

# Bluetooth Antenna Specification

2006.7.6  
FUJITSU Limited

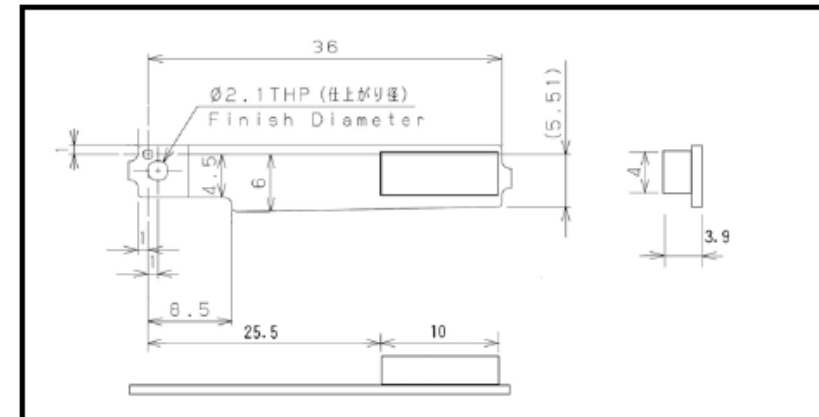
■Model: CP305460

■Antenna Type: Inverted F

■Appearance:



■Dimention:



■Features:

Impedance

50 $\Omega$

Frequency Band

2400~2500MHz

■MAX Gain: 1.46dBi

■VSWR: 1.1762

To : FUJITSU LIMITED

Application : For Bluetooth

Measurement Institution : Yokowo No.3 Radio Measuring Site

Antenna Model : 250L00270(ECRU)

Date : 2006/05/19

Measurement Condition : Gilia Disp.-Open

Measured by : M.Matsuzaki

Antenna Matching : Non

Correction of Cable Loss : Non (include Loss 0.55dB)

f=2400MHz

| Plane | Tx         | Peak. Gain<br>[dBi] | Avg. Gain<br>[dBi] | Tx H & V Avg.<br>[dBi] | Each Freq. Avg.<br>[dBi] |
|-------|------------|---------------------|--------------------|------------------------|--------------------------|
| X-Y   | Horizontal | -2.56               | -8.02              | -7.83                  | -8.22                    |
|       | Vertical   | -2.60               | -7.65              |                        |                          |
| Z-Y   | Horizontal | -3.75               | -9.35              | -8.77                  |                          |
|       | Vertical   | -2.37               | -8.25              |                        |                          |
| Z-X   | Horizontal | 1.46                | -6.56              | -8.13                  |                          |
|       | Vertical   | -5.56               | -10.60             |                        |                          |

|                                |          |
|--------------------------------|----------|
| X-Y Plane All Avg. (All Freq.) | -8.1 dBi |
| Z-Y Plane All Avg. (All Freq.) | -9.0 dBi |
| Z-X Plane All Avg. (All Freq.) | -8.7 dBi |
| All Plane & All Freq. Avg.     | -8.6 dBi |

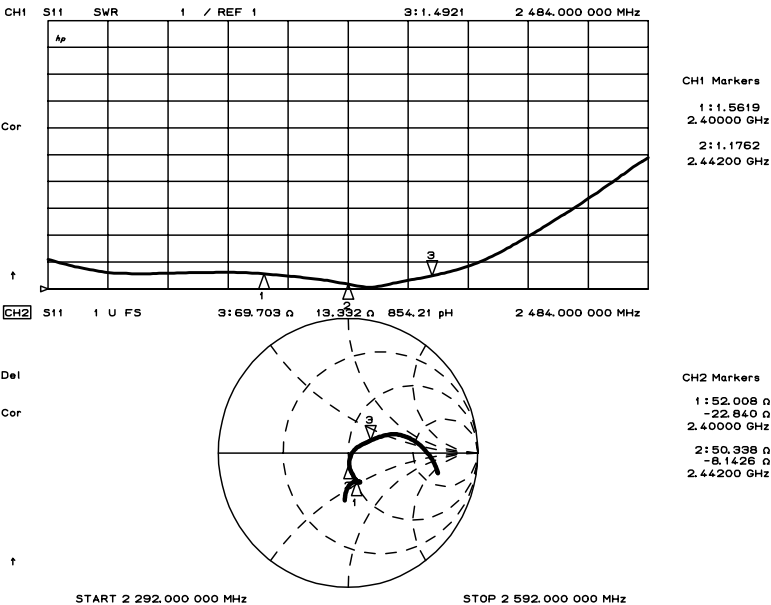
f=2442MHz

| Plane | Tx         | Peak. Gain<br>[dBi] | Avg. Gain<br>[dBi] | Tx H & V Avg.<br>[dBi] | Each Freq. Avg.<br>[dBi] |
|-------|------------|---------------------|--------------------|------------------------|--------------------------|
| X-Y   | Horizontal | -2.37               | -8.02              | -7.65                  | -8.34                    |
|       | Vertical   | -3.21               | -7.31              |                        |                          |
| Z-Y   | Horizontal | -3.47               | -10.24             | -8.85                  |                          |
|       | Vertical   | -1.22               | -7.80              |                        |                          |
| Z-X   | Horizontal | 1.15                | -7.33              | -8.62                  |                          |
|       | Vertical   | -6.04               | -10.46             |                        |                          |

