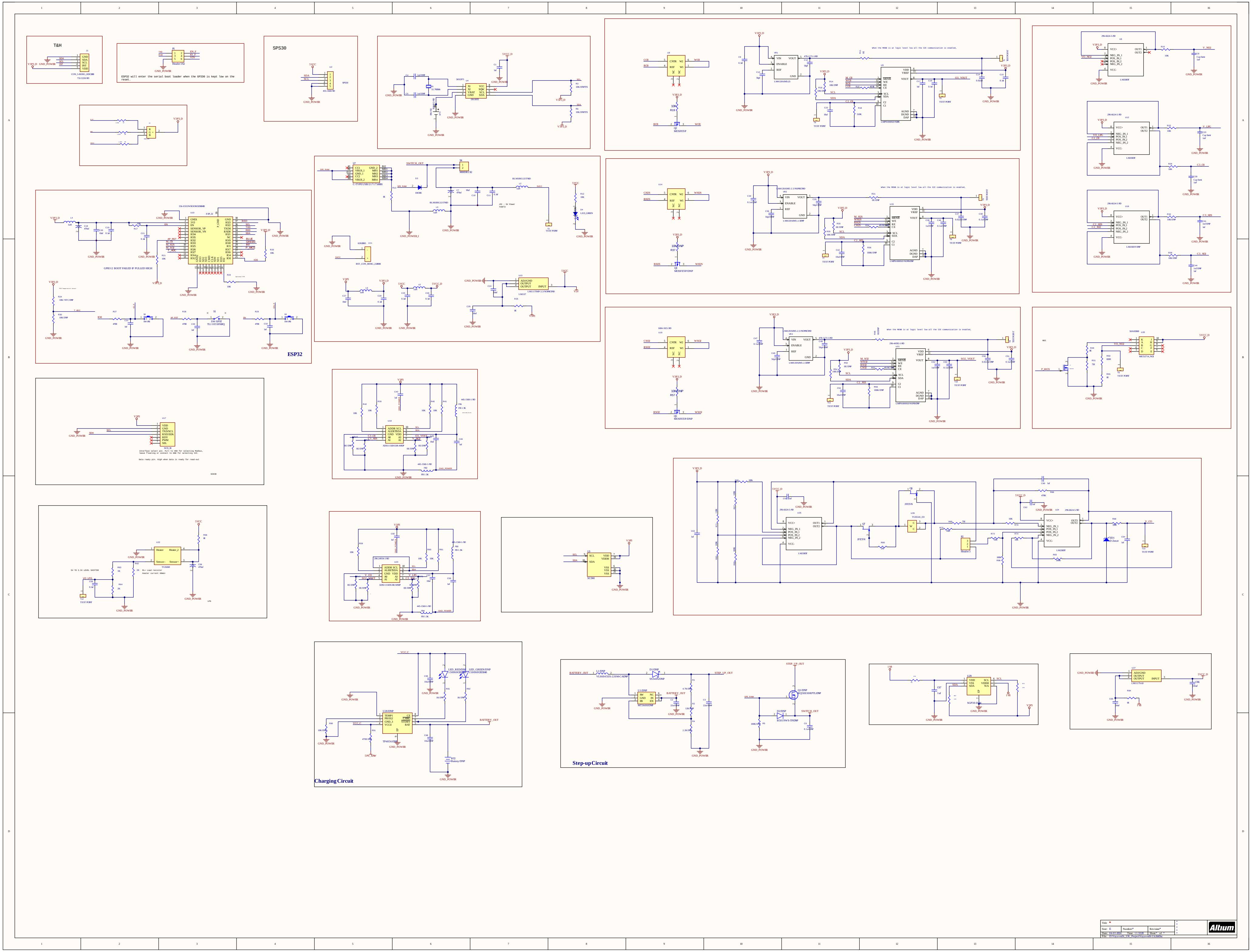
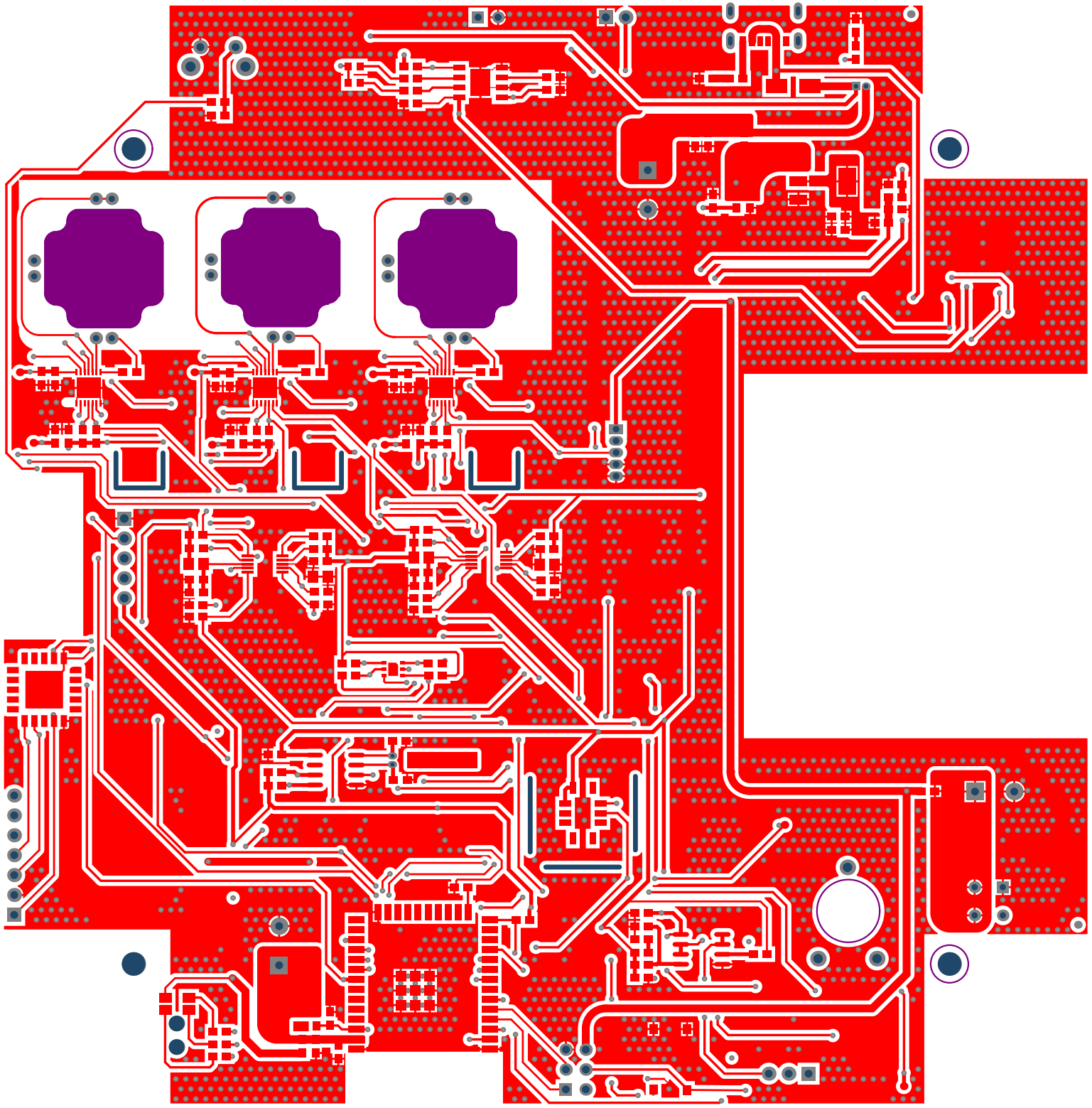

T&H
SPS30
ESP32
GPIO12 BOOT FAILED IF PULLED HIGH
ESP32 will enter the serial boot loader when the GPIO0 is kept low on the reset.
