



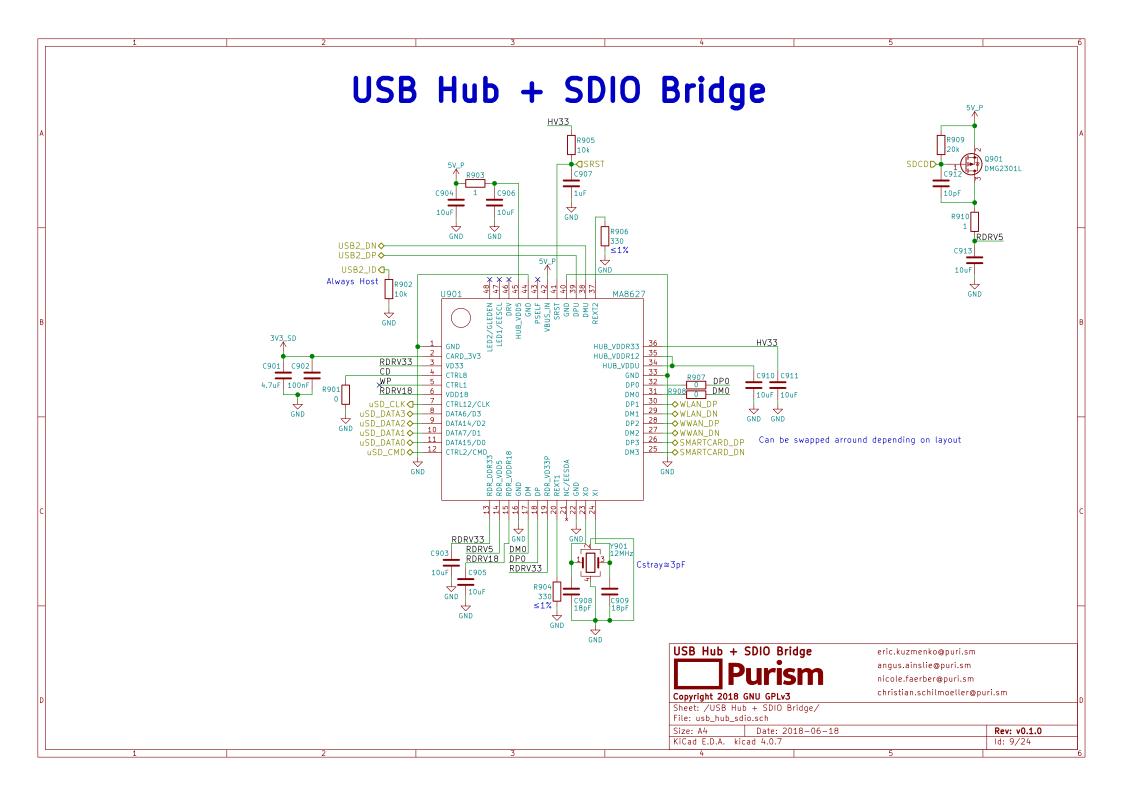


