


REV	Description	DATE	BY
C	1. Improved layout for the USB PHY. 2. Removed unused parts from the design. 3. Added current measurement function to the TWL4030. 4. Added filter caps to the VBUS rail input and output. 5.Changed U9 & U11 package to the QFN..	8/14/08	GC
C1	1. Added J12 and J13 to provide access to the RGB TTL signals on the LCD. 2. Added 5 filter caps. 3. Moved the USB Host port from Port1 to Port2. 4. Deleted R1. 5. Added 10K pulldown to USB reset signal. 6. Added 10K pulldown resistors as ID function to determine board type by reading these pins. 7. Added series resistor, R53, in the CLK line of the HSUSB clock line. May be removed after testing.	10/1/08	GC
C2	1. Moved the McBSP3_DX signal to pin AB26. 2. Moved the McBSP3_DR signal to pin AB25. 3. Moved the McBSP3_CLKX signal to pin AD25. 4. Changes were to allow access to three PWM signals from OMAP3530.	12/16/08	GC
C3	1. Added series resistor to BKBAT. 2. Added TP to BKBAT to allow access for battery. 3. Added a 47pf CAP and 3.3uH inductor to the S-Video feedback resistors.	2/11/2009	GC
C3A	1. Switched to TPS65950 based on the availability of the parts. 2. Made the battery an installed component. Removed parallell resistor.	4/21/2009	GC
C3B	1. Corrected J4 and J5 symbol for the RGB interface.No electrical changes were made. 2. Removed battery as an installed component due to availability issues.	4/30/2009	GC
C4	1. Added C141, 22uF in parallell with C97. 2. Added option to allow the USB PHY and CLKOUT to be powered from the VIO_1V8 rail or the VAUX2 rail from the TPS65950. Default is VIO_1V8 rail. 3. Changed 1.8V filter CAP on USB PHY to 22uf. 4. Made R113 a DNI and installed R112.	10/5/2009	GC
C4A	1. Made R67 an installed inductor and made R68 a DNI. Switched to LDO powered EHCI USB Ph.	11/5/2009	GC
C4B	1. Made R112 as a install and a value of 510 ohms. 2. Made R113 a DNI.	12/15/2009	GC

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6	TPS65950 1 of 2, AUDIO JACKS, LED, 26MHZ, 32KHZ
7	TPS65950 2 of 2, Power Rails
8	USB HOST AND EXPANSION
9	SD/MMC, SERIAL HEADER
10	DVI-D

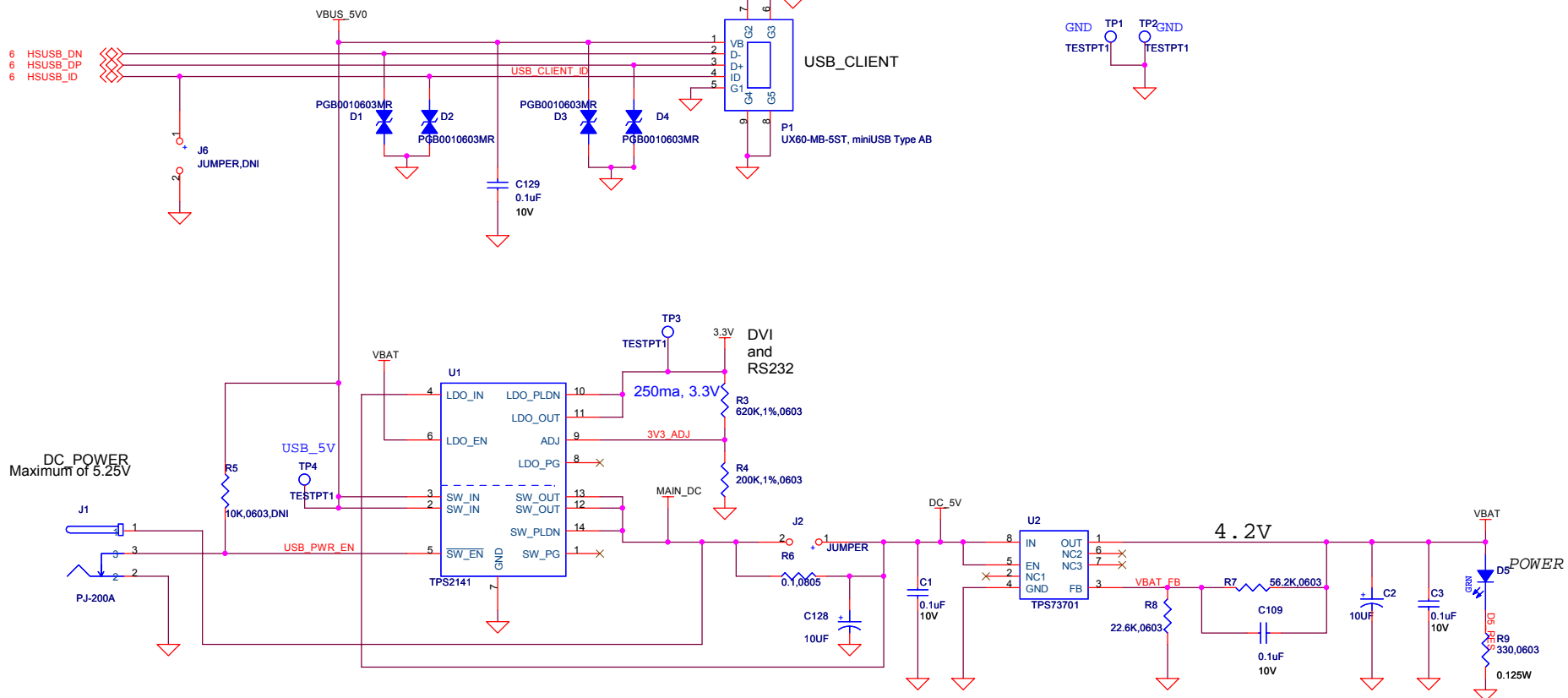
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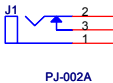

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A



DC POWER
Maximum of 5.25V



Title		Beagle-USB Client and Power	
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- × H10 SDR_C_BA0
- × H9 SDR_C_BA0
- × E1 SDR_C_A14
- × E2 SDR_C_A13
- × D1 SDR_C_A12
- × D3 SDR_C_A11
- × D4 SDR_C_A10
- × C1 SDR_C_A8
- × C2 SDR_C_A7
- × C3 SDR_C_A6
- × D5 SDR_C_A5
- × C4 SDR_C_A4
- × C5 SDR_C_A3
- × B3 SDR_C_A2
- × B4 SDR_C_A1
- × A4 SDR_C_A0

