



Renesas Electronics Corporation delivers trusted embedded design innovation with complete semiconductor solutions that enable billions of connected, intelligent devices to enhance the way people work and live. A global leader in microcontrollers, analog, power, and SoC products, Renesas provides comprehensive solutions for a broad range of automotive, industrial, infrastructure, and IoT applications that help shape a limitless future.



Würth Elektronik eiSos is one of the leading manufacturers of electronic and electromechanical components in Europe. The product portfolio includes: EMC Components, EMC Filters, Capacitors, Inductors, RF Inductors and LTCC Components, Resistors, Quartz, Oscillators, Transformers, Components for Circuit Protection, Power Modules, LEDs, Connectors, Switches, High-Power Contacts, Assembly Technique, Wireless Connectivity and Sensors.



SEGGER has over twenty-five years of experience in Embedded Systems, producing cutting-edge RTOS and Software Libraries, and offering a full set of hardware tools (for development and production) and software tools. The J-Link debug probes, with Ozone the accompanying debugger and performance analyzer, and Embedded Studio the powerful cross platform C/C++ IDE, are available to support developers in creating their own embedded systems.



AP Memory is a memory IC design company focusing on Low to Mid density RAM solutions, providing a full range of IoT RAM (low pin count QSPIOPSRAM), ADMUX RAM (CellularRAM), low power DRAM (LPDDR2/LPDDR3), as well as innovative solution for AI such as UHS OPI and more... Partnering with an advanced DRAM technology foundry, AP Memory provides world class performance, supply longevity, quality and cost, including high volume and customer oriented innovative and customized solutions, in both KGD and package form.


	PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
	PAGE	Technology Partners			APPROVED BY	TONY P.	DATE	2023.03.21
 www.m13design.fr	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0			2023.03.21		A4	1 OF 16

TABLE OF CONTENT

PAGE	DESCRIPTION
1	Technology partners
2	Table of Content
3	RA6M5 / System
4	RA6M5 / GPIO1
5	RA6M5 / GPIO2
6	RA6M5 / Power
7	Debug, Virtual COM & Reset
8	Ethernet
9	QSPI, EEPROM, Micro-SD
10	OctaFlash, OctaRAM
11	Audio CODEC
12	Expansion, MEMS, CAN Bus
13	GPIO Distribution
14	Power supply
15	HMI
16	Revision

PRODUCT

M13-RA6M5-EK (Evaluation Board)

DRAWN BY

PATRICK S.

