

天线规格书
Antenna specification for approval

客户名称 Customer name	HF		
机型 Model	D216		
天线频段 Antenna band	2.4GHZ		
天线类型 Antenna type	FPC/L/R		
天线材质 Antenna material	FPC		
FPC 颜色 FPC color	black		
料号 Material number	HF-D216L-AFPC-V1 HF-D216R-AFPC-V1		
厂商承认签章 Baren accepted the signature		客户承认签章 Client acknowledges signature	
结构 structure		采购 Purchase	
品质 QC		结构 structure	
射频 radio frequency		工程 engineering	
审核 To examine		品质 QC	
日期 date	盖章区 Seal area	日期 date	盖章区 Seal area

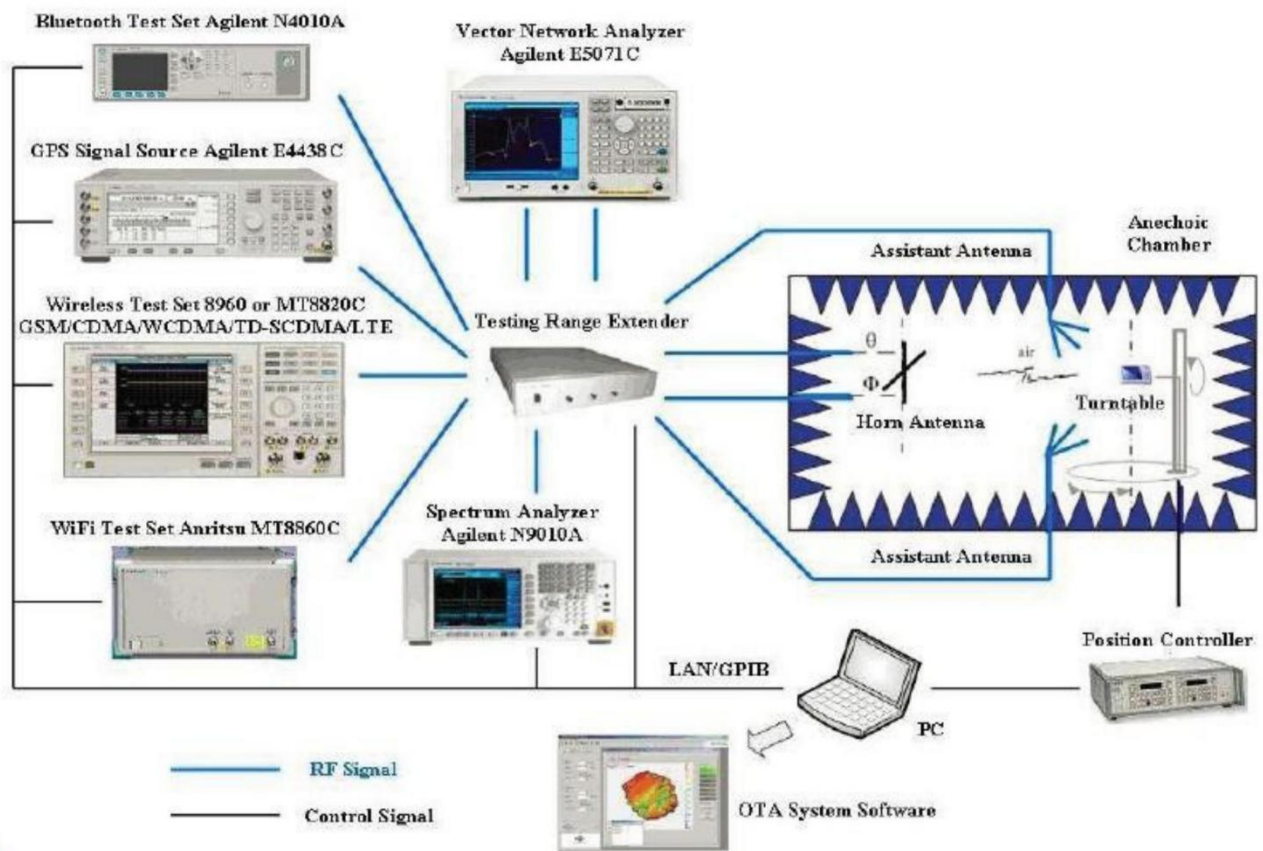
7 / F, Building F, Zhichuang Park, Tong 'an, Gushu, Shenzhen

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1: Device support & can test antenna types