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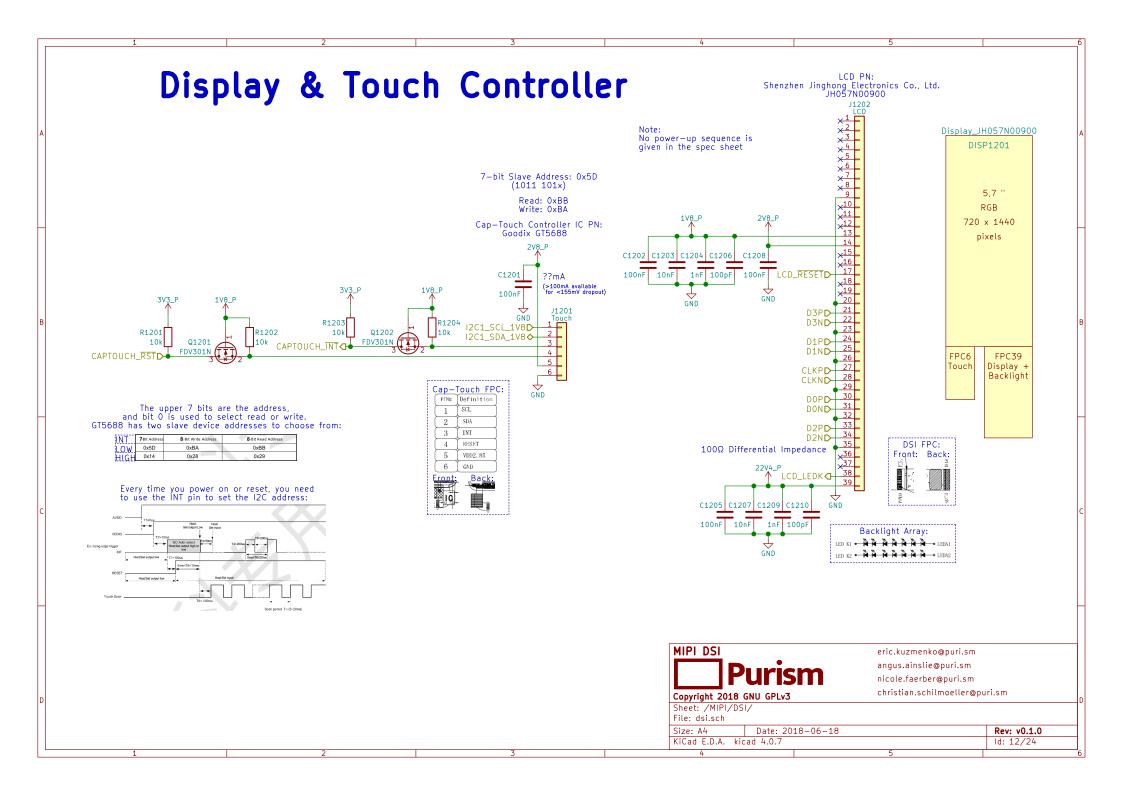


