

ZJ12-1-2 SNT-100-BK-G
ZJ12-3-4 SNT-100-BK-G
ZJ12-5-6 SNT-100-BK-G
ZJ12-7-8 SNT-100-BK-G
ZJ12-9-10 SNT-100-BK-G

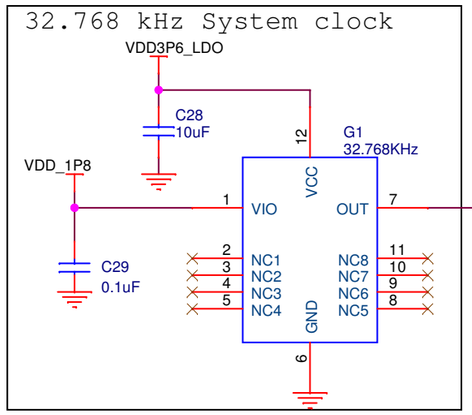
J20:1-4 CYW BT REG ON 5-6 CYW BT DEV WAKE

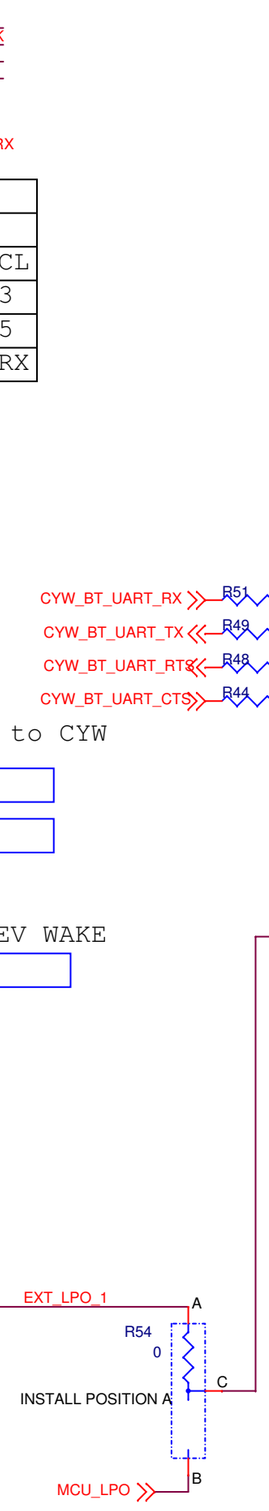
ZJ20-3-4 SNT-100-BK-G
ZJ20-5-6 SNT-100-BK-G

