BeagleV PMIC

File: BeagleV_PMIC.kicad_sch

VIC Power

File: VIC_Power.kicad_sch

BeagleV VIC DDR Ctrl

File: BeagleV_VIC_DDR_Ctrl.kicad_sch

BeagleV VIC ChipLink & CM

File: BeagleV_VIC_ChipLink.kicad_sch

BeagleV VIC LCD & GMI & GPIOs

File: BeagleV_VIC_LCD.kicad_sch

BeagleV HighIF & Ctrl Other

File: BeagleV_VIC_HighIF.kicad_sch

BeagleV LPDDR (A)

File: BeagleV_LPDDR_A.kicad_sch

BeagleV LPDDR (B)

File: BeagleV_LPDDR_B.kicad_sch

BeagleV Type C, uSD, QSIP Flash

File: BeagleV_Type_C_uSD.kicad_sch

BeagleVUSB 3.0 HUB

File: BeagleV_USB_3_HUB.kicad_sch

BeagleV USB TYPE A (A)

File: BeagleV_USB_Type_A_A.kicad_sch

BeagleV USB TYPE A (B)

File: BeagleV_USB_Type_A_B.kicad_sch

BeagleV CSI CONN

File: BeagleV_CSI_Conn.kicad_sch

BeagleV DSI, AUDIO JACK

File: BeagleV_DSI_Audio.kicad_sch

BeagleV HDMI FRAMER

File: BeagleV_Hdmi_Framer.kicad_sch

BeagleV W iFi, Bluetooth

File: BeagleV_Wifi_Bluetooth.kicad_sch

BeagleV 10/100/1000 ETHERNET

File: BeagleV_Ethernet.kicad_sch

BeagleV RPI EXP CONN, LED, BUTTON

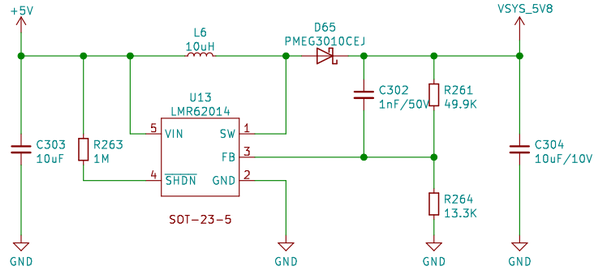
File: BeagleV_RPI_Conn.kicad_sch

Sheet: /
File: BeagleV.kicad_sch

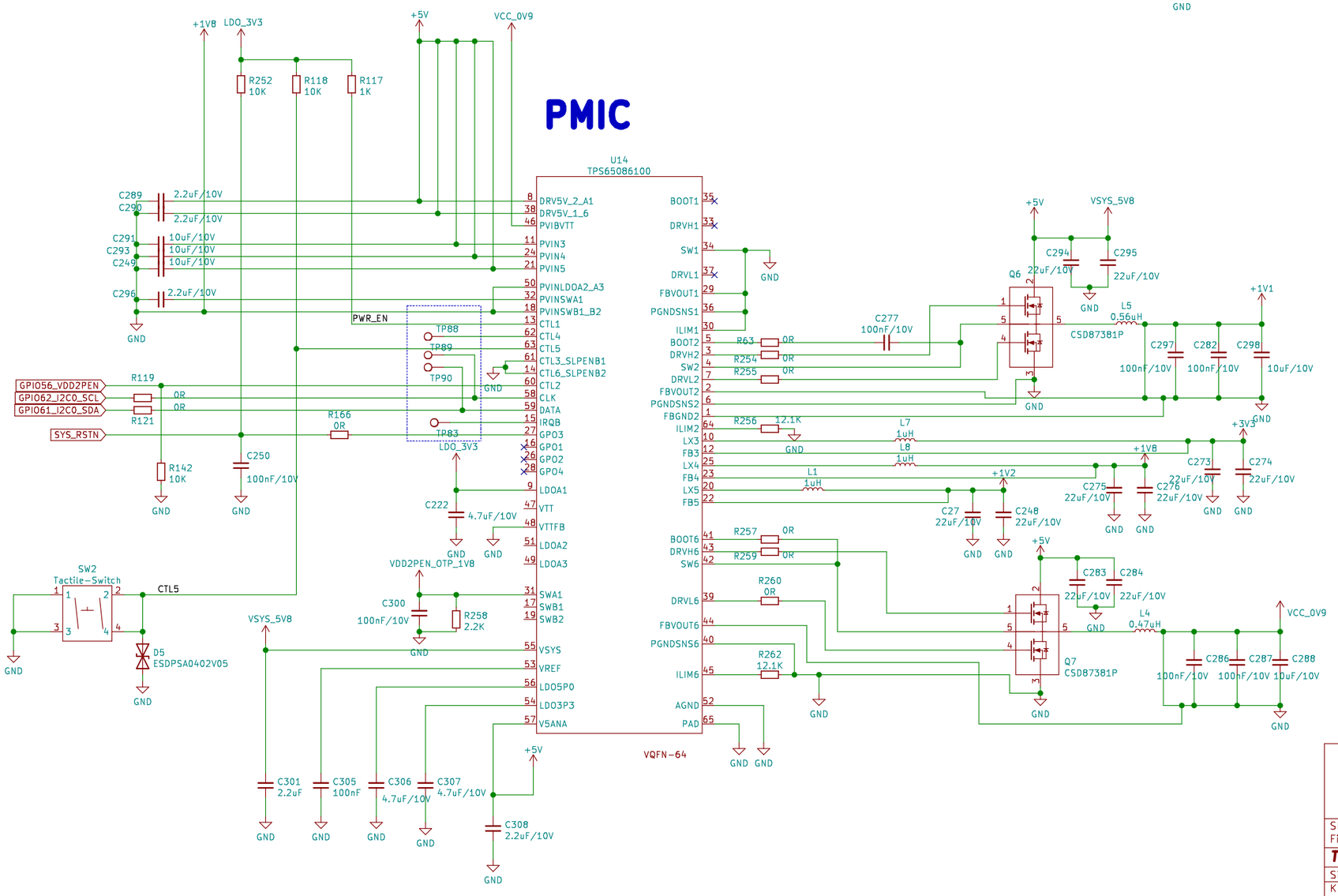
Title: Beagle V

Size: A4	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 1/19

Step-Up for PMIC



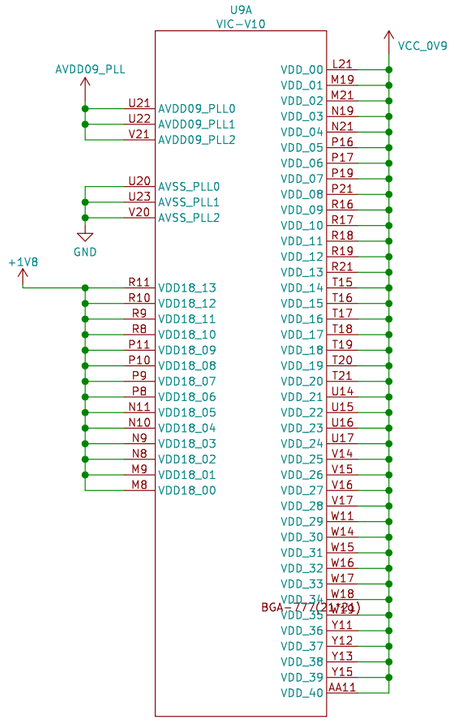
PMIC

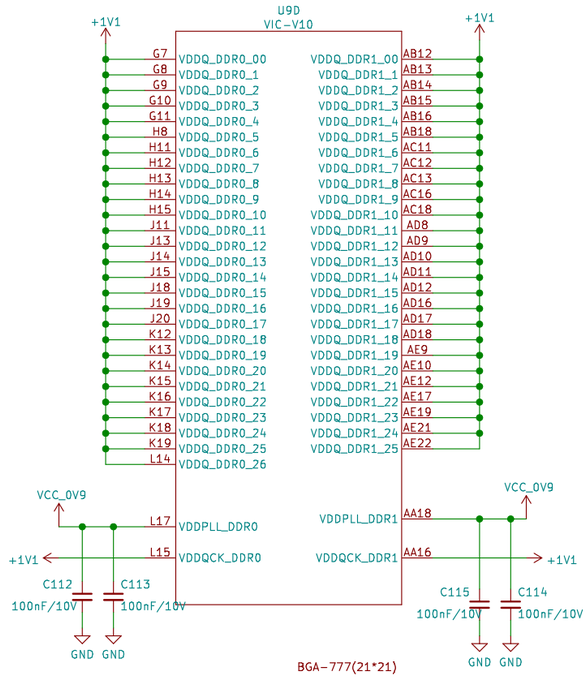


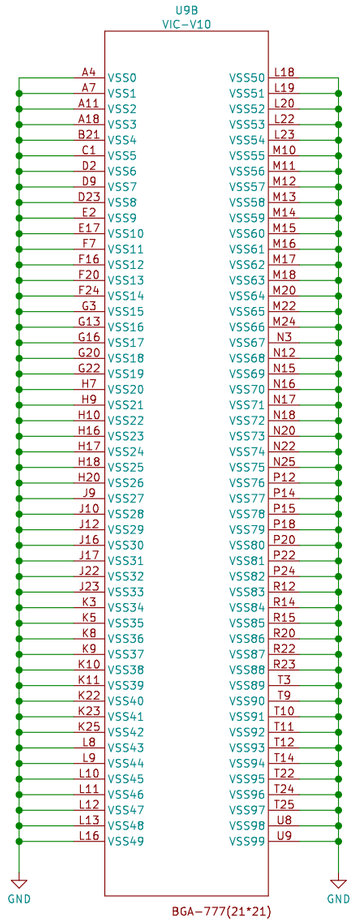
Sheet: /BeagleV PMIC/	
File: BeagleV_PMIC.kicad_sch	
Title: Beagle V	
Size: A3	Date: 2021-06-11
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1	Id: 2/19

