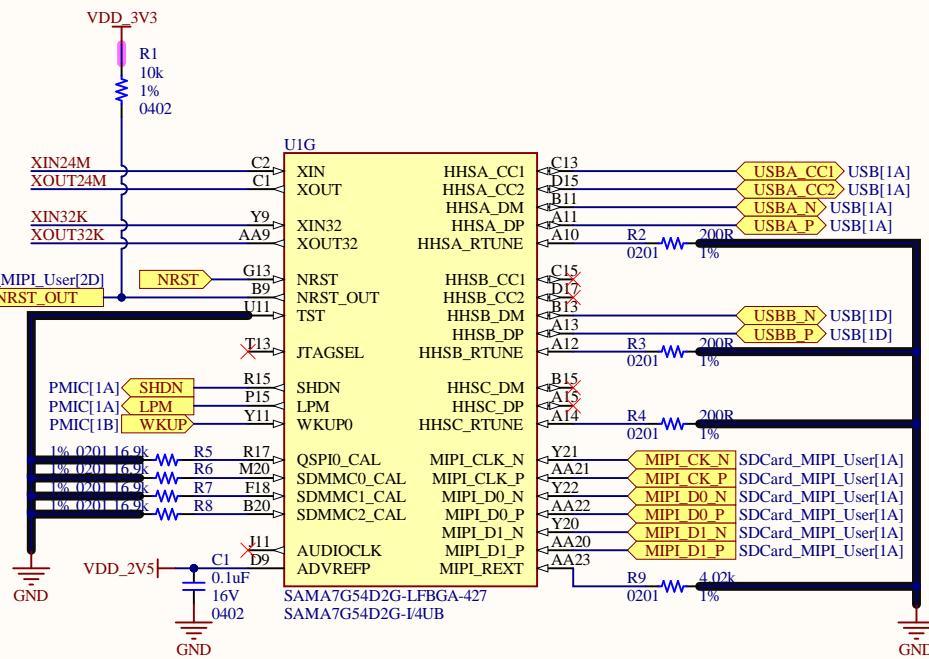
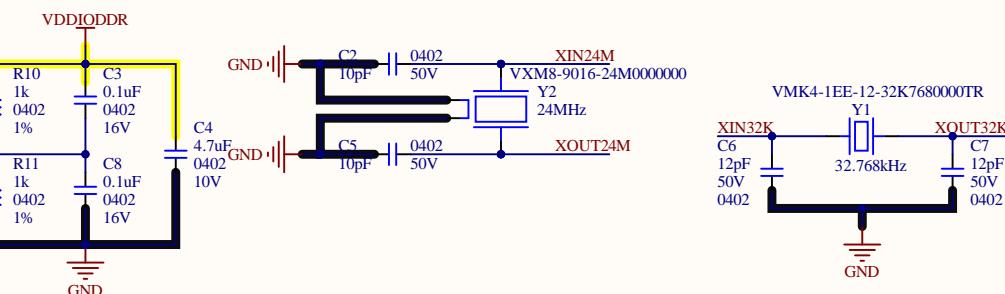


