

D2798 Devkit-Pro Daughterboard

Design Name	da1470x-db-vfbga142
Ref. Number	500-06-B
Version	B1.2
Date	12/Apr/2022
Designer	Panos Raftopoulos

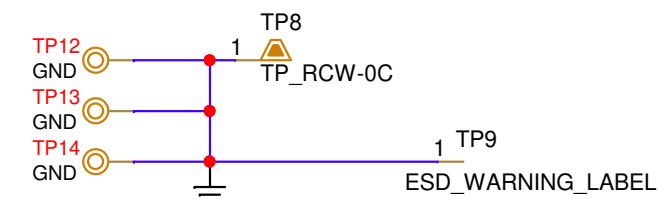
History Table		
Version	Date	Comments
A0.1	13/Aug/2020	Release for internal review
A0.2	01/Sep/2020	Release for internal review
		Updated DA1470x symbol to the final pinout (3/9/2020) Added V30 overcurrent protection circuit Changed C1,C2 to 47uF Added C21,C22,C23
A0.3	09/Sep/2020	Release for review
A0.4	21/Sep/2020	Release for review
	25/Sep/2020	Added PGA connections to VAD circuit
A1.0	20/Oct/2020	Changed flash package option (U2x --> WSON8 6x5mm) Re-assigned software trigger GPIO from P0_10 to P0_06 (J1.24) Released for manufacturing
A2.0	04/Nov/2020	BOM modification: • Changed manufacturing part number of U2 to MX66UM1G45GXDI00
A2.1	04/Nov/2020	BOM modification: • Use alternate flash option (U2 --> NP, U2x --> W25Q64JWZPIM)
A2.2	04/Dec/2020	BOM modification: R1, R2 : Not populated Y2: populate
A2.3	10/Dec/2020	BOM modification: • Use original flash option (U2x --> NP, U2 --> MX66UM1G45GXDI00)
	11/Dec/2020	Changed connection for UART RX to P2_01 (J1.64)
	25/Jan/2021	Increased values of C6 to 47uF, C14 to 2.2uF
	12/Feb/2021	Option for shorting V18p/V18F (R22)
	06/Apr/2021	Added testpoints for ESD testing (TP6,TP19)
	16/Jun/2021	Changed U3 to NCP367DPMUCTBG (higher current limit)
	14/Jul/2021	Changed U1 part number to DA14706 and added note for the not connected MIPI interface signals
		Added NP resistor (R25) for board id
	06/Aug/2021	Changed C15,C16,C25,C26 to GMK105ABJ105KV-F (35V)
	09/Aug/2021	Changed U2 to not-populated
B1.0	17/Sep/2021	Changed U2x part number to MX25U6432FZNI02
		Changed Y2 part number to ABS07-32.768KHZ-7-T
		Changed R34,R35,R36,R37 from NP to 0 ohm
		Changed R19,R20 from 0 ohm to NP
		Changed D1 part number to CLY6D-FKC-CK1N1D1BB7D3D3
		Renamed net VLDO to VBLDO
B1.1	11/Nov/2021	Released for manufacturing
B1.2	12/Apr/2022	Renamed references to MIPI signals as "NUxx"


Configuration note

NOTE box

Changes in this Version.

