

**COMMERCIAL BRAND:**

**STEC**

**PRODUCT LINE:**

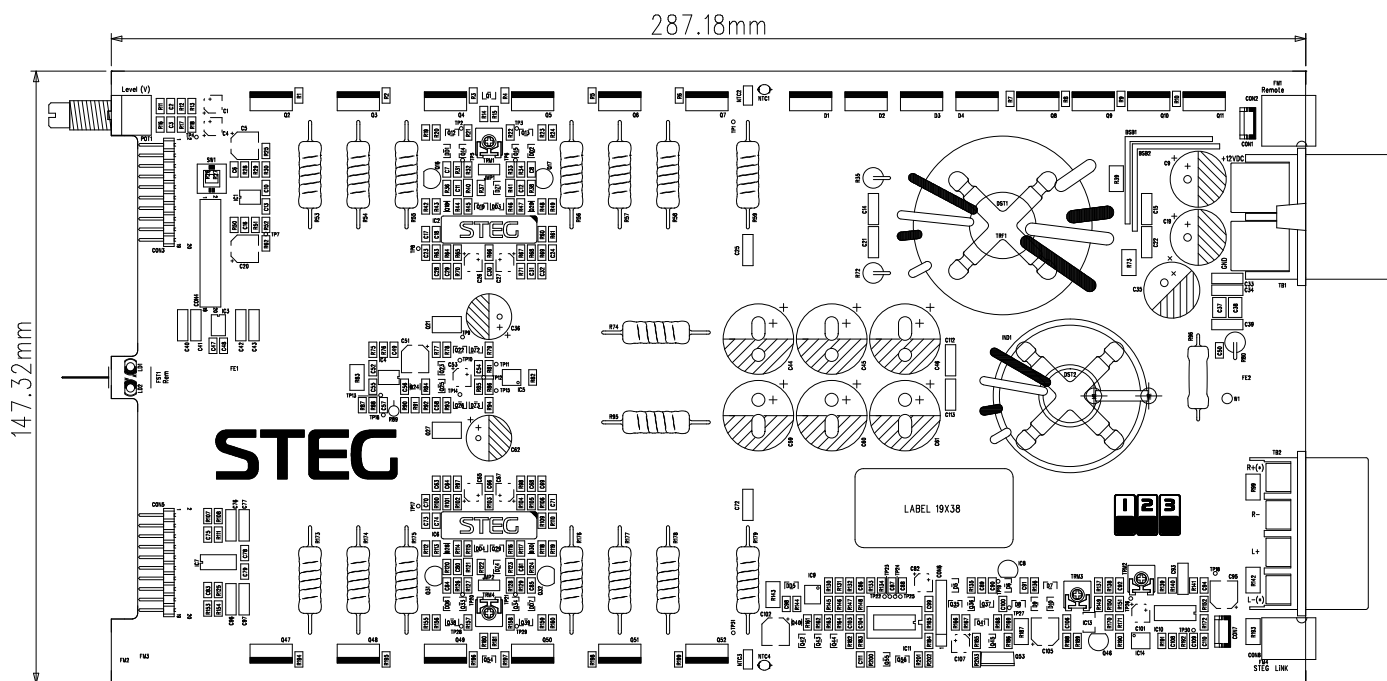
**K Amplifier**

**PART-NUMBER:**

**118042150**

**DESCRIPTION:**

**AMPL STEG K COMPETITION  
K2.02**



| VERSION | DESCRIPTION | DATE       | APPROVED  |
|---------|-------------|------------|-----------|
| 0.0     | ISSUE       | 2005-03-21 | Giacomoni |
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**Power output @ 4 Ohm / 14V4 / 1KHz / STEREO / 0.3% THD:** **166 W x 2 35.7 A 64.6 %** efficiency  
**Power output @ 2 Ohm / 14V4 / 1KHz / STEREO / 0.3% THD:** **318 W x 2 73.6 A 60.0 %** efficiency  
**Power output @ 4 Ohm / 14V4 / 1KHz / BRIDGE / 0.3% THD:** **636 W x 1 73.6 A 60.0 %** efficiency

**THD @ 4 Ohm / 14V4 / STEREO:** < **0.03 %** (1KHz / Power rating ref)  
**THD @ 2 Ohm / 14V4 / STEREO:** < **0.03 %** (1KHz / Power rating ref)  
**THD @ 4 Ohm / 14V4 / BRIDGE:** < **0.03 %** (1KHz / Power rating ref)  
**DIM @ 4 Ohm / 14V4 / STEREO:** < **0.004 %** (Power rating ref)  
**DIM @ 2 Ohm / 14V4 / STEREO:** < **0.004 %** (Power rating ref)  
**DIM @ 4 Ohm / 14V4 / BRIDGE:** < **0.003 %** (Power rating ref)

**Damping factor @ 100 Hz (4 Ohm STEREO) - 10 Watt ref:** **1579 / 1582** (Right / Left)  
**Damping factor @ 1 KHz (4 Ohm STEREO) - 10 Watt ref:** **1584 / 1587** (Right / Left)  
**Damping factor @ 10 KHz (4 Ohm STEREO) - 10 Watt ref:** **526 / 576** (Right / Left)  
**Output impedance @ 1 KHz (4 Ohm STEREO) - 10 Watt ref:** **2.53 mOhm / 2.52 mOhm** (Right / Left)  
**Overload cutoff @ 14.4 Volt:** **1 Ohm / 2 Ohm** (Stereo / Bridged)  
**Current consumption @ 2 Ohms / 12.6 Volt / STEREO:** **81.4 A** (Power rating ref)  
**Suggested fuse:** **80 A** (External)

Power data acquired @: 14,4 Volt, t = 25°C, 0,3%THD, ±5% tolerance, load: pure resistive. (If not differently specified).

**DC-DC converter typology:****Conversion frequency:****Absolute maximum operation supply voltage range:****Recommended operation supply voltage range:****Undervoltage cutoff Threshold / delay time:****Overvoltage cutoff Threshold / delay time:****Mute delay time:****±Vcc span regulation @ 14.4 Volt:****Secondary voltages (Amp. / Bias / Pre.) @ 14.4 Volt:****Max output offset voltage (each channel):****Standby current @ 14.4 Volt:****Quiescent consumption @ 12.6 Volt / 14.4 Volt:****Idle current regulation @ 14.4 Volt (4 Ohm STEREO - no signal):****Quiescent consumption @ 12.6 Volt / 14.4 Volt:****Thermal protection consumption @ 14.4 Volt:****Battery ground vs secondary ground decoupling:****Body ground vs battery ground decoupling:****Bandwidth (-3dB ÷ 1 Watt) @ 14.4 Volt (4 Ohm STEREO):****Input sensitivity @ 14.4 Volt (4 Ohm STEREO) Power rating ref:****Input impedance @ 1 KHz (STEREO input):****Input capacitance @ 1 KHz (STEREO input):****Input ground decoupling:****S/N ratio (AP filter 10 Hz - 500 KHz) Power rating ref:****S/N ratio (AP filter 10 Hz - 22 KHz) Power rating ref:****Eq. Input noise (AP filter 10 Hz - 500 KHz):****Eq. Input noise (AP filter 10 Hz - 22 KHz):****Channel separation @ 100Hz / 1KHz / 10KHz Power rating ref:****Xover functions:****Filter slope - Filter "Q":****Thermal cutoff / recovery Threshold:****INTELLISPEED® start / stop / max force Threshold:****Regulated, PWM****52 KHz (± 6 %)****10 V ÷ 16 V****11 V ÷ 14.4 V****10 V / 60 secs.****16 V / 10 secs.****3 secs.****74 V****±37 V / ±3.6 V / ±14.7 V****±20 mV****< 1 mA (0.7 mA typ.)****0.79 A / 0.73 A (no idle current regulation)****0.15 A per channel****1.12 A / 1.03 A (with 0.3 A total idle current regulation)****0.9 A****R.C. network (22R \* 100n)****R.C. network (15R // 100n)****5 Hz ÷ 175 KHz****0.2 V ÷ 5.3 V (0.2 V ÷ 5 V declared)****10 KOhm****220 pF****R.C. network (15R // 100n)****91 dB****109 dB ("A" weighted)****5.64 uV****0.71 uV ("A" weighted)****101 dB / 89 dB / 68 dB****INPUT Passthrough;****HIGH Pass & LOW Pass (BAND Pass allowed)****(60÷80÷100÷120Hz & 60÷70÷80÷90Hz) or AQXM2 modules****12 dB/oct - 0.7/1.2 [HP] & 12 dB/oct - 0.7 [LP] (Stereo & Mono)****24 dB/oct - 0.7/1.2 [HP] & 24 dB/oct - 0.7 [LP] (Mono only)****90 / 70 °C****45 / 40 / 70 °C**