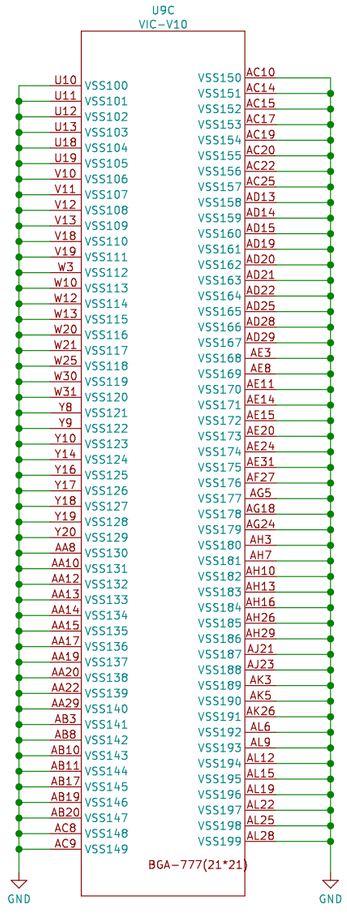
Rev: v0.7

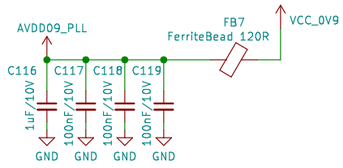
VIC Power

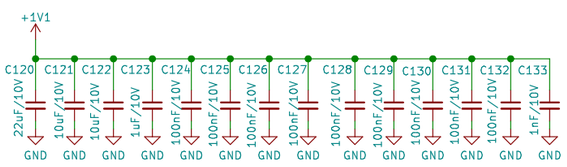


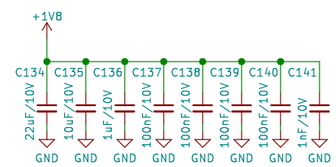


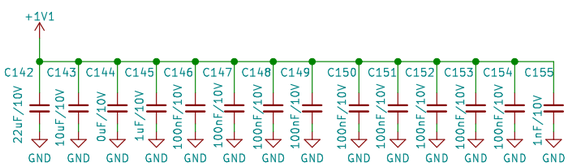


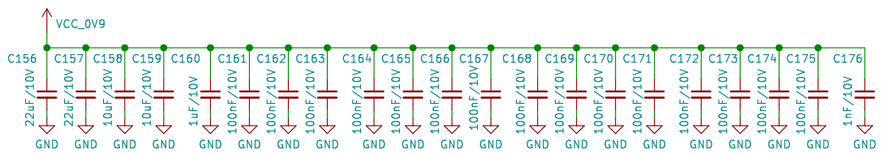












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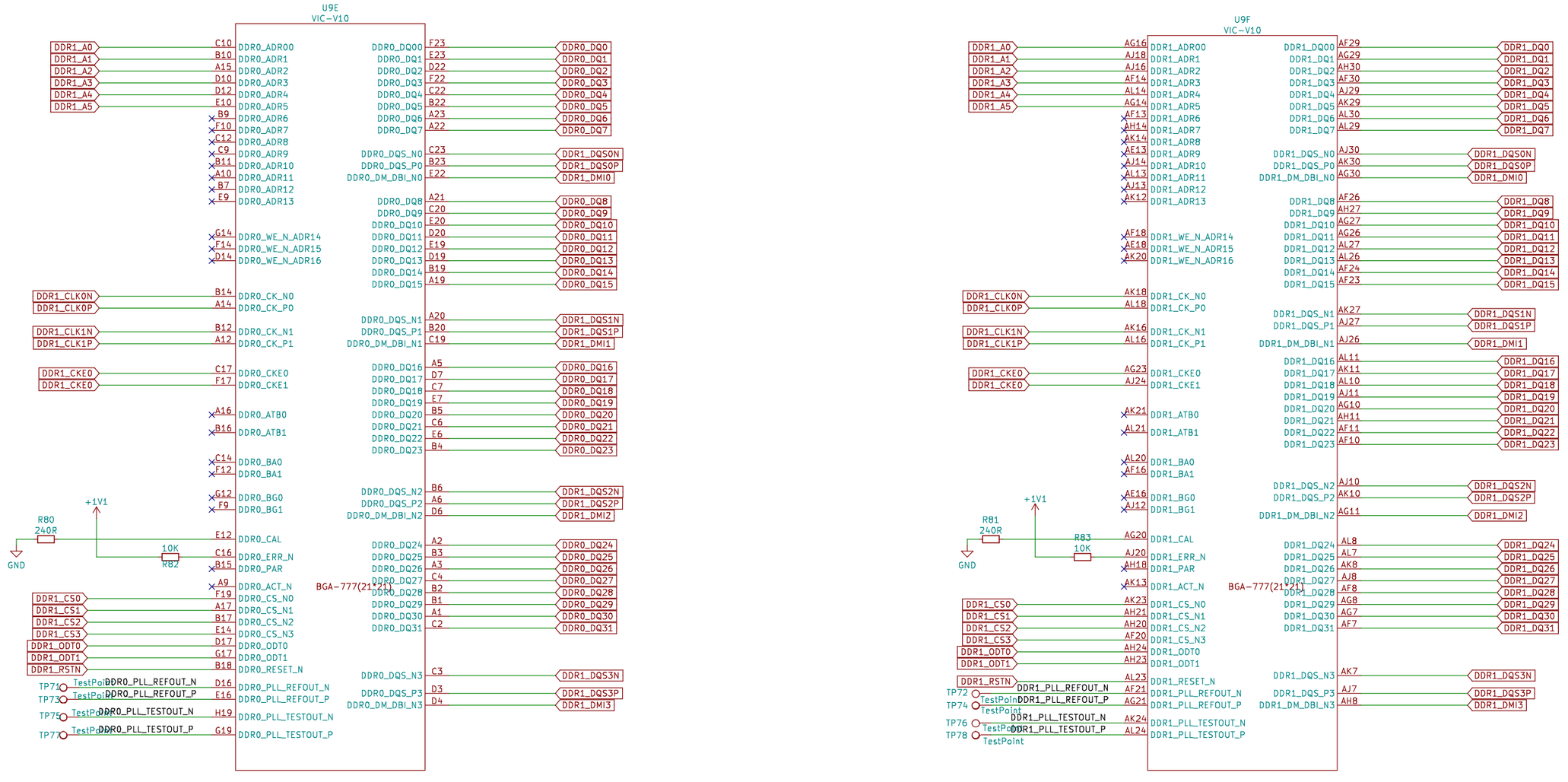
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 3/19

VIC DDR controller



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Title: Beagle V

Size: A3	Date: 2021-06-11	**Rev: v0.7**
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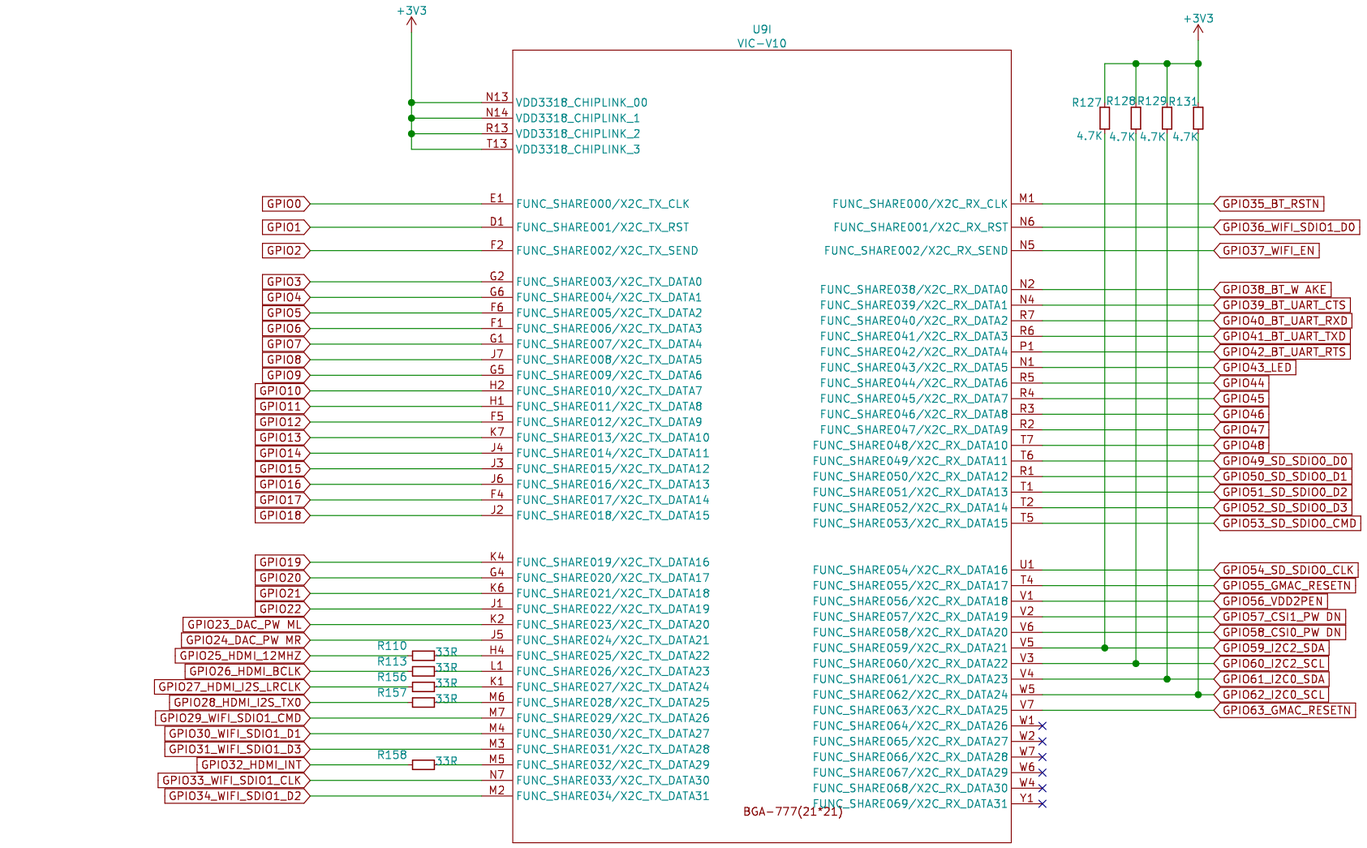
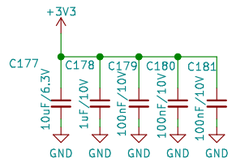
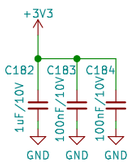
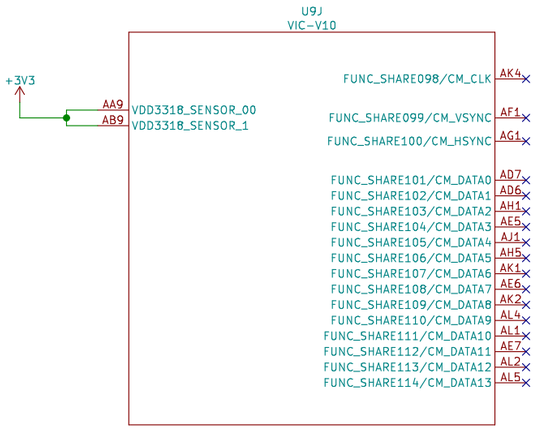
VIC 3.3V GPIOs







