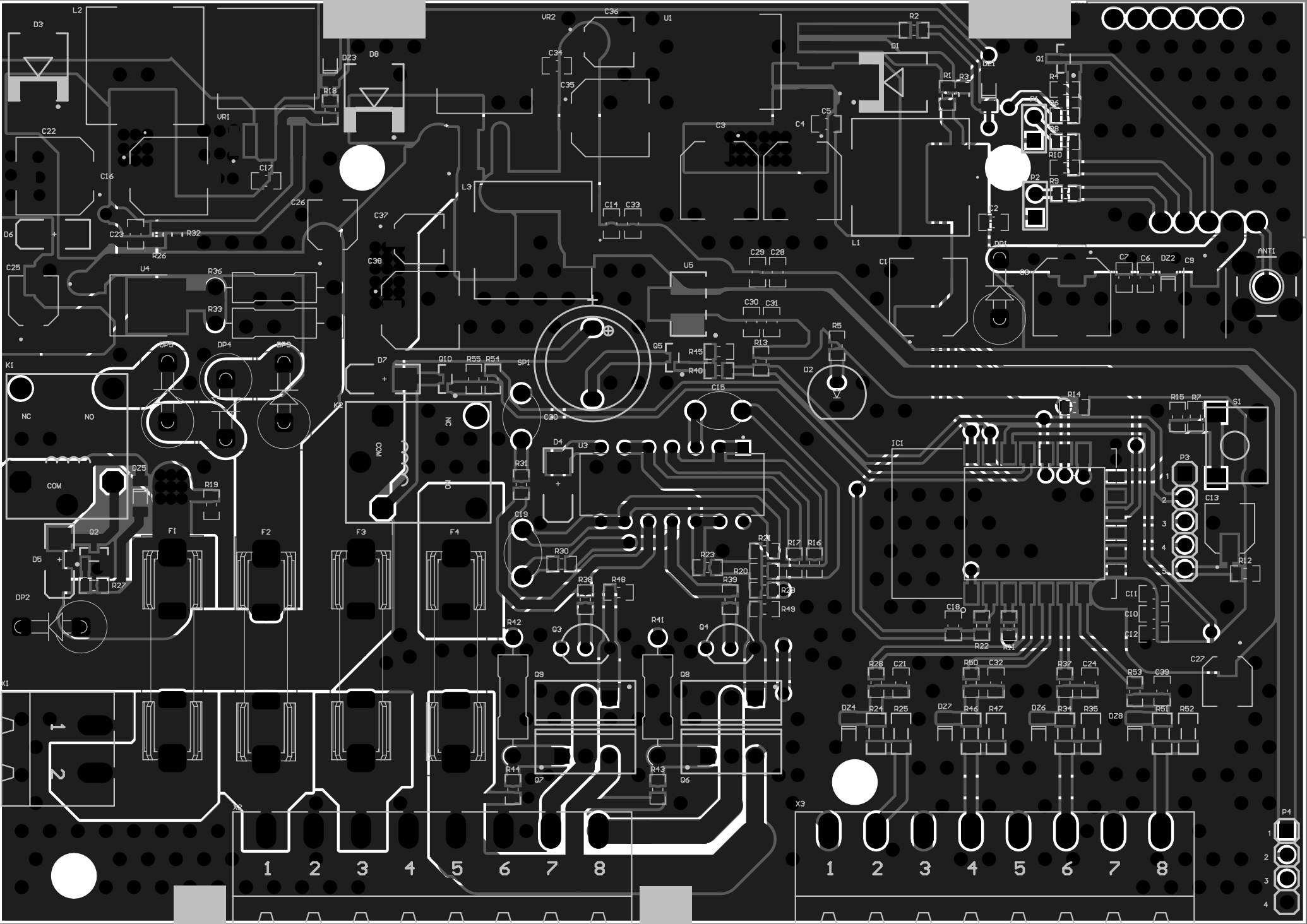
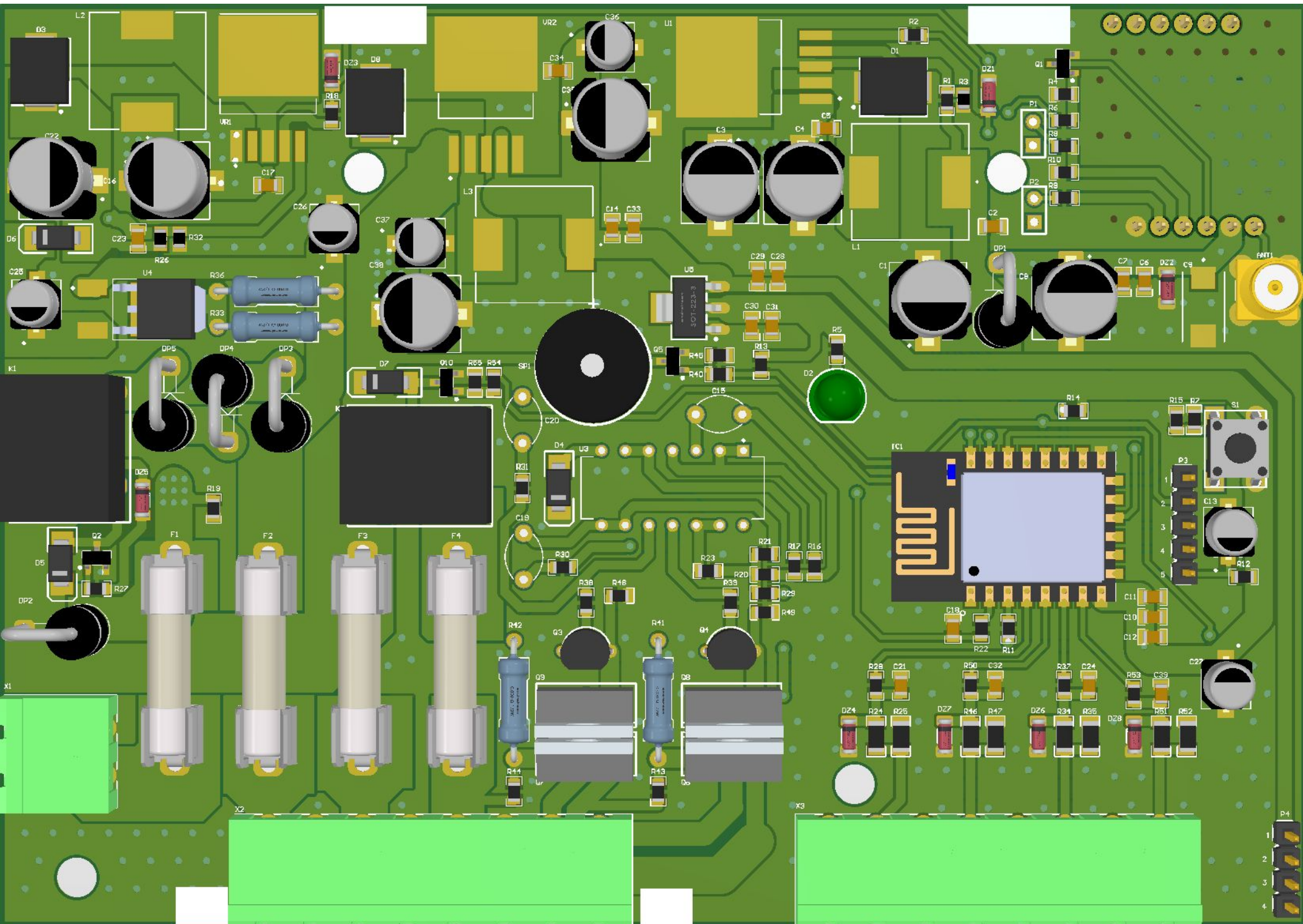


| Title | | |
|-------|--|--------------|
| Size | Number | Revision |
| A2 | 1 | 1 |
| Date: | 11/1/2021 | 1 Sheet of 1 |
| File: | E:\Company Projects\tranged_aim_v1\SCHEMATA\tranged_aim_v1.sch | |





| Comment | Description | Designator | Footprint | Label | Quantity |
|----------------------|---|---|----------------------------|----------------------------|----------|
| Antenna | Antenna | ANT1 | SMA | ANT1 SMA | 1 |
| 330uF 35v | CAP ALUM 220UF 20% 35V SMD | C1, C3, C8 | CAP_EEFP1V221AV | EEFP1V221AV | 3 |
| 100nf | TOTAL CAPACITOR SMD PACK | C2, C12, C14, C23, C34 | CAP0805 | CAP SMD PACKAGE | 3 |
| 100uF 35v | CAP ALUM 220UF 20% 35V SMD | C4, C38 | CAP_EEFP1V221AV | EEFP1V221AV | 2 |
| 1uF | TOTAL CAPACITOR SMD PACK | C5, C17, C18, C21, C24, C29, C31, C32, C39 | CAP0805 | CAP SMD PACKAGE | 9 |
| 10pf | TOTAL CAPACITOR SMD PACK | C6 | CAP0805 | CAP SMD PACKAGE | 1 |
| 33pf | TOTAL CAPACITOR SMD PACK | C7 | CAP0805 | CAP SMD PACKAGE | 1 |
| 470uF | EC 47uF 25V 10% Cap | C9 | CAP0805 | CAP SMD PACKAGE | 1 |
| 22uF | TOTAL CAPACITOR SMD PACK | C10 | CAP0805 | CAP SMD PACKAGE | 1 |
| 10uF | TOTAL CAPACITOR SMD PACK | C11 | CAP0805 | CAP SMD PACKAGE | 1 |
| 10uF 25v | CAP ALUM 100UF 20% 25V SMD | C13 | CAP_EEFP1V1020UR | EEFP1V1020UR | 1 |
| 100nf | CAP Ceramic Total | C15 | CAP Ceramic 5mm | CAP CERAMIC TOTAL 505 | 1 |
| 100uF 50v | CAP ALUM 100UF 20% 50V SMD | C16 | CAP_EEFP1V101L | EEFP1V101L | 1 |
| 220pf | CAP Ceramic Total | C19, C20 | CAP Ceramic 5mm | CAP CERAMIC TOTAL 505 | 2 |
