

# MB2710 (JX312-01) Antenna Test Report

|              |              |
|--------------|--------------|
| MODEL NAME   | MB2710       |
| MCSLogic P/N |              |
| No.          | MODEL        |
| 1            | MB2710       |
| BLUETOOTH    | 2402-2480MHz |



Hardware version: V2.0

## ANTENNA SPECIFICATION

1. MODEL: MB2710

2. APPLICATION:

This specification is provided for Bluetooth PCB Pattern ANTENNA.

## 3 ANTENNA used condition

■ Portable ■ Fixing ■ Movement ■ Out-door ■ In-door ■ Etc( )

## 4. ANTENNA Drawing

Attached : #4. Antenna Drawing paper

## 5. TRP/TIS

Attached : #3. TRP/ TIS

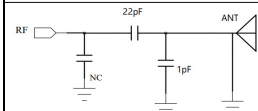
## 6. Electrical specification and performance

| No. | ELECTRICAL DATA   | SPECIFICATIONS     | REMARK                             |
|-----|-------------------|--------------------|------------------------------------|
| 1   | FREQUENCY RANGE   | 2400 ~ 2480 MHz    | NOMINAL                            |
| 2   | IMPEDANCE         | 50 Ω               |                                    |
| 3   | V. S. W. R        | less than 2        | Attached: #1, VSWR                 |
| 4   | PEAK GAIN (MAX)   | 1.73               | Attached: #2, Radiation efficiency |
| 5   | RADIATION PATTERN | OMNI - DIRECTIONAL |                                    |
| 6   | POLARIZATION      | LINEAR             |                                    |

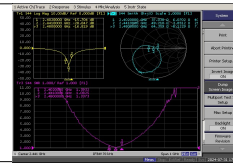
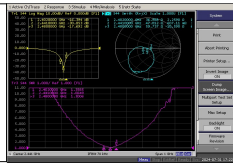
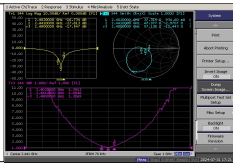
## 7. Hardware specification and mechanical

| No. | MECHANICAL            | SPECIFICATIONS    | REMARK      |
|-----|-----------------------|-------------------|-------------|
| 1   | Antenna Type          | PIFA Type         |             |
| 2   | Matching Value        | 1pF (Shunt)       | GND Feeding |
| 3   | Matching Value        | 22pF (Series)     |             |
| 4   | Dimension (D X B X H) | 19.6 X 6.3 X 1.0T |             |

## 8. IMPEDANCE MATCHING

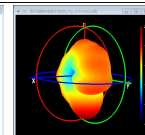
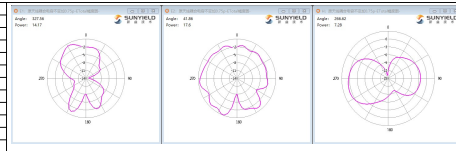


## #1. VSWR

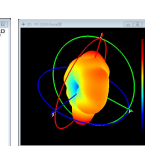
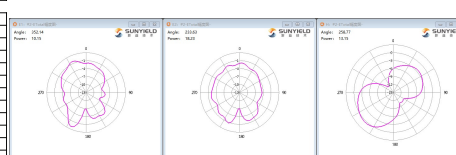


## #2. Radiation efficiency

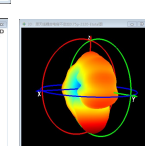
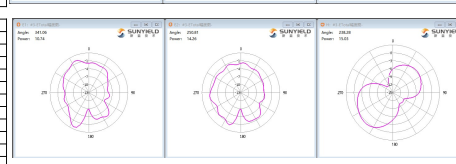
| Frequency (MHz) | s    | Efficiency (dB) | Efficiency (%) |
|-----------------|------|-----------------|----------------|
| 2400            | 1.33 | -2.18           | 58.53          |
| 2410            | 1.26 | -2.05           | 60.44          |
| 2420            | 1.51 | -1.93           | 62.13          |
| 2430            | 1.54 | -1.81           | 63.91          |
| 2440            | 1.61 | -1.7            | 65.65          |
| 2450            | 1.67 | -1.63           | 66.78          |
| 2460            | 1.58 | -1.62           | 66.87          |
| 2470            | 1.51 | -1.62           | 66.81          |
| 2480            | 1.42 | -1.72           | 65.22          |
| 2490            | 1.34 | -1.91           | 62.4           |



| Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency (%) |
|-----------------|------------|-----------------|----------------|
| 2400            | 1.71       | -2.2            | 58.31          |
| 2410            | 1.62       | -2.08           | 59.96          |
| 2420            | 1.69       | -1.93           | 62.05          |
| 2430            | 1.73       | -1.81           | 63.86          |
| 2440            | 1.72       | -1.72           | 65.28          |
| 2450            | 1.64       | -1.65           | 66.35          |
| 2460            | 1.6        | -1.78           | 64.43          |
| 2470            | 1.54       | -1.87           | 62.95          |
| 2480            | 1.48       | -1.98           | 61.38          |
| 2490            | 1.3        | -2.12           | 59.32          |



| Frequency (MHz) | Gain (dBi) | Efficiency (dB) | Efficiency (%) |
|-----------------|------------|-----------------|----------------|
| 2400            | 1.34       | -2.12           | 59.25          |
| 2410            | 1.45       | -2.06           | 60.14          |
| 2420            | 1.65       | -1.97           | 61.32          |
| 2430            | 1.64       | -1.91           | 62.35          |
| 2440            | 1.68       | -1.85           | 63.27          |
| 2450            | 1.62       | -1.68           | 65.84          |
| 2460            | 1.49       | -1.74           | 64.84          |
| 2470            | 1.62       | -1.76           | 64.57          |
| 2480            | 1.68       | -1.91           | 62.28          |
| 2490            | 1.34       | -1.96           | 61.58          |



## #3. TRP/ TIS

| 1 | TRP | Frequency (MHz) | Power (dBm)       | 2 | TRP | Frequency (MHz) | Power (dBm)       | 3 | TRP | Frequency (MHz) | Power (dBm)       |
|---|-----|-----------------|-------------------|---|-----|-----------------|-------------------|---|-----|-----------------|-------------------|
|   |     | 2402            | 9.65              |   |     | 2402            | 8.57              |   |     | 2402            | 8.65              |
|   |     | 2441            | 9.75              |   |     | 2441            | 8.95              |   |     | 2441            | 9.07              |
|   |     | 2480            | 9.56              |   |     | 2480            | 8.78              |   |     | 2480            | 9.05              |
| 1 | TIS | Frequency (MHz) | Sensitivity (dBm) | 2 | TIS | Frequency (MHz) | Sensitivity (dBm) | 3 | TIS | Frequency (MHz) | Sensitivity (dBm) |
|   |     | 2402            | -92.66            |   |     | 2402            | -92.95            |   |     | 2402            | -93.06            |
|   |     | 2441            | -92.79            |   |     | 2441            | -93.23            |   |     | 2441            | -93.14            |
|   |     | 2480            | -92.72            |   |     | 2480            | -93.14            |   |     | 2480            | -93.23            |

## #4. Antenna Drawing Paper