7-8 CYW BT HOST WAKE

ZJ20-7-8 SNT-100-BK-G

32.768 kHz System clock





Carrier Board-BT Part

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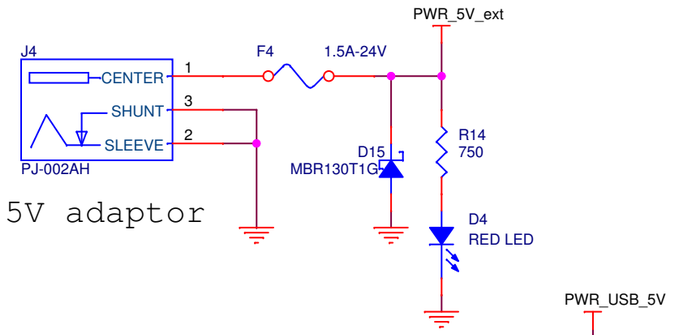
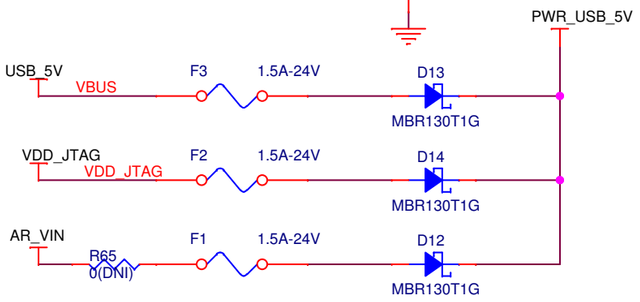
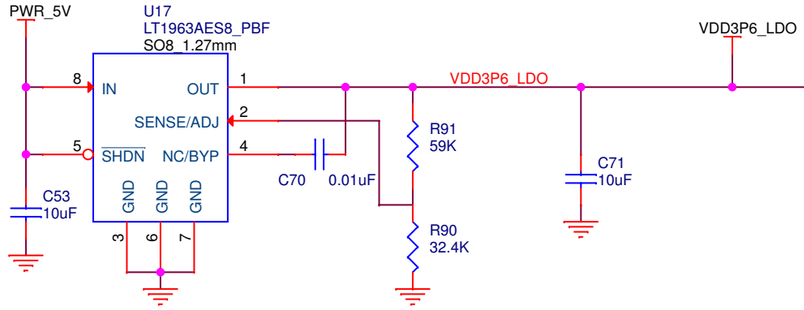
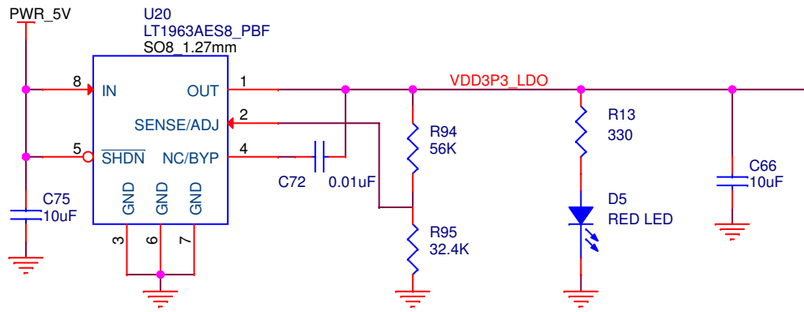
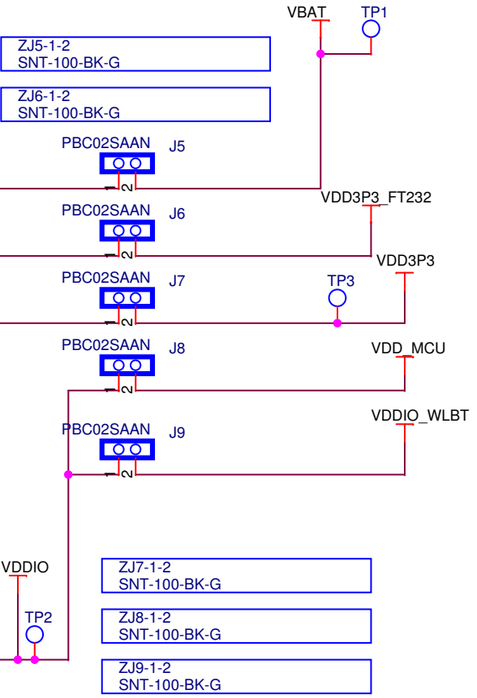
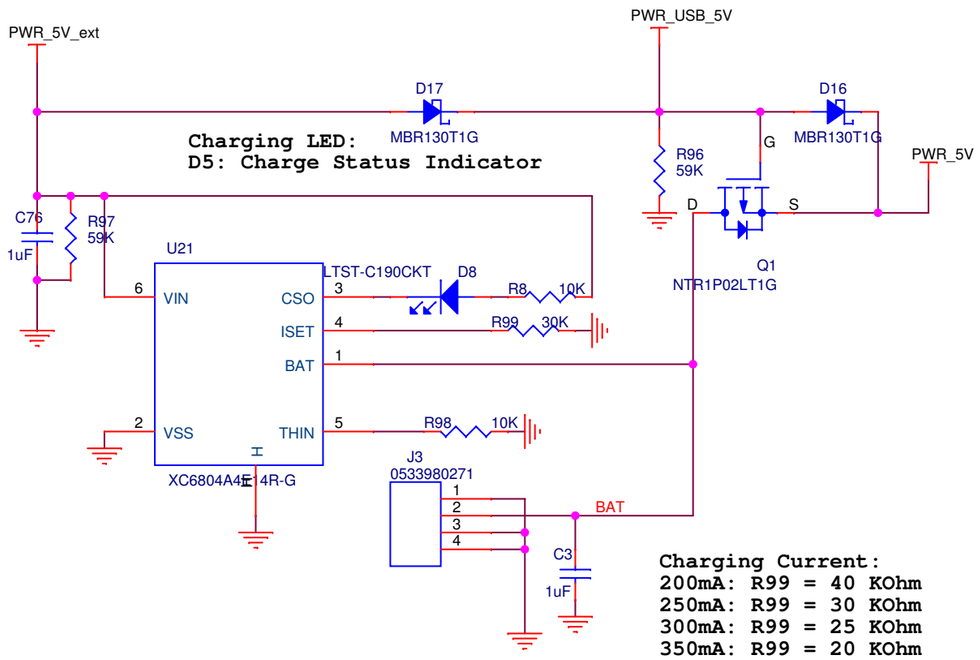