| 220uF 35v | CAP ALUM 220UF 20% 35V SMD | C22, C35 | CAP_EEFP1V221AV | EEFP1V221AV | 2 |
| 22uF 50v | CAP ALUM 22UF 20% 50V SMD | C25, C26, C27, C36, C37 | CAP_EEFP1V2220UR | EEFP1V2220UR | 5 |
| 4.7uF | TOTAL CAPACITOR SMD PACK | C28, C30, C33 | CAP0805 | CAP SMD PACKAGE | 3 |
| 1N5822 | Schottky Rectifiers | D1, D3, D8 | DO-214AB(SMD) | 1N5822 SMD | 3 |
| ESD 300M | ESD Protection Diode | D2 | ESD300M_20N | ESD300M | 1 |
| SM4007 | Diode SMD Package | D4, D5, D6, D7 | Diode SMD | Diode SMD Package | 4 |
| 9S040 | General Semiconductor Revision 3A 1000V Silicon Rectifier | DP1, DP2 | DO-201AD - vertical | 1N5408 3A 1000V | 2 |
| 9A10 | General Semiconductor Revision 3A 1000V Silicon Rectifier | DP3, DP4, DP5 | DO-201AD - vertical | 1N5408 3A 1000V | 3 |
| 3.3 | DIODE ZENER GENERAL | D11, D12, D14, D15, D27, D28 | SOD080, LL-34 | ZENER GENERAL 30050 | 6 |
| 5.5 | DIODE ZENER GENERAL | D22 | SOD080, LL-34 | ZENER GENERAL 30050 | 1 |
| 6.5 | DIODE ZENER GENERAL | D25 | SOD080, LL-34 | ZENER GENERAL 30050 | 1 |
| 5-1.0 A | Fuses 5x20 | F1, F2, F3, F4 | Fuse 5x20 Mith holder pin | Fuse 5x20 with holder pins | 4 |
| ESP8266 ESP-12 E | ESP8266 ESP-12 E | IC1 | ESP8266-12E | ESP8266 ESP-12 E | 1 |
| Relay | Relay, SPST FORMER NEEDLE | K1, K2 | Relay 15.40x12.10x13.10 | RELAY General | 2 |
| 100uh or 47uh | 47uH Shielded Inductor 3.25A 78mOhm Max Nonstandard | L1 | IND_CD8H127/LDNP-470uH_SUM | CD8H127/LDNP-470uH | 1 |
| 47uh or 33uh | 47uH Shielded Inductor 3.25A 78mOhm Max Nonstandard | L2 | IND_CD8H127/LDNP-470uH_SUM | CD8H127/LDNP-470uH | 1 |
