

Bill of Materials

| TI DESIGNS | | | | | | | | | |
|------------|--|-------------------------|--------------------|--|--------------------------|---------------------------|--------------|------------|---------|
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| | RevCode = 1.0A | | | | | | | | |
| | Title = AM437x Low Power LPDDR2 Implementation | | tion | | | | | | |
| | | | | | | | | | |
| Item Numb | Quantity | Part Reference | Value | DescriptiveText | Mfr | MfrNum | TIIntPartnu | Vendor | Version |
| 1 | 1 | BT1 | BH600SM | Coin battery CR1632 Holder | Memory Protection Devi | BH600SM-G | 1P0006 | Digikey | |
| 2 | 2 | C1 C2 | 24pF | Capacitor 24pF 50V 5% 0402 | Yageo | CC0402JRNPO9BN240 | 1C0128 | Digikey | |
| 3 | 0 | C3 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 4 | 3 | C4 C5 C81 | 1uF | Capacitor 1uF 10V Ceramic 10% 0402 | AVX | 0402ZD105KAT2A | 1C0084 | Digikey | |
| 5 | 4 | C69 C70 C95 C97 | 0.1uF | Capacitor 0.1uF 16V 10% 0402 X7R | Kemet | C0402C104K4RACT | 1C0089 | Digikey | |
| 6 | 8 | C71 C84 C87 C88 C89 C90 | 10uF | Capacitor 10uF 16V 10% Ceramic 0805 | AVX | 0805YD106KAT2A | 1C0085 | Digikey | |
| 7 | 2 | C72 C74 | 100uF | Capacitor 100uF 16V Polymer 20% smd can | United Chemicon | APXE160ARA101MH70G | | Digikey | |
| 8 | 3 | C73 C418 C419 | 1uF | Capacitor 1uF 50V 10% Ceramic 0603 | Taiyo Yuden | UMK107BJ105KA-T | 1C0114 | Digikey | |
| 9 | 8 | C76 C77 C78 C80 C83 C85 | 4.7uF | Capacitor Ceramic 4.7uF 16V 10% 0603 | Taiyo Yuden | EMK107ABJ475KA-T | 1C0103 | Digikey | |
| 10 | 2 | C79 C82 | 22uF | Capacitor 22uF 6.3V 20% Ceramic 0603 | TDK | C1608X5R0J226M080AC | 1C0140 | Digikey | |
| 11 | 1 | C92 | 2.2uF | Capacitor 2.2uF Ceramic, 6.3V, X5R, 20% | Taiyo Yuden | JMK105BJ225MV-F | 1C0091 | Digikey | |
| 12 | 6 | C93 C94 C101 C106 C113 | 22uF | Capacitor 22uF 16V Ceramic 10% 0805 | TDK | C2012X5R1C226K125AC | 1C0094 | Digikey | |
| 13 | 19 | C102 C103 C104 C105 C1 | 0.01uF | Capacitor 0.01uF 16V 10% 0402 | Kemet | C0402C103K4RACTU | 1C0012 | Digikey | |
| 14 | 0 | C173 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 15 | 0 | C400 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 16 | 0 | C401 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 17 | 0 | C402 C403 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 18 | 1 | C406 | 220uF | Capacitor 220uF 16V 10% Tantalum | Kemet | T491D227K016ZT | 1C0144 | Capacitors | |
| 19 | 1 | C439 | 47uF | Capacitor 47uF 16V Ceramic X5R 1206 | TDK | C3216X5R1C476M | 1C0101 | Digikey | |
| 20 | 0 | C440 | DNI | DNI | DNI | DNI | DNI | DNI | |
