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REVISION HISTORY

VER #	DATE	DESCRIPTION OF CHANGES	AUTHOR
0.1	28 Oct. 2022	EVT Board release	qxn
			qxn
			qxn
			qxn

Main

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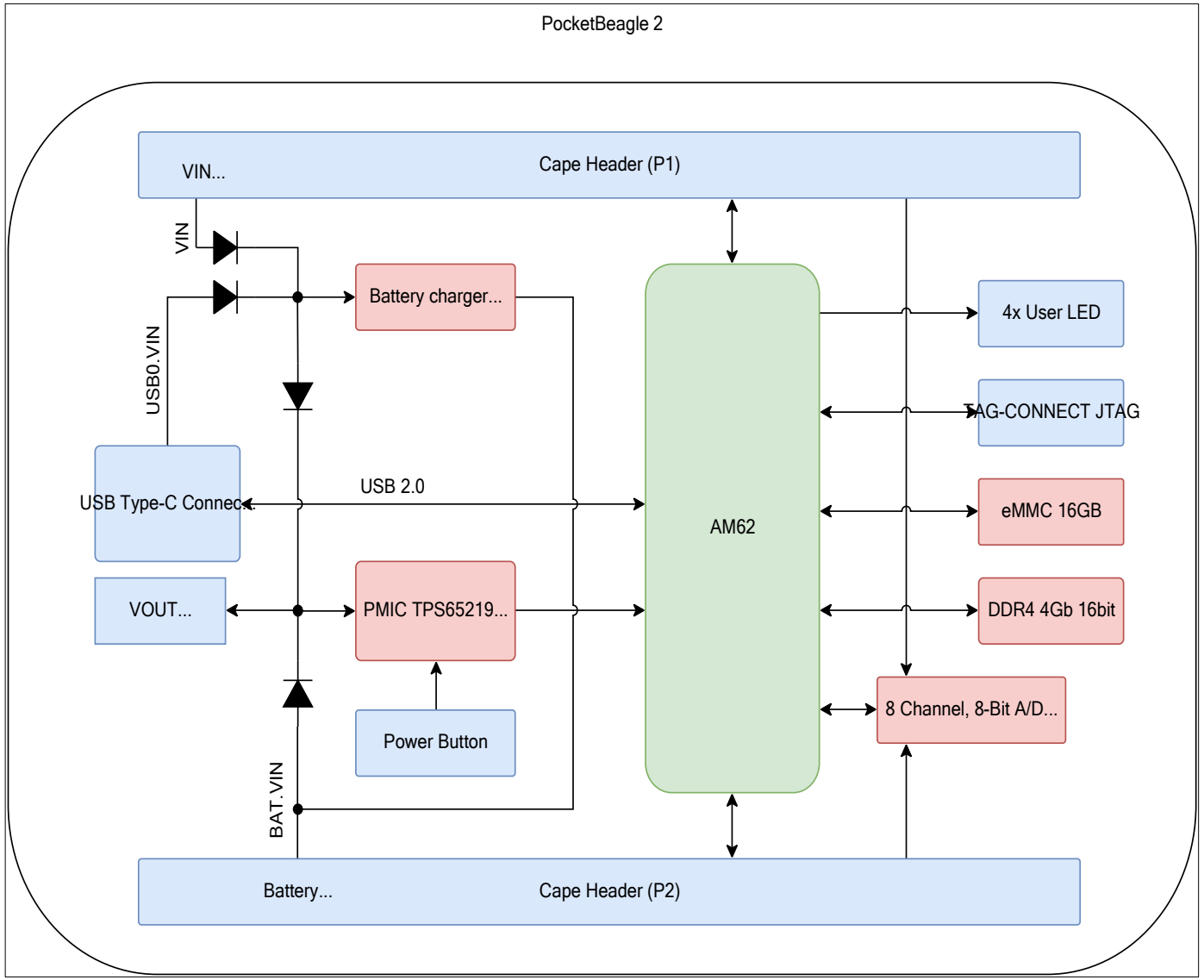
Title: PocketBeagle2

Size:	Document Number:	Rev:
A3	001_Revision History	v0.1

Draw By:	Date:	Sheet:
qxn	Friday, October 28, 2022	1 of 16

Block Diagram



Main

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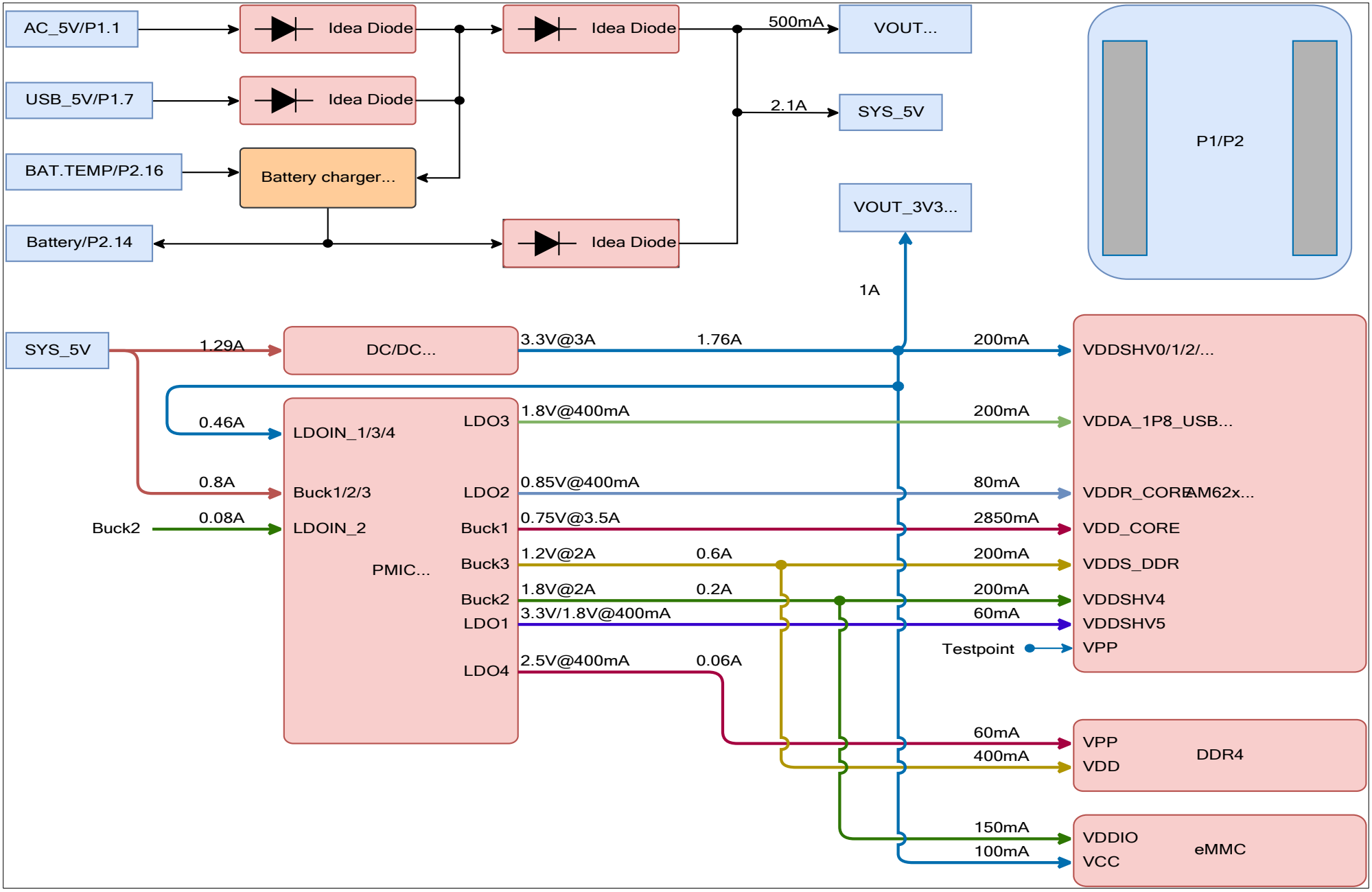
	Title: PocketBeagle2	
Size: A3	Document Number: 002_Block Diagram	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 2 of 16