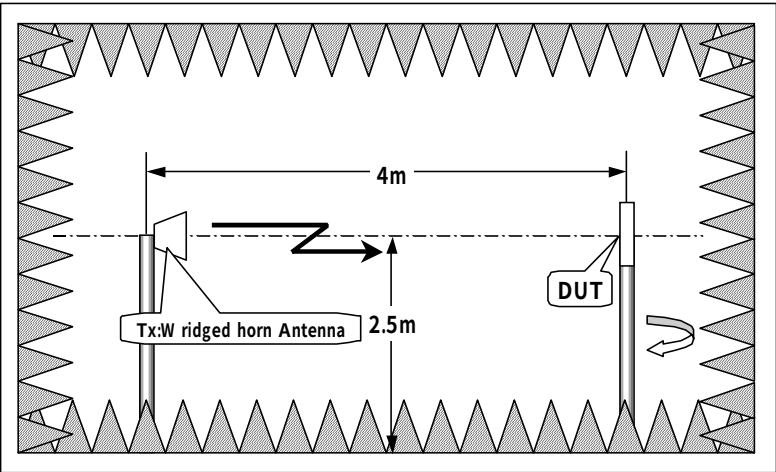
f=2484MHz

| Plane | Tx         | Peak. Gain<br>[dBi] | Avg. Gain<br>[dBi] | Tx H & V Avg.<br>[dBi] | Each Freq. Avg.<br>[dBi] |
|-------|------------|---------------------|--------------------|------------------------|--------------------------|
| X-Y   | Horizontal | -4.85               | -9.20              | -9.02                  | -9.24                    |
|       | Vertical   | -4.31               | -8.85              |                        |                          |
| Z-Y   | Horizontal | -2.99               | -11.53             | -9.41                  |                          |
|       | Vertical   | -1.42               | -7.99              |                        |                          |
| Z-X   | Horizontal | 0.64                | -7.76              | -9.31                  |                          |
|       | Vertical   | -6.74               | -11.75             |                        |                          |

