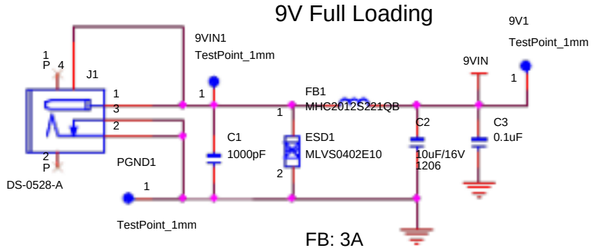
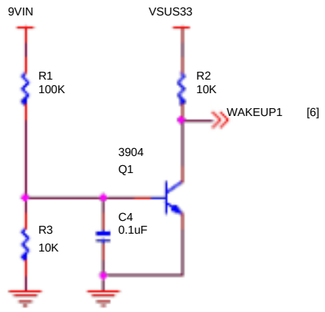
DC-IN and Battery

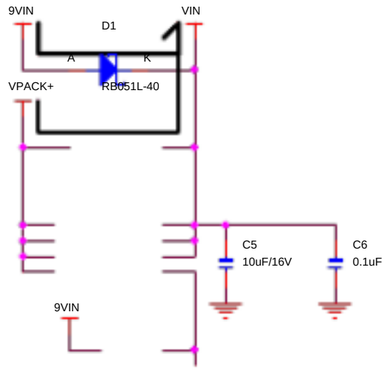
9V DC Input 1.5A

DC Voltage:(9.7V Max)
9V Full Loading



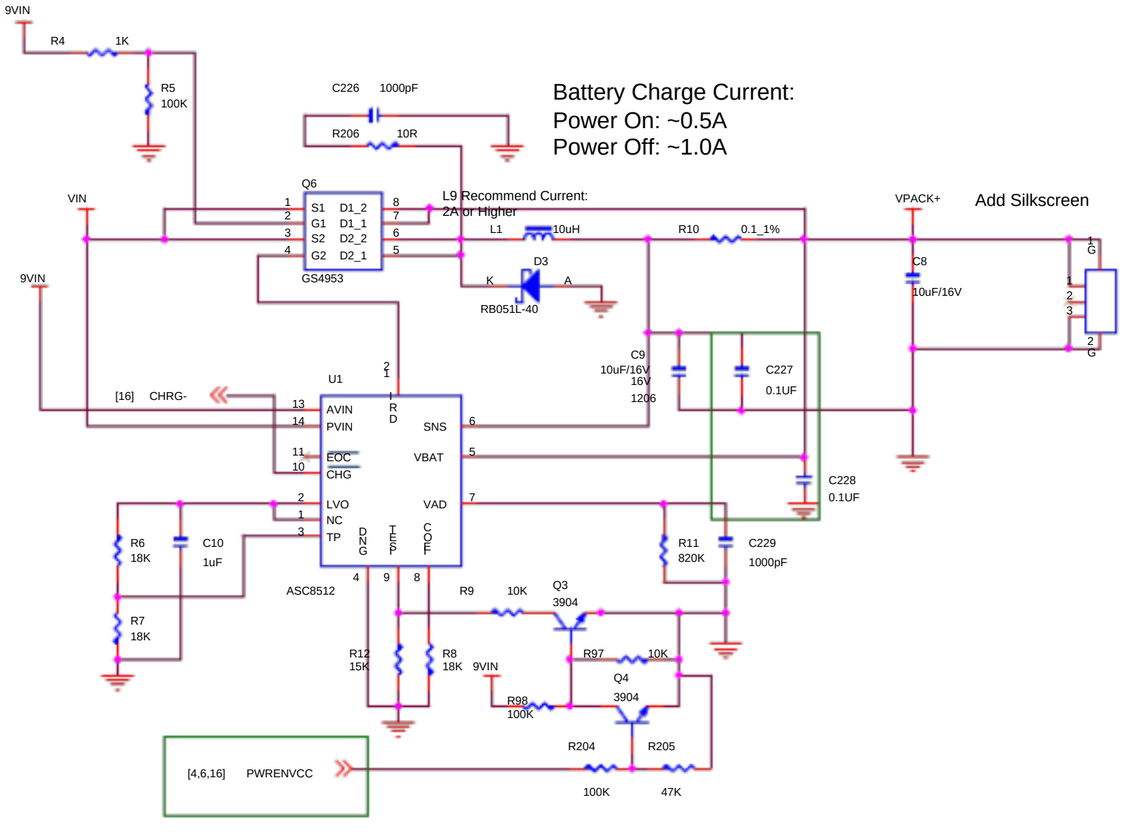


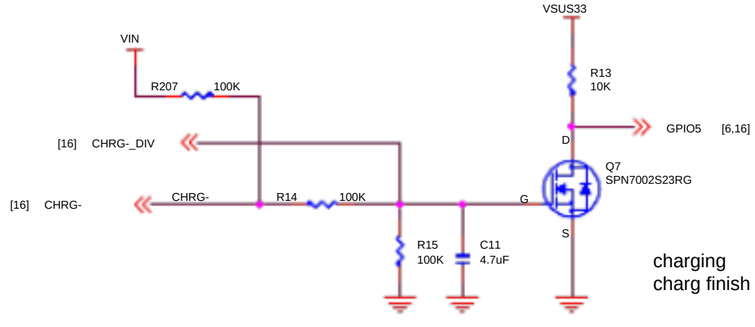
DC Switch



Battery charger 2-Cell

Battery Charge Current:
Power On: ~0.5A
Power Off: ~1.0A





charging GPIO5=1
charg finish GPIO5=0

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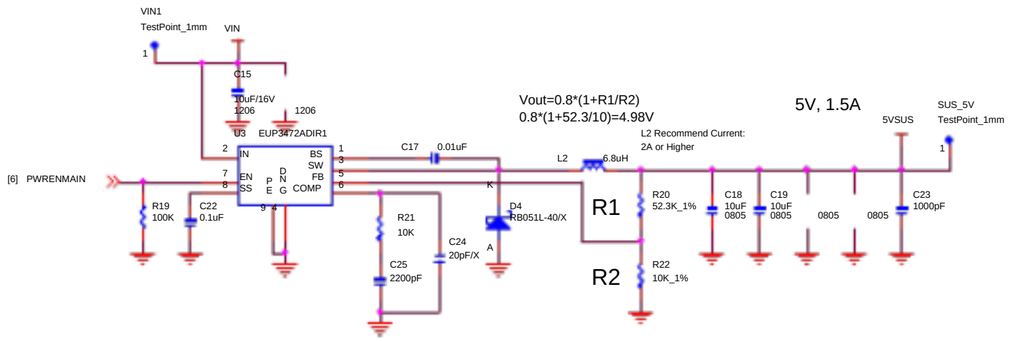
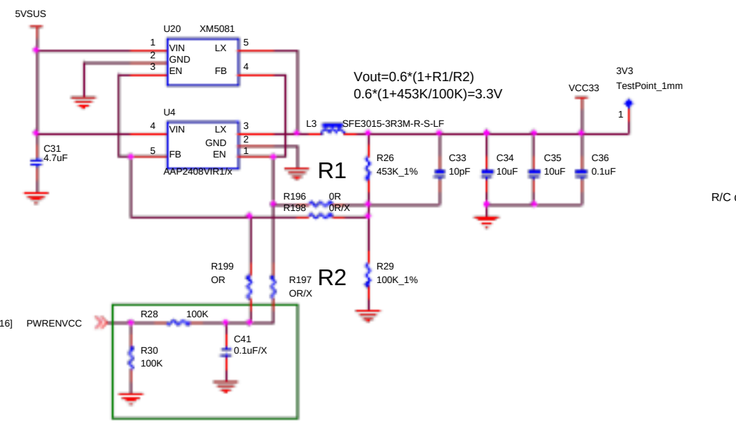
Voltage Regulators