DATE

2022.09.13

PAGE

Content

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REFERENCE

VERSION

REV

REMARKS

UPDATED ON

SIZE

SHEET

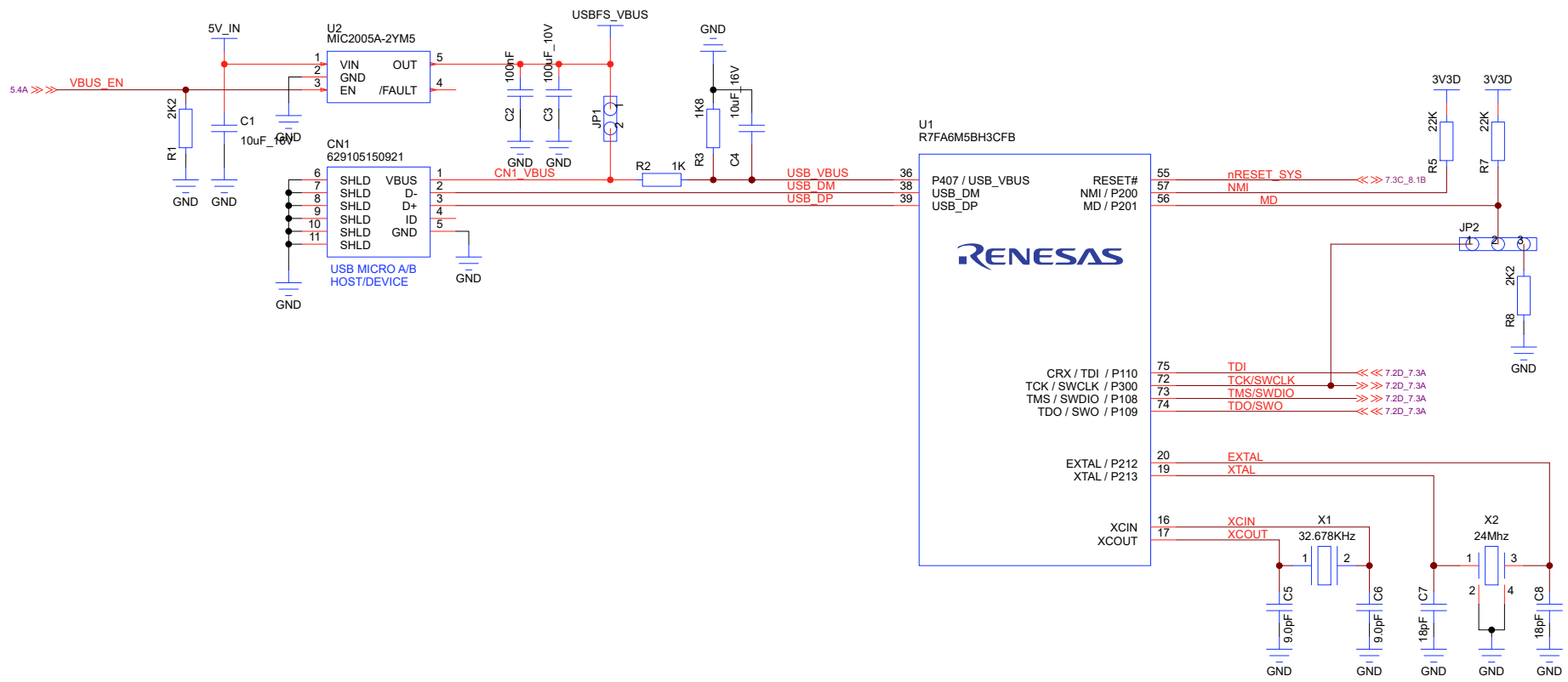
MTD0001.2102

V1.0

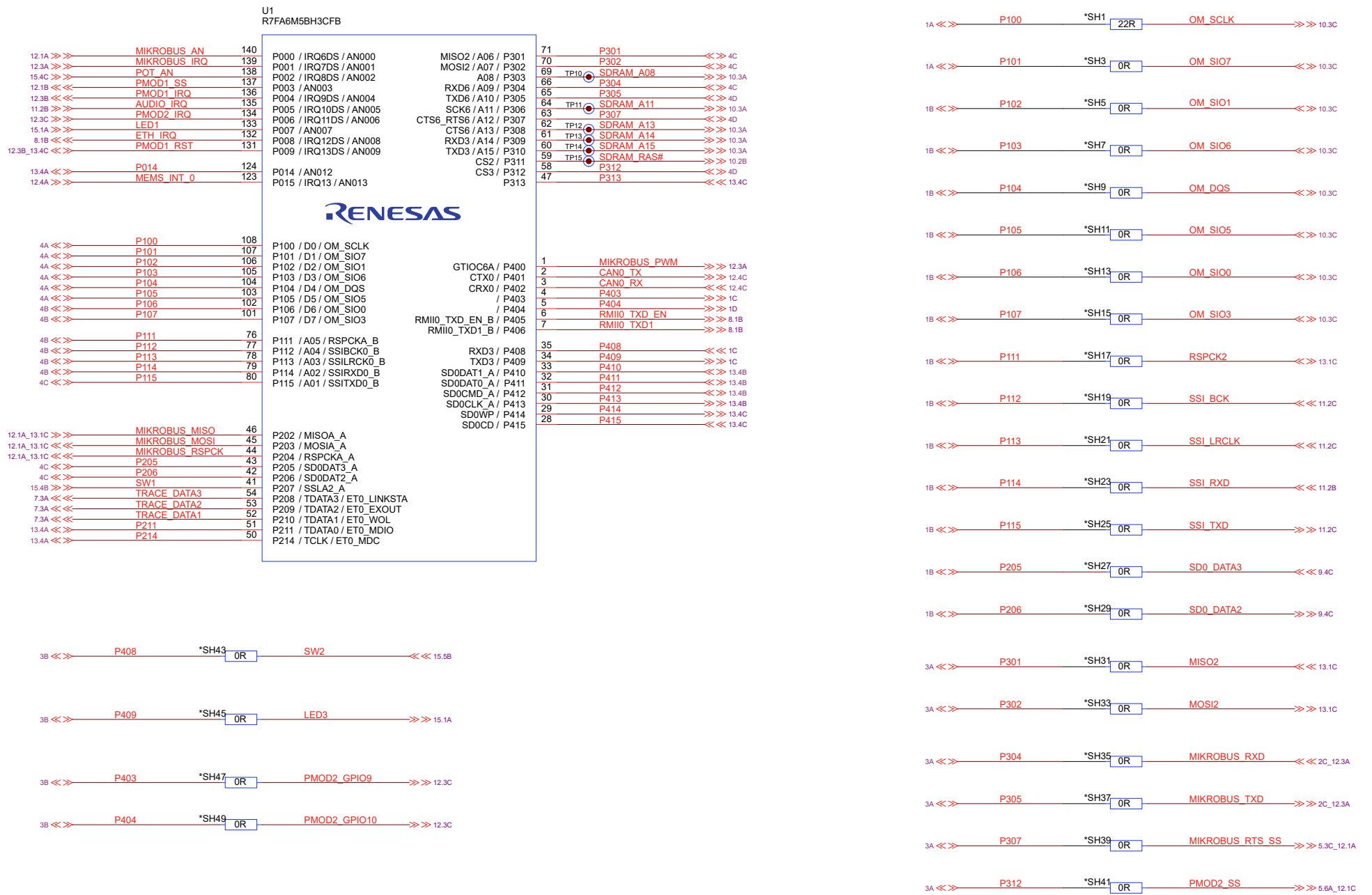
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A4


2 OF 16

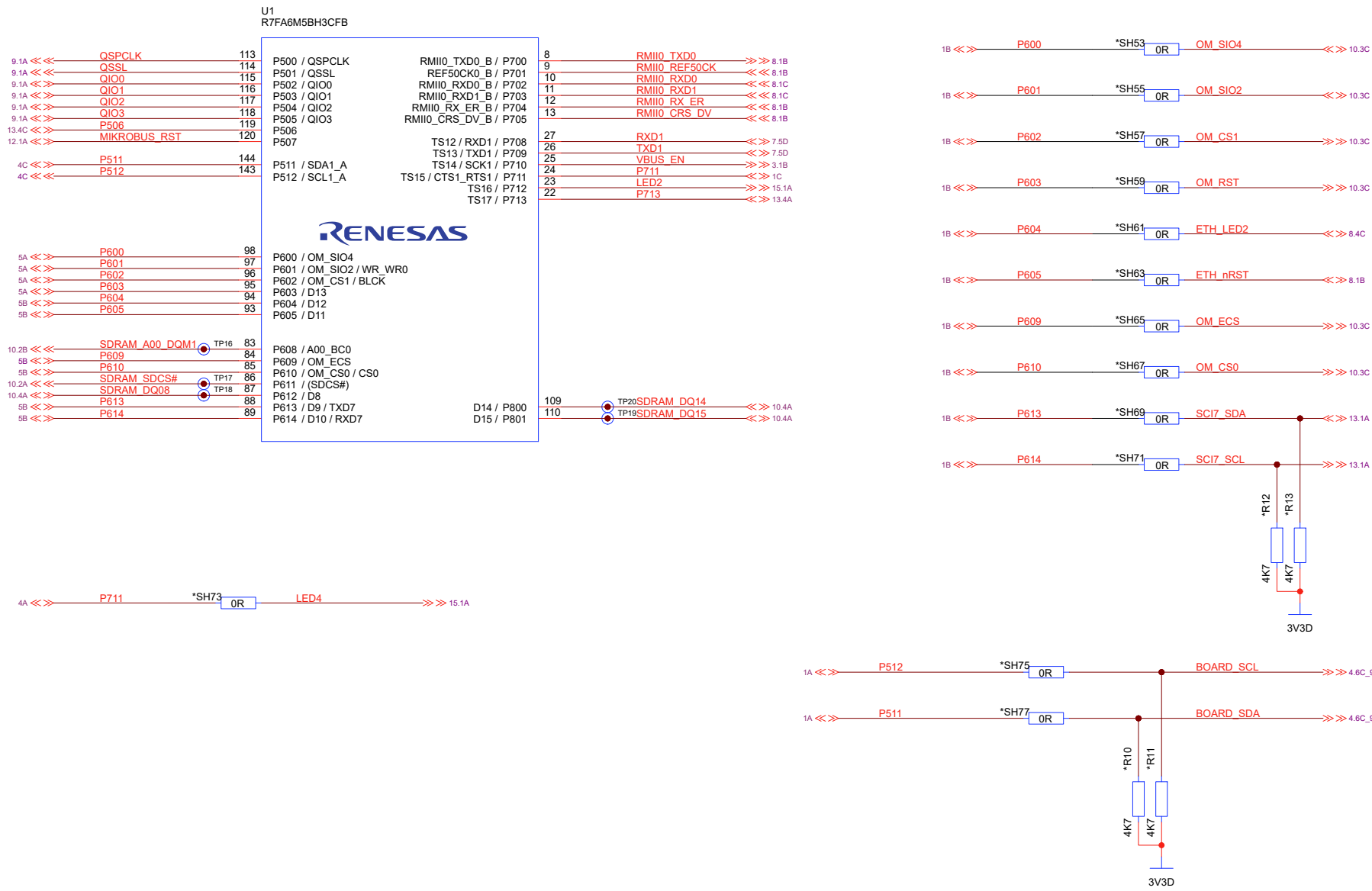



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	PAGE	RA6M5 System			APPROVED BY	TONY P.	DATE	2023.03.21
 www.m13design.fr	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0			2023.03.21		A4	3 OF 16

