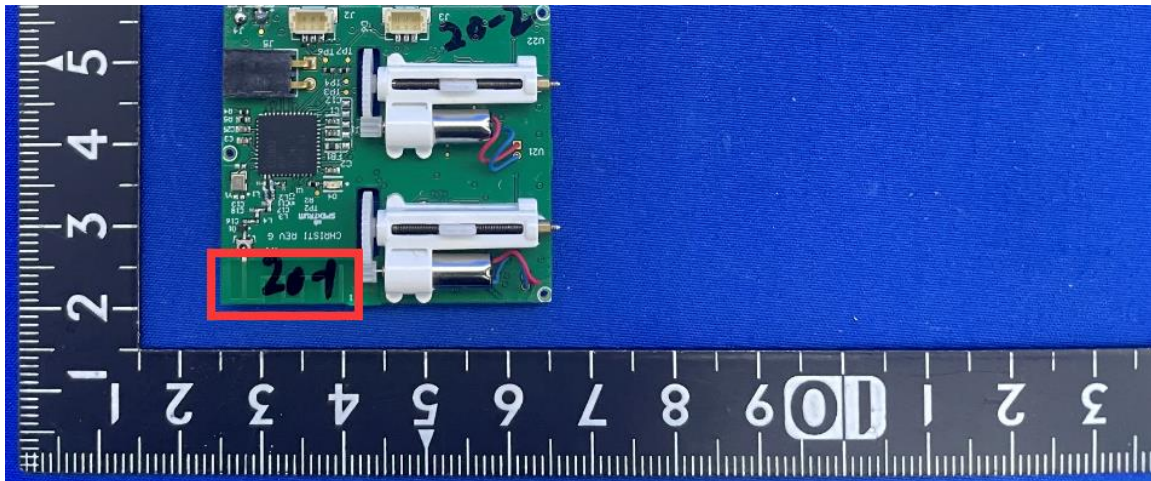


## Antenna Data Sheet



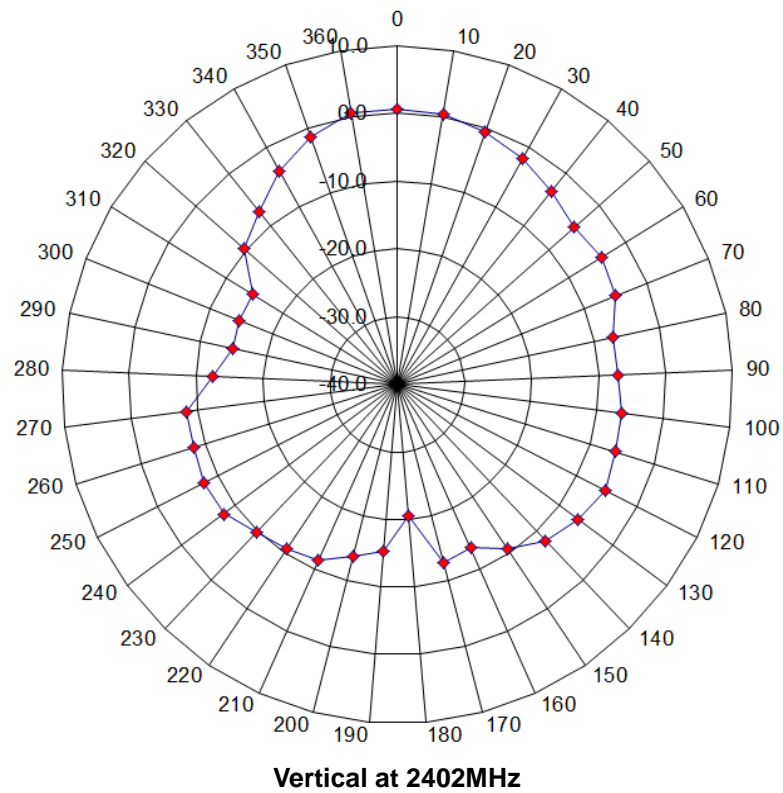
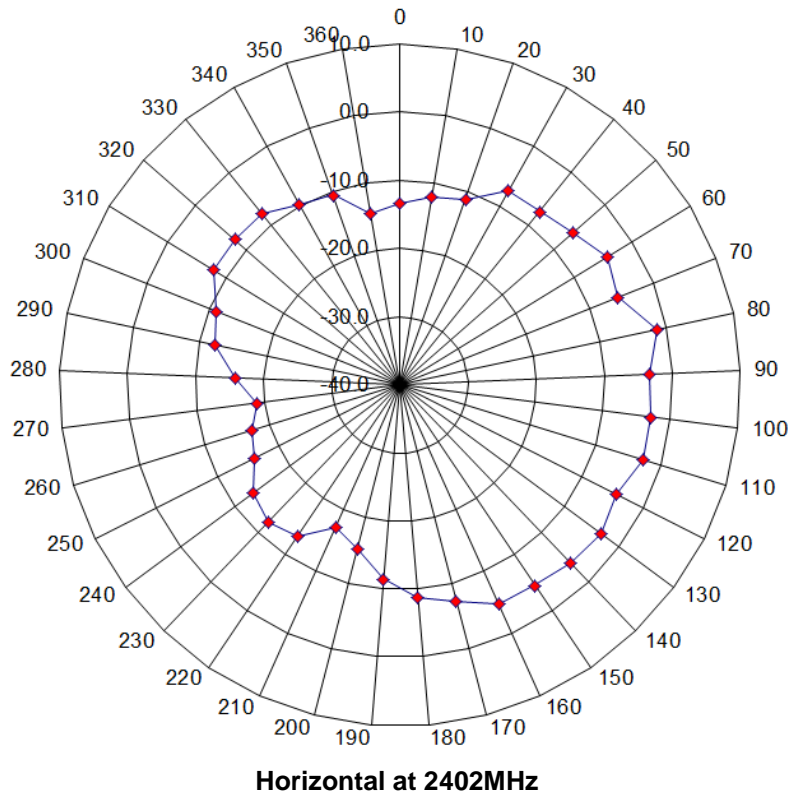
### 1. General Information