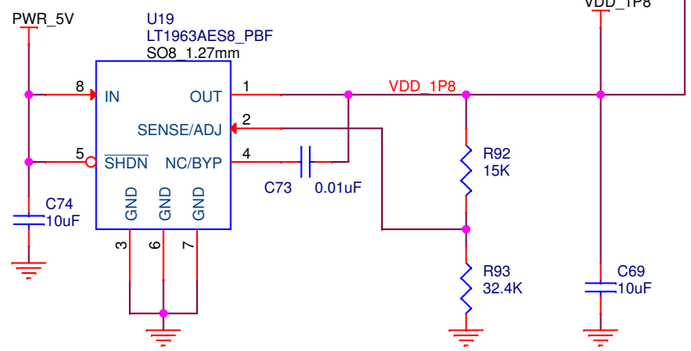










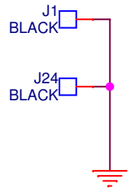


R26:VIO Select	
C-A	1.8 V(Default)
C-B	3.3 V

Warning!!
When VIO operating in 3.3V.
R45,R46,R47 change to 1k Ohm.
Avoid user LED damage.

5V Supply AC/DC
ZH1
S6-052A5W-205DF-IP

USB Cable
CBL1
750-90043-01



Power

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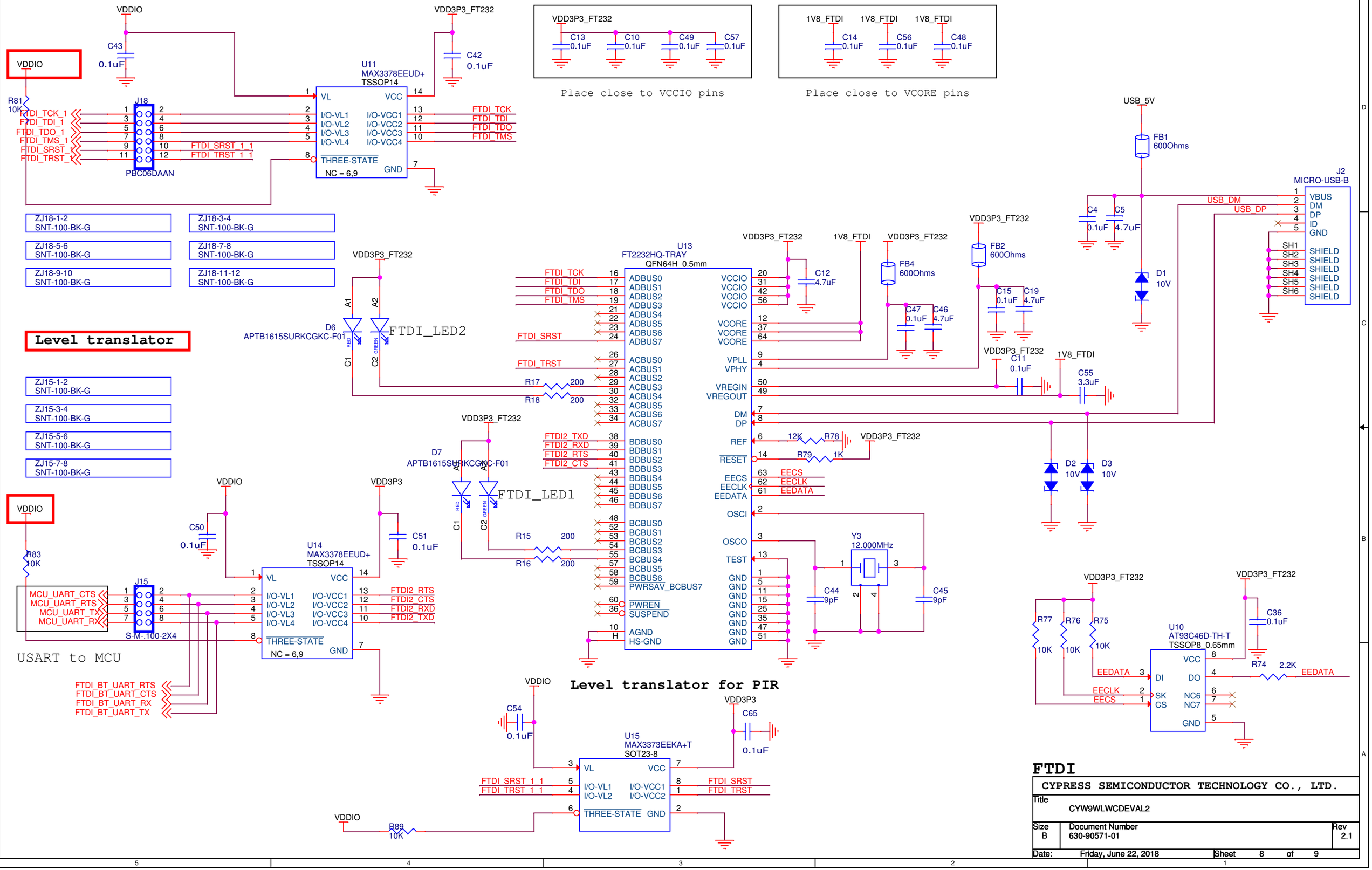
VDDIO
C43
0.1uF
VDD3P3_FT232
C42
0.1uF
C13 0.1uF
C10 0.1uF
C49 0.1uF
C57 0.1uF
Place close to VCCIO pins
1V8_FTDI
C14 0.1uF
C56 0.1uF
C48 0.1uF
Place close to VCORE pins
U11
MAX3378EEUD+
TSSOP14
R81
10K
J18
PBC06DAAN
FTDI_TCK_1
FTDI_TDI_1
FTDI_TDO_1
FTDI_TMS_1
FTDI_SRST_1
FTDI_TRST_1
