

PROGRAMMABLE COMPLEX WAVEFORM GENERATOR MODEL 259 - v1.0 (PCB1)

| SEMICONDUCTORS | | | | | |
|--------------------|--|-----|---------------------|---|--|
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| 1N457 | D1, D2, D3, D5, D7, D8, D9, D11, D14, D15, D18 | 11 | | 512-1N457 | |
| RESISTORS | | | | | |
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| 680K | R3, R104 | 2 | 1% 1/4W | 271-680K-RC | |
| 10M | R4, R126 | 2 | 1% 1/4W | 291-10M-RC | |
| 2M2 | R5, R105 | 2 | 1% 1/4W | 291-2.2M-RC | |
| 470R | R8, R46, R68, R69, R71, R78, R80, R119, R186, R211, R223, R999 | 12 | 1% 1/4W | 271-470-RC | |
| 100K | R34, R95, R153, R163, R192, R214 | 6 | 1% 1/4W | 271-100K-RC | |
| 130K | R42, R97 | 2 | 1% 1/4W | 271-130K-RC | |
| 180K | R43A, R101A | 2 | 1% 1206 SMD | 71-CRCW1206-180K-E3 | |
| 75K | R43B, R101B | 2 | 1% 1206 SMD | 71-CRCW1206-75K-E3 | |
| 15K | R50, R57, R90, R91 | 4 | 1% 1/4W | 271-15K-RC | |
| 220K | R58 | 1 | 1% 1/4W | 271-220K-RC | |
| 10K | R130 | 1 | 1% 1/4W | 271-10K-RC | |
| 680R | R148 | 1 | 1% 1/4W | 271-680-RC | |
| 150K | R154, R164, R193, R215 | 4 | 1% 1/4W | 271-150K-RC | |
| 100K | TR1, TR2 | 2 | SINGLE TURN | 858-25PR100KLF | |
| 20K | TR3, TR4, TR5, TR6, TR7, TR8, TR9 | 7 | SINGLE TURN | 3362P-1-203LF | |
| B10K-100K | POT4, POT10, POT11, POT12, POT13 | 5 | 9MM VERTICAL | http://www.smallbearlec.com/servlet/Detail?no=1139 | |
| A10K-100K | POT1, POT7 | 2 | 16MM ANGLED | http://www.smallbearlec.com/servlet/Detail?no=692 | |
| B10K-100K | POT2, POT3, POT5, POT6, POT8, POT9, POT14, POT15 | 8 | 16MM ANGLED | http://www.smallbearlec.com/servlet/Detail?no=692 | |
| MISC | | | | | |
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| | B1 | 1 | BANANA JACK BLUE | 530-108-0910-1 | |
| | B2, B3, B4, B5, B6, B7, B8, B9 | 8 | BANANA JACK BLACK | 530-108-0903-1 | |
| | J1, J2, J3, J4, J5, J6, J7, J8, J9, J10 | 10 | TINIAX | 502-41 | |
| | LED1, LED2, LED3, LED4, LED5, LED6, LED7, LED8, LED9, LED10, LED11, LED12, LED13, LED14, LED15 | 15 | 3MM RED LED | 630-HLMP-K101 | |
| | PLD-1, PLD-2 | 2 | PBD 30 PIN (FEMALE) | 517-929975-01-15-RK | |
| DPDT ON-OFF-(ON) | SW1 | 1 | TOGGLE SWITCH | 108-0004-EVX | |
| DPDT ON-ON-ON | SW3 | 1 | TOGGLE SWITCH | http://www.smallbearlec.com/servlet/Detail?no=900 | |
| SPDT ON-OFF-ON | SW2 | 1 | TOGGLE SWITCH | 108-1MS3T1B1M1QE-EVX | |
| SPDT (ON)-OFF-(ON) | SW8 | 1 | TOGGLE SWITCH | 108-0053-EVX | |
| SPDT ON-ON | SW4, SW5, SW6, SW7 | 4 | TOGGLE SWITCH | 108-1MS1T1B1M1QE-EVX | |
| DPDT ON-ON | SW9 | 1 | DIP SLIDE SWITCH | 611-JS202011CQN | |

PROGRAMMABLE COMPLEX WAVEFORM GENERATOR MODEL 259 - v1.0 (PCB2)

| SEMICONDUCTORS | | | | | |
|----------------|--|-----|----------------------------|---|--|
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| 1N457 | D1, D2, D3, D4, D5, D6, D7, D8, D9, D10, D11, D12, D13, D14 | 14 | | 512-1N457 | |
| TL072 | IC1, IC2, IC3, IC18, IC20, IC21, IC26, IC27, IC28, IC29, IC30, IC31, IC32, IC33, IC34, IC35 | 16 | | 511-TL072CN | |
| DG445 | IC4, IC5, IC17, IC23, IC24 Text | 5 | DO NOT REPLACE WITH DG211! | 781-DG445DJ-E3 | |
