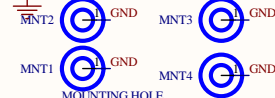
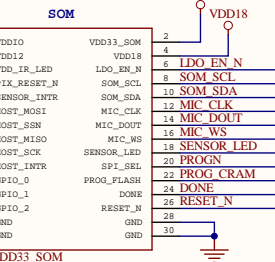
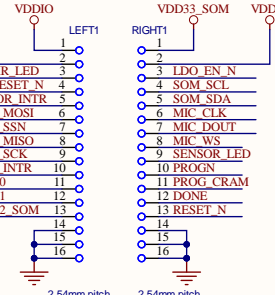
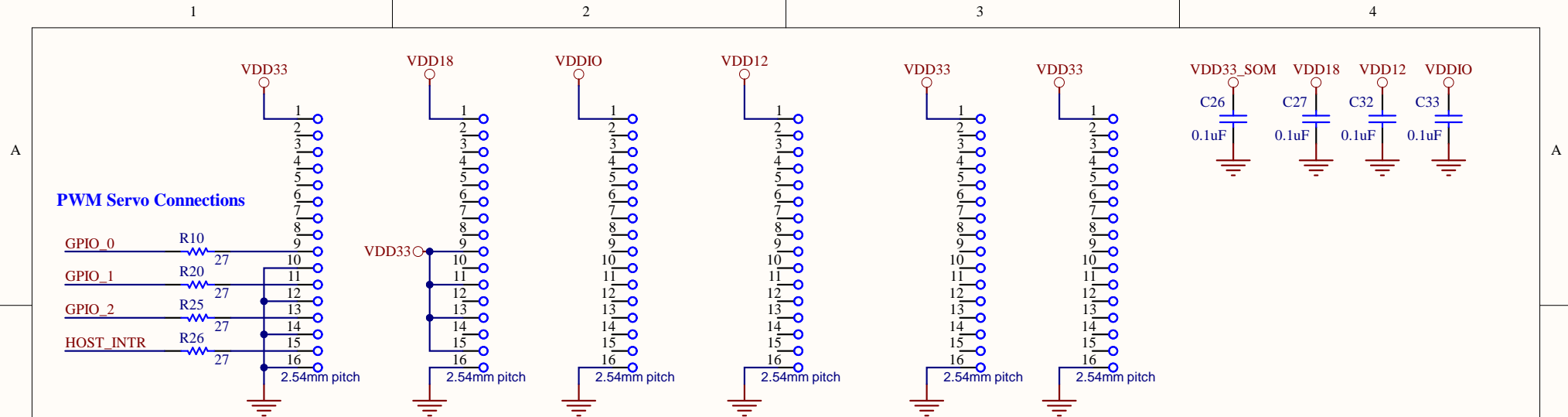


SW1/2: IO voltage selection
SW1 for 3.3V, SW2 for 1.8V
SW3: Enable IR LED power
SW4: Hold Pixart sensor in reset
SW5: Disable LDO
SW6: Program CRAM
SW7: Program flash only
SW8: Program Enable

