

Acknowledgement

SPECIFICATION FOR APPROVAL

Customer Name

CUSTOMER NAME: Dongguan city and Le Electronics

Co., Ltd. Customer Part Number

CUSTOMER P/N: 10.157.000130

Product Material No.

PRODUCT P/N: HJ HT08-A11

Product Name

PRODUCT NAME: FPC Antenna

Specifications:

Description BT 2400-FPCB Built-in Bluetooth headset antenna

(HT08)

version

REV: A0

factory seal

SIGN	approved APPROVED BY	audited CHECKED BY	prod ucti on of DRAMN

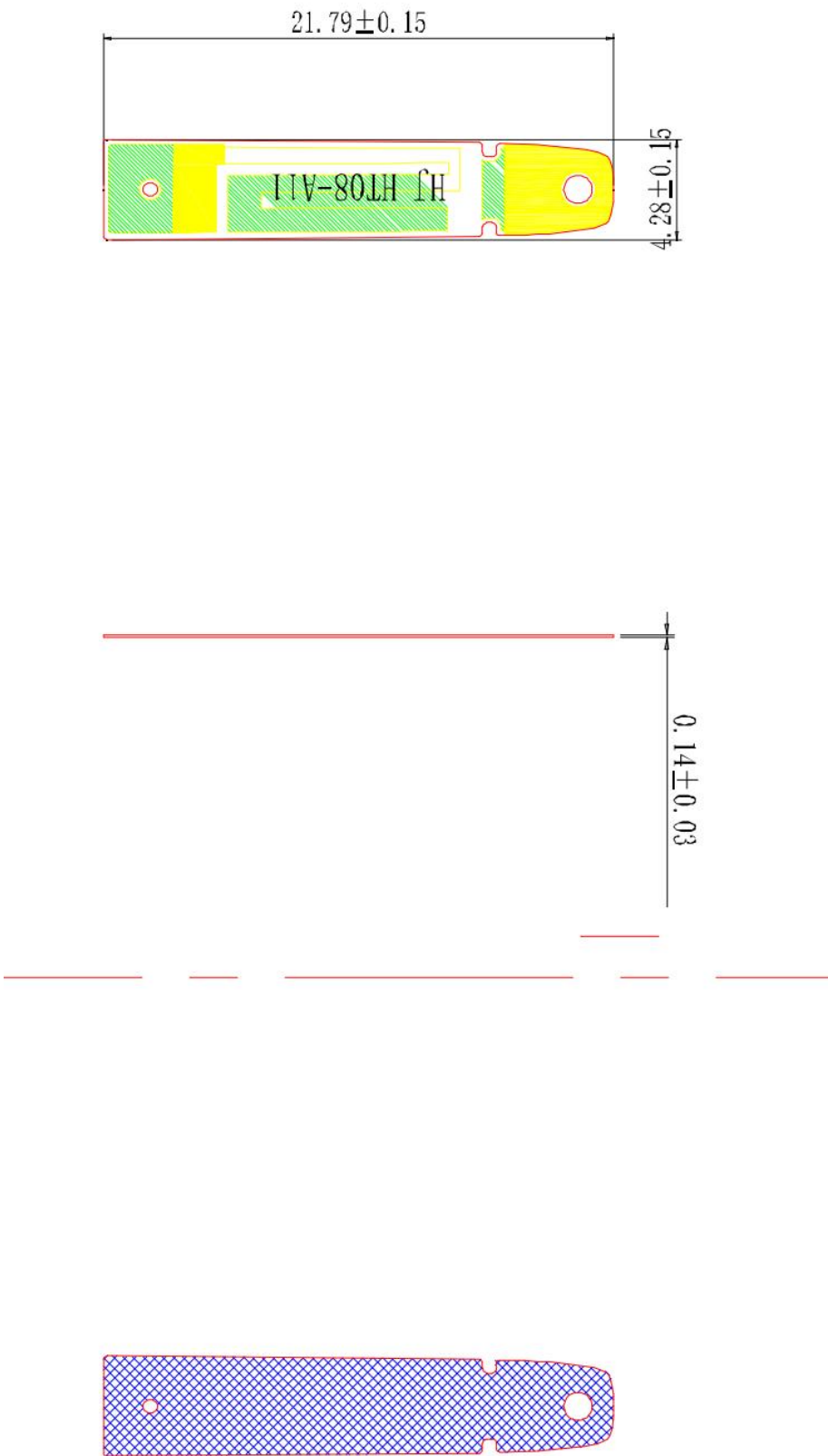
customer's signature

SIGN	qualitie s QE	develop R&D	work s PE

2. Specification Table:

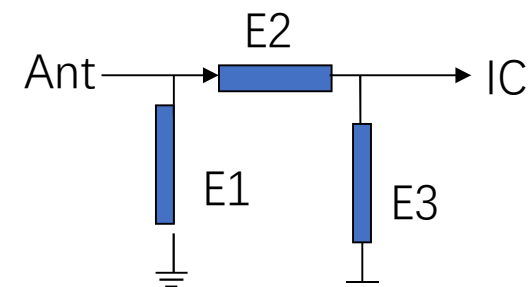
main technical indicators		Main technical specifications	