2: summarize

(1) Antenna performance

1. This approval sheet supports for MID project. FPC antennas include in this project. This report is for the performance of BT antenna.
2. Antenna shape size: Meet the requirement of MID
3. Antenna band: 2400MHz~2500MHz
4. Antenna material: Antenna material meet the requirement of MID
5. Adhesive performance: Adhesive performance meet the requirement of MID
6. Antenna performance meet the spec below:

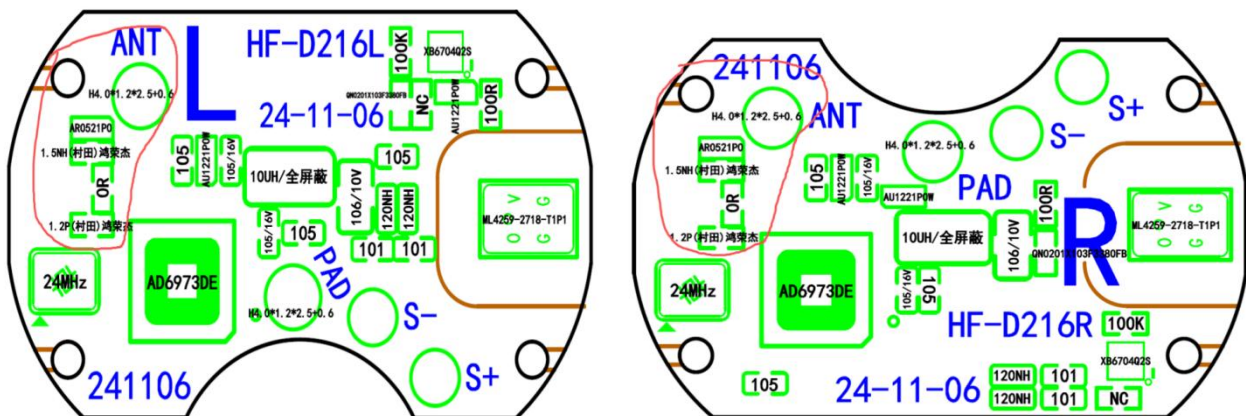
Description	2.4GHz~2.5GHz	Units
VSWR	≤ 2.0	
Average Antenna Gain	2.69	dBi
Antenna Efficiency	≥ 40	%
Feed Impedance	50 ohms	
Operating Temperature	-40 to +85 deg C	
Polarization / Azimuth	Linear / Omni-directional	

(2) Mechanical Information

Mechanical Dimension	
Cable Length	NA
Description	BT antenna
Material	FPC
Coaxial Cable	NA
Environmental	
Operation Temperature	-40 to +85 deg C
Storage Temperature	-40 to +85 deg C

3: Match circuit diagram & machine

(1) picture & antenna picture



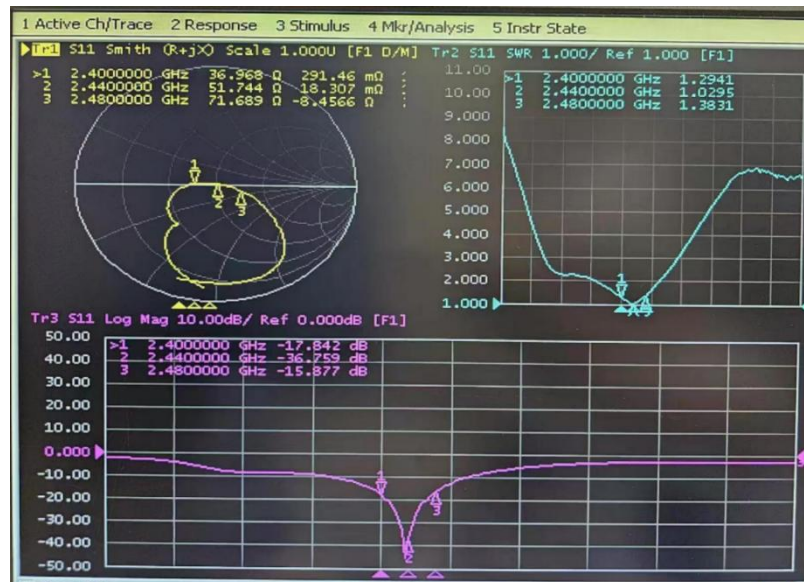
(2) Machine picture & antenna picture

1: gold plating; 3: Surface black matte ink; 4: Meet the latest environmental requirements: RoHS&REACH; 5: The whole board shipment;



4: Antenna Standing Wave Ratio & Antenna Efficiency (VSWR)