1 2 3 4

A



B



C

D

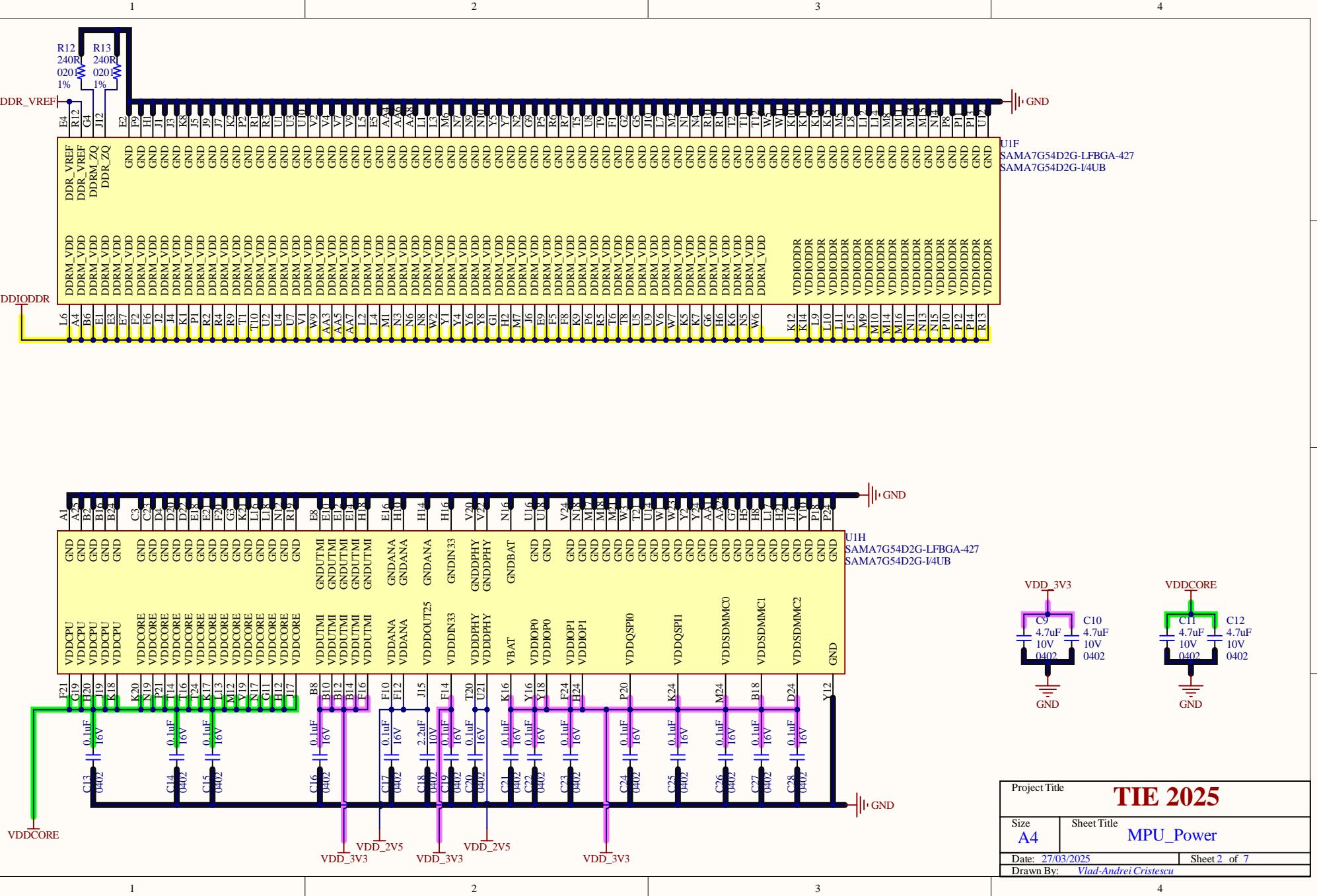
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TIE 2025	
Size	Sheet Title
A4	MPU_System
Date: 27/03/2025	Sheet 1 of 7
Drawn By: Vlad-Andrei Cristescu	