| 33uh or 47uh | 47uH Shielded Inductor 3.25A 78mOhm Max Nonstandard | L3 | IND_CD8H127/LDNP-470uH_SUM | CD8H127/LDNP-470uH | 1 |
| D10R_1802 | Female Header 1802 | P1, P2 | 1802R1802_254P | D10R_1802 | 2 |
| M0D8_1805 | Male Header 1805 | P3 | M0D81805_254P | M0D8_1805 | 1 |
| P022 | Male Header 1804 | P4 | 1802R1804_254P | M0D8_1804 | 1 |
| BC347C | NPN General-purpose Transistor | Q1, Q2, Q6, Q70 | SOT23_N | BC347C | 4 |
| BC347 | NPN General-purpose Transistor | Q1, Q4 | TO-92 BENT | BC347 | 2 |
| 10P42C | PNP power transistor | Q6, Q7 | TO-220 AB | 10P42C | 2 |
| 10P41C | NPN power transistor | Q8, Q9 | TO-220 AB | 10P41C | 2 |
| 2.2k | TOTAL SMD RESISTOR PACK | R1 | RES0805 | RES SMD PACKAGE | 1 |
| 1k | TOTAL SMD RESISTOR PACK | R2, R7, R8, R9, R15, R22, R43, R44, R46, R69 | RES0805 | RES SMD PACKAGE | 10 |
| 1k | TOTAL SMD RESISTOR PACK | R3 | RES0805_(D012004) | RES SMD PACKAGE | 1 |
| 47k | TOTAL SMD RESISTOR PACK | R4, R38, R39, R45, R55 | RES0805 | RES SMD PACKAGE | 5 |
| 130 | TOTAL SMD RESISTOR PACK | R5 | RES0805 | RES SMD PACKAGE | 1 |
| 10k | TOTAL SMD RESISTOR PACK | R6, R11, R12, R18, R14, R16, R19, R27, R30, R31 | RES0805 | RES SMD PACKAGE | 10 |
| 5.6k | TOTAL SMD RESISTOR PACK | R10 | RES0805 | RES SMD PACKAGE | 1 |
| 2.2M | TOTAL SMD RESISTOR PACK | R16, R17, R20 | RES0805 | RES SMD PACKAGE | 3 |
| 1M | TOTAL SMD RESISTOR PACK | R21, R23 | RES0805 | RES SMD PACKAGE | 2 |
| 4.7k | TOTAL SMD RESISTOR PACK | R24, R34, R46, R51 | RES1206 | RES SMD PACKAGE | 4 |
| 2.2k | TOTAL SMD RESISTOR PACK | R25, R35, R47, R52 | RES1206 | RES SMD PACKAGE | 4 |
| 51k | TOTAL SMD RESISTOR PACK | R26 | RES0805_(D012004) | RES SMD PACKAGE | 1 |
