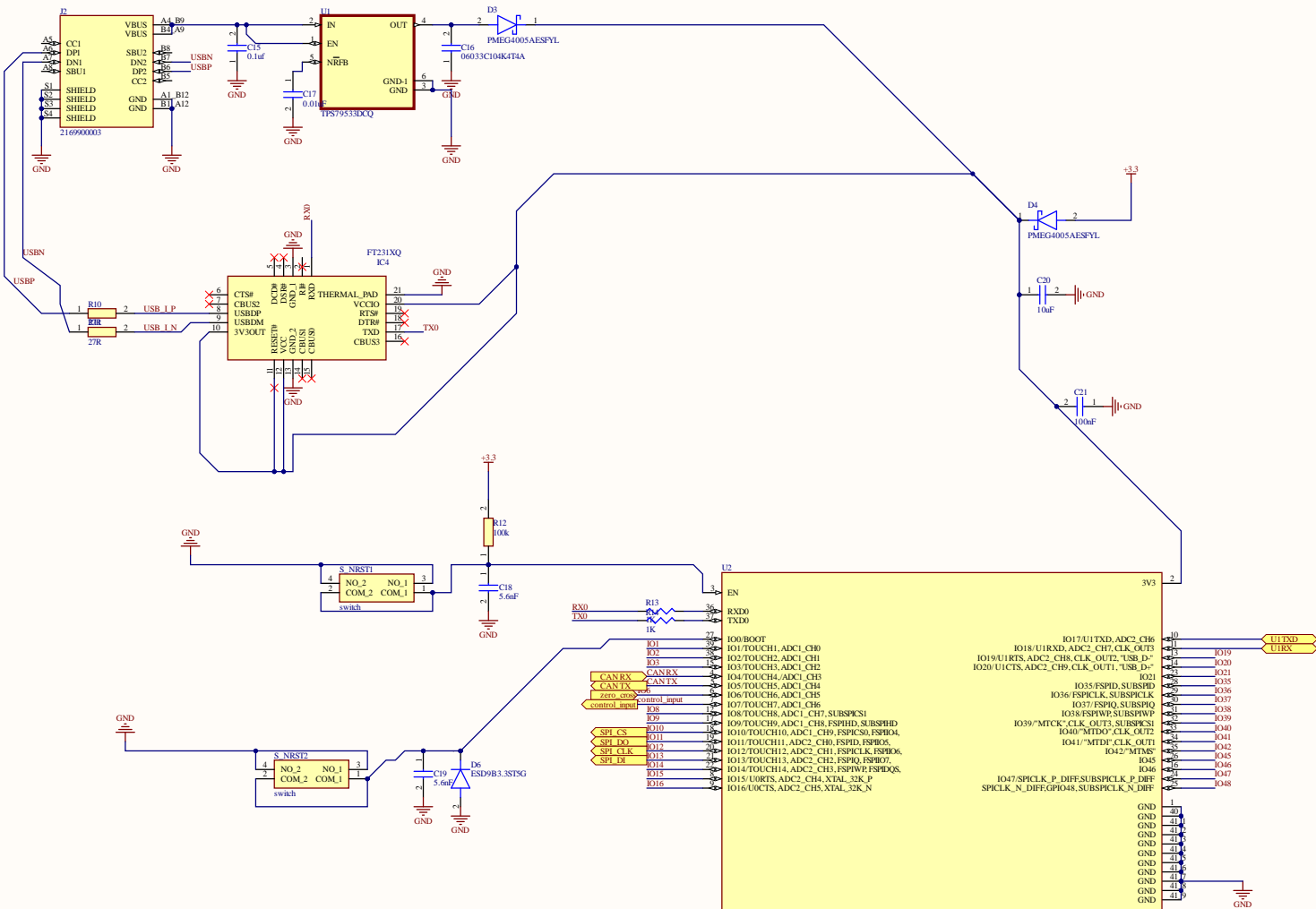


Strapping Pins (default states):

- Chip boot mode - GPIO0 (Pull-up 1) and GPIO46 (Pull-down 0)
- VDD3_S1FV voltage - GPIO35 (Pull-down 0)
- ROM messages printing - GPIO46 (Pull-down 0)
- JTAG signal source - GPIO3 (Floating)

Boot Mode: GPIO0 GPIO046
 SPIBoot (default) 1 | Any value
 Download Boot 0 0
 Invalid combination 0 1
 In SPI Boot mode, the CPU boots the system by reading the program stored in SPI flash
 In Download Boot mode, users can download code to flash using UART0 or USB interface.