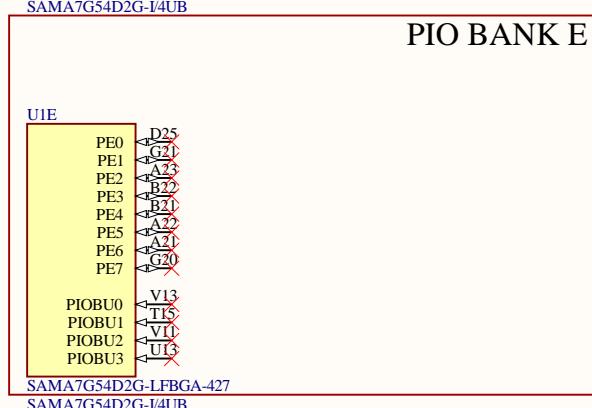
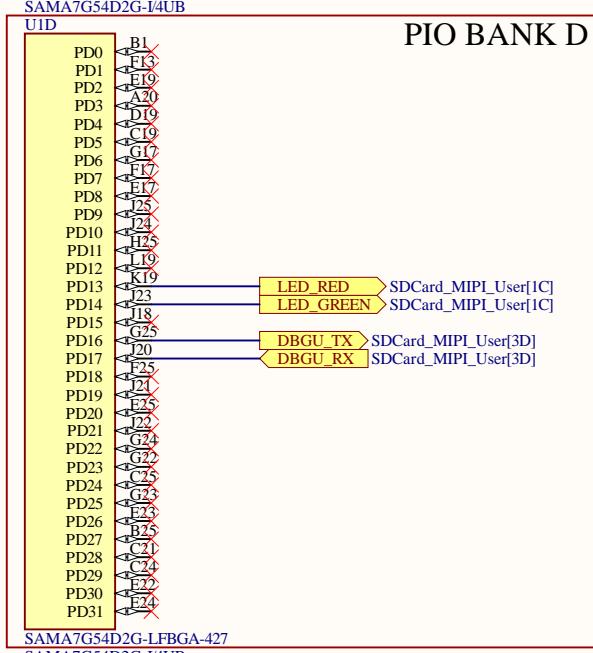
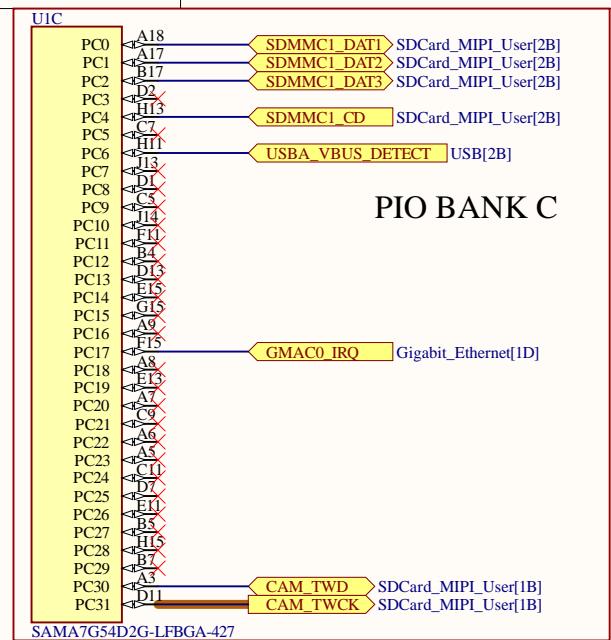
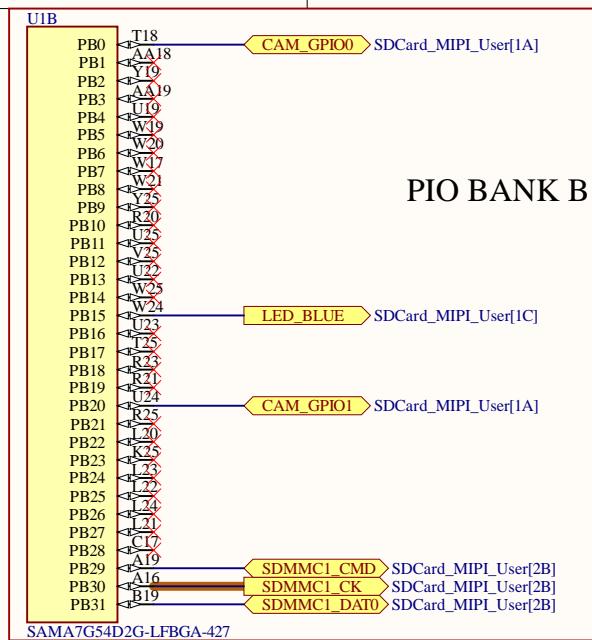
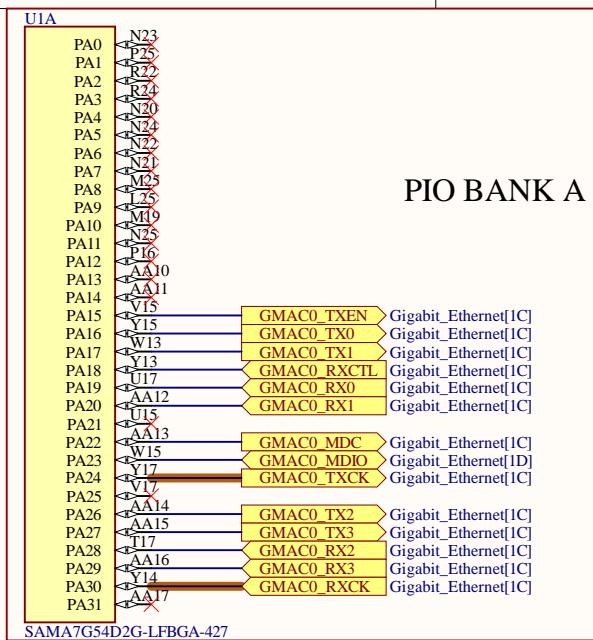
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2

