

# Admit it

|                                                                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                               |
|-------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|
| The product description:                                                                  | The manufacturer: Welletronics Communication Technology Limited<br>The name of the material: Bluetooth GPS metal middle frame RF antenna<br>Material code:<br>The version number: V1.0                                                                                                                                                                                                                                                                                                                                                                                       | Project type: GTX02<br>Specification/Color:<br>Sign the sample date: 2023.07.24<br>note:                                                                                                                                                                              |                                                                                                                                                                                                         |                                                                                               |
| The attachment:                                                                           | <input checked="" type="radio"/> Description of electrical and mechanical properties (Specification) <input checked="" type="radio"/> Manufacturing flow chart<br><input checked="" type="radio"/> QC Engineering drawing <input checked="" type="radio"/> The sample <input checked="" type="radio"/> CPK report <input checked="" type="radio"/> Full size measurement report<br><input checked="" type="radio"/> Reliability test report <input checked="" type="radio"/> The packing way <input checked="" type="radio"/> Raw material list report /RoHS report/HF/REACH |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                               |
| Supplier sign and approve                                                                 | artificial:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | audit: approval:                                                                                                                                                                                                                                                      |                                                                                                                                                                                                         |                                                                                               |
| The above shall be filled in by the supplier and the following shall be filled in by Aidu |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                               |
|                                                                                           | department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   | Confirm the content                                                                                                                                                                                                                                                   | Verify the results                                                                                                                                                                                      | Confirm person/date                                                                           |
| Technical confirmation column                                                             | Supplier quality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | <input type="checkbox"/> RoHS material <input type="checkbox"/> Meet REACH requirements<br><input type="checkbox"/> no RoHS material                                                                                                                                  | <input type="checkbox"/> Meet halogen-free requirements<br><input type="checkbox"/> Other Environmental Requirements                                                                                    |                                                                                               |
|                                                                                           | ID of Design Department                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      | <input type="checkbox"/> The customer request ID <input type="checkbox"/> Color confirmation                                                                                                                                                                          | <input type="checkbox"/> Surface process confirmation<br><input type="checkbox"/> Shell, hardware, key material                                                                                         |                                                                                               |
|                                                                                           | Structural engineer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          | <input type="checkbox"/> Confirm the size of 2D drawing files<br><input type="checkbox"/> Specifications and technical requirements                                                                                                                                   | <input type="checkbox"/> Focus on size marking control<br><input type="checkbox"/> Electrical performance parameter<br><input type="checkbox"/> Adapter validation<br><input type="checkbox"/> function | <input type="checkbox"/> Shell, hardware, key material<br><input type="checkbox"/> The effect |
|                                                                                           | Hardware engineer                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            | <input type="checkbox"/> Confirm the size of 2D drawing files<br><input type="checkbox"/> Specifications and technical requirements                                                                                                                                   | <input type="checkbox"/> Focus on size marking control<br><input type="checkbox"/> Electrical performance parameter<br><input type="checkbox"/> Adapter validation<br><input type="checkbox"/> function | <input type="checkbox"/> Shell, hardware, key material<br><input type="checkbox"/> The effect |
|                                                                                           | R&d quality                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  | <input type="checkbox"/> Test standard confirmation<br><input type="checkbox"/> appearance                                                                                                                                                                            | <input type="checkbox"/> Standardization of dimension marking (key dimensions)<br><input type="checkbox"/> Reliability verification<br><input type="checkbox"/> Adapter validation                      | <input type="checkbox"/> function<br><input type="checkbox"/> The effect                      |
| Final confirmation                                                                        | Project Manager                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | <input type="checkbox"/> Acknowledge the completeness of the documents<br><input type="checkbox"/> Standardization of dimension marking (key dimensions)<br><input type="checkbox"/> Specifications and technical requirements<br><input type="checkbox"/> appearance | <input type="checkbox"/> Electrical performance parameter<br><input type="checkbox"/> function<br><input type="checkbox"/> The effect                                                                   |                                                                                               |
| Admitted conditions:                                                                      | <input type="checkbox"/> Official recognition<br><input type="checkbox"/> Set limit to admit<br><input type="checkbox"/> Refuse to admit                                                                                                                                                                                                                                                                                                                                                                                                                                     |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                               |
| Distribution department:                                                                  | <input type="checkbox"/> IQC <input type="checkbox"/> supplier <input type="checkbox"/> The customer <input type="checkbox"/> after-sales <input type="checkbox"/> SQE/ Document control<br><input type="checkbox"/> other _____                                                                                                                                                                                                                                                                                                                                             |                                                                                                                                                                                                                                                                       |                                                                                                                                                                                                         |                                                                                               |