M50-320045

IO1	1	2	IO2
IO3	3	4	CAN RX
CAN TX	5	6	IO6
control input	7	8	IO8
IO9	9	10	IO10

M50-320045

IO11	1	2	IO12
IO13	3	4	IO14
IO15	5	6	IO16
IO19	7	8	IO20
IO21	9	10	IO35

M50-320045

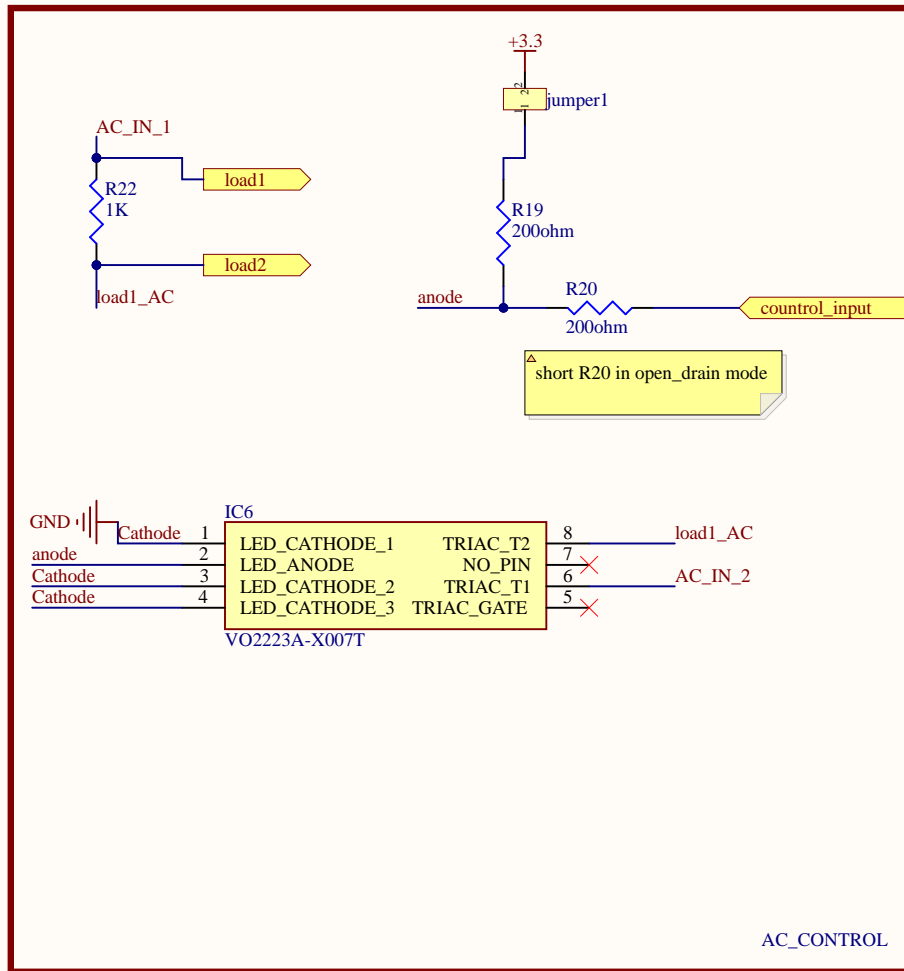
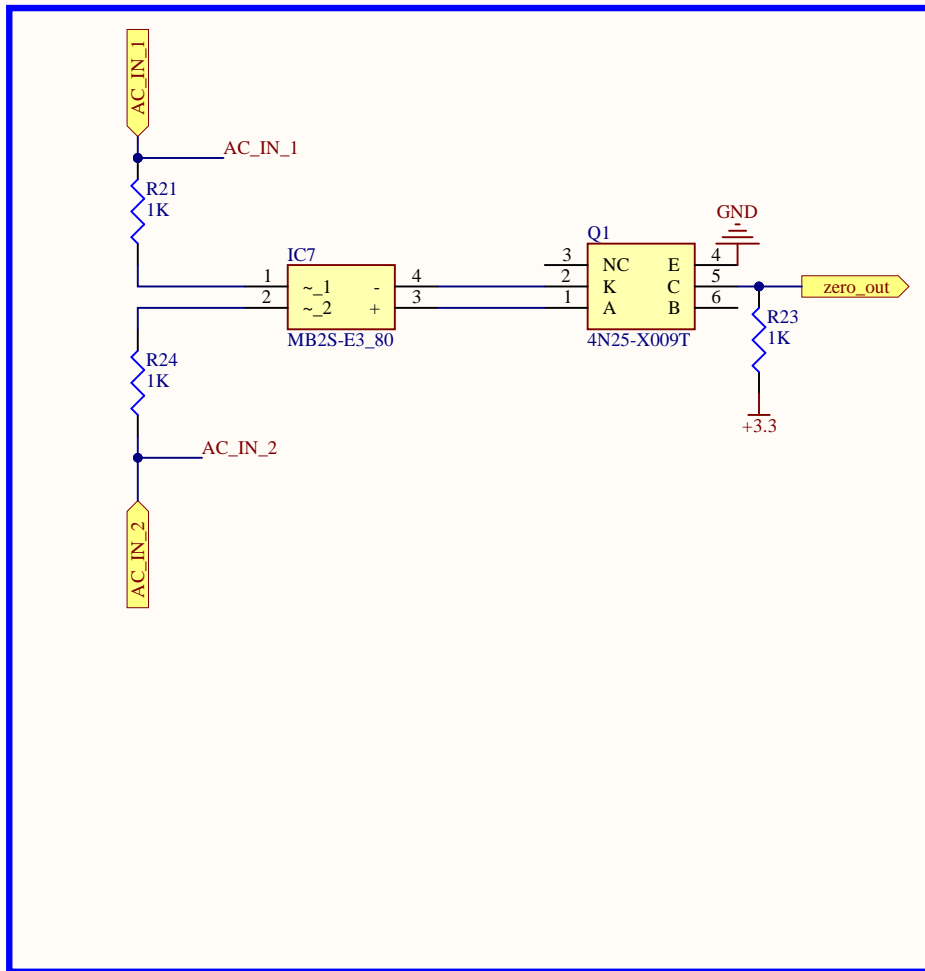
IO36	1	2	IO37
IO38	3	4	IO39
IO40	5	6	IO41
IO42	7	8	IO45
IO46	9	10	IO47