Power tree



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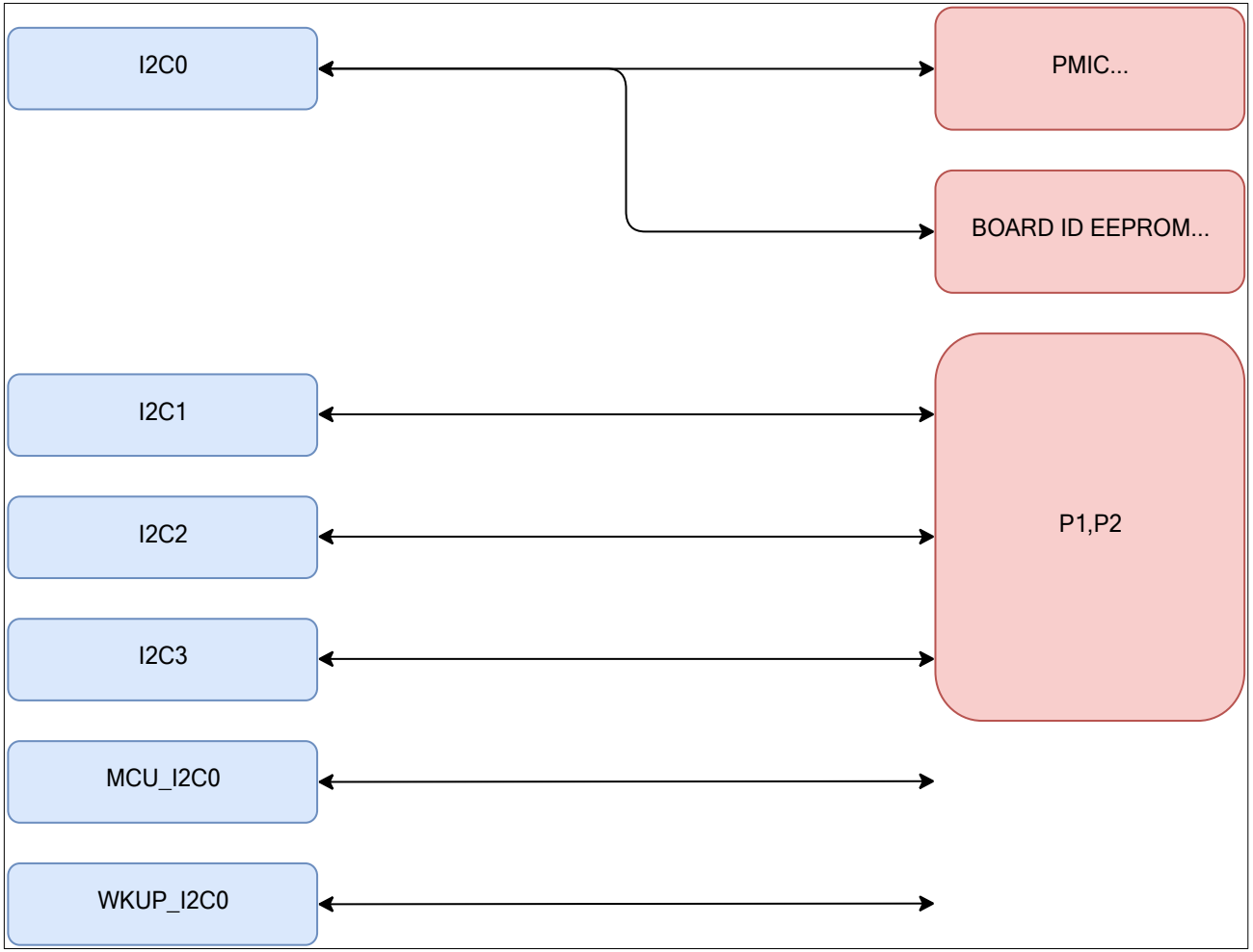
Title: PocketBeagle2

Size: A3	Document Number: 003_Power Tree	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 3 of 16

I2C Usage Diagram



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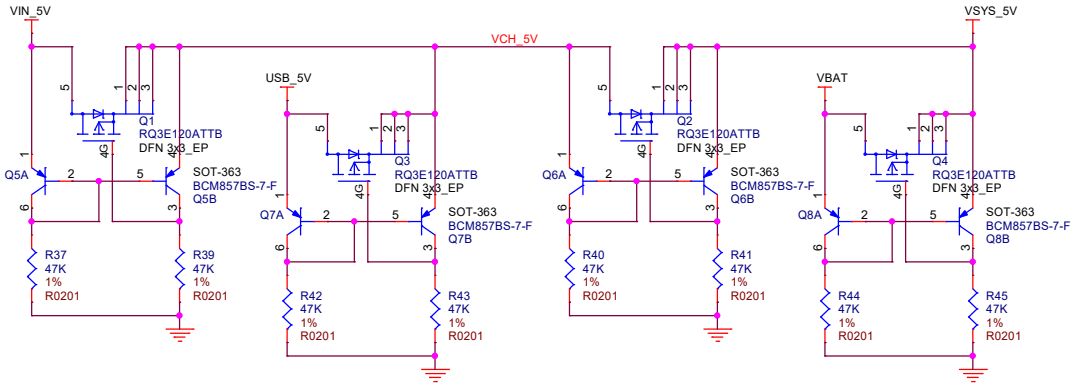
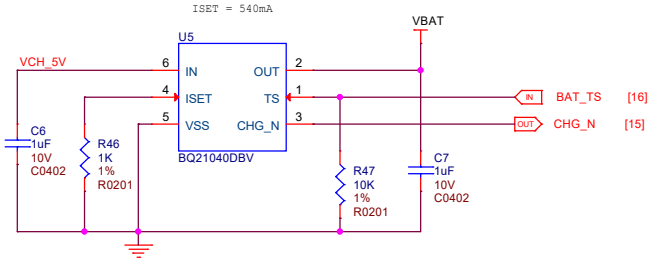
	Title: PocketBeagle2	
Size: A3	Document Number: 004_I2C Usage Diagram	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 4 of 16