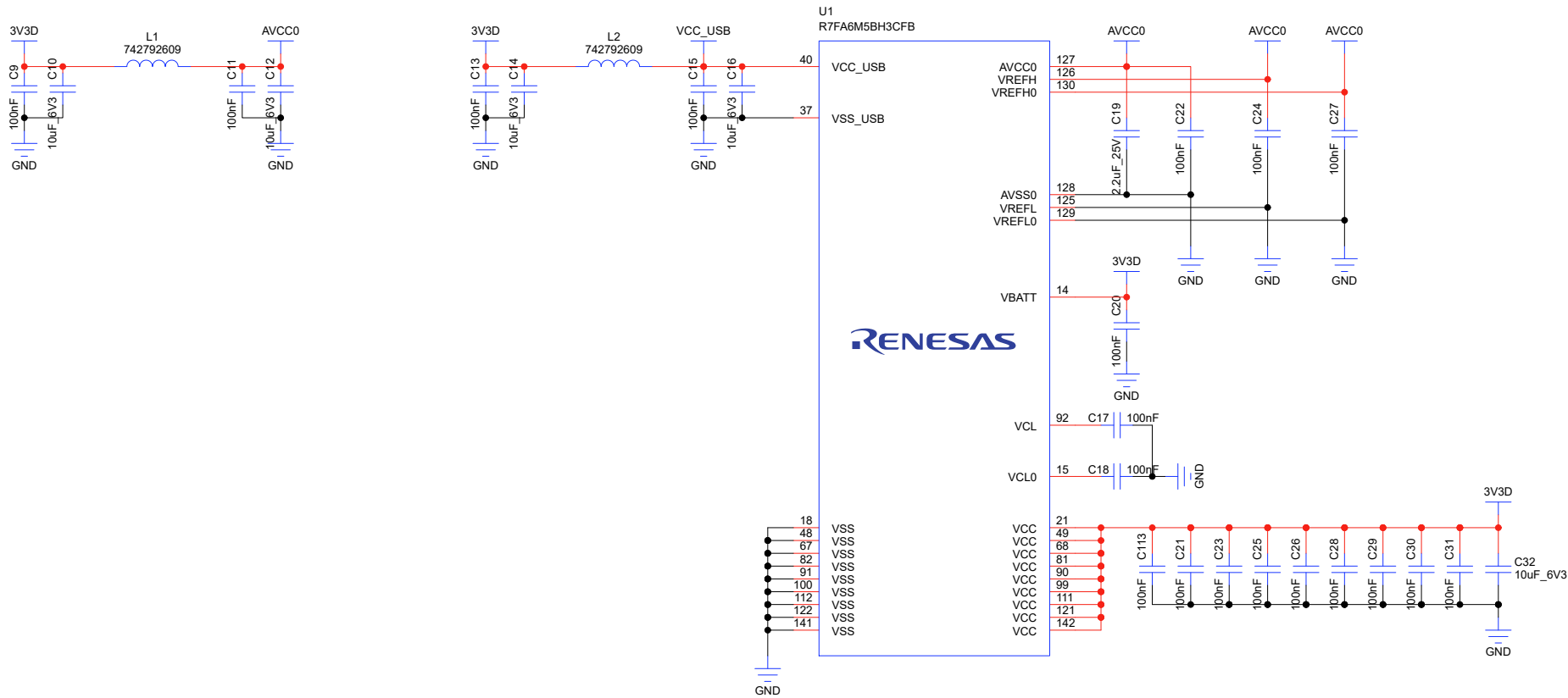


*DNF: Do Not Fit

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PAGE		RA6M5 GPIO1			APPROVED BY		TONY P.		DATE		2023.03.21	
 www.m13design.fr	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET				
	MTD0001.2102	V1.0			2023.03.21		A4	4 OF 16				



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	PAGE	RA6M5 GPIO2			APPROVED BY	TONY P.	DATE	2023.03.21
 www.m13design.fr	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0			2023.03.21		A4	5 OF 16



PRODUCT M13-RA6M5-EK (Evaluation Board)

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DATE 2022.09.13

PAGE RA6M5 Power pins

APPROVED BY TONY P.

DATE 2023.03.21



REFERENCE VERSION REV REMARKS

UPDATED ON SIZE SHEET

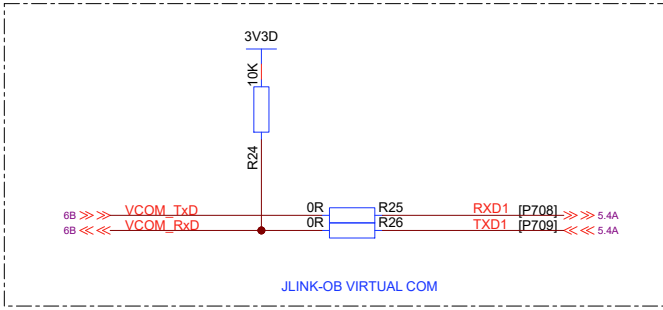
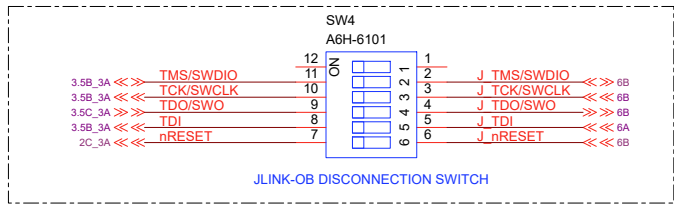
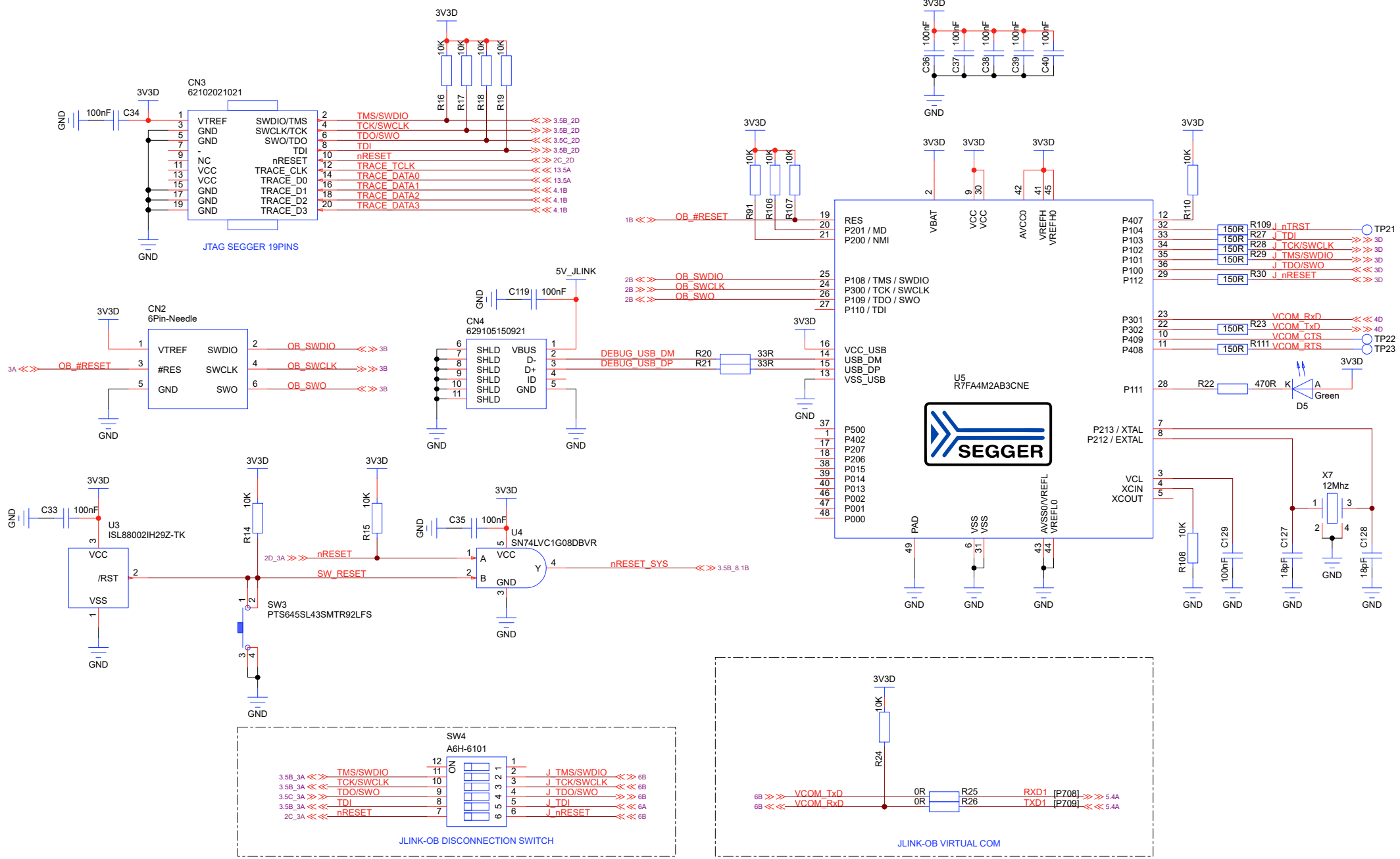
MTD0001.2102