| 21 | 2 | C465 C466 | 15pF | Capacitor Ceramic 15pF 50V 10% 0402 | Kemet | C0402C150J5GACTU | 1C0087 | Digikey | |
| 22 | 1 | D1 | B520C-13-F | Diode Power Rectifier 5A Schottky | Diodes Inc | B520C-13-F | 1E0012 | Digikey | |
| 23 | 1 | D2 | SMCJ15CA | Voltage Surpressor 15.0V | LittleFuse | SMCJ15CA | 1E0011 | Digikey | |
| 24 | 1 | D3 | Green LED | LED Green SMD 20mA 2V 0805 | Dialight | 598-8170-107F | 1F0008 | Digikey | |
| 25 | 1 | F1 | Fuse 4A | Fuse Block with 4A Fuse | Littelfuse | 0154004.DRT | 1P0004 | Digikey | |
| 26 | 3 | J1 J5 J13 | HEADER 2 | Single Line Header 2pin Tin 0.1in pitch | OnShoreTechnology | PH1-230/120-021 | 2H0000 | Digikey | |
| 27 | 1 | 13 | Power Jack RAPC712 | Jack Power Right Angle 2conductor 2.5mm center | Switchcraft | RAPC712X | 2J0008 | Digikey | |
| 28 | 1 | J4 | Header 8x2 RA | Dual Line Header 8x2pin Right Angle | 3M | 961216-5604-AR | 2H0076 | Digikey | |
| 29 | 1 | J6 | HEADER 4 | Single Line Header 4pin Tin | Sullins | PEC04SAAN | 2H0019 | Digikey | |
| 30 | 2 | L1 L2 | 10uH | Inductor 10uH 20% smt 110mA | TDK | MLZ2012N100L | 1L0055 | Digikey | |

| 31 | 4 L3 L4 L5 L6 | 1.5uH | Inductor 1.5uH 20% smt 2.8A | TDK | SPM3012T-1R5M | 1L0054 | Digikey |
|----|----------------------------|------------------|--|-----------------------|-----------------------|--------|------------|
| 32 | 1 L7 | 4.7uH | Inductor 4.7uH 30% smt 3.1A | TDK | SLF7055T-4R7N3R1-3PF | 1L0033 | Digikey |
| 33 | 0 L26 | DNI | DNI | DNI | DNI | DNI | DNI |
| 34 | 1 M6 | Shunt0.1in | Shunt 0.1in pitch | TE Connectivity | 382811-8 | 2H0027 | Digikey |
| 35 | 12 R1 R5 R38 R39 R40 R41 F | 10K | Resistor 10Kohm 1/16W 5% 0402 | Rohm | MCR01MZPJ103 | 1R0168 | Digikey |
| 36 | 2 R2 R623 | 1M | Resistor 1Mohm 1/16W 1% 0402 | Stackpole Electronics | RMCF0402FT1M00 | 1R0182 | Digikey |
| 37 | 85 R3 R4 R7 R13 R24 R43 R4 | 0 | Resistor Zero ohm Jumper 0402 | Panasonic | ERJ-2GE0R00X | 1R0098 | Digikey |
| 38 | 1 R37 | 150 | Resistor 150ohm 1/16W 5% 0402 | Stackpole Electronics | RMCF0402JT150R | 1R0179 | Digikey |
| 39 | 0 R42 | DNI | DNI | DNI | DNI | DNI | DNI |
| 40 | 1 R46 | 1.4K | Resistor 1.4Kohm 1/16W 1% 0402 | Stackpole Electronics | RMCF0402FT1K40 | 1R0304 | Digikey |
| 41 | 2 R49 R55 | 0 | Resistor Zero ohm Jumper 0603 | Panasonic | ERJ-3GEY0R00V | 1R0096 | Digikey |
| 42 | 2 R50 R51 | 2.2K | Resistor 2.2Kohm 1/16W 5% 0402 | VishayDale | CRCW04022K20JNED | 1R0169 | Digikey |
| 43 | 1 R59 | 22K | Resistor 22Kohm 1/16W 1% 0402 | VishayDale | CRCW040222K0FKED | 1R0234 | Digikey |
| 44 | 2 R62 R64 | 100K | Resistor 100Kohm 1/16W 1% 0402 | Stackpole Electronics | RMCF0402FT100K | 1R0181 | Digikey |
