

规格承认书

SPECIFICATION FOR APPROVAL

日期
DATE: 2022.10.11

版本
REV.: V1.0

客 户
CUSTOMER: Huida

客 户 料 号
CUSTOMER P/N:

品 名
PART NAME: HD540 WIFI

供 方 料 号
SUPPLIER P/N: N12-7217-R0A

送样日期 **Date:** 送样数量 **Q'TY:** Pcs

客户确认 CUSTOMER APPROVED BY		
工程研发部	生产采购部	承认
ENGINEER R&D DEPT	BUSSINESS DEPT	APPROVED BY

供方确认 SUPPLIER SIGNATURE		
研发部	工程部	批准
ENGINEER R&D DEPT	ENGINEER R&D DEPT	APPROVAL

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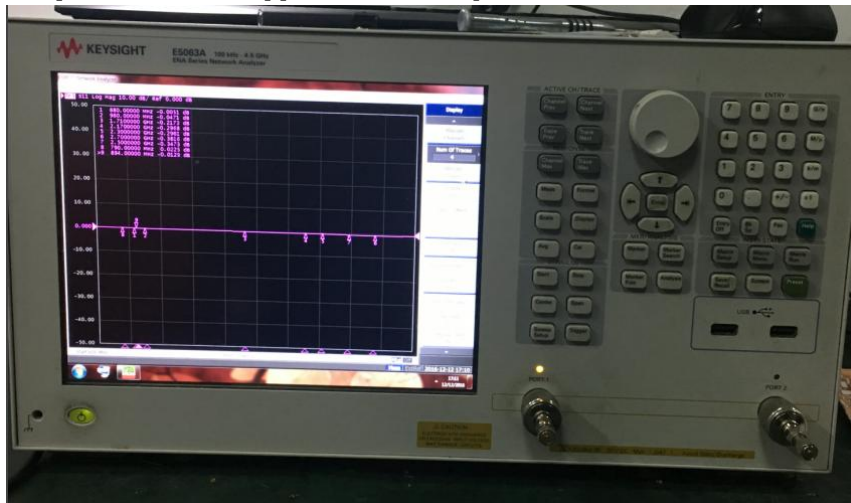
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1. RF Fixture Experiment

1.1 Test Setup

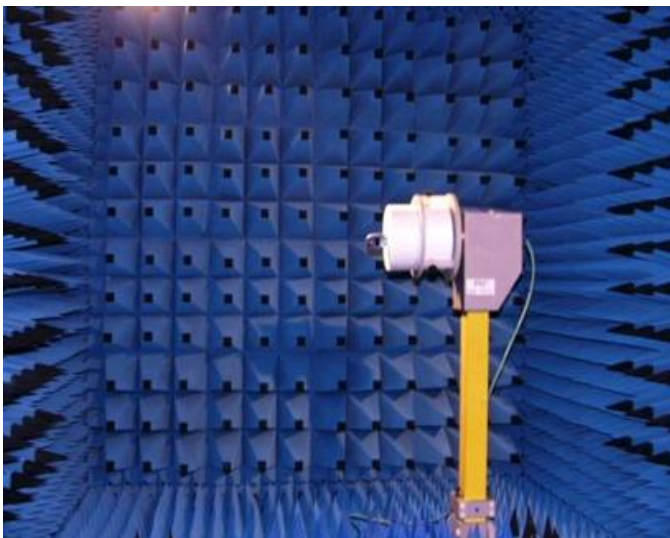
1.1.1 VNA Test Setup

VSWR and Return Loss measurements (S_{11}) were performed using an Keysight E5071C Network Analyzer. The isolation between antennas is also tested. The testing was performed with apparatus in free space.



1.1.4 Anechoic Chamber Test Setup

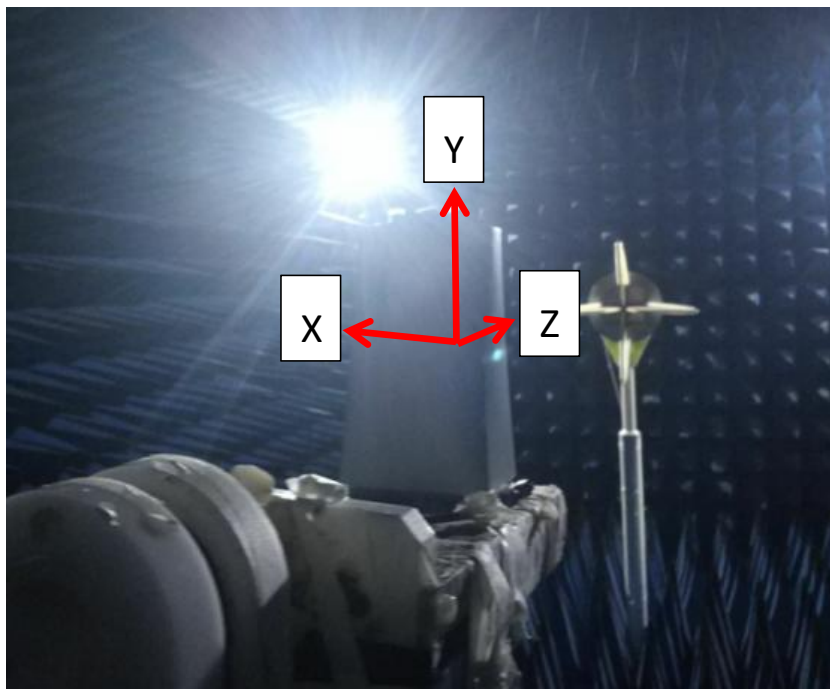
When we test Gain and Efficiency of the antenna, we will use the ETS 3D chamber. The chamber provides test frequency from 400MHz to 6GHz. The real test environment is showing as following picture