V1.0

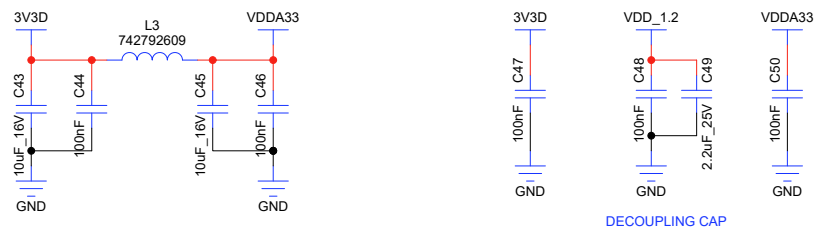
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A4

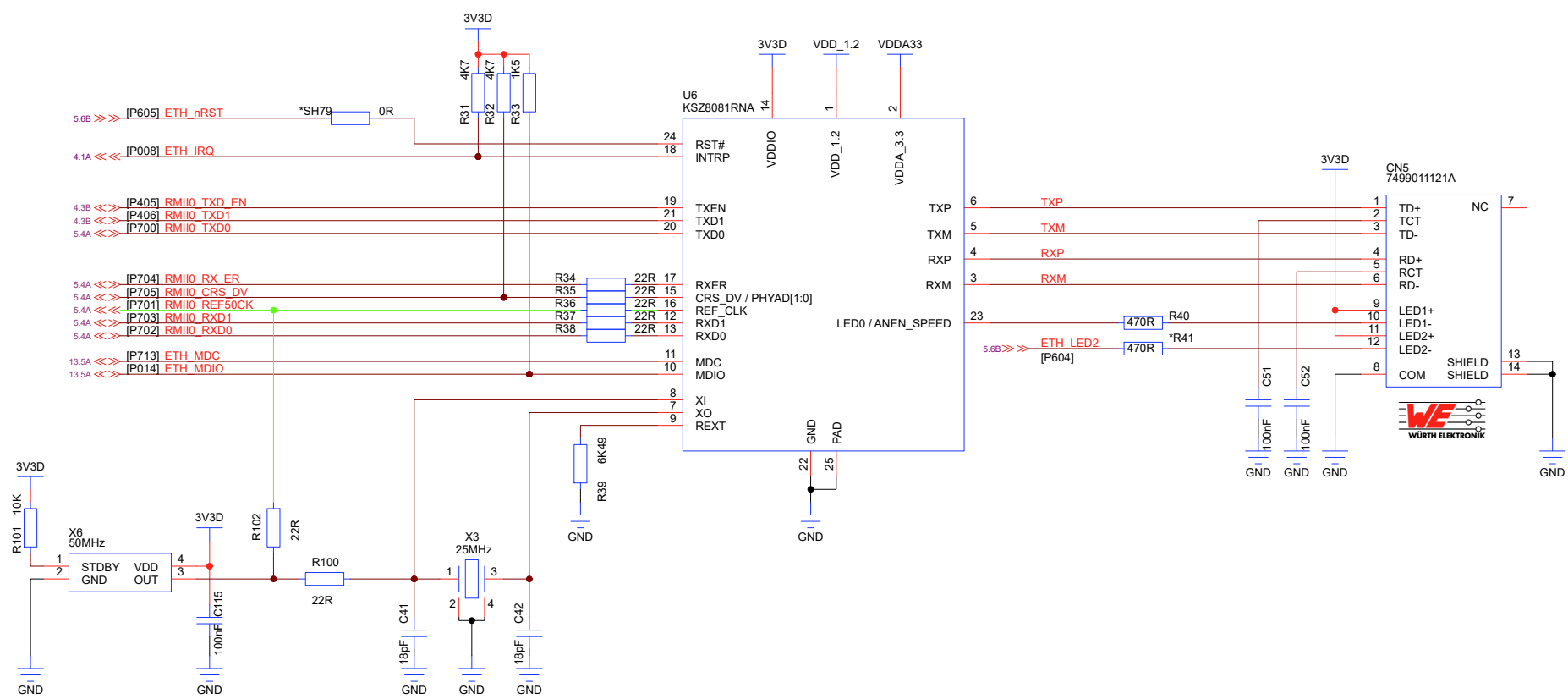
6 OF 16



PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
PAGE	Debug, VirtualCOM & Reset			APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
MTD0001.2102	V1.0			2023.03.21		A4	7 OF 16