Left ear:



Frequency (MHz)	VSWR
2400	1.29
2440	1.02
2480	1.38

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)
2400	47.6	-3.22	2.36	0.21
2410	41.94	-3.77	1.79	-0.36
2420	44.56	-3.51	2.06	-0.09
2430	50.2	-2.99	2.66	0.51
2440	40.53	-3.92	1.71	-0.44
2450	50.36	-2.98	2.69	0.54
2460	42.12	-3.75	2.01	-0.14
2470	43.69	-3.6	2.06	-0.09
2480	47.52	-3.23	2.3	0.15
2490	36.44	-4.38	1.03	-1.12
2500	41.78	-3.79	1.48	-0.67

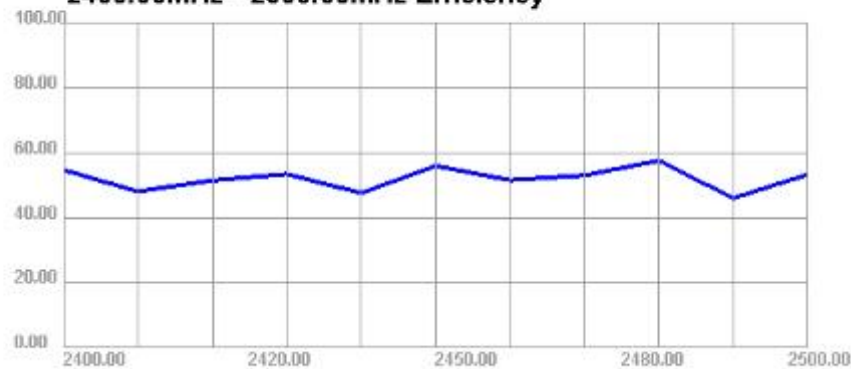
Right ear:

Passive Test For BT2.4												
Freq (MHz)	Effi (%)	Effi (dBi)	Gain (dBi)	Gain (dRd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Directivity (dBi)	Beamwidth (3dB)	AttH (dB)	AttV (dB)
2400	54.69	-2.62	3.11	0.96	0	0	3.11	-13.25	2.62	45	47.36	46.86
2410	48.05	-3.18	2.59	0.44	0	0	2.59	-14.03	3.18	90	47.4	46.9
2420	51.47	-2.88	2.92	0.77	0	0	2.92	-13.85	2.88	90	47.28	46.76
2430	53.44	-2.72	3.07	0.92	0	0	3.07	-13.27	2.72	90	47.35	46.78
2440	47.58	-3.23	2.56	0.41	0	0	2.56	-13.33	3.23	45	47.15	46.65
2450	55.93	-2.52	3.25	1.1	0	0	3.25	-12.38	2.52	45	47.33	46.85
2460	51.56	-2.88	2.93	0.78	0	0	2.93	-13.36	2.88	45	47.72	47.22
2470	53.02	-2.76	3.17	1.02	0	0	3.17	-15.08	2.76	45	47.36	46.93
2480	57.55	-2.4	3.65	1.5	0	0	3.65	-15.53	2.4	45	47.56	47.1
2490	46.01	-3.37	2.79	0.64	0	0	2.79	-15.8	3.37	45	47.05	46.67
2500	53.3	-2.73	3.5	1.35	0	0	3.5	-14.18	2.73	90	47.01	46.63