Charging Circuit
Step-up Circuit
Title *
Size: E
Number:*
Revision:*
Date: 04-01-2024
Time: 11:32:28
Sheet * of *
File: D:\Vayuvedh_UK_Project\Vayuvedh U.k.SchDoc
Altium



Comment	Description	Designator	Footprint	LibRef	Quantity
BK-912	BATTERY RETAINER COIN 20MM SMD	BT1	BT1	BK-912	1
Battery/DNP	Multicell Battery	BT2	BAT-2	Battery	1
1uf	CAP CER SMD 0.1µF/16V, CAP CER SMD 0.1µF/50V	C1, C17, C43, C46, C55, C58, C60, C61, C62, C63, C64, C67	C0603	CAP_C_0.1µF/16V, CAP_C_0.1µF/50V	12
22uf/DNP	CAP CER SMD 0.1µF/16V	C2, C3	C0603	CAP_C_0.1µF/16V	2
1nf/DNP	CAP CER 22UF 10V X5R 0603, Capacitor (Semiconductor SIM Model)	C4, C5, C41, C44	C0603	CAP NP, Cap Semi	4
0.1uf/DNP	CAP CER SMD 0.1µF/16V	C6, C34, C38, C40, C47, C51, C53	C0603	CAP_C_0.1µF/16V	7
470uf	CAP ALUM 470UF 20% 50V RADIAL	C7, C18, C56	C16, C49, C58	CAP	3
Cap Semi	Capacitor (Semiconductor SIM Model)	C8, C23, C30	C0603	Cap Semi	3
0.1uf	CAP CER SMD 0.1µF/16V, CAP CER 22UF 10V X5R 0603	C9, C11, C15, C16, C19, C21, C25, C26, C28, C59	C0603	CAP_C_0.1µF/16V, CAP NP	10
10uf	CAP CER 22UF 10V X5R 0603, CAP CER SMD 10µF/10V, CAP CER SMD 10uF, CAP CER SMD 10µF/35V, CAP CER SMD 0.1µF/16V	C10, C20, C22, C24, C27, C29, C45, C57, C69	C0603	CAP NP, CAP_C_10µF/10V, CAP_C_0.1µF/16V, CAP_C_10µF/35V	9
56pf	CAP CER SMD 56pF	C12, C13	C0603	CAP_C_0.1µF/16V	2
0.022uf	CAP CER SMD 0.1µF/16V	C14	C0603	CAP_C_0.1µF/16V	1
1nf	CAP CER SMD 0.1µF/16V	C31, C32, C33	C0603	CAP_C_0.1µF/16V	3
56pf/DNP	CAP CER SMD 56pF	C35, C36, C48, C49	C0603	CAP_C_0.1µF/16V	4
0.022uf/DNP	CAP CER SMD 0.1µF/16V	C37, C50	C0603	CAP_C_0.1µF/16V	2
1uf/DNP	CAP CER SMD 0.1µF/16V	C39, C52	C0603	CAP_C_0.1µF/16V	2
10uf/DNP	CAP CER SMD 10uF, CAP CER SMD 0.1µF/16V	C42, C54, C65, C68	C0603	CAP_C_0.1µF/16V	4
10uf	CAP CER SMD 10µF/35V	C66	R0603	CAP_C_10µF/35V	1
SS34FA/DNP	Schottky Diode	D1/DNP	D1	SS34FA	1
B5819WS-TP/DNP	Diode	D2/DNP	D1	B5819WS-TP	1
DIODE	DIODE GEN PURP 1KV 1A DO214AC	D3	D1	DIODE	1
LED_GREEN	LED GREEN CLEAR THIN 0603 SMD	D4	D2 L0603	LED	1
FB 1.5K	Ferrite Beads 1.5K OHM 25%	FB1, FB2, FB3, FB4	FB1, FB2, FB3, FB4	INDUCTOR_Dup1	4
CON_5-BERG_HDC2080	CONN HEADER VERT 5POS 2.54MM	J1	J2	5_PIN_CON_0	1
VLS6045EX-220M-CA/DNP	Inductor	L1/DNP	VLS6045	VLS6045EX-220M-CA	1
1uH	FERRITE BEAD 120 OHM 0603 1LN	L2, L3, L4, L5, L6	L3, L4, L5, L6, L7	INDUCTOR	5
