

**Bill of Materials for the STK433-130NGEVB Evaluation Board**



| Designator                           | Quantity | Description   | Value           | Tolerance | Footprint    | Manufacturer        | Manufacturer Part Number | Substitution Allowed | Lead Free |
|--------------------------------------|----------|---|-----------------|-----------|--------------|---------------------|--------------------------|----------------------|-----------|
| R01                                  | 1        | Resistance for Ripple filter. (Fuse resistance is recommended. Ripple filter is constituted with C03, C23.)         | 100Ω/1W         | ± 5%      | Through-hole | PANASONIC           | ERG-1SJ101               | Yes                  | Yes       |
| R02,R03                              | 2        | Resistance for input filters.   | 1kΩ, 1/6W       | -         | Through-hole | AKAHANE ELECTRONICS | RN16S102FK               | Yes                  | Yes       |
| R04                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R05,R06                              | 2        | Input impedance is determined.  | 56kΩ, 1/6W      | -         | Through-hole | AKAHANE ELECTRONICS | RN16S563FK               | Yes                  | Yes       |
| R08,R09                              | 2        | Voltage Gain(VG) is determined with R11,R12,R13   | 56kΩ, 1/6W      | -         | Through-hole | AKAHANE ELECTRONICS | RN16S563FK               | Yes                  | Yes       |
| R07, R10                             | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R11,R12                              | 2        | Voltage Gain(VG) is determined with R8,R9,R10 (As for VG, it is desirable to set up by R11,R12,R13)                 | 1.8kΩ, 1/6W     | -         | Through-hole | AKAHANE ELECTRONICS | RN16S182FK               | Yes                  | Yes       |
| R13                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R14,R15                              | 2        | Resistance for oscillation prevention.  | 4.7Ω, 1/4W      | -         | Through-hole | AKAHANE ELECTRONICS | RN14S4R7FK               | Yes                  | Yes       |
| R16                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R17,R18                              | 2        | Resistance for oscillation prevention.  | 4.7Ω, 1W        | -         | Through-hole | PANASONIC           | ERX1SJ4R7                | Yes                  | Yes       |
| R19                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R20,R21                              | 2        | This resistance is used as detection resistance of the protection circuit application.                              | 0.22Ω, 2W       | -         | Through-hole | PANASONIC           | ERX2SJR22                | Yes                  | Yes       |
| R22                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| R30                                  | 1        | Select Restriction resistance, for the impression voltage of '#17(Stand-By)pin' must not exceed the maximum rating. | 2.7kΩ, 1/6W     | -         | Through-hole | AKAHANE ELECTRONICS | RN16S272FK               | Yes                  | Yes       |
| R31                                  | 1        | Standby Control Circuit Resistor  | 33kΩ, 1/6W      | -         | Through-hole | AKAHANE ELECTRONICS | RN16S333FK               | Yes                  | Yes       |
| R32                                  | 1        | Standby Control Circuit Resistor  | 1kΩ, 1/6W       | -         | Through-hole | AKAHANE ELECTRONICS | RN16S102FK               | Yes                  | Yes       |
| R33                                  | 1        | Standby Control Circuit Resistor  | 2kΩ, 1/6W       | -         | Through-hole | AKAHANE ELECTRONICS | RN16S202FK               | Yes                  | Yes       |
| R34,R35                              | 2        | Shorted wire  | -               | -         | Through-hole | -                   | -                        | Yes                  | Yes       |
| R36                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C01,C02                              | 2        | Capacitor for oscillation prevention.   | 100μF, 100V     | -         | Through-hole | SUN ELECTRONIC      | 100ME100HC               | Yes                  | Yes       |
| C03,C23                              | 2        | Decoupling capacitor.   | 100μF, 100V     | -         | -            | SUN ELECTRONIC      | 100ME100HC               | Yes                  | Yes       |
| C04,C05                              | 2        | Input coupling capacitor. (for DC current prevention.)  | 2.2μF, 50V      | -         | Through-hole | SUN ELECTRONIC      | 50ME2R2HC                | Yes                  | Yes       |
| C06                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C07,C08                              | 2        | Input filter capacitor.   | -               | -         | Through-hole | MURATA              | RPE2C1H471J2K1A01B       | Yes                  | Yes       |
| C09                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C10,C11                              | 2        | Capacitor for oscillation prevention.   | 3pF, 50V        | -         | Through-hole | MURATA              | RPE3C1H3R0C2K1B01B       | Yes                  | Yes       |
| C12                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C13,C14                              | 2        | Negative feedback capacitor.  | 10μF, 10V       | -         | Through-hole | SUN ELECTRONIC      | 16ME10HC                 | Yes                  | Yes       |
| C15                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C16,C17                              | 2        | Capacitor for oscillation prevention.   | 0.1μF, 50V      | -         | Through-hole | PANASONIC           | ECQV1H104JL              | Yes                  | Yes       |
| C18                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| C19,C20,C21                          | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| L01,L02                              | 2        | Coil for oscillation prevention.  | 3μH             | -         | Through-hole | KORIN ELECTRONICS   | PN-8112-00               | Yes                  | Yes       |
| L03                                  | 0        | Do Not Populate   | -               | -         | -            | -                   | -                        | Yes                  | Yes       |
| Tr1                                  | 1        | Standby Control Circuit Bip Transistor  | Vce≥75V, Ic≥1mA | -         | Through-hole | ON SEMICONDUCTOR    | 2SC3332                  | No                   | Yes       |
| D1                                   | 1        | Standby Control Circuit Diode   | -               | -         | Through-hole | ON SEMICONDUCTOR    | DS135AD                  | No                   | Yes       |
| C32                                  | 1        | Standby Control Circuit Capacitor   | 33μF, 10V       | -         | Through-hole | SUN ELECTRONIC      | 10ME33HC                 | Yes                  | Yes       |
| J1,J2,J3,J4,J5,J6,J8,J9              | 8        | Shorted wire  | -               | -         | Through-hole | -                   | -                        | Yes                  | Yes       |
| J7,JS2,JS3,JS4,JS5,JS7,JS8,JS9, JS10 | 0        | Do Not Populate   | -               | -         | Through-hole | -                   | -                        | Yes                  | Yes       |
| JS6                                  | 1        | Shorted wire  | -               | -         | Through-hole | -                   | -                        | Yes                  | Yes       |
| JS1                                  | 1        | Resistor  | 100Ω, 1W        | -         | Through-hole | PANASONIC           | ERG-1SJ101               | Yes                  | Yes       |
| ①                                    | 1        | Hybrid IC#1 Pin Position  | -               | -         | Through-hole | SANYO               | STK433-130               | No                   | Yes       |