***The procedure must be effected without any input signal and any load!***

***The PCB must be mounted on heatsink!***

1. With the amplifier without any connection rotate anticlockwise each trimmer to the end point.
2. Connect the power supply to the amplifier. The input voltage must be **14,4V**. You must have a voltmeter and amperometer to input supply.
3. Switch on the amplifier using the remote input.
4. Wait about **20** sec then read the value of idle current using the amperometer. The standard value is **730 mA**.
5. Rotate clockwise the trimmers, one trimmer at time, to increase the iddle current of **150 mA** each trimmer. This procedure must be effected carefully, a fast rotation shall cause an amplifier instability causing a faulty.
6. At the end of the procedure the idle current must be **1.03 A**.

| IC'S      |         |              |           |                   |  |      |           |
|-----------|---------|--------------|-----------|-------------------|--|------|-----------|
| Code      | Ref.No. | Nomenclature | Selection | Power/Case        | Description                                | Volt | M.Factory |
| 837152732 | IC1     | NE5532       | DX        | SOP8              | Dual Low Noise Operational Amplifier       |      | Fairchild |
| 435114210 | IC2     | PCB          |           | 6 x 2.54 mm Pitch | Discrete Components Driver PN:435114210    |      | GT.       |
| 837150155 | IC3     | TL072        | CD        | SO8               | Low Noise J-FET Dual Operational Amplifier |      | ST        |
| 837140117 | IC4     | LM393        | D         | SO8               | Low Power Dual Voltage Comparator          |      | ST        |
| 838233060 | IC5     | PC357N4T     | D         | PC357NT           | General Purpose Photocoupler               |      | Sharp     |
| 435114210 | IC6     | PCB          |           | 6 x 2.54 mm Pitch | Discrete Components Driver PN:435114210    |      | GT.       |
| 837150159 | IC7     | TL074        | CD        | SO14              | Low Noise J-FET Quad Operational Amplifier |      | ST        |
| 837310113 | IC8     | L7805        | CP        | TO92              | 100mA Positive Voltage Regulator           | 5V   | ST        |
| 838233060 | IC9     | PC357N4T     | D         | PC357NT           | General Purpose Photocoupler               |      | Sharp     |
| 837340140 | IC10    | SG3525       | AP        | SO16              | Regulating Puls Width Modulator            |      | ST        |
| 837240170 | IC11    | ST7FLITE1    | 9F1M6     | SO20              | 8-BIT MCU                                  |      | ST        |
| 837353545 | IC13    | KIA431       | AF        | SOT89             | 800mW Programmable Precision References    | 37V  | KEC       |
| 838233060 | IC14    | PC357N4T     | D         | PC357NT           | General Purpose Photocoupler               |      | Sharp     |

## TRANSISTORS AND FETS

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                                | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|--|------|-----------|
| 836130454 | Q1      | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836512733 | Q2      | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512733 | Q3      | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512733 | Q4      | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512732 | Q5      | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836512732 | Q6      | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836512732 | Q7      | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836510113 | Q8      | STP80NF55-08 |           | TO220      | N Channel Mosfet Rds(on)=0.0065            | 55V  | ST        |
| 836510113 | Q9      | STP80NF55-08 |           | TO220      | N Channel Mosfet Rds(on)=0.0065            | 55V  | ST        |
| 836510113 | Q10     | STP80NF55-08 |           | TO220      | N Channel Mosfet Rds(on)=0.0065            | 55V  | ST        |
| 836510113 | Q11     | STP80NF55-08 |           | TO220      | N Channel Mosfet Rds(on)=0.0065            | 55V  | ST        |
| 836130453 | Q12     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836130454 | Q13     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836130454 | Q14     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836130453 | Q15     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836120207 | Q16     | BC550        | C         | TO92       | NPN Low Noise Transistor                   | 45V  | ON        |
| 836120208 | Q17     | BC560        | C         | TO92       | PNP Low Noise Transistor                   | 45V  | ON        |
| 836132769 | Q18     | BC857S       |           | SC70-6     | PNP General Purpose Double Transistor      | 45V  | Fairchild |
| 836130453 | Q19     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836132767 | Q20     | BC847S       |           | SC70-6     | NPN General Purpose Double Transistor      | 45V  | Fairchild |
| 836132959 | Q21     | BCP53        |           | SOT223     | PNP Medium Power Transistor                | 80V  | Siemens   |
| 836130454 | Q22     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836130454 | Q23     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836132767 | Q24     | BC847S       |           | SC70-6     | NPN General Purpose Double Transistor      | 45V  | Fairchild |
| 836130453 | Q25     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836130453 | Q26     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836132960 | Q27     | BCP56        |           | SOT223     | NPN Medium Power Transistor                | 80V  | Siemens   |
| 836132769 | Q28     | BC857S       |           | SC70-6     | PNP General Purpose Double Transistor      | 45V  | Fairchild |
| 836130453 | Q29     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836132767 | Q30     | BC847S       |           | SC70-6     | NPN General Purpose Double Transistor      | 45V  | Fairchild |
| 836120207 | Q31     | BC550        | C         | TO92       | NPN Low Noise Transistor                   | 45V  | ON        |
| 836120208 | Q32     | BC560        | C         | TO92       | PNP Low Noise Transistor                   | 45V  | ON        |
| 836130454 | Q33     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836130453 | Q34     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836133211 | Q35     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836133211 | Q36     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836133210 | Q37     | DTA143       | EKA       | SMT3       | PNP Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836130453 | Q38     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836130454 | Q39     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836132767 | Q40     | BC847S       |           | SC70-6     | NPN General Purpose Double Transistor      | 45V  | Fairchild |
| 836130453 | Q41     | BC850        | C         | SOT23      | NPN General Purpose Transistor             | 45V  | Philips   |
| 836133211 | Q42     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836133211 | Q43     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836133211 | Q44     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836130454 | Q45     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836120207 | Q46     | BC550        | C         | TO92       | NPN Low Noise Transistor                   | 45V  | ON        |
| 836512733 | Q47     | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512733 | Q48     | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512733 | Q49     | FQP22P10     | Classe 2  | TO220      | P Channel Mosfet Rds(on)=0.125             | 100V | Fairchild |
| 836512732 | Q50     | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836512732 | Q51     | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836512732 | Q52     | FQP33N10     | Classe 5  | TO220      | N Channel Mosfet Rds(on)=0.052             | 100V | Fairchild |
| 836212716 | Q53     | BD140        | 16        | TO126      | PNP Medium Power Transistor                | 80V  | Fairchild |
| 836130454 | Q54     | BC860        | C         | SOT23      | PNP General Purpose Transistor             | 45V  | Philips   |
| 836133211 | Q55     | DTC143       | EKA       | SMT3       | NPN Digital Transistor (Built-in Resistor) | 45V  | Rohm      |
| 836133210 | Q56     | DTA143       | EKA       | SMT3       | PNP Digital Transistor (Built-in Resistor) | 45V  | Rohm      |

## DIODES

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                             | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|---|------|-----------|
| 835342758 | D1      | FFPF20U20STU |           | TO220F     | 20A Ultra Fast Recovery Rectifier Diode | 200V | Fairchild |
| 835342758 | D2      | FFPF20U20STU |           | TO220F     | 20A Ultra Fast Recovery Rectifier Diode | 200V | Fairchild |
| 835342758 | D3      | FFPF20U20STU |           | TO220F     | 20A Ultra Fast Recovery Rectifier Diode | 200V | Fairchild |
| 835342758 | D4      | FFPF20U20STU |           | TO220F     | 20A Ultra Fast Recovery Rectifier Diode | 200V | Fairchild |
| 835130480 | D5      | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835130480 | D6      | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835130480 | D7      | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835130480 | D8      | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835130480 | D9      | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835130480 | D10     | BAS16        |           | SOT23      | 215mA High-Speed Diode                  | 75V  | Philips   |
| 835133160 | DD1     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array     | 70V  | Infineon  |
| 835133160 | DD2     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array     | 70V  | Infineon  |
| 835133160 | DD3     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array     | 70V  | Infineon  |

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                         | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|-------------------------------------|------|-----------|
| 835133160 | DD4     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array | 70V  | Infineon  |
| 835133160 | DD5     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array | 70V  | Infineon  |
| 835133160 | DD6     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array | 70V  | Infineon  |
| 835133160 | DD7     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array | 70V  | Infineon  |
| 835430483 | DZ1     | BZX84-C4V7   | C         | SOT23      | 250mW Voltage Regulator Diode       | 4V7  | Philips   |
| 835430488 | DZ2     | BZX84-C15    | C         | SOT23      | 250mW Voltage Regulator Diode       | 15V  | Philips   |
| 835430488 | DZ3     | BZX84-C15    | C         | SOT23      | 250mW Voltage Regulator Diode       | 15V  | Philips   |
| 835430483 | DZ4     | BZX84-C4V7   | C         | SOT23      | 250mW Voltage Regulator Diode       | 4V7  | Philips   |

