

Title			PEB1-VA416XX-CORE	
Size	Number		Revision	
A	VA416-EVK-D		0.1	
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A

A

B

B

C

C

D

D

U1A			
	FSEL1	FSEL2	FSEL3
PA0 130	PA0 TIM0	S2SS4	UORTS
PA1 129	PA1 TIM1	S2SS3	UOCTS
PA2 128	PA2 TIM2	S2SS2	U0TX
PA3 127	PA3 TIM3	S2SS1	U0RX
PA4 126	PA4 TIM4	S2SS0	
PA5 125	PA5 TIM5	S2SCK	
PA6 124	PA6 TIM6	S2MISO	
PA7 123	PA7 TIM7	S2MOSI	
PA8 119	PA8 E_MDIO	S2SS6	TIM8
PA9 118	PA9 E_MDC	S2SS5	
PA10 117	PA10 E_RXD3	TIM23	
PA11 116	PA11 E_RXD2	TIM22	
PA12 115	PA12 E_RXD1	TIM21	
PA13 114	PA13 E_RXD0	TIM20	
PA14 113	PA14 E_RXDV	TIM19	
PA15 112	PA15 E_RXCLK	TIM18	

va416xx_ports

U1B			
	FSEL1	FSEL2	FSEL3
PB0 111	PB0 E_RXER	TIM17	S1SS7
PB1 110	PB1 E_TXER	TIM16	S1SS6
PB2 109	PB2 E_TXCLK	TIM15	S1SS5
PB3 108	PB3 E_TXEN	TIM14	S1SS4
PB4 107	PB4 E_TXD0	TIM13	S1SS3
PB5 106	PB5 E_TXD1	TIM12	S1SS2
PB6 105	PB6 E_TXD2	TIM11	S1SS1
PB7 104	PB7 E_TXD3	TIM10	S1SS0
PB8 103	PB8 E_COL	TIM9	S1SCK
PB9 102	PB9 E_CRS	TIM8	S1MISO
PB10 99	PB10 E_PPS	TIM7	S1MOSI
PB11 98	PB11 S0SS3	TIM6	
PB12 97	PB12 S0SS2	TIM5	U1RTS
PB13 96	PB13 S0SS1	TIM4	U1CTS
PB14 95	PB14 S0SS0	TIM3	U1TX
PB15 94	PB15 S0SCK	TIM2	U1RX

va416xx_ports

U1C		
	FSEL1	FSEL2
PC0 93	PC0 S0MISO	TIM1
PC1 86	PC1 S0MOSI	TIM0
PC2 85	PC2 EBI_A0	UORTS
PC3 84	PC3 EBI_A1	UOCTS
PC4 83	PC4 EBI_A2	U0TX
PC5 79	PC5 EBI_A3	U0RX
PC6 78	PC6 EBI_A4	
PC7 77	PC7 EBI_A5	S1SS1
PC8 76	PC8 EBI_A6	S1SS0
PC9 75	PC9 EBI_A7	S1SCK
PC10 74	PC10 EBI_A8	S1MISO
PC11 73	PC11 EBI_A9	S1MOSI
PC12 72	PC12 EBI_A10	U2RTS
PC13 71	PC13 EBI_A11	U2CTS
PC14 70	PC14 EBI_A12	U2TX
PC15 69	PC15 EBI_A13	U2RX

va416xx_ports

U1D			
	FSEL1	FSEL2	FSEL3
PD0 68	PD0 EBI_A14	TIM0	
PD1 67	PD1 EBI_A15	TIM1	
PD2 66	PD2 EBI_A16	TIM2	
PD3 65	PD3 EBI_A17	TIM3	
PD4 64	PD4 EBI_A18	TIM4	
PD5 63	PD5 EBI_A19	TIM5	
PD6 62	PD6 EBI_A20	TIM6	
PD7 61	PD7 EBI_A21	TIM7	
PD8 60	PD8 EBI_A22	TIM8	
PD9 59	PD9 EBI_A23	TIM9	U1RTS
PD10 58	PD10 EBI_D15	TIM10	U1CTS
PD11 54	PD11 EBI_D14	TIM11	U1TX
PD12 53	PD12 EBI_D13	TIM12	U1RX
PD13 52	PD13 EBI_D12	TIM13	
PD14 51	PD14 EBI_D11	TIM14	
PD15 50	PD15 EBI_D10	TIM15	

