

SPECIFICATIONS

PRODUCT NAME : Bluetooth Low Energy Antenna

MODEL NAME : ETWBCLUL04 Ant.

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Change History of Revision

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1. ANT Features

- BLE ANT
- Main Frequency: 2.45GHz
- Frequency range
: From 2.412~2.485GHz
- Operating temperature range
: -35 to +95°C (typ.)
- ANT Material : PCB pattern

2. Antenna Characteristics

- Dual Band ANT1

Antenna Performance				
Parameter	Min	Typ	Max	Unit
Frequency Range	2412	2450	2485	MHz
Directivity	-	Omni	-	-
Full Bands Average Gain	-	-7.24	-	dBi
Full Bands Peak Gain		-	-1.39	
V.S.W.R	3:1	-	-	Under
Impedance		50		Ohm
Radiation Material		PCB pattern		



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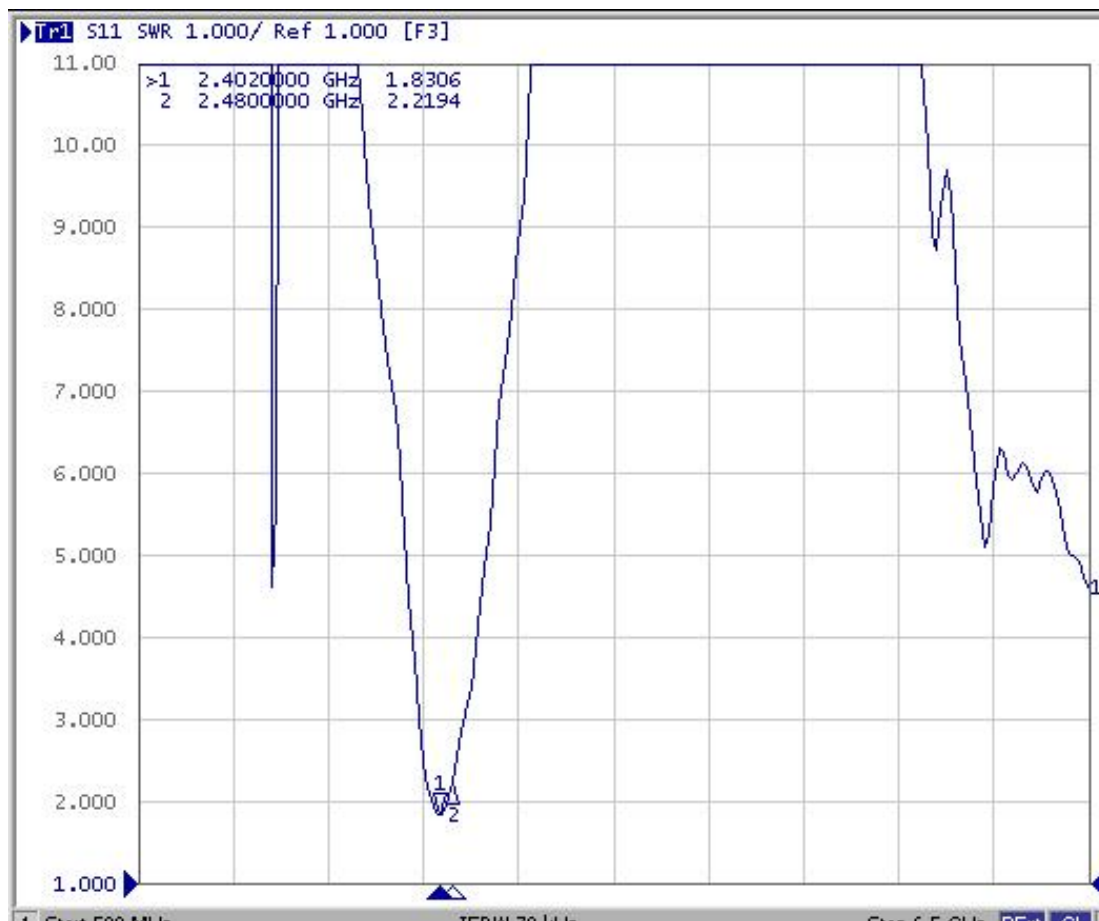
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2.1 Network Data**VSWR**