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QF-QMP-QA01-01

## **Catalog**

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Three 、 Change history

Change of resume

| Serial<br>number | Date of change | entry name | Edition | Change content | Remarks |
|------------------|----------------|------------|---------|----------------|---------|
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## Four、 Electrical characteristics

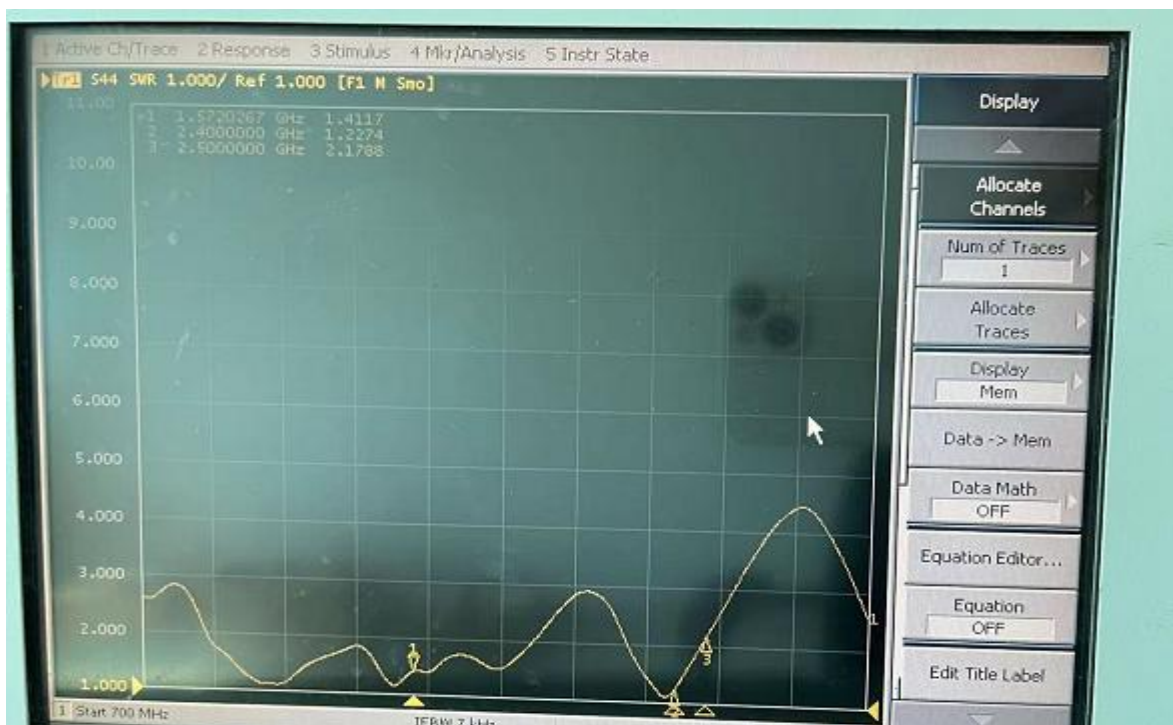
### 1. Antenna Structure



Figure antenna structure

## 2. Test Results

### BT-Return Loss/VSWR



**Test Repor No source by space test efficiency/pattern**

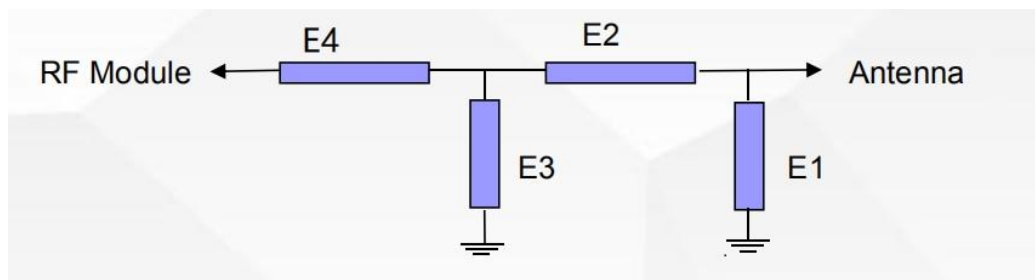
free

arm

| Freq  | Effi  | Effi  | Gain  |  | Freq  | Effi  | Effi   | Gain  |
|-------|-------|-------|-------|--|-------|-------|--------|-------|
| (MHz) | (%)   | (dB)  | (dBi) |  | (MHz) | (%)   | (dB)   | (dBi) |
| 1530  | 17.64 | -7.53 | -2.95 |  | 1530  | 12.75 | -8.94  | -3.01 |
| 1540  | 17.14 | -7.66 | -3.02 |  | 1540  | 12.13 | -9.16  | -3.06 |
| 1550  | 19.18 | -7.17 | -2.48 |  | 1550  | 12.71 | -8.96  | -2.74 |
| 1560  | 20.16 | -6.95 | -2.29 |  | 1560  | 12.52 | -9.02  | -2.95 |
| 1570  | 21.11 | -6.76 | -2    |  | 1570  | 12.26 | -9.11  | -3.22 |
| 1580  | 22.18 | -6.54 | -1.63 |  | 1580  | 11.98 | -9.22  | -3.42 |