M50-320045

IO48	1	2	+3.3
GND	3	4	+3.3
GND	5	6	+3.3
GND	7	8	+3.3
GND	9	10	+3.3

ESP32-S3-WROOM-1-N1688

Title		
Size	Number	Revision
C		
Date:	5/16/2023	Sheet of
File:	C:\Users\...esp32-interface\SchDoc	1 Drawn By:



AC_CONTROL

Title		
Size	Number	Revision
A		
Date:	5/16/2023	Sheet of
File:	C:\Users\...\CPLD_smart_film_control.SchDoc	Drawn By:

Comment	Description	Designator	Footprint	LibRef	Quantity
330nF	Capacitor 330NF 10% X7R V11206Y334KXXAT	C1, C26	CAPC3216X170N	V11206Y334KXXAT	2
1uF	Capacitor CAP CER 1UF 25V X7R 0603	C2, C4, C6, C9, C25, C27, C29, C30	CAPC1608X90N	TMK107B7105KA-T	8
100nF	Capacitor Cap. Ceramic 0.1uF 25V 10% X7R 0603 06033C104K4T4A	C3, C5, C7, C8, C10, C13, C14, C21, C22, C28	CAPC1608X90N	06033C104K4T4A	10
100uF	CAP ALUM 100UF 20% 35V SMD	C11, C12, C23, C24	EEEE0A331XP	EEE-FK1V101XP	4
0.1uF	0.1uF	C15	CAPC1608X90N	06033C104K4T4A	1
06033C104K4T4A	0.1uF	C16	CAPC1608X90N	06033C104K4T4A	1
0.01uF	Multilayer Ceramic Capacitors MLCC - SMD/SMT 0201/0603 10VDC 0.01uF 10% X7R AEC-C200	C17	CAPC0603X33N	MAASL0635B7103KFC A01	1
5.6nF	CAP CER 5600PF 50V COG 0603	C18, C19	CAPC1608X80N	C1608COG1H562J0B0 AA	2
10uF	CAP CER 10UF 6.3V X5R 0603	C20	CAPC1608X50N	JMK107ABJ106MA-T	1
CDR33BK104AKUR737 0	CAP CER 0.1UF 50V BX 1210 alternate: CAP CER 0.1UF 25V X5R 0402	C_vm2	RESC3225X150N	CDR33BK104AKUR737 0	1
UWT1V221MNL1GS	220 uF 35 V Aluminum Electrolytic Capacitors Radial, Can - SMD 1000 Hrs @ 105°C	C_VM1	CAPAE830X1080N	UWT1V221MNL1GS	1
PMEG4005AESFYL	Schottky Diode	D3, D4	PMEG4005AESFYL	PMEG4005AESFYL	2
VB60170G-E3_4W	DIODE SCHOTTKY 60A 170V TO-263AB VF= 1.02 V @ 30 A	D5	VB60170GE34W	VB60170G-E3_4W	1
ESD9B3.3ST5G	Diode	D6	SODFL1006K40N	ESD9B3.3ST5G	1
LM1085IS-3.3	Integrated Circuit	IC1	TO254P1435X464-4N	LM1085IS-3.3	1
DRV8251A	Integrated Circuit	IC2	SOIC127P600X170-SN	DRV8251A	1
DRV8462DDWR	Integrated Circuit	IC3	SOP84P910X123-45H	DRV8462DDWR	1
FT231XL	Integrated Circuit	IC4	QFN50P400X400X80- 21N	FT231XL	1
L7805ACD2T-TR	IC REG LINEAR 5V 1.5A DZPAK	IC5	D2PAK-STB35NF10T4	L7805ACD2T-TR	1
VO2223A-X007T	Integrated Circuit	IC6	SOP254P1030X460-8N	VO2223A-X007T	1
MB25-E3_80	Integrated Circuit	IC7	SOP254P665X290-4N	MB25-E3_80	1
M22-5320205R	Connector	J1, J10	HUSSP4W50P200_2X2 400X400X550P	M22-5320205R	2
