

深圳市拓普联科技股份有限公司
样品承认书

Antenna Specifications

Customer	Honeywell	Phone Model	WIFI
project	HENGs	Frequency band	WIFI 2.4GHz&5.8GHz
Color	Black	Revision	P04
Design	Steven	Date	2017-09-05
Check	Frank	Date	2017-09-05
Approve	Kevin	Date	2017-09-05
Customer Approve		Date	

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1. General

This document presents the antenna specifications on electric, mechanic and reliability. The testing conditions, fixturing methods and related pictures are also included.

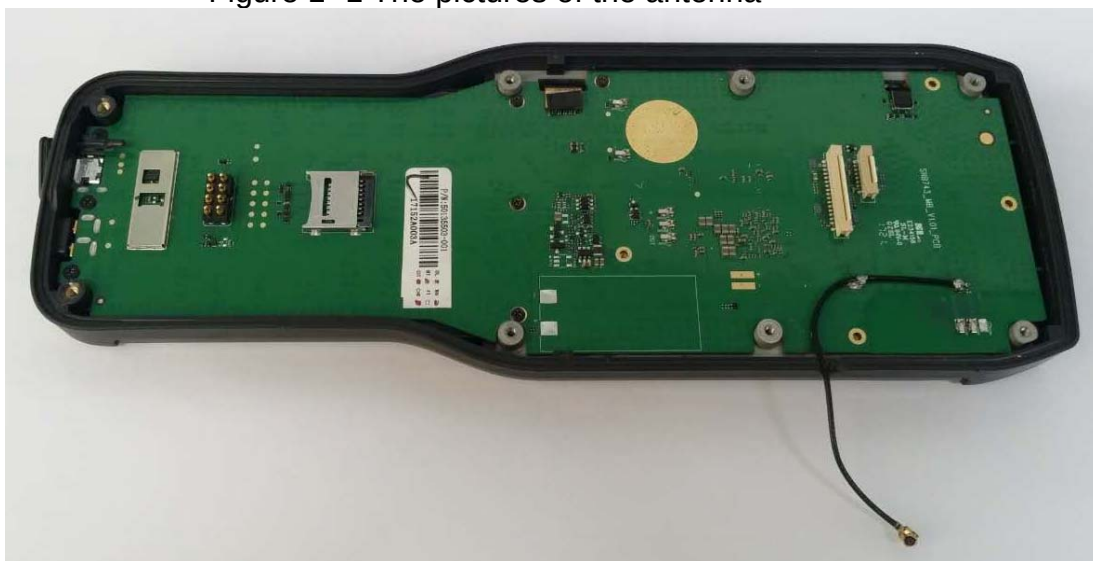
1.1 Product Description

These antennas product contains one fixed internal antenna which consisting of a plastic carrier element ant. They are useds in a portable unit for wireless communication (referred to as a phone). The phone model No. is Honeywell HENGs WIFI antenna. The Honeywell HENGs WIFI antenna works in frequency bands WIFI 2.4GHz.&5.8GHz.

The pictures of the antenna is as Figure 1-1



Figure 1 -1 The pictures of the antenna



1.2 Product Part Number

Customer Product Number: 50135447-001

Top-link Product Number: 30404010009

1.3 Print Acceptance

Samples and Antenna Specifications are to be sent to customer. When they are approved, the approval form should be completed, signed, and sent back to Top-link before further mass production batches can be delivered.

2. Electrical Properties

2.1 Frequency Band

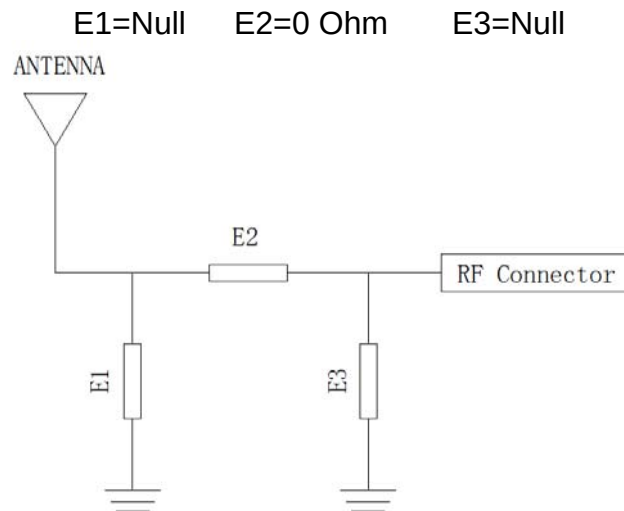
WIFI 2.4GHz.&5.8GHz

2.2 Impedance

2.2.1 Nominal

50Ohm

2.2.2 Method



Top-link will supply engineering assistance to ensure that the impedance over the frequency bands is as close to 50 ohms as possible after matching.