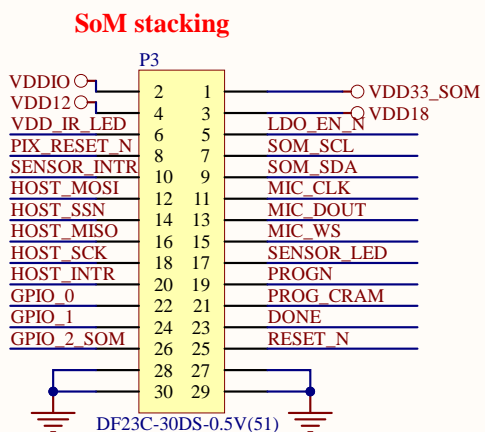
SoM Interface Headers



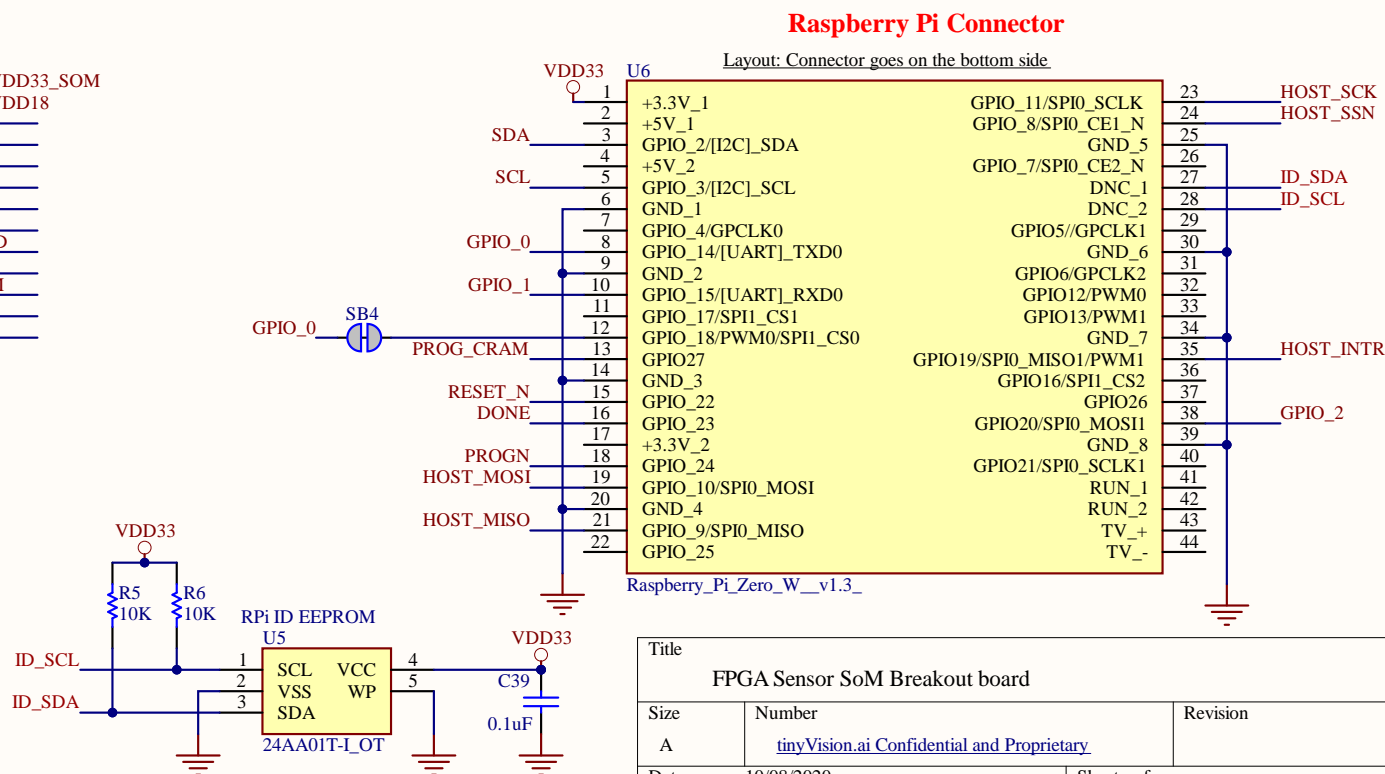
FPGA Sensor SoM Breakout board		
Size	Number	Revision
B	tinyVision.ai Confidential and Proprietary	
Date:	10/08/2020	Sheet of
File:	G:\My Drive\...DevKit Board.SchDoc	Drawn By:



Layout: Add silkscreen around 4 GPIO/Power/Ground combos to indicate Servo



Layout Note: Place on bottom



Title		
FPGA Sensor SoM Breakout board		
Size	Number	Revision
A	tinyVision.ai Confidential and Proprietary	
Date:	10/08/2020	Sheet of
File:	G:\Mv Drive\...\Proto Connections.SchDoc	Drawn By:

Item #	Designator	Description	Comment	Quantity	Manufacturer 1	Manufacturer Part Number 1	Footprint	LibRef	#Column Name Error:' Note
1	C1, C11, C21, C22, C23, C24, C30, C31, C37	4.7uF, CAP CER 4.7UF 6.3V 0402	4.7uF	9			CAPC1005X60N	CAP NP, Cap_100nF_X7R_10%_0402	
2	C2, C3, C4, C5, C6, C7, C8, C9, C10, C12, C13, C15, C16, C18, C19, C20, C25, C26, C27, C28, C29, C32, C33, C34, C35, C36, C38, C39	CAP CER 0.1UF 6.3V 0402, CAP CER 0.1UF 16V Y5V 0402	0.1uF	28			CAPC1005X60N	CAP NP, Cap_100nF_X7R_10%_0402, Cap_1uF_X5R_10%_6V3_0402	
3	C14	CAP CER 0.1UF 6.3V 0402	DNI	1			CAPC1005X60N	CAP NP	
4	C17	CAP CER 470PF 50V 5% NP0 0402	470pF	1			CAPC1005X60N	CAP	
5	DONE, GP_0, GP_1, GP_2, INT	Avago HSMG-C170	GREEN	5			LED2012N	LED_1	
6	FB1, FB2	FERRITE BEAD 1.5 KOHM 0603 1LN	BLM18HE152SN1D	2			MURA-BLM18-RF-H4-CHIP-2_V	MURA-FB-2	
7	J1	CONN HEADER SMD R/A 4POS 1MM		1			1X04_1MM_RA	QWIIC_CONNECTORJS-1MM	
8	LEFT1, LEFT2, LEFT3, LEFT4, LEFT5, LEFT6, LEFT7, RIGHT1		CONN_GENERIC_16	8			HDR2x8	CONN_GENERIC_16	
9	MK1	Mic Mems Digital I2s Omni -26db	SPH0645LM4H-B	1			Knowles_SPH0645LM4H-B_0	SPH0645LM4H-B	
10	MNT1, MNT2, MNT3, MNT4		MOUNTING HOLE	4			MNT620-275N	MNT_1	
11	P1	CONN RCPT MICRO USB AB 5P SMD RA	475890001	1			*MOLEX_0475890001	475890001	
12	P2	Header, 2-Pin	External Power	1			HDR1X2	Header 2	
13	P3	Header, 15-Pin, Dual row	DF23C-30DS-0.5V(51)	1			DF23C-30DS-0.5V	Header 15X2	
14	P5	Header, 5-Pin	Mic connector	1			HDR1X5	Header 5	
15	P7	Header, 6-Pin, Dual row, Right Angle	Header 6X2H	1			HDR2X6H	Header 6X2H	
16	R1, R2, R16, R17, R18, R19	RESISTOR 1k OHM 1% 0.0625W 0402	1K	6			RESC1005X40N	R_SH	
17	R3, R8, R9	RES 0 OHM 1/16W 5% 0402	0	3			RESC100X50X40L25N	Res_10K_1%_0402	
18	R4	RESISTOR 0 OHM 1% 0.0625W 0402	0	1			RESC1005X40N	R_SH	
19	R5, R6, R11, R12, R13, R14, R15, R24, R27, R28, R29	RES 10K OHM 5% 1/16W 0402, RES SMD 10K OHM 1% 1/16W 0402	10K	11			RESC1005X40N	Res_10K_1%_0402, R_SH	
20	R7	RES 1 OHM 1/16W 5% 0402	1	1			RESC1005X40N	Res_10K_1%_0402	
21	R10, R20, R21, R23, R25, R26	RES 27 OHM 5% 1/16W 0402, RESISTOR 27 OHM 1% 0.0625W 0402	27	6			RESC1005X40N	Res_10K_1%_0402, R_SH	
22	R22	RESISTOR 12K OHM 1% 0.0625W 0402	12K	1			RESC1005X40N	R_SH	
23	SOM	Module	Module	1			SOM-SMD	SOM	
24	SW1	Switch, SPST, Surface Mount DIP, 8-way, 16-Pin DIP	219-8LPST	1			CTS-219-8LPST_V	CTS-219-8LPST-16	
25	SW2	SWITCH TACTILE SPST-NO 0.05A 12V	PTS820 J25K SMTR LFS	1			PTS820J25MSMTRLFS	SPST_NO	
26	U1	IC REG LINEAR 3.3V 150MA SOT23	AP2120N-3.3TRG1	1			*SOT91P240X110-3N	AP2120N-3.3TRG1	
27	U2	IC USB HS DUAL UART/FIFO 64-LQFP	FT2232HL-Reel	1			LQFP-64	COM-UART-FT2232H-LQFP64	
28	U3	IC EEPROM 2K SPI 2MHZ SOT23-6	93LC56BT-I/OT	1			SOT-23-OT6_L	MEM-EEPROM-93AA46B-OT-6	
29	U4	TVS DIODE 5.5V 6UDFN	ESDR0502NMUTAG	1			ONSC-UDFN-6-517AA-01_V	ONSC-ESDR0502N-UDFN-6-517AA-01	
30	U5	IC EEPROM 1K I2C 400KHZ SOT23-5	24AA01T-I_OT	1			SOT23-5	24AA01T-I_OT	
31	U6	CONN HDR 40POS 0.1 TIN SMD	Raspberry_Pi_Zero_W_v1.3	1			RPI0w1.3	Raspberry_Pi_Zero_W_v1.3	
32	U8	IC CURRENT MONITOR 1% SOT23-8	INA219BIDCNR	1			DCN0008A_M	TI-INA219DCN8	
33	U9	Dual bidirectional level translator	TC7WPB9307FK	1			SSOP8-P-0.50A	TC7WPB9307FK	
34	Y1	MEMS OSC XO 12.0000MHZ H/LV-CMOS	12MHz	1			SOT23-5	SIT2001BI-S2-33E	
35	Z_FDM1, Z_FDM2, Z_FDM3, Z_FDM4, Z_FDM5, Z_FDM6		FCM	6			FID100X250N	FCM	