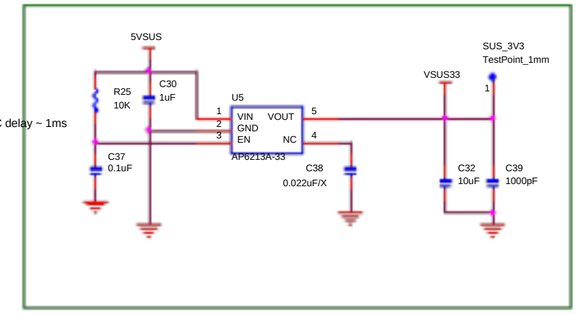
VIN->5VSUS, 2A



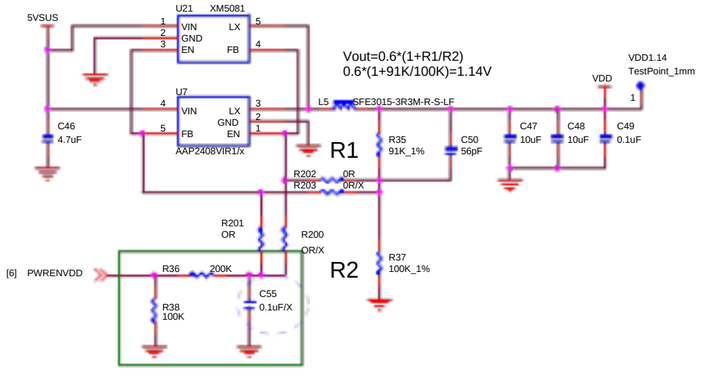
5VSUS->3.3V 800mA

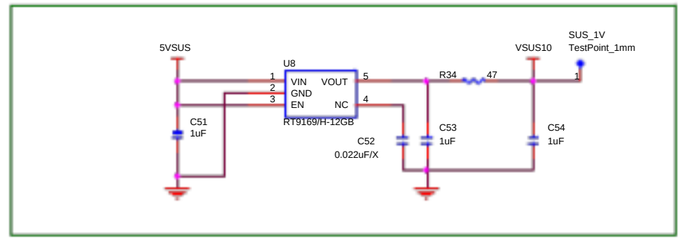


R/C delay ~ 1ms



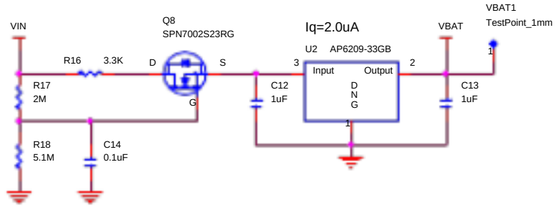
5VSUS->1.0V 800mA



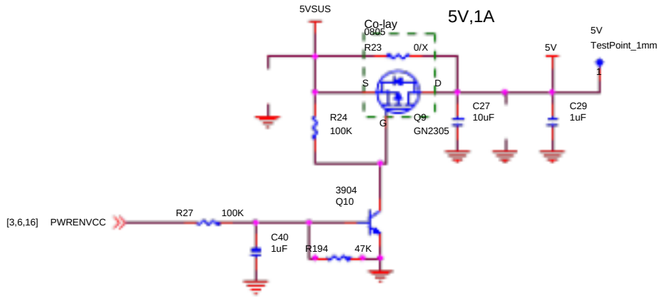


VIN->VCCBAT 3.3V 10uA

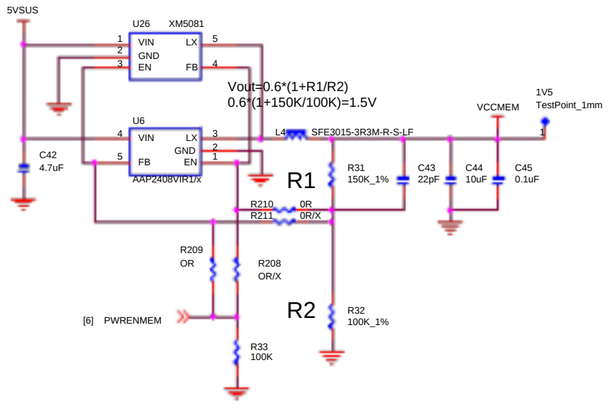
Recommend VIN Voltage:
6.0V Min~9.7V Max



5VSUS->5V, 1A



5VSUS->1.8V 800mA



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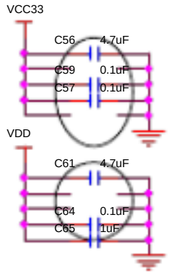
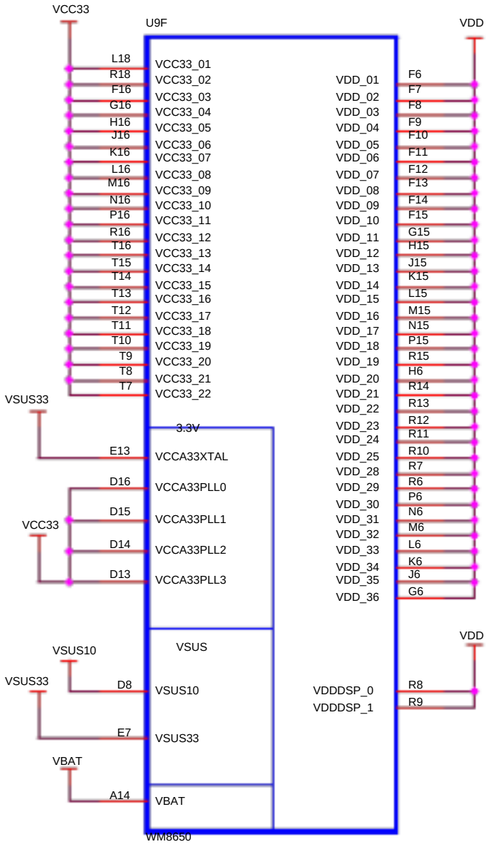
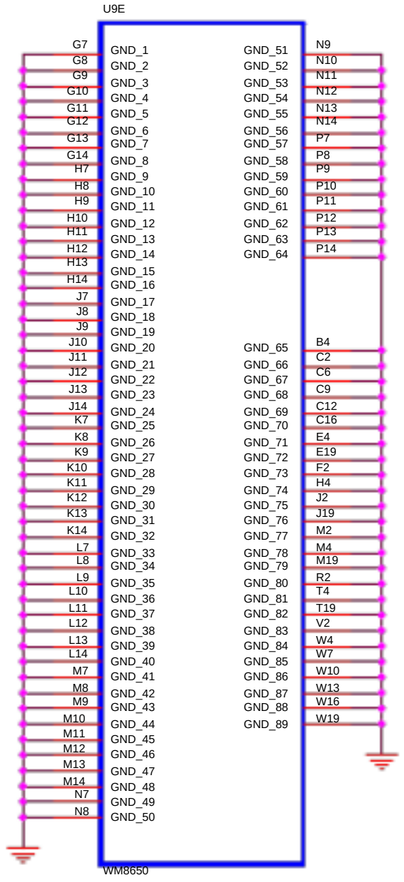
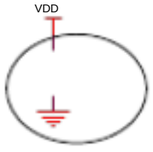
WM8650: Power / Ground

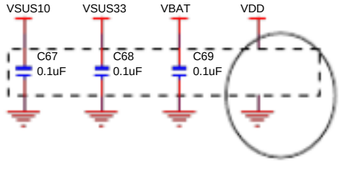
PART: E+F

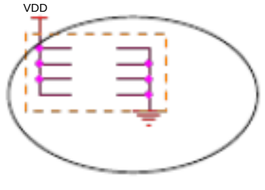












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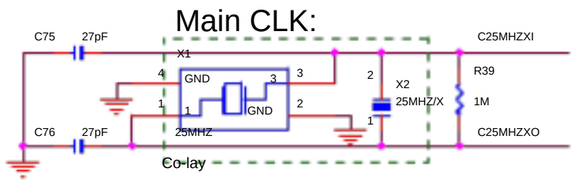
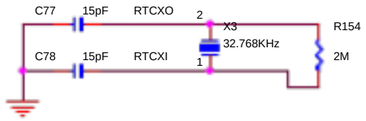
WM8650: CLOCK/RESET/PMC/GPIO

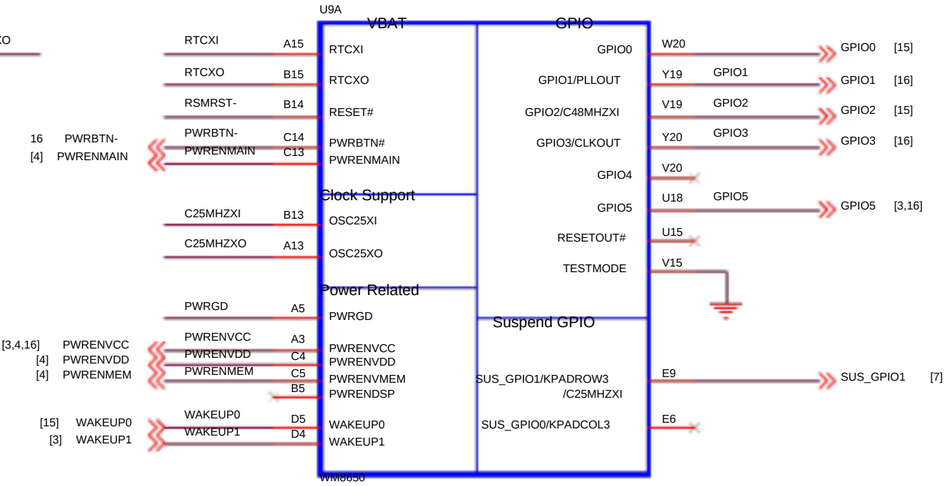
PART:A

Main CLK:

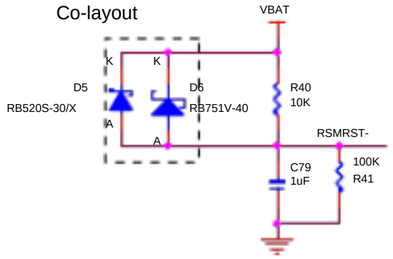


RTC CLK:





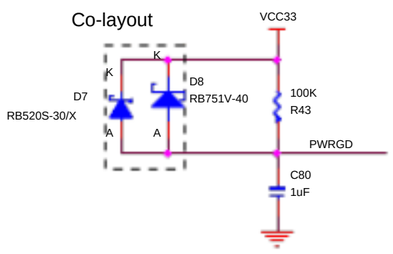
Co-layout

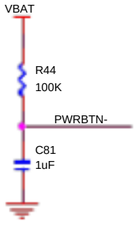


Low Battery

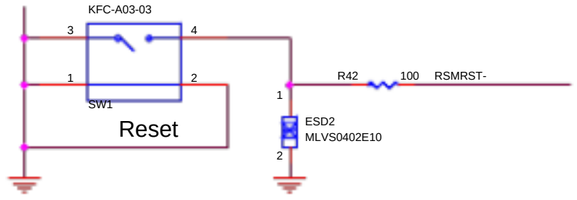
DCIN_DET

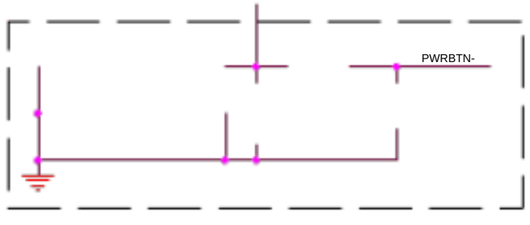
Co-layout





RESET BUTTON





Power Button/Menu Button

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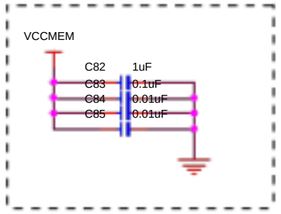
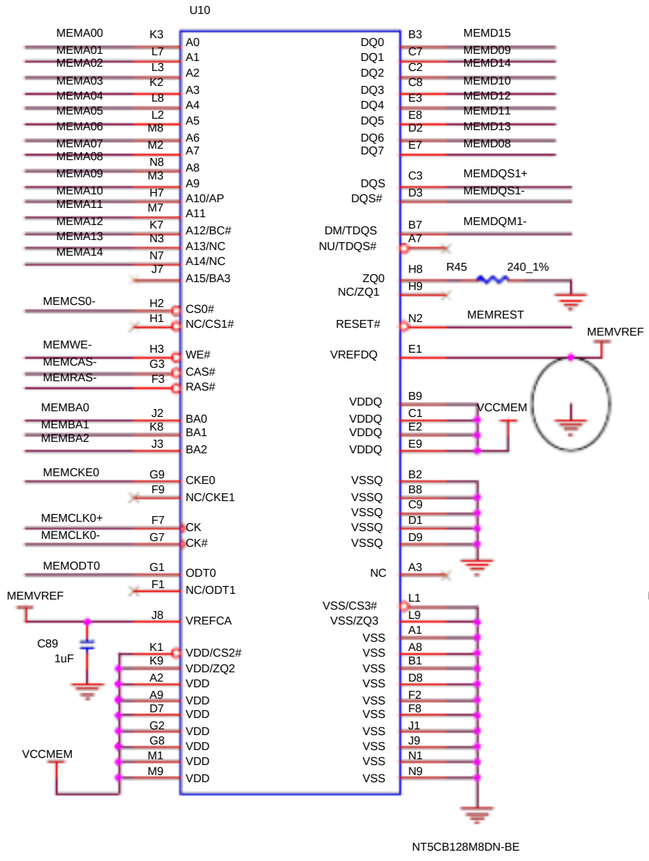
WM8650: DDR3 SDRAM

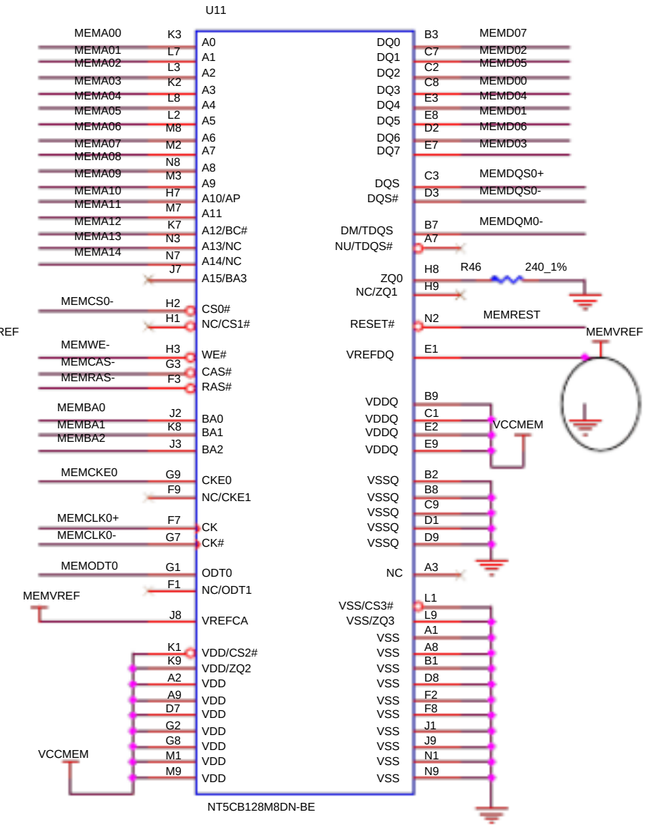
PART: B

DDR3_1Gb_8bit x 2





NT5CB128M8DN-BE



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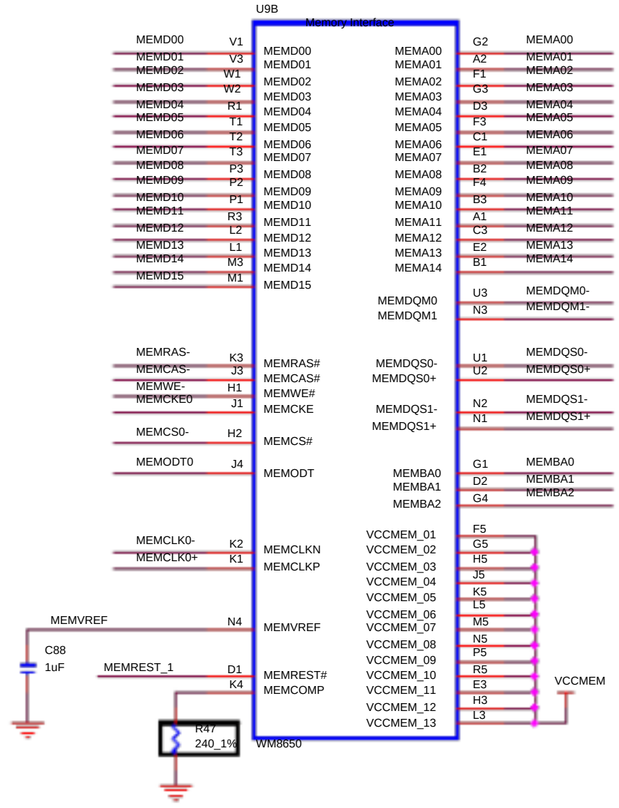
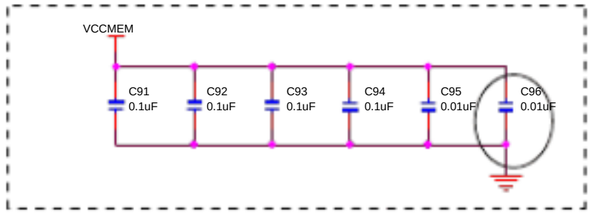
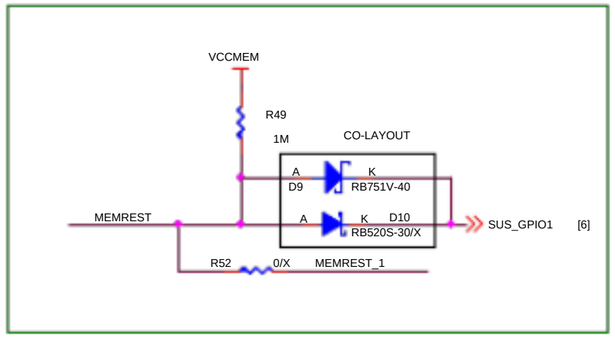
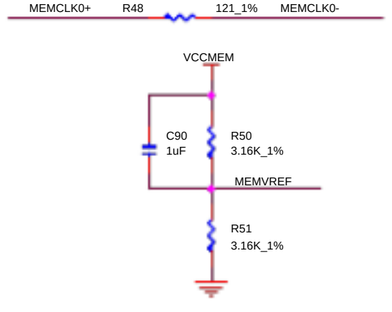




MEMREST





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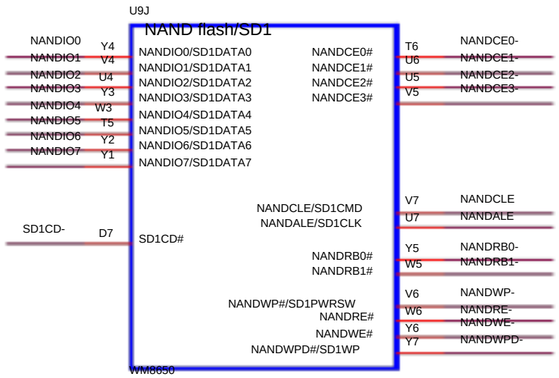
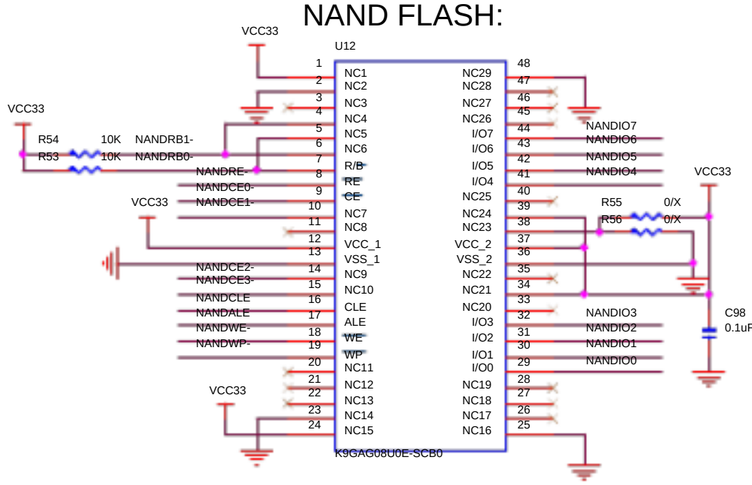
WM8650: NAND FLASH