2.3 Passive Specifications

2.3.1 Methods of passive measurements

A 50 ohms coaxial cable is connected to the 50 ohms feeding point on the RF JIG. S11 of typical sample (Free Space)

Figure 2-1 is the Methods of passive measurements

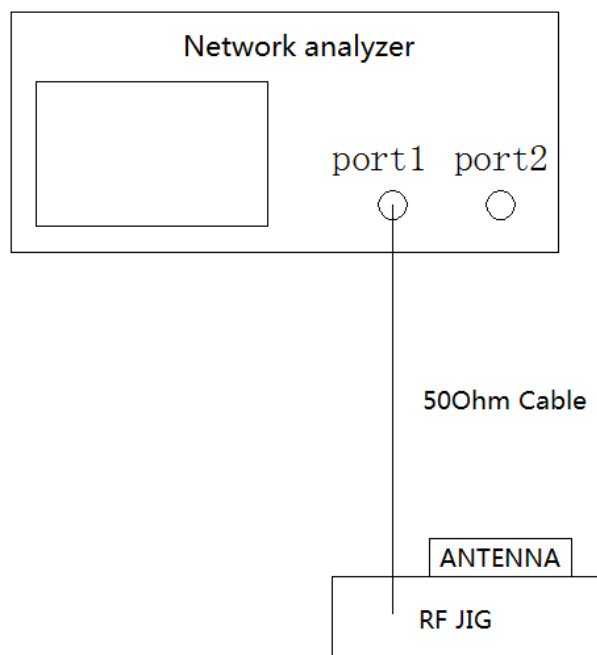


Figure 2-1 is the Methods of passive measurements

Figure 2-2 is the Return Loss and VSWR parameters

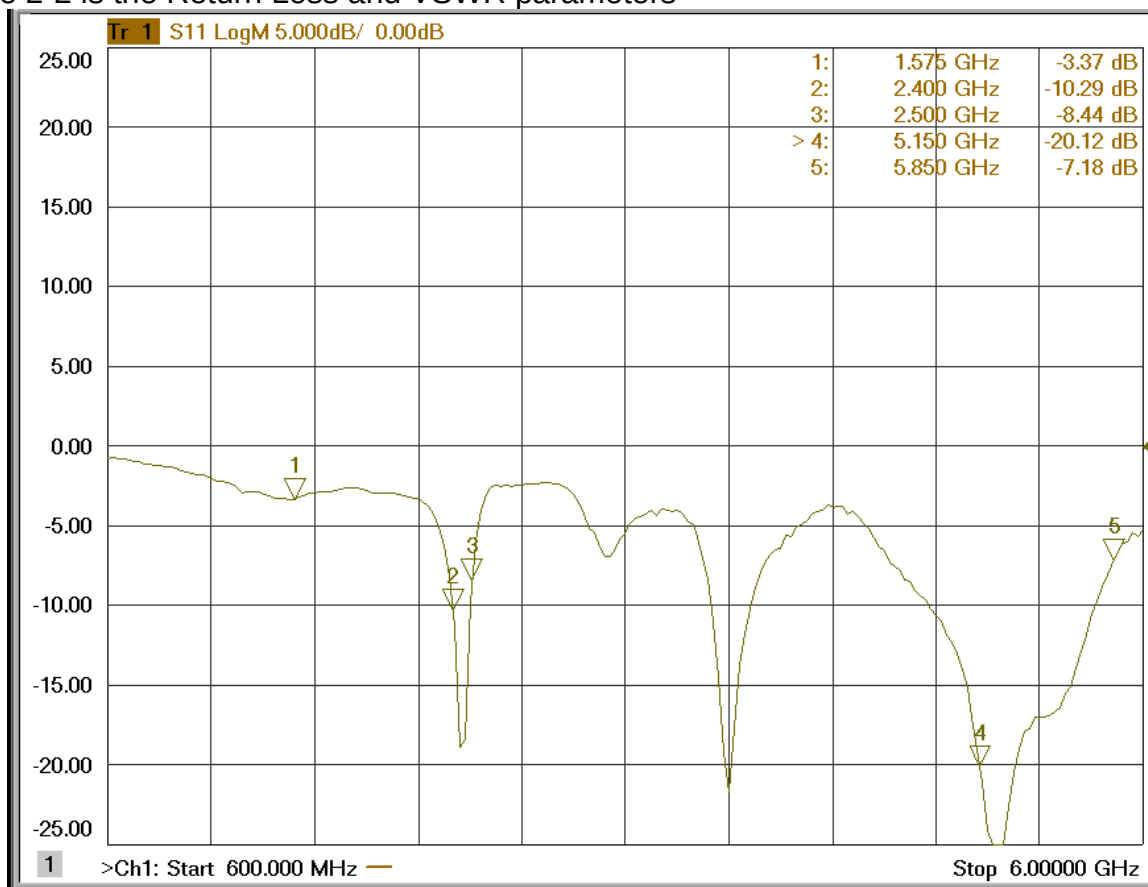


Figure 2-2: S11 plots of the antenna

Figure 2-3 is the Smith chart

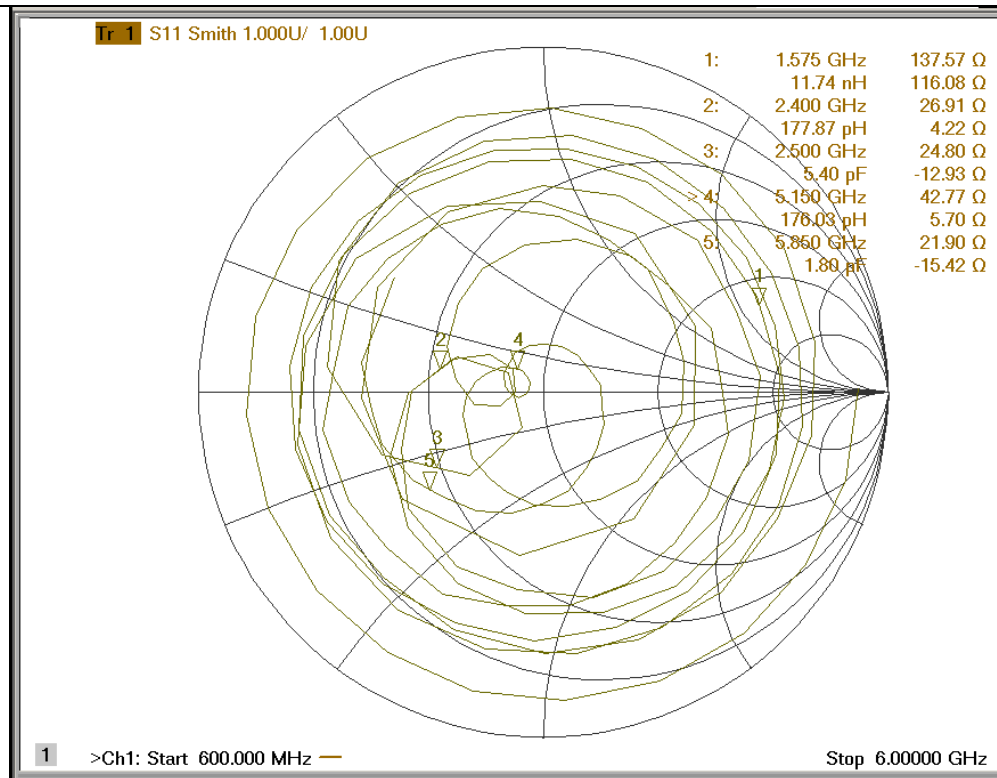


Figure 2-3 is the Smith chart

2.3.2 Efficiency Specifications (Free Space)

Chambers which complies with CTIA criteria is used in Top-link to measure antenna transmission parameters such as antenna efficiency, radiation pattern, etc. Table 2-4 is the efficiency of the typical sample.

Table 2-4 Efficiency of the typical sample

Freq(MHz)	Gain(dBi)	Eff(dB)	Eff (%)	Freq(MHz)	Gain(dBi)	Eff(dB)	Eff (%)
2400	0.27	-3.60	43.61	5390	2.76	-3.17	48.23
2410	0.65	-3.46	45.06	5410	2.77	-3.26	47.24
2420	0.97	-3.31	46.63	5430	3.00	-3.10	48.94
2430	0.76	-3.55	44.18	5450	2.88	-3.15	48.40
2440	0.71	-3.69	42.75	5470	3.02	-2.84	51.96
2450	1.04	-3.38	45.90	5490	2.96	-3.04	49.65
2460	0.63	-3.58	43.83	5510	2.66	-3.33	46.43
2470	0.45	-3.71	42.60	5530	2.48	-3.41	45.55
2480	0.33	-3.92	40.58	5550	1.94	-3.56	44.08
2490	-0.07	-4.38	36.49	5570	1.99	-3.51	44.57
2500	-0.71	-5.04	31.34	5590	1.83	-3.67	42.97
				5610	2.00	-3.81	41.56