va416xx_ports

U1E			
	FSEL1	FSEL2	FSEL3
PE0 49	PE0 EBI_D9	TIM16	UORTS
PE1 48	PE1 EBI_D8	TIM17	UOCTS
PE2 47	PE2 EBI_D7	TIM18	U0TX
PE3 46	PE3 EBI_D6	TIM19	U0RX
PE4 45	PE4 EBI_D5	TIM20	
PE5 44	PE5 EBI_D4	TIM21	S1SS7
PE6 43	PE6 EBI_D3	TIM22	S1SS6
PE7 42	PE7 EBI_D2	TIM23	S1SS5
PE8 41	PE8 EBI_D1	S1SS4	TIM16
PE9 40	PE9 EBI_D0	S1SS3	TIM17
PE10 39	PE10	S1SS2	TIM18
PE11 38	PE11	S1SS1	TIM19
PE12 37	PE12 EBI_CE0	S1SS0	TIM20
PE13 31	PE13 EBI_CE1	S1SCK	TIM21
PE14 30	PE14 EBI_CE2	S1MISO	TIM22
PE15 29	PE15 EBI_CE3	S1MOSI	TIM23

va416xx_ports

U1F			
	FSEL1	FSEL2	FSEL3
PF0 28	PF0 EBI_OEN	S2SS4	TIM0
PF1 27	PF1 EBI_WEN	S2SS3	TIM1
PF2 26	PF2 S1SS0	S2SS2	TIM2
PF3 21	PF3 S1SCK	S2SS1	TIM3
PF4 20	PF4 S1MISO	S2SS0	TIM4
PF5 19	PF5 S1MOSI	S2SCK	TIM5
PF6 18	PF6 U2RTS	S2MISO	TIM6
PF7 17	PF7 U2CTS	S2MOSI	TIM7
PF8 16	PF8 U2TX		TIM8
PF9 15	PF9 U2RX		TIM9
PF10 14	PF10 U1RTS		TIM10
PF11 5	PF11 U1CTS		TIM11
PF12 4	PF12 U1TX		TIM12
PF13 3	PF13 U1RX	TIM19	
PF14 2	PF14 UORTS	TIM20	
PF15 1	PF15 UOCTS	TIM21	

va416xx_ports

U1G			
	FSEL1	FSEL2	
PG0 162	PG0 U0TX	TIM22	
PG1 161	PG1 U0RX	TIM23	
PG2 160	PG2 TIM9	S1SS0	
PG3 159	PG3 TIM10	S1SCK	
PG4 158	PG4 S1SS3	S1MISO	
PG5 157	PG5 S1SS2	S1MOSI	
PG6 156	PG6 S1SS1	TIM12	
PG7 155	PG7		

va416xx_ports

VA416_PORTS

PORTS

PA[0..15]
PB[0..15]
PC[0..15]
PD[0..15]
PE[0..15]
PF[0..15]
PG[0..7]

Title

PEB1-VA416XX-CORE

Size

Number

Revision

A

VA416-EVK-D

0.1

Date:

3/27/2023

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of

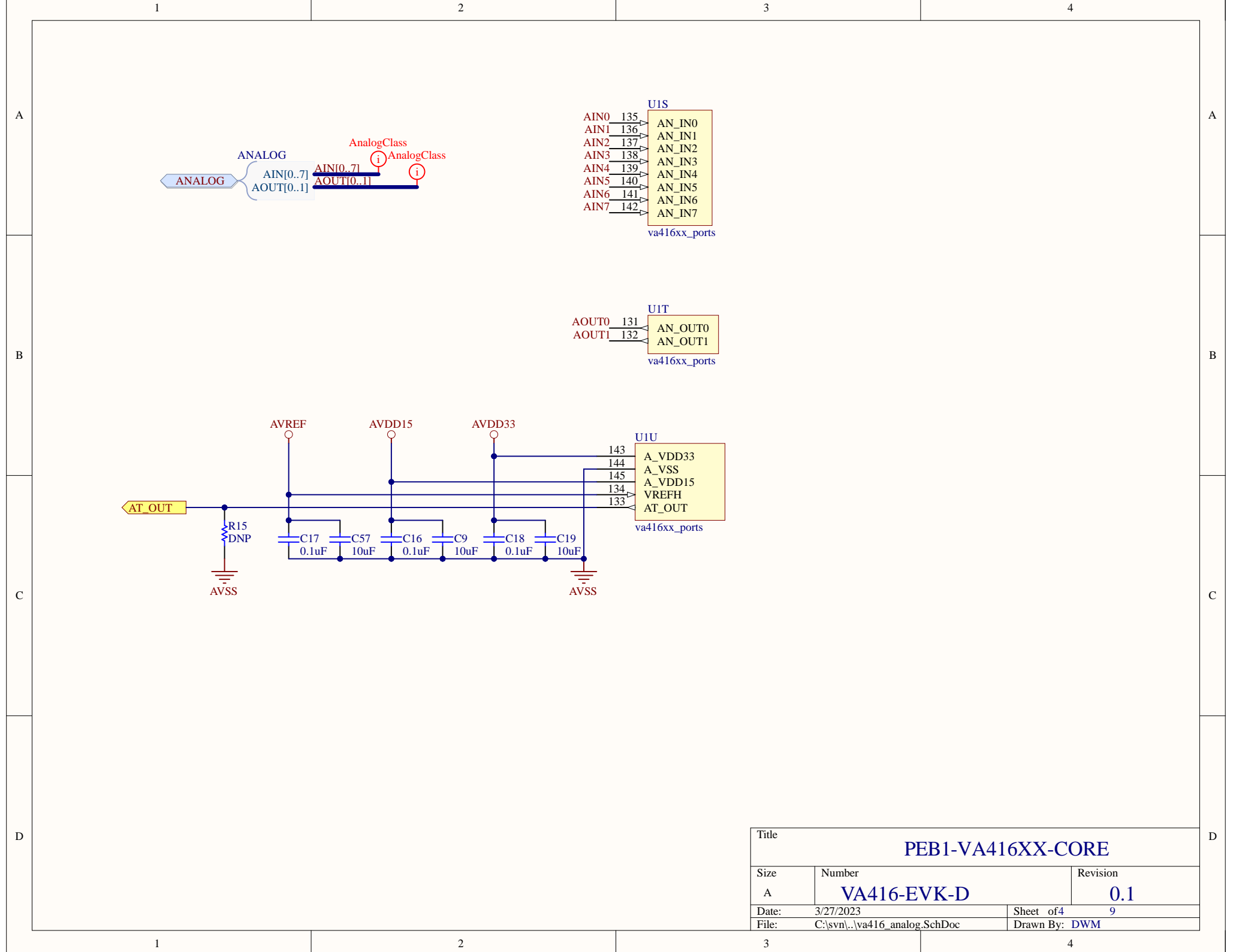
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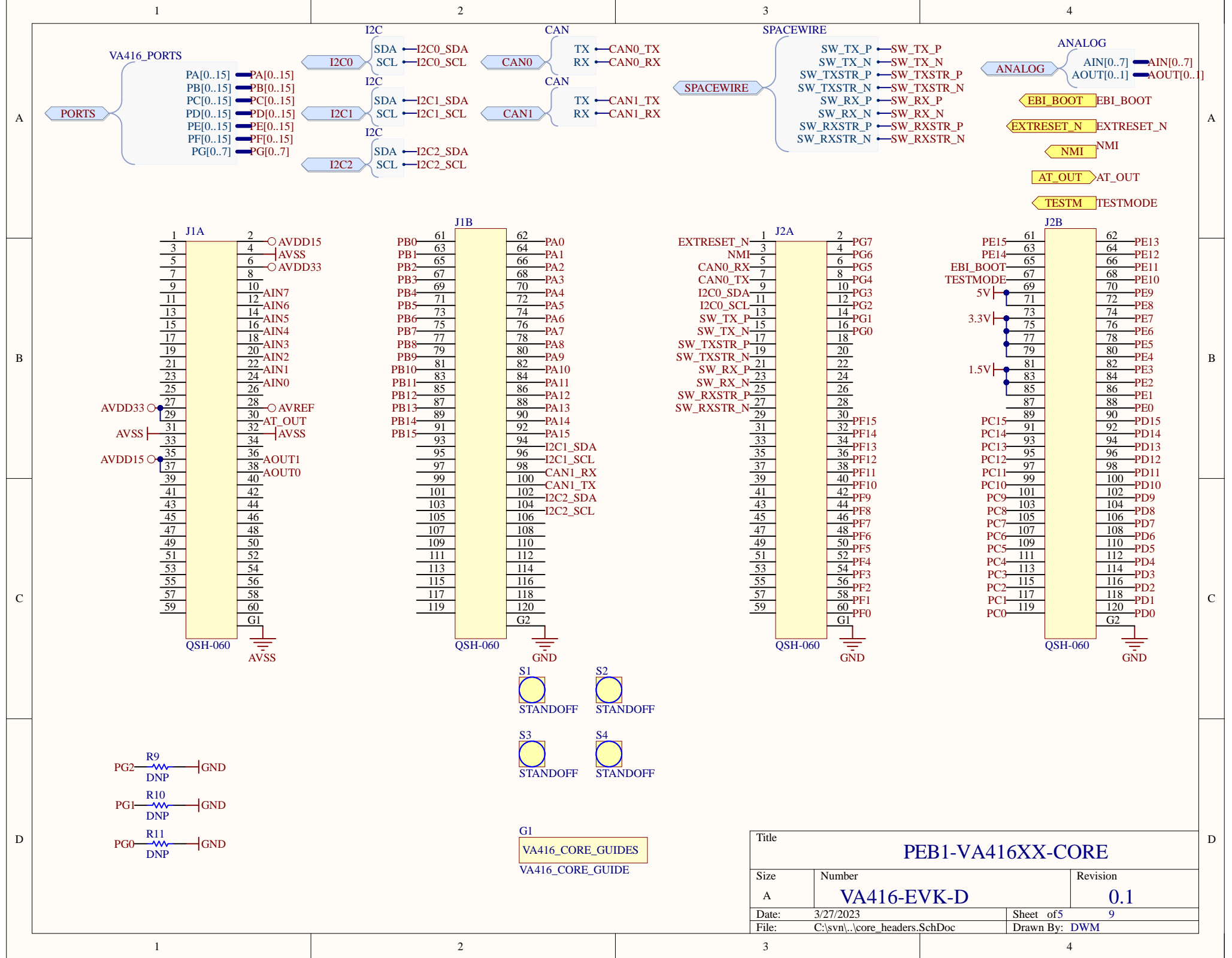