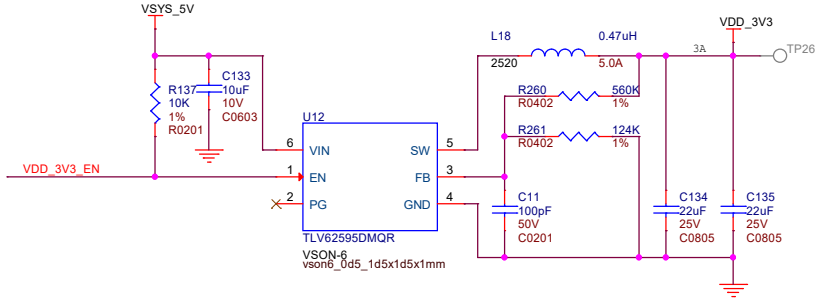
Power Path



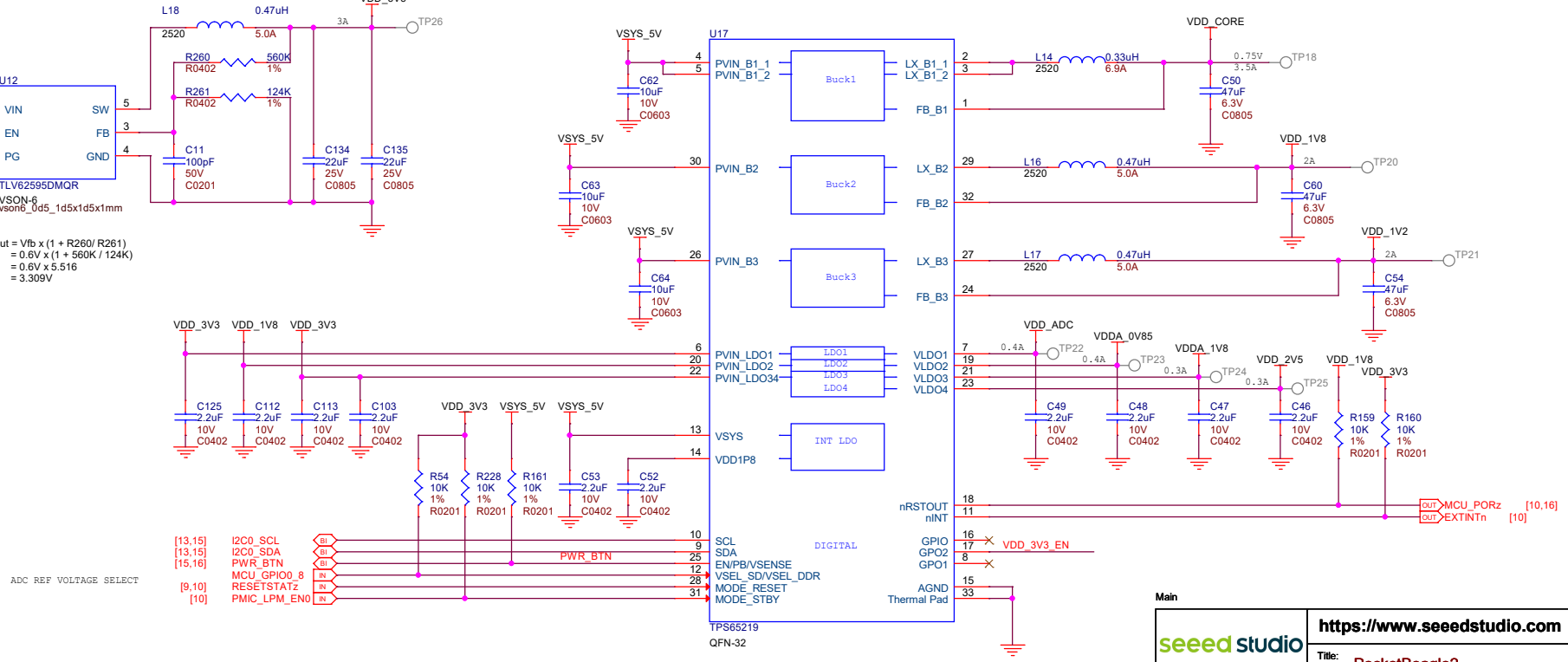
Battery Charger



DCDC 3V3



PMIC



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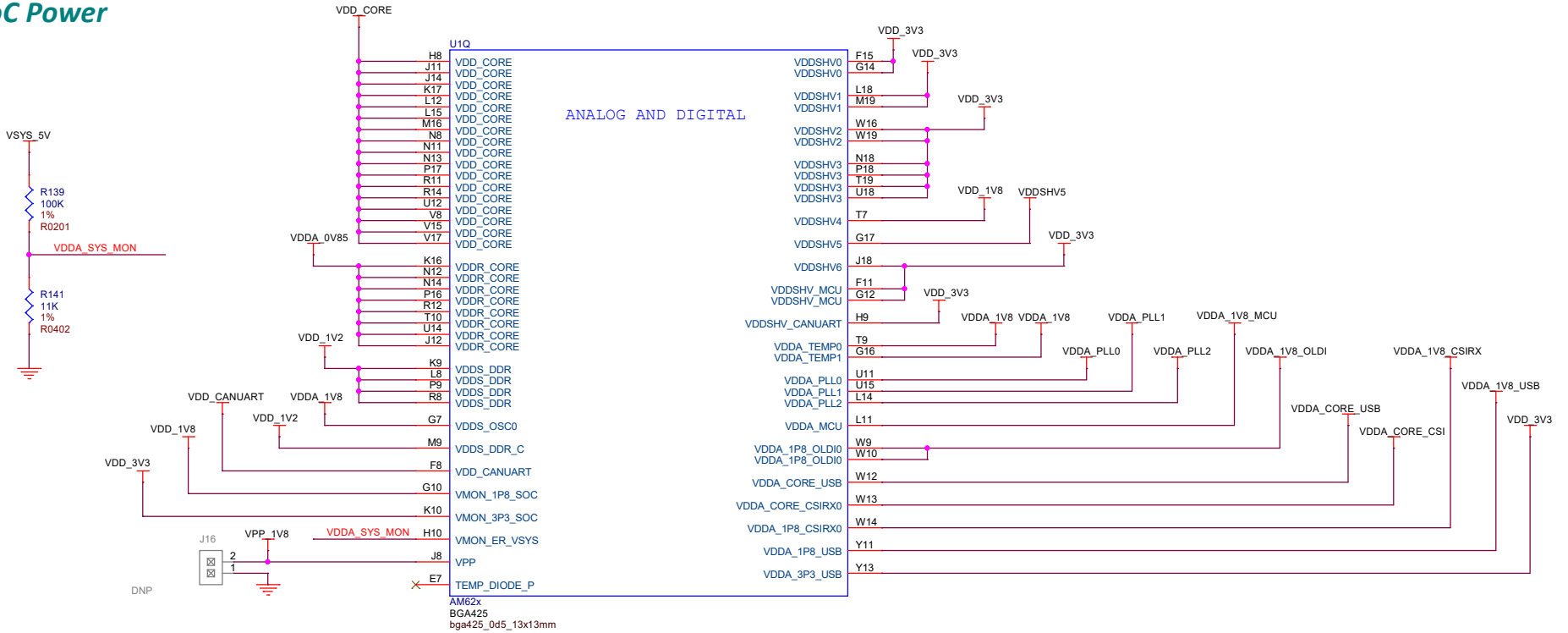
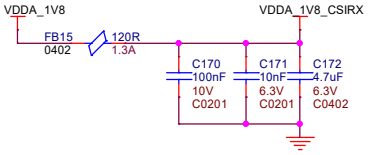
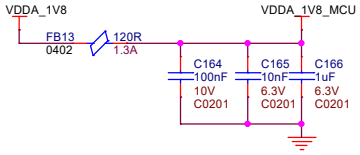
Title: PocketBeagle2

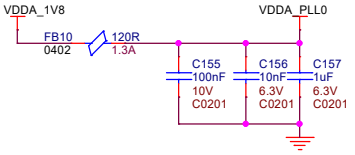
Size: A3	Document Number: 005_PMIC & Charger	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 5 of 16