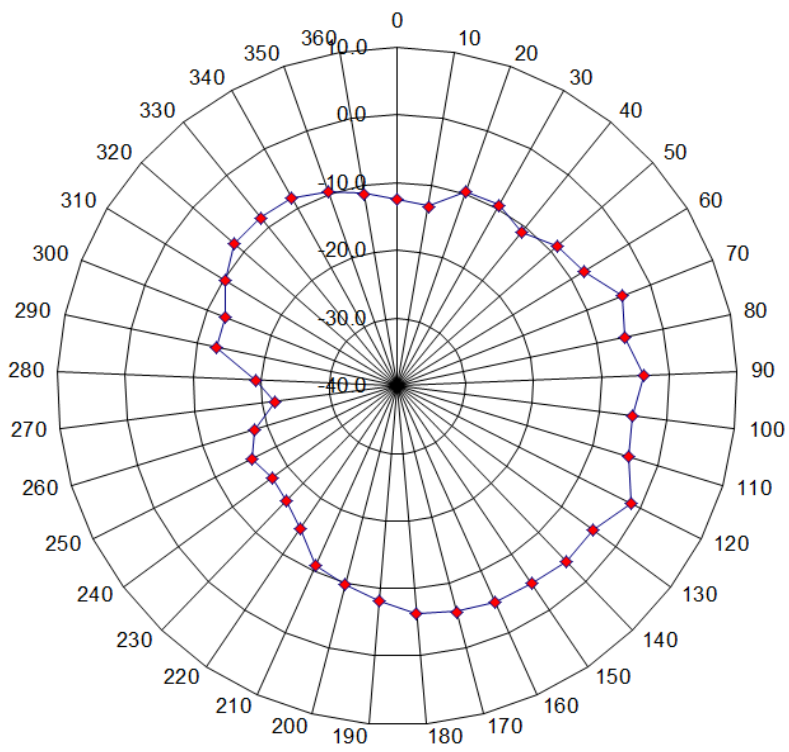
|                              |                                                               |
|------------------------------|---------------------------------------------------------------|
| Antenna Manufacturer         | HANA MICROELECTRONICS (JIAXING) CO.                           |
| Antenna Manufacturer Address | 18 HANA ROAD, XIUZHOU DISTRICT,<br>JIAXING, P.R. CHINA 314015 |
| Product Name                 | Embedded Trace Antenna - SPM-1002                             |
| Model Number                 | SPM-1002ANTENNA                                               |
| Antenna Type                 | PCB Antenna                                                   |
| Frequency Range              | 2402~2478MHz                                                  |