- × H14 SDR_C_nRAS
- × H13 SDR_C_nCAS
- × H15 SDR_C_nWE
- × A13 SDR_C_CLK
- × A14 SDR_C_nCLK
- × H17 SDR_C_CKE1
- × H18 SDR_C_CKE0
- × H12 SDR_C_nCS0
- × H11 SDR_C_nCS0
- × C20 SDR_C_DM3
- × B11 SDR_C_DM2
- × A16 SDR_C_DM1
- × E7 SDR_C_DM0
- × A20 SDR_C_DQS3
- × A10 SDR_C_DQS2
- × A17 SDR_C_DQS1
- × A6 SDR_C_DQS0

- SDRC_D31 B21
- SDRC_D30 A21
- SDRC_D29 D20
- SDRC_D28 B20
- SDRC_D27 B19
- SDRC_D26 A19
- SDRC_D25 C18
- SDRC_D24 D14
- SDRC_D23 B13
- SDRC_D22 A11
- SDRC_D21 C12
- SDRC_D20 D12
- SDRC_D19 C11
- SDRC_D18 B10
- SDRC_D17 D11
- SDRC_D16 B18
- SDRC_D15 B17
- SDRC_D14 D17
- SDRC_D13 B16
- SDRC_D12 C15
- SDRC_D11 B14
- SDRC_D10 C14
- SDRC_D9 A9
- SDRC_D8 B9
- SDRC_D7 A7
- SDRC_D6 C9
- SDRC_D5 C8
- SDRC_D4 B6
- SDRC_D3 C6
- SDRC_D2 D6
- SDRC_D1 K3
- SDRC_D0 L3

- GPMC_A10/SYS_nDMAREQ3/GPIO_43 M3
- GPMC_A9/SYS_nDMAREQ2/GPIO_42 N3
- GPMC_A8/GPIO_41 R3
- GPMC_A7/GPIO_40 T3
- GPMC_A6/GPIO_39 K4
- GPMC_A5/GPIO_38 L4
- GPMC_A4/GPIO_37 M4
- GPMC_A3/GPIO_36 N4
- GPMC_A2/GPIO_35 Y1
- GPMC_A1/GPIO_34 W1

- GPMC_D15/GPIO_51 T2
- GPMC_D14/GPIO_50 R2
- GPMC_D13/GPIO_49 R1
- GPMC_D12/GPIO_48 P1
- GPMC_D11/GPIO_47 K2
- GPMC_D10/GPIO_46 H2
- GPMC_D9/GPIO_45 W2
- GPMC_D8/GPIO_44 V2
- GPMC_D7 GPM_C_D6
- GPMC_D6 GPM_C_D5
- GPMC_D5 GPM_C_D4
- GPMC_D4 GPM_C_D3
- GPMC_D3 GPM_C_D2
- GPMC_D2 GPM_C_D1
- GPMC_D1 GPM_C_D0

- GPMC_nCS0 G4
- GPMC_nCS1/GPIO_52 H3
- GPMC_nCS2/GPIO_53 V8
- GPMC_nCS3/SYS_nDMAREQ0/GPIO_54 T8
- GPMC_nCS4/SYS_nDMAREQ1/McBSP4_CLKX/GPT9_PWM_EVT/GPIO_55 R8
- GPMC_nCS5/SYS_nDMAREQ2/McBSP4_DR/GPT10_PWM_EVT/GPIO_56 P8
- GPMC_nCS6/SYS_nDMAREQ3/McBSP4_DX/GPT11_PWM_EVT/GPIO_57 N8
- GPMC_nCS7/GPMC_IODIR/McBSP4_FSX/GPT8_PWM_EVT/GPIO_58 T4
- GPMC_nCS8/GPMC_WAIT0/GPIO_59 F4
- GPMC_nCS9/GPMC_WAIT1/GPIO_60 G2
- GPMC_nCS10/GPMC_WAIT2/GPIO_61 F3
- GPMC_nCS11/GPMC_WAIT3/GPIO_62 G3
- GPMC_nCS12/GPMC_WAIT4/GPIO_63 U3
- GPMC_nCS13/GPMC_WAIT5/GPIO_64 H1
- GPMC_nCS14/GPMC_WAIT6/GPIO_65 M8
- GPMC_nCS15/GPMC_WAIT7/GPIO_66 L8
- GPMC_nCS16/GPMC_WAIT8/GPIO_67 K8
- GPMC_nCS17/GPMC_WAIT9/GPIO_68 J8

- UART2_CTS/McBSP3_DX/GPT9_PWM_EVT/GPIO_144 AB26
- UART2_RTS/McBSP3_DR/GPT10_PWM_EVT/GPIO_145 AB25
- UART2_TX/McBSP3_CLKX/GPT11_PWM_EVT/GPIO_146 AA25
- UART2_RX/McBSP3_FSX/GPT8_PWM_EVT/GPIO_147 AD25
- UART3_CTS_RCTX/GPIO_163 H18
- UART3_RTS_SD/GPIO_164 H18
- UART3_RX_IRRX/GPIO_165 H20
- UART3_TX_IRTX/GPIO_166 H21

- 10 DSS_D0
- 10 DSS_D1
- 10 DSS_D2
- 10 DSS_D3
- 10 DSS_D4
- 10 DSS_D5
- 10 DSS_D6
- 10 DSS_D7
- 10 DSS_D8
- 10 DSS_D9
- 10 DSS_D10
- 10 DSS_D11
- 10 DSS_D12
- 10 DSS_D13
- 10 DSS_D14
- 10 DSS_D15
- 10 DSS_D16
- 10 DSS_D17
- 10 DSS_D18
- 10 DSS_D19
- 10 DSS_D20
- 10 DSS_D21
- 10 DSS_D22
- 10 DSS_D23
- 10 DSS_PCLK
- 10 DSS_HSYNC
- 10 DSS_VSYNC
- 10 DSS_ACBIAS

- AG22 DSS_D0/DX0/UART1_CTS/DSSVENC656_DATA0/GPIO_70
- AH22 DSS_D1/DY0/UART1_RTS/DSSVENC656_DATA1/GPIO_71
- AG23 DSS_D2/DX1/DSSVENC656_DATA2/GPIO_72
- AH23 DSS_D3/DY1/DSSVENC656_DATA3/GPIO_73
- AG24 DSS_D4/DX2/UART3_RX_IRRX/DSSVENC656_DATA4/GPIO_74
- AH24 DSS_D5/DY2/UART3_TX_IRTX/DSSVENC656_DATA5/GPIO_75
- F26 DSS_D6/UART1_TX/DSSVENC656_DATA6/GPIO_76/HW_DBG14
- F27 DSS_D7/UART1_RX/DSSVENC656_DATA7/GPIO_77/HW_DBG15
- G26 DSS_D8/GPIO_78/HW_DBG16
- AD28 DSS_D9/GPIO_79/HW_DBG17
- AD27 DSS_D10/SDI_DAT1N/GPIO_80
- AB28 DSS_D11/SDI_DAT1P/GPIO_81
- AB27 DSS_D12/SDI_DAT2N/GPIO_82
- AA28 DSS_D13/SDI_DAT2P/GPIO_83
- AA27 DSS_D14/SDI_DAT3N/GPIO_84
- G25 DSS_D15/SDI_DAT3P/GPIO_85
- H27 DSS_D16/GPIO_86
- H26 DSS_D17/GPIO_87
- H25 DSS_D18/SDI_VSYNC/McSPI3_CLK/DSS_D0/GPIO_88
- E28 DSS_D19/SDI_HSYNC/McSPI3_SIMO/DSS_D1/GPIO_89
- J26 DSS_D20/SDI_DEN/McSPI3_SOMI/DSS_D2/GPIO_90
- AC27 DSS_D21/SDI_STP/McSPI3_CS0/DSS_D3/GPIO_91
- AC28 DSS_D22/SDI_CLKP/McSPI3_CS1/DSS_D4/GPIO_92
- D28 DSS_D23/SDI_CLKN/DSS_D5/GPIO_93
- D26 DSS_PCLK/GPIO_66/HW_DBG12
- D27 DSS_HSYNC/GPIO_67/HW_DBG13
- E27 DSS_VSYNC/GPIO_68
- E27 DSS_ACBIAS/GPIO_69