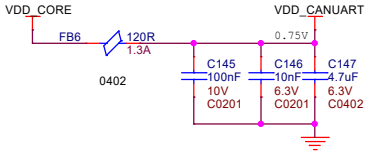
SoC Power

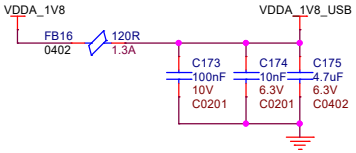


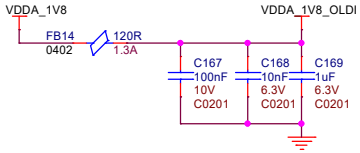


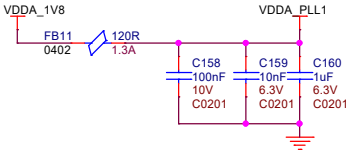


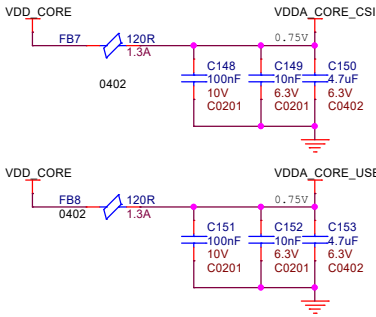


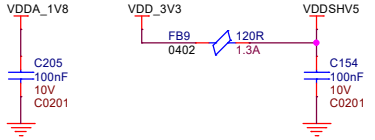


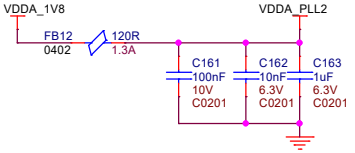












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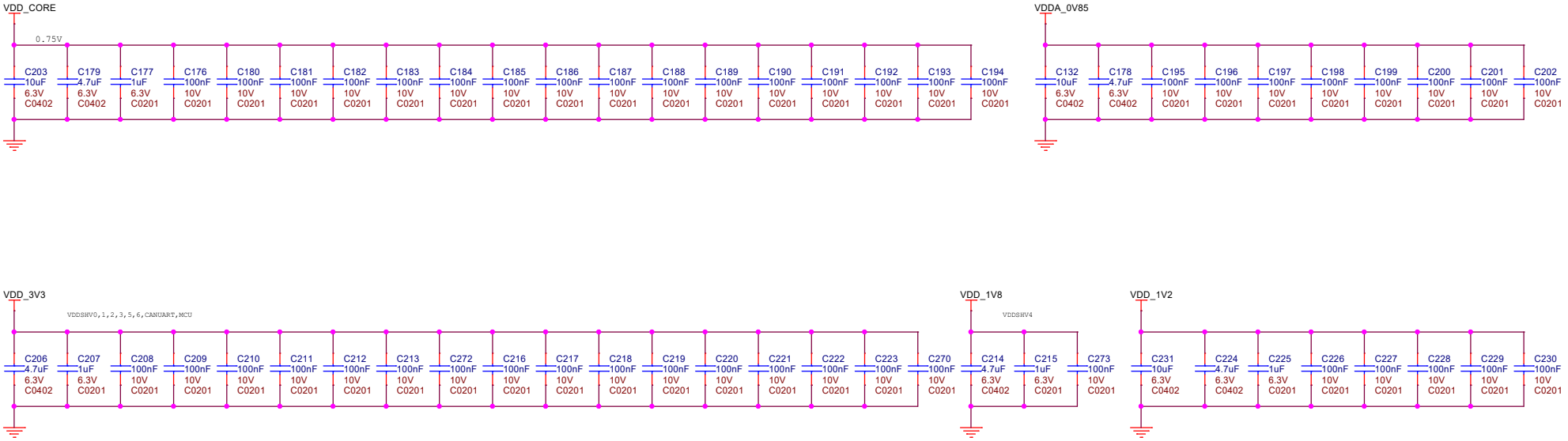
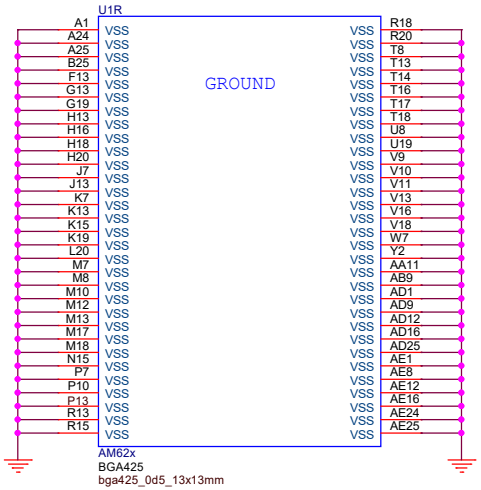
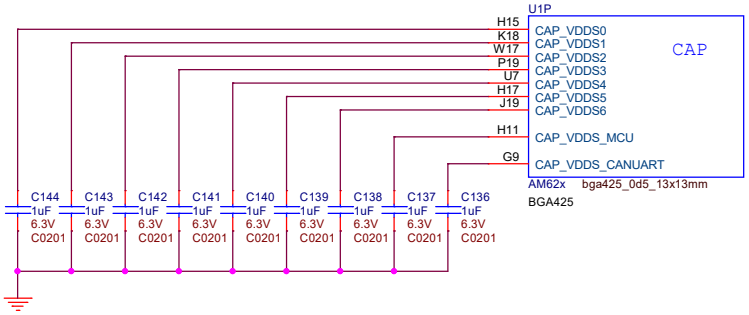
Title: PocketBeagle2

Size:	Document Number:	Rev:
A3	006_SoC Power	v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 6 of 16

SoC DCAPs







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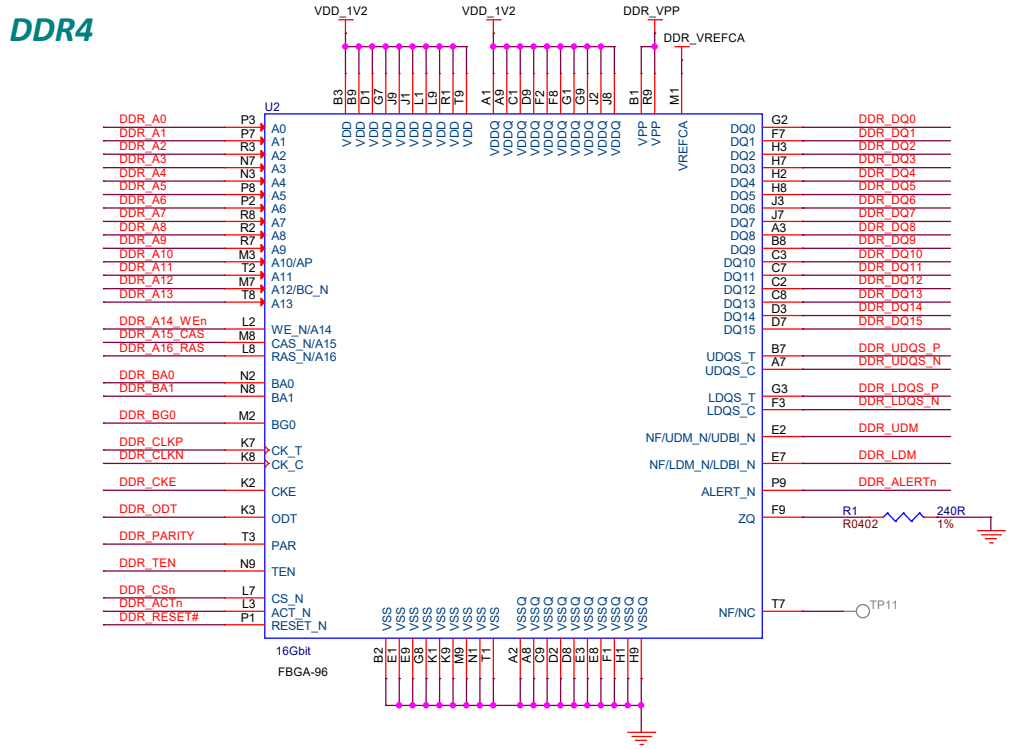
seeed studio