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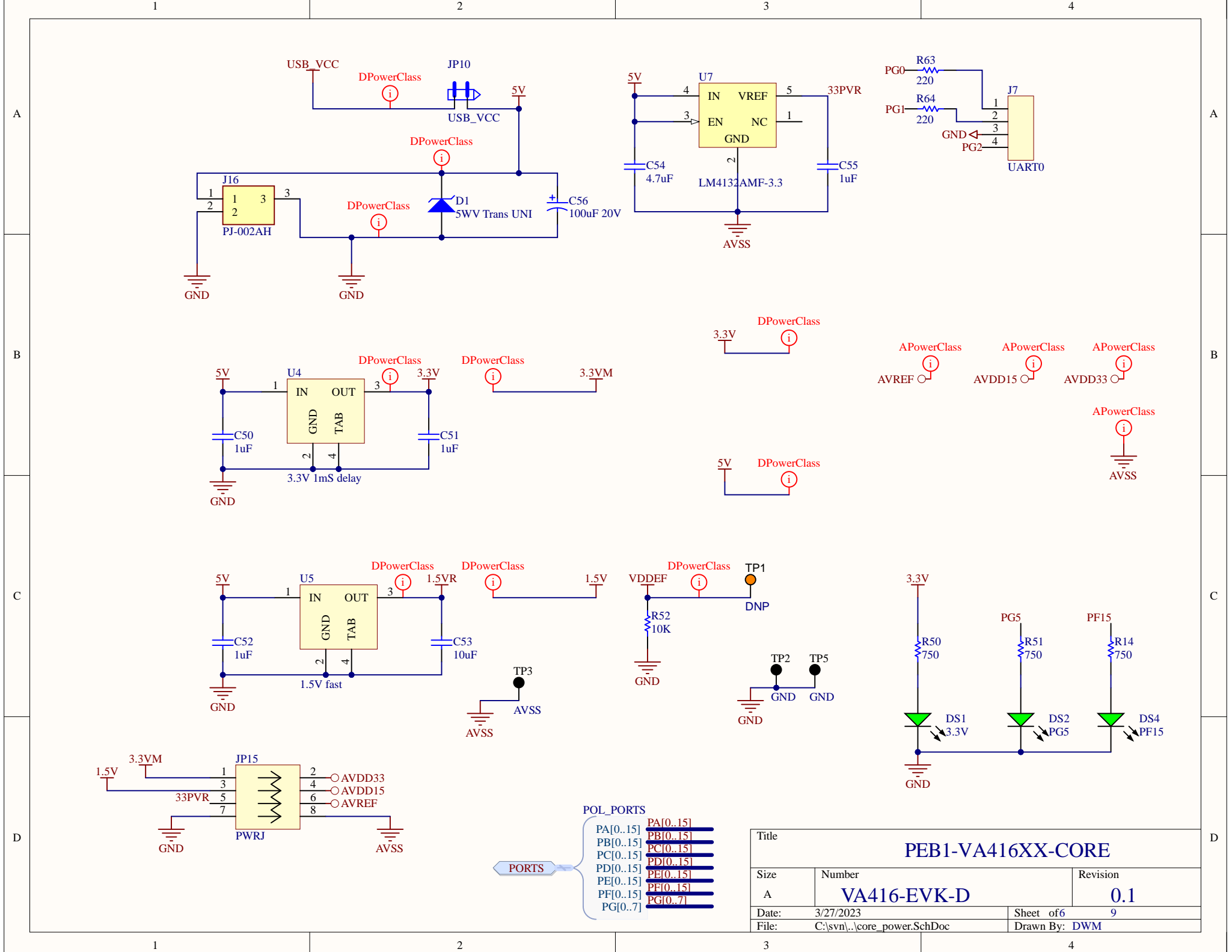
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DWM