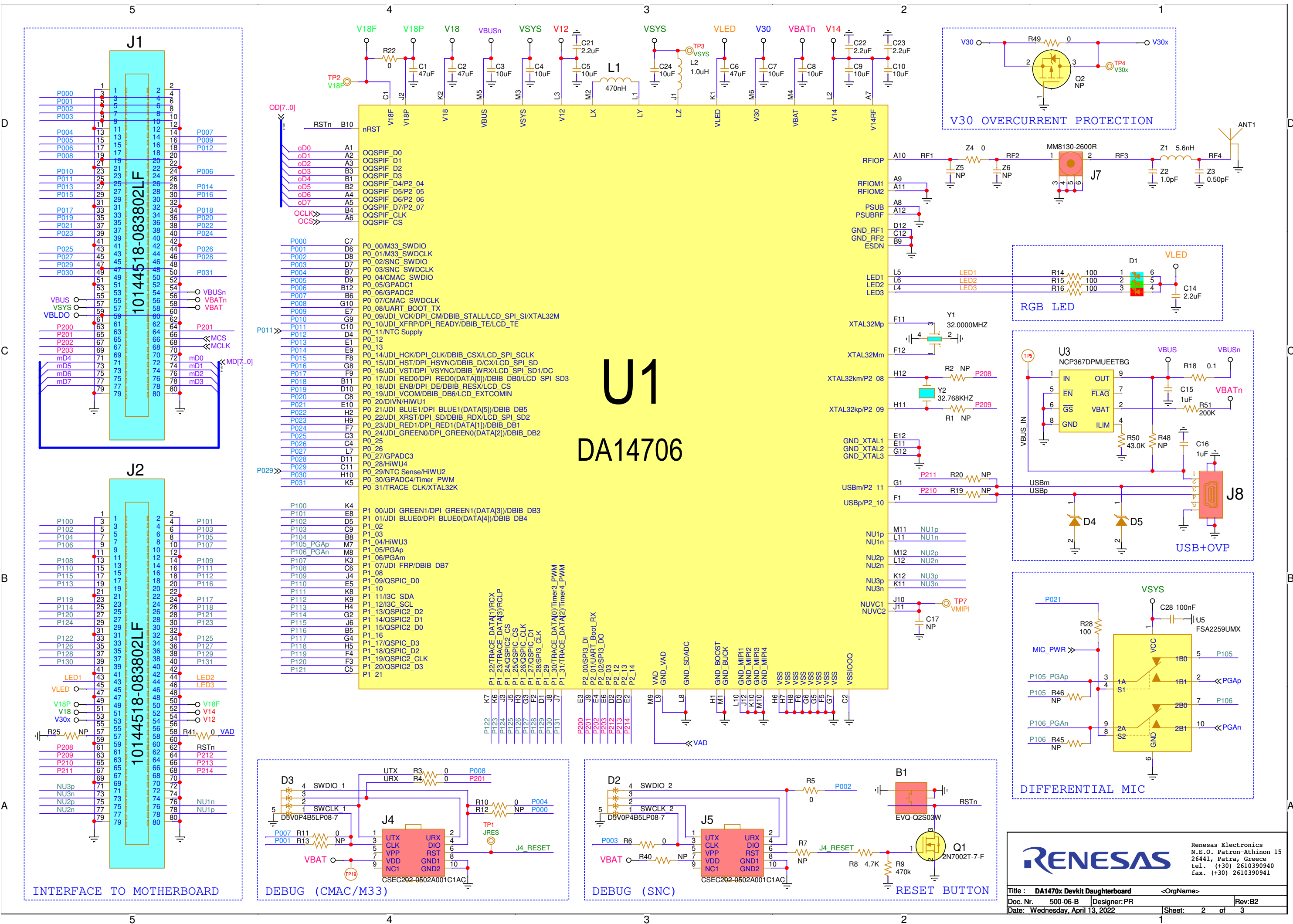
- TP10 FIDUCIAL
- TP11 FIDUCIAL
- TP15 FIDUCIAL
- TP16 FIDUCIAL
- TP17 FIDUCIAL
- TP18 FIDUCIAL





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Title : DA1470x Devkit Daughterboard		<OrgName>	
Doc. Nr. 500-06-B	Designer: PR	Rev: B2	
Date: Wednesday, April 13, 2022	Sheet: 1 of 3		