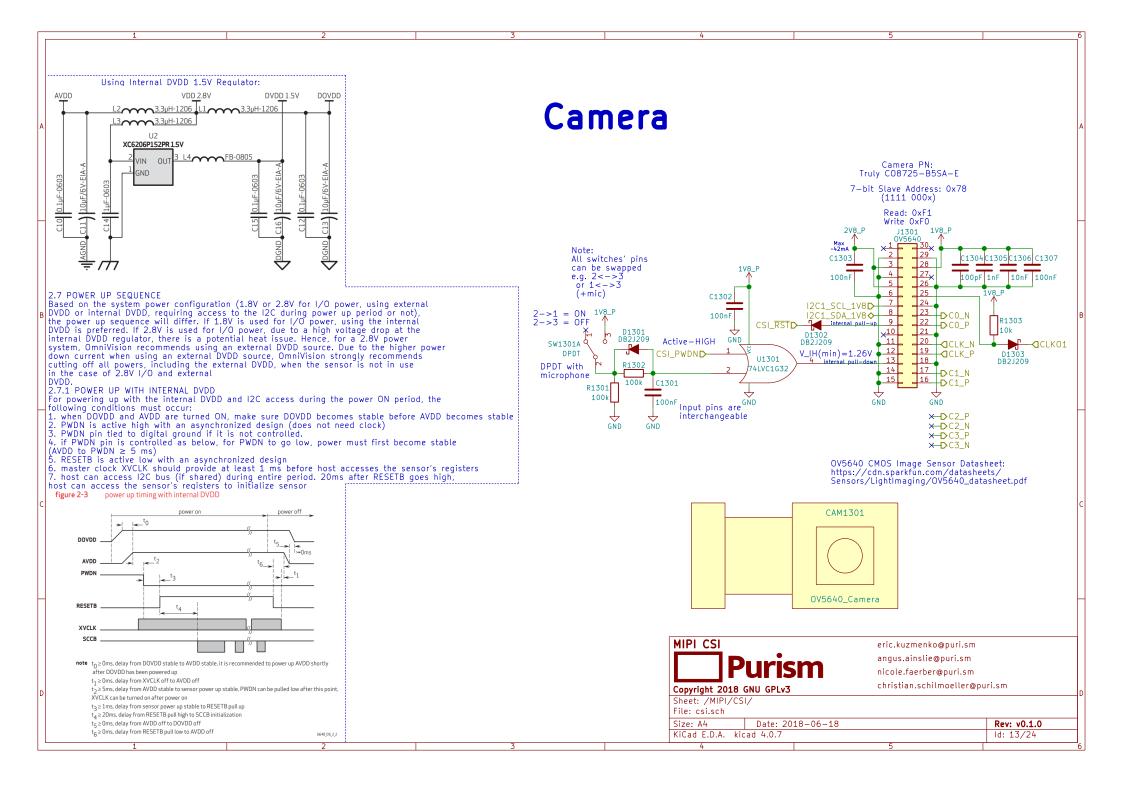


MIPI

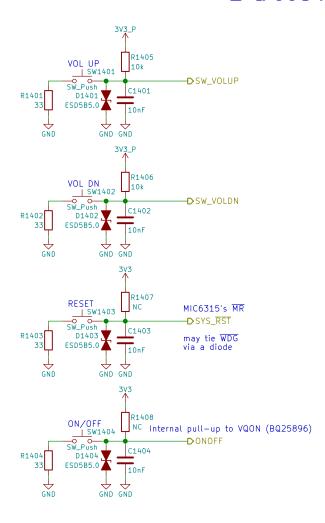


MIPI			eric.kuzmenko@	puri.sm	
Purism			angus.ainslie@puri.sm nicole.faerber@puri.sm		
Copyright 2018 GNU GPLv3			christian.schilmoeller@puri.sm		
Sheet: /MIPI/ File: mipi.sch					
Size: A4 KiCad E.D.A. k		8-06-18		Rev: v0.1.0 Id: 11/24	
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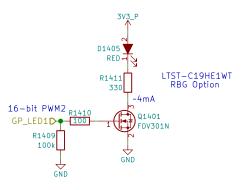