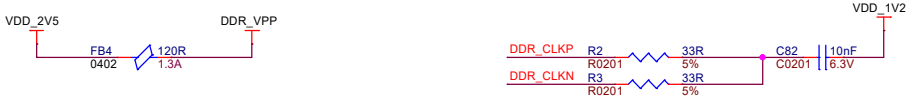
https://www.seeedstudio.com

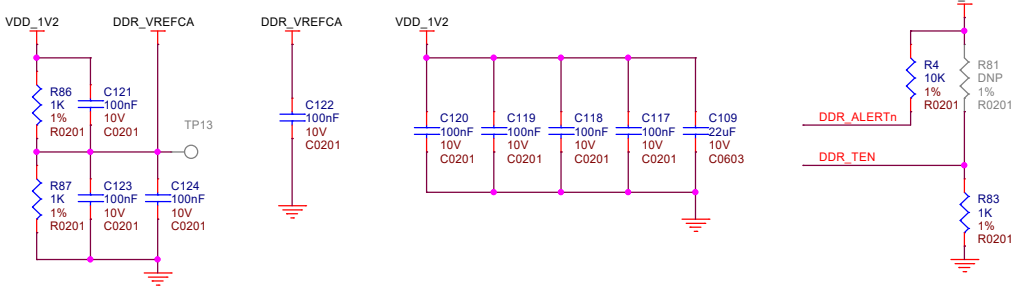
Title: PocketBeagle2

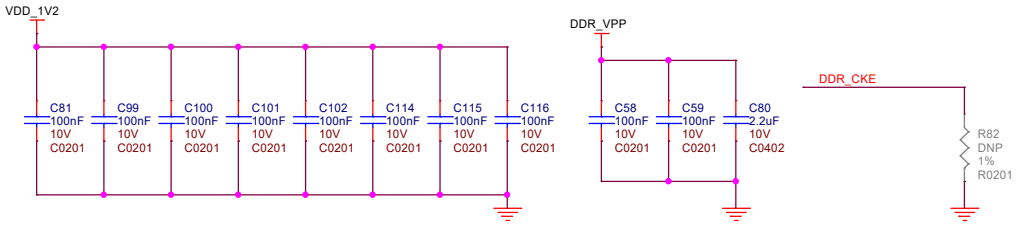
Size: A3	Document Number: 007_SoC DCAPs	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 7 of 16

DDR4

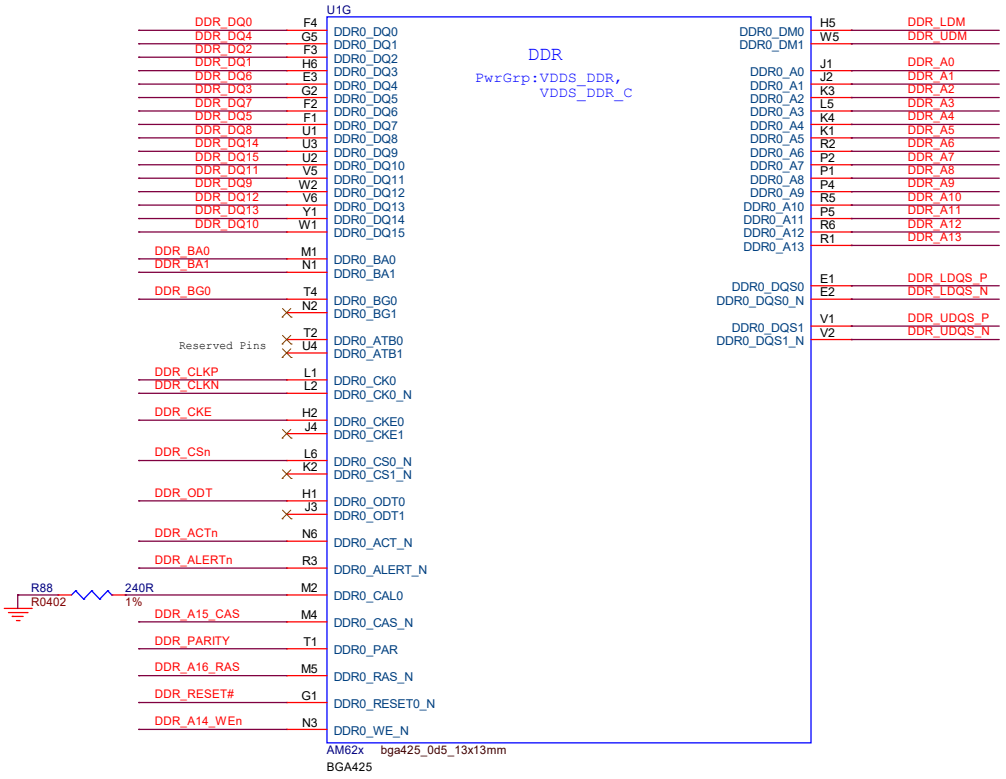


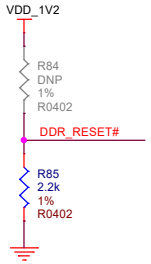






SoC DDR controller



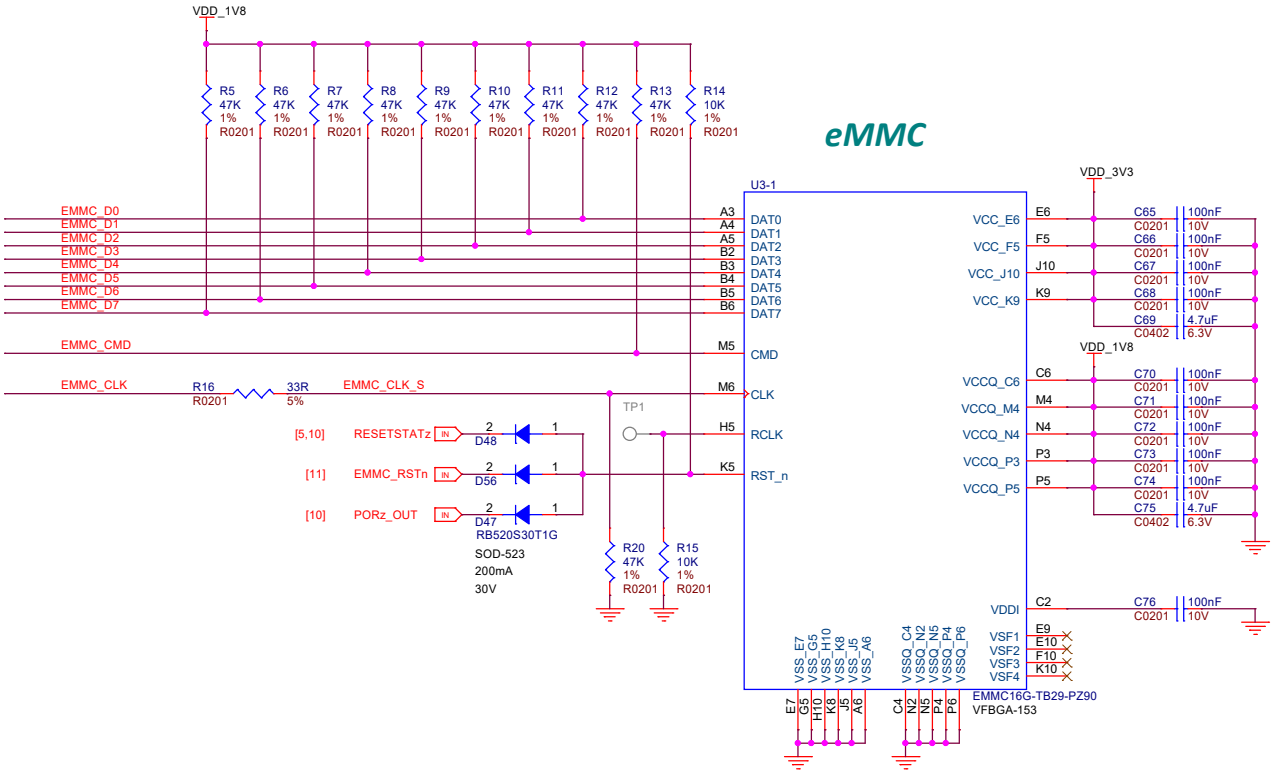


NOTE: DDR DQ Lines Swapped Within Data Byte

Main

seeed studio	https://www.seeedstudio.com	
	Title: PocketBeagle2	
Size: A3	Document Number: 008_SoC DDR & DDR4	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 8 of 16

