

| SCA B16 Bill of Material |     |   |         |                                  |                                 |            |                    |          | Rev 1.3            |
|--------------------------|-----|---|---------|----------------------------------|---------------------------------|------------|--------------------|----------|--------------------|
| Item                     | Qty | Ref   | Value   | Marking                          | Description                     | Mfg        | Mfg Part Number    | Source   | Cat Number         |
| 1                        | 1   | C3  | 47pF    | 470                              | C0G Ceramic Capacitor           | Kemet      | C315C470J1G5TA     | Mouser   | C315C470J1G5TA     |
| 2                        | 5   | C4, C5, C9, C32, C33                          | 100pF   | 101                              | C0G Ceramic Capacitor           | Kemet      | C315C101J1G5TA     | Mouser   | C315C101J1G5TA     |
| 3                        | 1   | C16   | 47nF    | 473                              | Metallized Film Capacitor       | Panasonic  | ECQ-V1H473JL       | Mouser   | ECQ-V1H473JL       |
| 4                        | 10  | C1, C2, C6, C11, C13, C14, C19, C23, C26, C27 | 100nF   | 104                              | X7R Ceramic Capacitor           | Kemet      | C315C104M5U5CA     | Mouser   | C315C104M5U5CA     |
| 5                        | 1   | C21   | 220nF   | 224                              | Metallized Film Capacitor       | Panasonic  | ECQ-V1H224JL       | Mouser   | ECQ-V1H224JL       |
| 6                        | 1   | C10   | 10uF    | 106                              | Tantalum Electrolytic Capacitor | Kemet      | T351E106K025AT     | Mouser   | T351E106K025AT     |
| 7                        | 2   | C12, C15                                      | 10uF    | 10uF 50V BP                      | Radial Electrolytic Capacitor   | Panasonic  | ECE-A1HN100U       | Mouser   | ECE-A1HN100U       |
| 8                        | 4   | C7, C8, C22, C29                              | 22uF    | 22uf 35V                         | Radial Electrolytic Capacitor   | Panasonic  | EEU-FC1V220        | Mouser   | EEU-FC1V220        |
| 9                        | 2   | C17, C18                                      | 47uF    | 47uf 35V                         | Radial Electrolytic Capacitor   | Panasonic  | EEU-FC1V470        | Mouser   | EEU-FC1V470        |
| 10                       | 2   | C24, C25                                      | 100uF   | 100uF 35V                        | Radial Electrolytic Capacitor   | Panasonic  | EEU-FC1V101        | Mouser   | EEU-FC1V101        |
| 11                       | 1   | C31   | 100uF   | 100uF 63V                        | Radial Electrolytic Capacitor   | Panasonic  | EEU-FC1J101L       | Mouser   | EEU-FC1J101L       |
| 12                       | 1   | C20   | 220uF   | 220uF 6.3V                       | Radial Electrolytic Capacitor   | Panasonic  | ECA-0JM221         | Mouser   | ECA-0JM221         |
| 13                       | 2   | C28, C30                                      | 1500uF  | 1500uF 50V                       | Radial Electrolytic Capacitor   | Panasonic  | ECO-S1HA152BA      | Mouser   | ECO-S1HA152BA      |
| 14                       | 1   | CONN1   |         |                                  | XLR Female                      | Neutrik    | NC3FBHR2           | Brill    | NC3FBHR2           |
| 15                       | 1   | CONN2   |         |                                  | XLR Male                        | Neutrik    | NC3MBHR            | Brill    | NC3MBHR            |
| 16                       | 3   | D1, D2, D3                                    | 1N4148  | 1N4148                           | Diode                           | Fairchild  | 1N4148TA           | Mouser   | 1N4148TA           |
| 17                       | 13  | D6 - D18                                      | 1N4002  | 1N4002                           | Rectifier Diode                 | Fairchild  | 1N4002             | Mouser   | 512-1N4002         |
| 18                       | 2   | D4, D5  |         |                                  | Red LED                         | Kingbright | WP132XIT           | Mouser   | 604-WP132XIT       |
| 19                       | 0   | CONN3 (Optional)                              |         |                                  | 2 Pin Header                    | Molex      | 22-23-2021         | Mouser   | 22-23-2021         |