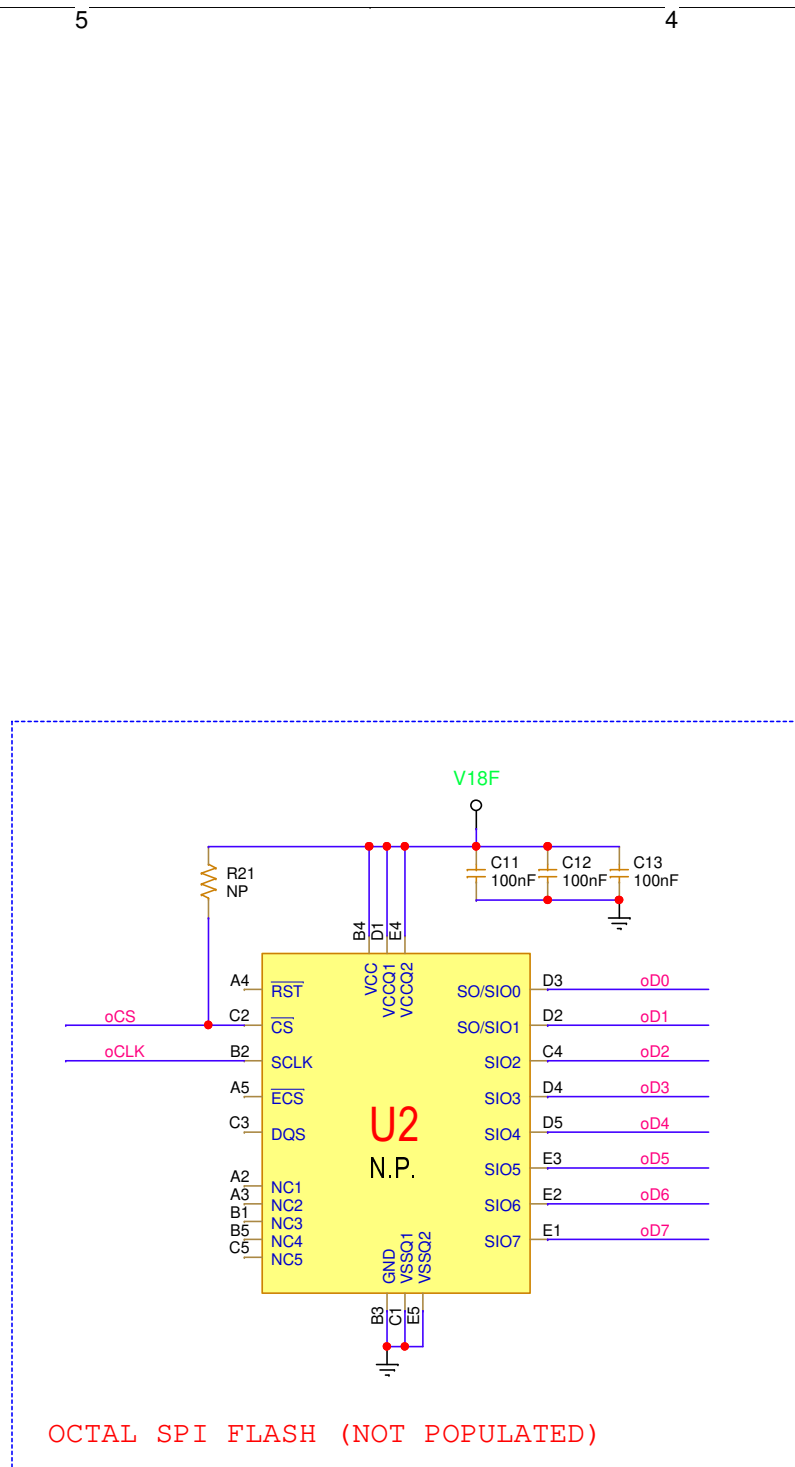
U1

DA14706

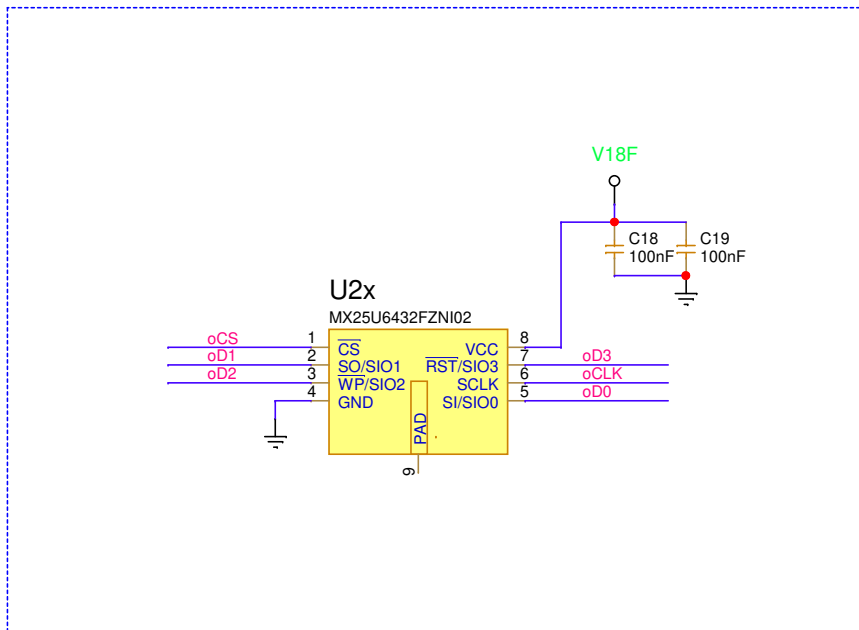
OD[7..0]	A1	Q0SPIF_D0
RSTn	A2	Q0SPIF_D1
B10	A3	Q0SPIF_D2
nRST	B3	Q0SPIF_D3
V18F	B2	Q0SPIF_D4/P2_04
V18P	A4	Q0SPIF_D5/P2_05
V18	A5	Q0SPIF_D6/P2_06
VBUSn	B4	Q0SPIF_D7/P2_07
VSYS	A6	Q0SPIF_CLK
V12	A6	Q0SPIF_CS
V12	C7	P0_00/M33_SWIDIO
LX	D6	P0_01/M33_SWIDCLK
LY	D8	P0_02/SNC_SWIDIO
LZ	D7	P0_03/SNC_SWIDCLK
VLED	B7	P0_04/CMAC_SWIDIO
V30	B8	P0_05/GPADC1
VBATn	B6	P0_06/GPADC2
V14	G10	P0_07/CMAC_SWIDCLK
V14	E7	P0_08/UART_BOOT_TX
V14	G9	P0_09/JDI_VCK/DPI_CM/DBIB_STALL/LCD_SPI_SI/XTAL32M
V14	C10	P0_10/JDI_XFRP/DPI_READY/DBIB_TE/LCD_TE
V14	D4	P0_11/NTC Supply
V14	E1	P0_12
V14	E9	P0_13
V14	F8	P0_14/JDI_HCK/DPI_CLK/DBIB_CSX/LCD_SPI_SCLK
V14	G8	P0_15/JDI_HST/DPI_HSYNC/DBIB_D/CX/LCD_SPI_SD
V14	F9	P0_16/JDI_VST/DPI_VSYNC/DBIB_WRX/LCD_SPI_SD1/DC
V14	B11	P0_17/JDI_RED0/DPI_RED0(DATA[0])/DBIB_DB0/LCD_SPI_SD3
V14	D10	P0_18/JDI_ENB/DPI_DE/DBIB_RESX/LCD_CS
V14	C8	P0_19/JDI_VCOM/DBIB_DB6/LCD_EXTCOMIN
V14	E10	P0_20/DIVN/HiWU1
V14	H2	P0_21/JDI_BLUE1/DPI_BLUE1(DATA[5])/DBIB_DB5
V14	H9	P0_22/JDI_XRST/DPI_SD/DBIB_RDX/LCD_SPI_SD2
V14	F7	P0_23/JDI_RED1/DPI_RED1(DATA[1])/DBIB_DB1
V14	C3	P0_24/JDI_GREEN0/DPI_GREEN0(DATA[2])/DBIB_DB2
V14	C4	P0_25
V14	L7	P0_26
V14	D11	P0_27/GPADC3
V14	C11	P0_28/HiWU4
V14	H10	P0_29/NTC Sense/HiWU2
V14	K5	P0_30/GPADC4/Timer_PWM
V14	K5	P0_31/TRACE_CLK/XTAL32K
P100	K4	P1_00/JDI_GREEN1/DPI_GREEN1(DATA[3])/DBIB_DB3