eMMC



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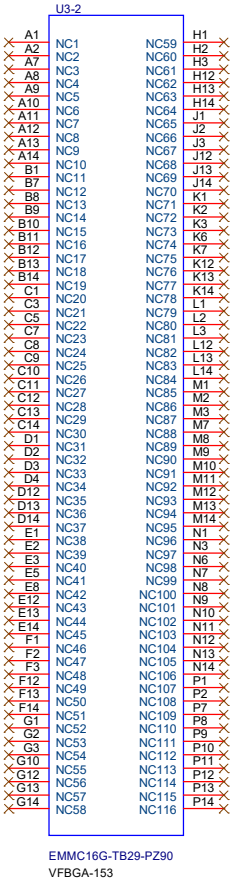
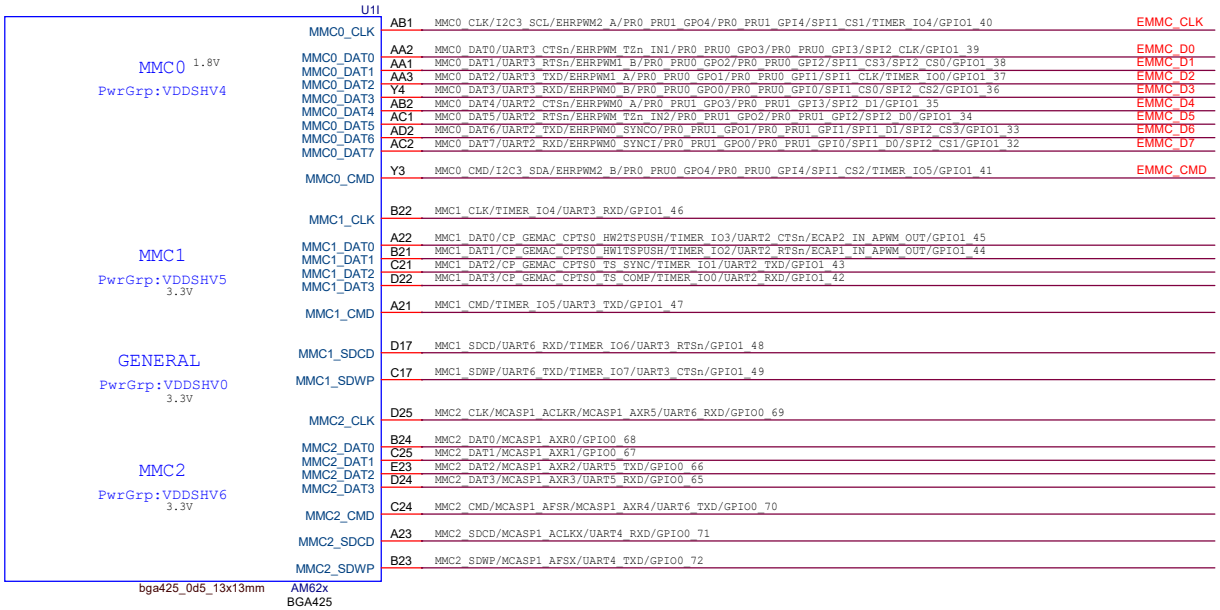


SoC MMC



Main

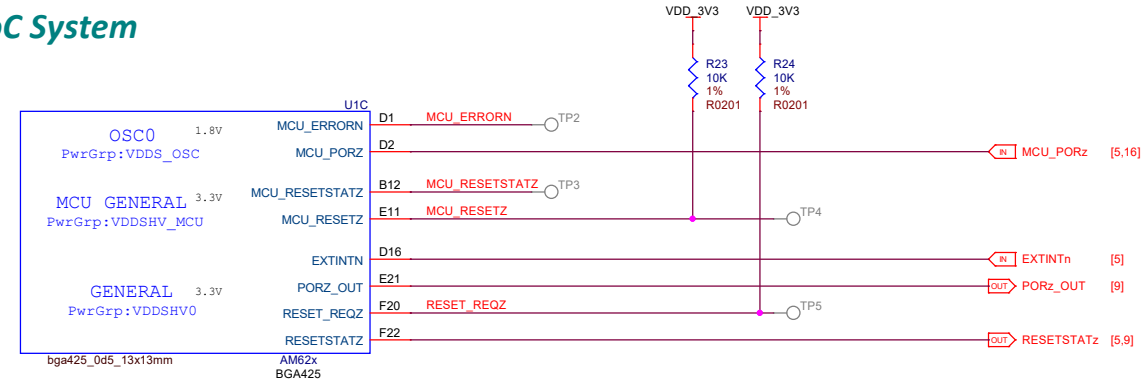
seeed studio

https://www.seeedstudio.com

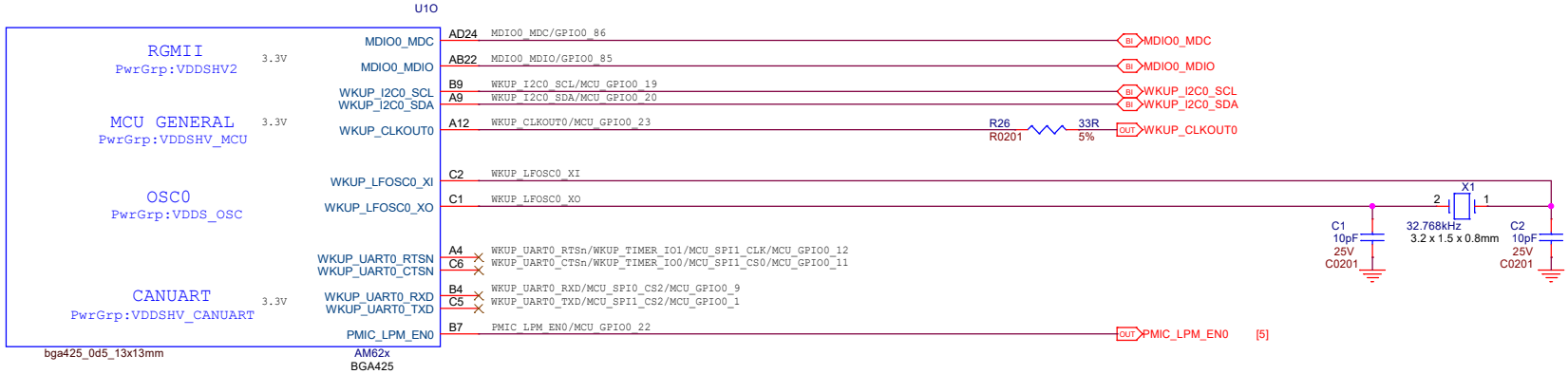
Title: PocketBeagle2

Size: A3	Document Number: 009_SoC MMC & eMMC	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 9 of 16