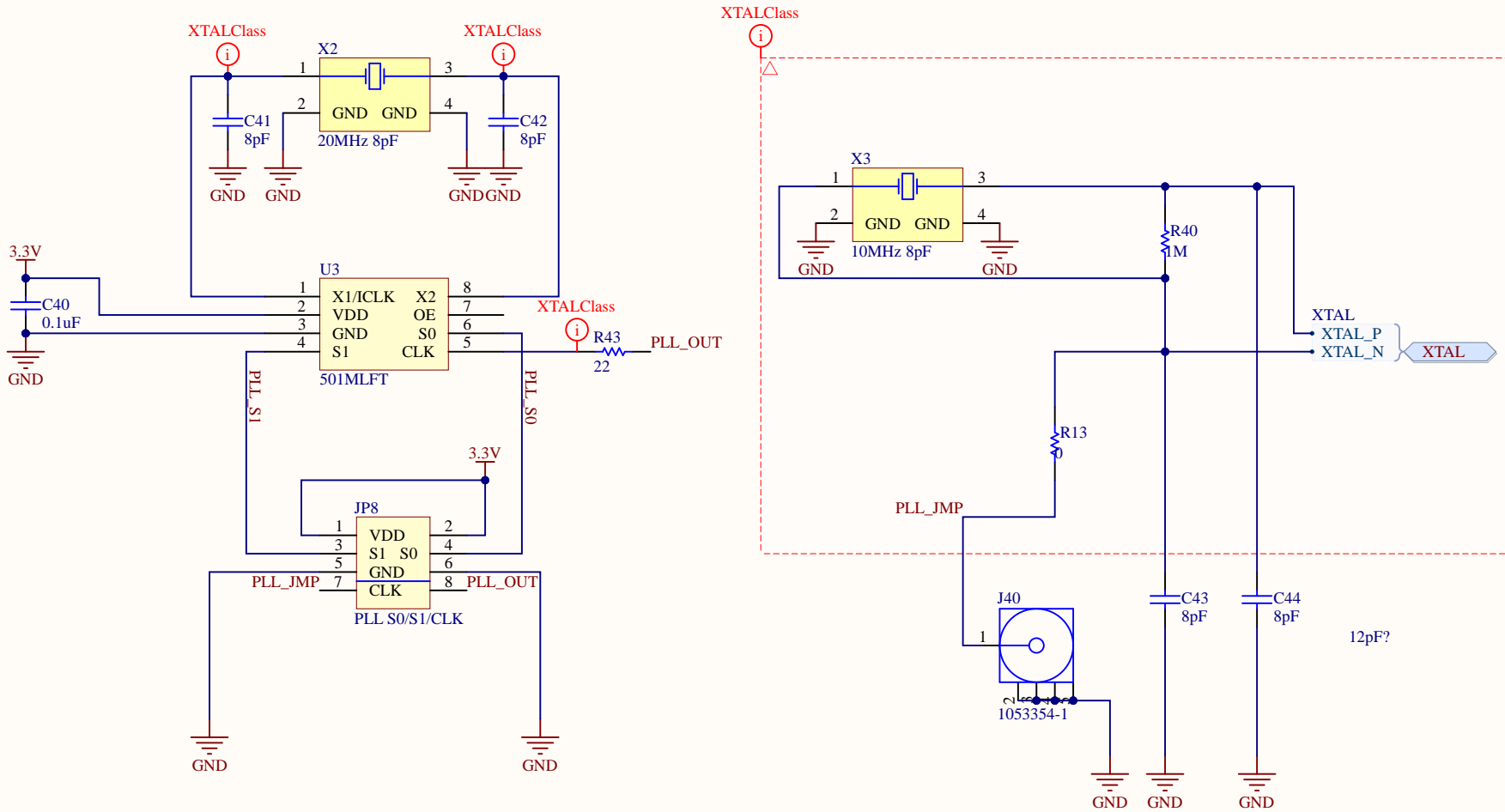




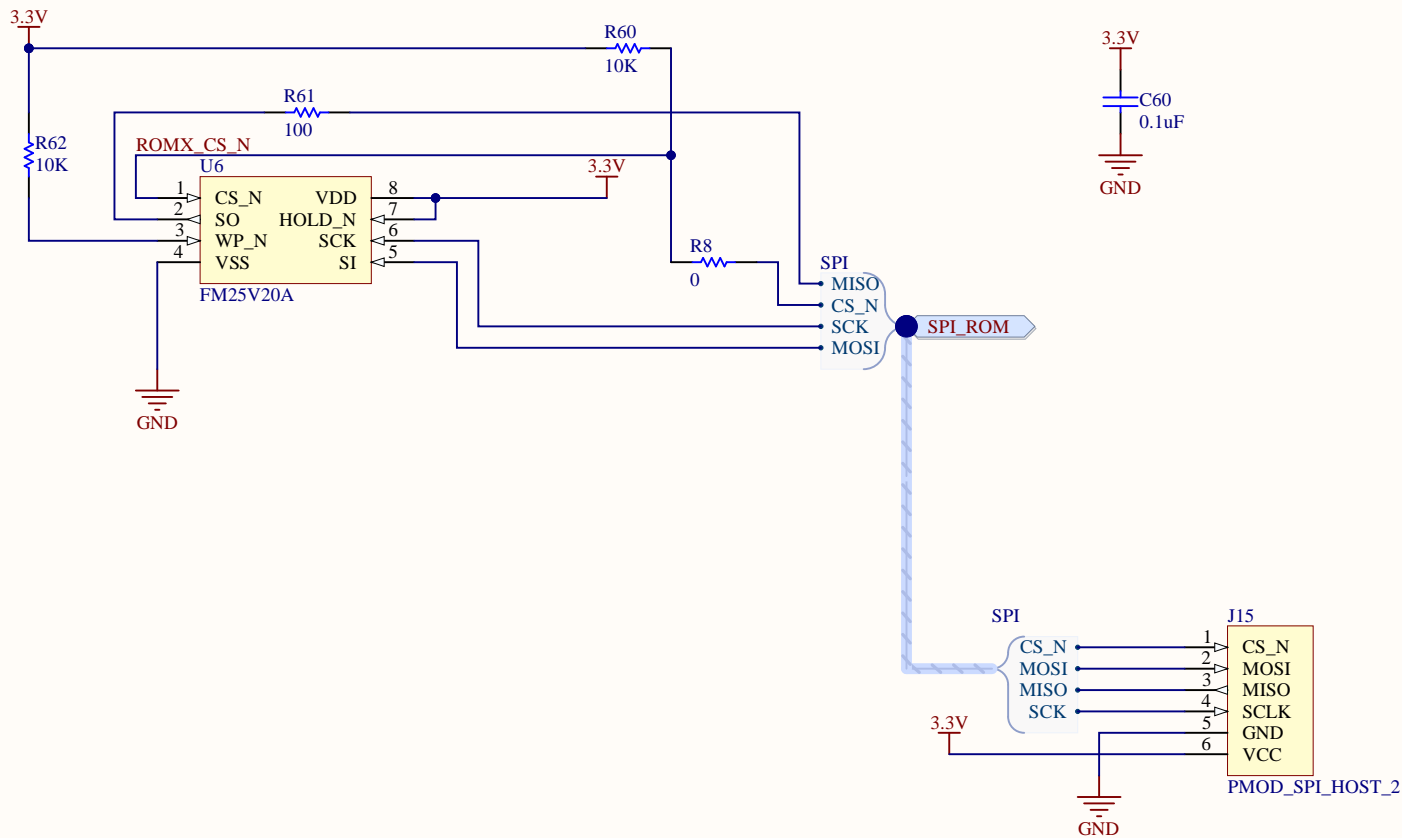
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PB[0..15]	PB[0..15]
PC[0..15]	PC[0..15]
PD[0..15]	PD[0..15]
PE[0..15]	PE[0..15]
PF[0..15]	PF[0..15]
PG[0..7]	PG[0..7]

PORTS	
PA[0..15]	PA[0..15]
PB[0..15]	PB[0..15]
PC[0..15]	PC[0..15]
PD[0..15]	PD[0..15]
PE[0..15]	PE[0..15]
PF[0..15]	PF[0..15]
PG[0..7]	PG[0..7]