**RESISTORS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case   | Description               | Volt | M.Factory |
|-----------|---------|--------------|-----------|--------------|---------------------------|------|-----------|
| 803611048 | R1      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R2      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R3      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R4      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R5      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R6      | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803610798 | R7      | 33R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803610798 | R8      | 33R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803610798 | R9      | 33R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803610798 | R10     | 33R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611935 | R11     | 390R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R12     | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614855 | R13     | 221K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R14     | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R15     | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611935 | R16     | 390R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R17     | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614855 | R18     | 221K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612135 | R19     | 590R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612145 | R20     | 604R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R21     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R22     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612145 | R23     | 604R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612105 | R24     | 560R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613195 | R25     | 5K9          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| N.C.      | R26     | N.C.         | N.C.      | 0805-1/8W    | Chip Resistor             |      |           |
| N.C.      | R27     | N.C.         | N.C.      | 0805-1/8W    | Chip Resistor             |      |           |
| 803613195 | R28     | 5K9          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612135 | R29     | 590R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614495 | R30     | 100K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R31     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R32     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R33     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R34     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 807170798 | R35     | 33R          | 5%        | 2W-Small     | Metal Oxide Film Resistor |      |           |
| 803612295 | R36     | 825R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611815 | R37     | 301R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612295 | R38     | 825R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 805761318 | R39     | 100R         | 5%        | 2010-1/2W    | Chip Resistor             |      |           |
| 804662558 | R40     | 1K5          | 5%        | 1206-1/4W    | Chip Resistor             |      |           |
| 804662558 | R41     | 1K5          | 5%        | 1206-1/4W    | Chip Resistor             |      |           |
| 803612105 | R42     | 560R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R43     | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614855 | R44     | 221K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R45     | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R46     | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614855 | R47     | 221K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| N.C.      | R48     | N.C.         | N.C.      | 0805-1/8W    | Chip Resistor             |      |           |
| 803612105 | R49     | 560R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613195 | R50     | 5K9          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612135 | R51     | 590R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614495 | R52     | 100K         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 808270008 | R53     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R54     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R55     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R56     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R57     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R58     | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 807170198 | R59     | 3R3          | 5%        | 2W-Small     | Metal Oxide Film Resistor |      |           |
| 803611048 | R60     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R61     | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613195 | R62     | 5K9          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614235 | R63     | 56K2         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| N.C.      | R64     | N.C.         | N.C.      | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R65     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R66     | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R67     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| N.C.      | R68     | N.C.         | N.C.      | 0805-1/8W    | Chip Resistor             |      |           |
| 803614235 | R69     | 56K2         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R70     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R71     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 807170798 | R72     | 33R          | 5%        | 2W-Small     | Metal Oxide Film Resistor |      |           |
| 805761318 | R73     | 100R         | 5%        | 2010-1/2W    | Chip Resistor             |      |           |
| 808171578 | R74     | 180R         | 5%        | 3W-Small     | Metal Oxide Film Resistor |      |           |
| 803612105 | R75     | 560R         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R76     | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R77     | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R78     | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613005 | R79     | 3K92         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description               | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|---------------------------|------|-----------|
| 807170438 | R80     | 15R          | 5%        | 2W-Small   | Metal Oxide Film Resistor |      |           |
| 803613745 | R81     | 20K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612375 | R82     | 1K           | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 805762828 | R83     | 2K7          | 5%        | 2010-1/2W  | Chip Resistor             |      |           |
| 803614325 | R84     | 68K1         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R85     | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613975 | R86     | 33K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612105 | R87     | 560R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612375 | R88     | 1K           | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R89     | N.C.         | N.C.      | 1/4W       | Carbon Film Resistor      |      |           |
| 803613975 | R90     | 33K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R91     | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614325 | R92     | 68K1         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R93     | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613005 | R94     | 3K92         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 808171578 | R95     | 180R         | 5%        | 3W-Small   | Metal Oxide Film Resistor |      |           |
| 807070608 | R96     | 22R          | 5%        | 2W         | Carbon Film Resistor      |      |           |
| 803612735 | R97     | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R98     | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 805762558 | R99     | 1K5          | 5%        | 2010-1/2W  | Chip Resistor             |      |           |
| 803614235 | R100    | 56K2         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R101    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R102    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R103    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R104    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R105    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803614235 | R106    | 56K2         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613005 | R107    | 3K92         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613195 | R108    | 5K9          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R109    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R110    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R111    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612105 | R112    | 560R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R113    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614855 | R114    | 221K         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613745 | R115    | 20K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613745 | R116    | 20K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614855 | R117    | 221K         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R118    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803612105 | R119    | 560R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612295 | R120    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 804662558 | R121    | 1K5          | 5%        | 1206-1/4W  | Chip Resistor             |      |           |
| 803611815 | R122    | 301R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 804662558 | R123    | 1K5          | 5%        | 1206-1/4W  | Chip Resistor             |      |           |
| 803612295 | R124    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R125    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R126    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R127    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R128    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R129    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612375 | R130    | 1K           | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612295 | R131    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R132    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612295 | R133    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R134    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614148 | R135    | 47K          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613618 | R136    | 15K          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R137    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R138    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R139    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803613295 | R140    | 7K32         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611318 | R141    | 100R         | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 805762558 | R142    | 1K5          | 5%        | 2010-1/2W  | Chip Resistor             |      |           |
| 805762828 | R143    | 2K7          | 5%        | 2010-1/2W  | Chip Resistor             |      |           |
| 803613745 | R144    | 20K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613085 | R145    | 4K7          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612375 | R146    | 1K           | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612375 | R147    | 1K           | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613355 | R148    | 8K25         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612605 | R149    | 1K69         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R150    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614195 | R151    | 52K3         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803614495 | R152    | 100K         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613005 | R153    | 3K92         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613195 | R154    | 5K9          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612135 | R155    | 590R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612145 | R156    | 604R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R157    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611048 | R158    | 56R          | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612145 | R159    | 604R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612105 | R160    | 560R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612295 | R161    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612295 | R162    | 825R         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611768 | R163    | 270R         | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803611768 | R164    | 270R         | 5%        | 0805-1/8W  | Chip Resistor             |      |           |
| N.C.      | R165    | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor             |      |           |
| 803613085 | R166    | 4K7          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613435 | R167    | 10K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803612735 | R168    | 2K21         | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613085 | R169    | 4K7          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |
| 803613745 | R170    | 20K          | 1%        | 0805-1/8W  | Chip Resistor             |      |           |



| Code      | Ref.No. | Nomenclature | Selection | Power/Case   | Description               | Volt | M.Factory |
|-----------|---------|--------------|-----------|--------------|---------------------------|------|-----------|
| 803614195 | R171    | 52K3         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R172    | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 808270008 | R173    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R174    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R175    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R176    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R177    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 808270008 | R178    | 0R05         | 5%        | KNP 3W-Small | Wire Wound Resistor       |      | Fong Ya   |
| 807170198 | R179    | 3R3          | 5%        | 2W-Small     | Metal Oxide Film Resistor |      |           |
| 803612375 | R180    | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R181    | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613355 | R182    | 8K25         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R183    | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R184    | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R185    | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R186    | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 805760138 | R187    | 1R           | 5%        | 2010-1/2W    | Chip Resistor             |      |           |
| 803614148 | R188    | 47K          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R189    | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612735 | R190    | 2K21         | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R191    | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613435 | R192    | 10K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 805761138 | R193    | 68R          | 5%        | 2010-1/2W    | Chip Resistor             |      |           |
| 803611048 | R194    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R195    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R196    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R197    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R198    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611048 | R199    | 56R          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803611318 | R200    | 100R         | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803612375 | R201    | 1K           | 1%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803614148 | R202    | 47K          | 5%        | 0805-1/8W    | Chip Resistor             |      |           |
| 803613745 | R203    | 20K          | 1%        | 0805-1/8W    | Chip Resistor             |      |           |