- 9 MMC1_CLK0
- 9 MMC1_CMD
- 9 MMC1_DAT0
- 9 MMC1_DAT1
- 9 MMC1_DAT2
- 9 MMC1_DAT3
- 9 MMC1_DAT4
- 9 MMC1_DAT5
- 9 MMC1_DAT6
- 9 MMC1_DAT7

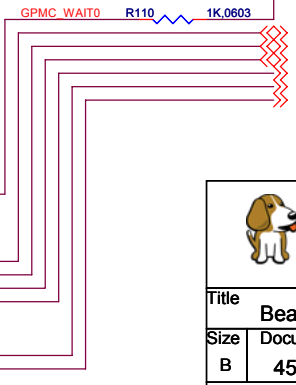
- M27 MMC1_CLK/MS_CLK/GPIO_120
- N27 MMC1_CMD/MS_BS/GPIO_121
- N26 MMC1_DAT0/MS_DAT0/GPIO_122
- N25 MMC1_DAT1/MS_DAT1/GPIO_123
- P28 MMC1_DAT2/MS_DAT2/GPIO_124
- P27 MMC1_DAT3/MS_DAT3/GPIO_125
- P26 MMC1_DAT4/SIM_IO/GPIO_126
- R27 MMC1_DAT5/SIM_CLK/GPIO_127
- R26 MMC1_DAT6/SIM_PWRCTRL/GPIO_128
- R25 MMC1_DAT7/SIM_RST/GPIO_129

- 8 MMC2_CLK0
- 8 MMC2_CMD
- 8 MMC2_DAT0
- 8 MMC2_DAT1
- 8 MMC2_DAT2
- 8 MMC2_DAT3
- 8 MMC2_DAT4
- 8 MMC2_DAT5
- 8 MMC2_DAT6
- 8 MMC2_DAT7

- AG5 MMC2_CLK/McSPI3_CLK/GPIO_130
- AH5 MMC2_CMD/McSPI3_SIMO/GPIO_131
- AH4 MMC2_DAT0/McSPI3_SOMI/GPIO_132
- AG4 MMC2_DAT1/GPIO_133
- AG4 MMC2_DAT2/McSPI3_CS1/GPIO_134
- AF4 MMC2_DAT3/McSPI3_CS0/GPIO_135
- AF4 MMC2_DAT4/McSPI3_CS0/McSPI3_CS0/GPIO_136
- AH3 MMC2_DAT5/McSPI3_CS0/McSPI3_CS0/GPIO_137
- AF3 MMC2_DAT6/McSPI3_CS0/McSPI3_CS0/GPIO_138
- AF3 MMC2_DAT7/McSPI3_CS0/McSPI3_CS0/GPIO_139

