





| Bill o  | f Mate                                       | rials   | CuC & SDRAM & ANIN & DIO  |  |          |
|---|--|---|---|--|----------|
| Source Data   |  | DE-020717.PrjF                                      |   |  |          |
|   |  | DE-020717.PriPcb<br>None                            |   |  |          |
| Creation Date:  | 20.4.2018.                                   | 00:15:37<br>43210,01093                             | •   |  |          |
|   |  |   | •   |  |          |
| Footprint<br>0603                                       | Comment<br>100nF                             | LibRef<br>C0603                                     | Designator C1, C2, C3, C4, C5, C6, C7, C8, C12, C1 C14, C15, C16, C17, C19, C20, C21, C2 C23, C24, C25, C26, C27, C28, C30, C3 C32, C33, C34, C36, C37, C38, C39, C4 C41, C42, C44, C45, C46, C48, C49, C5 C51, C53, C55, C56, C56, C66, C68, C71, C7, C74, C75, C774, C75, C775, | Description Ceramic Chip Capacitor - Standard  | Quantity |
| 0805<br>0603  | C0805<br>C0603                               | C0805<br>C0603                                      | C9, C10, C35<br>C11, C18, C29, C43, C47, C52  | Ceramic Chip Capacitor - Standard<br>Ceramic Chip Capacitor - Standard   |          |
| 0805<br>3528  | 4u7<br>22uF/16V                              | C0805<br>293D156X0004<br>2                          | C54, C57, C67, C70, C73, C81<br>C83, C84  | Ceramic Chip Capacitor - Standard Ceramic Chip Capacitor - Standard Tantamount Commercial, Surface Mount Solid Tantalum Chip Capacitor: 15uF, 209 Tolerance 4 WVDC@ +85°C, Surge = 5.2V  |          |
| 3528  | 47uF/10V                                     | 293D156X0004<br>2                                   | C85, C86  | Tantamount Commercial, Surface Mount<br>Solid Tantalum Chip Capacitor: 15uF, 20°<br>Tolerance 4 WVDC@ +85°C, Surge = 5.2V  |          |
| 3528  | 100uF  | 293D156X0004<br>2                                   | C87   | Tantamount Commercial, Surface Mount<br>Solid Tantalum Chip Capacitor: 15uF, 20°<br>Tolerance 4 WVDC@ +85°C, Surge = 5.2V  |          |
| 0805<br>1.6X0.8X0.8/<br>ONSC-SOD-<br>123-2-425-<br>04 V | 10uF<br>HSMH-C190<br>STPS1L40M               | C0805<br>HSMH-C190<br>SMMSD301T10                   | C90, C93, C94<br>D1<br>D2   | Ceramic Chip Capacitor - Standard<br>Surface Mount Chip LED, Red<br>Schottky Barrier Diode, 2-Pin SOD-123, P<br>Free, Tape and Reel  |          |
| 0603  | BLM15AG121<br>74404024047                    | Inductor_SMD<br>74404024047                         | L1, L2, L3, L5, L7, L8, L9, L10<br>L4   | Inductor<br>WELQS SMD Power Inductok=4.7 µH  |          |
| WE-LQS<br>252012<br>HDR1X2<br>HDR1X2                    | 3VBAT<br>AMBIENT_LIGH<br>T                   | Header 2<br>Header 2                                | P1<br>P2  | Header, 2-Pin<br>Header, 2-Pin   |          |
| HDR1X2  | AMBIENT_TEM<br>PERATURE<br>TOUCH SCREI       | Header 2<br>TS Connector                            | P3  | Header, 2-Pin  10 nin PEC connector bottom   |          |
| HDR2X4  | N<br>nRF24L01                                | Header 4X2  | P7  | 10 pin PFC connector bottom<br>Header, 4-Pin, Dual row   |          |
| 40 pin FPC  | 480x272 RGB<br>TFT LCD<br>AML043056B0-<br>40 | TFT LCD<br>Connector                                | P8  | 40 pin pfc connector bottom  |          |
| HDR1X3  | ST-Link<br>Debbuger<br>EXPAND                | Header 3<br>Header 5X2                              | P9  | Header, 3-Pin<br>Header, 5-Pin, Dual row   |          |
| HDR2X5<br>HDR1X8<br>HDR1X8                              | FANCOIL_INTE<br>RFACE<br>POWER_&_CO          | Header 8  | P10<br>P11<br>P12   | Header, 8-Pin Header, 8-Pin  |          |
| SOT23 N   | M<br>2N7002                                  | BSS123  | Q1. Q2. Q3. Q4  | N-channel Enhancement Mode Vertical D  |          |
| 2-0402  | 10K  | ERJ2GE  | R1, R2, R3, R4, R5, R6, R7, R8, R9, R10<br>R11, R14, R15, R16, R17, R18, R19, R2  | MOSFET<br>Thick Film Chip Resistor, 1 Ohm to 2.2M<br>Ohm Range, 5% Tolerance, 0402 Size,   |          |
| ERA-0603  | 10K  | ERA3Y   | R12, R13, R22, R28, R39, R60, R61   | 0.063 W<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Renoe, 0.1% and 0.5%  |          |
| ERA-0603  | 2K7  | ERA3Y   | R21, R23, R25, R26  | Tolerance, 0603 Size, 0.063 W  |          |