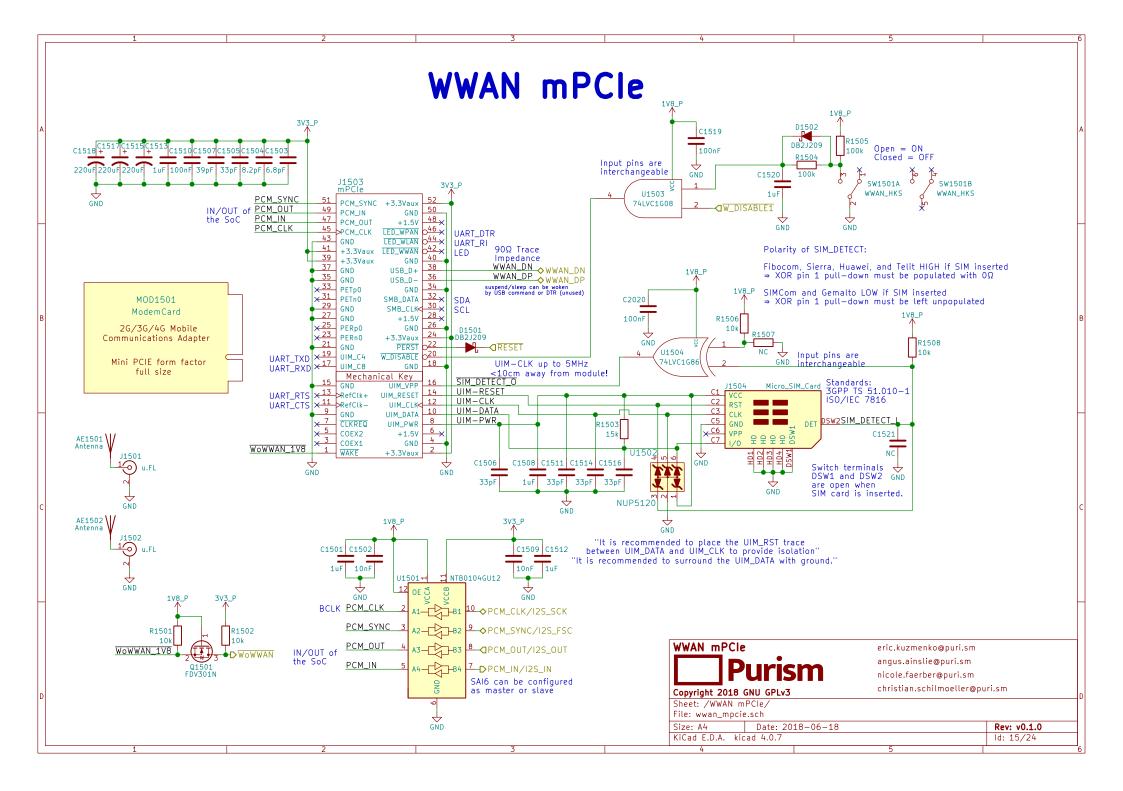
Buttons & LED

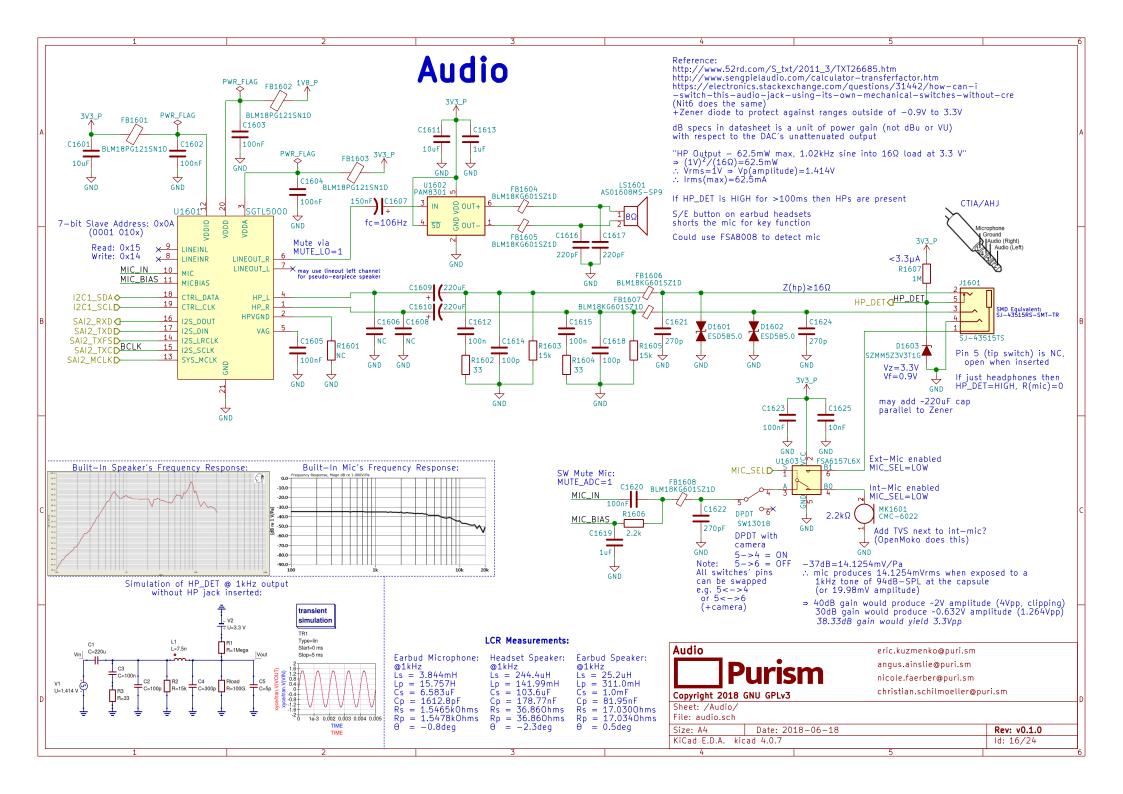


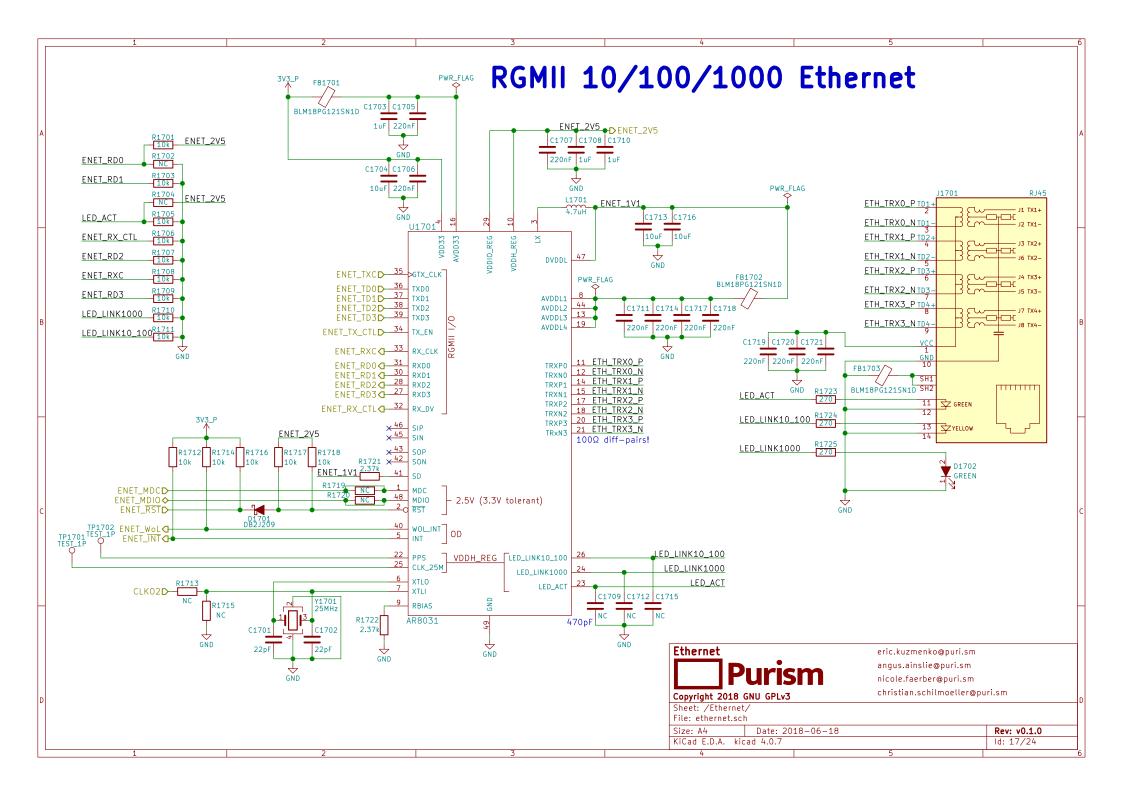
Use PWM2_PWMSAR to set the compare value (duty cycle)
Use PWM2_PWMCR[15:4] to set the PRESCALER (frequency)
Use PWM2_PWMPR to set the top of the counter (frequency)