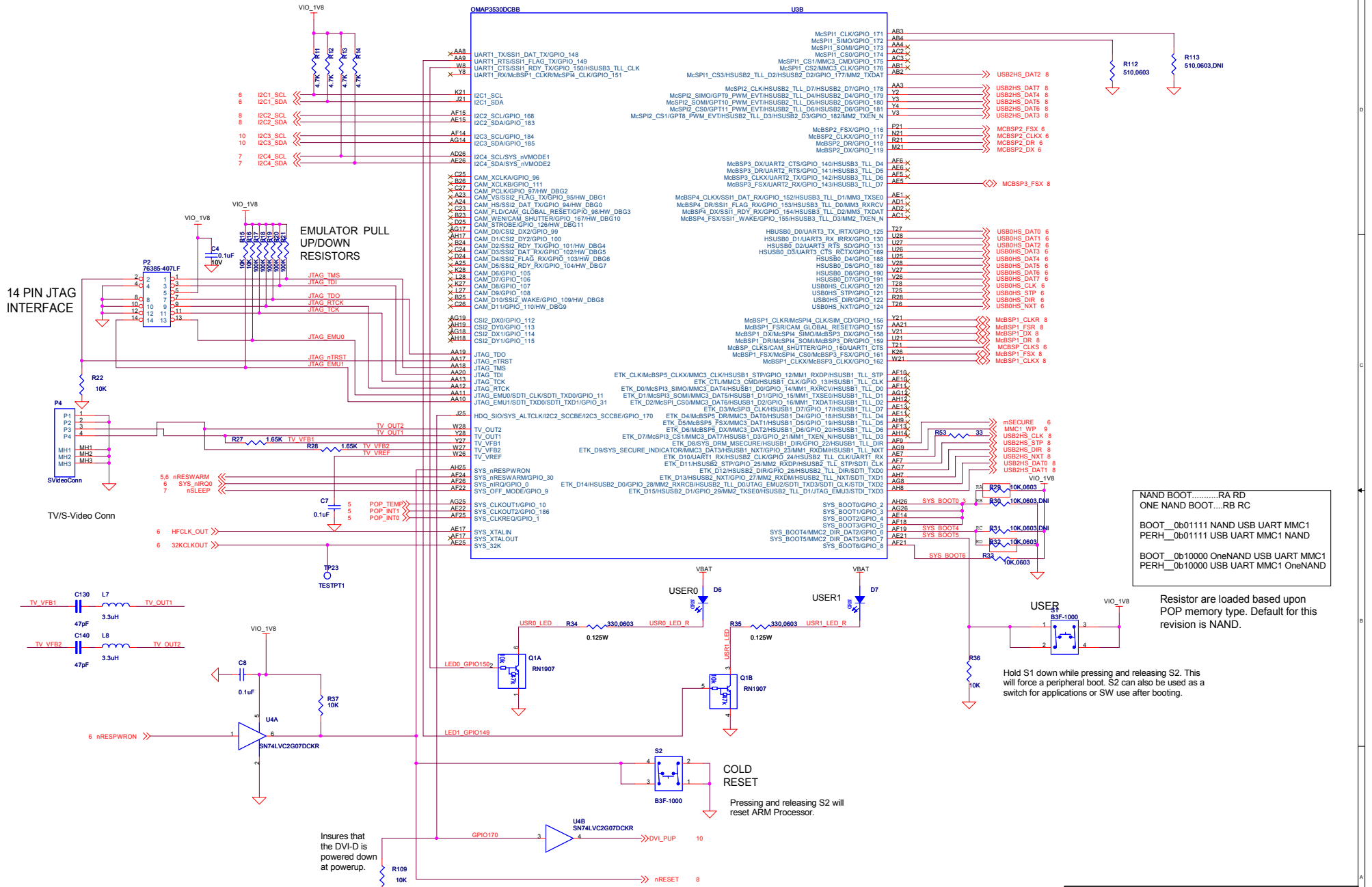
- DSS_D0/DX0/UART1_CTS/DSSVENC656_DATA0/GPIO_70
- DSS_D1/DY0/UART1_RTS/DSSVENC656_DATA1/GPIO_71
- DSS_D2/DX1/DSSVENC656_DATA2/GPIO_72
- DSS_D3/DY1/DSSVENC656_DATA3/GPIO_73
- DSS_D4/DX2/UART3_RX_IRRX/DSSVENC656_DATA4/GPIO_74
- DSS_D5/DY2/UART3_TX_IRTX/DSSVENC656_DATA5/GPIO_75
- DSS_D6/UART1_TX/DSSVENC656_DATA6/GPIO_76/HW_DBG14
- DSS_D7/UART1_RX/DSSVENC656_DATA7/GPIO_77/HW_DBG15
- DSS_D8/GPIO_78/HW_DBG16
- DSS_D9/GPIO_79/HW_DBG17
- DSS_D10/SDI_DAT1N/GPIO_80
- DSS_D11/SDI_DAT1P/GPIO_81
- DSS_D12/SDI_DAT2N/GPIO_82
- DSS_D13/SDI_DAT2P/GPIO_83
- DSS_D14/SDI_DAT3N/GPIO_84
- DSS_D15/SDI_DAT3P/GPIO_85
- DSS_D16/GPIO_86
- DSS_D17/GPIO_87
- DSS_D18/SDI_VSYNC/McSPI3_CLK/DSS_D0/GPIO_88
- DSS_D19/SDI_HSYNC/McSPI3_SIMO/DSS_D1/GPIO_89
- DSS_D20/SDI_DEN/McSPI3_SOMI/DSS_D2/GPIO_90
- DSS_D21/SDI_STP/McSPI3_CS0/DSS_D3/GPIO_91
- DSS_D22/SDI_CLKP/McSPI3_CS1/DSS_D4/GPIO_92
- DSS_D23/SDI_CLKN/DSS_D5/GPIO_93
- DSS_PCLK/GPIO_66/HW_DBG12
- DSS_HSYNC/GPIO_67/HW_DBG13
- DSS_VSYNC/GPIO_68
- DSS_ACBIAS/GPIO_69
- MMC1_CLK/MS_CLK/GPIO_120
- MMC1_CMD/MS_BS/GPIO_121
- MMC1_DAT0/MS_DAT0/GPIO_122
- MMC1_DAT1/MS_DAT1/GPIO_123
- MMC1_DAT2/MS_DAT2/GPIO_124
- MMC1_DAT3/MS_DAT3/GPIO_125
- MMC1_DAT4/SIM_IO/GPIO_126
- MMC1_DAT5/SIM_CLK/GPIO_127
- MMC1_DAT6/SIM_PWRCTRL/GPIO_128
- MMC1_DAT7/SIM_RST/GPIO_129
- MMC2_CLK/McSPI3_CLK/GPIO_130
- MMC2_CMD/McSPI3_SIMO/GPIO_131
- MMC2_DAT0/McSPI3_SOMI/GPIO_132
- MMC2_DAT1/GPIO_133
- MMC2_DAT2/McSPI3_CS1/GPIO_134
- MMC2_DAT3/McSPI3_CS0/GPIO_135
- MMC2_DAT4/McSPI3_CS0/McSPI3_CS0/GPIO_136
- MMC2_DAT5/McSPI3_CS0/McSPI3_CS0/GPIO_137
- MMC2_DAT6/McSPI3_CS0/McSPI3_CS0/GPIO_138
- MMC2_DAT7/McSPI3_CS0/McSPI3_CS0/GPIO_139
- UART2_CTS/McBSP3_DX/GPT9_PWM_EVT/GPIO_144
- UART2_RTS/McBSP3_DR/GPT10_PWM_EVT/GPIO_145
- UART2_TX/McBSP3_CLKX/GPT11_PWM_EVT/GPIO_146
- UART2_RX/McBSP3_FSX/GPT8_PWM_EVT/GPIO_147
- UART3_CTS_RCTX/GPIO_163
- UART3_RTS_SD/GPIO_164
- UART3_RX_IRRX/GPIO_165
- UART3_TX_IRTX/GPIO_166