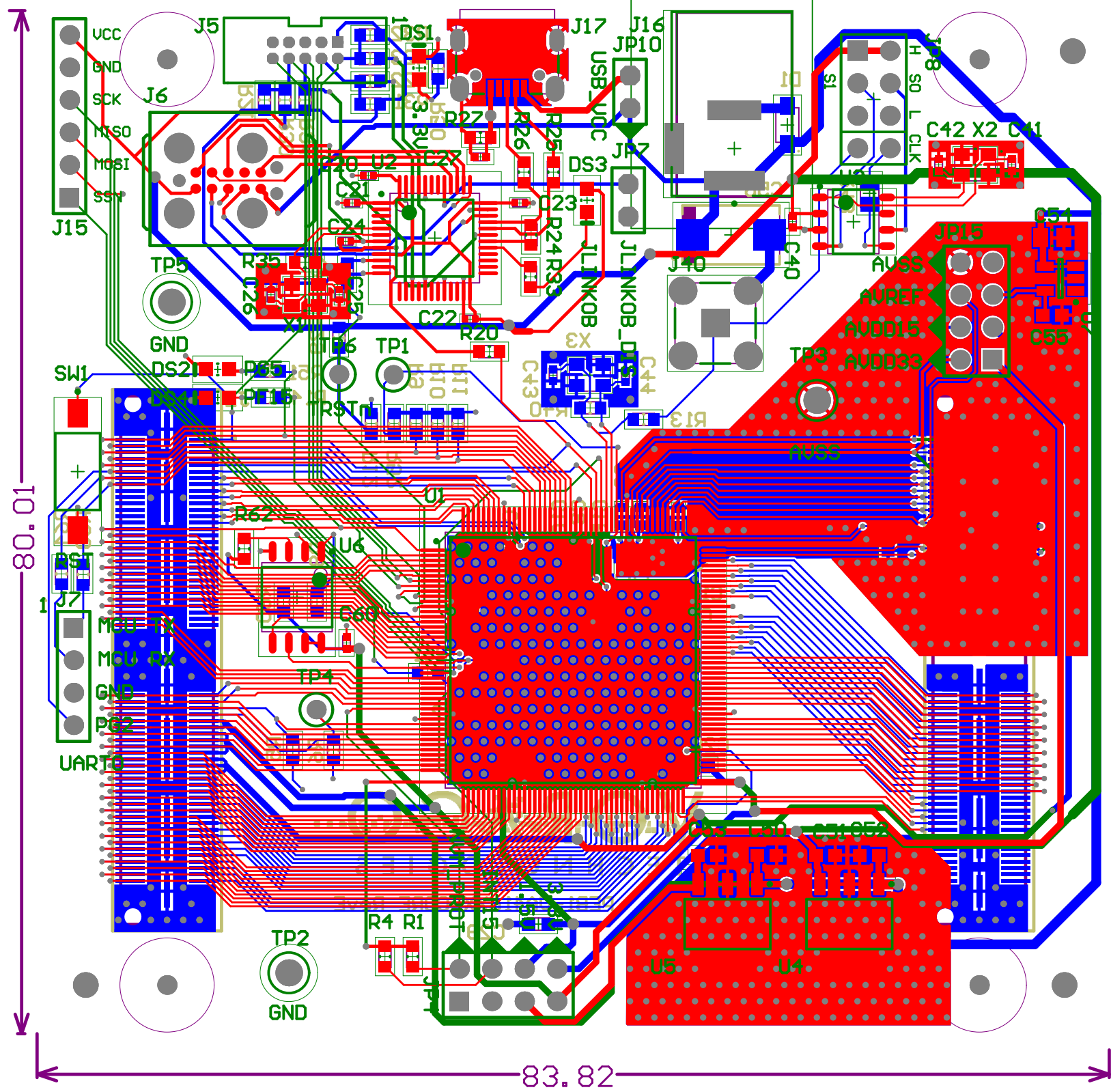
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PEB1-VA416XX-CORE		
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Size	Number			Revision	
A	VA416-EVK-D			0.1	
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Comment	FootprintDescription	Description	Designator	Footprint	LibRef	Quantity
0.1uF			C1, C2, C3, C4, C5, C6, C7, C8, C10, C11, C12, C13, C14, C16, C17, C18, C20, C21, C22, C23, C24	CAPC0402(1005)60_L	CAP	21
10uF			C9, C19, C57	CAPC0603(1608)100_L	CAP	3
0.1uF			C15, C40, C60	CAPC0402(1005)60_N	CAP	3
8pF			C25, C26	CAPC0402(1005)60_L	CAP	2
10000pF			C27	CAPC0402(1005)60_N	CAP	1
10uF			C28, C29, C53	CAPC0603(1608)100_N	CAP	3
8pF			C41, C42, C43, C44	CAPC0402(1005)60_N	CAP	4
1uF			C50, C51, C52, C55	CAPC0603(1608)100_N	CAP	4
4.7uF			C54	CAPC0805(2012)100_N	CAP	1
100uF 20V		TPSD107M016T0080V	C56	CAPP2917D_N	CAP_P	1
5WV Trans UNI		SMF5V0TFTR	D1	SOD123fl-M	ZENER	1
3.3V			DS1	LEDGREEN0603_M	LED-green	1
PG5			DS2	LEDGREEN0603_M	LED-green	1
JLINKOB			DS3	LEDGREEN0603_M	LED-green	1
PF15			DS4	LEDGREEN0603_M	LED-green	1
QSH-060			J1, J2	QSH-060-01-X-D-A	QSH-060	2
JTAG9			J5	JTAG-9_SAMTEC_0.05	JTAG9	1
UART0			J7	Header_1x4	Header 1x4	1
PJ-002AH		Integrated Circuit	J16	PJ002AH-OVAL	PJ-002AH	1
629105150521		Micro USB 2.0 Type B Receptacle WR-COM, Horizontal, SMT, with Pegs, High Current at Pin 1 & Pin 5	J17	629105150521	CMP-1502-03252-1	1
JmpDir_2x4			JP4	JMPDIR_2x4	JmpDir_2x4	1
JLINKOB_DIS			JP7	JMP2	Jumper_2p	1