FTDI_SRST_1_1
FTDI_TRST_1_1
VL
VCC
I/O-VL1
I/O-VL2
I/O-VL3
I/O-VL4
I/O-VCC1
I/O-VCC2
I/O-VCC3
I/O-VCC4
THREE-STATE
NC = 6,9
GND
FTDI_TCK
FTDI_TDI
FTDI_TDO
FTDI_TMS
ZJ18-1-2 SNT-100-BK-G
ZJ18-3-4 SNT-100-BK-G
ZJ18-5-6 SNT-100-BK-G
ZJ18-7-8 SNT-100-BK-G
ZJ18-9-10 SNT-100-BK-G
ZJ18-11-12 SNT-100-BK-G
Level translator
ZJ15-1-2 SNT-100-BK-G
ZJ15-3-4 SNT-100-BK-G
ZJ15-5-6 SNT-100-BK-G
ZJ15-7-8 SNT-100-BK-G
D6
APTB1615SURKCGKC-F01
FTDI_LED2
C1
C2
R17 200
R18 200
U13
FT2232HQ-TRAY
QFN64H_0.5mm
FTDI_SRST
FTDI_TRST
ADBUS0
ADBUS1
ADBUS2
ADBUS3
ADBUS4
ADBUS5
ADBUS6
ADBUS7
ACBUS0
ACBUS1
ACBUS2
ACBUS3
ACBUS4
ACBUS5
ACBUS6
ACBUS7
FTDI2_TXD
FTDI2_RXD
FTDI2_RTS
FTDI2_CTS
BDBUS0
BDBUS1
BDBUS2
BDBUS3