DECOUPLING CAP

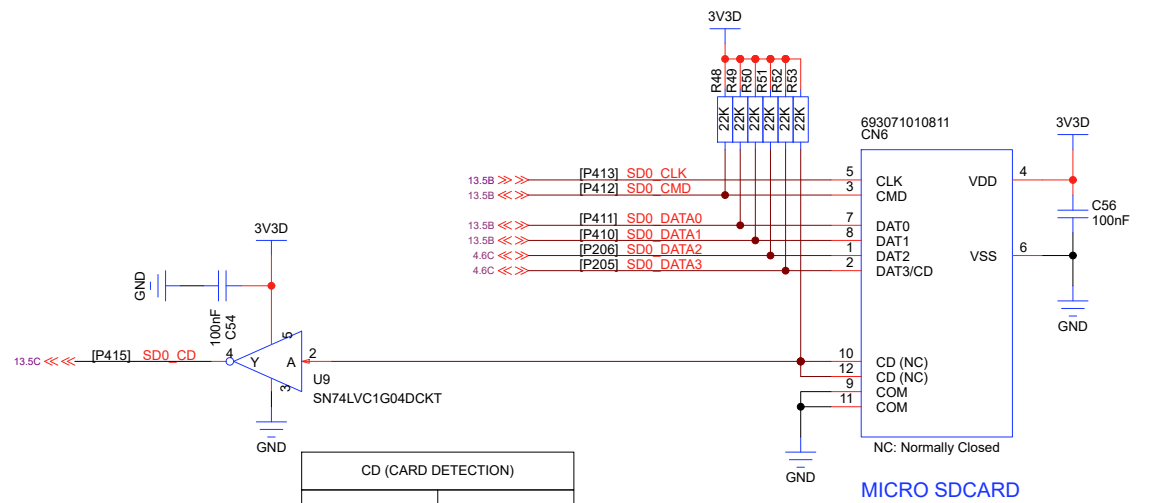
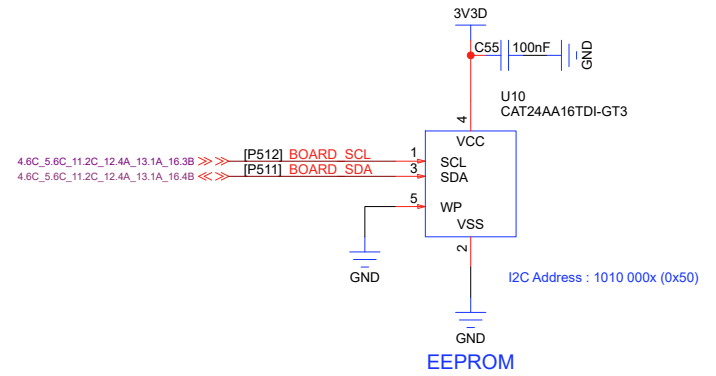
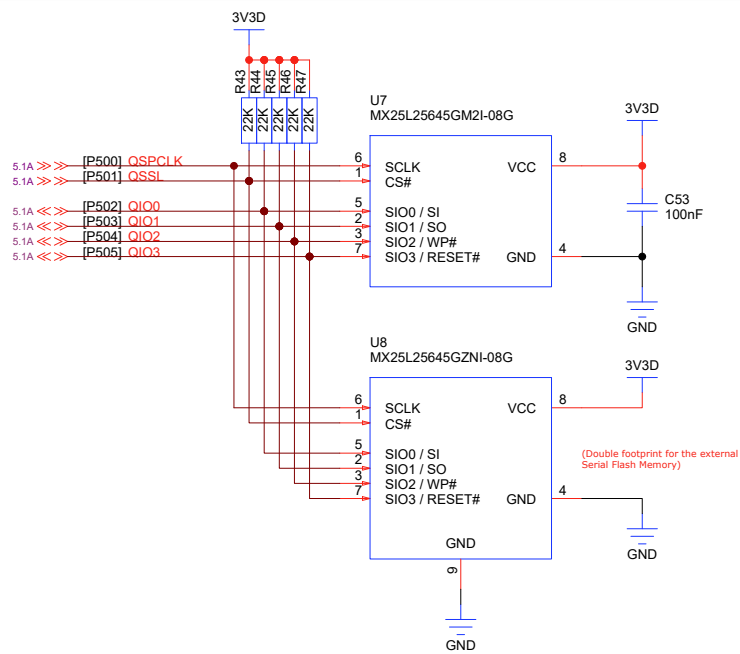


	X3	C41	C42	X6	R36	R100	R101	R102	C115
KSZ8081RNA	F	F	F	NF	F	NF	NF	NF	NF
KSZ8081RND	NF	NF	NF	F	NF	F	F	F	F

NF: Not Fitted
F: Fitted

PRODUCT	M13-RA6M5-EK (Evaluation Board)				DRAWN BY	PATRICK S.	DATE	2022.09.13
PAGE	Ethernet				APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET	
MTD0001.2102	V1.0			2023.03.21		A4	8 OF 16	