**POTENTIOMETERS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case   | Description   | Volt | M.Factory |
|-----------|---------|--------------|-----------|--------------|---|------|-----------|
| 819605035 | POT1    | POT-10K      | 5%        | 9 mm Dual    | Rotary Potentiometer With Metal Shaft COD:WH9011A-2-HL15-LB7-B10K |      | Xinze     |
| 818001359 | TRM1    | TRM-10K      | 20%       | 6 mm Snap In | Horizontal Mounting Trimmer COD:CA6V5                             |      | ACP       |
| N.C.      | TRM2    | N.C.         | N.C.      | 6 mm Snap In | Horizontal Mounting Trimmer                                       |      | N.C.      |
| 818001109 | TRM3    | TRM-220R     | 20%       | 6 mm Snap In | Horizontal Mounting Trimmer COD:CA6V5                             |      | ACP       |
| 818001359 | TRM4    | TRM-10K      | 20%       | 6 mm Snap In | Horizontal Mounting Trimmer COD:CA6V5                             |      | ACP       |

**CAPACITORS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case     | Description                      | Volt | M.Factory |
|-----------|---------|--------------|-----------|----------------|----------------------------------|------|-----------|
| 833053125 | C1      | 10u          | 85°       | D4 mm          | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823135529 | C2      | 220p         | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135529 | C3      | 220p         | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053125 | C4      | 10u          | 85°       | D4 mm          | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 833053337 | C5      | 100u         | 85°       | D6.3 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823135513 | C6      | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C7      | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C8      | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 828123244 | C9      | 2200u        | FC        | D12.5 / H25 mm | Aluminium Electrolytic Capacitor | 16V  | Panasonic |
| 823435561 | C10     | 100n         | X7R       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135519 | C11     | 33p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135519 | C12     | 33p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C13     | 100n         | X7R       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824673219 | C14     | 3n3          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 100V | TPC       |
| 824673216 | C15     | 1n8          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 100V | TPC       |
| 823135513 | C16     | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C17     | 100n         | X7R       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C18     | 100n         | X7R       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 828123244 | C19     | 2200u        | FC        | D12.5 / H25 mm | Aluminium Electrolytic Capacitor | 16V  | Panasonic |
| 833053337 | C20     | 100u         | 85°       | D6.3 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 824673219 | C21     | 3n3          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 100V | TPC       |
| 824673216 | C22     | 1n8          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 100V | TPC       |
| 823135513 | C23     | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C24     | 10p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824672241 | C25     | 220n         | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 833053125 | C26     | 10u          | 85°       | D4 mm          | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 833053125 | C27     | 10u          | 85°       | D4 mm          | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823135521 | C28     | 47p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| N.C.      | C29     | N.C.         | N.C.      | 0805           | Ceramic Chip Capacitor           | N.C. | N.C.      |
| 823135529 | C30     | 220p         | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| N.C.      | C31     | N.C.         | N.C.      | 0805           | Ceramic Chip Capacitor           | N.C. | N.C.      |
| 823135521 | C32     | 47p          | NP0       | 0805           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824672241 | C33     | 220n         | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 824672241 | C34     | 220n         | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 828123244 | C35     | 2200u        | FC        | D12.5 / H25 mm | Aluminium Electrolytic Capacitor | 16V  | Panasonic |
| 827262336 | C36     | 470u         | RE3       | D10 / H16 mm   | Aluminium Electrolytic Capacitor | 35V  | Elna      |
| 823437561 | C37     | 100n         | X7R       | 1210           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823437561 | C38     | 100n         | X7R       | 1210           | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824672237 | C39     | 100n         | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 824672227 | C40     | 15n          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 824672231 | C41     | 33n          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 824672231 | C42     | 33n          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 824672227 | C43     | 15n          | 5%        | Step 5 mm      | Polyester Film Capacitor         | 63V  | TPC       |
| 828374238 | C44     | 680u         | FC        | D16 / H25 mm   | Aluminium Electrolytic Capacitor | 63V  | Panasonic |
| 828374238 | C45     | 680u         | FC        | D16 / H25 mm   | Aluminium Electrolytic Capacitor | 63V  | Panasonic |

| Code      | Ref.No. | Nomenclature | Selection | Power/Case   | Description                      | Volt | M.Factory |
|-----------|---------|--------------|-----------|--------------|----------------------------------|------|-----------|
| 828374238 | C46     | 680u         | FC        | D16 / H25 mm | Aluminium Electrolytic Capacitor | 63V  | Panasonic |
| 823435561 | C47     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C48     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C49     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C50     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053337 | C51     | 100u         | 85°       | D6.3 mm      | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823435561 | C52     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| N.C.      | C53     | N.C.         | N.C.      | D4 mm        | Chip Type Electrolytic Capacitor | N.C. | N.C.      |
| 823435561 | C54     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C55     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135529 | C56     | 220p         | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C57     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C58     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 828374238 | C59     | 680u         | FC        | D16 / H25 mm | Aluminium Electrolytic Capacitor | 63V  | Panasonic |
| 828374238 | C60     | 680u         | FC        | D16 / H25 mm | Aluminium Electrolytic Capacitor | 63V  | Panasonic |
| 828374238 | C61     | 680u         | FC        | D16 / H25 mm | Aluminium Electrolytic Capacitor | 63V  | Panasonic |
| 827262336 | C62     | 470u         | RE3       | D10 / H16 mm | Aluminium Electrolytic Capacitor | 35V  | Elna      |
| 823135521 | C63     | 47p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| N.C.      | C64     | N.C.         | N.C.      | 0805         | Ceramic Chip Capacitor           | N.C. | N.C.      |
| 833053125 | C65     | 10u          | 85°       | D4 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823135529 | C66     | 220p         | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053125 | C67     | 10u          | 85°       | D4 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| N.C.      | C68     | N.C.         | N.C.      | 0805         | Ceramic Chip Capacitor           | N.C. | N.C.      |
| 823135521 | C69     | 47p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C70     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C71     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824672241 | C72     | 220n         | 5%        | Step 5 mm    | Polyester Film Capacitor         | 63V  | TPC       |
| 823435561 | C73     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C74     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C75     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824672229 | C76     | 22n          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 63V  | TPC       |
| 824672229 | C77     | 22n          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 63V  | TPC       |
| 823435561 | C78     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C79     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135519 | C80     | 33p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135519 | C81     | 33p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053125 | C82     | 10u          | 85°       | D4 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823135513 | C83     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C84     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135513 | C85     | 10p          | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C86     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C87     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C88     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C89     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C90     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C91     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435553 | C92     | 22n          | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824673216 | C93     | 1n8          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 100V | TPC       |
| 823135525 | C94     | 100p         | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053337 | C95     | 100u         | 85°       | D6.3 mm      | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 824672229 | C96     | 22n          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 63V  | TPC       |
| 824672229 | C97     | 22n          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 63V  | TPC       |
| 823435561 | C98     | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435549 | C99     | 10n          | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C100    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053125 | C101    | 10u          | 85°       | D4 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 833053337 | C102    | 100u         | 85°       | D6.3 mm      | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823435561 | C103    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C104    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053337 | C105    | 100u         | 85°       | D6.3 mm      | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823435549 | C106    | 10n          | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 833053125 | C107    | 10u          | 85°       | D4 mm        | Chip Type Electrolytic Capacitor | 16V  | NIC       |
| 823435561 | C108    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C109    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823435561 | C110    | 100n         | X7R       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 823135529 | C111    | 220p         | NP0       | 0805         | Ceramic Chip Capacitor           | 50V  | AVX       |
| 824673217 | C112    | 2n2          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 100V | TPC       |
| 824673217 | C113    | 2n2          | 5%        | Step 5 mm    | Polyester Film Capacitor         | 100V | TPC       |

**MISCELLANEOUS**

| Code      | Ref.No. | Nomenclature         | Selection | Power/Case            | Description  | Volt | M.Factory |
|-----------|---------|----------------------|-----------|-----------------------|--|------|-----------|
| 842151600 | BSB1    | Bus Bar              | Copper    | 20x20 mm              | Gold Plated Bus Bar                                  |      | G.T.      |
| 842151600 | BSB2    | Bus Bar              | Copper    | 20x20 mm              | Gold Plated Bus Bar                                  |      | G.T.      |
| 843060533 | CON1    | EH 25 W-02           |           | 2 x 2.50 mm Pitch     | Board to Wire Crimp Style Connector COD:ITL12602     |      | Adimpex   |
| 843230527 | CON2    | A-TS-1611-6P6C-G15-G |           | 6P6C                  | Low Profile Type Modular Jack COD:FP155966           |      | Adimpex   |
| 843030550 | CON3    | APS2.54-DRB6-10+10-G |           | 10+10 x 2.54 mm Pitch | Right Angle Pin Header Strips Connector COD:IS008820 |      | Adimpex   |
| 843010520 | CON4    | AFH2.54-DS-10+10-G   |           | 10+10 x 2.54 mm Pitch | Female Header Connector COD:IS006220                 |      | Adimpex   |
| 843030550 | CON5    | APS2.54-DRB6-10+10-G |           | 10+10 x 2.54 mm Pitch | Right Angle Pin Header Strips Connector COD:IS008820 |      | Adimpex   |
| 843010501 | CON6    | AFH2.54-SS-6-G       |           | 6 x 2.54 mm Pitch     | Female Header Connector COD:IS006006                 |      | Adimpex   |
| 843060533 | CON7    | EH 25 W-02           |           | 2 x 2.50 mm Pitch     | Board to Wire Crimp Style Connector COD:ITL12602     |      | Adimpex   |
| 843230525 | CON8    | A-TS-1611-4P4C-G15-G |           | 4P4C                  | Low Profile Type Modular Jack COD:FP155944           |      | Adimpex   |
| 864005201 | For D1  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 864005201 | For D1  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 839205705 | For D1  | Ferrite Tube         | K5A       | 4 x 2 x 6             | Cylindrical EMI Suppression                          |      | Core-Tech |
| 864005201 | For D2  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 864005201 | For D2  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 839205705 | For D2  | Ferrite Tube         | K5A       | 4 x 2 x 6             | Cylindrical EMI Suppression                          |      | Core-Tech |
| 864005201 | For D3  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 864005201 | For D3  | Spacer               |           | D0.5 / H9 mm          | Sterling Spacer                                      |      | G.T.      |
| 839205705 | For D3  | Ferrite Tube         | K5A       | 4 x 2 x 6             | Cylindrical EMI Suppression                          |      | Core-Tech |