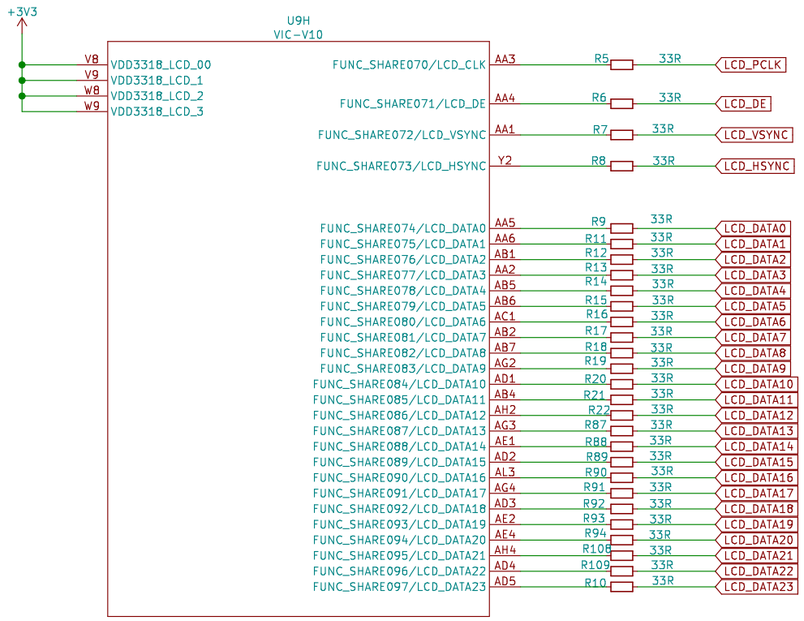


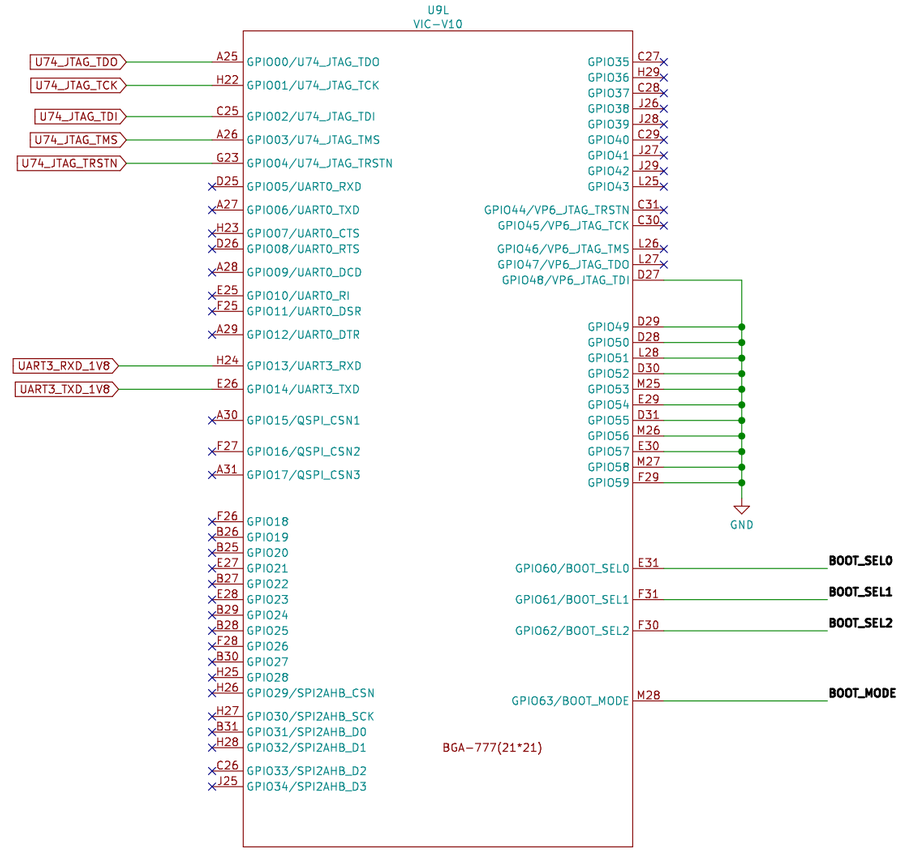
Sheet: /BeagleV VIC ChipLink & CM/
File: BeagleV_VIC_ChipLink.kicad_sch

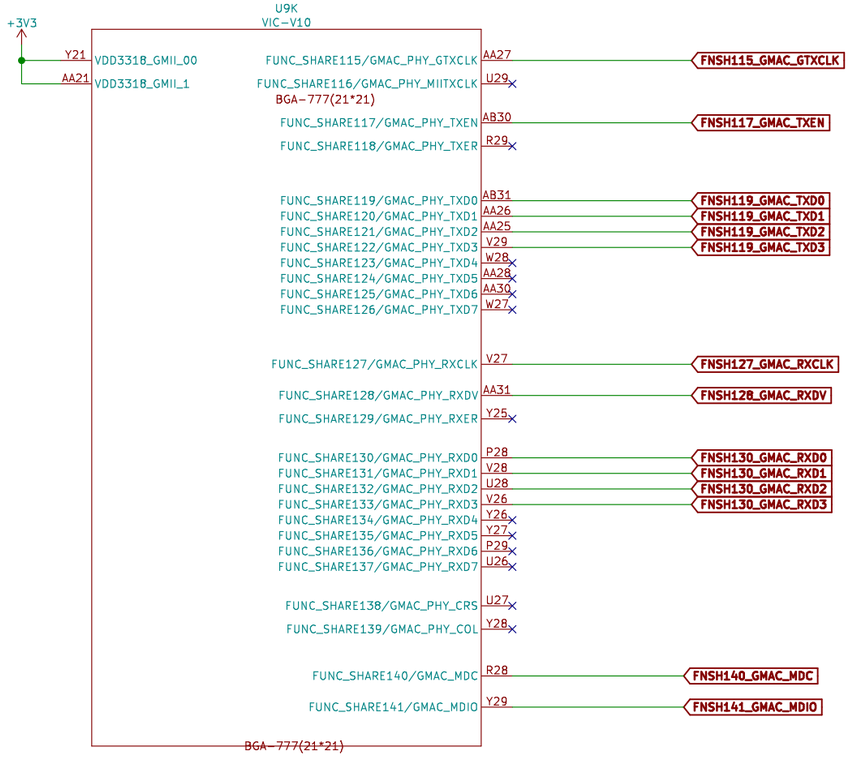
Title: Beagle V

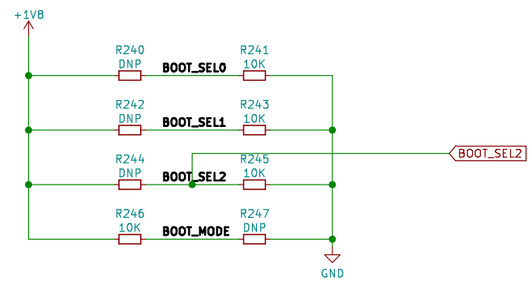
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 5/19

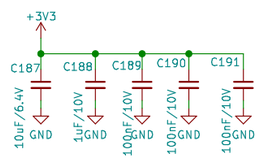
VIC LCD&RGMII

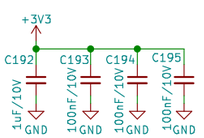










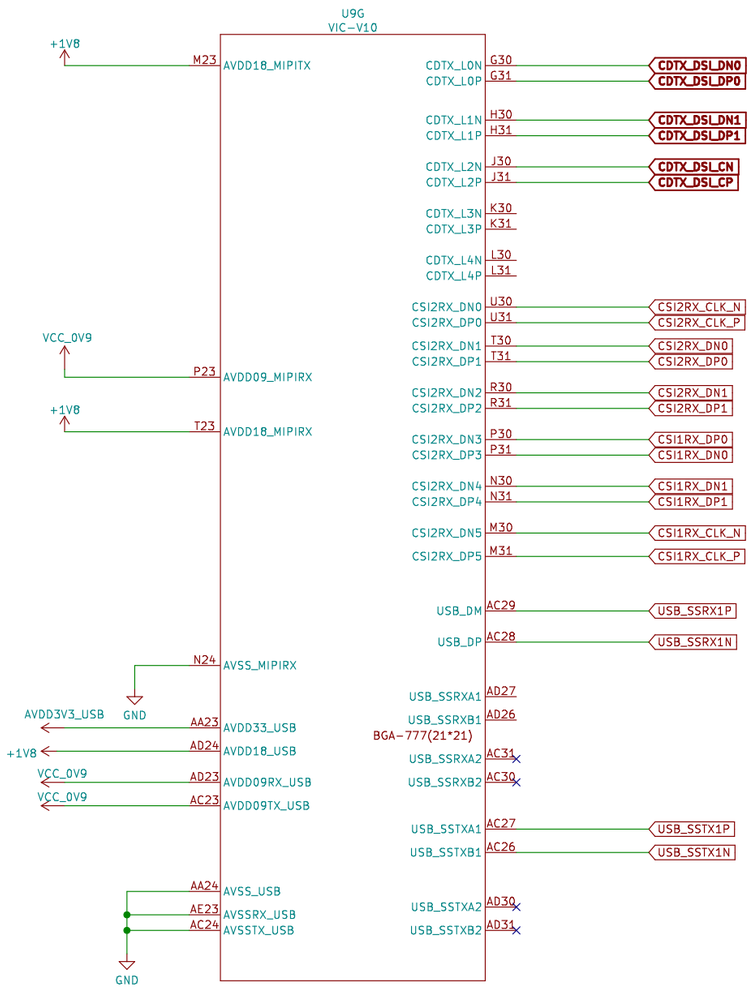


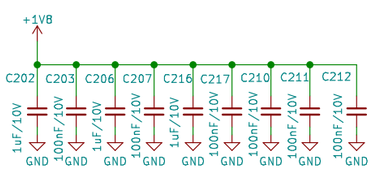
Sheet: /BeagleV VIC LCD & GMI & GPIOs/
File: BeagleV_VIC_LCD.kicad_sch

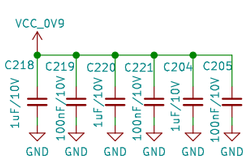
Title: Beagle V

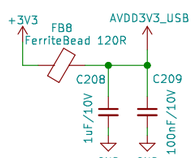
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 6/19