| ERA-0603  | 0R   | ERA3Y, ERA3Y<br>ERA3Y, ERA3Y<br>ERA3Y, ERAV         | R24, R27, R34, R36, R37, R48  | Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0603 Size, 0.063 W<br>Reclangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0603 Size, 0.063 W, Rectangul<br>Thick Film Chip Resistor, 10 Ohm to 330k<br>Ohm Range, 0.1% and 0.5% Tolerance,<br>0603 Size, 0.063 W, Rectangular Thick Film |          |
| ERA-0603  | 560R   | ERA3Y   | R29, R41  | Chip Resistor,<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%   |          |
| ERA-0603  | 1K   | ERA3Y   | R30, R42, R43   | Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0603 Size, 0.063 W<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%  |          |
| ERA-0603  | 330R   | ERA3Y   | R31   | Tolerance, 0603 Size, 0.063 W<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%  |          |
| ERA-0603  | NF   | ERA3Y   | R32, R33, R38   | Tolerance, 0603 Size, 0.063 W<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0603 Size, 0.063 W   |          |
| ERA-0603  | 220R   | ERA3Y   | R35, R44  | Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range 0 1% and 0 5%  |          |
| ERA-0603  | 2K2  | ERA3Y, ERAV,<br>ERAV, ERAV,<br>ERAV, ERAV,<br>ERA3Y | R40, R51, R52, R53, R54, R55, R59   | Tolerance, 0803 Size, 0.063 W<br>Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0803 Size, 0.063 W, Metal Film<br>Thermosensitive Chip Resistor, 0.56 Ohm<br>10k Ohm Range, 5% Tolerance, 0803 Siz<br>0.063 W, Metal Film Thermosensitive Chip<br>Resistor, 0                          |          |
| ERA-0603  | 100K   | ERAV  | R45   | Metal Film Thermosensitive Chip Resistor<br>0.56 Ohm to 10k Ohm Range, 5%  |          |
| ERA-0603  | 4K7  | ERAV, ERA3Y   | R46, R58  | Tolerance, 0803 Size, 0.063 W<br>Metal Film Thermosensitive Chip Resistor<br>0.56 Ohm to 10k Ohm Range, 5%<br>Tolerance, 0803 Size, 0.063 W, Rectangu<br>Thick Film Chip Resistor, 10 Ohm to 330k<br>Ohm Range, 0.1% and 0.5% Tolerance,<br>0803 Size, 0.063 W   |          |
| ERA-0805  | 10R  | ERAS  | R47   | Metal Film Thermosensitive Chip Resistor<br>0.56 Ohm to 10k Ohm Range, 5%<br>Tolerance, 0805 Size, 0.1 W   |          |
| ERA-0603  | 1K2<br>STM32F748ZF1                          | ERA3Y<br>STM32F74XZX                                | R57   | Rectangular Thick Film Chip Resistor, 10<br>Ohm to 330k Ohm Range, 0.1% and 0.5%<br>Tolerance, 0603 Size, 0.063 W<br>STM32F746ZET ARM Cortex M7  |          |
| 144_20X20m<br>m   |  |   |   | microcontroller  |          |
| MICT-P-86_N<br>419A-01 N                                | MT48LC4M32B<br>P-6A<br>MC74VHC1GT1           | MT48LC4M32B<br>P-6A<br>MC74VHC1GT1                  |   | 128Mb PC133 SDR SDRAM, 4Mb x 32, 6<br>3.3V, 0 to 70 degC, 86-Pin TSOP, Pb-Fre<br>Schmitt-Trippar Investor / Logic Level Shift  |          |
| SO16_N  | 4DFT1<br>ULN2003A                            | 4DFT1<br>ULN2003D                                   | U4  | Schmitt-Trigger Inverter / Logic Level Shif<br>with LSTTL-Compatible Inputs<br>Seven Darlington Array  |          |
| QFN8_V  | STLD40DPUR                                   | STLD40DPUR  | U6  | White Led Power Supply For Large Displa<br>Backlight, 8-Pin VFDFPN, Tape and Reel  |          |
| NSO8_N<br>SOP8 N  | MAX485CSA<br>M24128RMN1                      | MAX485CSA<br>M24128RMN1                             | U8  | Low-Power, Slew-Rate-Limited RS-485/R<br>422 Transceiver<br>128K Serial I C Bus EEPROM   |          |
| SOP8_N<br>MICT-SE-8_N                                   | N25Q128A13ES<br>E40E                         |   | U10   | 128K Serial I, C Bus EEPROM<br>128 Mb (x1/x2/x4) Serial NOR Flash<br>Memory with Multi I/O, 108 MHz, 2.7 to 3.<br>V, 8-pin SO8 Wide (SE), Tray   |          |
| TO220   | DC/DC BUCK                                   | L7805CV   | U11   | Positive Voltage Regulator, 5V, 3-Pin TO-<br>220   |          |
| ZZ311   | REG1117-3.3                                  | REG1117-3.3   | U12   | 800mA and 1A Low Dropout Positive<br>Regulator 2.85V, 3.3V, 5V, and Adjustable   |          |
| CSM-7<br>R38  | ECS-110-S-5P<br>RTC                          | ECS-110-S-5P<br>XTAL                                | Y1<br>Y2  | Crystal Oscillator<br>Crystal Oscillator   | 1        |
| Approved  |  | Notes   |   | '  | _        |
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