P101	E8	P1_01/JDI_BLUE0/DPI_BLUE0(DATA[4])/DBIB_DB4
P102	D5	P1_02
P103	C9	P1_03
P104	B8	P1_04/HiWU3
P105	M7	P1_05/PGAp
P106	M8	P1_06/PGAn
P107	K3	P1_07/JDI_FRP/DBIB_DB7
P108	C6	P1_08
P109	J4	P1_09/QSPIC_D0
P110	E5	P1_10
P111	K8	P1_11
P112	K9	P1_12/I3C_SDA
P113	H4	P1_13/I3C_SCL
P114	G2	P1_14/QSPIC2_D2
P115	J6	P1_15/QSPIC2_D1
P116	B5	P1_16
P117	G4	P1_17/QSPIC_D3
P118	H5	P1_18/QSPIC_D2
P119	F4	P1_19/QSPIC2_CLK
P120	F3	P1_20/QSPIC2_D3
P121	C5	P1_21
P122	K7	P1_22/TRACE_DATA[1]/RCX
P123	K6	P1_23/TRACE_DATA[3]/RCLP
P124	J3	P1_24/QSPIC2_CS
P125	J5	P1_25/QSPIC_CS
P126	H3	P1_26/QSPIC_CLK
P127	G3	P1_27/QSPIC_D1
P128	F2	P1_28/SPI3_CLK
P129	D1	P1_29
P130	J8	P1_30/TRACE_DATA[0]/Timer3_PWM
P131	J7	P1_31/TRACE_DATA[2]/Timer4_PWM
P200	E3	P2_00/SPI3_DI
P201	J9	P2_01/UART_Boot_RX
P202	E4	P2_02/SPI3_DO
P203	D2	P2_03
P212	D3	P2_12
P213	D3	P2_13
P214	E2	P2_14
P212	K7	P1_22/TRACE_DATA[1]/RCX
P213	K6	P1_23/TRACE_DATA[3]/RCLP
P214	J3	P1_24/QSPIC2_CS
P215	J5	P1_25/QSPIC_CS
P216	H3	P1_26/QSPIC_CLK
P217	G3	P1_27/QSPIC_D1
P218	F2	P1_28/SPI3_CLK
P219	D1	P1_29
P220	J8	P1_30/TRACE_DATA[0]/Timer3_PWM
P221	J7	P1_31/TRACE_DATA[2]/Timer4_PWM
P200	E3	P2_00/SPI3_DI
P201	J9	P2_01/UART_Boot_RX
P202	E4	P2_02/SPI3_DO
P203	D2	P2_03
P212	D3	P2_12
P213	D3	P2_13
P214	E2	P2_14
M9	L9	VAD
L9	L8	GND_VAD
H1	M1	GND_BOOST
L10	L10	GND_BUCK
J12	K10	GND_MIP1
M10	M10	GND_MIP2
H6	H7	GND_MIP3
H7	H8	GND_MIP4
H8	F6	VSS
F6	F6	VSS
G6	G5	VSS
G5	F5	VSS
F5	G7	VSS
G7	G7	VSS
C2	C2	VSSIOQ