PART: J



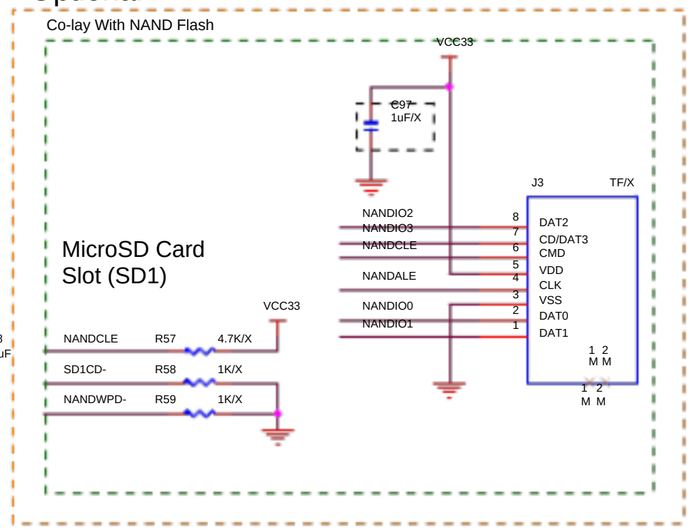
NAND FLASH:



Normal: R15 NC/R16 NC

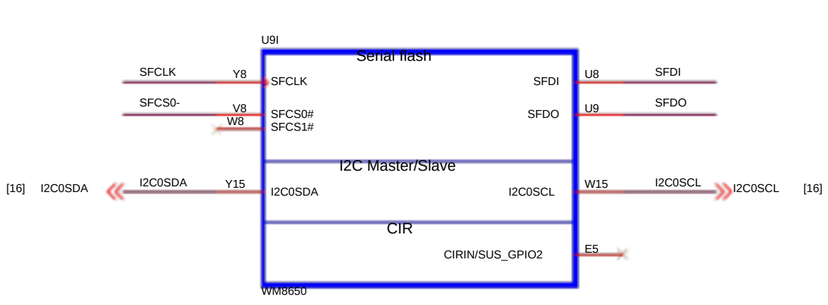
Intel/Toshiba: R15 0/R16 NC

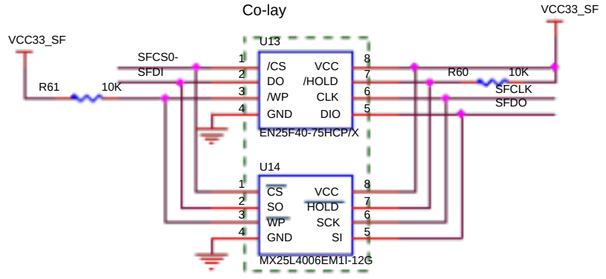
Optional

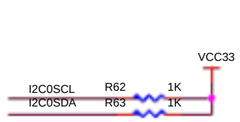


WM8650: SPI FLASH

PART: I

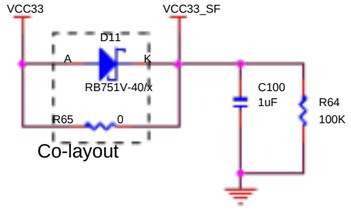


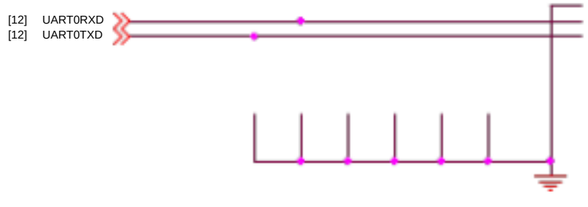


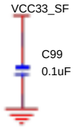


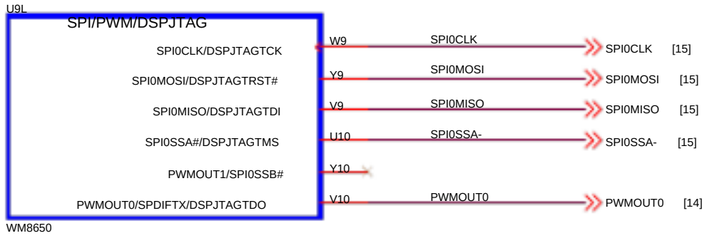
WM8650: SPI + PWM

PART: L









LCD_BL_DIM

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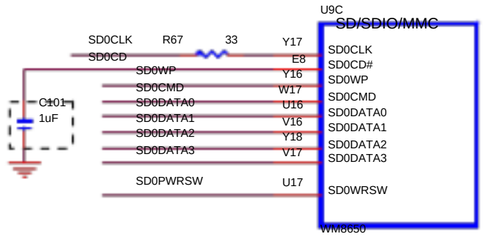
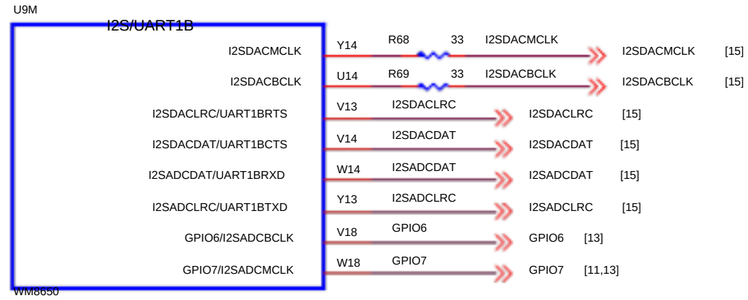
WM8650: SD/SDIO

PART: C

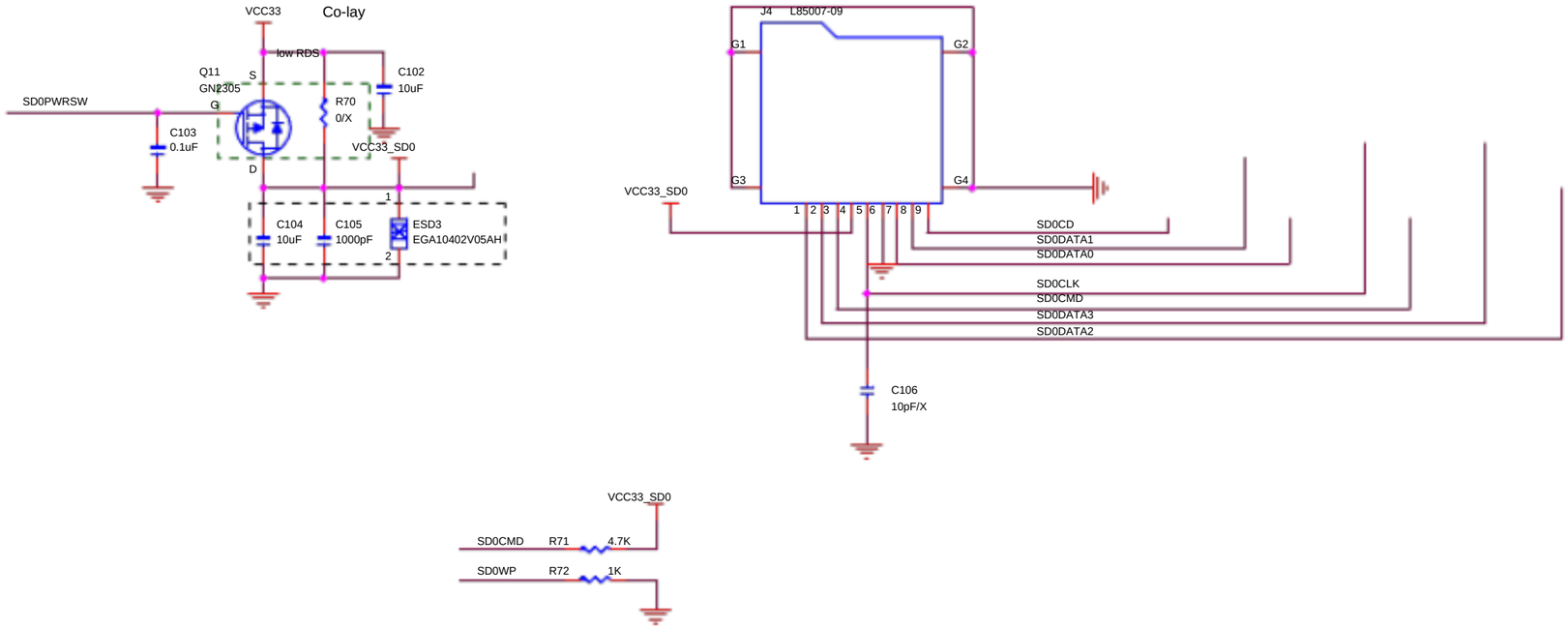


WM8650: I2S

PART: M



MicroSD Socket



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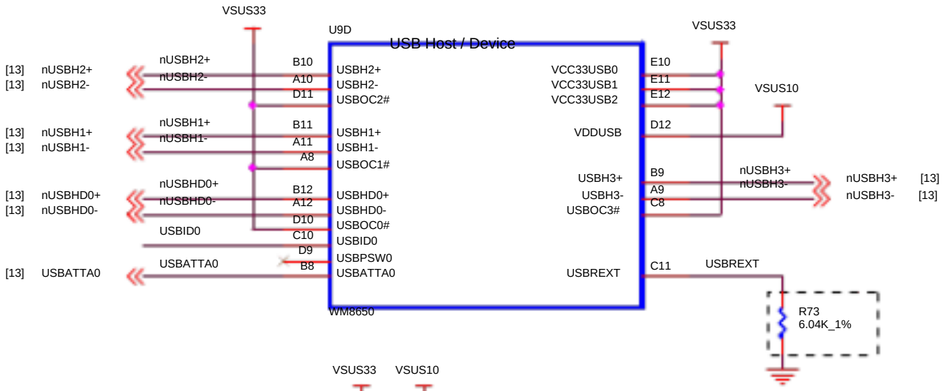
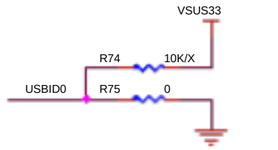
WM8505: USB (HOST+DEVICE)