VIO_1V8



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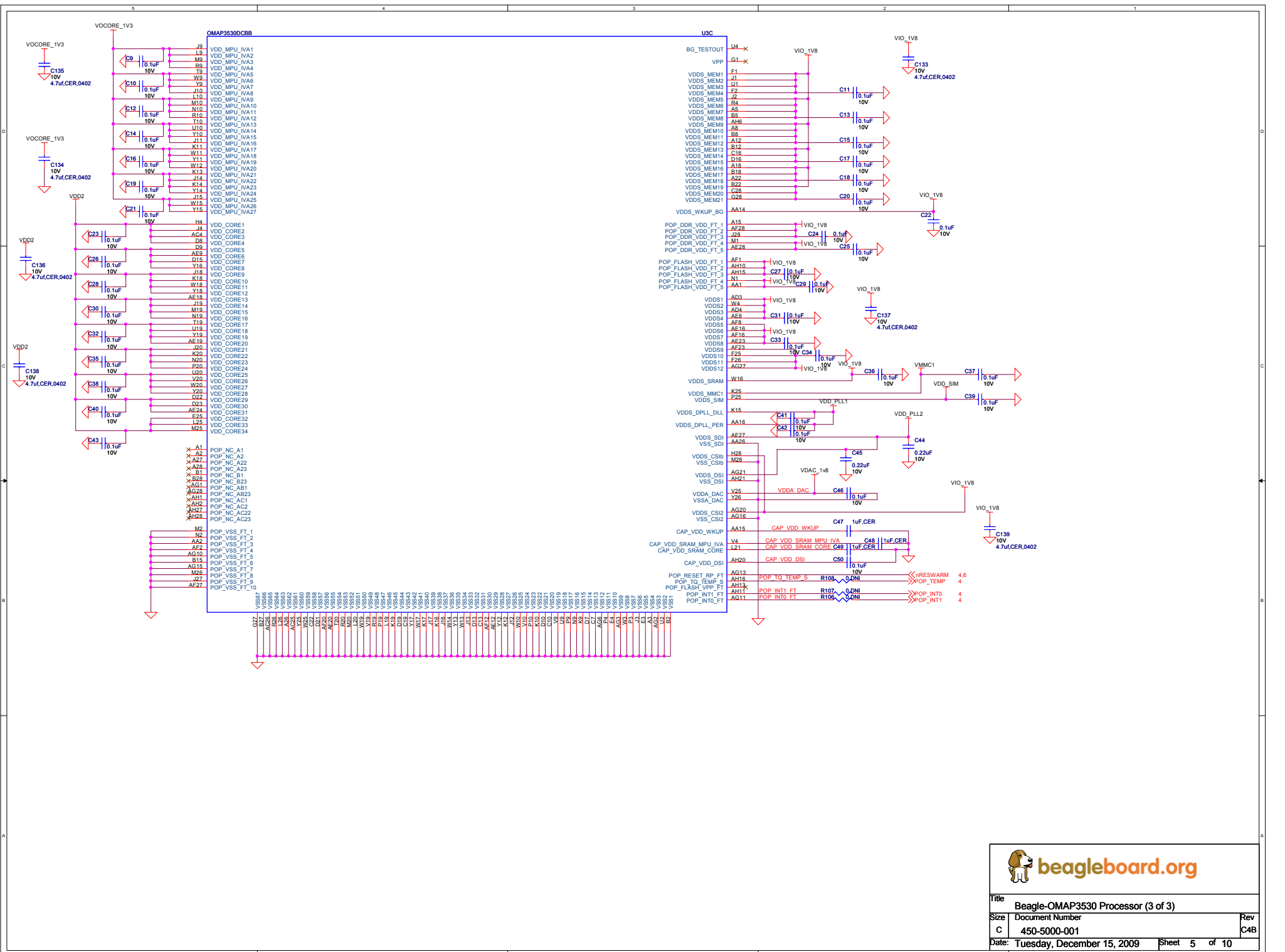
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 ONE NAND BOOT....RB RC
 BOOT_0b01111 NAND USB UART MMC1
 PERH_0b01111 USB UART MMC1 NAND
 BOOT_0b10000 OneNAND USB UART MMC1
 PERH_0b10000 USB UART MMC1 OneNAND

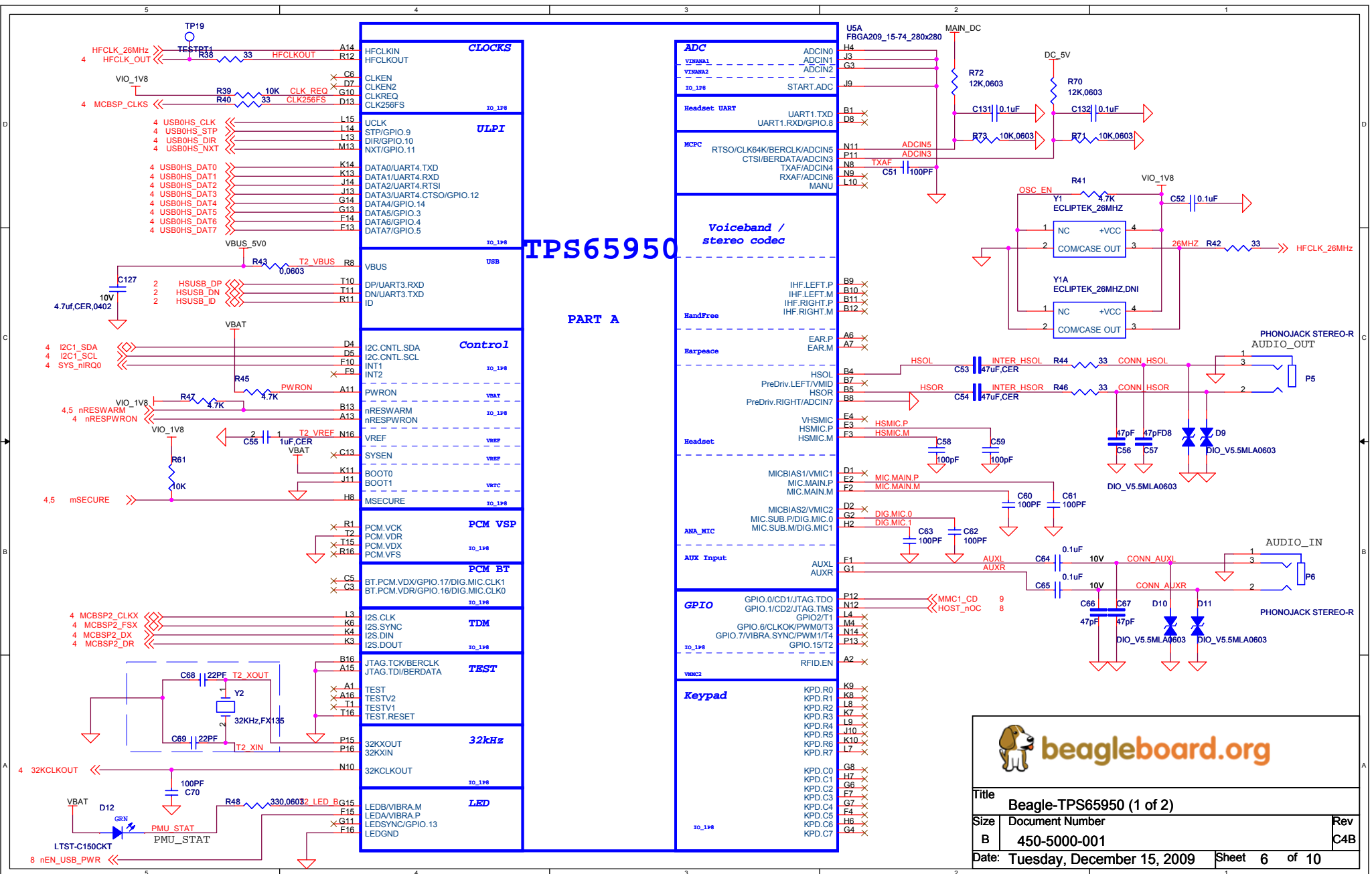

Resistor are loaded based upon
 POP memory type. Default for this
 revision is NAND.

Hold S1 down while pressing and releasing S2. This
 will force a peripheral boot. S2 can also be used as a
 switch for applications or SW user after booting.

COLD RESET
 Pressing and releasing S2 will
 reset ARM Processor.