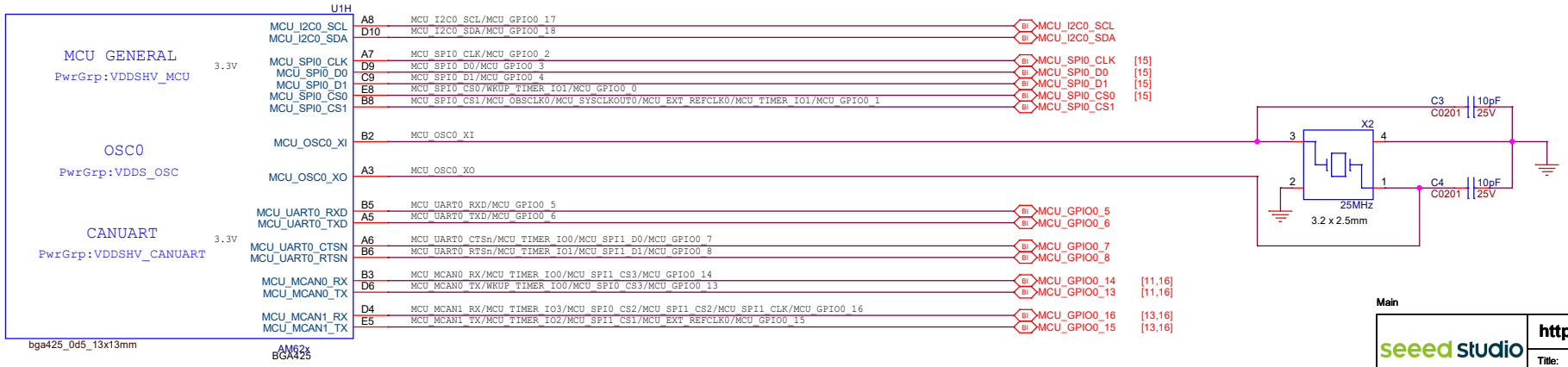
SoC System



WKUP Domain



MCU Domain



Main

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https://www.seeedstudio.com

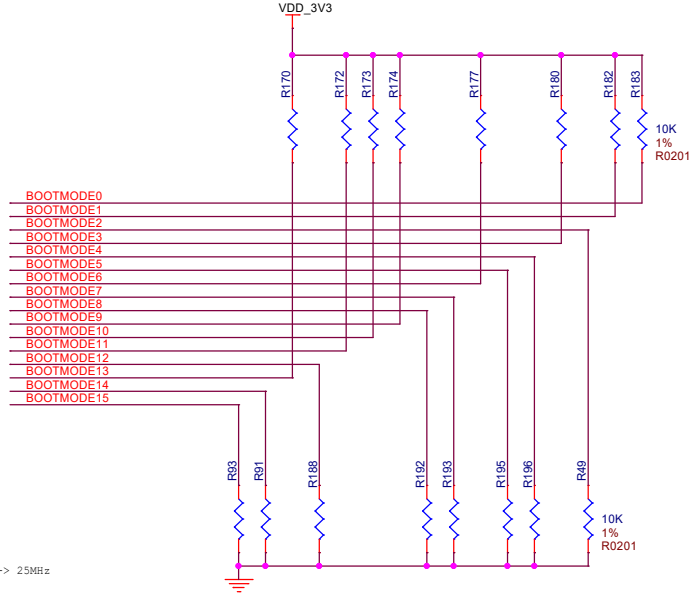
Title: PocketBeagle2

Size: A3	Document Number: 010_SoC WKUP/MCU/System	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 10 of 16

SoC GPIO 1.8V

Bootstrap

TBD:Boot Option needs to be redefiend.

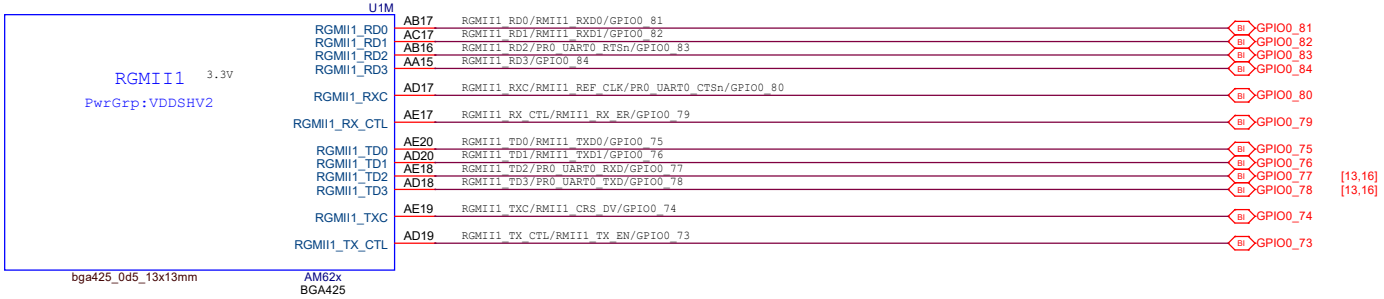


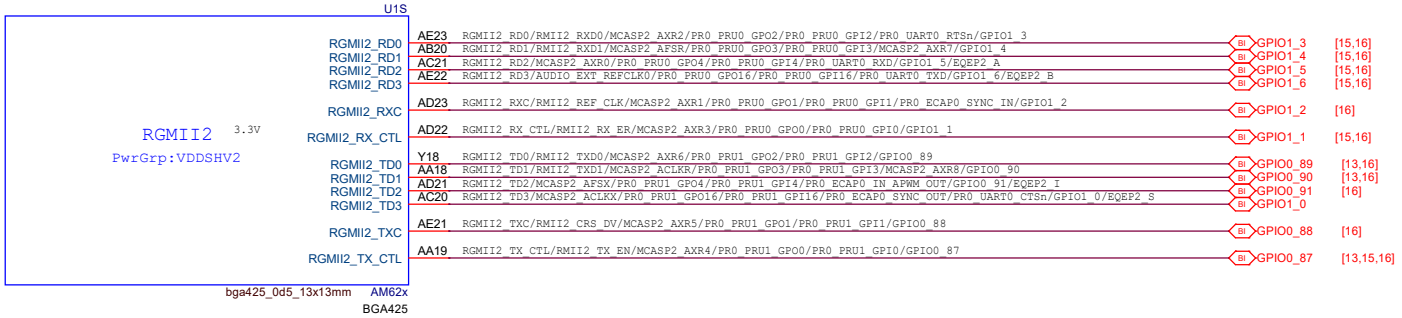
Button Not-pressd:
1, PLL Config B[2:0] = 0b011 : Ref Colck -> 25MHz
2, Primarry Boot B[9:3] = 0b1001001 : eMMC Boot
3, Backup Boot B[13:10] = 0b1011 : UART Boot

Main

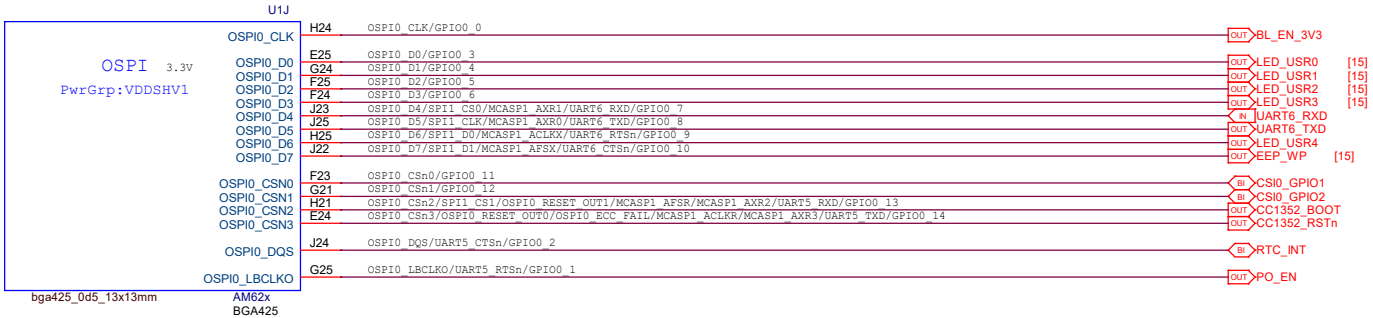
seeed studio	https://www.seeedstudio.com	
	Title: PocketBeagle2	
Size: A3	Document Number: 011_SoC Bootstrap	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 11 of 16