| 4.7k | TOTAL SMD RESISTOR PACK | R28, R37, R50, R53 | RES0805 | RES SMD PACKAGE | 4 |
| 2.7M | TOTAL SMD RESISTOR PACK | R29 | RES0805 | RES SMD PACKAGE | 1 |
| 4.7k | TOTAL SMD RESISTOR PACK | R32 | RES0805_(D012004) | RES SMD PACKAGE | 1 |
| 15 | RES Axiel 0.5W | R53, R56 | Axiel 0.5W 5.0mm | RES Axiel 0.5W | 2 |
| 8k | TOTAL SMD RESISTOR PACK | R40, R54 | RES0805 | RES SMD PACKAGE | 2 |
| 100 | RES Axiel 0.5W | R41, R42 | Axiel 0.5W 5.0mm | RES Axiel 0.5W | 2 |
| Switch DB | Push Button Switch | S1 | Switch Push to On | Switch DB | 1 |
| Buzzer 12V | PIEZO BUZZER ACTIVE | SP1 | BUZZER 7.62mm DC | PIEZO BUZZER | 1 |
| | SWITCHING 4.5V to 40V, 1A Low Component Count Step-Down Regulator 1.5, 1.0, 0.5, 0.25, 0.125 | U1 | VREG_L1M25W6S-ADU/NOVB | L1M25W6S-ADU/NOVB | 1 |
| SBM00L | | U2 | SBM00L | SBM00L | 1 |
| CD4011BE | Linear Voltage Regulator IC Positive Adjustable 1 Output 500mA 8PWR | U3 | OP174H40SP54L796 9650B014 | CD4011BE | 1 |
| LM317MDTG | Linear Voltage Regulator IC Positive Adjustable 1 Output 500mA 8PWR | U4 | VREG_LM317MDTG | LM317MDTG | 1 |
| AMS1117-3V3 | Linear Voltage Regulator, 4-pin SOT-223 | U5 | SOT223 | AMS1117 4 x 5 | 1 |
| RL6009 | The RL6009 regulator is a wide input range, current mode, DC/DC converter which is capable of generating either positive or negative output voltages. | U61 | DRM170P1435X465-AN | RL6009 | 1 |
| L1M25W6S-0.0 | | U62 | TD170P1524X463-4N | L1M25W6S-0.0 | 1 |
| CON_Phoenix_M51BA-02 | | X1 | CON_M51BA02 | CON_Phoenix_M51BA-02 | 1 |
| CON_Phoenix_M51BA-08 | | X2, X3 | CON_M51BA08 | CON_Phoenix_M51BA-08 | 2 |