VIC MIPI&USB

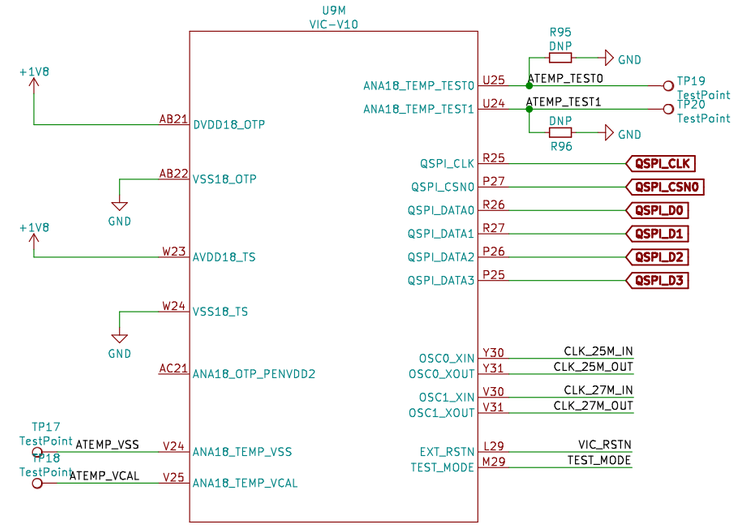


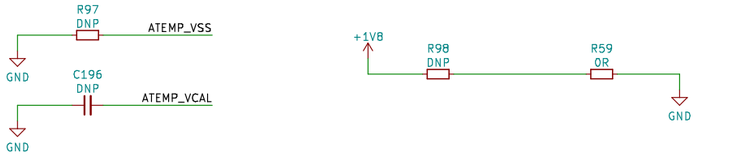


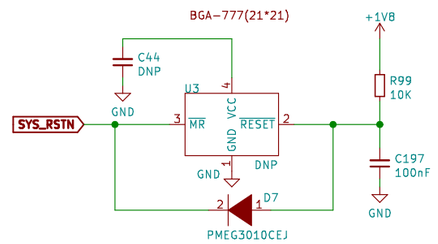


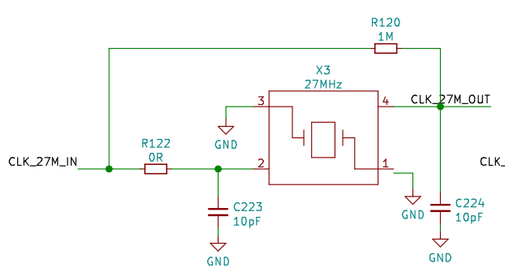


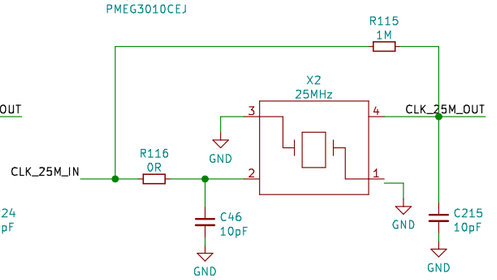
VIC CLOCK











Sheet: /BeagleV HighIF & Ctrl Other/
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Title: Beagle V

Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 7/19

LPDDR4

U7B
32Gbit_RAM

DDR0_A0 — H2 CA0_A
DDR0_A1 — J2 CA1_A
DDR0_A2 — H9 CA2_A
DDR0_A3 — H10 CA3_A
DDR0_A4 — H11 CA4_A
DDR0_A5 — J11 CA5_A
DDR0_CLK0N — J9 CK_C_A
DDR0_CLK0P — J8 CK_T_A
DDR0_CKE0 — J4 CKE0_A
DDR0_CKE1 — J5 CKE1_A
DDR0_CS0 — H4 CS0_A
DDR0_CS1 — H3 CS1_A
DDR0_ODT_1 — G2 ODT_CA_A1
+1V1 — R62 240R — A5 ZQ0
DDR0_A0 — R2 CA0_B
DDR0_A1 — P2 CA1_B
DDR0_A2 — R9 CA2_B
DDR0_A3 — R10 CA3_B
DDR0_A4 — R11 CA4_B
DDR0_A5 — P11 CA5_B
DDR0_CLK0N — P9 CK_C_B
DDR0_CLK0P — P8 CK_T_B
DDR0_CKE0 — P4 CKE0_B
DDR0_CKE1 — P5 CKE1_B
DDR0_CS0 — R4 CS0_B
DDR0_CS1 — R3 CS1_B
DDR0_ODT_1 — T2 ODT_CA_B1
DDR0_RSTN — T11 RESET_N
+1V1 — R184 240R — A8 ZQ1

DQ0_A B2 DDR0_DQ0
DQ1_A C2 DDR0_DQ1
DQ2_A E2 DDR0_DQ2
DQ3_A F2 DDR0_DQ3
DQ4_A F4 DDR0_DQ4
DQ5_A E4 DDR0_DQ5
DQ6_A C4 DDR0_DQ6
DQ7_A B4 DDR0_DQ7
DQS0_C_A E3 DDR0_DQS0N
DQS0_T_A D3 DDR0_DQS0P
DMI0_A C3 DDR0_DMI0
DQ8_A B11 DDR0_DQ8
DQ9_A C11 DDR0_DQ9
DQ10_A E11 DDR0_DQ10
DQ11_A F11 DDR0_DQ11
DQ12_A F9 DDR0_DQ12
DQ13_A E9 DDR0_DQ13
DQ14_A C9 DDR0_DQ14
DQ15_A B9 DDR0_DQ15
DQS1_C_A E10 DDR0_DQS1N
DQS1_T_A D10 DDR0_DQS1P
DMI1_A C10 DDR0_DMI1
DQ0_B AA2 DDR0_DQ16
DQ1_B Y2 DDR0_DQ17
DQ2_B V2 DDR0_DQ18
DQ3_B U2 DDR0_DQ19
DQ4_B U4 DDR0_DQ20
DQ5_B V4 DDR0_DQ21
DQ6_B Y4 DDR0_DQ22
DQ7_B AA4 DDR0_DQ23
DQS0_C_B V3 DDR0_DQS2N
DQS0_T_B W3 DDR0_DQS2P
DMI0_B Y3 DDR0_DMI2
DQ8_B AA11 DDR0_DQ24
DQ9_B Y11 DDR0_DQ25
DQ10_B V11 DDR0_DQ26
DQ11_B U11 DDR0_DQ27
DQ12_B U9 DDR0_DQ28
DQ13_B V9 DDR0_DQ29
DQ14_B Y9 DDR0_DQ30
DQ15_B AA9 DDR0_DQ31
DQS1_C_B V10 DDR0_DQS3N
DQS1_T_B W10 DDR0_DQS3P
DMI1_B Y10 DDR0_DMI3

U7A
32Gbit_RAM

VDDQ_00 B3
VDDQ_1 B5
VDDQ_2 B8
VDDQ_3 B10
VDDQ_4 D1
VDDQ_5 D5
VDDQ_6 D8
VDDQ_7 D12
VDDQ_8 F3
VDDQ_9 F10
VDDQ_10 U3
VDDQ_11 U10
VDDQ_12 W1
VDDQ_13 W5
VDDQ_14 W8
VDDQ_15 W12
VDDQ_16 AA3
VDDQ_17 AA5
VDDQ_18 AA8
VDDQ_19 AA10

+1V8
VDD1_00 F1
VDD1_1 F12
VDD1_2 G4
VDD1_3 G9
VDD1_4 T4
VDD1_5 T9
VDD1_6 U1
VDD1_7 U12

VDD2_00 A4
VDD2_1 A9
VDD2_2 F5
VDD2_3 F8
VDD2_4 H1
VDD2_5 H5
VDD2_6 H8
VDD2_7 H12
VDD2_8 K1
VDD2_9 K3
VDD2_10 K10
VDD2_11 K12
VDD2_12 N1
VDD2_13 N3
VDD2_14 N10
VDD2_15 N12
VDD2_16 R1
VDD2_17 R5
VDD2_18 R8
VDD2_19 R12
VDD2_20 U5
VDD2_21 U8
VDD2_22 AB4
VDD2_23 AB9

VSS00 A3
VSS1 A10
VSS2 C1
VSS3 C5
VSS4 C8
VSS5 C12
VSS6 D2
VSS7 D4
VSS8 D9
VSS9 D11
VSS10 E1
VSS11 E5
VSS12 E8
VSS13 E12
VSS14 G1
VSS15 G3
VSS16 G5
VSS17 G8
VSS18 G10
VSS19 G12
VSS20 J1
VSS21 J3
VSS22 J10
VSS23 J12
VSS24 K2
VSS25 K4
VSS26 K9
VSS27 K11
VSS28 N2
VSS29 N4
VSS30 N9
VSS31 N11
VSS32 P1
VSS33 P3
VSS34 P10
VSS35 P12
VSS36 T1
VSS37 T3
VSS38 T5
VSS39 T8
VSS40 T10
VSS41 T12
VSS42 V1
VSS43 V5
VSS44 V8
VSS45 V12
VSS46 W2
VSS47 W4
VSS48 W9
VSS49 W11
VSS50 Y1
VSS51 Y5
VSS52 Y8
VSS53 Y12
VSS54 AB3
VSS55 AB5
VSS56 AB8
VSS57 AB10
GND

U7C
32Gbit_RAM

DNU_00 A1
DNU_1 A2
DNU_2 A11
DNU_3 A12
DNU_4 B1
DNU_5 B12
DNU_6 G11
DNU_7 K5
DNU_8 K8
DNU_9 N5
DNU_10 N8
DNU_11 AA1
DNU_12 AA12
DNU_13 AB1
DNU_14 AB2
DNU_15 AB11
DNU_16 AB12

TP1 TestPoint — DDR0_DQ0
TP2 TestPoint — DDR0_DQS0N
TP3 TestPoint — DDR0_DQS0P
TP4 TestPoint — DDR0_DQ8
TP5 TestPoint — DDR0_DQS1N
TP6 TestPoint — DDR0_DQS1P
TP7 TestPoint — DDR0_DQ16
TP8 TestPoint — DDR0_DQS2N
TP9 TestPoint — DDR0_DQS2P
TP10 TestPoint — DDR0_DQ24
TP11 TestPoint — DDR0_DQS3N
TP12 TestPoint — DDR0_DQS3P

DDR0_A0 — TP21 TestPoint
DDR0_A1 — TP22 TestPoint
DDR0_A2 — TP23 TestPoint
DDR0_A3 — TP24 TestPoint
DDR0_A4 — TP25 TestPoint
DDR0_A5 — TP26 TestPoint
DDR0_CLK0N — TP27 TestPoint
DDR0_CLK0P — TP28 TestPoint
DDR0_CLK1N — TP29 TestPoint
DDR0_CLK1P — TP30 TestPoint
DDR0_CS0 — TP31 TestPoint
DDR0_CS1 — TP32 TestPoint
DDR0_CS2 — TP33 TestPoint
DDR0_CS3 — TP34 TestPoint