3

4





Project Title	TIE 2025	
Size	Sheet Title	MPU_PIO
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Date: 27/03/2025	Sheet 3	of 7
Drawn By:	Vlad-Andrei Cristescu	

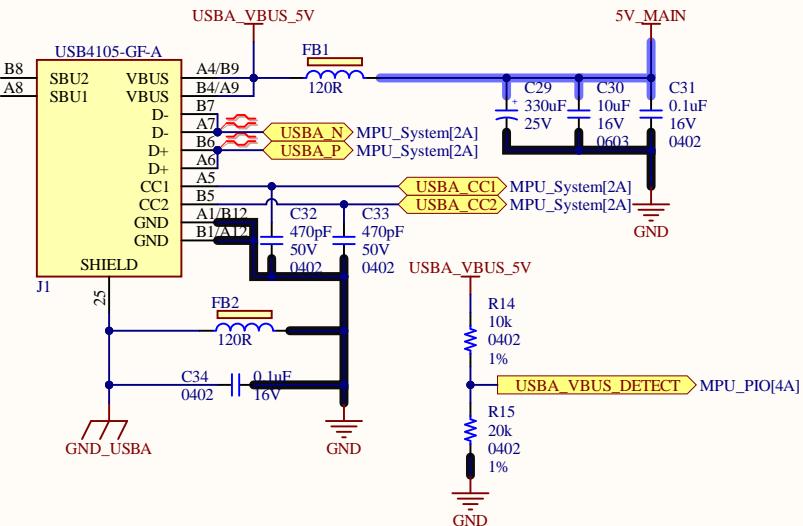
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4