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2.2. Efficiency

	1	2	3	4	5	6	7	8	9	10
Frequency(MHz)	2402	2412	2430	2440	2445	2450	2460	2470	2480	2485
Efficiency(dB)	-7.05	-7.06	-7.08	-7.05	-6.99	-7.08	-7.25	-7.39	-7.64	-7.87
Efficiency(%)	19.70	19.67	19.61	19.70	20.02	19.57	18.83	18.24	17.23	16.34
TRG(dB)	-7.05	-7.06	-7.08	-7.05	-6.99	-7.08	-7.25	-7.39	-7.64	-7.87
TRG _{Theta} (dB)	-8.80	-8.89	-9.15	-9.24	-9.23	-9.38	-9.57	-9.78	-10.01	-10.22
TRG _{Phi} (dB)	-11.85	-11.70	-11.28	-11.08	-10.93	-10.94	-11.08	-11.13	-11.40	-11.66
UHRG(dB)	-10.87	-10.83	-10.82	-10.82	-10.75	-10.88	-11.12	-11.29	-11.55	-11.78
UHRG/TRG(%)	41.55	42.01	42.23	41.97	41.98	41.70	41.03	40.78	40.62	40.59
H-Plane	-9.20	-9.22	-9.26	-9.25	-9.18	-9.35	-9.61	-9.91	-10.14	-10.33
E1-Plane, AVG(dB)	-9.10	-9.33	-9.81	-10.01	-10.11	-10.24	-10.44	-10.66	-10.92	-11.12
E2-Plane, AVG(dB)	-8.73	-8.80	-9.04	-9.13	-9.08	-9.24	-9.41	-9.60	-9.82	-10.04
Peak Gain(dB)	-1.39	-1.58	-1.93	-2.10	-2.25	-2.30	-2.41	-2.53	-2.76	-2.93
Directivity(dB)	5.67	5.48	5.14	4.95	4.73	4.79	4.84	4.86	4.88	4.94
Minimum Gain(dB)	-15.65	-16.23	-17.03	-17.34	-17.36	-17.56	-17.82	-17.68	-17.52	-17.55
Test Condition	FS									
Antenna Type										
Average Efficiency	-7.24 dB, 18.89 %									

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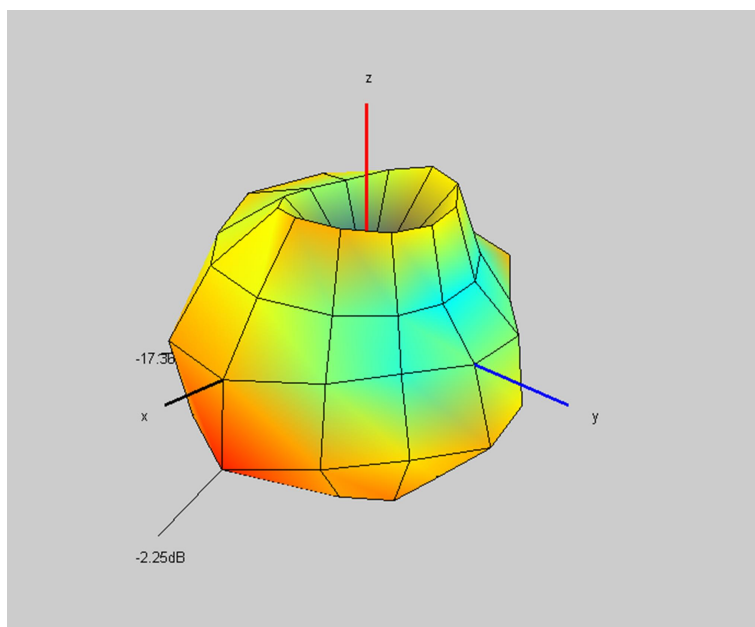
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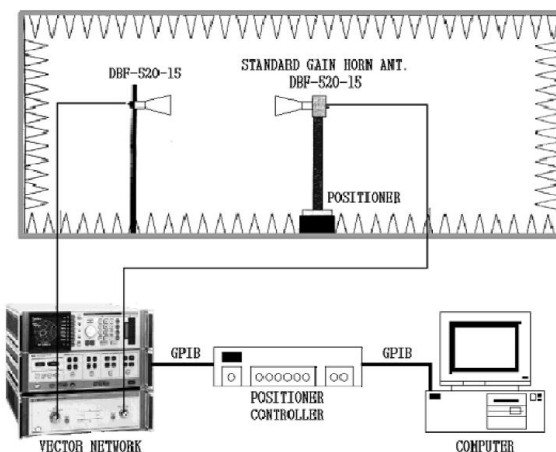
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2.3. Radiation Pattern

<2.45GHz>

3. ANT Test Condition**CTIA-OTA Test Chamber : 3x6x3m**

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4. Dimensions