+1V1
C48 22uF
C49 1uF/10V
C50 100nF/10V
C51 100nF/10V
C52 100nF/10V
C53 100nF/10V
C54 100nF/10V
C55 100nF/10V
C56 100nF/10V
C57 100nF/10V
C58 100nF/10V
C59 10uF/6.4V
GND

+1V8
C60 10uF/6.4V
C61 100nF/10V
C62 100nF/10V
C63 100nF/10V
C64 100nF/10V
C65 100nF/10V
C66 100nF/10V
C67 10uF/6.4V
GND

+1V1
C68 22uF/10V
C69 1uF/10V
C70 100nF/10V
C71 100nF/10V
C72 100nF/10V
C73 100nF/10V
C74 100nF/10V
C75 100nF/10V
C76 100nF/10V
C77 100nF/10V
C78 100nF/10V
C79 10uF/6.4V
GND

TP91 TestPoint
TP31 TestPoint
TP32 TestPoint
TP33 TestPoint
TP34 TestPoint
TP35 TestPoint
GND

TP92 TestPoint
TP93 TestPoint
TP13 TestPoint
TP14 TestPoint
TP15 TestPoint
TP16 TestPoint
GND

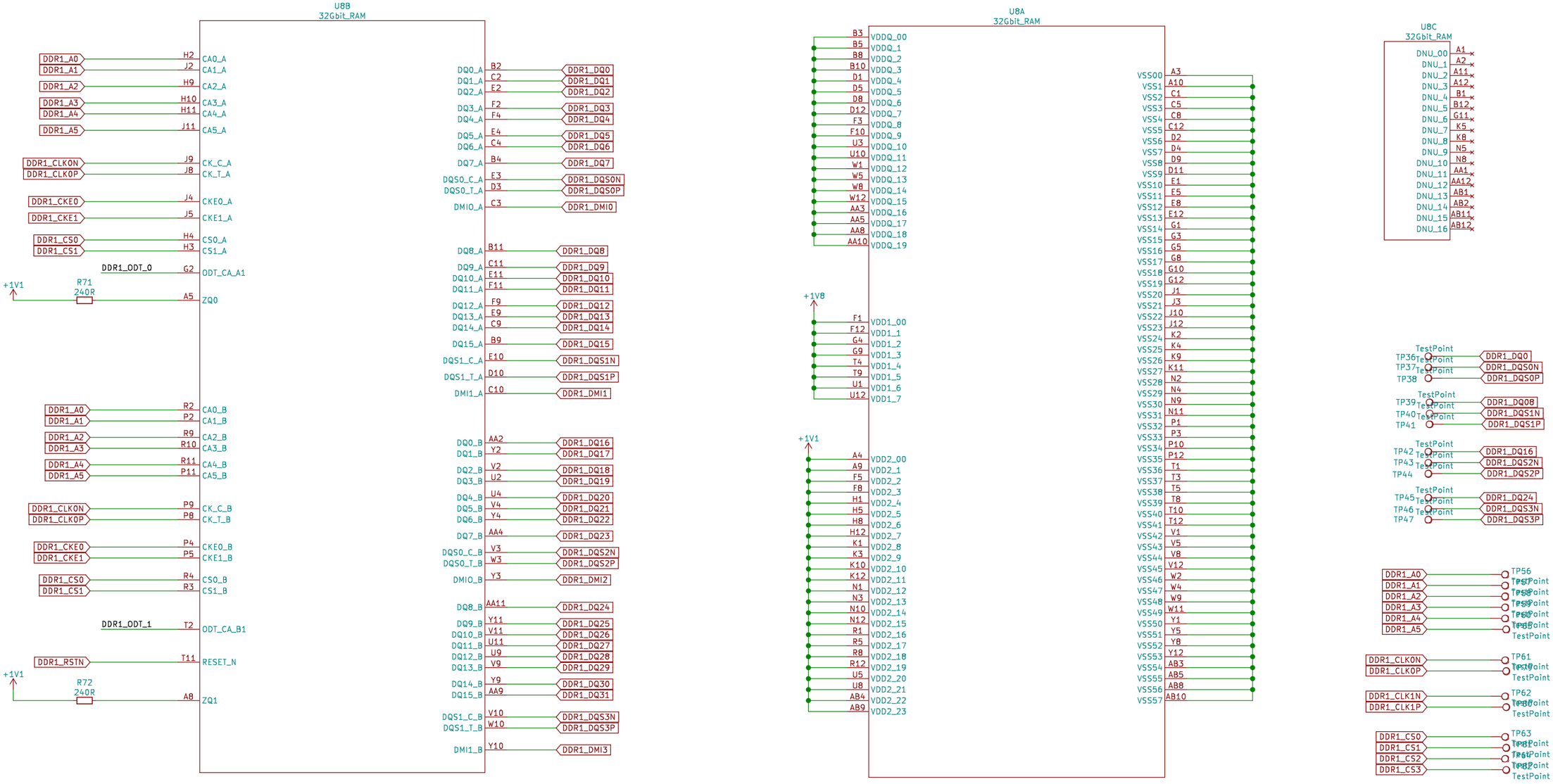
+1V1
R64 10K
DDR0_ODT0 — R65 DNP — DDR0_ODT_0
R66 DNP
GND
R67 0R
GND — R68 10K
DDR0_ODT1 — R69 DNP — DDR0_ODT_1
+1V1
R70 DNP

Sheet: /BeagleV LPDDR (A)/
File: BeagleV_LPDDR_A.kicad_sch

Title: Beagle V

Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A.	kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1	Id: 8/19

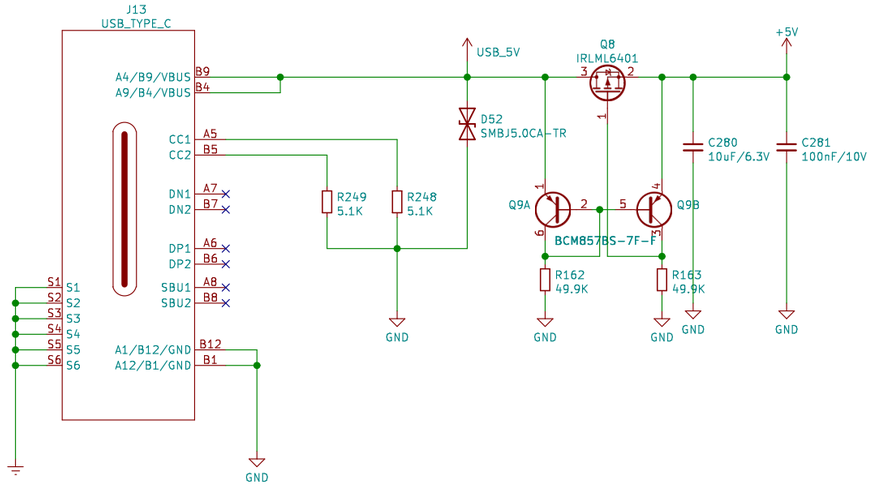
LPDDR4



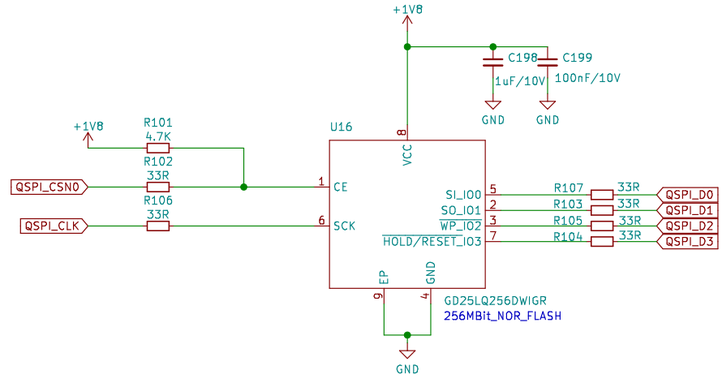
Sheet: /BeagleV LPDDR (B)/	
File: BeagleV_LPDDR_B.kicad_sch	
Title: Beagle V	
Size: A3	Date: 2021-06-11
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1	Id: 9/19