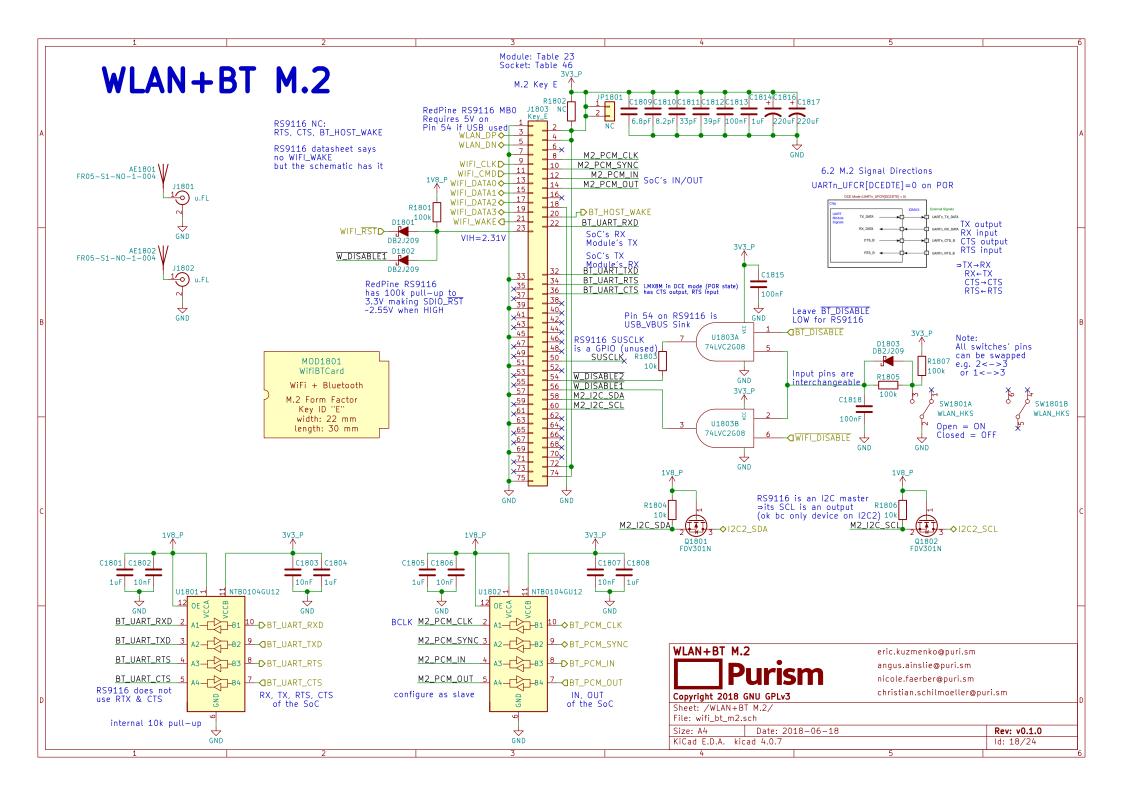








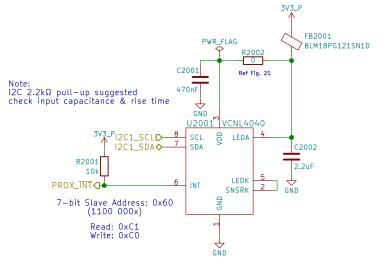




TUSB1046 can be used for DP over USB-C **HDMI** Layout Note: May need swap some signals due to micro—HDMI pinout diff 3V3_P depending on pin location/routing D1901 DB2J209 F1901 100Ω diff pairs U1901 PCMF3HDMI2S D1905 DB2J209 HDMI_Utility HDMI AUXP SMD Micro-HDMI Type D Alternative: 0467650301 C1902 C2 HDMI HPD PICOSMDC035S-2 HDMI_AUXN **()**-C1903 C1904 HDMI_TX0P_CN HDMI_TX0P ▶ R1910 1.5k R1911 1.5k R1912 J1901 Mini-HDMI A4 HDMI_TXON_CN 1.5k HDMI_TX0ND-CMF+ESD HDMI_TX2P_CN A5 HDMI_CLKP_CN HDMI_CLKPD A6 HDMI_CLKN_CN С6 HDMI_CLKND-GND HDMI_TX2N_CN 83 82 81 R1905 R1903 R1907 HDMI_TX1P_CN ±1%!!! HDMI_TX1N_CN Q1901B Q1902A Q1902B Q1901A HDMI_TX0P_CN NX3020NAKS NX3020NAKS NX3020NAKS HDMI_TX0N_CN HDMI_CLKP_CN HDMI_CLKN_CN HDMI_CEC ♦HDMI_CEC Dual N-Fet annotation must follow text! HDMI_Utility