PART: D





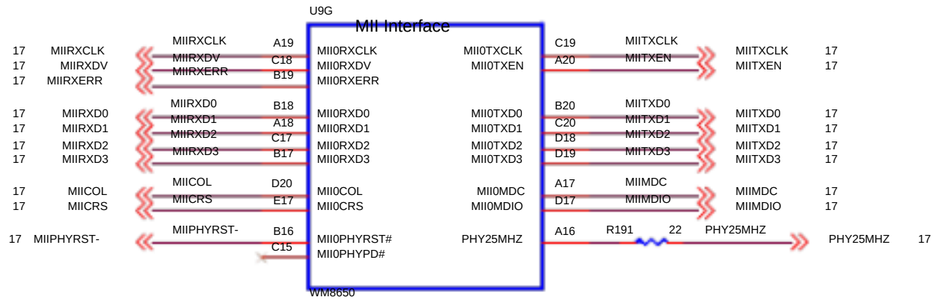
	USBID0
HOST	0
Device	1

default

USB PORT 0 Configuration Table

WM8650: MII

PART: G



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Title: WM8650: USB (H/D)/MII		
Szie: Custom	Document Number: Union713B	Rev: 1.0
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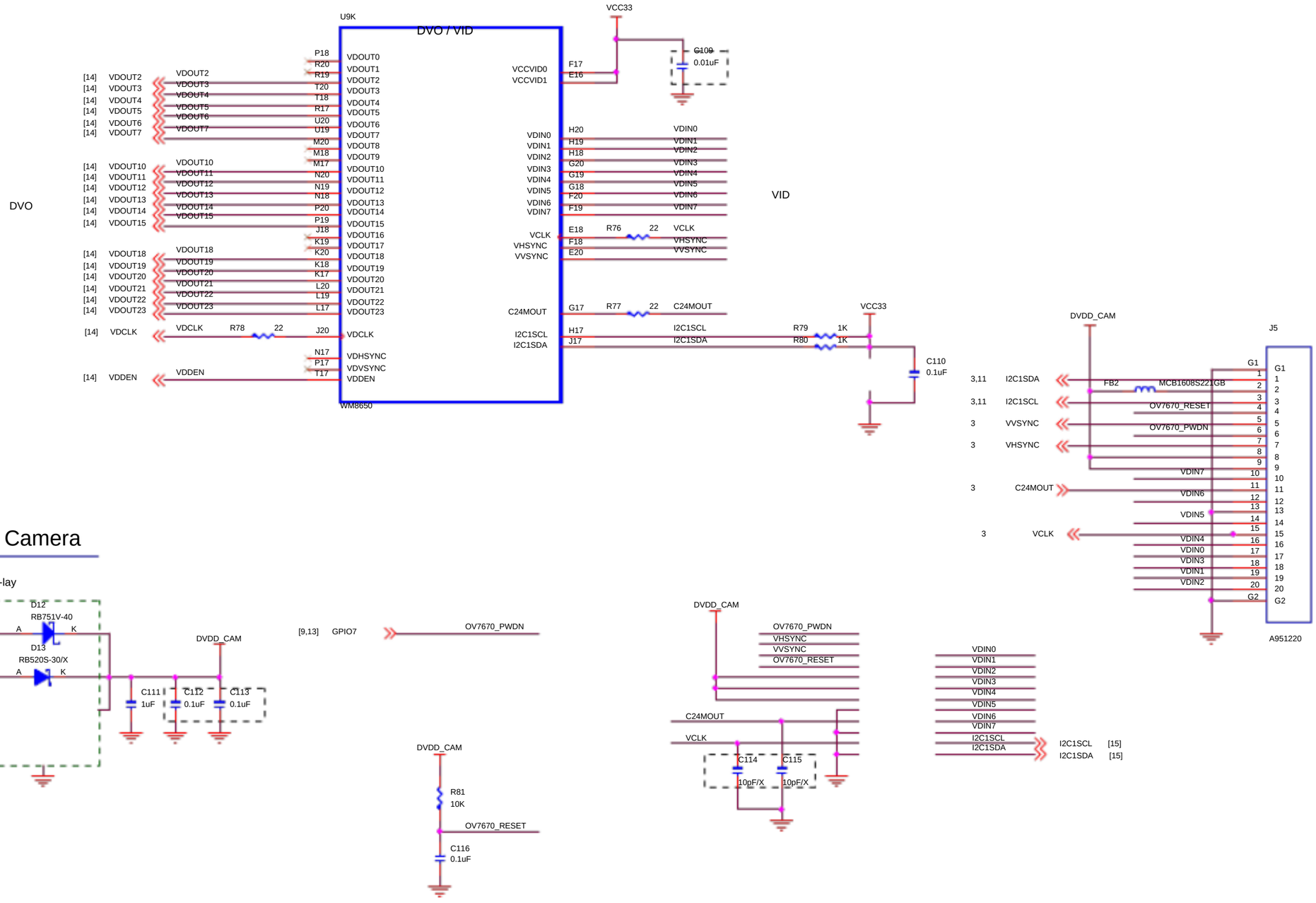
WM8650: DVO

PART: K



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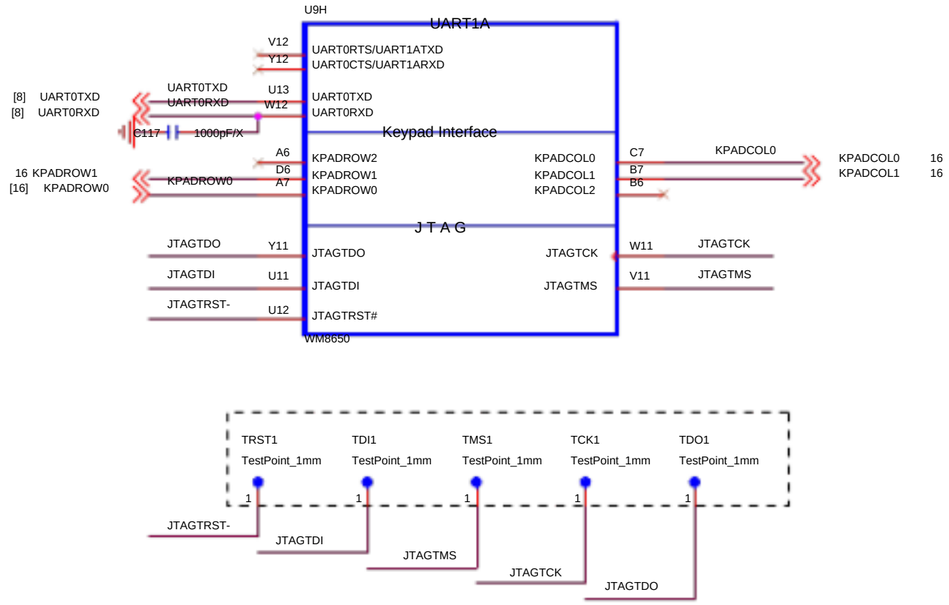
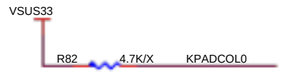
WM8650: UART/KEYPAD/JTAG

PART: H



Strapping Option

Pin	Internal Pull up/down	Default	Description
KPADCOL0	pull down	0	Inert PWRBTN# 0:debounced for a few cycles 1:kept 2s to trigger



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Title: WM8650: UART/KEYPAD/JTAG		
Szie: Custom	Document Number: Union713B	Rev: 1.0
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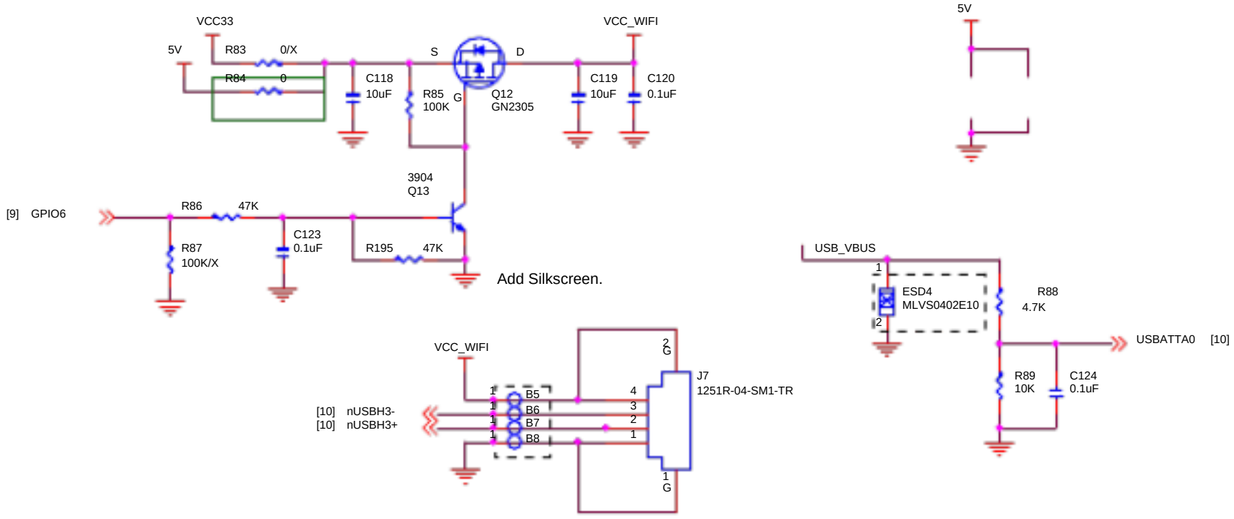
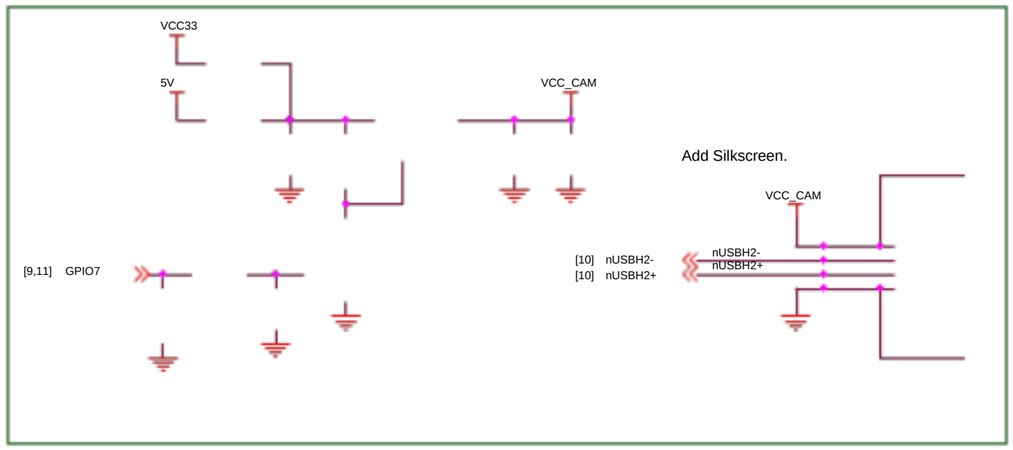
USB WiFi/Camera