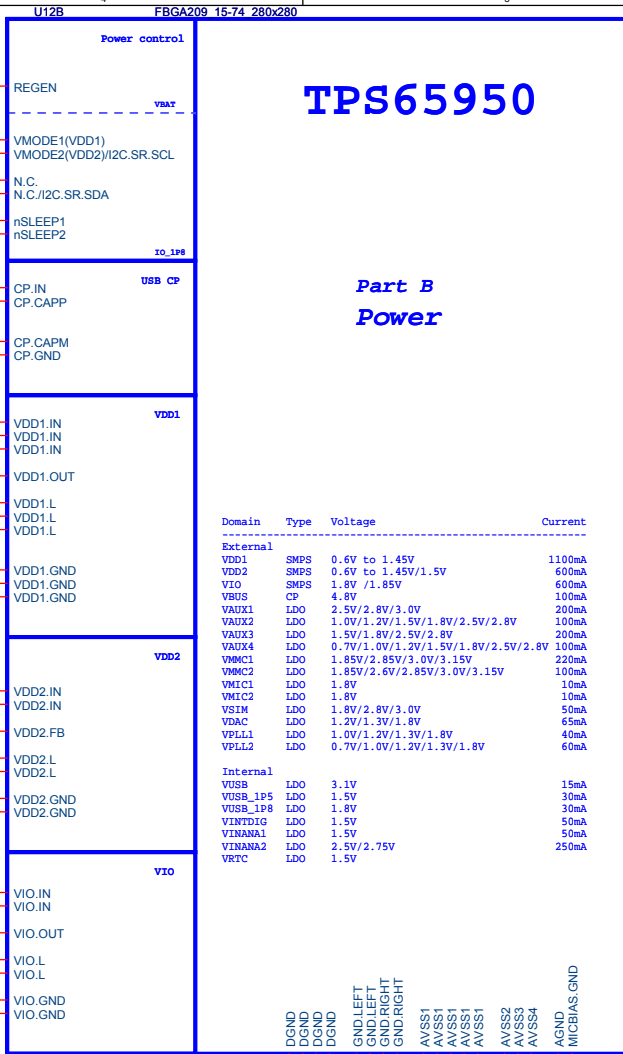
Insures that the DVI-D is
 powered down
 at powerup.



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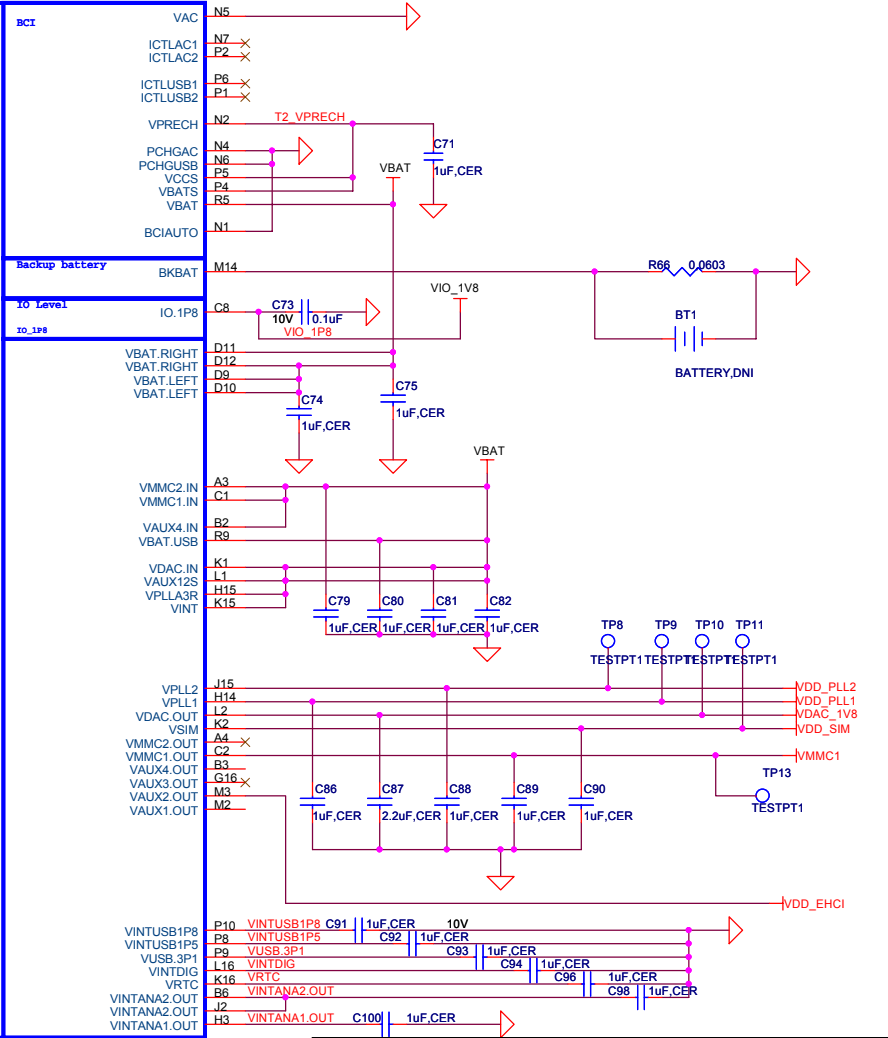
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Size	Document Number	450-5000-001	
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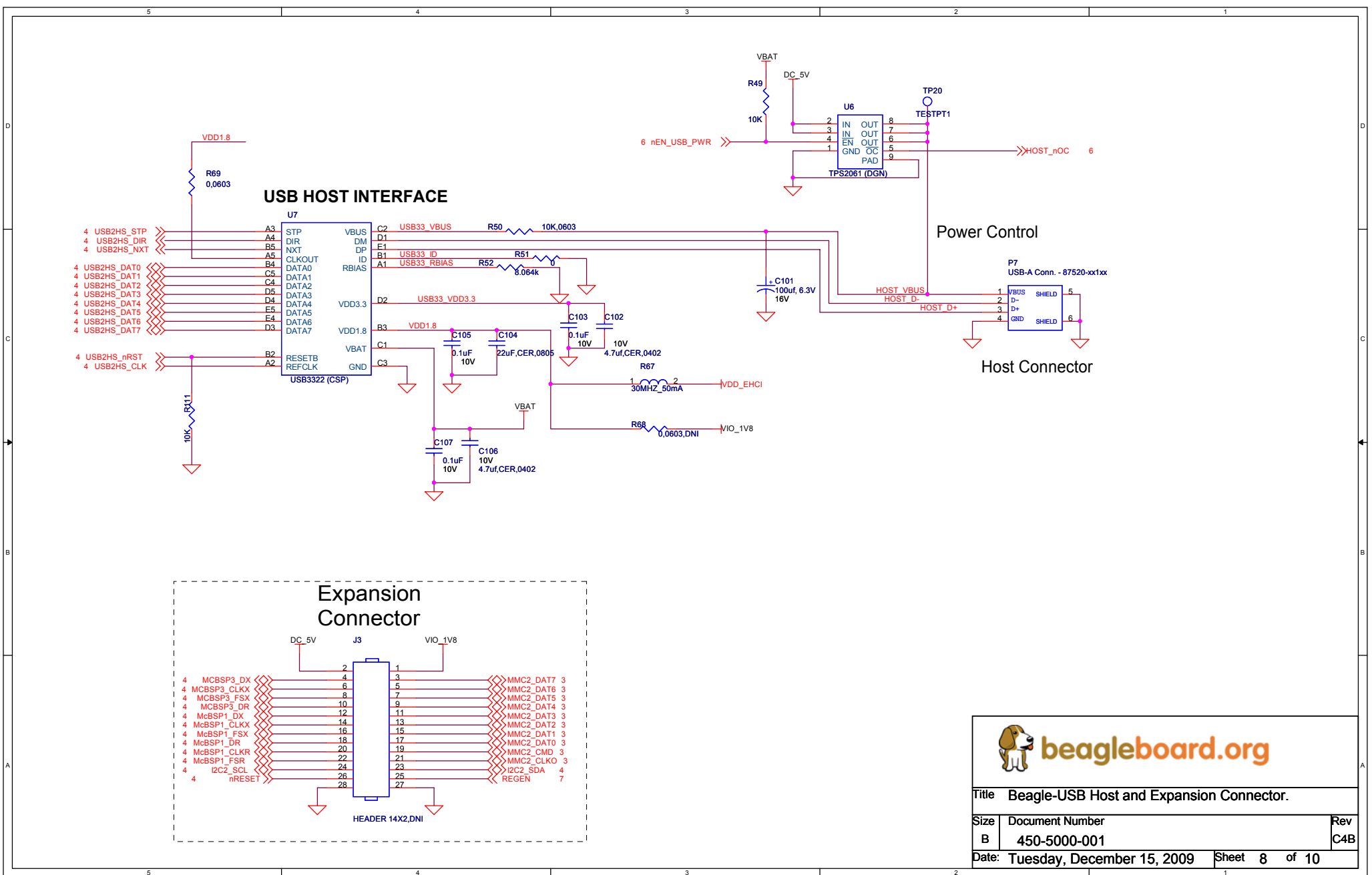
TPS65950