### 2. Max. Peak Antenna Gain

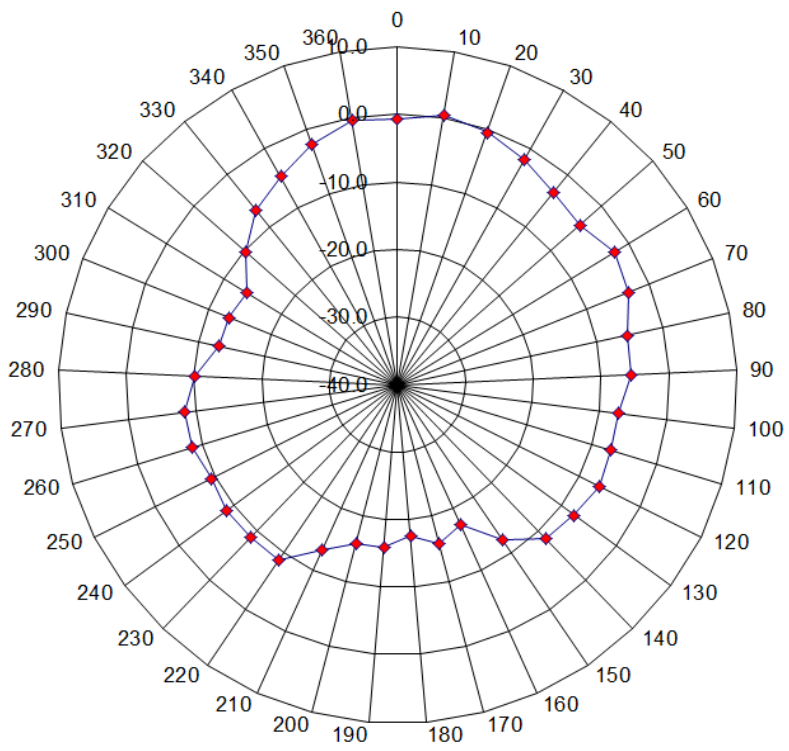
| Test Frequency<br>(MHz) | Max. Peak Antenna Gain<br>(dBi) |
|-------------------------|---------------------------------|
| 2402MHz                 | 0.72                            |
| 2440MHz                 | 0.37                            |
| 2478MHz                 | 0.12                            |