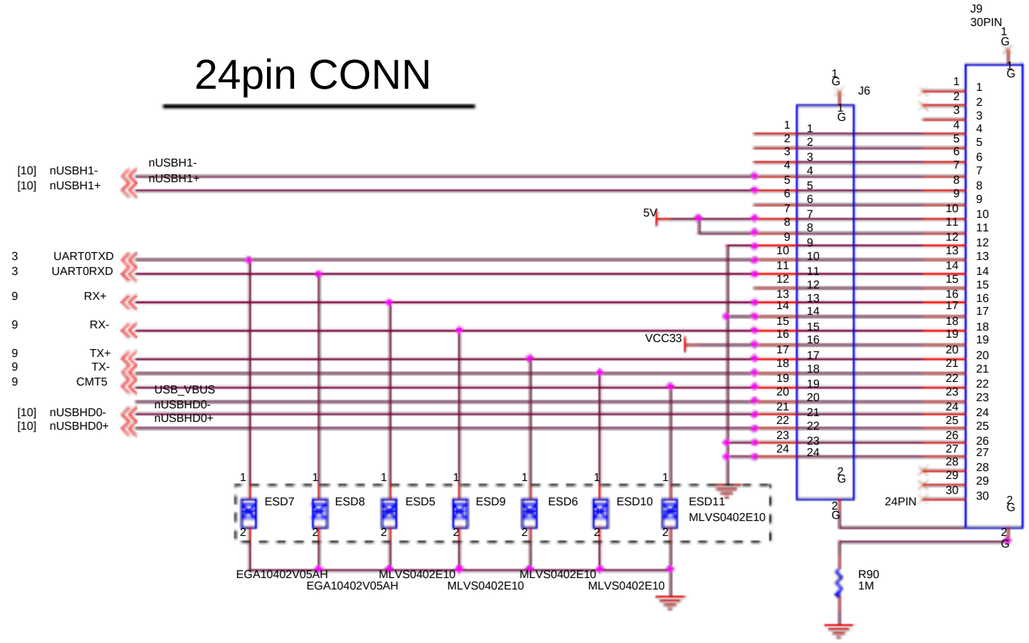
USB WiFi

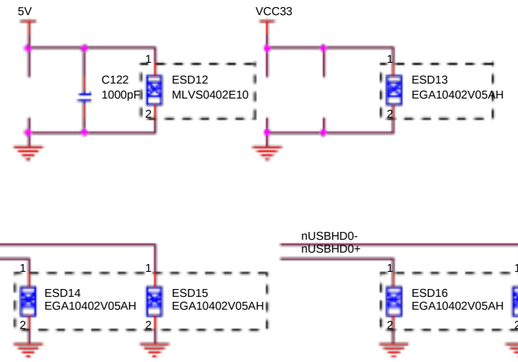


USB Camera



24pin CONN





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Title: USB WiFi/24PIN CONN		
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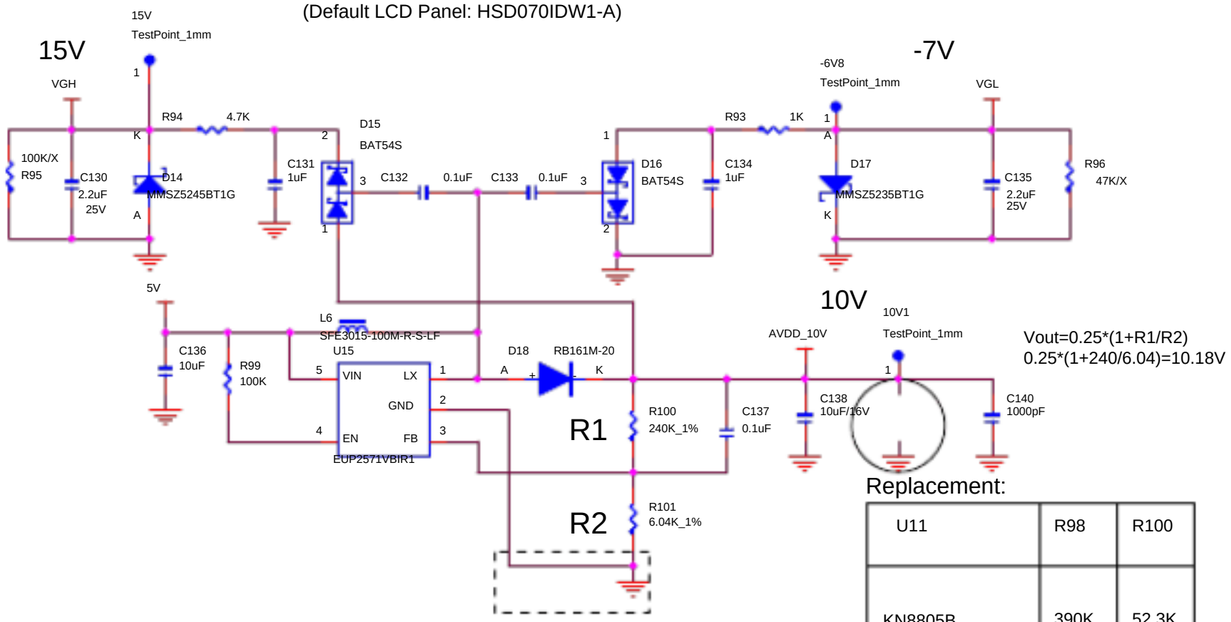
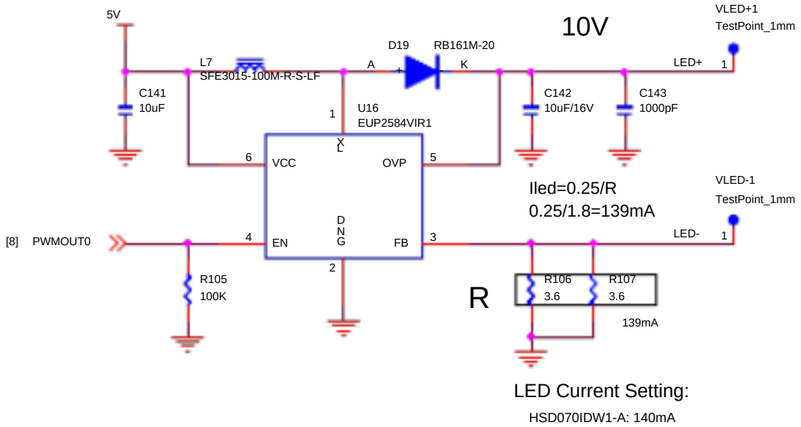
LCD Panel

(Default LCD Panel: HSD070IDW1-A)



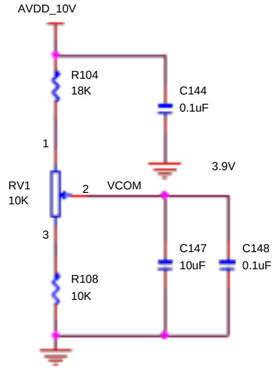
Replacement:

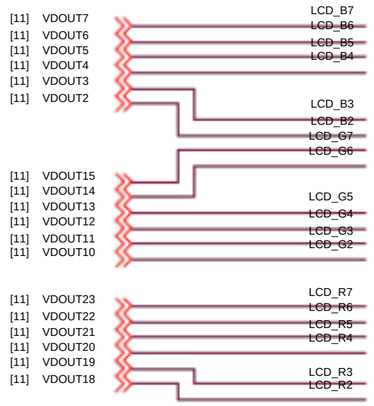
U11	R98	R100
KN8805B	390K	52.3K

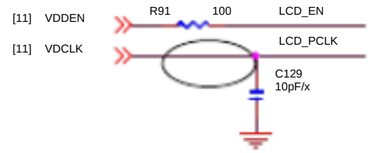


LED Current Setting:

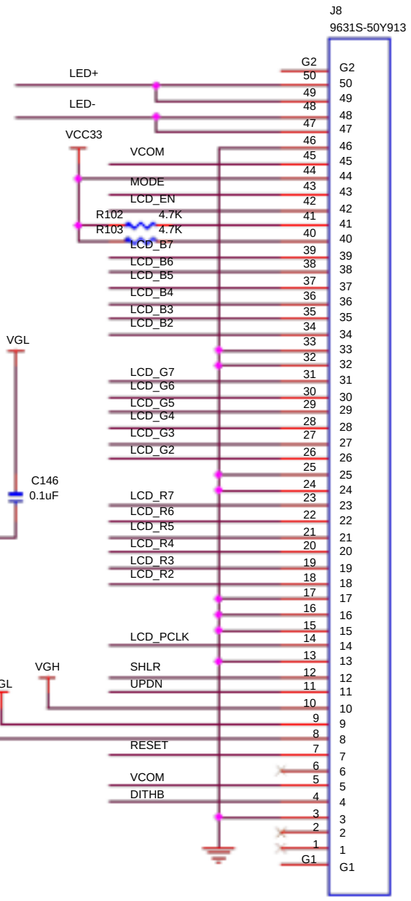
HSD070IDW1-A: 140mA

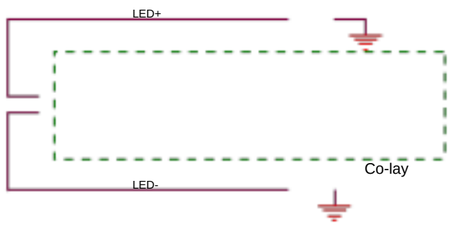


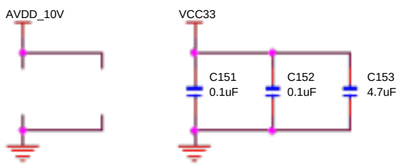




Bottom Contact
Place TOP Layer







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Title: LCD Panel		
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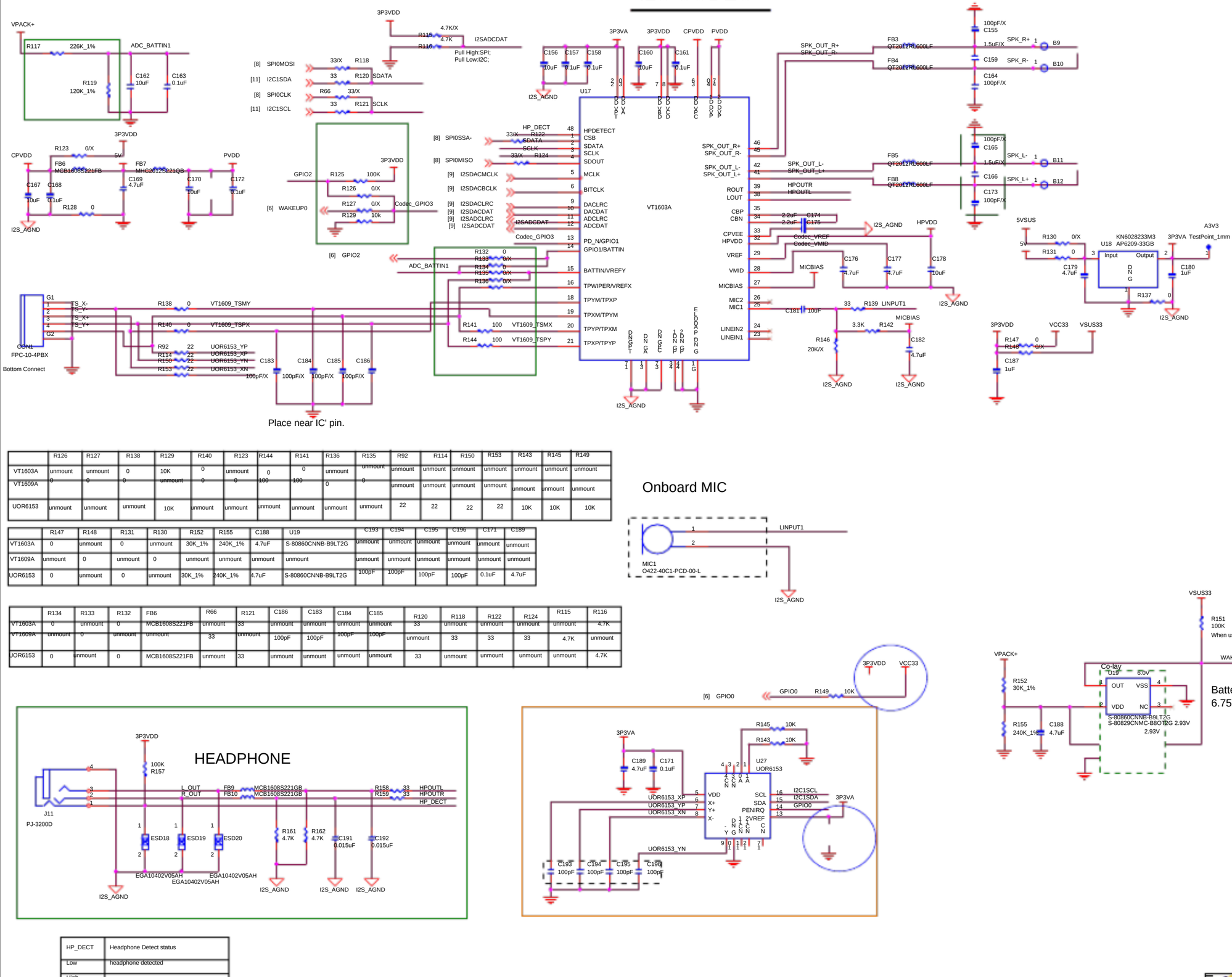
I2S CODEC

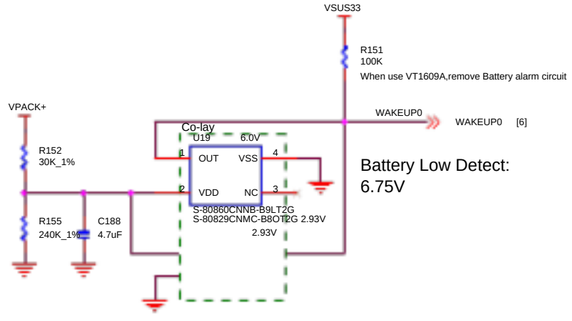


	R126	R127	R138	R129	R140	R123	R144	R141	R136	R135	R92	R114	R150	R153	R143	R145	R149
VT1603A	unmount	unmount	0	10K	0	unmount	0	0	unmount	unmount	unmount	unmount	unmount	unmount	unmount	unmount	unmount
VT1609A	0	0	0	unmount	0	0	100	100	0	0	unmount	unmount	unmount	unmount	unmount	unmount	unmount
UOR6153	unmount	unmount	unmount	10K	unmount	unmount	unmount	unmount	unmount	unmount	22	22	22	22	10K	10K	10K

	R147	R148	R131	R130	R152	R155	C188	U19	C193	C194	C195	C196	C171	C189
VT1603A	0	unmount	0	unmount	30K_1%	240K_1%	4.7uF	S-80860CNNB-B9LT2G	unmount	unmount	unmount	unmount	unmount	unmount
VT1609A	unmount	0	unmount	0	unmount	unmount	unmount	unmount	unmount	unmount	unmount	unmount	unmount	unmount
UOR6153	0	unmount	0	unmount	30K_1%	240K_1%	4.7uF	S-80860CNNB-B9LT2G	100pF	100pF	100pF	100pF	0.1uF	4.7uF

	R134	R133	R132	FB6	R66	R121	C186	C183	C184	C185	R120	R118	R122	R124	R115	R116
VT1603A	0	unmount	0	MCB1608S221FB	unmount	33	unmount	unmount	unmount	unmount	33	unmount	unmount	unmount	unmount	4.7K
VT1609A	unmount	0	unmount	unmount	33	unmount	100pF	100pF	100pF	100pF	unmount	33	33	33	4.7K	unmount
UOR6153	0	unmount	0	MCB1608S221FB	unmount	33	unmount	unmount	unmount	unmount	33	unmount	unmount	unmount	unmount	4.7K

Onboard MIC



HP_DECT	Headphone Detect status
Low	headphone detected
High	No headphone insert

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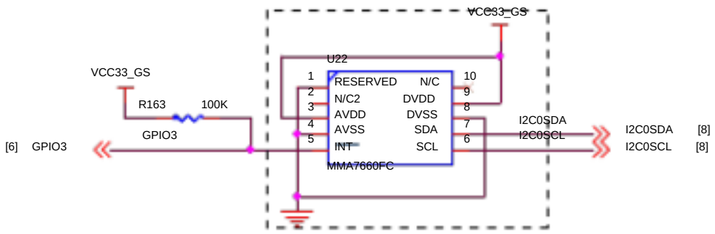
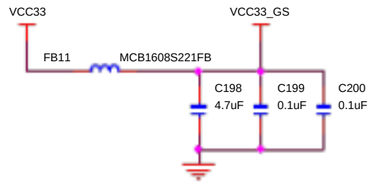
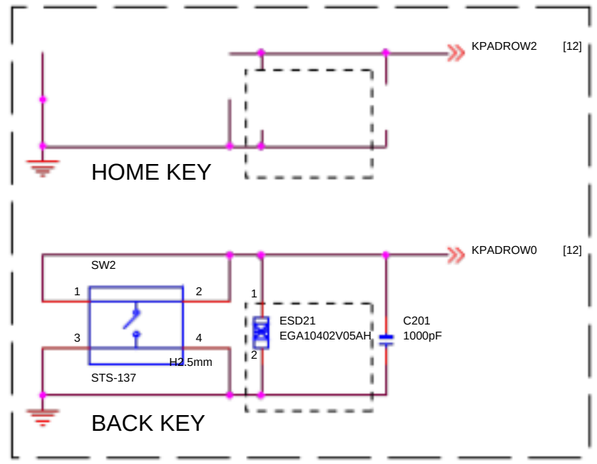
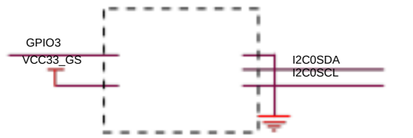
G-Sensor & Shake