Part B Power

Domain	Type	Voltage	Current
External			
VDD1	SMPS	0.6V to 1.45V	1100mA
VDD2	SMPS	0.6V to 1.45V/1.5V	600mA
VIO	SMPS	1.8V /1.85V	600mA
VBUS	CP	4.8V	100mA
VAUX1	LDO	2.5V/2.8V/3.0V	200mA
VAUX2	LDO	1.0V/1.2V/1.5V/1.8V/2.5V/2.8V	100mA
VAUX3	LDO	1.5V/1.8V/2.5V/2.8V	200mA
VAUX4	LDO	0.7V/1.0V/1.2V/1.5V/1.8V/2.5V/2.8V	100mA
VMMC1	LDO	1.85V/2.85V/3.0V/3.15V	220mA
VMMC2	LDO	1.85V/2.6V/2.85V/3.0V/3.15V	100mA
VMIC1	LDO	1.8V	10mA
VMIC2	LDO	1.8V	10mA
VSIM	LDO	1.8V/2.8V/3.0V	50mA
VDAC	LDO	1.2V/1.3V/1.8V	65mA
VPLL1	LDO	1.0V/1.2V/1.3V/1.8V	40mA
VPLL2	LDO	0.7V/1.0V/1.2V/1.3V/1.8V	60mA
Internal			
USB	LDO	3.1V	15mA
USB_IP5	LDO	1.5V	30mA
VUSB_IP8	LDO	1.8V	30mA
VINTDIG	LDO	1.5V	50mA
VINANA1	LDO	1.5V	50mA
VINANA2	LDO	2.5V/2.75V	250mA
VRTC	LDO	1.5V	250mA



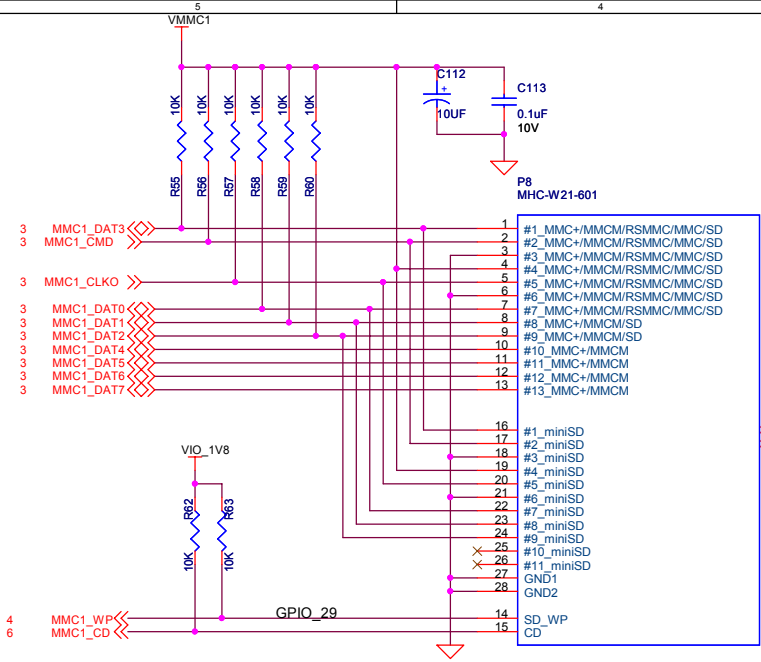
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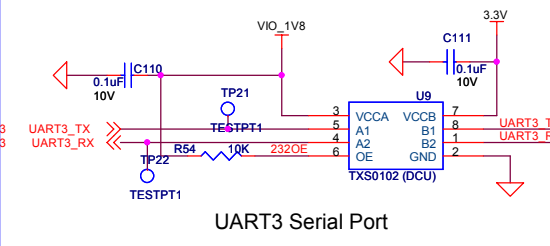
Title Beagle-USB Host and Expansion Connector.