| LM311 | IC6, IC22, IC25 | 3 | | 595-LM311P | |
| CD4555 | IC7 | 1 | | 595-CD4555BE | |
| CD4030 | IC8, IC13 | 2 | | 595-CD4030BE | |
| CD4001 | IC9, IC14 | 2 | | 595-CD4001BE | |
| 74LS05 | IC10, IC16 | 2 | | 595-SN74LS05N | |
| CD4040 | IC11, IC15 | 2 | | 771-HEF4040BP652 | |
| LM301 | IC12, IC19 | 2 | | 926-LM301AN/NOPB | |
| CA3130 | IC36, IC37, IC38, IC39, IC40 | 5 | | 968-CA3130EZ | |
| 7805 | IC41 | 1 | OMIT IF YOU HAVE +5V RAIL | 511-L7805CV | |
| THAT340 | Q1, Q5 | 2 | | 887-340P14-U | |
| PN3565 | Q3, Q4, Q7, Q8, Q12, Q13 | 6 | | 610-PN3565 | |
| J201 | Q9 | 1 | | http://www.smallbearlec.com/servlet/Detail?no=307 | |
| LS3958 | Q10 | 1 | TO-71 CASE | MICROSS.COM | |
| 1N5228 | Z1 | 1 | | 512-1N5228B | |
| | L1, L2, L3 | 3 | FERRITE BEAD | 667-EXC-ELSA35V | |
| CAPACITORS | | | | | |
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| 100pF | C1, C4, C13, C17, C19, C24, C30, C36, C37, C39 | 10 | CERAMIC 5MM LS | 140-50S5-101J-RC | |
| 220pF | C2, C8, C9, C12, C23, C40 | 6 | CERAMIC 5MM LS | 140-50S5-221J-RC | |
| 47uFx25V | C3, C10, C18 | 3 | TANTALUM SMD CASE D | 80-T491D476K025 | |
| 47nF | C5, C15, C38, C49 | 4 | FILM 5MM LS | 667-ECQ-V1H473JL | |
| 10nF | C6, C21, C25 | 3 | FILM 5MM LS | 80-R82EC2100AA50K | |
| 4.7nF | C7, C22 | 2 | STYRENE | 23PW247 | |
| 180nF | C11, C14 | 2 | FILM 5MM LS | 667-ECQ-V1H184JL | |
| 2.2uF x35V | C16 | 1 | TANTALUM SMD CASE C | 80-T491C225K035 | |
| 22pF | C20 | 1 | CERAMIC 5MM LS | 140-50N5-220J-RC | |
| 470pF | C26, C29, C41 | 3 | CERAMIC 5MM LS | 140-50S5-471J-RC | |
| 10pF | C27 | 1 | CERAMIC 5MM LS | 140-50N5-100J-RC | |
| 2nF | C28 | 1 | FILM 5MM LS | 871-B32529C222K189 | |
| 47pF | C31, C32, C33, C34 | 4 | CERAMIC 5MM LS | 140-50N5-470J-RC | |
| 10uF x35V | C35 | 1 | TANTALUM SMD CASE D | 80-T491D106M035 | |
| 15uF x35V | C42, C43, C44 | 3 | TANTALUM SMD CASE D | 74-TR3D156K035C0150 | |
| 1uF x35V | C45, C46, C47, C48 | 4 | TANTALUM SMD CASE B | 80-T491B105K035 | |
| 0.1uF | F1, F2, F3 | 3 | CERAMIC 5MM LS | 581-SA105E104M | |
| 7.5pF | F4, F5, F6, F7, F8 | 5 | CERAMIC 0805 SMD | 81-GRM215C1H7R5CZ01D | |
| RESISTORS | | | | | |
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| SELECTED | R* | 1 | 1% 1/4W | | |
| | R1, R4, R26, R27, R28, R29, R35, R38, R44, R46, R49, R59, R62, R65, R66, R67, R72, R74, R75, R84, R108, R114, R115, R118, R122, R129, R138, R139, R144, R150, R157, R167, R172, R173, R174, R175, R176, R189, R190, R191, R198, R199, R210, R211, R212, R217, R220, R222, R234, R237, R239, R241 | 52 | 1% 1/4W | 271-10K-RC | |
| 10K | R2, R3, R10, R31, R77, R80, R88, R125, R158, R171, R187 | 11 | 1% 1/4W | 271-68K-RC | |
| 68K | R5, R11, R14, R19, R23, R24, R45, R50, R56, R64, R68, R69, R78, R81, R83, R85, R86, R97, R102, R103, R132, R141, R143, R147, R156, R179, R180, R181, R182, R183, R184, R200, R215, R219 | 34 | 1% 1/4W | 271-100K-RC | |
| 100K | R6, R8, R37, R51, R54, R55, R70, R71, R87, R104, R105, R117, R127, R145, R149, R162, R188, R225, R227, R232 | 20 | 1% 1/4W | 271-33K-RC | |