| 45 | 1 R65 | 1.62M | Resistor 1.62Mohm 1/16W 1% 0402 | Vishay/Dale | CRCW04021M62FKED | 1R0210 | Digikey |
| 46 | 1 R66 | 180K | Resistor 180Kohm 1/16W 1% 0402 | Stackpole Electronics | RMCF0402JT180K | 1R0209 | Digikey |
| 47 | 0 R67 R68 R71 | DNI | DNI | DNI | DNI | DNI | DNI |
| 48 | 1 R111 | 240, 1% | Resistor 240 OHM 1/10W 1% 0402 SMD | Panasonic-ECG | ERJ-2RKF2400X | 1R0249 | Digikey |
| 49 | 4 R133 R135 R230 R231 | 2.2K, 1/8W | Resistor 2.2Kohm 1/8W 5% 0402 | Vishay/Dale | CRCW04022K20JNEDHP | 1R0248 | Digikey |
| 50 | 1 R134 | 49.9 | Resistor 49.9ohm 1/16W 1% 0402 | Panasonic | ERA-2AEB49R9X | 1R0171 | Digikey |
| 51 | 3 R533 R534 R616 | 100 | Resistor 100ohm 1/16W 5% 0402 | Stackpole Electronics | RMCF0402JT100R | 1R0236 | Digikey |
| 52 | 1 R549 | 0 | Resistor Zero ohm Jumper 1210 | Vishay Dale | CRCW12100000Z0EA | 1R0288 | Digikey |
| 53 | 0 R607 | DNI | DNI | DNI | DNI | DNI | DNI |
| 54 | 0 R608 | DNI | DNI | DNI | DNI | DNI | DNI |
| 55 | 0 R609 | DNI | DNI | DNI | DNI | DNI | DNI |
| 56 | 1 R624 | 499K,1% | Resistor 499Kohm 1/16W 1% 0402 | Yageo | RC0402FR-07499KL | 1R0198 | Digikey |
| 57 | 4 SW1 SW2 SW4 SW8 | B3SL | Switch Push Button tactile | Omron | B3SL-1022P | 2W0018 | Digikey |
| 58 | 1 SW3 | Slide Switch | Switch Slide SPDT 5A 120VAC RA | Eswitch | 500ASSP1M6QE | 2W0020 | Digikey |
| 59 | 6 TP5 TP9 TP10 TP11 TP12 | TP | Testpoint Miniature Through Hole | Keystone Electronics | 5002 | 2H0026 | Digikey |
| 60 | 1 TP8 | TP1mm | Testpoint SMD 1mm circle pad | N/A | N/A | 2H0046 | N/A |
| 61 | 1 U1 | AM437X_ZDN | Cortex A9 SOC AM437x | TI | AM437XZDN | 1A0392 | TI |
| 62 | 1 U2 | TPS65218 | Power Management IC for AM437x SOC Mult Outp | TI | TPS65218xxx | 1A0359 | Digikey |
| 63 | 1 U3 | TPS63010 | Buck-Boost Converter with 2A Switches | TI | TPS63010YFF | 1A0287 | Digikey |
| 64 | 1 U5 | | LPDDR2 SDRAM 8Gb (256Mx32) 1.2V | Micron | MT42L256M32D2LG-25 WT | | Arrow |
| 65 | 0 U50 | DNI | DNI | DNI | DNI | DNI | DNI |
| 66 | 0 U51 | | DNI | DNI | DNI | DNI | DNI |
| 67 | 1 U52 | TPS78101 | Low Dropout Regulator 150mA; low Iq | TI | TPS78101DDC | 1A0387 | Digikey |
| 68 | 1 U80 | SN74LVC1G07 | Driver Open Drain output | TI | SN74LVC1G07DCK | 1A0269 | Digikey |
| 69 | 2 U81 U82 | TPD1E10B06 | ESD Protection Device 1Chan +-30kV | TI | TPD1E10B06DPY | 1A0397 | Digikey |
| 70 | 1 Y1 | | Crystal 25MHz 30ppm Tol 0-70deg | Suntsu | SCM18B-25.000MHz TR | 1Y0046 | Suntsu Inc |
| 71 | 1 Y8 | 32.768KHz MC-306 | Crystal 32.768KHz | Epson | MC-30632.7680k-A | 1Y0029 | Digikey |

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