| Code      | Ref.No. | Nomenclature    | Selection     | Power/Case            | Description   | Volt | M.Factory  |
|-----------|---------|-----------------|---------------|-----------------------|---|------|------------|
| 864005201 | For D4  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For D4  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 839205705 | For D4  | Ferrite Tube    | K5A           | 4 x 2 x 6             | Cylindrical EMI Suppression                                 |      | Core-Tech  |
| 843460037 | FST1    | Faston          |               | 2.8 mm                | Right Angle Tongue Lug for PCB COD:FB121                    |      | Mi comp    |
| 841014002 | IND1    | Inductor        |               | T29/19/7.49 + T132-26 | Dual Toroidal Core Coil COD:841014002                       |      | G.T.       |
| 843030502 | JMP1    | APS2.54-SS6-2-G |               | 2 x 2.54 mm Pitch     | Pin Header Strip Connector COD:IS008002                     |      | Adimpex    |
| 843030502 | JMP2    | APS2.54-SS6-2-G |               | 2 x 2.54 mm Pitch     | Pin Header Strip Connector COD:IS008002                     |      | Adimpex    |
| 838013236 | LD1     | L-1034-ID       |               | D2 mm                 | High Efficiency Red Top Flat Circular Type LED COD:OL001440 |      | Adimpex    |
| 864005301 | For LD1 | Spacer          |               | D0.5 / H14 mm         | Sterling Spacer   |      | G.T.       |
| 864005301 | For LD1 | Spacer          |               | D0.5 / H14 mm         | Sterling Spacer   |      | G.T.       |
| 838013235 | LD2     | L-1034-GD       |               | D2 mm                 | Super Bright Green Top Flat Circular Type LED COD:OL001450  |      | Adimpex    |
| 864005301 | For LD2 | Spacer          |               | D0.5 / H14 mm         | Sterling Spacer   |      | G.T.       |
| 864005301 | For LD2 | Spacer          |               | D0.5 / H14 mm         | Sterling Spacer   |      | G.T.       |
| N.C.      | NTC1    | N.C.            |               | Step 2.5 mm           | NTC Bead  |      | N.C.       |
| 817129395 | NTC2    | NTC-20K         | 5%            | 1206                  | Rectangular Chip Thermistors COD:NSM1203J400J               |      | HDK        |
| 817129395 | NTC3    | NTC-20K         | 5%            | 1206                  | Rectangular Chip Thermistors COD:NSM1203J400J               |      | HDK        |
| N.C.      | NTC4    | N.C.            |               | Step 2.5 mm           | NTC Bead  |      | N.C.       |
| 872400840 | For Q2  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q3  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q4  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q5  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q6  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q7  | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 864005201 | For Q8  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For Q8  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 839205705 | For Q8  | Ferrite Tube    | K5A           | 4 x 2 x 6             | Cylindrical EMI Suppression                                 |      | Core-Tech  |
| 864005201 | For Q9  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For Q9  | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 839205705 | For Q9  | Ferrite Tube    | K5A           | 4 x 2 x 6             | Cylindrical EMI Suppression                                 |      | Core-Tech  |
| 864005201 | For Q10 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For Q10 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 839205705 | For Q10 | Ferrite Tube    | K5A           | 4 x 2 x 6             | Cylindrical EMI Suppression                                 |      | Core-Tech  |
| 864005201 | For Q11 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For Q11 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 839205705 | For Q11 | Ferrite Tube    | K5A           | 4 x 2 x 6             | Cylindrical EMI Suppression                                 |      | Core-Tech  |
| 872400840 | For Q47 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q48 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q49 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q50 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q51 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 872400840 | For Q52 | Spacer          |               | H8.5 mm               | ABS Spacer  |      | G.T.       |
| 864005201 | For Q53 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 864005201 | For Q53 | Spacer          |               | D0.5 / H9 mm          | Sterling Spacer   |      | G.T.       |
| 844361510 | SW1     | PS-22D07L       | NS-Self Lock  |                       | 2P2T Push Switch  |      | See-Plus   |
| 843802510 | TB1     | JSZ2F-13        | Black Plastic | 2 Poles               | Barrier Terminal Block                                      |      | Song Cheng |
| 843822510 | TB2     | JSZ4-11         | Black Plastic | 4 Poles               | Barrier Terminal Block                                      |      | Song Cheng |
| 840013087 | TRF1    | Transformer     |               | T37/22/15 Acme        | Toroidal Core Transformer COD:840013087                     |      | G.T.       |
| 860210100 | W1      | Wire            |               | L100 mm               | AWG24 with Crimp Style Wire Eyelet Connector COD:860210100  |      | G.T.       |

**RESISTORS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description               | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|---------------------------|------|-----------|
| 807170438 | R1      | 15R          | 5%        | 2W-Small   | Metal Oxide Film Resistor |      |           |
| 807170438 | R2      | 15R          | 5%        | 2W-Small   | Metal Oxide Film Resistor |      |           |
| 816042675 | RN1     | 330K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042675 | RN2     | 330K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042645 | RN3     | 180K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042875 | RN4     | 91K          | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042635 | RN5     | 150K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042615 | RN6     | 100K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042625 | RN7     | 120K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042865 | RN8     | 75K          | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042645 | RN9     | 180K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |
| 816042625 | RN10    | 120K         | 2%        | 4608X-102  | Resistor Network          |      | Bourns    |

**CAPACITORS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                         | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|-------------------------------------|------|-----------|
| 823432461 | C1      | 100n         | X7R       | Step 5 mm  | Multilayer Ceramic Leaded Capacitor | 50V  |           |
| 823432461 | C2      | 100n         | X7R       | Step 5 mm  | Multilayer Ceramic Leaded Capacitor | 50V  |           |

**MISCELLANEOUS**

| Code      | Ref.No. | Nomenclature       | Selection    | Power/Case            | Description                          | Volt | M.Factory |
|-----------|---------|--------------------|--------------|-----------------------|--------------------------------------|------|-----------|
| 843010502 | AQXM1   | AFH2.54-SS-8-G     |              | 8 x 2.54 mm Pitch     | Female Header Connector COD:IS006008 |      | Adimpex   |
| 843010502 | AQXM2   | AFH2.54-SS-8-G     |              | 8 x 2.54 mm Pitch     | Female Header Connector COD:IS006008 |      | Adimpex   |
| 843010520 | CON1    | AFH2.54-DS-10+10-G |              | 10+10 x 2.54 mm Pitch | Female Header Connector COD:IS006220 |      | Adimpex   |
| 843010520 | CON2    | AFH2.54-DS-10+10-G |              | 10+10 x 2.54 mm Pitch | Female Header Connector COD:IS006220 |      | Adimpex   |
| 843602505 | RCA1    | RCA Jack           |              |                       | RCA Jack COD:AV2-8.4-20B             |      | SongCheng |
| 843602505 | RCA2    | RCA Jack           |              |                       | RCA Jack COD:AV2-8.4-20B             |      | SongCheng |
| 844361510 | SW1     | PS-22D07L          | NS-Self Lock |                       | 2P2T Push Switch                     |      | See-Plus  |
| 844362810 | SW2     | PS-42D07L          | NS-Self Lock |                       | 4P2T Push Switch                     |      | See-Plus  |
| 844361510 | SW3     | PS-22D07L          | NS-Self Lock |                       | 2P2T Push Switch                     |      | See-Plus  |
| 844362810 | SW4     | PS-42D07L          | NS-Self Lock |                       | 4P2T Push Switch                     |      | See-Plus  |
| 844361510 | SW5     | PS-22D07L          | NS-Self Lock |                       | 2P2T Push Switch                     |      | See-Plus  |
| 844013010 | SW6     | SS-44D04-G6        |              |                       | 4P4T Slide Switch                    |      | See-Plus  |
| 844361510 | SW7     | PS-22D07L          | NS-Self Lock |                       | 2P2T Push Switch                     |      | See-Plus  |
| 844013010 | SW8     | SS-44D04-G6        |              |                       | 4P4T Slide Switch                    |      | See-Plus  |
| 844362810 | SW9     | PS-42D07L          | NS-Self Lock |                       | 4P2T Push Switch                     |      | See-Plus  |