| 33K | R7, R48, R90, R146, R223, R228 | 6 | 1% 1/4W | 271-100-RC | |
| 100R | R9, R91, R202, R206, R236, R240, R244 | 7 | 1% 1/4W | 271-1K-RC | |
| 1K | R12, R13, R57, R89, R95, R130, R134 | 7 | 1% 1/4W | 271-47K-RC | |
| 47K | R15, R93 | 2 | 1% 1/4W | 271-121K-RC | |
| 121K | R16, R94 | 2 | 1% 1/4W | 271-330K-RC | |
| 330K | R17, R96 | 2 | 5% 1/4W | 291-1.5M-RC | |
| 1M5 | R18, R99, R113, R135, R161, R208, R231, R242 | 8 | 1% 1/4W | 271-6.8K-RC | |
| 6K8 | R20, R98, R107, R160, R165, R166, R224, R229 | 8 | 1% 1/4W | 271-22K-RC | |
| 22K | R21, R22, R39, R61, R82, R100, R101, R106, R119 | 9 | 1% 1/4W | 271-4.99K-RC | |
| 4K99 | R25 | 1 | 5% 1/4W | 291-4.7M-RC | |
| 4M7 | R30, R126, R136, R201, R203, R205, R235, R238 | 8 | 1% 1/4W | 271-4.7K-RC | |
| 4K7 | R32, R128, R140, R213 | 4 | 1% 1/4W | 271-20K-RC | |
| 20K | R33, R116, R163, R214, R233 | 5 | 1% 1/4W | 271-15K-RC | |
| 15K | R34, R120 | 2 | 1% 1/4W | 271-24K-RC | |
| 24K | R36 | 1 | 5% 1/4W | 291-3.3M-RC | |
| 3M3 | R40, R148 | 2 | 1% 1/4W | 271-39K-RC | |
| 39K | R41, R230 | 2 | 1% 1/4W | 271-82K-RC | |
| 82K | R42, R124, R168, R207 | 4 | 1% 1/4W | 271-49.9K-RC | |
| 49K9 | R43 | 1 | 1% 1/4W | 271-62K-RC | |
| 62K | R47, R204 | 2 | 1% 1/4W | 271-220-RC | |
| 220R | R52, R131 | 2 | 1% 1/4W | 271-2.2K-RC | |
| 2K2 | R53, R110, R159, R243 | 4 | 1% 1/4W | 271-3.3K-RC | |
| 3K3 | R58 | 1 | 1% 1/4W | 271-820-RC | |
| 820R | R60, R63, R73, R76, R195, R196 | 6 | 1% 1/4W | 271-1.0M-RC | |
| 1M | R79, R153, R154 | 3 | 1% 1/4W | 271-470K-RC | |
| 470K | R92, R170 | 2 | 1% 1/4W | 271-30K-RC | |
| 30K | R109 | 1 | 1% 1/4W | 271-28.7K-RC | |
| 28K7 | R111, R112, R216, R245 | 4 | 1% 1/4W | 271-680-RC | |
| 680R | R121, R152 | 2 | 1% 1/4W | 271-130K-RC | |
| 130K | R123, R177 | 2 | 1% 1/4W | 271-12K-RC | |
| 12K | R133, R218 | 2 | 1% 1/4W | 271-30.1K-RC | |
| 30K1 | R137 | 1 | 1% 1/4W | 271-18K-RC | |
| 18K | R142, R151 | 2 | 1% 1/4W | 271-150K-RC | |
| 150K | R155, R197 | 2 | 1% 1/4W | 271-300K-RC | |
| 300K | R164 | 1 | 1% 1/4W | 271-1.8K-RC | |
| 1K8 | R169 | 1 | 1% 1/4W | 271-91K-RC | |
| 91K | R178 | 1 | 1% 1/4W | 271-240K-RC | |
| 240K | R185 | 1 | 1% 1/4W | 271-43.2K-RC | |
| 43K2 | R186 | 1 | 1% 1/4W | 271-56K-RC | |
| 56K | R192, R193 | 2 | 1% 1/4W | 271-24.9K-RC | |
| 24K9 | R194 | 1 | 5% 1/4W | 291-1.2M-RC | |
| 1M2 | R209 | 1 | 1% 1/4W | 271-75K-RC | |
| 75K | R221 | 1 | 5% 1/4W | 291-10M-RC | |
| 10M | R226 | 1 | 1% 1/4W | 271-470-RC | |
| 470R | | | | | |
| 20K | TR1 | 1 | SINGLE TURN | 3362P-1-203LF | |
| 5K | TR2, TR3 | 2 | SINGLE TURN | 858-25PR5KLF | |
| 1K | PTC1, PTC2 | 2 | THERMISTOR 0805 / THRUHOLE | FARNELL PART #: 1174311 (OR USE ANY OTHER 1K PTC TEMPCO) | |
| MISC | | | | | |
| VALUE | DESIGNATOR | QTY | DESCRIPTION | MOUSER PART# | |
| VTL5C3/2 | V-A, V-B, V-D, V-G, V-H | 5 | DUAL VACTROL | http://www.smallbearlec.com/servlet/Detail?no=349 | |
| VTL5C3 | V-C, V-E, V-F | 3 | SINGLE VACTROL | http://www.smallbearlec.com/servlet/Detail?no=347 | |
| PBD-30 | PBD-1, PBD-2 | 2 | PLD 30 PIN (MALE) | 517-929836-09-16 | |