**Board :** **PowerManagementMysensors**

**Prototype :** **1**

| Parts | Value | Package | Description | SUPPLIER | Qty | ID_SUPPLIER |
|---|---|---|---|---|---|---|
| APM | ARDUINO_PROMINI | ARDUINO_PROMINI | Arduino pro mini 3,3v | Arduino | 1 | |
| NRF_SMD | NRF24L01+SMD_MODULE | SMD_MODULE | NRF24 L01+ th/smd module OR | Nordic | 1 | |
| RFM69HW | RFM69HW | RFM69W-MINPADS | RFM69 smd module | Hoperf | 1 | |
| ATSHA | ATSHA204A | SOT23 | Authentication | Atmel | 1 | |
| IC2 | AT25DF512C-SSHN-B | SO-08 | Serial EEPROM 4K/ 8K , SPI bus | Adesto | 1 | |
| C1 | to define | 1206 | Capacitor for storage | | 1 | |
| COUT | 10n | 1206 | Capacitor | | 1 | |
| C2, C3 | 10u | 1206 | Capacitor | | 2 | |
| CIN, C12 | 4u7 | 1206 | Capacitor | | 2 | |
| D6 | BAT54C | SOT-23 | Dual DIODE | NXP | 1 | |
| D2 | BZT52H-B3V6 | SOD-123 | Diode | NXP | 1 | |
| D1, D3 | LL103A-GS08TR-ND | SOD80 | DIODE | Vishay | 2 | |
| L1, L2 | MLZ2012M4R7WT 4.7uH | 0805 | Inductors | TDK | 2 | |
| R3, R5, R6, R9, R11 | 10k | 1206 | Resistor | | 4 | |
| R4 | 470k | 1206 | Resistor | | 1 | |
| R10 | 47r-100r | 1206 | Resistor | | 1 | |
| R7, R8 | 4k7 | 1206 | Resistor | | 2 | |
| R2 | 562k | 1206 | Resistor | | 1 | |
| R1 | 976k | 1206 | Resistor | | 1 | |
| U1 | LM8364BALMF20 | SOT95P284X122-5N (SOT-23-5) | Micropower Undervoltage Sensing Circuits | National | 1 | |
| U2, U3 | SI2399DS-T1-GE3 | SOT95P237X112-3N (SOT-23-3) | P-Channel 20-V (D-S) MOSFET | VISHAY | 2 | |
| U4 | MCP1640BT-I/CHY | SOT95P270X145-6N (SOT-23-6) | Synchronous Boost Regulator | Microchip | 1 | |
| U5 | TPS61222DCKT | SOT65P210X110-6N (SOT-23-6) | LOW INPUT VOLTAGE STEP-UP CONVERTER | TI | 1 | |
| U6 | BSS123-7-F | SOT95P240X110-3N (SOT-23-3) | N-Channel MOSFET | Diodes Inc | 1 | |
| ANT | ANTENNA | ANTENNA | Wire, see below for length | | 1 | |
| BATT | JST 2-Pin | JST-PH-2-THM | JST 2-Pin | | 1 | |
| AVRSPI | AVRSPI | 2X03 | PIN HEADER | | 1 | |
| JP2, JP3, JP4 | JUMPER-2PTH | 1X02 | Header 2 | | 3 | |
| JP1, JP5, JP6, JP7 | JUMPER-3PTH | 1X03 | Header 3 | | 4 | |
| J1, J2, J3, J4, J5, J6, J10 | | 1X04 | Header 4 | | 7 | |
| J7, J8 | | 1X05 | Header 5 | | 2 | |
| J9 | | 1X07 | Header 7 | | 1 | |
| | | | | | | |
| | | | | **Total / PCB** | **53** | |

**RFM69 Notes**

Be careful as RFM69CW footprint is different of RFM69HW. So CW version not compatible with this board

EU : 868 MHz

US : 915 MHz

**Antenna Notes**

| Freq | 1/4 Monopole wire antenna length | 1/2 Monopole wire antenna length |
|---|---|---|
| 433 MHz | 173 mm | 346 mm |
| 868 MHz | 86 mm | 173 mm |
| 915 MHz | 82 mm | 164 mm |

1/2 Monopole has better range. But 1/4 can work well most of the time