USB Type C Power Input



A

A

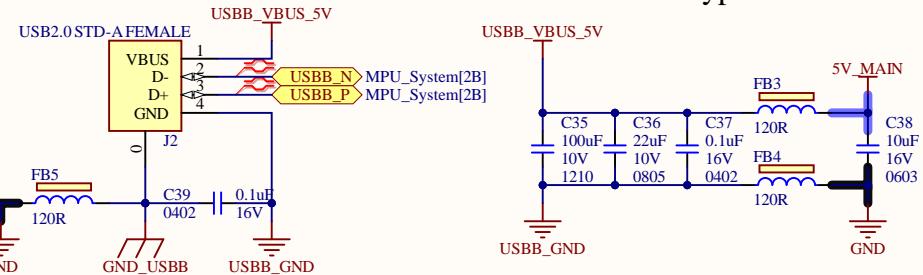
B

B

C

C

USB Type A Host



D

D

Project Title		TIE 2025
Size	Sheet Title	USB
A4		
Date: 27/03/2025	Sheet 4	of 7

Drawn By: Vlad-Andrei Cristescu

1

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1 2 3 4

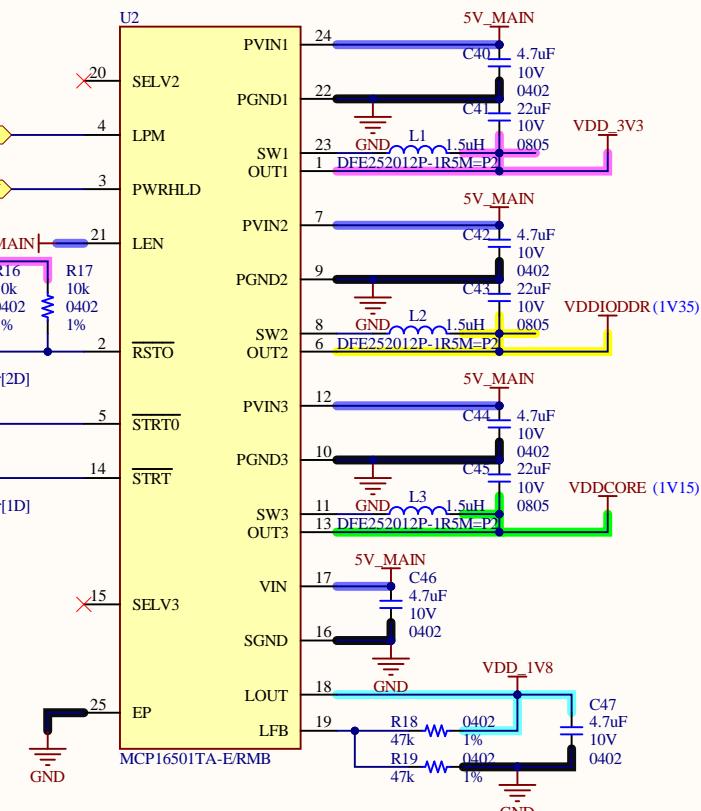
A

B

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1 2 3 4



Project Title	TIE 2025	
Size	A4	Sheet Title
Date:	27/03/2025	Sheet 5 of 7
Drawn By:	Vlad-Andrei Cristescu	

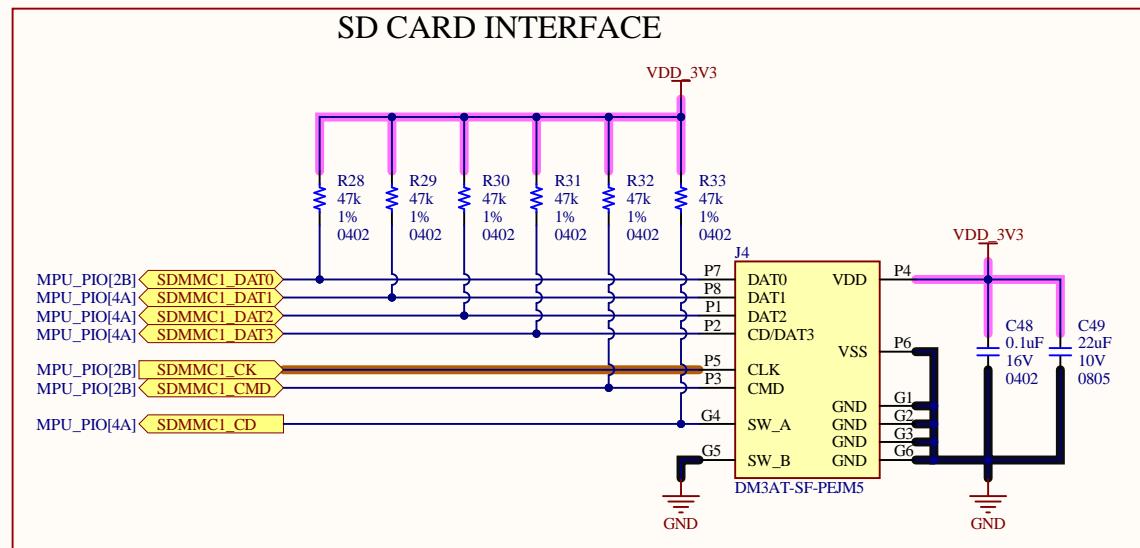
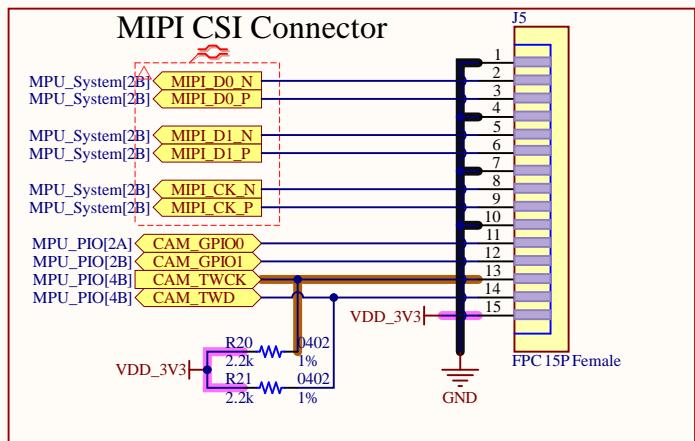
1 2 3 4