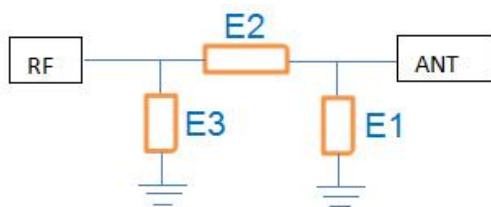


1.2 UE configuration

1.2.1 Antenna location pictures



1.2.2 RF matching for different antennas

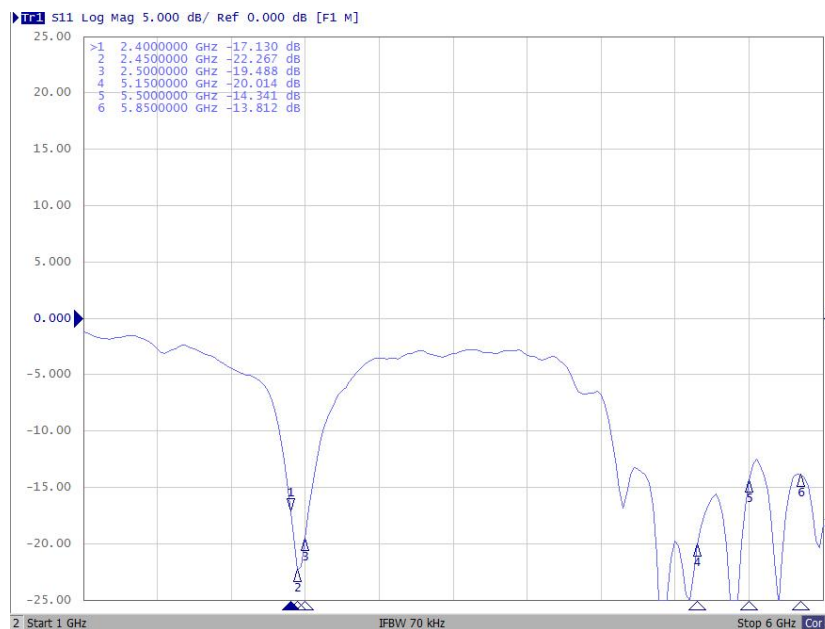


E1(0201)	NA
E2(0201)	0 ohm
E3(0201)	NA

2. Test Result

2.2 Passive Test Result(S parameters)

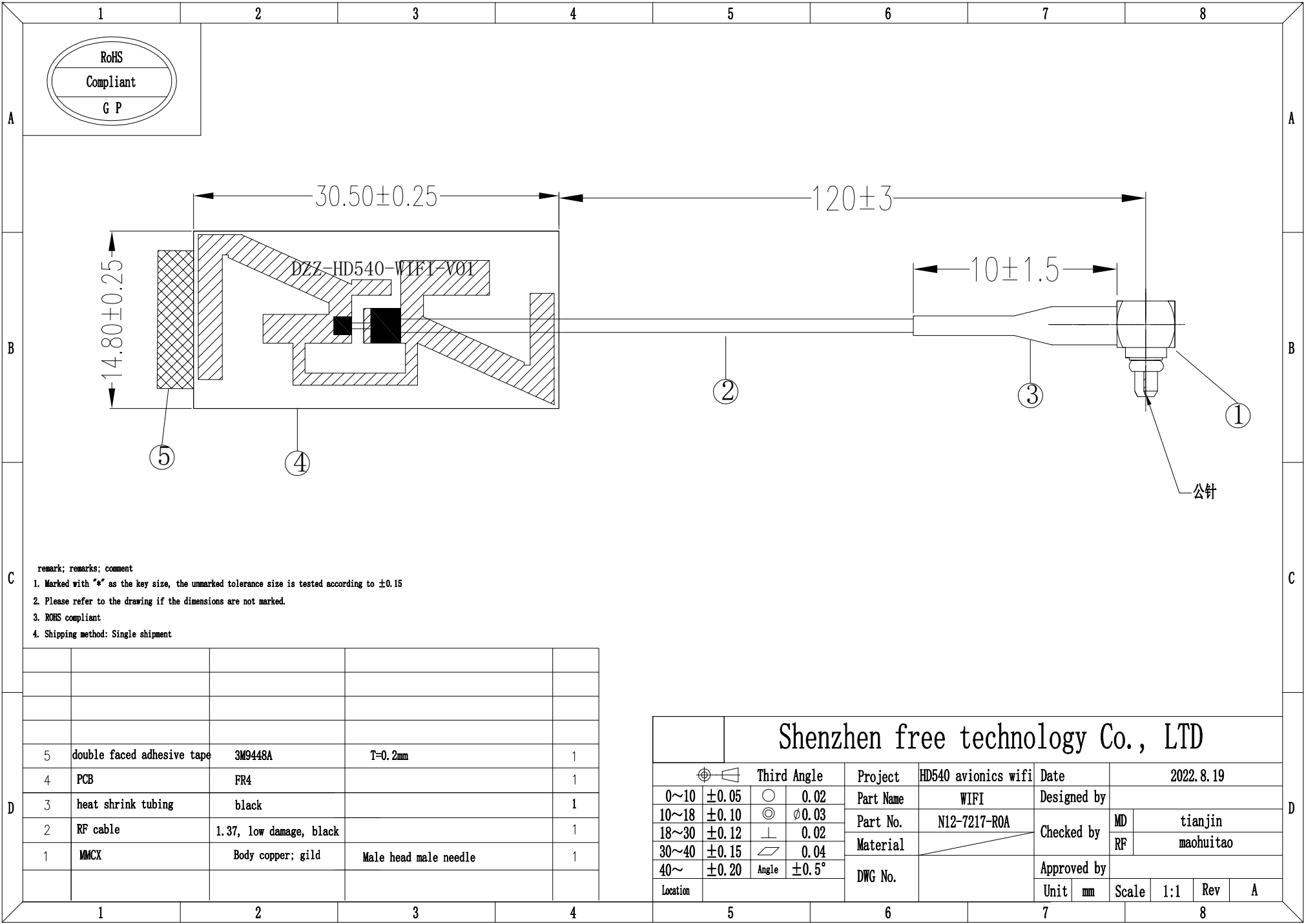
S11



Efficiency

Freq (MHz)	Effi (%)	Gain (dBi)
2400	59.23	2.6
2410	62.58	3.21
2420	65.17	3.09
2430	62.18	3.13
2440	62.21	3.06
2450	62.76	3.1
2460	63.95	3.12
2470	59.75	2.54
2480	58.5	2.52
2490	59.12	2.52
2500	59.1	2.51

Freq (MHz)	Effi (%)	Gain (dBi)
5100	54.98	2.68
5200	53.78	2.32
5300	52.01	2.13
5400	59.18	2.48
