

Bill of material DM Board ICS

30/01/2015

| Qty | Parts | Value | Device | Case | Voltage min | Voltage max | Tolerance min | Manufacturer | Alternative |
|-----|---|--------------------|---|----------------|-------------|-------------|---------------|-------------------------|-----------------------------|
| 5 | Q3, Q4, Q5, Q6, Q7 | DMG1012UW-7 | Mosfet N channel | SOT-323 | | | | Diodes Inc. | |
| 3 | Q1,Q10, Q11 | 2N7002 | Mosfet N channel | SOT-23 | | | | Diodes Inc. | |
| 4 | D1, D2, D3, D4 | BAT20JFILM | Diode Schottky | SOD-323 | | | | ST Microelectronics | |
| 5 | D5, D6, D7, D8, D9 | MMSD4148T3G | Diode | SOD-123 | | | | On Semiconductor | |
| 1 | XT1 | CSTCE12M0G15L99-R0 | Resonator 12MHz | MiniDIP | | | | Murata | |
| 2 | Q2, Q8 | FDN338P | Mosfet P channel | SOT-23 | | | | Fairchild Semiconductor | |
| 8 | R28, R30, R31, R33, R43, R59, R61, R62 | 1K | Resistor 1K 5% thick film | 0603 | | | 5% | | |
| 7 | R4, R7, R9, R11, R13, R15, R26 | 2.2K | Resistor 2.2K 5% thick film | 0603 | | | 5% | | |
| 13 | R3, R5, R6, R8, R10, R12, R14, R27, R34, R39, R40,R45,R63 | 10K | Resistor 10K 5% thick film | 0603 | | | 5% | | |
| 1 | R38 | 10R | Resistor 10R 5% thick film | 0603 | | | 5% | | |
| 1 | R2 | 39K | Resistor 39K 5% thick film | 0603 | | | 5% | | |
| 1 | R1 | 100K | Resistor 100K 5% thick film | 0603 | | | 5% | | |
| 5 | R29, R42, R46, R47, R60 | 330R | Resistor 330R 5% thick film | 0603 | | | 5% | | |
| 1 | SC1 | 0R | Resistor 0R JUMPER | 0603 | | | | | |
| 5 | L1, L2, L3, L4, L5 | 0R | Resistor 0R JUMPER | 0805 | | | | | |
| 27 | R16, R17, R18, R19, R20, R21, R22, R23, R24, R25, R32, R35, R36, R37, R41, R44, R48, R49, R50, R51, R52, R53, R54, R55, R56, R57, R58 | 22R | Resistor 22R 5% thick film | 0603 | | | 5% | | |
| 1 | C13 | 10pF | Ceramic Capacitor 10pF +/-10% | 0603 | 6,3V | | 10% | | |
| 1 | C8 | 22pF | Ceramic Capacitor 22pF +/-10% | 0603 | 6,3V | | 10% | | |
| 2 | C15, C16 | 33pF | Ceramic Capacitor 33pF +/-10% | 0603 | 6,3V | | 10% | | |
| 6 | C2, C3, C5, C6, C9, C11 | 100nF | Ceramic Capacitor 100nF Y5V - 20%/+80% | 0603 | 16V | | -20%/+80% | | |
| 3 | C1, C4, | 100uF | Capacitor aluminium 100uF +/- 20% ESR <0,5Ohm | 6,3mm diameter | 16V | | 20% | | |
| 2 | C7, C10 | 470uF | Capacitor aluminium 470uF +/- 20% ESR <0,5Ohm | 8,0mm diameter | 6,3V | | 20% | | RL80J471MDNASQKX (Nichicon) |
| 1 | C14 | 220nF | Ceramic Capacitor 220nF Y5V min - 20%/+80% | 0603 | 6,3V | | -20%/+80% | | |
| 1 | C12 | 470nF | Ceramic Capacitor 470nF Y5V min - 20%/+80% | 0603 | 6,3V | | -20%/+80% | | |
| 1 | C17 | 1uF | Ceramic Capacitor 1uF min - 20%/+80% | 0603 | 6,3V | | -20%/+80% | | |
| 1 | MIC | POM-2244P-2-R | MICROPHON | 6mm | | | | PUI Audio, Inc. | CMC-5044TF-A (CUI Inc) |
| 2 | SW1, SW2 | FSMSM | Switch SMD | 6mm x 3,50mm | | | | TE Connectivity | |
| 1 | VCC_3V3 | MCP1702T-3302E/MB | LDO 3.3V | SOT-89 | | | | Microchip | |
| 1 | USB_IC | MCP2200-I/SS | USB/RS232 | 20-SSOP | | | | Microchip | |
| 1 | VGSM | MIC29302WU TR | LDO | TO-263-5 | | | | MICREL SEMICONDUCTOR | |
| 4 | ESD_IN, ESD_OUT, ESD_SPI, ESD_UART | PESD5V0L5UV,125 | ESD Protection 5V | SOT-666 | | | | NXP | |
| 4 | ESD_MIC, ESD_USB, ESD_POW, ESD_GSM | PESD15VS5UD | ESD Protection 15V | SOT-457 | | | | NXP | |