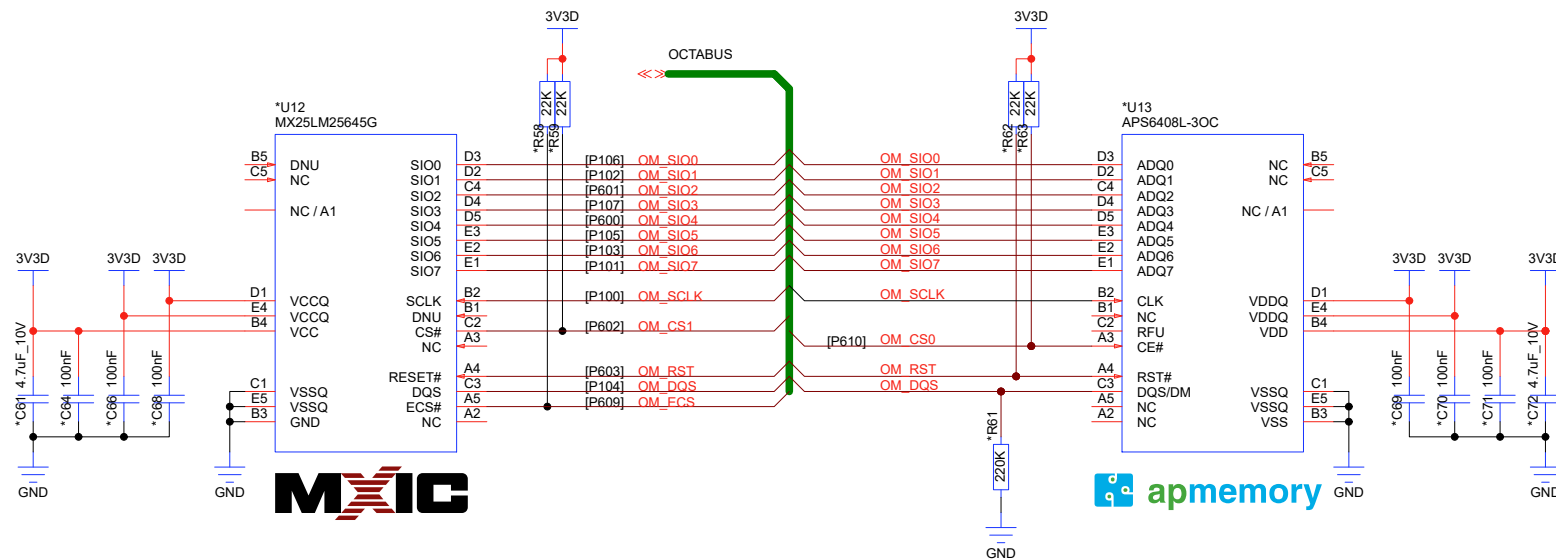




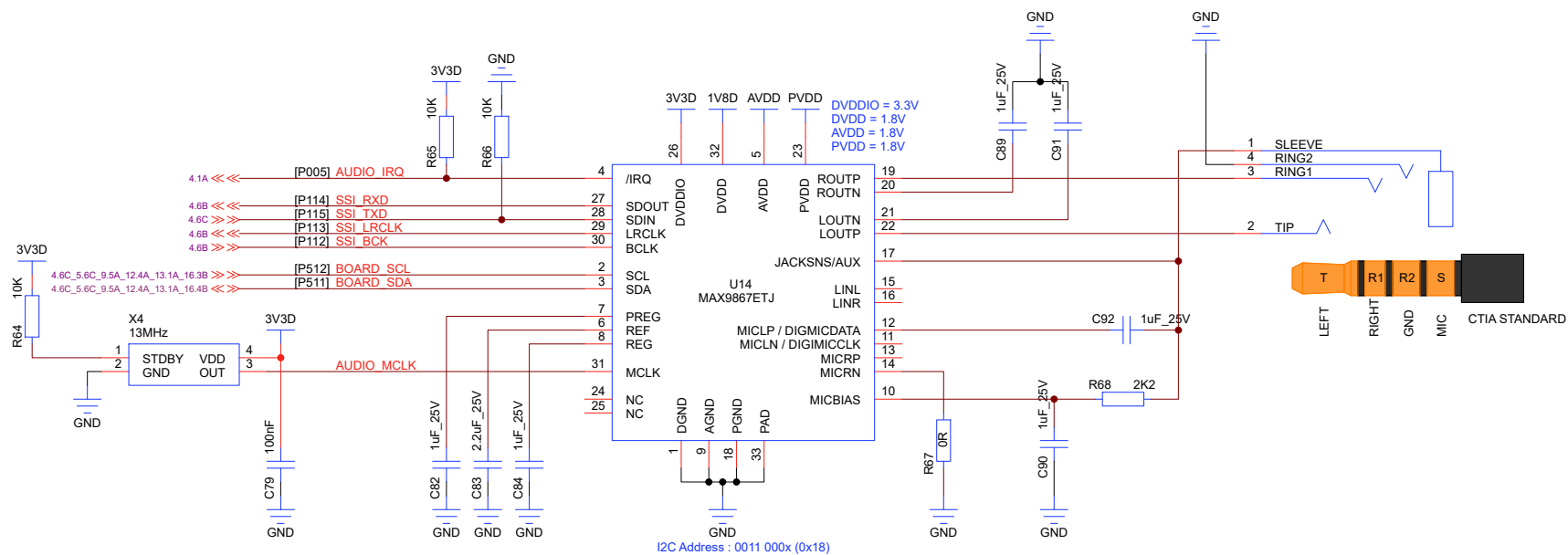
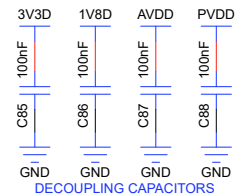
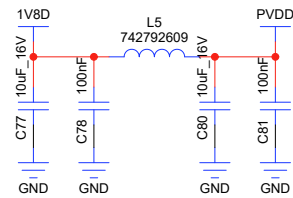
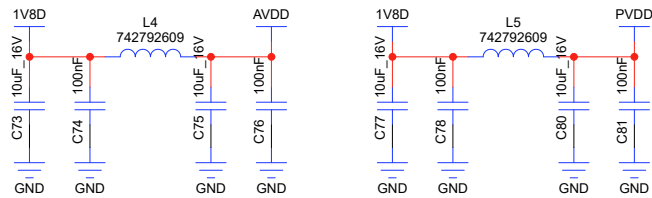
CD (CARD DETECTION)	
CARD REMOVED	CARD INSERTED
CLOSE	OPEN
SD0_CD = 1	SD0_CD = 0



PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
PAGE	QSPI, EEPROM, Micro-SD			APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
MTD0001.2102	V1.0			2023.03.21		A4	9 OF 16



	PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
	PAGE	OctaFlash, OctaRAM			APPROVED BY	TONY P.	DATE	2023.03.21
 www.m13design.fr	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0			2023.03.21		A4	10 OF 16



PRODUCT M13-RA6M5-EK (Evaluation Board)

PAGE Audio CODEC

DRAWN BY

PATRICK S.

DATE

2022.09.13

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TONY P.