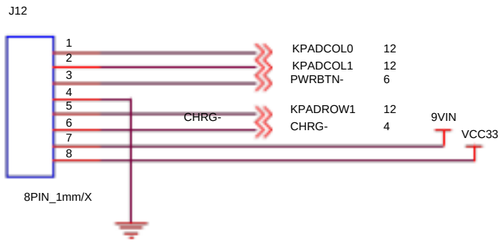
G-Sensor

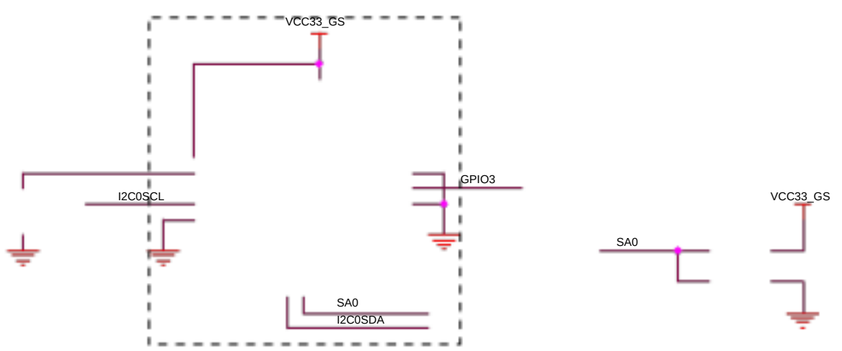


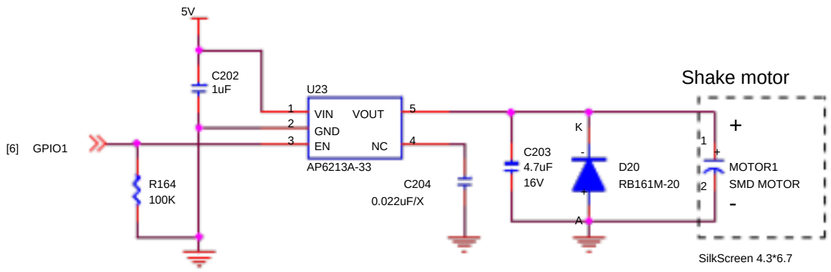












Replacement:

U18	C148
AP6213A-33	unmout
KN6029233M5	0.022uF
RT9193-33PB	0.022uF

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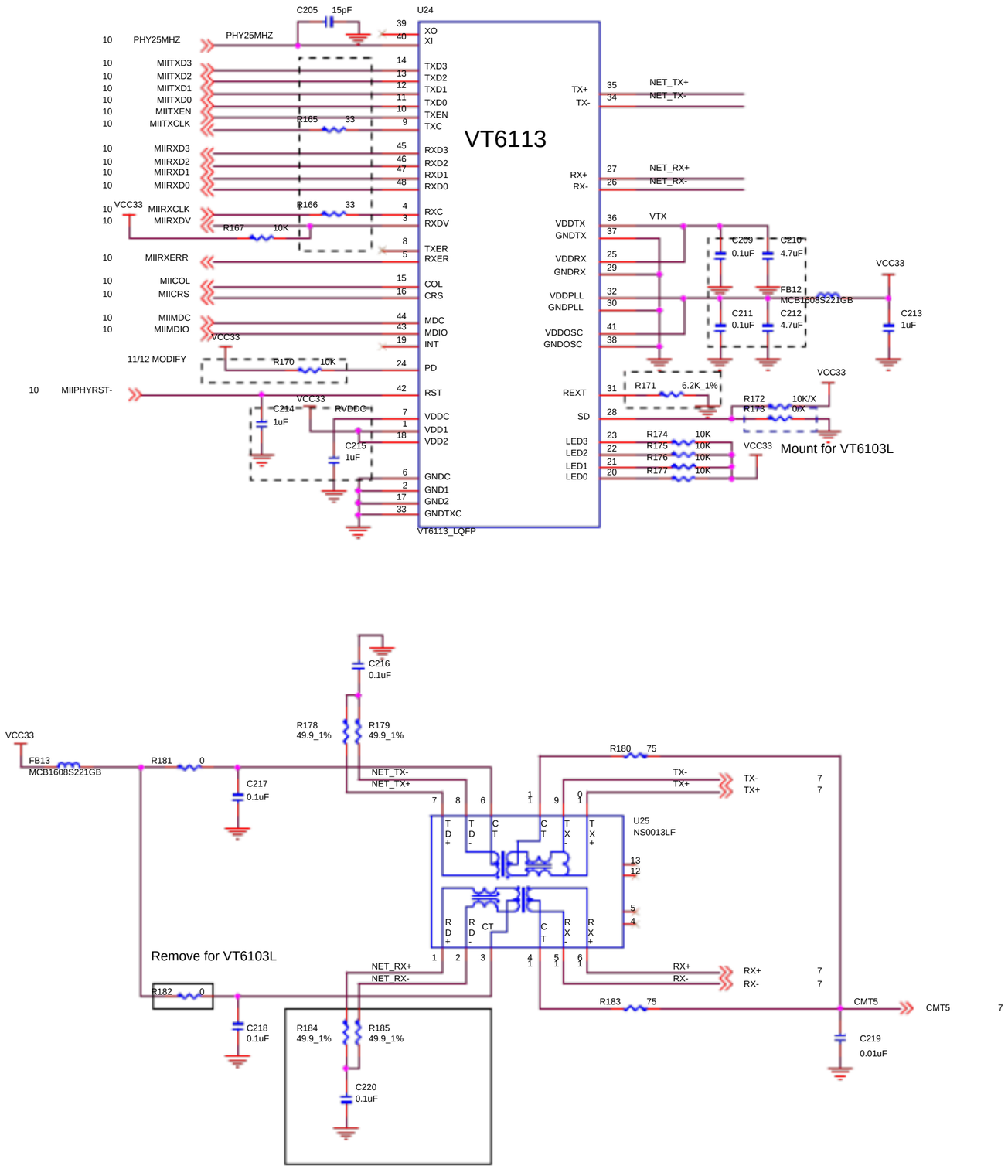
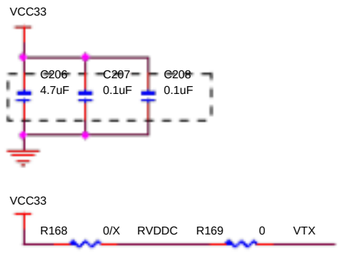
Ethernet PHY





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Title: Ethernet PHY		
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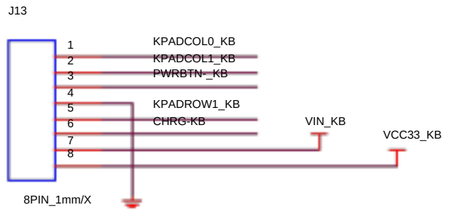
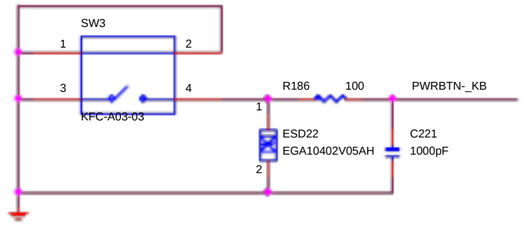
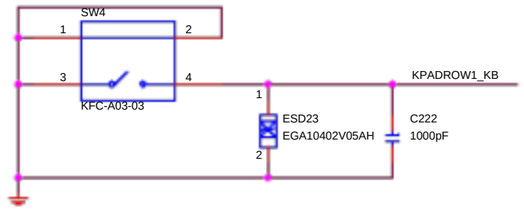
Keypad board



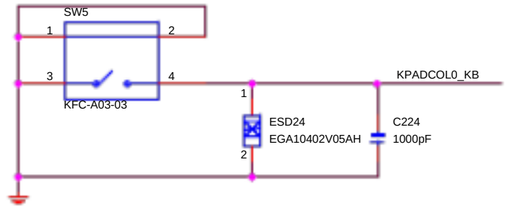
Power Button



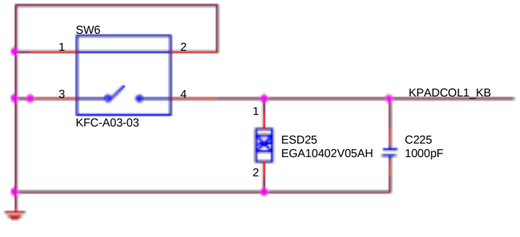
MENU

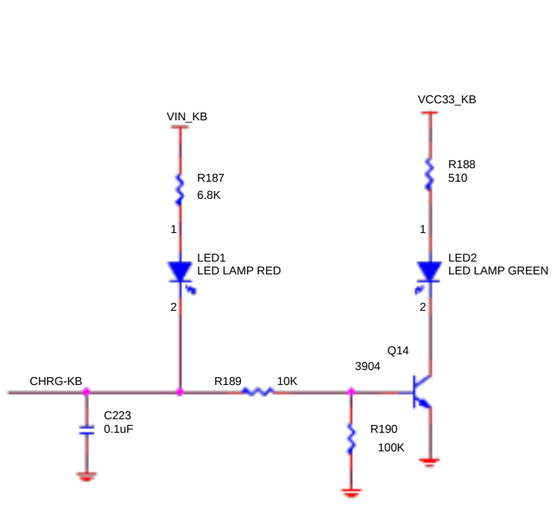


Volume +



Volume -





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