

REG. DATE : 2024.07.04

SPECIFICATION

REV.NO : 0.1

REV. DATE : 2024.07.04

MODEL NAME : **wBMS RF Module**

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1. Mechanical Specification

| Part | Specification | Unit |
|-------------------|---------------|------|
| Antenna Dimension | 5.3 × 15.5 | [mm] |
| Module Dimension | 23.9 × 15.5 | [mm] |

2. Antenna Characteristics

| Antenna Performance | | | | |
|------------------------------|--------------|---------|-------|-------|
| Parameter | Min | Typ | Max | Unit |
| Frequency Range | 2400 | 2450 | 2480 | MHz |
| Directivity | - | Omni | - | - |
| Full Bands Average Gain | - | - | -4.04 | dBi |
| Full Bands Average Peak Gain | | 1.53 | | |
| V.S.W.R | 4.0:1 | - | - | Under |
| Impedance | | 50 | | Ohm |
| Radiation Material | | Printed | | |

3. Efficiency

| | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 |
|--------------------|------------------|--------|---------------|--------|--------|--------|--------|--------|--------|
| Frequency(MHz) | 2400 | 2410 | 2420 | 2430 | 2440 | 2450 | 2460 | 2470 | 2480 |
| Efficiency(dB) | -5.64 | -4.68 | -4.28 | -3.83 | -3.59 | -3.57 | -3.42 | -3.57 | -3.81 |
| Efficiency(%) | 27.3 | 34.0 | 37.3 | 41.4 | 43.8 | 43.9 | 45.5 | 43.9 | 41.6 |
| H-Plane | -12.63 | -11.59 | -11.01 | -10.32 | -9.86 | -9.68 | -9.43 | -9.48 | -9.65 |
| E1-Plane, AVG(dB) | -11.10 | -10.09 | -9.48 | -8.76 | -8.20 | -7.94 | -7.60 | -7.63 | -7.82 |
| E2-Plane, AVG(dB) | -7.62 | -6.69 | -6.29 | -5.86 | -5.60 | -5.57 | -5.43 | -5.58 | -5.81 |
| Peak Gain(dB) | 0.02 | 1.04 | 1.44 | 1.84 | 2.01 | 1.94 | 2.03 | 1.83 | 1.61 |
| Directivity(dB) | 5.67 | 5.73 | 5.72 | 5.67 | 5.59 | 5.52 | 5.45 | 5.40 | 5.41 |
| Minimum Gain(dB) | -14.19 | -12.88 | -13.34 | -13.56 | -13.60 | -13.39 | -13.29 | -13.24 | -13.05 |
| Average Efficiency | -4.04 dB, | | 39.4 % | | | | | | |