Rev: v0.7

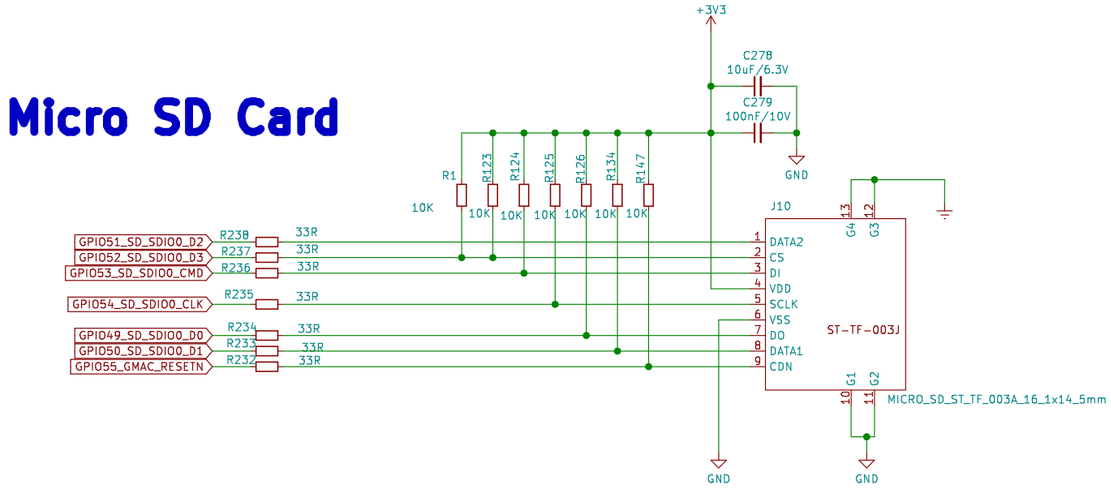
USB Type-C Power



Nor Flash For Boot

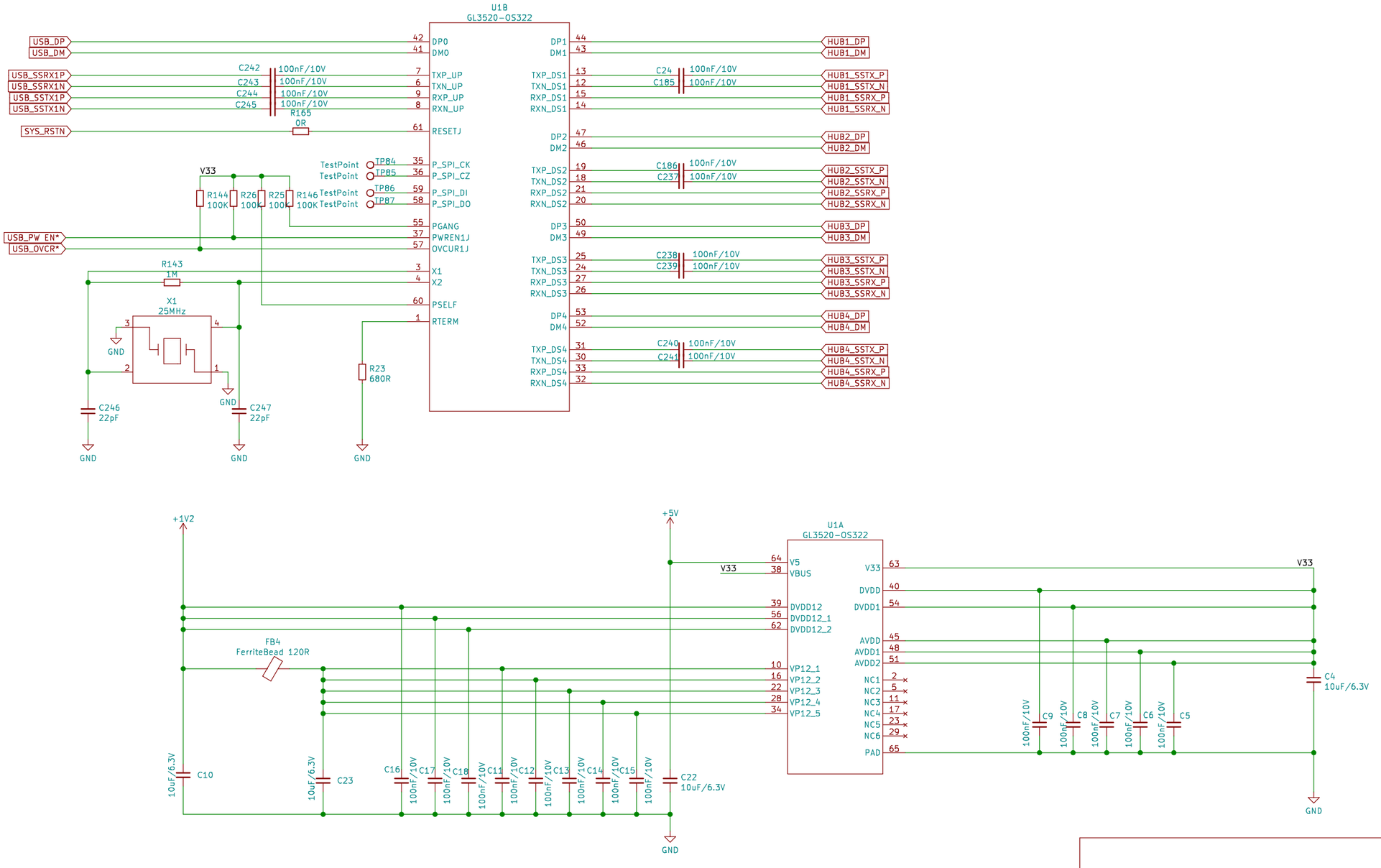


Micro SD Card

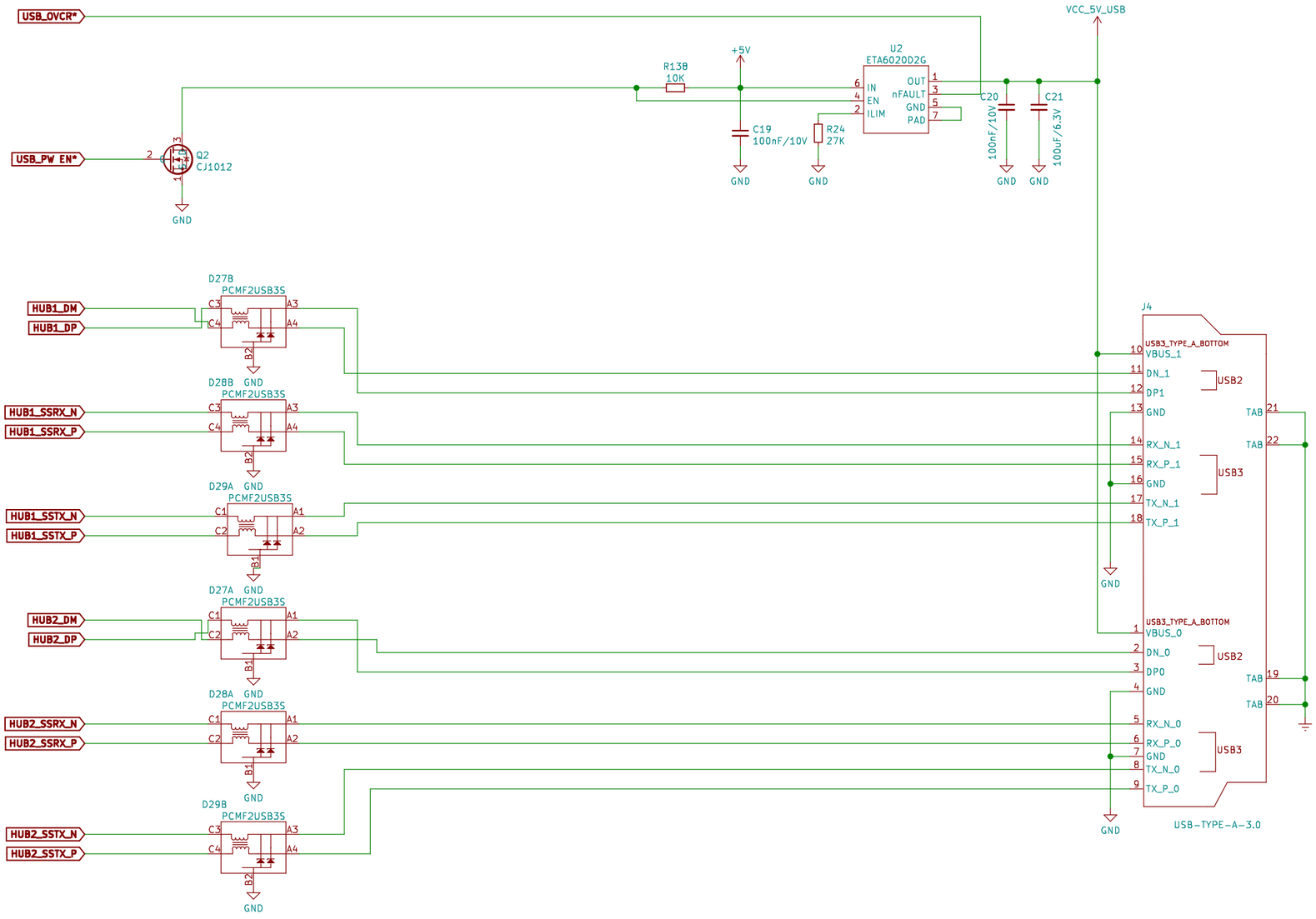


Sheet: /BeagleV Type C, uSD, QSIP Flash/		
File: BeagleV_Type_C_uSD.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 10/19

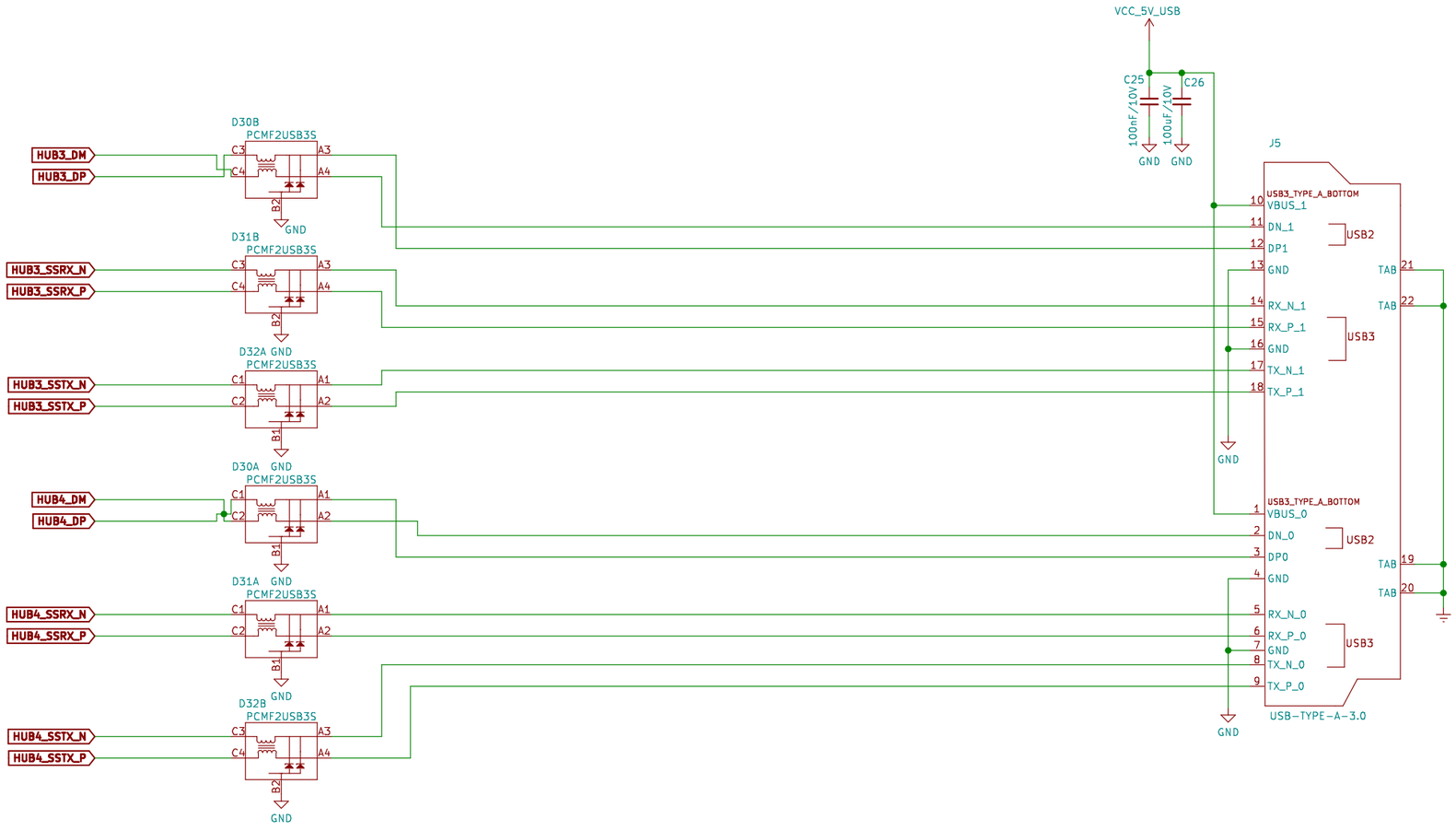
USB 3.0 HUB
TBD



Sheet: /BeagleVUSB 3.0 HUB/	
File: BeagleV_USB_3_HUB.kicad_sch	
Title: Beagle V	
Size: A3	Date: 2021-06-11 — **Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1	Id: 11/19