U1902 PCMF2HDMI2SZ M1 HDMI_TX2P_CN HDMI_DDC_SCLDHDMI_DDC_SCLHDMI_DDC_SDA HDMI_TX2P D→ A2 HDMI_TX2N_CN HDMI_TX2ND DCDC_5V_CN A3 HDMI_TX1P_CN HDMI_TX1PD A4 HDMI_TX1N_CN HDMI_HPD (HDMI_HPD HDMI_TX1ND CMF+ESD R1902 R1904 R1906 R1908 604 C1905 D1902 D1903 D1904 D1906 R1913 R1914 ESD5B5.0 ESD5B5.0 ESD5B5.0 ESD5B5.0 Q1903A Q1903B Q1904A Q1904B NX3020NAKS NX3020NAKS NX3020NAKS NX3020NAKS GND GND **HDMI** eric.kuzmenko@puri.sm angus.ainslie@puri.sm nicole.faerber@puri.sm christian.schilmoeller@puri.sm Copyright 2018 GNU GPLv3 Sheet: /HDMI/ File: hdmi.sch Size: A4 Date: 2018-06-18 Rev: v0.1.0 KiCad E.D.A. kicad 4.0.7 ld: 19/24

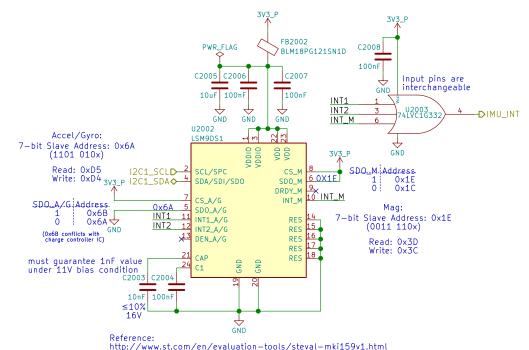
Sensors

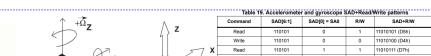
Proximity & Ambient Light



Reference: https://www.vishay.com/docs/84307/designingvcnl4040.pdf http://www.vishay.com/docs/84931/vcnl4040sensorboardfiles.pdf