| 20                       | 0   | CONN5 (Optional)                              |         |                                  | 4 Pin Header                    | Molex      | 22-23-2041         | Mouser   | 22-23-2041         |
| 21                       | 0   | CONN4 (Optional)                              |         |                                  | 5 Pin Header                    | Molex      | 22-27-2051         | Mouser   | 22-27-2051         |
| 22                       | 1   | J3  |         |                                  | 6 Pin Header                    | Molex      | 26-60-4060         | Digi-Key | 26-60-4060         |
| 23                       | 6   | L1 - L6                                       | 1000pF  | C102                             | Filter                          | Bourns     | EMI102T-RC         | Mouser   | EMI102T-RC         |
| 24                       | 2   | R38, R39                                      | 0       | Black                            | Zero-Ohm Jumper                 | Xicon      | 291-0-RC           | Mouser   | 291-0-RC           |
| 25                       | 1   | R11   | 51      | Green-Brown-Black-Gold-Brown     | Metal Film Resistor 1/4W        | Xicon      | 271-51-RC          | Mouser   | 271-51-RC          |
| 26                       | 3   | R30, R31, R37                                 | 150     | Brown-Green-Black-Black-Brown    | Metal Film Resistor 1/4W        | Xicon      | 271-150-RC         | Mouser   | 271-150-RC         |
| 27                       | 1   | R28   | 220     | Red-Red-Black-Black-Brown        | Metal Film Resistor 1/4W        | Xicon      | 271-220-RC         | Mouser   | 271-220-RC         |
| 28                       | 1   | R3  | 1K4     | Brown-Yellow-Black-Brown-Brown   | Metal Film Resistor 1/4W        | Xicon      | 271-1.4K-RC        | Mouser   | 271-1.4K-RC        |
| 29                       | 2   | R29, R34                                      | 2K      | Red-Black-Black-Brown-Brown      | Metal Film Resistor 1/4W        | Xicon      | 271-2K-RC          | Mouser   | 271-2K-RC          |
| 30                       | 2   | R40, R41                                      | 2K49    | Red-Yellow-White-Brown-Brown     | Metal Film Resistor 1/4W        | Xicon      | 271-2.49K-RC       | Mouser   | 271-2.49K-RC       |
| 31                       | 1   | R32   | 4K7     | Yellow-Violet-Black-Brown-Brown  | Metal Film Resistor 1/4W        | Xicon      | 271-4.7K-RC        | Mouser   | 271-4.7K-RC        |
| 32                       | 1   | R42   | 4K99    | Yellow-White-White-Brown-Brown   | Metal Film Resistor 1/4W        | Xicon      | 271-4.99K-RC       | Mouser   | 271-4.99K-RC       |
| 33                       | 2   | R21, R23                                      | 5K1     | Green-Brown-Black-Brown-Brown    | Metal Film Resistor 1/4W        | Xicon      | 271-5.1K-RC        | Mouser   | 271-5.1K-RC        |
| 34                       | 1   | R20   | 10K     | Brown-Black-Black-Red-Brown      | Metal Film Resistor 1/4W        | Xicon      | 271-10K-RC         | Mouser   | 271-10K-RC         |
| 35                       | 3   | R2, R33, R35                                  | 15K     | Brown-Green-Black-Red-Brown      | Metal Film Resistor 1/4W        | Xicon      | 271-15K-RC         | Mouser   | 271-15K-RC         |
| 36                       | 3   | R9, R19, R22                                  | 20K     | Red-Black-Black-Red-Brown        | Metal Film Resistor 1/4W        | Xicon      | 271-20K-RC         | Mouser   | 271-20K-RC         |
| 37                       | 1   | R25   | 28K7    | Red-Gray-Violet-Red-Brown        | Metal Film Resistor 1/4W        | Xicon      | 271-28.7K-RC       | Mouser   | 271-28.7K-RC       |
| 38                       | 3   | R13, R14, R16                                 | 30K1    | Orange-Black-Brown-Red-Brown     | Metal Film Resistor 1/4W        | Xicon      | 271-30.1K-RC       | Mouser   | 271-30.1K-RC       |
| 39                       | 2   | R12, R36                                      | 100K    | Brown-Black-Black-Orange-Brown   | Metal Film Resistor 1/4W        | Xicon      | 271-100K-RC        | Mouser   | 271-100K-RC        |
| 40                       | 1   | R10   | 300K    | Orange-Black-Black-Orange-Brown  | Metal Film Resistor 1/4W        | Xicon      | 271-300K-RC        | Mouser   | 271-300K-RC        |