150060GS55040	LED	LED_GREEN/DNP, LED_RED/DNP	LEDC1608X50N	150060GS55040	2
Header 3X2	Header, 3-Pin, Dual row	P1	P5 - new	Header 3X2	1
Header 3	Header, 3-Pin	P2	P6	Header 3	1
RQ5E030RPTL/DNP	MOSFET (P-Channel)	Q1/DNP	SOT95P280X100-3N	RQ5E030RPTL	1
MOSFET-P	P-Channel MOSFET	Q2	Q3-Q5,Q6	MOSFET-P	1
MOSFET-P/DNP	P-Channel MOSFET	Q3, Q5	Q3-Q5,Q6	MOSFET-P	2
BSS138/DNP	MOSFET N-CH 50V 220MA SOT-23	Q4	Q3-Q5,Q6	MOSFET N	1
JFET-N	N-Channel JFET	Q6	SOT23F	JFET-N	1
JFET-N	N-Channel JFET	Q7	Q1-Q2	JFET-N	1
4.7K/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R1	R0603	R	1
12K/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R2	R0603	R	1
10K/DNP/TX	RES SMD 4.7K OHM 1% 1/16W 0603	R3, R6	R0603	R	2
2.2K/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R4	R0603	R	1
100K/DNP	RES SMD 4.7K OHM 1% 1/16W 0603, [NoValue], RES SMD	R5, R36, R56	R0603	R	3
1.69K	RES SMD 4.7K OHM 1% 1/16W 0603	R7, R8, R9	R0603	R	3
10K	RES SMD 10K OHM 1% 1/16W 0603, RES SMD 1K OHM 5% 1/10W 0603, RES SMD 4.7K OHM 1% 1/16W 0603, RES SMD 49.9 OHM 1% 1/16W 0603	R10, R12, R17, R19, R20, R21, R22, R23, R26, R39, R40, R41, R42, R59, R60, R61, R70, R72, R73, R74, R79, R87	R0603	Res3, R	22
0E	RES SMD 4.7K OHM 1% 1/16W 0603, RES SMD 470 OHM 1% 1/10W 0603, RES SMD 1K OHM 5% 1/10W 0603, RES SMD 0E OHM 5% 1/10W 0603	R11, R13, R25, R49, R55, R58, R78, R84	R0603	R	8
10K/DNP	RES SMD 10K OHM 1% 1/16W 0603, RES SMD 4.7K OHM 1% 1/16W 0603	R14, R16, R30, R32, R35, R37, R38, R54, R57, R90	R0603	R, Res3	10
49.9E	RES SMD 49.9 OHM 1% 1/16W 0603	R15	R0603	R	1
510K	RES SMD 4.7K OHM 1% 1/16W 0603	R18	R0603	R	1
10K/ NTC/DNP	THERMISTOR NTC 10KOHM 3380K 0603	R24	R0603	R	1
470E	RES SMD 470 OHM 1% 1/10W 0603	R27, R28, R29	R0603	R	3
0E/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R31, R33, R43, R44, R45, R46, R47, R48, R52, R75, R76, R77	R0603	R	12
49.9E/DNP	RES SMD 49.9 OHM 1% 1/16W 0603	R34, R53	R0603	R	2
820E	RES SMD 1K OHM 5% 1/10W 0603	R50	R0603	R	1
75E	RES SMD 1K OHM 5% 1/10W 0603, RES SMD 49.9 OHM 1% 1/16W 0603	R51, R69	R0603	R	2
1K	RES SMD 1K OHM 5% 1/10W 0603	R62, R63	R0603	R	2
2K	RES SMD 2K OHM 1% 1/10W 0603	R64	R0603	R	1
100k	RES SMD 49.9 OHM 1% 1/16W 0603	R65, R67, R83, R86, R88	R0603	R	5
470K	RES SMD 49.9 OHM 1% 1/16W 0603	R66	R0603	R	1
100E	RES SMD 49.9 OHM 1% 1/16W 0603	R68	R0603	R	1
130K	RES SMD 49.9 OHM 1% 1/16W 0603	R71	R0603	R	1