**TRANSISTORS AND FETS**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                           | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|---------------------------------------|------|-----------|
| 836132769 | Q1      | BC857S       |           | SC70-6     | PNP General Purpose Double Transistor | 45V  | Fairchild |
| 836130252 | Q2      | BC856        | B         | SOT23      | PNP General Purpose Transistor        | 65V  | ON        |
| 836130454 | Q3      | BC860        | C         | SOT23      | PNP General Purpose Transistor        | 45V  | Philips   |
| 836130453 | Q4      | BC850        | C         | SOT23      | NPN General Purpose Transistor        | 45V  | Philips   |
| 836130453 | Q5      | BC850        | C         | SOT23      | NPN General Purpose Transistor        | 45V  | Philips   |
| 836130453 | Q6      | BC850        | C         | SOT23      | NPN General Purpose Transistor        | 45V  | Philips   |
| 836132767 | Q7      | BC847S       |           | SC70-6     | NPN General Purpose Double Transistor | 45V  | Fairchild |
| 836130251 | Q8      | BC846        | B         | SOT23      | NPN General Purpose Transistor        | 65V  | ON        |
| 836130453 | Q9      | BC850        | C         | SOT23      | NPN General Purpose Transistor        | 45V  | Philips   |
| 836130454 | Q10     | BC860        | C         | SOT23      | PNP General Purpose Transistor        | 45V  | Philips   |
| 836130454 | Q11     | BC860        | C         | SOT23      | PNP General Purpose Transistor        | 45V  | Philips   |
| 836130454 | Q12     | BC860        | C         | SOT23      | PNP General Purpose Transistor        | 45V  | Philips   |

**DIODES**

| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description                         | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|-------------------------------------|------|-----------|
| 835133160 | DD1     | BAV99        |           | SOT23      | 200mA Silicon Switching Diode Array | 70V  | Infineon  |

**RESISTORS**

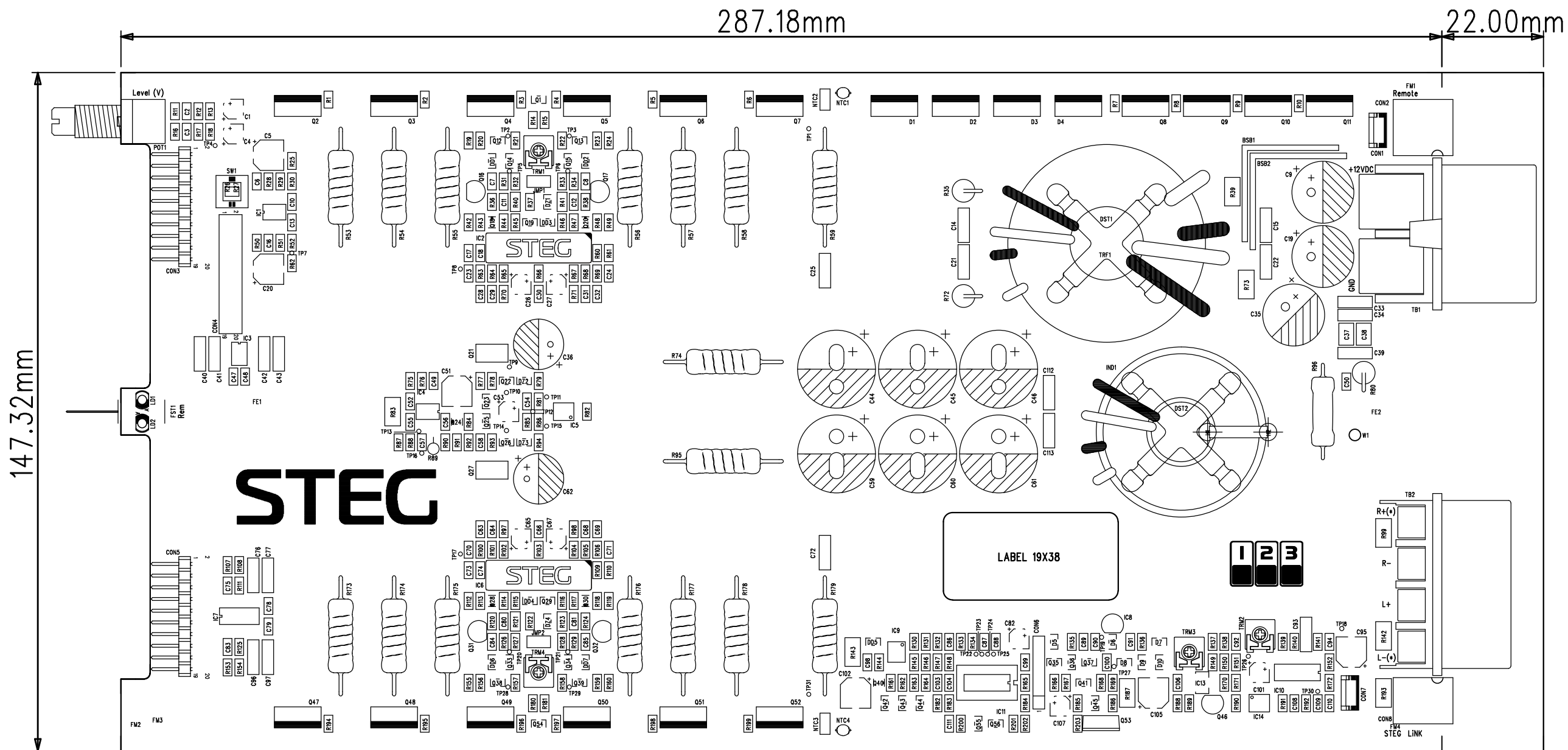
| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description   | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|---------------|------|-----------|
| 803612555 | R1      | 1K5          | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| N.C.      | R2      | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor |      |           |
| 803611935 | R3      | 390R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| N.C.      | R4      | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor |      |           |
| N.C.      | R5      | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor |      |           |
| 803612555 | R6      | 1K5          | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R7      | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803612375 | R8      | 1K           | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803610518 | R9      | 18R          | 5%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R10     | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R11     | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803613095 | R12     | 4K75         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803612555 | R13     | 1K5          | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| N.C.      | R14     | N.C.         | N.C.      | 0805-1/8W  | Chip Resistor |      |           |
| 803611935 | R15     | 390R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803612555 | R16     | 1K5          | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R17     | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803612375 | R18     | 1K           | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R19     | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803610518 | R20     | 18R          | 5%        | 0805-1/8W  | Chip Resistor |      |           |
| 803611315 | R21     | 100R         | 1%        | 0805-1/8W  | Chip Resistor |      |           |
| 803613095 | R22     | 4K75         | 1%        | 0805-1/8W  | Chip Resistor |      |           |