| 41                       | 1   | R15   | 470K    | Yellow-Violet-Black-Orange-Brown | Metal Film Resistor 1/4W        | Xicon      | 271-470K-RC        | Mouser   | 271-470K-RC        |
| 42                       | 1   | R18   | 590K    | Green-White-Black-Orange-Brown   | Metal Film Resistor 1/4W        | Xicon      | 271-590K-RC        | Mouser   | 271-590K-RC        |
| 43                       | 2   | R24, R26                                      | 1M2     | Brown-Red-Green-Gold             | Carbon Film Resistor 1/4W       | Xicon      | 291-1.2M-RC        | Mouser   | 291-1.2M-RC        |
| 44                       | 1   | R17   | 2M7     | Red-Violet-Green-Gold            | Carbon Film Resistor 1/4W       | Xicon      | 291-2.7M-RC        | Mouser   | 291-2.7M-RC        |
| 45                       | 1   | R27   | 3M9     | Orange-White-Green-Gold          | Carbon Film Resistor 1/4W       | Xicon      | 291-3.9M-RC        | Mouser   | 291-3.9M-RC        |
| 46                       | 2   | R7, R8  | 50K     | 503                              | Potentiometer                   | Bourns     | 3296Y-1-503LF      | Digi-Key | 3296Y-1-503LF      |
| 47                       | 2   | R1, R4  | 10K/10K | 81A2A-G36-A15/A15L               | Potentiometer                   | Bourns     | 81A2A-G36-A15/A15L | Arrow    | 81A2A-G36-A15/A15L |
| 48                       | 2   | RLY1, RLY2                                    |         | G5V-2-H DC48                     | DPDT Relay                      | Omron      | G5V-2-H1 DC48      | Mouser   | G5V-2-H1 DC48      |
| 49                       | 1   | SW1   |         | 100A WSP1                        | SPDT Switch (ON-OFF-ON)         | E-Switch   | 100AWSP3T2B4M7RE   | Digi-Key | 100AWSP3T2B4M7RE   |
| 50                       | 1   | SW2   |         | 100A WDP1                        | DPDT Switch                     | E-Switch   | 100AWDP1T2B4M7RE   | Digi-Key | 100AWDP1T2B4M7RE   |
| 51                       | 0   | T1 (Optional)                                 |         | CMOQ-2S                          | Output Transformer              | CineMag    | CMOQ-2S            | CineMag  | CMOQ-2S            |
| 52                       | 1   | U1  |         | THAT 4301AP                      | Dynamics Processor              | THAT Corp  | 4301AP20-I         | Mouser   | 887-4301AP20-I     |
| 53                       | 1   | U2  |         | OPA2604AP                        | Dual CMOS Op Amp                | Burr-Brown | OPA2604AP          | Digi-Key | OPA2604AP-ND       |
| 54                       | 1   | U3  |         | THAT 1646                        | Line Driver                     | THAT Corp  | 1646P08-U          | Mouser   | 887-1646P08-U      |
| 55                       | 1   | U4  |         | THAT 1200                        | Line Receiver                   | THAT Corp  | 1200P08-U          | Mouser   | 887-1200P08-U      |
| 56                       | 1   | U5  |         | LM317                            | Voltage Regulator, Pos          | Fairchild  | LM317T             | Mouser   | 512-LM317T         |
| 57                       | 1   | U6  |         | LM337                            | Voltage Regulator, Neg          | Fairchild  | LM337T             | Mouser   | 512-LM337T         |
| 58                       | 2   |   |         |                                  | Heatsink                        | Aavid      | 577202B00000       | Mouser   | 532-577202B00      |
| 59                       | 2   |   |         |                                  | Outer Knob                      |            |                    |          |                    |

|    |   |  |              |  |                                 |     |            |         |            |
|----|---|--|--------------|--|---------------------------------|-----|------------|---------|------------|
| 60 | 2 |  |              |  | Inner Knob                      |     |            |         |            |
| 61 | 4 |  | M2.5 x 6     |  | Pan head machine screw, trilobe |     | .25S6PPMZB | Olander | .25S6PPMZB |
| 62 | 2 |  | #4-40 x 1/4" |  | Pan head machine screw          |     | 4C25PPMZR  | Olander | 4C25PPMZR  |
| 63 | 2 |  | #4-40        |  | Keps nut                        |     | 4CKNTZR    | Olander | 4CKNTZR    |
| 64 | 1 |  |              |  | PCB                             | SCA |            | SCA     |            |