VSWR



Measurement Condition

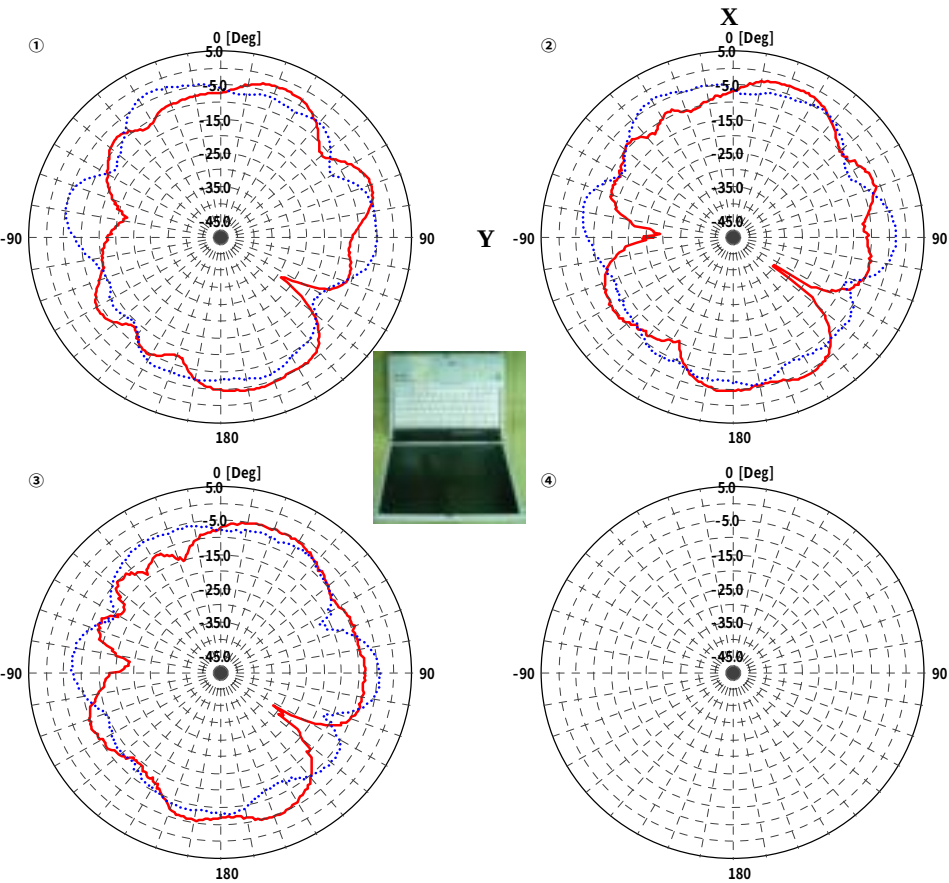


Antenna Coordinated



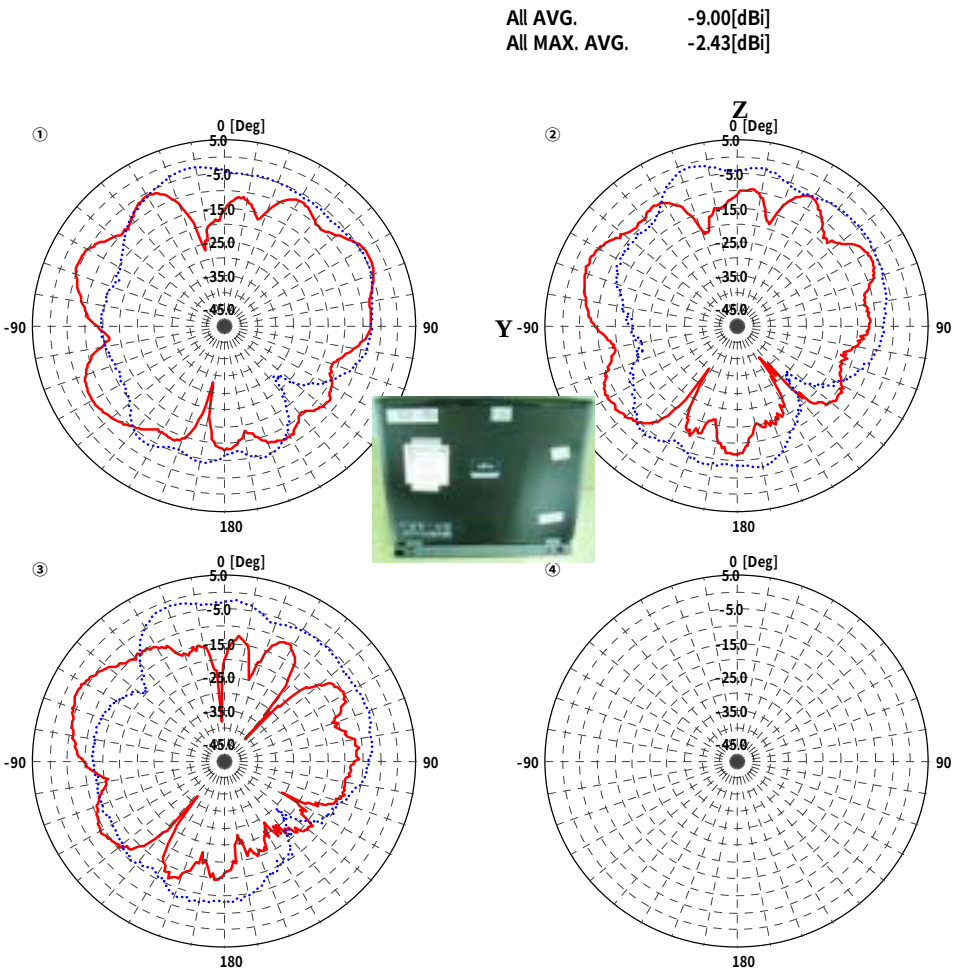
Field Pattern X-Y Plane

All AVG. -8.13[dBi]  
All MAX. AVG. -3.22[dBi]