DATE

2023.03.21



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VERSION

REV

REMARKS

UPDATED ON

SIZE

SHEET

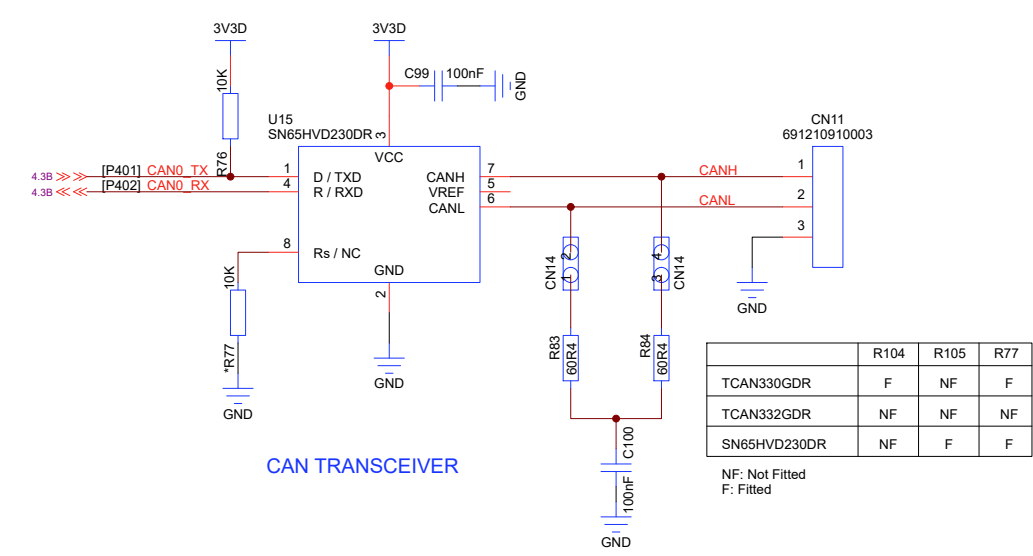
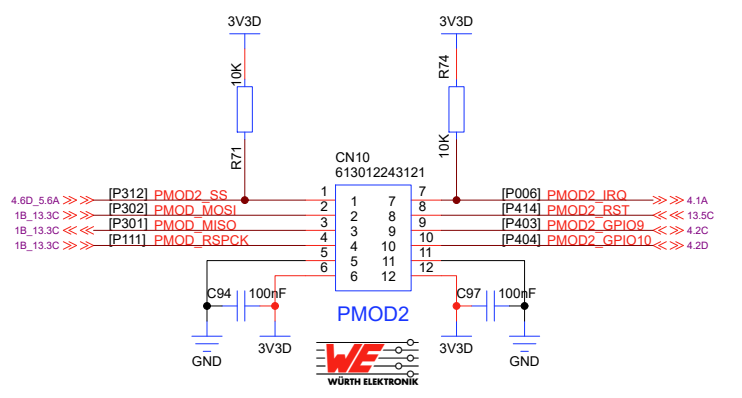
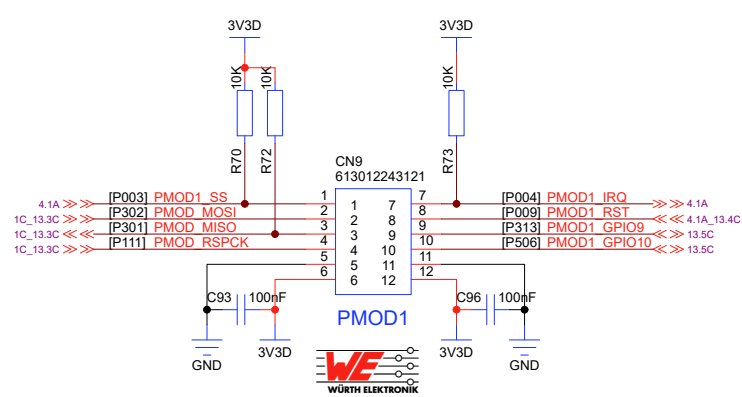
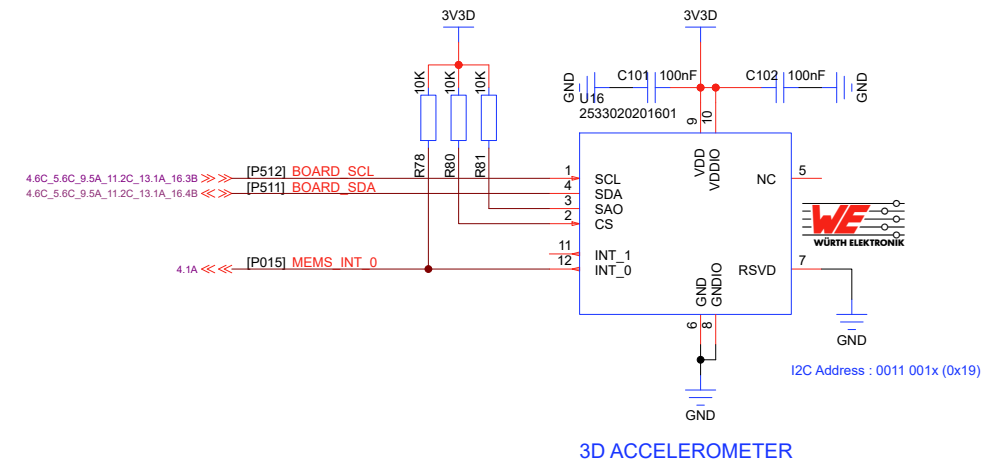
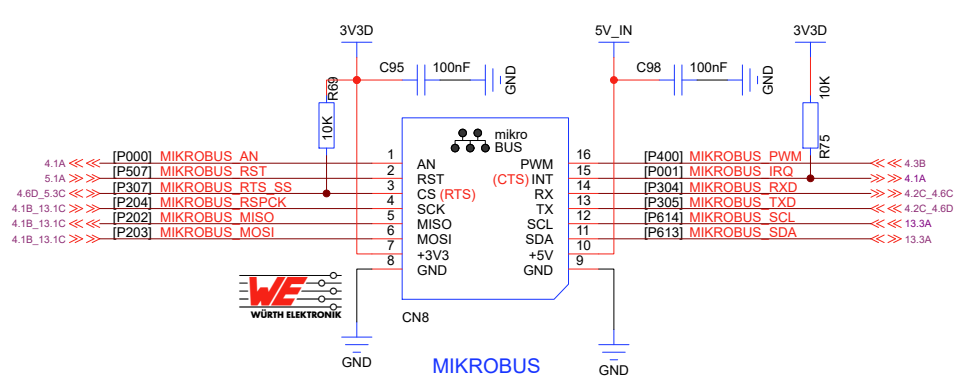
MTD0001.2102

V1.0

2023.03.21

A4

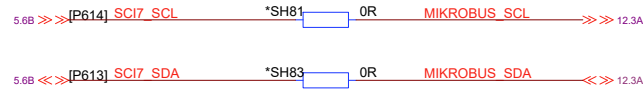
11 OF 16



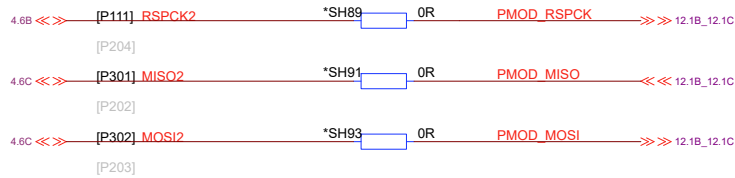
	R104	R105	R77
TCAN330GDR	F	NF	F
TCAN332GDR	NF	NF	NF
SN65HVD230DR	NF	F	F

NF: Not Fitted
F: Fitted

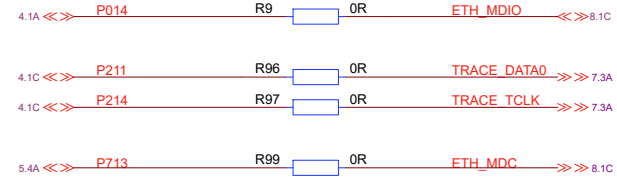
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PAGE	Expansion, MEMS, CAN Bus			APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
MTD0001.2102	V1.0			2023.03.21		A4	12 OF 16