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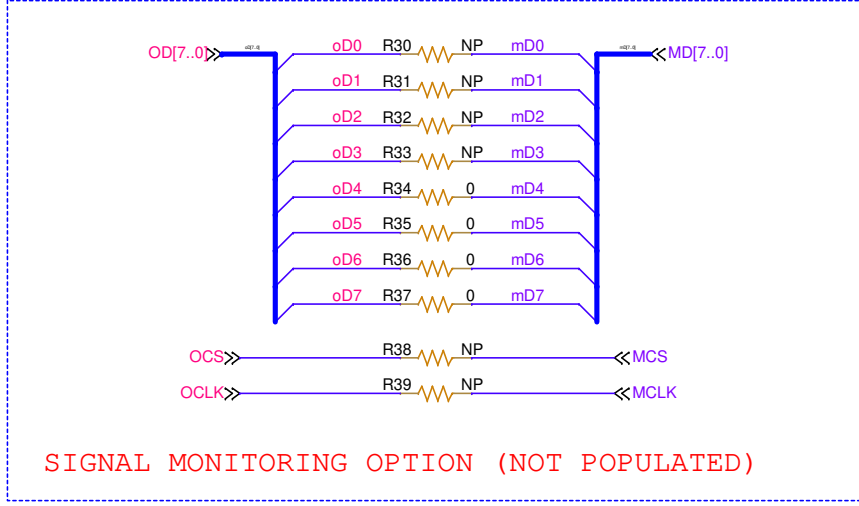
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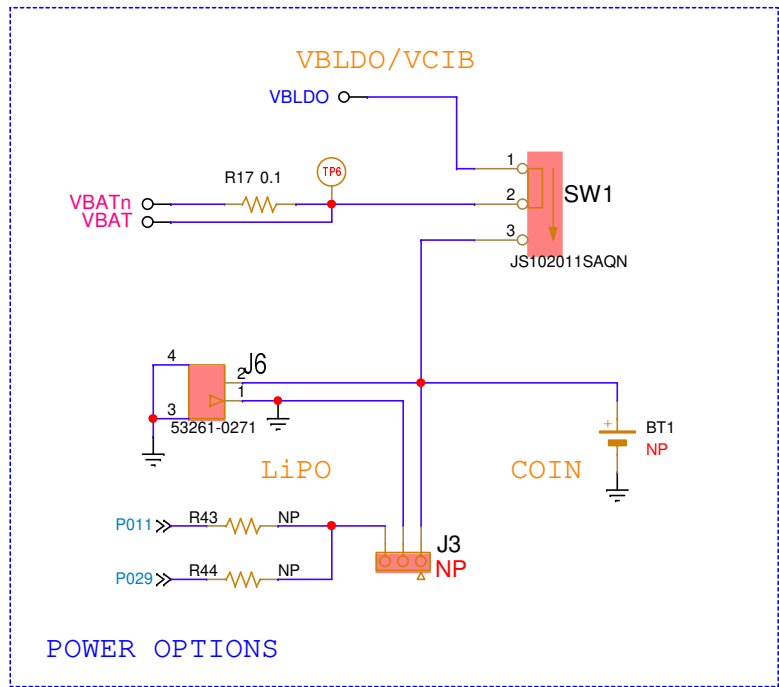
OCTAL SPI FLASH (NOT POPULATED)