**CAPACITORS**

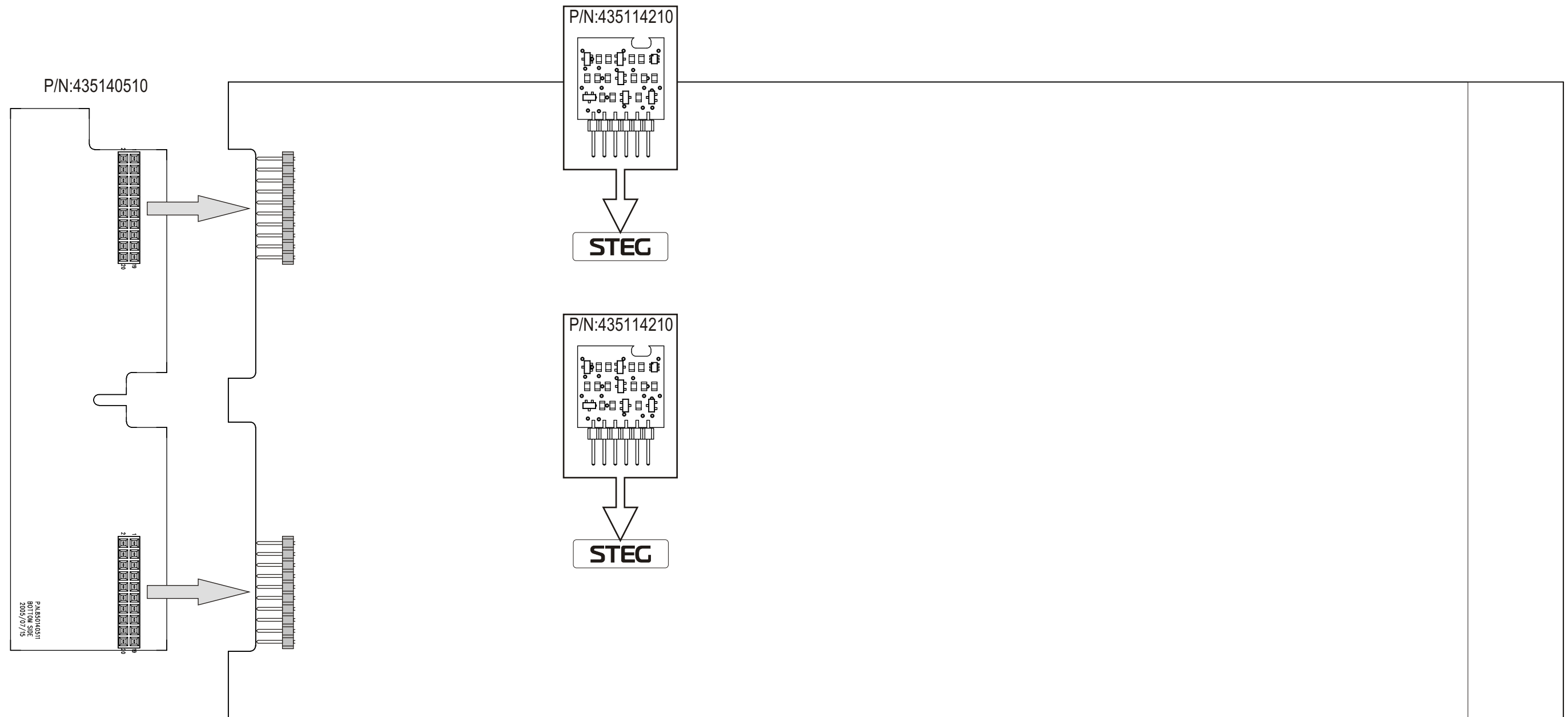
| Code      | Ref.No. | Nomenclature | Selection | Power/Case | Description            | Volt | M.Factory |
|-----------|---------|--------------|-----------|------------|------------------------|------|-----------|
| 823135513 | C1      | 10p          | NP0       | 0805       | Ceramic Chip Capacitor | 50V  | AVX       |
| 823435561 | C2      | 100n         | X7R       | 0805       | Ceramic Chip Capacitor | 50V  | AVX       |
| 823435561 | C3      | 100n         | X7R       | 0805       | Ceramic Chip Capacitor | 50V  | AVX       |
| 823135513 | C4      | 10p          | NP0       | 0805       | Ceramic Chip Capacitor | 50V  | AVX       |
| 823435561 | C5      | 100n         | X7R       | 0805       | Ceramic Chip Capacitor | 50V  | AVX       |


**MISCELLANEOUS**

| Code      | Ref.No. | Nomenclature     | Selection | Power/Case        | Description  | Volt | M.Factory |
|-----------|---------|------------------|-----------|-------------------|--|------|-----------|
| 843030536 | J1      | APS2.54-SRB6-6-G |           | 6 x 2.54 mm Pitch | Right Angle Pin Header Strips Connector COD:IS008606 |      | Adimpex   |



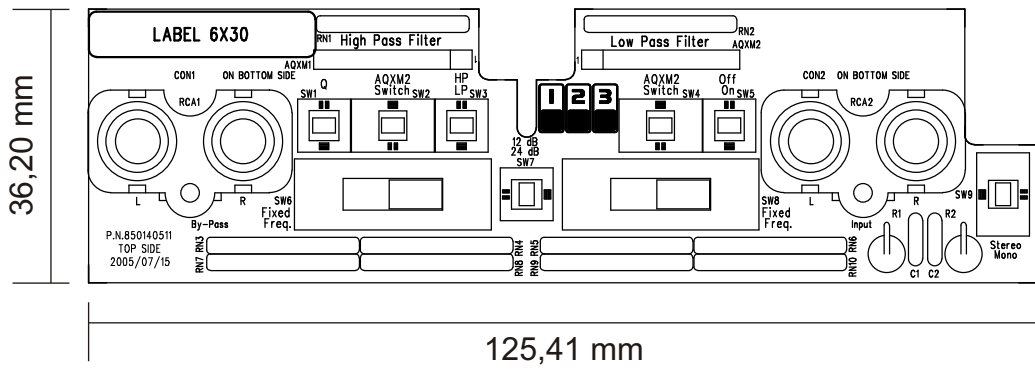
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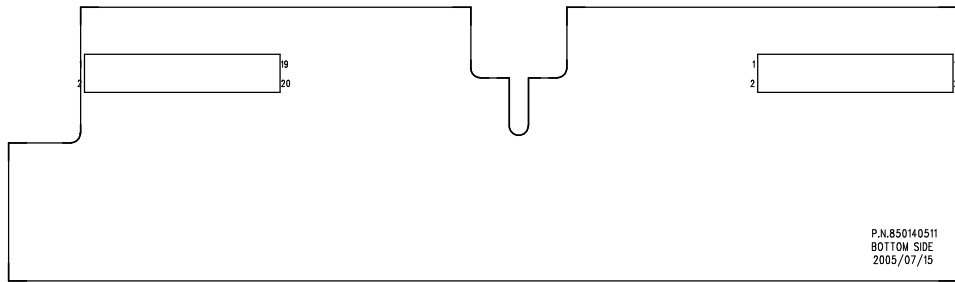
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|   |             | Codice :<br>Part Number : 850143020   | Foglio: 1 Di 1<br>Sheet: Of                  |                       |                      |
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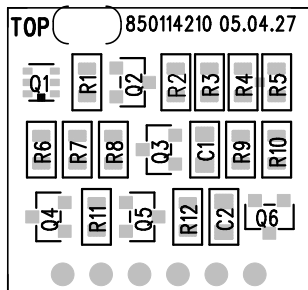
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SIDE