RGMII





OSPI



Main

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Title: PocketBeagle2

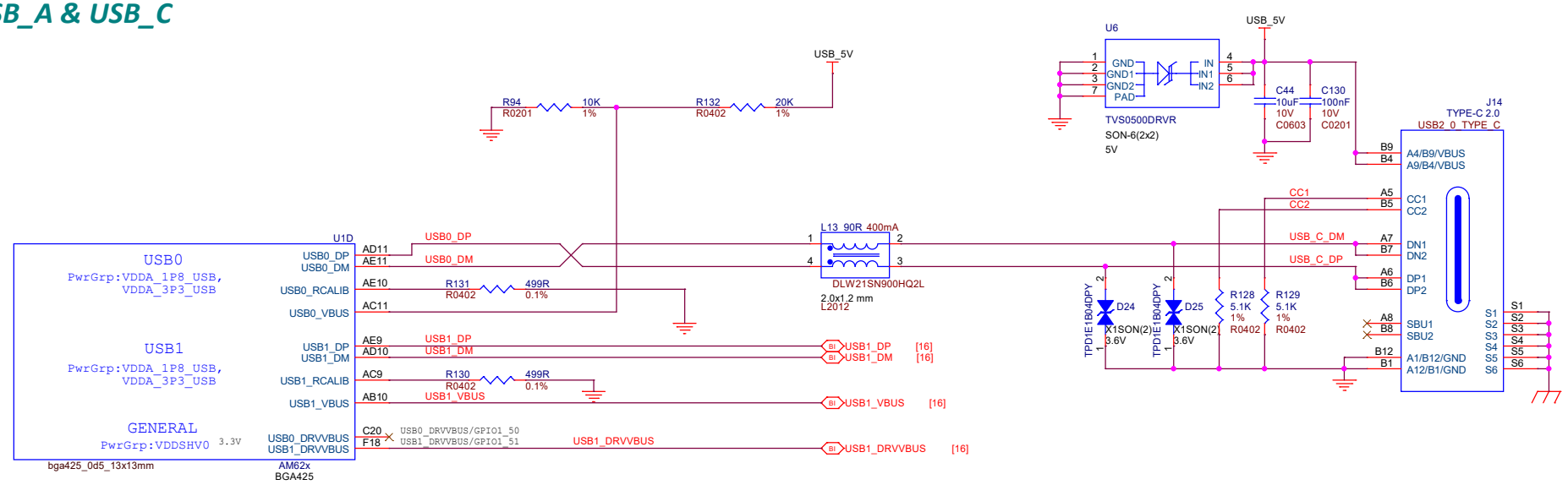
Size: A3	Document Number: 012_SoC RGMII/OSPI	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 12 of 16

SoC GPIO 3.3V

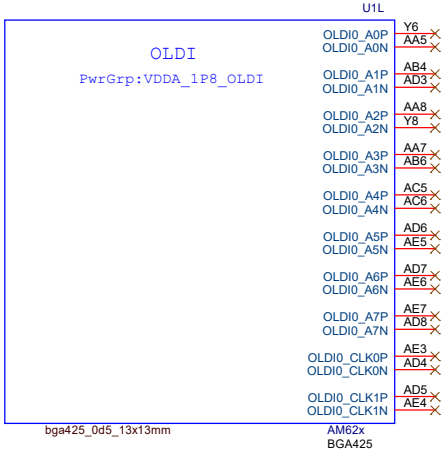
Main

seeed studio	https://www.seeedstudio.com	
	Title: PocketBeagle2	
Size: A3	Document Number: 013_SoC GPIO/MCASP/VOUT	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 13 of 16

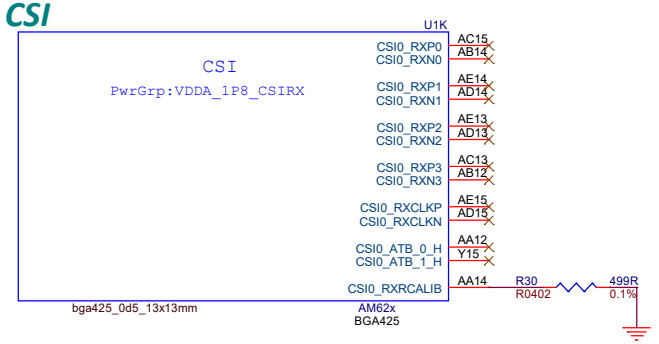
USB_A & USB_C



OLDI



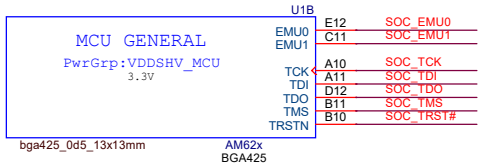
CSI



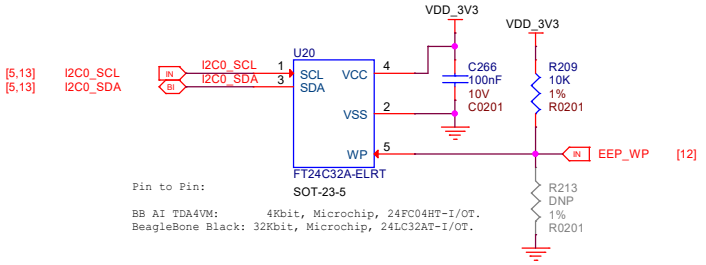
Main

seeed studio	https://www.seeedstudio.com	
	Title: PocketBeagle2	
Size: A3	Document Number: 014_SoC USB & USB_A & USB_C	Rev: v0.1
Draw By: qxn	Date: Friday, October 28, 2022	Sheet: 14 of 16

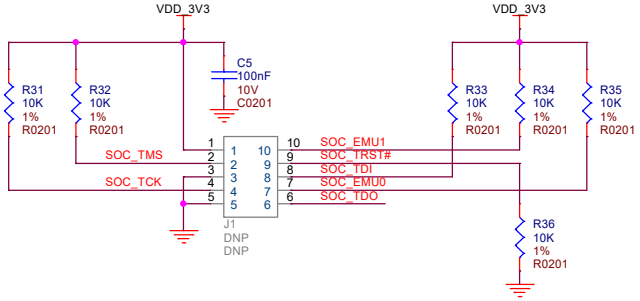
JTAG



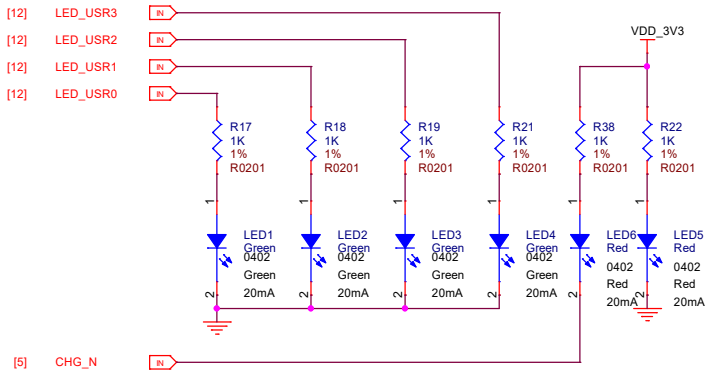
BOARD ID EEPROM 4Kbit



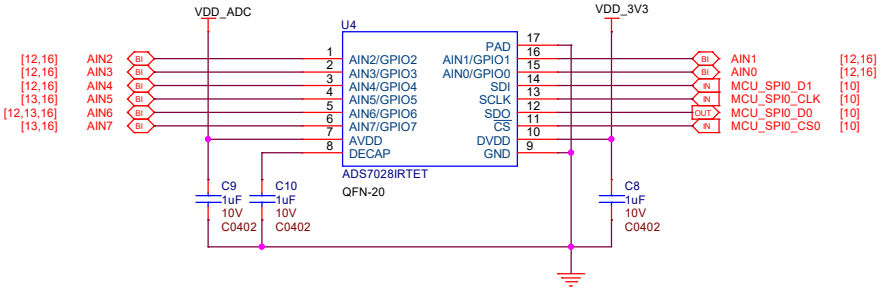
Tag-Connect



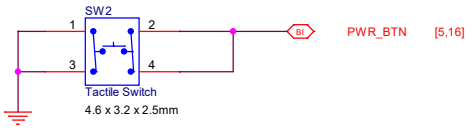
LEDs



ADC



Power Button



Main

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