

**Appendix 9.**

## **Antenna specification**

## WFG-200 Bluetooth Antenna Characteristic

### 1. Test Result (3D Efficiency)

	1	2	3	4	5	6	7	8	9	10
Frequency(MHz)	2400	2410	2420	2430	2440	2450	2460	2470	2480	2490
Efficiency(dB)	-2.74	-2.71	-2.91	-2.69	-2.30	-2.18	-1.81	-1.60	-1.19	-1.78
Efficiency(%)	53.27	53.60	51.18	53.79	58.93	60.53	65.87	69.13	76.08	66.38
TRG(dB)	-2.74	-2.71	-2.91	-2.69	-2.30	-2.18	-1.81	-1.60	-1.19	-1.78
TRG <sub>Theta</sub> (dB)	-4.41	-4.40	-4.81	-4.54	-3.99	-3.82	-3.60	-3.16	-2.76	-3.49
TRG <sub>phi</sub> (dB)	-7.69	-7.61	-7.42	-7.30	-7.21	-7.21	-6.54	-6.82	-6.36	-6.65
UHRG(dB)	-7.61	-7.59	-7.70	-7.51	-7.18	-7.09	-6.83	-6.52	-6.06	-6.60
UHRG/TRG(%)	32.55	32.47	33.15	32.97	32.46	32.31	32.99	32.24	32.53	32.99
H-Plane	-3.33	-3.40	-3.88	-3.66	-3.09	-2.94	-2.74	-2.31	-1.92	-2.73
E1-Plane, AVG(dB)	-5.75	-5.68	-6.04	-5.77	-5.20	-5.04	-4.79	-4.37	-3.98	-4.68
E2-Plane, AVG(dB)	-3.89	-3.90	-4.31	-4.04	-3.49	-3.30	-3.07	-2.66	-2.28	-3.01
Peak Gain(dB)	1.66	1.80	1.58	1.84	2.07	2.15	2.41	2.57	2.61	1.95
Directivity(dB)	4.39	4.51	4.49	4.53	4.37	4.33	4.22	4.17	3.80	3.73
Minimum Gain(dB)	-10.73	-10.91	-11.01	-10.81	-10.26	-10.02	-9.79	-9.55	-9.43	-10.19
Average Efficiency	-2.16 dB, 60.87 %									
Test Condition										
Antenna Type										

### 2. Radiation Pattern

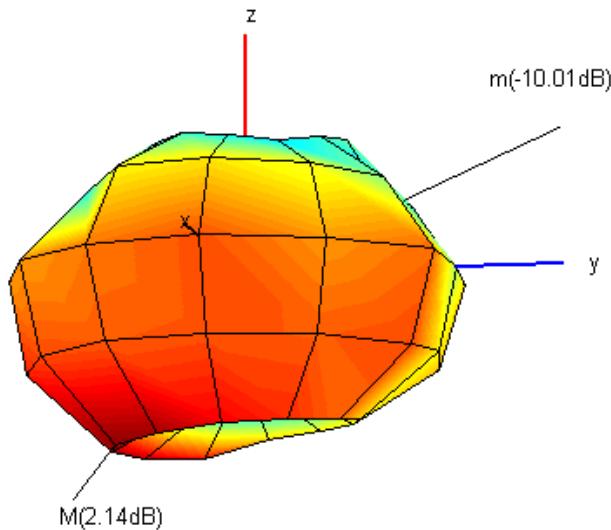


Fig 1. Radiation Pattern

	Efficiency (%)	Efficiency (dB)	UHRG(dB)	Peak Gain ( dBi )
Radiation	60	-2.18	-7.0	2.14

### 3. Measurement Company Information

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