PLL S0/S1/CLK			JP8	PLL S0/S1/CLK	PLL S0/S1/CLK	1
USB_VCC			JP10	JMP_DIR	Jumper_2p	1
PWRJ			JP15	JMPDIR_2x4	JmpDir_2x4	1
10K			R1, R2, R3, R4, R5, R6, R7, R12, R27, R30, R31, R32, R34, R52, R60, R62	RESC0603(1608)_N	RESISTOR	16
0			R8, R13	RESC0603(1608)_N	RESISTOR	2
750			R14, R33, R50, R51	RESC0603(1608)_N	RESISTOR	4
130			R20, R21, R22, R23, R28	RESC0603(1608)_N	RESISTOR	5
1.5K			R24	RESC0603(1608)_N	RESISTOR	1
22			R25, R26	RESC0603(1608)_N	RESISTOR	2
1M			R35, R40	RESC0603(1608)_N	RESISTOR	2
22			R43	RESC0805(2012)_N	RESISTOR	1
100			R61	RESC0603(1608)_N	RESISTOR	1
220			R63, R64	RESC0603(1608)_N	RESISTOR	2
RST		FSMSM Push Button Switch, 50 mA, -35 to 85 degC, 2-Pin SMD, RoHS, Tape and Reel	SW1	TECO-FSMSMTR_V	CMP-2000-07501-1	1
GND		Test Point, Black, Through Hole, RoHS, Bulk	TP2, TP5	KSTN-5011_V	CMP-1672-00003-4	2
AVSS		Test Point, Black, Through Hole, RoHS, Bulk	TP3	KSTN-5011_V	CMP-1672-00003-4	1
va416xx_ports			U1	PQFP176_M_6-5mil-Hand	va416xx_ports	1
STM32F103CBT6		Imported	U2	QFP-48_N	STM32F103CBT6	1
501MLFT			U3	SOIC8_150_L	501MLFT	1
3.3V 1mS delay			U4	SOT223-4_N	MCP1703T-3302E/DB	1
1.5V fast			U5	SOT223-4_N	MIC37100-1.5WS	1
FM25V20A			U6	MAXM-W8+2_N	FM25V20A	1
LM4132AMF-3.3		Precision Low Dropout Voltage Reference, 5-pin SOT-23	U7	MF05A_M	CMP-0074-00541-2	1
8MHz 12pF		ECS-80-12-33-JGN-TR	X1	XTAL_3.2x2.5	ECS-80-12-33-JGN-TR	1
20MHz 8pF		ABM8AIG-20.000MHz-8-T	X2	XTAL_3.2x2.5	ECS-80-12-33-JGN-TR	1
10MHz 8pF		ECS-100-8-33-AGM-TR	X3	XTAL_3.2x2.5	ECS-80-12-33-JGN-TR	1