Sheet: /BeagleV USB TYPE A (A)/		
File: BeagleV_USB_Type_A_A.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 12/19

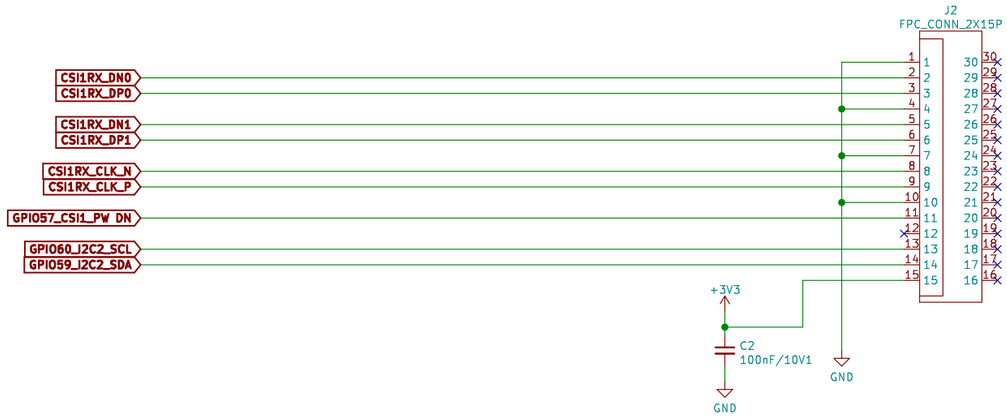


Sheet: /BeagleV USB TYPE A (B)/
File: BeagleV_USB_Type_A_B.kicad_sch

Title: Beagle V

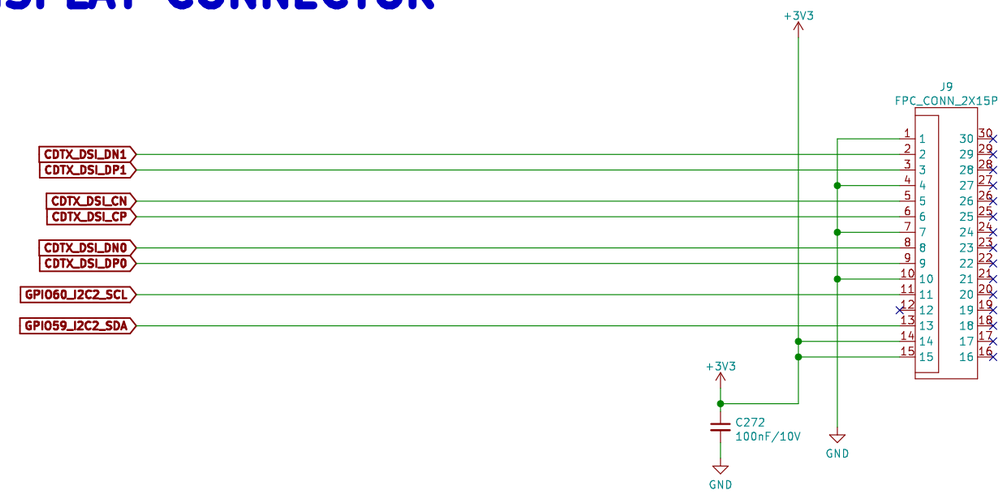
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 13/19

CAMERA CONNECTOR

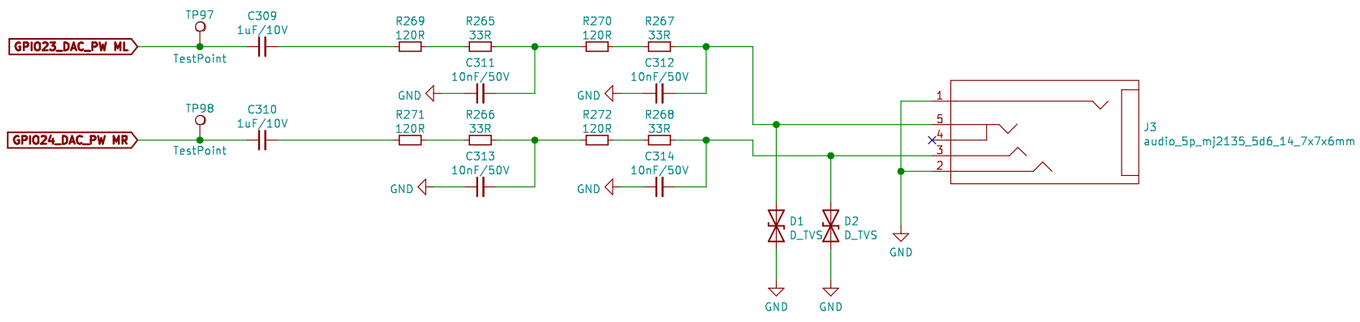


Sheet: /BeagleV CSI CONN/		
File: BeagleV_CSI_Conn.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 14/19

DISPLAY CONNECTOR

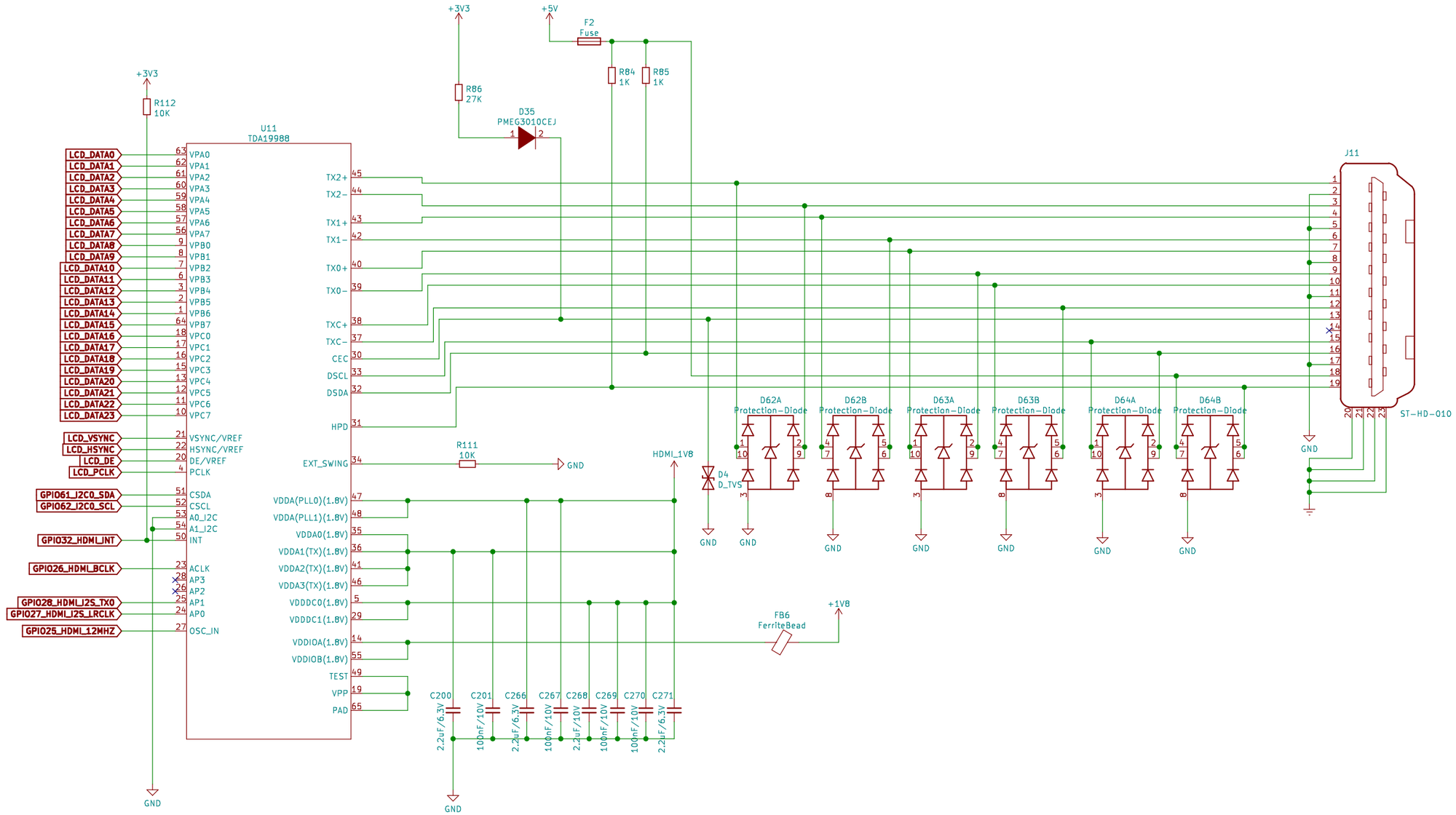


AUDIO



Sheet: /BeagleV DSI, AUDIO JACK/		
File: BeagleV_DSI_Audio.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 15/19

LCD to HDMI



Sheet: /BeagleV HDMI FRAMER/		
File: BeagleV_Hdmi_Framer.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021−06−11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0−unknown−a6c3d74a73125ubuntu20.04.1		Id: 16/19

WiFi & Bluetooth

+3V3
3V3_WIFI
FB9
FerriteBead 120R

Layout Note: Current 500mA

GPIO39_BT_UART_CTS
GPIO40_BT_UART_RXD
GPIO41_BT_UART_TXD
GPIO42_BT_UART_RTS

3V3_WIFI
R130
DNP
GND
GPIO35_BT_RSTN

U12
TP3 47
TP2 45
TP1 44
UART_CTS_N 43
UART_RXD 42
UART_TXD 41
UART_RTS_N 40
GPIO1 39
GPIO2 38
GPIO3 37
GPIO4 36
GND_5 35
NC_5 34
BT_RST_M

ANT1
RFECA3216060A1T
C227
10nF/50V
C213
1pF/50V
L3
10nH
R133
0R
C226
DNP
GND
GPIO38_BT_WAKE
26M_XTAL_IN
26M_XTAL_OUT
1 GND
2 WL_BT_ANT
3 GND_1
4 FM_RX
5 NC
6 BT_WAKE
7 BT_HOST_WAKE
8 NC
9 VBAT
10 XTAL_IN
11 XTAL_OUT
GND_4 33
NC_4 32
GND_3 31
NC_3 30
NC_2 29
PCM_SYNC 28
PCM_IN 27
PCM_CLK 26
PCM_OUT 25
LPO 24
VIN_LDO 23
R136
DNP
3V3_WIFI
R137
10K
LPO_32K