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|---|---------------------|--|--|----------------|--|--|--|-----------------|-----------------------------------|
| 1 | PIC | PIC18F26K22-I/SO | Microcontroller 8bit 64K flash | SOIC-28 | | | | Microchip | |
| 1 | DC_IN | PM5.08/2/90 BLK | TERMINAL BLOCK, SIDE ENTRY, 2WAY pitch 5,08mm | | | | | WEIDMULLER | |
| 2 | PWR_OUT, PWR_IN | 2 X PM5.08/2/90 BLK + 1 X PM5.08/3/90 BLK | TERMINAL BLOCK, 2WAY*2+3WAY pitch 5,08mm | | | | | WEIDMULLER | 282837-7 (TE Connectivity) |
| 1 | SIM | 7111S2015X02LF | SIM Holder | | | | | FCI | SF7W006S4ER1500 (JAE Electronics) |
| 2 | DIG_IN, D_OUT | 68001-207HLF | Pin Header 7 pitch 2.54mm | | | | | FCI | HTSW-107-07-T-S (Samtec Inc) |
| 2 | I2C/SPI, ICSP/UART2 | 68000-405HLF | Pin Header 5 pitch 2.54mm | | | | | FCI | 2211S-05G (MULTICOMP) |
| 1 | SPK | 2211S-02G | Pin header 2 pitch 2.54mm | | | | | Multicomp | 826938-2 (TE Connectivity) |
| 1 | UART1 | MC34749 | Pin header 4 pitch 2.54mm | | | | | Multicomp | 826938-4 (TE Connectivity) |
| 2 | LED_PIC, USBON | LG Q971-KN-1 | LED 0603 GREEN | 0603 | | | | Osram | |
| 1 | LED4(USB RX) | LY Q976-P1S2-36 | LED 0603 YELLOW | 0603 | | | | Osram | |
| 1 | LED1(USB TX) | LS Q971-KN-1 | LED 0603 RED | 0603 | | | | Osram | |
| 1 | USB | 10118193-0001LF | Micro usb | | | | | FCI | |
| 1 | F1 | 0603SFF250F/32-2 | Fuse 2,5A | 0603 | | | | TE Connectivity | |
| 1 | BUZZ | PS1240P02BT | Buzzer 4KHz 12,2mm x 6,5mm | 12,2mm x 6,5mm | | | | TDK | |
| 1 | SENS | 68021-208HLF | Header 1x8 pitch 2,54mm 90° | | | | | FCI | |
| 1 | SIM900B connector | BB530-06001-20R | 60 pin connector for SIM900B | | | | | | |
| 1 | SIM900 FE connector | SQW-110-01-L-D | 2x10 receptable 2mm pitch | | | | | SAMTEC | |

OPTIONAL COMPONENT

ANT-PCB3506-FL
SIM900B

Antenna
GSM module

RF-SOLUTION
SIMCOM

PC27.07.0100A (Taoglas)