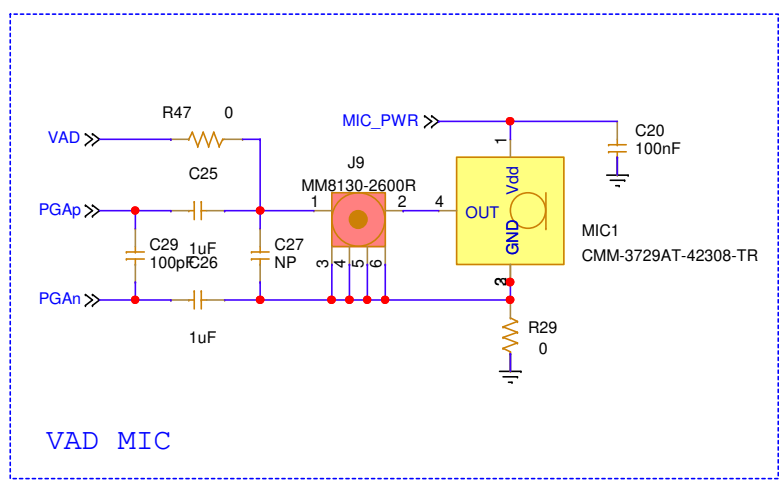
QSPI FLASH



SIGNAL MONITORING OPTION (NOT POPULATED)



POWER OPTIONS



VAD MIC