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4



A

A

B

B

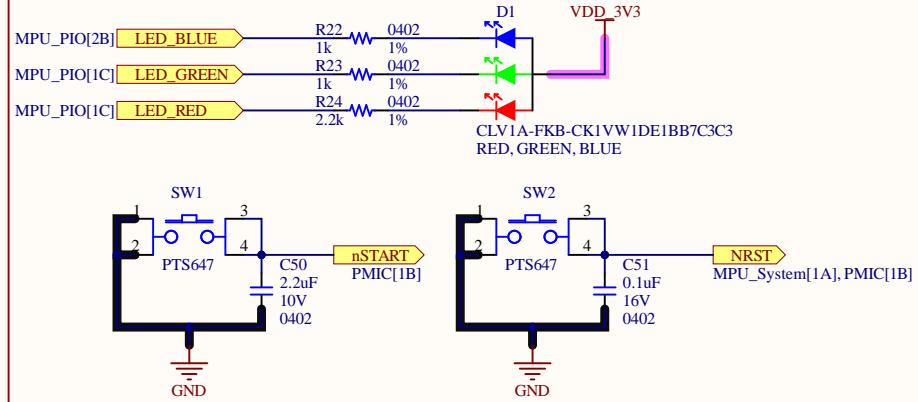
C

C

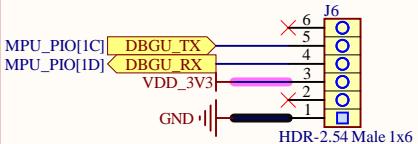
D

D

USER LED & Buttons

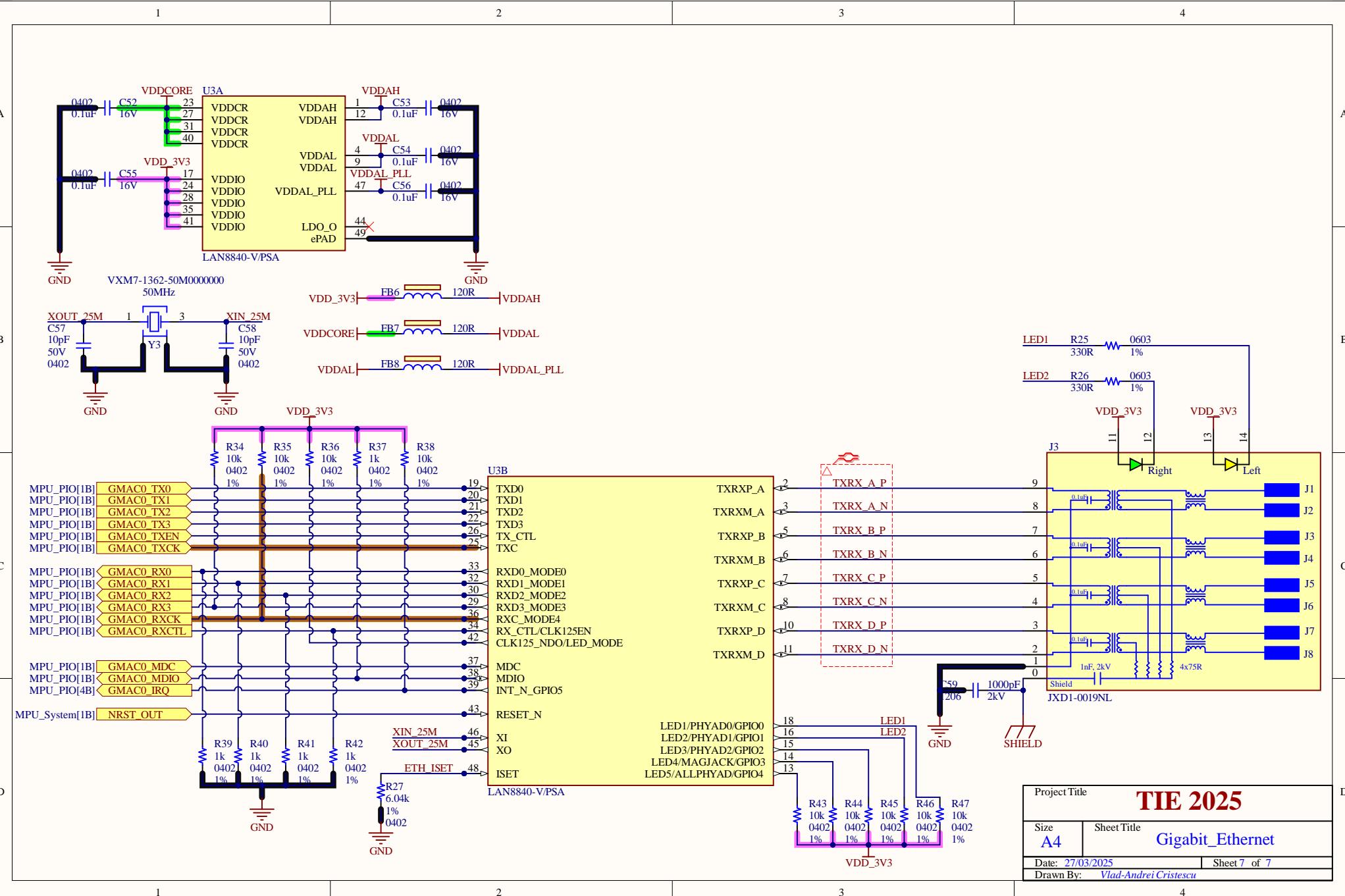


UART Debug Interface



Project Title

TIE 2025Size
A4Sheet Title
SDCard_MIPI_UserDate: **27/03/2025**Sheet **6** of **7**Drawn By: **Vlad-Andrei Cristescu**



