

Antenna Sample Datasheet

customer:	Dongguan Hele Electronics Co., Ltd
entry name:	QT30-L
Material category:	BT antenna
Antenna Type	PIFA
Antenna Material	FPC
edition:	A0
Date:	2024.01.02



深圳市宇鸿实业有限公司

Shenzhen Yuhong Industrial Co., Ltd

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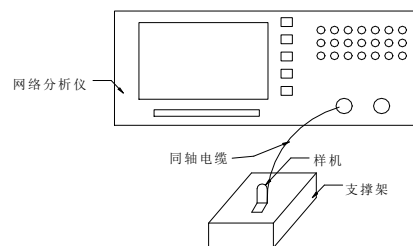
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1: Antenna test equipment

List of meters: Agilent 5071B;

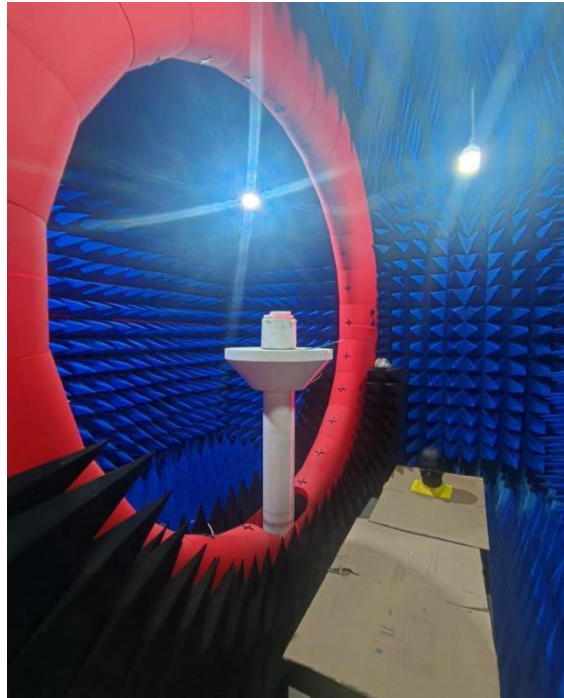


1.1 The principle diagram of the ETS anechoic chamber



Picture1. Antenna static test connection method

1.2 Pictures of the ETS anechoic chamber



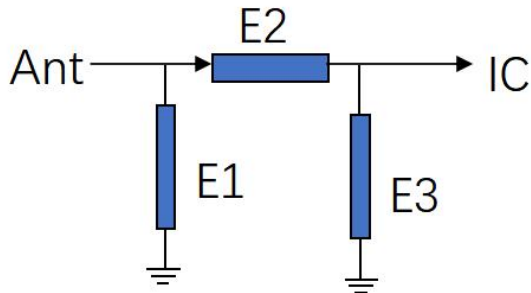
Inside the ETS anechoic chamber



Test Machine



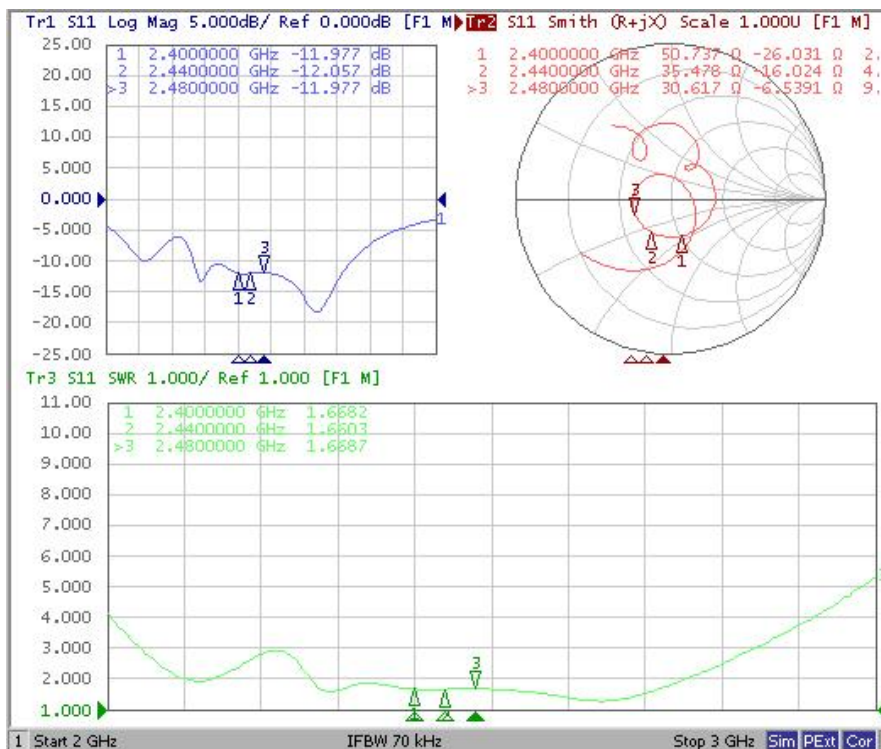
2: Matching circuit



Element	Value
E1	N/A
E2	OR
E3	N/A

3: Passive test report

3.1: BT antenna S11 parameters

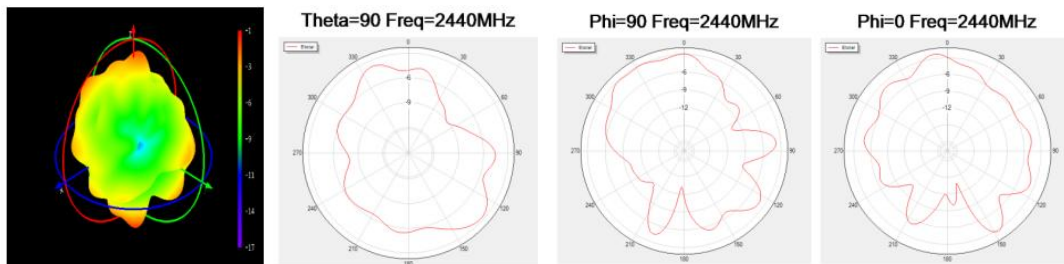




3.2: Passive efficiency of antenna

L				
Freq(MHz)	Gain(dBi)	Efficiency(%)	Gain(dBi)	Efficiency(%)
	free space-Left	free space-Left	free space-Right	free space-Right
2400	-2.46	25.17	-5.71	9.93
2410	-2.32	26.07	-5.27	9.81
2420	-2.1	26.77	-5.92	9.61
2430	-1.83	27.19	-5.71	10.22
2440	-1.5	27.49	-5.57	9.11
2450	-1.26	27.7	-5.56	10.05
2460	-1.23	27.79	-5.13	9.55
2470	-1.31	28.16	-5.2	9.58
2480	-1.29	28.93	-5.36	10.18
Mean value	-1.70	27.25	-5.49	9.78

3.3: Passive pattern of BT antenna





4: Structural drawing

	A	B	C	D	E	F	G																								
	Environmentally friendly Rolls 2.0					Version A3	Date 2023-10-20	Change Description Modify the appearance																							
1								1																							
2								2																							
3								3																							
4	<p>NOTES:</p> <ol style="list-style-type: none"> The green part is made of copper; Blank is the base material; The yellow part is the gold-plated area; Blue is the adhesive area; The die can not hurt the line, and the gold-plated area should be connected with the line; The surface should not have dirt, scratches, black spots, breakage and falling off after gold plating; Material: FPC single panel [P1(E)] a pair of half substrate (0.063mm) + adhesive (3M 9471 0.05mm) + surface black ink (Youji) (<0.01um); The back glue is 3M 9471; Gold finger surface gold-plated (thickness: ≥1u"), no oxidation phenomenon (salt spray test required); After 48±1 hours of salt spray test, there were no corrosion points on the surface and the coating fell off; The front screen print is in bright white font. The screen print position and font size are shown in the figure; Mark * as the key dimensions, please check according to standard tolerances if not marked; Meet our ROHS, Reach, halogen-free requirements. 							4																							
5	<p>Electrical performance:</p> <ol style="list-style-type: none"> Test the continuity of the circuit conductivity: $35 \cdot 58m / (\Omega \cdot mm^2)$ <p>Physical and chemical properties:</p> <ol style="list-style-type: none"> The golden finger should not have oxidation phenomenon (salt spray test is required) After 48 ± 1 hour of salt spray tests, There are no corrosion points on the surface and the coating is not peeling off. 			<p>TOLERANCE TABLE</p> <table border="1" style="font-size: small;"> <tr> <td>0~10</td> <td>±0.10</td> <td>○</td> <td>0.02</td> </tr> <tr> <td>10~20</td> <td>±0.12</td> <td>◎</td> <td>0.03</td> </tr> <tr> <td>20~40</td> <td>±0.15</td> <td>⊥</td> <td>0.02</td> </tr> <tr> <td>40~50</td> <td>±0.20</td> <td>⊥</td> <td>0.04</td> </tr> <tr> <td>50~100</td> <td>±0.25</td> <td>⊥</td> <td>0.02</td> </tr> </table>	0~10	±0.10	○	0.02	10~20	±0.12	◎	0.03	20~40	±0.15	⊥	0.02	40~50	±0.20	⊥	0.04	50~100	±0.25	⊥	0.02	<p>APPROVED:</p> <p>MAO LU PING</p>	<p>PRODUCT NAME: FPC</p> <p>PRODUCT NUMBER: QT30-L</p>	<p>CUTTING</p> <p>HALF CUTTING PROCESS</p>	<p>VERSION</p> <p>PROPORTION</p> <p>PAGE SIZE</p> <p>PAGE NUMBER</p>	<p>DRAWING:</p> <p>YU JIANG BO</p>	<p>Notes: This drawing is issued internally by Shenzhen Yuhong Industrial Co., Ltd</p> <p>No one is allowed to copy, modify or take away the company without permission.</p>	5
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6	<p>深圳市宇鸿实业有限公司</p>			<p>1/1</p>	<p>Notes: This drawing is issued internally by Shenzhen Yuhong Industrial Co., Ltd</p> <p>No one is allowed to copy, modify or take away the company without permission.</p>			6																							

5: OTA Test data

L	Channel	TRP (dbm)	TIS (dbm)
Free space	0	3.52	-88.26
	39	3.87	-88.56
	78	3.62	-88.58
L	Channel	TRP (dbm)	TIS (dbm)
Head model	0	-1.26	-83.16
	39	-1.09	-83.95
	78	-1.12	-83.64

6: Antenna diagram