BDBUS4
BDBUS5
BDBUS6
BDBUS7
BCBUS0
BCBUS1
BCBUS2
BCBUS3
BCBUS4
BCBUS5
BCBUS6
PWRSAV_BCBUS7
PWREN
SUSPEND
AGND
HS-GND
VCCIO
VCORE
VPLL
VPHY
VREGIN
VREGOUT
DM
DP
REF
RESET
EECS
EECLK
EEDATA
OSCI
OSCO
TEST
GND
C12 4.7uF
FB4 600Ohms
FB2 600Ohms
C47 0.1uF
C46 4.7uF
C15 0.1uF
C19 4.7uF
C11 0.1uF
C55 3.3uF
12K
R78
1K
R79
Y3
12.000MHz
C44 9pF
C45 9pF
USB_5V
FB1 600Ohms
C4 0.1uF
C5 4.7uF
D1 10V
D2 10V
D3 10V
J2
MICRO-USB-B
USB_DM
USB_DP
VBUS
DM
DP
ID
GND
SH1
SH2
SH3
SH4
SH5
SH6
SHIELD
D7
APTB1615SURKCGKC-F01
FTDI_LED1
R15 200
R16 200
VDDIO
C50 0.1uF
C51 0.1uF
R83
10K
J15
S-M-.100-2X4
MCU_UART_CTS
MCU_UART_RTS
MCU_UART_TX
MCU_UART_RX
U14
MAX3378EEUD+
TSSOP14
FTDI2_RTS
FTDI2_CTS
FTDI2_RXD
FTDI2_TXD
