

## BM-WM4 915MHZ V1.2c BOM

| <u>Designator</u> | <u>Value</u>                | <u>Tolerance</u> | <u>Footprint</u> | <u>Description</u>          | <u>Manufacturer</u>         |
|-------------------|-----------------------------|------------------|------------------|-----------------------------|-----------------------------|
| C1                | 47uF                        | +20%             | TAJ-A            | Capacitor SMD               | Tantalum, height max. 1.6mm |
| C2                | 47uF                        | +20%             | TAJ-A            | Capacitor SMD               | Tantalum, height max. 1.6mm |
| C3                | 47uF                        | +20%             | TAJ-A            | Capacitor SMD               | Tantalum, height max. 1.6mm |
| C4                | 4.7uF                       | +20%, X5R        | 603              | Capacitor SMD               |                             |
| C5                | 470nF                       | +10%, X5R        | 402              | Capacitor SMD               |                             |
| C6                | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C7                | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C8                | 15pF                        | +5%, COG/NP0     | 402              | Capacitor SMD               |                             |
| C9                | 15pF                        | +5%, COG/NP0     | 402              | Capacitor SMD               |                             |
| C10               | 10nF                        | +10%, X7R        | 402              | Capacitor SMD               |                             |
| C11               | 2.2pF                       | +0.25pF, COG/NP0 | 402              | Capacitor SMD               |                             |
| C12               | 10nF                        | +10%, X7R        | 402              | Capacitor SMD               |                             |
| C13               | 220pF                       | +10%, COG/NP0    | 402              | Capacitor SMD               |                             |
| C14               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C15               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C16               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C17               | na                          |                  |                  |                             |                             |
| C18               | na                          |                  |                  |                             |                             |
| C19 (R)           | 0R                          | +5%              | 402              | Resistor SMD                |                             |
| C20               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C21               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| C22               | 2.2nF                       | +10%, X7R        | 402              | Capacitor SMD               |                             |
| C23               | 100nF                       | +10%, X5R or X7R | 402              | Capacitor SMD               |                             |
| D1                | 1SS355                      |                  | SOD323           | Diode SMD                   |                             |
| D2                | 1SS355                      |                  | SOD323           | Diode SMD                   |                             |
| L1                | 12nH                        | +5%              | 402              | Inductor Monolithic SMD     | Johanson L-07C12NJV4        |
| L2 (R)            | 0R                          | +5%              | 402              | Resistor SMD                |                             |
| L3 (R)            | 0R                          | +5%              | 402              | Resistor SMD                |                             |
| L4                | 35mH, RDC<=250Ohm, IDC>=1mA | +10%             |                  | Inductor Coil               |                             |
| L5                | 100nH                       | +10%             | 402              | Inductor Monolithic SMD     |                             |
| L6                | 4mH, RDC<=100Ohm, IDC>=10mA | +10%             |                  | Inductor Coil               |                             |
| P1                | Female Header 1.27mm        |                  |                  | Connector SMD               | e.g. MPE-Garry BL SMD 91-06 |
| PCB1              | CUSTOM, solder stop white   |                  |                  | PCB, 4 layers, 0.6 mm thick |                             |
| Q1                | BC846BW or BC847BW          |                  | SOT323           | Bipolar Transistor NPN SMD  |                             |
| Q2                | BC846BW or BC847BW          |                  | SOT323           | Bipolar Transistor NPN SMD  |                             |
| Q3                | BC846BW or BC847BW          |                  | SOT323           | Bipolar Transistor NPN SMD  |                             |
| Q4                | BC846BW or BC847BW          |                  | SOT323           | Bipolar Transistor NPN SMD  |                             |
| Q5                | NTR4101P                    |                  | SOT23            | P-Channel MOSFET SMD        |                             |
| R1                | 470R                        | +5%              | 402              | Resistor SMD                |                             |
| R2                | 47k                         | +5%              | 402              | Resistor SMD                |                             |
| R3                | 56k                         | +1%              | 402              | Resistor SMD                |                             |
| R4                | 47k                         | +5%              | 402              | Resistor SMD                |                             |

|    |                                   |          |               |                          |                               |
|----|-----------------------------------|----------|---------------|--------------------------|-------------------------------|
| R5 | 10k                               | +/-5%    | 402           | Resistor SMD             |                               |
| R6 | 10k                               | +/-5%    | 402           | Resistor SMD             |                               |
| R7 | 10k                               | +/-5%    | 402           | Resistor SMD             |                               |
| R8 | 10k                               | +/-5%    | 402           | Resistor SMD             |                               |
| R9 | 100k                              | +/-5%    | 402           | Resistor SMD             |                               |
| U1 | CC430F6137IRGC                    |          | QFN64         | MCU with ISM Transceiver | TI                            |
| U2 | 0915BM15A0001                     |          |               | Balun 915MHz             | Johanson                      |
| U3 | BMA250                            |          | LGA12         | Acceleration Sensor SPI  | Bosch Sensortec               |
| U4 | HKA5403Q-30                       |          | DIE           | EL Driver                |                               |
| U5 | BMP085                            |          |               | Pressure Sensor I2C      | Bosch Sensortec               |
| Y1 | 32.768kHz, CL=12.5pF, ESR<=80kOhm | +/-20ppm | 3.2 x 1.5 mm2 | Crystal SMD              | Microcrystal CM7V-T1A         |
| Y2 | 26MHz, CL=10pF, ESR<=40Ohm        | +/-10ppm | 3.2 x 2.5 mm2 | Crystal SMD              | Epson TSX3225-X1E000021014300 |