### 3. Antenna Radiation Pattern

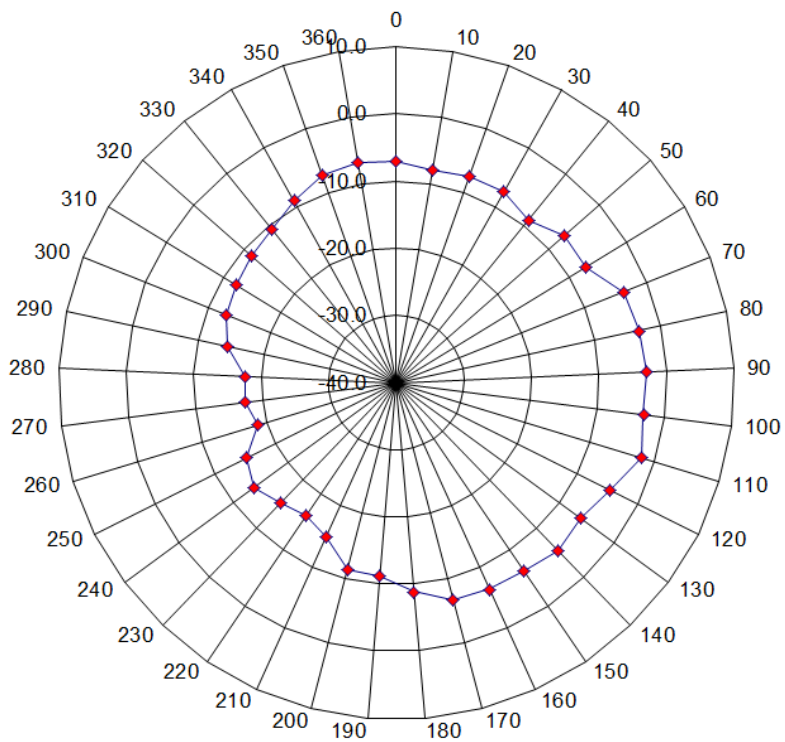




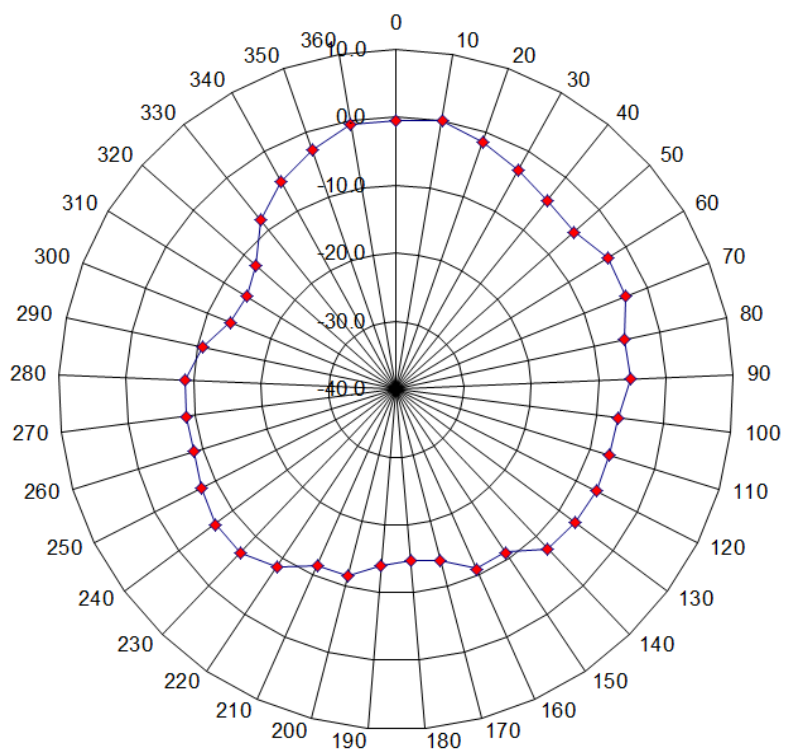
**Horizontal at 2440MHz**



**Vertical at 2440MHz**



**Horizontal at 2478MHz**



**Vertical at 2478MHz**

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#### 4. Measuring Instrument

| Instrument Name  | Manufacturer | Model No.  | Asset No.   | Cali. Interval | Cal. Due Date | Test Site |
|------------------|--------------|------------|-------------|----------------|---------------|-----------|
| Signal Analyzer  | Keysight     | N9010B     | MRTSUE06607 | 1 year         | 2024-10-23    | WZ-AC2    |
| Horn Antenna     | Schwarzbeck  | BBHA 9120D | MRTSUE06171 | 1 year         | 2024-10-11    | WZ-AC2    |
| Preamplifier     | Schwarzbeck  | BBV 9718   | MRTSUE06176 | 1 year         | 2024-05-07    | WZ-AC2    |
| Signal Generator | Keysight     | N5182B     | MRTSUE06451 | 1 year         | 2024-06-29    | WZ-AC2    |
| Thermohygrometer | testo        | 608-H1     | MRTSUE11263 | 1 year         | 2024-11-07    | WZ-AC2    |
| Anechoic Chamber | RIKEN        | WZ-AC2     | MRTSUE06213 | 1 year         | 2024-04-20    | WZ-AC2    |

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## 5. Test Setup Photograph

Description: Antenna Pattern Test Setup