frequency range (MHZ)	2400~2480	Frequency Range (MHZ)	2400~2480
Characteristic impedance (ohm)	50	Impedance(Ω)	50
Standing wave ratio of output voltage	≤ 3.0	VSWR	≤ 3.0
polarization mode	linear polarization	Polarization	Linear polarization
directionality	omnidirectional	Radiation	Omni-directional
connection mode	thimble/shrapnel	Connector Type	Thimble/shrapnel
physical properties		Physical Properties	
antenna body material	FPCB	Antenna cover	FPCB
operating temperature	-20℃~+70℃	Operating Temp	-20℃~+70℃
storage temperature	-20℃~+60℃	Storage Temp	-20℃~+60℃

III. Product drawing:



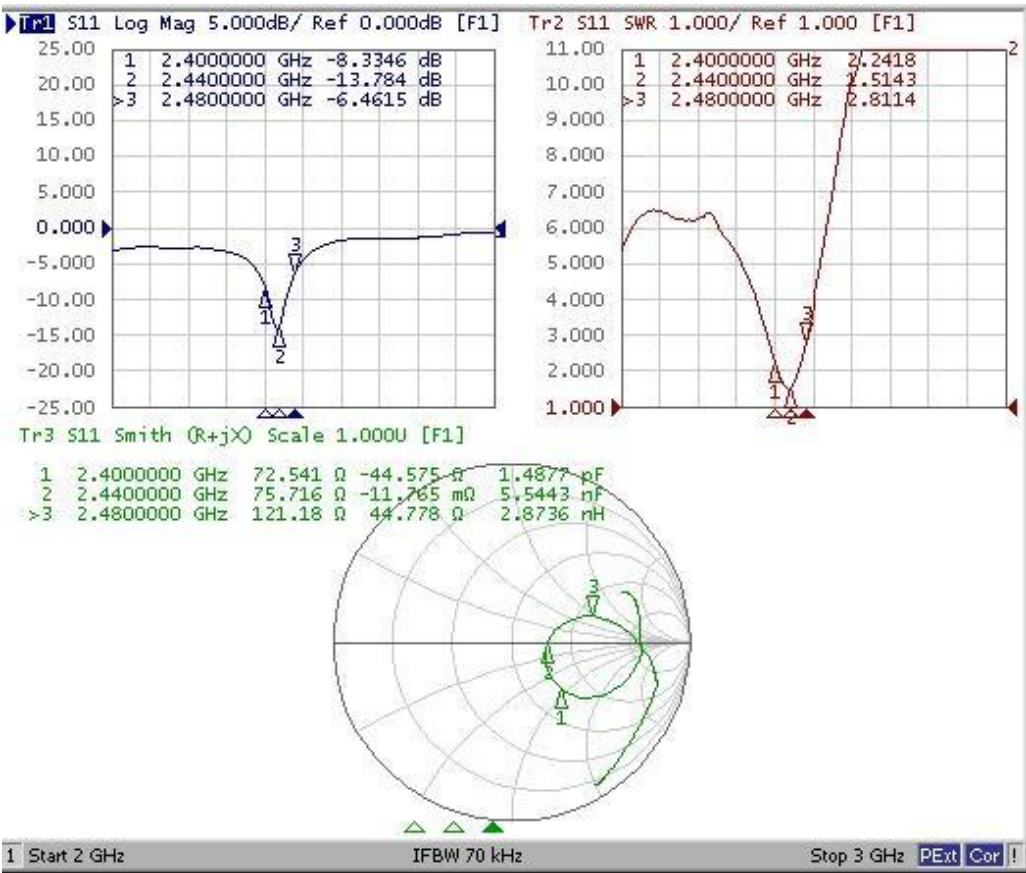
5. Test report:

5.1 Matching circuit diagram:



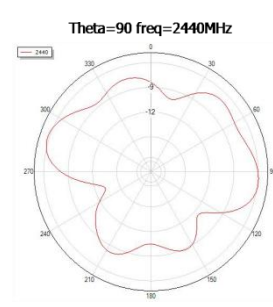
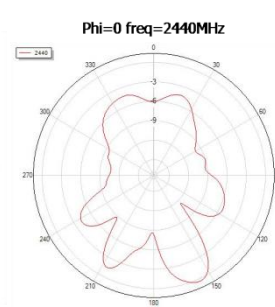
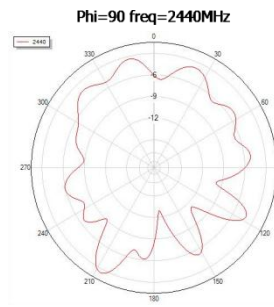
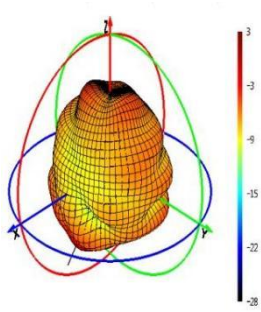
Element	Value
E1	N/A
E2	0R
E3	3.0pF

5.2 Network Analyzer Test Report:



5.3 Darkroom 2D, 3D Raditation Pattern gain: &

Freq[MHz]	Gain(dBi)	Efficiency(%)	Gain(dBi)	Efficiency(%)
	free space	free space	Second generation head	Second generation head
2400	-0.59	24.01	-6.39	8.01
2410	-0.74	24.75	-6.55	8.52
2420	-0.58	24.78	-6.96	8.23
2430	-0.72	25.89	-6.32	8.97
2440	-0.53	25.47	-6.11	9.23
2450	-0.42	26.01	-6.23	9.04
2460	-0.57	26.85	-6.89	8.22
2470	-0.32	25.89	-6.57	8.71
2480	-0.69	25.54	-6.35	8.56
2490	-0.47	23.95	-6.48	7.88
2500	-0.95	22.56	-6.99	7.51



5.4 Darkroom active OTA data:

L	chan nel	TRP (dbm)	TIS (dbm)
free space	0	2.89	-87.42
	39	3.5	-88.69
	78	2.45	-88.2
L	chan nel	TRP (dbm)	TIS (dbm)
Second generation head mold	0	-2.5	-81.04
	39	-2.23	-81.85
	78	-2.11	-81.26
R	chan nel	TRP (dbm)	TIS (dbm)
free space	0	2.59	-87.95
	39	3.18	-88.52
	78	3.01	-88.23
R	chan nel	TRP (dbm)	TIS (dbm)

HONANT

Second generation head mold	0	-2.75	-81.14
	39	-1.98	-81.75
	78	-2.29	-81.23