Comment	Description	Designator	Footprint	LibRef	Quantity
0.1uF	CAP CER 0.1uF 10V 10% XTR SMD 0402	C1, C3, C8, C13, C14, C15, C16, C17, C19, C20, C21, C22, C23, C24, C25, C26, C27, C28, C31, C34, C37, C39, C48, C51, C52, C53, C54, C55, C56	CAP_0402	C0402C104K4RAC786 7	29
10pF	CAP CER 10pF 50V 5% COG/NPO SMD 0402	C2, C5, C57, C58	CAP_0402	OSCF5000100J1GV00 1T	4
4.7uF	CAP CER 4.7uF 10V 10% XSR SMD 0402	C4, C9, C10, C11, C12, C40, C42, C44, C46, C47	CAP_0402	C1005XSR1A475K050 BC	10
12pF	CAP CER 12pF 50V 5% COG/NPO SMD 0402	C6, C7	CAP_0402	OSCF5000120J1GV00 1T	2
2.2uF	CAP CER 2.2uF 10V 10% XTS SMD 0402	C18, C50	CAP_0402	GRM155C71A225KE11 J	2
330uF	CAP ALU 330uF 25V 20% SMD T	C29	CAP-BX10_SMD	UWT1E331MLNL1GS	1
10uF	CAP CER 10uF 16V 10% XSR SMD 0603	C30, C38	CAP_0603	GRT188R61C106KE13 D	2
AEC-Q200	CAP CER 470pF 50V 5% NPO SMD 0402	C32, C33	CAP_0402	GRM1555C1H471JA01 D	2
100uF	CAP CER 100uF 10V 20% XSR SMD 1210	C39	CAP_1210	GRM32ER61A107ME2 DL	1
22uF	CAP CER 22uF 10V 20% XTS SMD 0805	C36, C41, C43, C45, C49	CAP_0805	C2012K751A226M125 AC	5
1000pF	CAP CER 1000pF 2kV 10% XTB SMD 1206	C59	CAP_1206	202R18W102KV4E	1
DIO LED TRI RED, GREEN, BLUE 2V, 3.2V, 3.2V 20mA, 20mA, 20mA SMD 4- PLCC	J1	CLV1A-FKB	CLV1A-FKB- CK1VW1DE1B87C3C3		1
120R	FERRITE BEAD 120 OHM 0603 3LN	FB1, FB2, FB3, FB4, FB5, FB6, FB7, FB8	FB_0603	BLM18PG121SN1D	8
USB4105-GF-A	CONN USB2.0 TYPE-C Female SMD/THT R/A	J1	USBC-12_FEM_SMD	USB4105-GF-A	1
USB2.0 STD-A FEMALE	CON USB2.0 STD-A FEMALE TH R/A	J2	USBA-4_FEM_TH	292303-1	1
JXD1-0019NL	CON MODULAR JACK RJ45 10/100/1000 MAGNETICS 2xLEDs SHIELD TH R/A	J3	ETHERNET-8_FEM_TH	JXD1-0019NL	1
DM3AT-SF-PEJM5	CON FLASH microSD 8+2P Push-Push SMD	J4	MICROSDF-8-2_SMD	DM3AT-SF-PEJM5	1
FPC 15P Female	CON FPC 1mm 15P Female SMD VERT	J5	FPC- 15_FEM_SMD_VERT	1-1734248-5	1