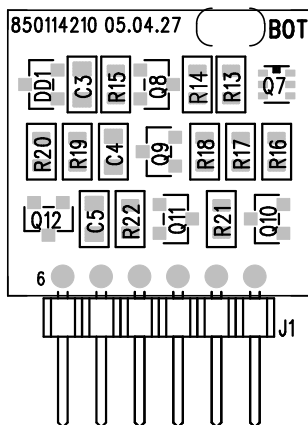
BOTTOM  
SIDE

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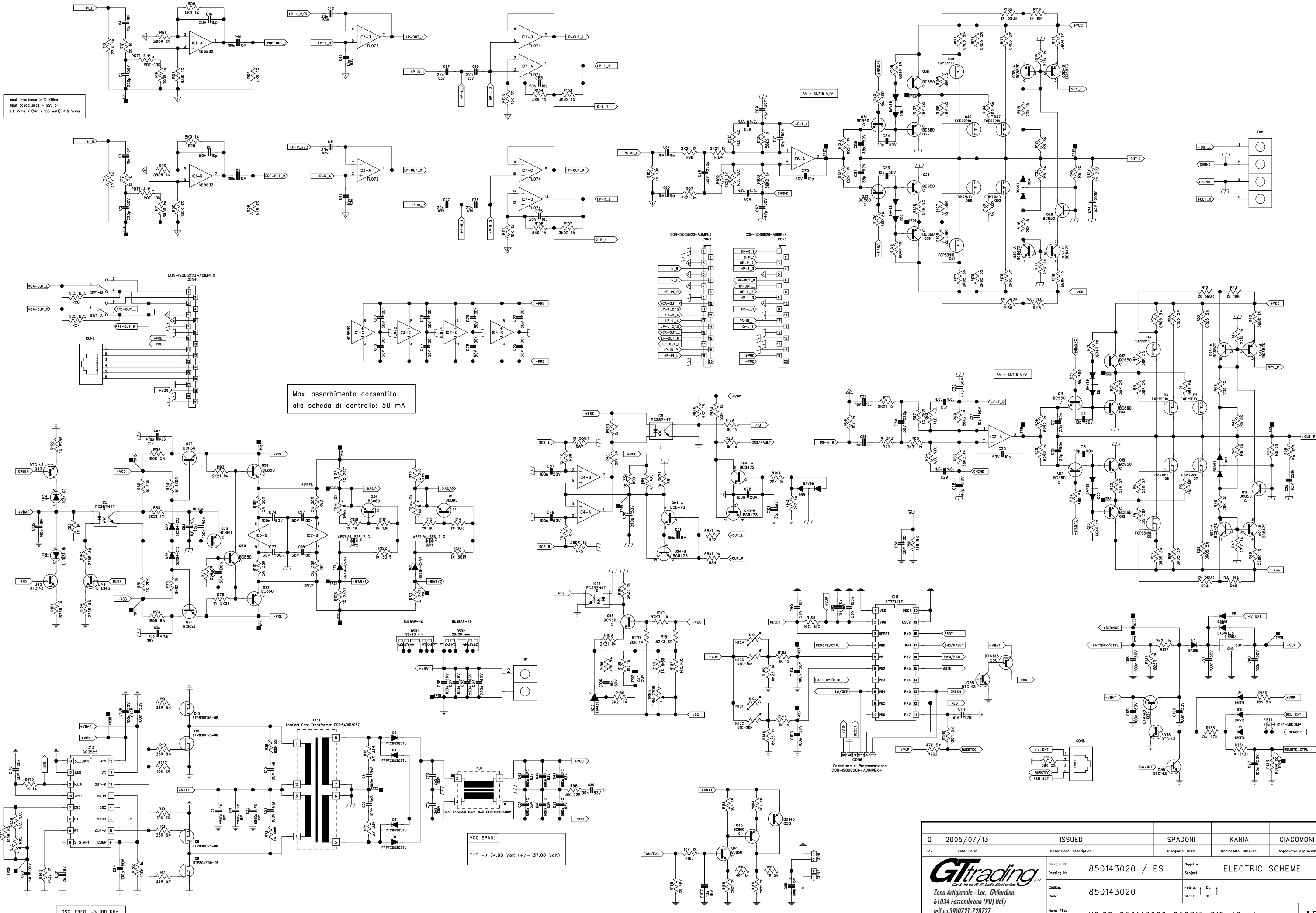
TOP  
SIDE



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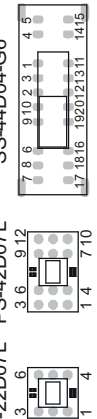
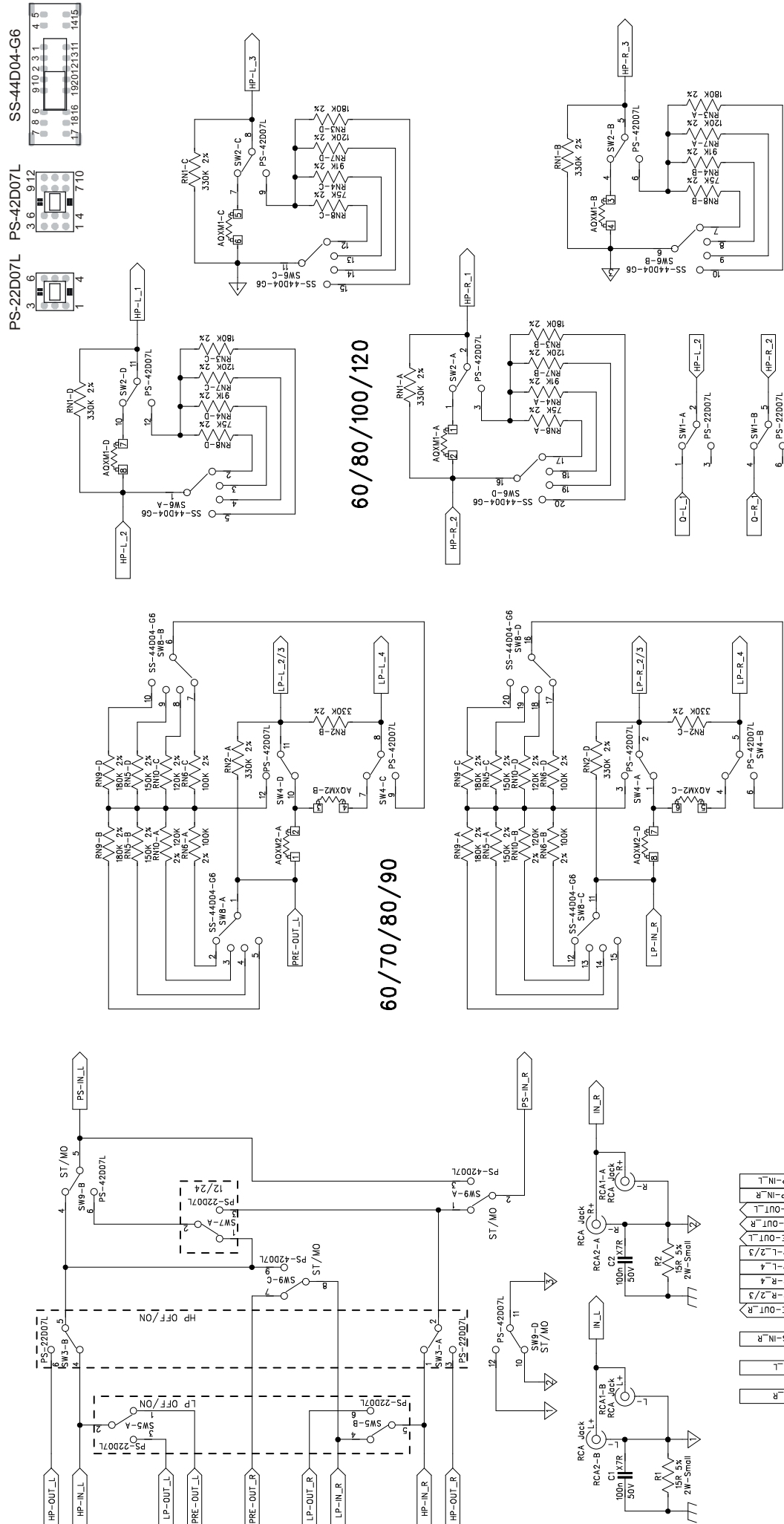
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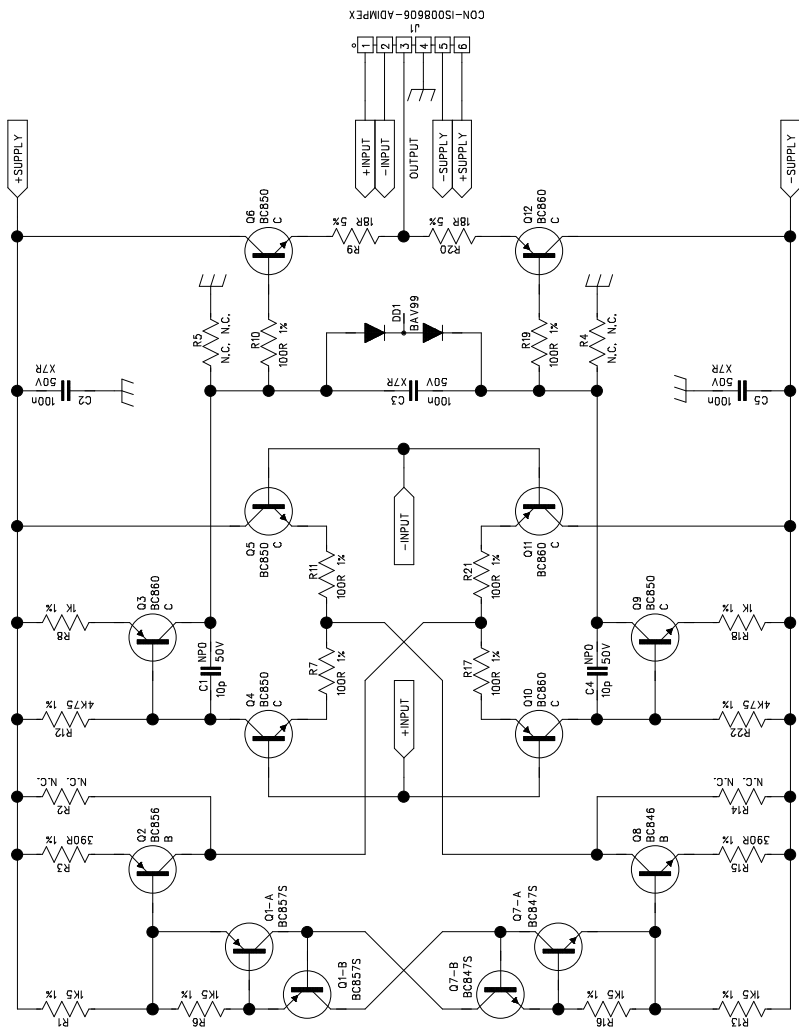
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