Z16990003	Connector Header	J2	MOLEX_216990003	Z16990003	1
S4B-ZR-SM4A- TF(LF)(SN)	Surface Mount, Right Angle 4 position 0.059" (1.50mm)	J3	JST_S4B-ZR-SM4A- TF(LF)(SN)	S4B-ZR-SM4A- TF(LF)(SN)	1
M50-3200545	Connector	J4, J7, J8, J9	M503200545	M50-3200545	4
S5B-PH-SM4- TB_LF__SN	Connector	J5	S8BPHSM4TBLFSN	S5B-PH-SM4- TB_LF__SN	1
282834-4	4 Position Wire to Board Terminal Block Horizontal with Board 0.100" (2.54mm) Through Hole	J6	2828344	282834-4	1
MCP2551-I/SN	PH Series 2 Position 2 mm Pitch Surface Mount Side Entry Shrouded Header	J11	SOIC127P599X175-8N	MCP2551-I/SN	1
S2B-PH-SM4- TB(LF)(SN)	PH Series 2 Position 2 mm Pitch Surface Mount Side Entry Shrouded Header	J12	JST_S2B-PH-SM4- TB(LF)(SN)	S2B-PH-SM4- TB(LF)(SN)	1
S6B-PH-SM4- TB_LF__SN	Connector	J13	S6B-PH-SM4- TB(LF)(SN)_3	S6B-PH-SM4- TB_LF__SN	1
S5B-PH-SM4- TB_LF__SN	Connector	J_Stepper1	S5B-PH-SM4-TB_1	S5B-PH-SM4- TB_LF__SN	1
lumper	lumper	lumper1	RESC0603X28N	lumper_custom	1
LTST-C191KRKT	LED-RED_2V 20mA	LED_PWR1	LED_C1608X55N	LTST-C191KRKT	1
282837-2	TERM BLK 2P SIDE ENT 5.08MM PCB	power_power1, power2_power3	2828372	282837-2	4
4N25-X009T	Phototransistor	Q1	SOP254P1016X400-6N	4N25-X009T	1
1k	Resistor_Resistor 0603	R1, R2, R3, R4, R5, R8, R9, R13, R14, R15, R16, R18, R21, R22, R23, R24	J1-0603	Res3	16
15kohms	15Kohms-0805	R6	RESC2012X260N	RC0805FR-1015KL	1
330kOhm	330Kohm resistor 0603 5%	R7, R17	RESC1608X55N	RT0603CRD07330KL	2
27R	SMD 1/20watt 27ohms 5% 200ppm 0603	R10, R11	RESC0603X28N	CRCW020127R0JNED	2
100k	RES SMD 100K OHM 1% 1/20W 0201	R12	ER11GN_(0201)	ERJ-1GNF1003C	1
200ohm	Resistor	R19, R20	J1-0603	Res3	2
65ohm	Resistor-65ohm	R_LED1	RESC1005X40N	CRCW04021R65FKED	1
Res1	Resistor	R_term1	RESC0603X26N	Res1	1
CVS-03TB	Switch	S1, S2, S3, S4, S5	CVS03TB	CVS-03TB	5
CVS-04TB	Dip Switch SPST 4 Position Surface Mount Slide (Standard) Actuator 100mA 4VDC	S6	SW_CVS-04TB	CVS-04TB	1
switch	Tactile Switch SPST- NO Top Actuated Surface Mount	S_NIRST1, S_NIRST2	PTS815JMZ505MTRL FS	PTS815_SJM_250_SM TR_LFS	2
TPS79533DCQ		U1	SOT127P706X180-6N	TPS79533DCQ	1
ESP32-S3-WROOM-1- N16R8		U2	ESP32S3WROOM1	ESP32-S3-WROOM-1- N16R2	1
10k	Res Cermet Trimmer 10K Ohm 10% 1/2W 1(Elec)/1(Mech)Turn 2.77mm (6.6 X 6.99 X 4.7mm) Pin Thru- Hole Tube	VR1	TRIM_3362P-1-103LF	3362P-1-103LF	1