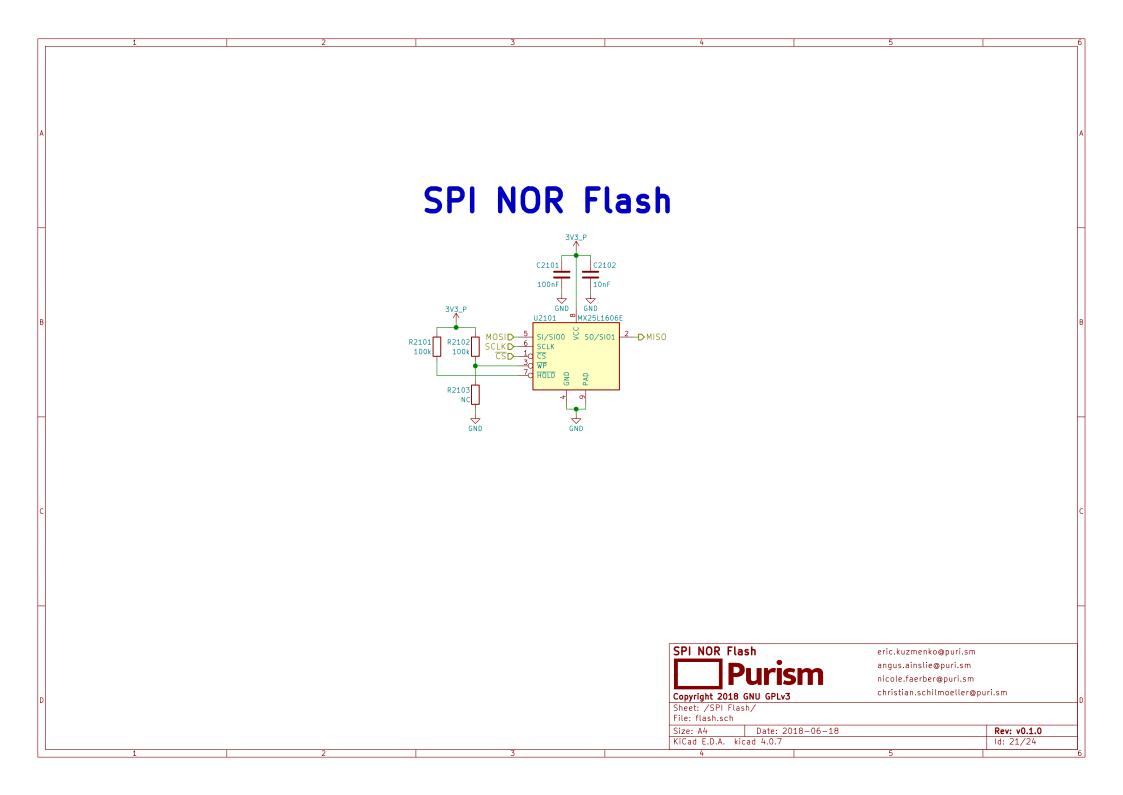
9-Axis IMU



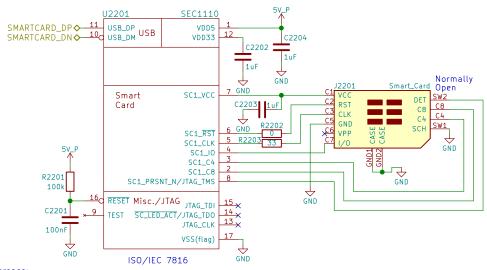


+Ω,	Write	11010	1 1	0	11010	110 (D6h)	
	•	Table 20. M	agnetic sensor SAD	+Read/Writ	e pattern	s	
	Command	SAD[6:2]	SAD[1] = SDO/SA1	SAD[0]	R/W	SAD+R/W	
	Read	00111	0	0	1	00111001 (39h)	
7	Write	00111	0	0	0	00111000 (38h)	111
$\vee \rightarrow +\Omega_{\mathbf{V}}$	Read	00111	1	0	1	00111101 (3Dh)	
Ť	Write	00111	1	0	0	00111100 (3Ch)	





Smart Card



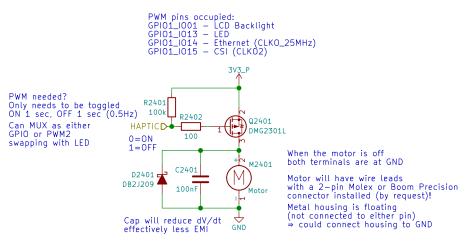
http://www.microchip.com/DevelopmentTools/ProductDetails.aspx?PartNO=EVB-SEC1110







Haptic Motor



Cheaper Motor Connector: https://lcsc.com/product-detail/1-25T-Connectors_1-25T-1-2AW_C10832.html

Motor Source: https://www.alibaba.com/product-detail/Coin-motor-vibration-dc-motor cellphone_1994583657.html?spm=a2700.8443308.0.0.5aa13e5f1wxHgs Motor Datasheet: https://cloud.puri.sm/s/z8JR6DJ4KrJYzoW Motor PN: BY0820Z021L20

Haptic/Vibration Motor		eric.kuzmenko@puri.sm				
		angus.ainslie@puri.sm nicole.faerber@puri.sm				
II IP	urism					
Copyright 2018	GNU GPLv3	christian.schilmoeller@puri.sm				
Sheet: /Haptic Motor/ File: haptic.sch						
Size: A4	Date: 2018-06-18	Rev: v0.1.0				
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