2M	RES SMD 49.9 OHM 1% 1/16W 0603	R80	R0603	R	1
1K/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R81, R82	R0603	R	2
200K	RES SMD 49.9 OHM 1% 1/16W 0603	R85	R0603	R	1
470E/DNP	RES SMD 4.7K OHM 1% 1/16W 0603	R91	R0603	R	1
SW-SPST	SWITCH TACTILE SPST-NO 0.05A 12V	S1	S1	SW-SPST	1
SW-PB	Switch	S2, S3	S2, S3	SW-PB	2
MHDR1X2	Header, 2-Pin	S4	MHDR1X2	MHDR1X2	1
TEST POINT		T1, T2, T3, T4, T5, T6, T7, T8, T9, T10, T11, T12, T13	TP	Test_P	13
MT3608/DNP	Undefined or Miscellaneous	U1/DNP	SOT95P280X145-6N	MT3608	1
SPS30		U2	U17	PROG_ESP32_0	1
SCD41		U3	SCD4x	SCD4x	1
DS1307Z	IC RTC CLK/CALENDAR I2C 8-SOIC	U4	U18 new	MP1584_SOIC_0	1
RGB_LED		U5	WL-SFCW_1206	RGB_LED_PTH_0	1
LM258DT	LM258 Series 30 V 1.1 MHz Low Power Dual Operational Amplifier - SOIC-8	U6, U12, U24	U6, U8 SOIC-8N	LM258DT	3
C-TYPE USB/217175-0001	Connector	U7	MOLEX_2171750001	217175-0001	1
SPEC_SENS_PTH_SO2	SENS GAS SULF DIOX ANALG CUR MOD	U8, U14, U19	U3, U7, U11	Spec_figaro_pth_0	3
LMP91000SD/NOPB	1 Channel AFE 8 Bit 14-WSON _4x4_	U9	U5, U10, U13	LMP91000SD/NOPB	1
ESP_32	WIFI MODULE 128MBITS SPI FLASH	U10	U20 ESP 32	ESP32_SMD_1	1
RST_CON_BERG_2.54MM	CONN HEADER VERT 2POS 2.54MM	U11	U23	CON_AC_1	1
='Texas Instruments'PartNumber	3.3V LDO	U13	U1, U24 SOT-223	TLV70033DDCT	1
LMP91000SD/NOPB/DNP	1 Channel AFE 8 Bit 14-WSON _4x4_	U15, U21	U5, U10, U13	LMP91000SD/NOPB	2
LM258DT/DNP	LM258 Series 30 V 1.1 MHz Low Power Dual Operational Amplifier - SOIC-8	U16	U6, U8 SOIC-8N	LM258DT	1
SCD_30	CONN HEADER VERT 7POS 2.54MM FOR SCD30	U17	U3	SCD_0	1
ADS1115IDGSR-MSOP	IC ADC 16BIT SIGMA-DELTA 10VSSOP	U18, U23	U19, U20	ADS1115	2
MICS2714_NO2		U20	U12	MICS6814_0	1
TGS2610		U22	U4	TGS2602_1	1
LM258DT	LM258 Series 30 V 1.1 MHz Low Power Dual Operational Amplifier - SOIC-8	U25	U28	LM258DT	1
TGS5141_CO		U26	U16	TGS5141	1
LM1117S-1.8	3.3V LDO	U27	U1, U24 SOT-223	TLV70033DDCT	1
TP4056/DNP	Connector	U28/DNP	SOIC127P600X175-9N	TP4056	1
SGP30-D-R4	Integrated Circuit	U29	SGP30	SGP40-D-R4	1
LM4120AIM5-2.5	Precision Micropower Low Dropout Voltage Reference 5-SOT-23 -40 to 85	VR1	VR1, VR2, VR3	LM4120AIM5-2.5	1
LM4120AIM5-2.5/DNP	Precision Micropower Low Dropout Voltage Reference 5-SOT-23 -40 to 85	VR2, VR3	VR1, VR2, VR3	LM4120AIM5-2.5	2
32.768kHz	XTAL SMD 3215, 32.768kHz, Cl=9pF, Total Tol: ±50ppm	X1	XTAL	XTAL_2-pin	1
D Zener	Zener Diode	ZD1	ZD1	D Zener	1