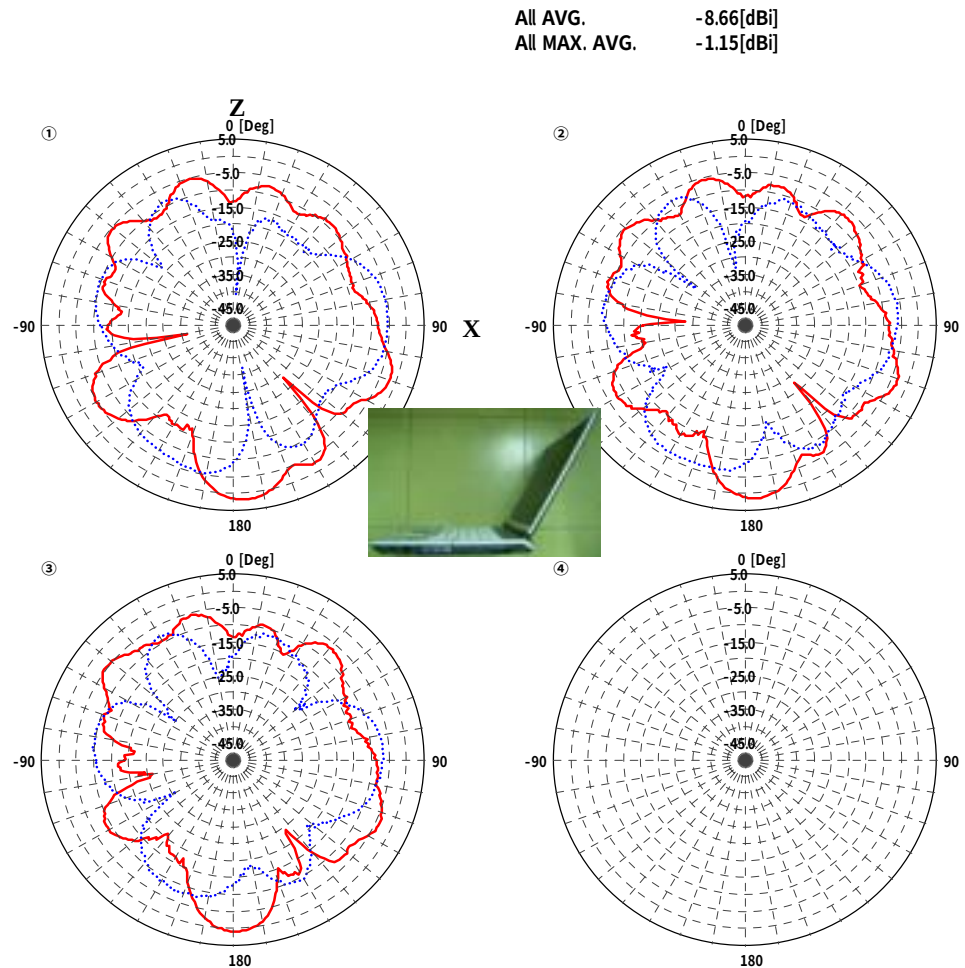
|   | Line  | No. | Frequency[MHz] | MEMO       |  | MAX. Gain[dBi] | AVG. Gain[dBi] |
|---|-------|-----|----------------|------------|--|----------------|----------------|
| 1 | ————— | ①   | 2400.00        | Horizontal |  | -2.56          | -8.02          |
| 2 | ————— | ②   | 2442.00        |            |  | -2.37          | -8.02          |
| 3 | ————— | ③   | 2484.00        |            |  | -4.85          | -9.20          |
| 4 | ..... | ①   | 2400.00        | Vertical   |  | -2.60          | -7.65          |
| 5 | ..... | ②   | 2442.00        |            |  | -3.21          | -7.31          |
| 6 | ..... | ③   | 2484.00        |            |  | -4.31          | -8.85          |

Field Pattern Z-Y Plane



|   | Line  | No. | Frequency[MHz] | MEMO       |  | MAX. Gain[dBi] | AVG. Gain[dBi] |
|---|-------|-----|----------------|------------|--|----------------|----------------|
| 1 | —     | ①   | 2400.00        | Horizontal |  | -3.75          | -9.35          |
| 2 | —     | ②   | 2442.00        |            |  | -3.47          | -10.24         |
| 3 | —     | ③   | 2484.00        |            |  | -2.99          | -11.53         |
| 4 | ..... | ①   | 2400.00        | Vertical   |  | -2.37          | -8.25          |
| 5 | ..... | ②   | 2442.00        |            |  | -1.22          | -7.80          |
| 6 | ..... | ③   | 2484.00        |            |  | -1.42          | -7.99          |

Field Pattern Z-X Plane



|   | Line  | No. | Frequency[MHz] | MEMO       |  | MAX. Gain[dBi] | AVG. Gain[dBi] |
|---|-------|-----|----------------|------------|--|----------------|----------------|
| 1 | —     | ①   | 2400.00        | Horizontal |  | 1.46           | -6.56          |
| 2 | —     | ②   | 2442.00        |            |  | 1.15           | -7.33          |
| 3 | —     | ③   | 2484.00        |            |  | 0.64           | -7.76          |
| 4 | ..... | ①   | 2400.00        | Vertical   |  | -5.56          | -10.60         |
| 5 | ..... | ②   | 2442.00        |            |  | -6.04          | -10.46         |
| 6 | ..... | ③   | 2484.00        |            |  | -6.74          | -11.75         |