J8
U.FL-R-SMT-1
R135
DNP

C229 100nF/10V
C230 10uF/6.3V
C231 10uF/6.3V
WL_REG_ON 12
WL_HOST_WAKE 13
SDIO_DATA_2 14
SDIO_DATA_3 15
SDIO_DATA_CMD 16
SDIO_DATA_CLK 17
SDIO_DATA_0 18
SDIO_DATA_1 19
GND_2 20
VIN_LDO_OUT 21
VDDIO 22
AP6236
L2
3.3uH
C232
10uF/6.3V

R139
DNP
R140
0R
R141
DNP
GPIO37_WIFI_EN
3V3_WIFI
GPIO34_WIFI_SDIO1_D2
GPIO31_WIFI_SDIO1_D3
GPIO29_WIFI_SDIO1_CMD
GPIO33_WIFI_SDIO1_CLK
GPIO36_WIFI_SDIO1_D0
GPIO30_WIFI_SDIO1_D1
R145
33R
C233
100nF/10V
C234
1uF/10V
R148 10K
R149 10K
R150 10K
R152 10K
R153 10K

R154
DNP
26M_XTAL_OUT
X4
Crystal
26M_XTAL_IN
R155
0R
C235
22pF/50V
C236
22pF/50V

3V3_WIFI
OSC1
32.768kHz-clock
VDD CLK
EN GND
R114
33R
LPO_32K
C3
100n/10V

Sheet: /BeagleV W iFi, Bluetooth/
File: BeagleV_Wifi_Bluetooth.kicad_sch

Title: Beagle V

Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 17/19

Gigabit Ethernet

+3V3
R27
0R
VETH1_DVDDH
C28
10uF/6.3V
C29
100nF/10V
GND

VETH1_DVDDH
R35
1K
R36
1K
MDC
MDIO

+3V3
FB1
FerriteBead
VETH1_AVDDH
100uF/4V
C31
10uF/6.3V
C32
100nF/10V
C33
GND

+1V2
C30
100uF/4V
GND
FB2
FerriteBead
VETH1_AVDDL_PLL
FB3
FerriteBead
VETH1_DVDDH
C34
10uF/6.3V
C35
100nF/10V
GND
GND
R37
0R
VETH1_AVDDH
C36
10uF/6.3V
C37
100nF/10V
GND
GND

Layout Note:

The RGMII1 signals must be length-matched by TX and RX groups:

That is, the TX group should be matched within 300 Mil (7.62 mm),
and the RX group should be matched within 300 Mil (7.62 mm).
Total length should not exceed 1750 Mil (44.5 mm).

There is no requirement to match the TX and RX groups because their clocks are not related.

VETH1_AVDDL_PLL
C38
10uF/6.3V
C39
100nF/10V
C40
10nF/50V
GND

Review Note:
The KSZ9031RNX reduces board cost and simplifies board layout by using on-chip termination resistors for the four differential pairs, so no other resistors be needed.

Layout Note:

Max trace-length mismatch between GBE signals pairs should be no greater than ? mm.

100 ohms differential trace impedance.

Layout Note:
Place R* Close To MPU.

Layout Note:
Place R* Close To PHY.

U5

FNSH115_GMAC_GTXCLK	R41 33R	24	GTX_CLK	TXRXP_P	2	GBE1_TRP0
FNSH117_GMAC_TXEN	R42 33R	25	TX_EN	TXRXM_P	3	GBE1_TRN0
FNSH119_GMAC_TXD0	R43 33R	19	TXD0	TXRXP_B	5	GBE1_TRP1
FNSH119_GMAC_TXD1	R44 33R	20	TXD1	TXRXM_B	6	GBE1_TRN1
FNSH119_GMAC_TXD2	R45 33R	21	TXD2	TXRXP_C	7	GBE1_TRP2
FNSH119_GMAC_TXD3	R46 33R	22	TXD3	TXRXM_C	8	GBE1_TRN2
FNSH127_GMAC_RXCLK	R47 33R	35	RX_CLK	TXRXP_D	10	GBE1_TRP3
FNSH128_GMAC_RXDV	R48 33R	33	RX_DV	TXRXM_D	11	GBE1_TRN3
FNSH130_GMAC_RXD0	R49 33R	32	RXD0	LED1/PME_N1	17	GBE1_LED_ACT
FNSH130_GMAC_RXD1	R50 33R	31	RXD1	LED2	15	GBE1_LED_LINK
FNSH130_GMAC_RXD2	R51 33R	28	RXD2			
FNSH130_GMAC_RXD3	R52 33R	27	RXD3			
FNSH140_GMAC_MDC	R53 33R	36	MDC			
FNSH141_GMAC_MDIO	R54 33R	37	MDIO			
SYS_RSTN	R58 0R / R164 DNP	42	RESET			
GPIO63_GMAC_RESETN	C43 22pF/50V	46	XI			
		45	XO			
		38	INT_N/PME_N2			
LED_MODE		41	CLK125_NDO			
		48	ISET			
		44	ADDL_PLL			
		43	LDO_O			
		29	VSS			
		13	VSS_PS			
		49	P_GND			

AVDDH_1	1	VETH1_AVDDH
AVDDH_2	12	
AVDDH_3	47	
AVDDL_1	4	VETH1_AVDDH
AVDDL_2	9	
DVDDH_1	16	VETH1_DVDDH
DVDDH_2	34	
DVDDH_3	40	
DVDDL_1	14	VETH1_DVDDH
DVDDL_2	18	
DVDDL_3	23	
DVDDL_4	26	
DVDDL_5	30	
DVDDL_6	39	

KSZ9031RNXCA

X6
25MHz - Crystal
R57
1M
C45
22pF/50V
GND

R60
12K
GND

GND
GND

RGMII1_TCLK
FNSH127_GMAC_RXCLK
C41
DNP
C42
DNP
GND
GND

Strapping Options:

VETH1_DVDDH

PHY Address:
(0 0) 1 1 1

Pin 35	RGMII1_RCLK	R28	10K
Pin 15	GBE1_LED_LINK	R29	10K
Pin 17	GBE1_LED_ACT	R30	10K

MODE:
1 1 1 1
RGMII MODE
10/100/1000 Speed
Half/Full Duplex

Pin 27	RGMII1_RD3	R31	10K
Pin 28	RGMII1_RD2	R32	10K
Pin 31	RGMII1_RD1	R33	10K
Pin 32	RGMII1_RDO	R34	10K

CLK125_EN:
0
Dis 125 Output Pin 33

RGMII1_RCTL R38 1K

LED_MODE:
1
Single-LED Mode

pin 41 LED_MODE R39 1K

GND

VETH1_DVDDH
R55 1K
R56 1K

J6
LPJG0801HBNL

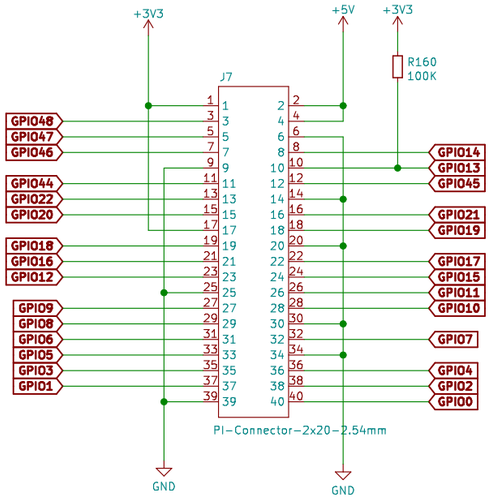
GBE1_TRP0	1	TD1+ GRL+	11
GBE1_TRN0	2	TD1- GRL-	12
GBE1_TRP1	3	TD2+	GBE1_LED_LINK
GBE1_TRN1	4	TD2-	
GBE1_TRP2	7	TD3+ YEL-	13
GBE1_TRN2	8	TD3- YEL+	14
GBE1_TRP3	9	TD4+	GBE1_LED_ACT
GBE1_TRN3	10	TD4-	
	5	CT1 GND1	15
	6	CT2 GND2	16

VETH1_AVDDH
R61
DNP
C47
100nF/10V
GND

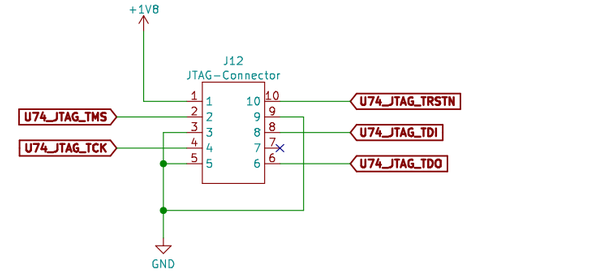
R151
1M
C228
1nF/2kV
GND

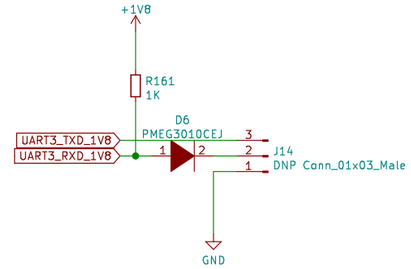
Sheet: /BeagleV 10/100/1000 ETHERNET/		
File: BeagleV_Ethernet.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 18/19

PI Connector

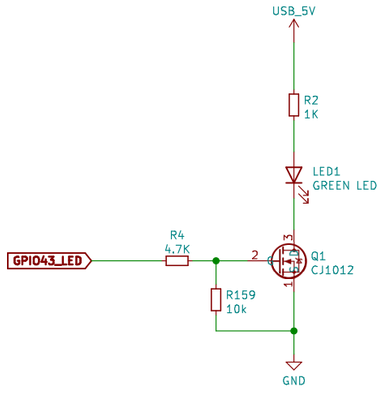


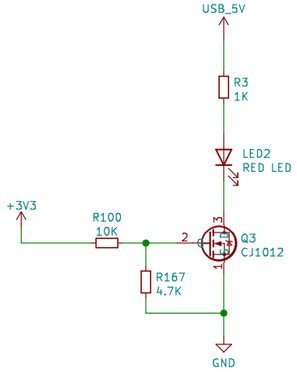
JTAG 1V8
for Tag-Connect cable



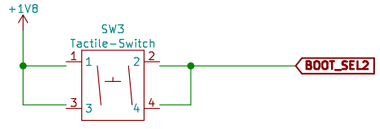


ACK&Power LEDs





Boot from UART



Sheet: /BeagleV RPI EXP CONN, LED, BUTTON/		
File: BeagleV_RPI_Conn.kicad_sch		
Title: Beagle V		
Size: A3	Date: 2021-06-11	**Rev: v0.7**
KiCad E.D.A. kicad 5.99.0-unknown-a6c3d74a73125ubuntu20.04.1		Id: 19/19