USART to MCU
FTDI_BT_UART_RTS
FTDI_BT_UART_CTS
FTDI_BT_UART_RX
FTDI_BT_UART_TX
Level translator for PIR
C54 0.1uF
C65 0.1uF
U15
MAX3373EEKA+T
SOT23-8
FTDI_SRST_1_1
FTDI_TRST_1_1
FTDI_SRST
FTDI_TRST
R89
10K
R77 10K
R76 10K
R75 10K
U10
AT93C46D-TH-T
TSSOP8_0.65mm
DI
DO
SK
CS
NC6
NC7
C36 0.1uF
R74 2.2K
FTDI
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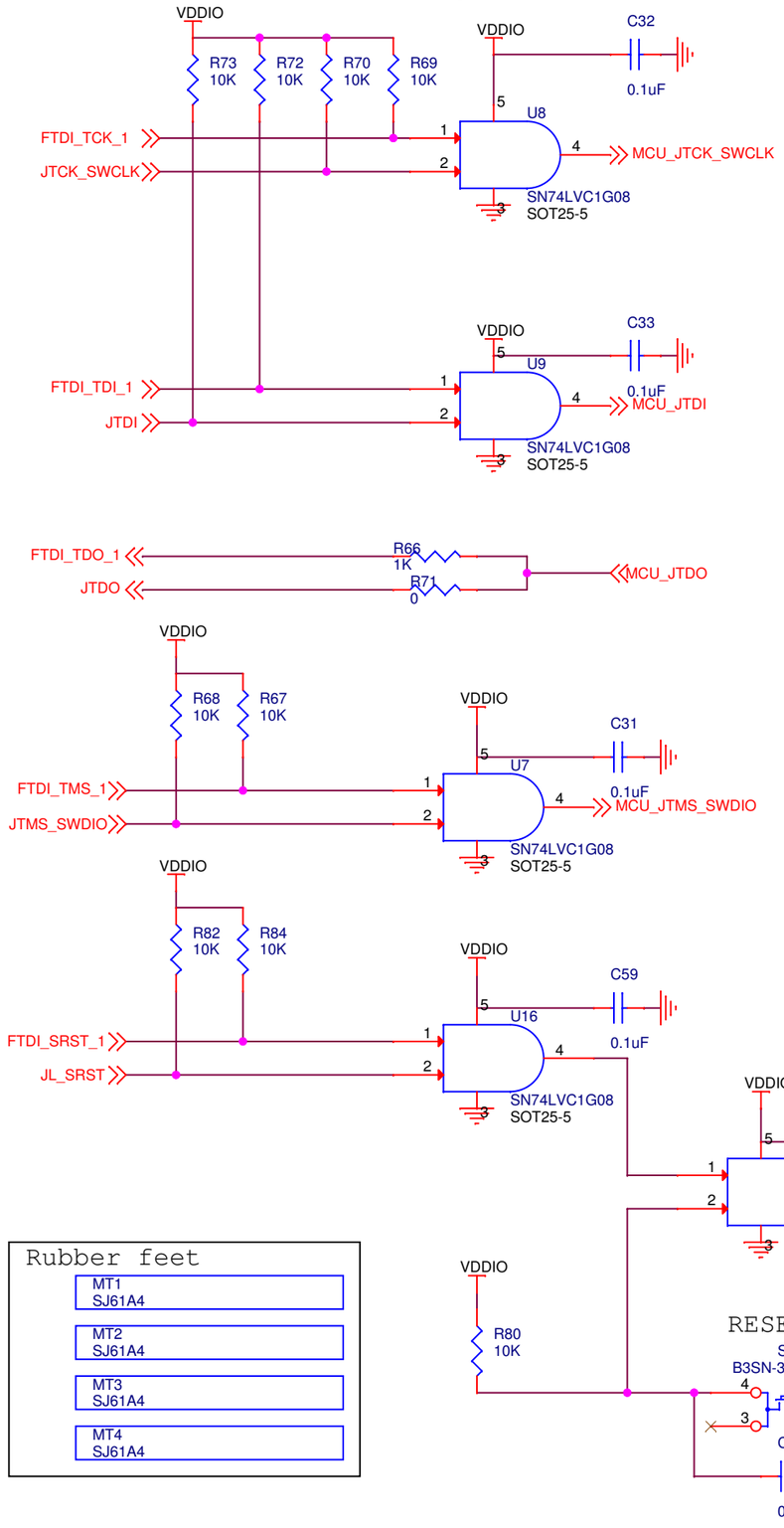
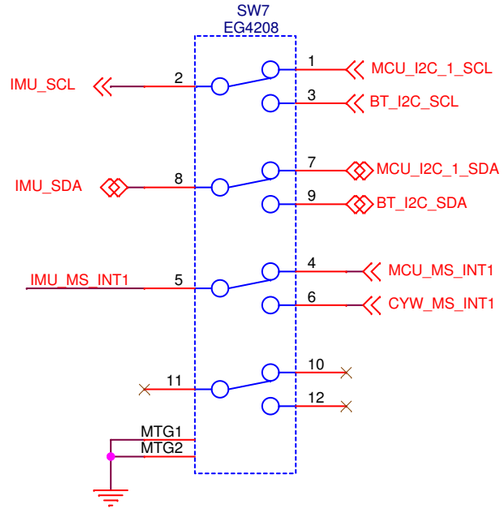
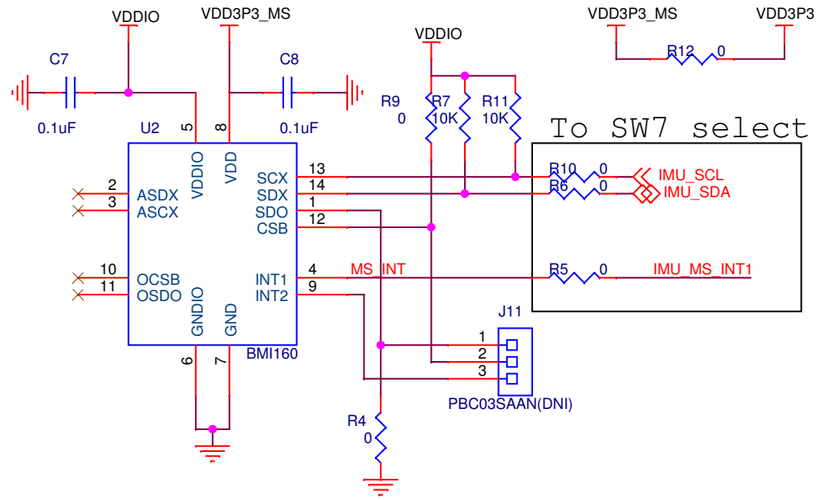
JTAG Muxing



SW7:IMU I2C	
Set A	IMU=>MCU
Set B	IMU=>CYW





Rubber feet

MT1 SJ61A4
MT2 SJ61A4
MT3 SJ61A4
MT4 SJ61A4

Rubber feet, JTAG Muxing, IMU

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