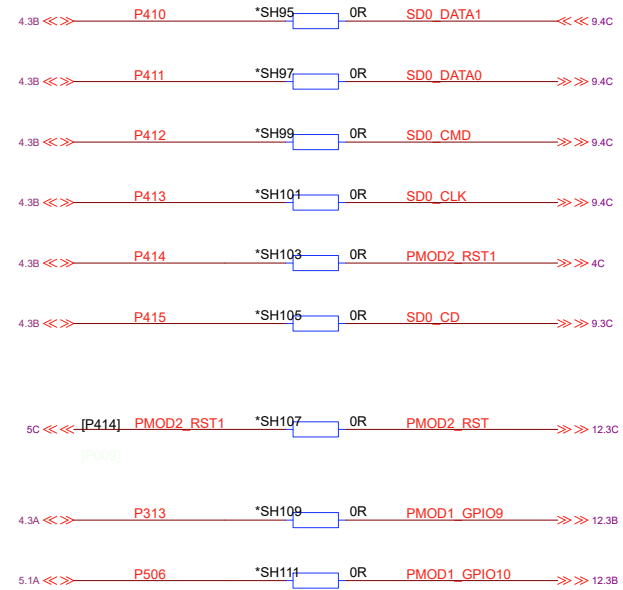
I2C BUS SELECTION FOR MIKROBUS



SPI BUS SELECTION FOR PMOD



MDC/MDIO & TRACE SIGNALS SELECTION

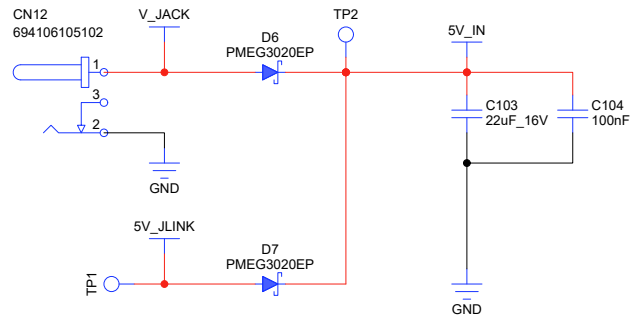


SDCARD / CAMERA MULTIPLEXING

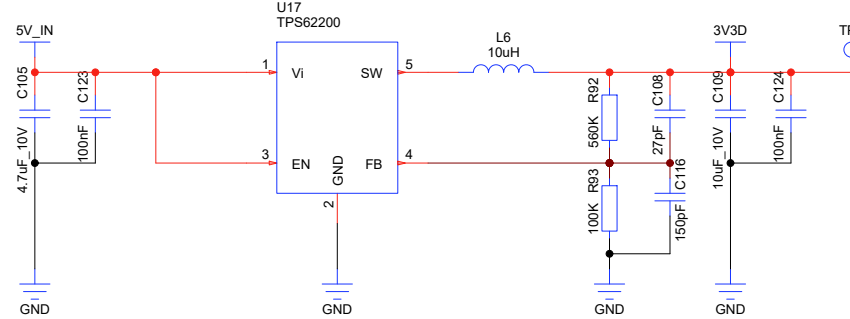
PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
	PAGE	GPIO Distribution			APPROVED BY		TONY P.
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0					

JACK POWER SUPPLY MUST BE STRICTLY 5V

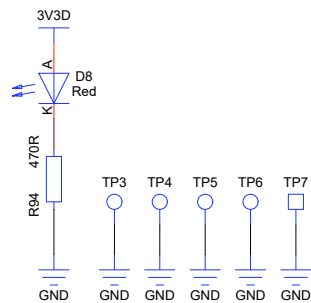
5V POWER SOURCE



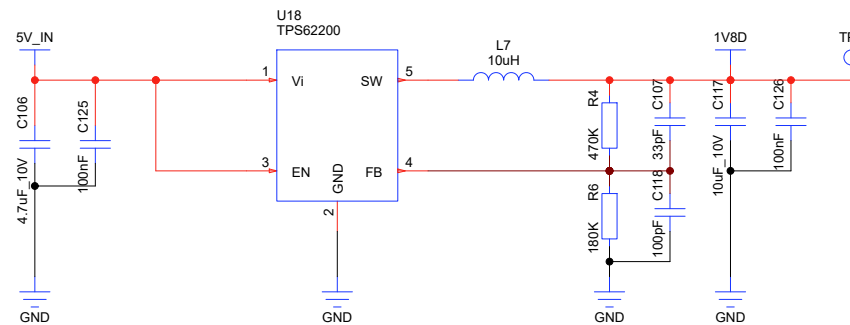
5V TO 3V3 Digital



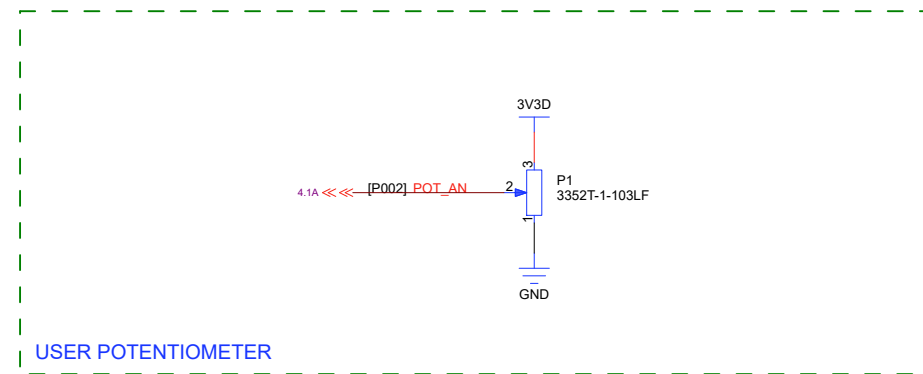
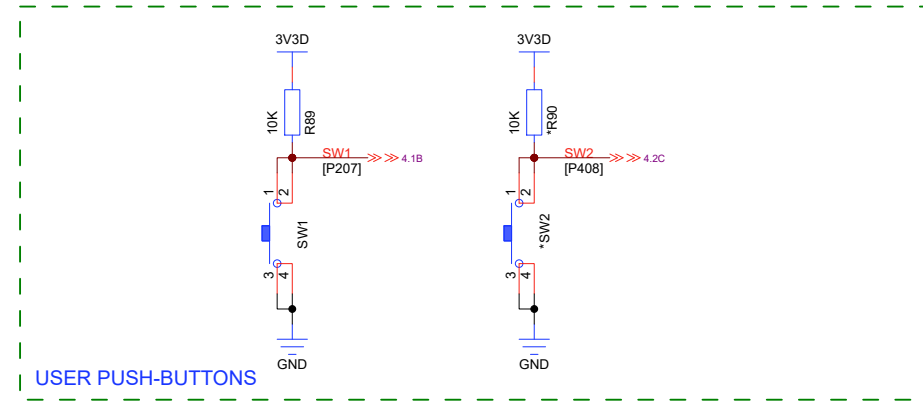
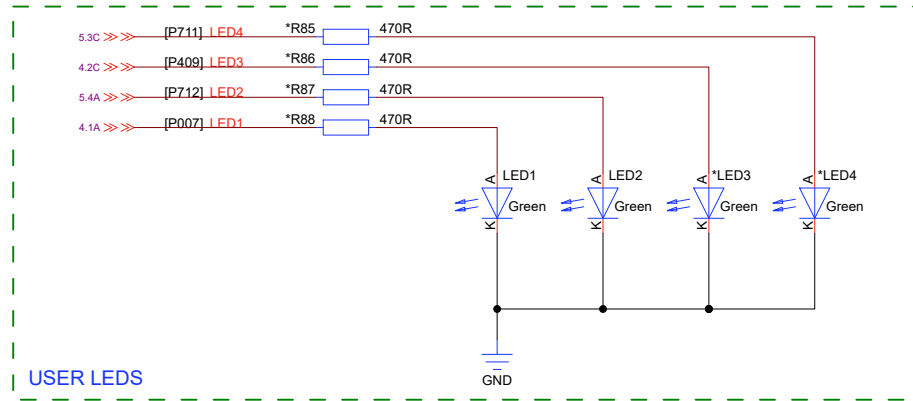
POWER ON LED



5V TO 1V8 Digital



PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
PAGE	Power supply			APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
MTD0001.2102	V1.0			2023.03.21		A4	14 OF 16



	PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
	PAGE	HMI			APPROVED BY	TONY P.	DATE	2023.03.21
	REFERENCE	VERSION	REV	REMARKS	UPDATED ON		SIZE	SHEET
	MTD0001.2102	V1.0			2023.03.21		A4	15 OF 16

1

2

3

4

5

6

A

A

B

B


C

C

D

D

REVISION HISTORY		
DATE	VERSION	CHANGES
2023.03.21	V1.0	First draft

 www.m13design.fr	PRODUCT	M13-RA6M5-EK (Evaluation Board)			DRAWN BY	PATRICK S.	DATE	2022.09.13
	PAGE	Revision History			APPROVED BY	TONY P.	DATE	2023.03.21
REFERENCE	VERSION	REV	REMARKS			UPDATED ON	SIZE	SHEET
MTD0001.2102	V1.0					2023.03.21	A4	16 OF 16

1

2

3

4

5

6