| 1590  | 22.25 | -6.53 | -1.5  |  | 1590  | 11.4  | -9.43  | -3.52 |
| 1600  | 23.21 | -6.34 | -1.19 |  | 1600  | 11.55 | -9.38  | -3.39 |
| 1610  | 24.37 | -6.13 | -0.78 |  | 1610  | 11.74 | -9.3   | -3.3  |
| 1620  | 21.86 | -6.6  | -1.15 |  | 1620  | 10.46 | -9.8   | -3.92 |
|       |       |       |       |  |       |       |        |       |
| Freq  | Effi  | Effi  | Gain  |  | Freq  | Effi  | Effi   | Gain  |
| (MHz) | (%)   | (dB)  | (dBi) |  | (MHz) | (%)   | (dB)   | (dBi) |
| 2400  | 16.03 | -7.68 | -3.78 |  | 2400  | 6.81  | -11.67 | -6.35 |
| 2410  | 16.69 | -8.04 | -3.66 |  | 2410  | 6.95  | -11.58 | -6.37 |
| 2420  | 17.07 | -8    | -3.5  |  | 2420  | 7.03  | -11.53 | -6.32 |
| 2430  | 15.84 | -8.14 | -3.8  |  | 2430  | 6.84  | -11.65 | -6.37 |
| 2440  | 15.39 | -8.13 | -3.71 |  | 2440  | 6.76  | -11.7  | -6.11 |
| 2450  | 15.22 | -8.18 | -3.75 |  | 2450  | 6.74  | -11.71 | -6.14 |
| 2460  | 16.34 | -8.25 | -3.54 |  | 2460  | 6.66  | -11.76 | -6.45 |
| 2470  | 17.61 | -8.05 | -3.14 |  | 2470  | 6.62  | -11.79 | -6.5  |
| 2480  | 18.24 | -7.87 | -3    |  | 2480  | 6.47  | -11.89 | -6.31 |
| 2490  | 19.28 | -7.54 | -2.73 |  | 2490  | 6.04  | -12.19 | -6.51 |
| 2500  | 19.07 | -7.39 | -2.84 |  | 2500  | 5.74  | -12.41 | -6.72 |