5150	1.21	-3.83	41.42	5630	2.04	-3.64	43.25
5170	1.45	-3.79	41.76	5650	1.86	-3.46	45.03
5190	1.42	-3.92	40.54	5670	1.52	-3.49	44.77
5210	1.58	-3.92	40.56	5690	1.71	-3.62	43.48
5230	2.02	-3.63	43.40	5710	1.31	-4.37	36.56
5250	2.24	-3.58	43.84	5730	1.72	-4.17	38.25
5270	2.72	-3.22	47.70	5750	1.25	-4.50	35.45
5290	2.38	-3.42	45.47	5770	1.55	-4.18	38.23
5310	2.28	-3.28	47.01	5790	1.41	-4.43	36.07
5330	2.36	-3.40	45.74	5810	1.86	-4.50	35.48
5350	2.59	-3.04	49.62	5830	2.13	-4.46	35.80
5370	2.61	-3.21	47.78	5850	2.14	-4.43	36.08

3. Mechanical Properties

3.1 Specifications Drawings

Figure 3-1 is the specifications drawing of this antenna.

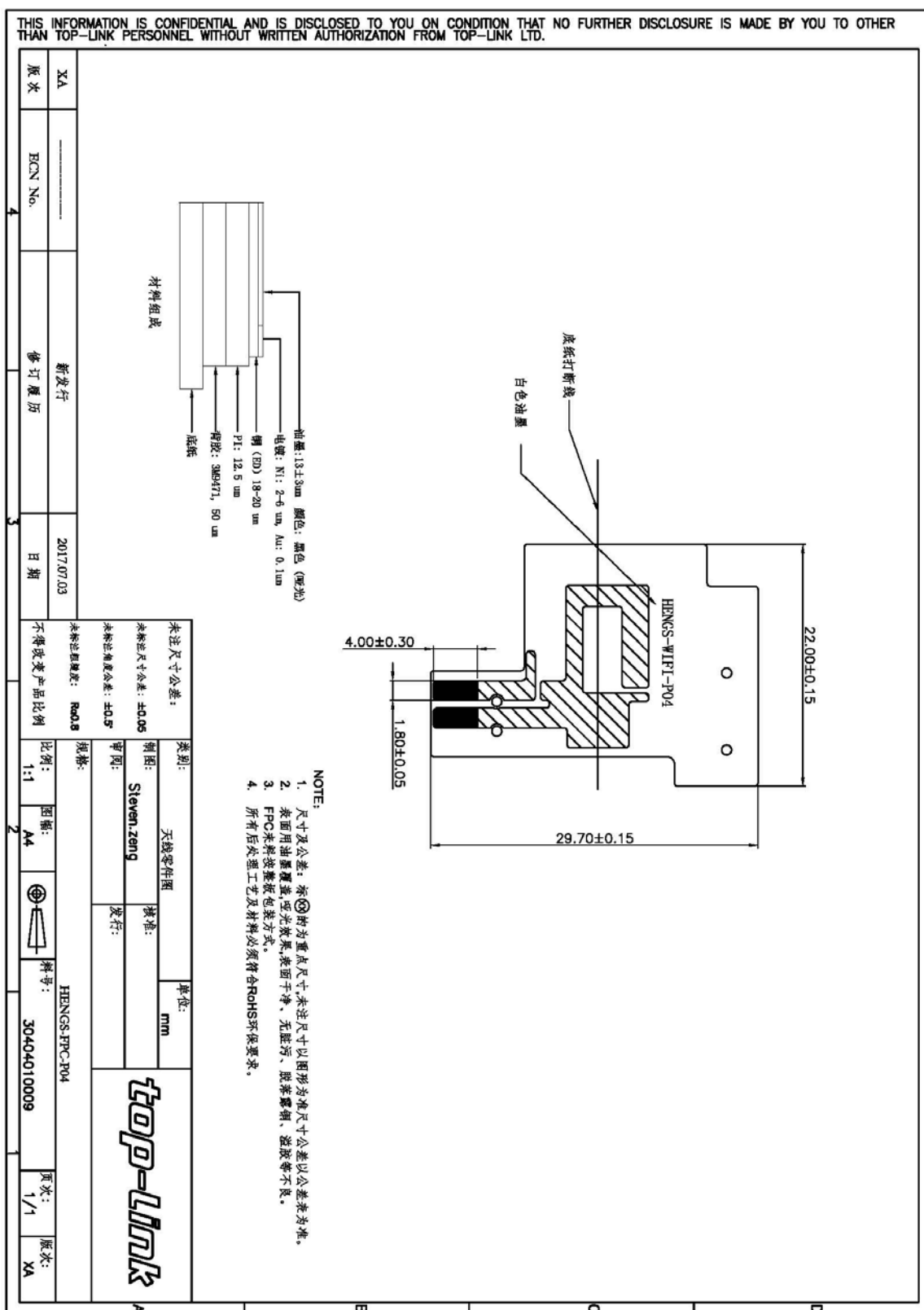


Figure 3-1 Antenna specifications drawing