HDR-2.54 Male 1x6	CON HDR-2.54 Male 1x6 Gold 5.84MH TH VERT	J6	1x6_MALE_HDR_2.54	68000-106HLF	1
1.5uH	INDUCTOR 1.5uH 3.5A 20% SMD 1008	L1, L2, L3	L_1008	DFE252012P- 1R5M-P2	3
10k	RES TKF 10k 1% 1/10W SMD 0402	R1, R14, R16, R17, R34, R35, R36, R38, R43, R44, R45, R46, R47	RES_0402	ERJ-2RKF1002X	13
200R	RES TKF 200R 1% 1/20W SMD 0201	R2, R3, R4	RES_0201	CR0201-FW-2000GLF	3
16.9k	RES TKF 16.9k 1% 1/20W SMD 0201	R5, R6, R7, R8	RES_0201	ERJ-1GNF1692C	4
4.02k	RES TKF 4.02k 1% 1/20W SMD 0201	R9	RES_0201	RC0201FR-074K02L	1
1k	RES TKF 1k 1% 1/10W SMD 0402	R10, R11, R22, R23, R37, R39, R40, R41, R42	RES_0402	ERJ-2RKF1001X	9
240R	RES TKF 240R 1% 1/20W SMD 0201	R12, R13	RES_0201	RC0201FR-07240RL	2
20k	RES TKF 20k 1% 1/10W SMD 0402	R15	RES_0402	RMCF0402F120K0	1
47k	RES TKF 47k 1% 1/10W SMD 0402 AEC- Q200	R18, R19, R28, R29, R30, R31, R32, R33	RES_0402	ERJ-2RKF4702X	8
2.2k	RES TKF 2.2k 1% 1/10W SMD 0402	R20, R21, R24	RES_0402	ERJ-2RKF2201X	3
330R	RES TKF 330R 1% 1/10W SMD 0603	R25, R26	RES_0603	ERJ-3EKF3300V	2
6.04k	RES TKF 6.04k 1% 1/10W SMD 0402 AEC- Q200	R27	RES_0402	ERJ-2RKF6041X	1
PTS647	Switch Tactile N.O. SPST Round Button (Gull Wing 0.05A 12VDC 100000cycles 2.45N SMD 1/R)	SW1, SW2	SW_SMD	PTS647SK38SMTR2LFS	2
SAMA7G54D2G- LFBGA-427	CORTEX-7 Mpu, BGA, Ind Temp, 2GB DDR3	U1	LFBGA-427	SAMA7G54D2G-I4UB	1
MCP16501TA-E/RMB	MCHP ANALOG PMIC SWITCHER Buck ADJ MCP16501TA-E/RMB QFN-24	U2	OFN-24	MCP16501TA-E/RMB	1
LAN8840-V/PSA	MCHP INTERFACE ETHERNET LAN8840 QFN-48	U3	OFN-48	LAN8840-V/PSA	1
32.768kHz	MCHP CRYSTAL 32.768kHz 12.5pF VMK4-1EE-12- 32K7680000TR SMD 1.2W/1.2H0.55	Y1	VMK4_32kHz	VMK4-1EE-12- 32K7680000TR	1
24MHz	MCHP CRYSTAL 24MHz 10pF VMX8- 9016-24M000000 SMD L2.5W/2.5H0.55	Y2	VXM8_24MHz	VMX8-9016- 24M0000000	1
50MHz	MCHP CRYSTAL 50MHz VMX7-1362- 50M00000000 SMD L3.2W/2.5H0.8	Y3	VXM7_50MHz	VMX7-1362- 50M0000000	1