Match

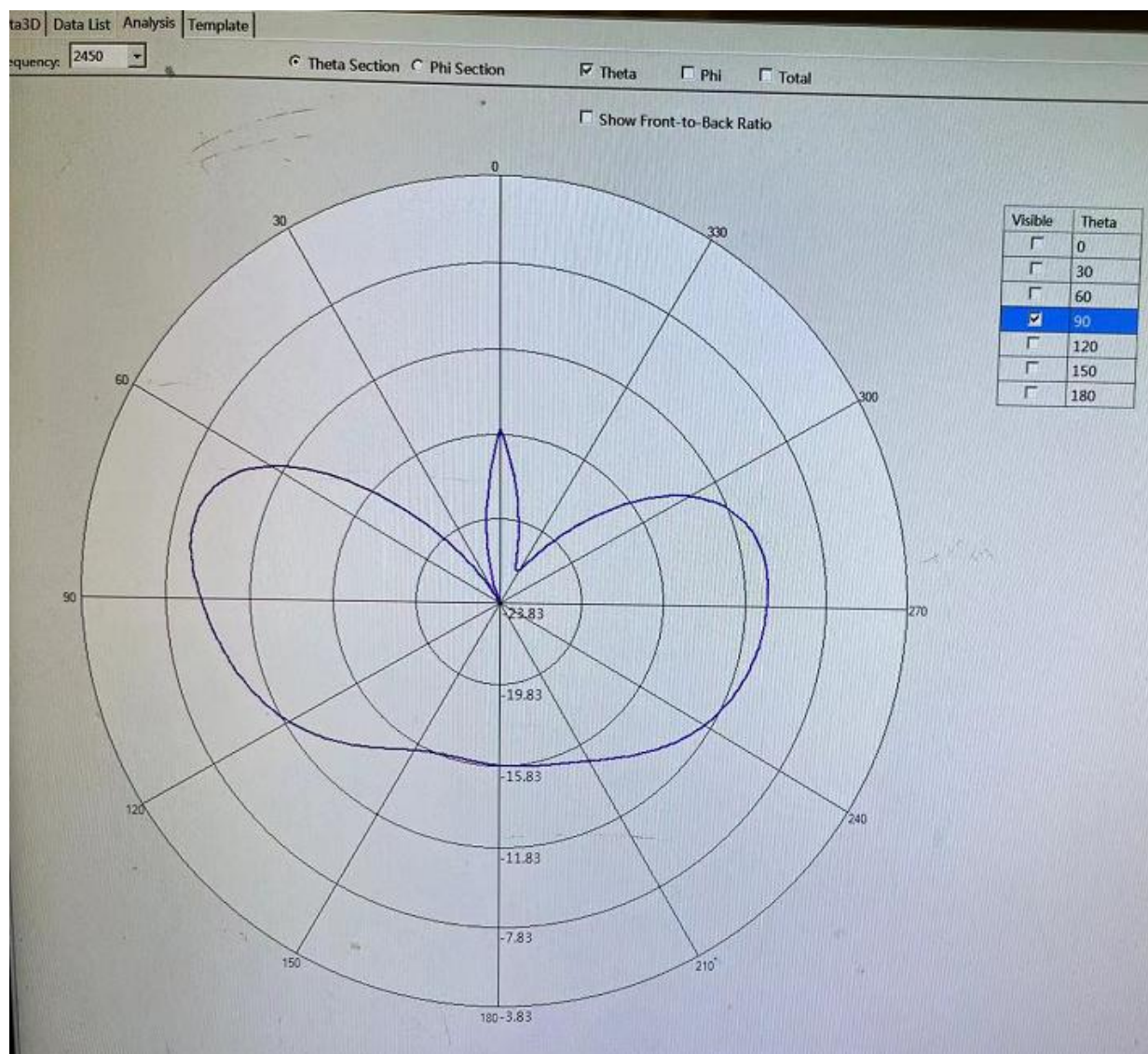




| Antenna | Element | Value |
|---------|---------|-------|
|         | E1      |       |
|         | E2      | 0R    |
|         | E3      |       |
|         | E4      | 0R    |

### 3. The direction of figure

BT arm pattern



### Five、 The 2D drawings