Size	Document Number	Rev
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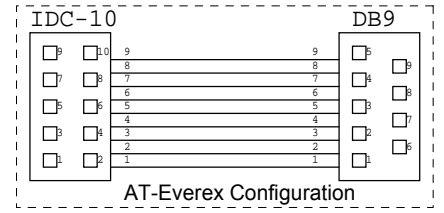
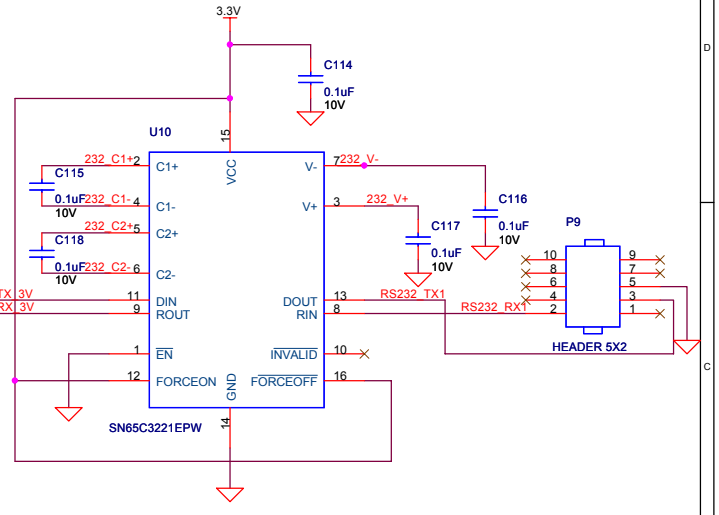
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SD/MMC Connector 6 in 1
MMC+, MMCMobile, SD,
MMC, miniSD, RS-MMC



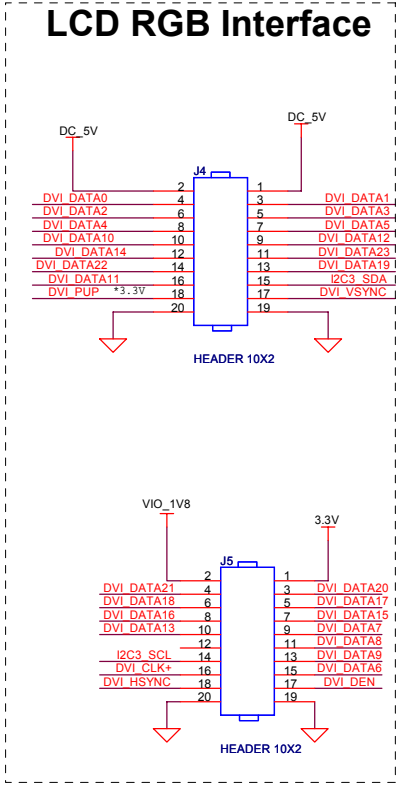
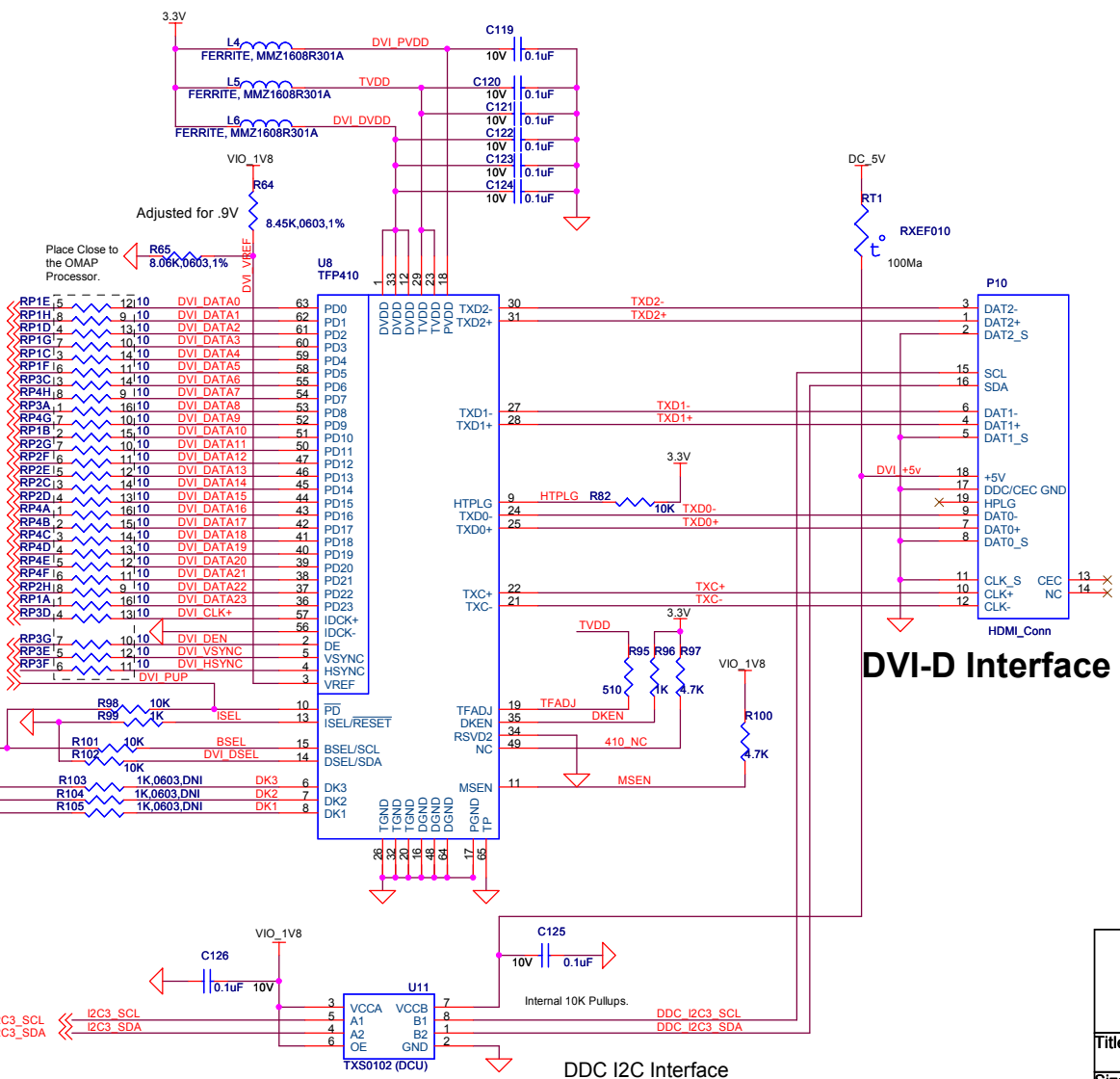
UART3 Serial Port



Title Beagle-RS232 and SD/MMC Connector		
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24BIT MODE ONLY
 REFER TO SECTION 15.2 OF THE
 OMAP3530 TECHNICAL REFERENCE MANUAL
 FOR OTHER MODES

- BLUE**
- 3 DSS_D0
- 3 DSS_D1
- 3 DSS_D2
- 3 DSS_D3
- 3 DSS_D4
- 3 DSS_D5
- 3 DSS_D6
- 3 DSS_D7
- 3 DSS_D8
- 3 DSS_D9
- 3 DSS_D10
- 3 DSS_D11
- 3 DSS_D12
- 3 DSS_D13
- 3 DSS_D14
- 3 DSS_D15
- 3 DSS_D16
- 3 DSS_D17
- 3 DSS_D18
- 3 DSS_D19
- GREEN**
- 3 DSS_D20
- 3 DSS_D21
- 3 DSS_D22
- 3 DSS_D23
- 3 DSS_PCLK
- RED**
- 3 DSS_ACBIAS
- 3 DSS_VSYNC
- 3 DSS_HSYNC
- 4 DVI_PUP



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