2400.00MHz - 2500.00MHz Gain

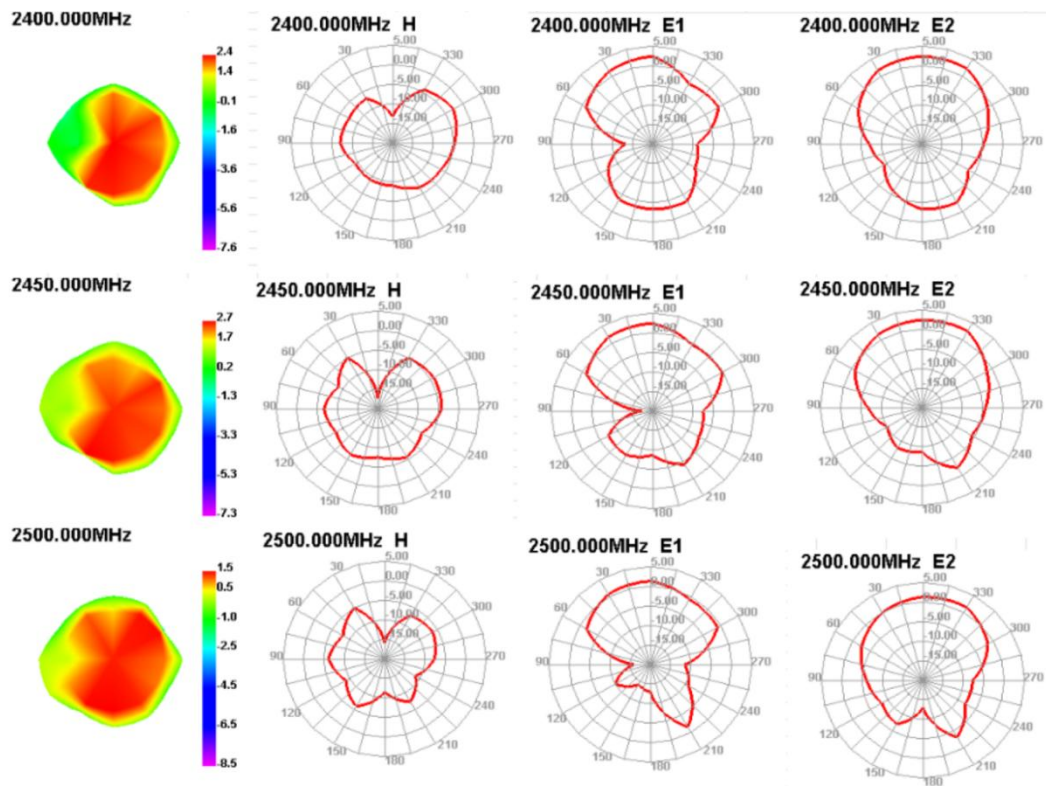


2400.00MHz - 2500.00MHz Efficiency

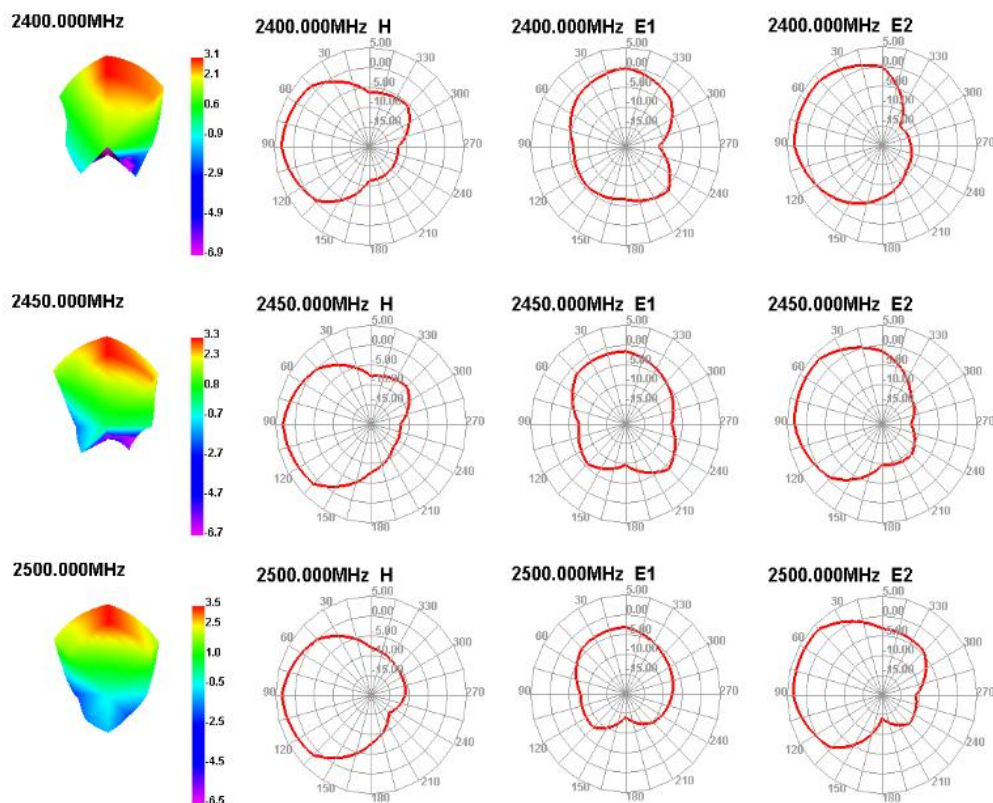


5:3D pattern

Left ear:



Right ear:



6: Structural drawing

Unit: MM