5500	56.7	2.36
5600	52.96	1.99
5700	51.53	3.96
5800	51.21	3.18
5900	52.58	2.69



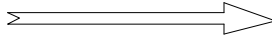
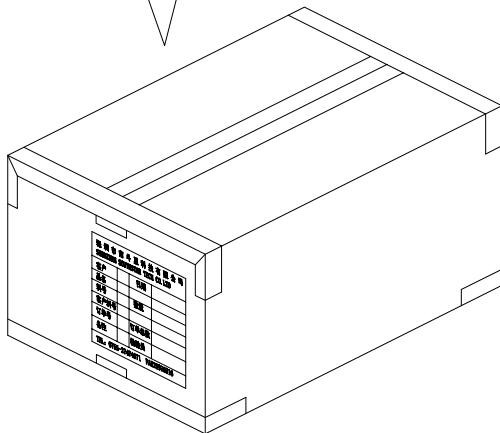
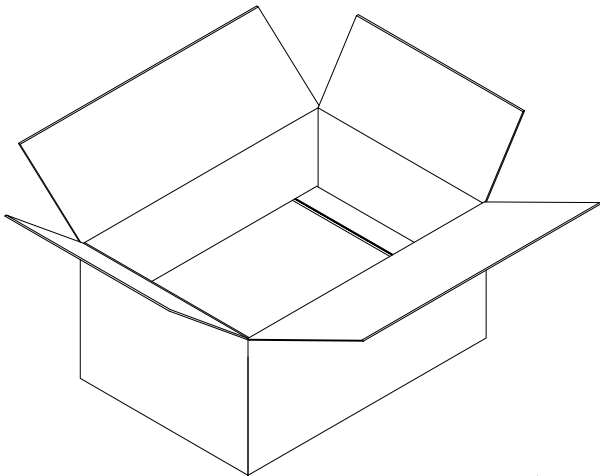
remark; remarks; comment

- 1. Marked with "*" as the key size, the unmarked tolerance size is tested according to ± 0.15
- 2. Please refer to the drawing if the dimensions are not marked.
- 3. ROHS compliant
- 4. Shipping method: Single shipment

5	double faced adhesive tape	3M9448A	T=0.2mm	1
4	PCB	FR4		1
3	heat shrink tubing	black		1
2	RF cable	1.37, low damage, black		1
1	MMCX	Body copper; gild	Male head male needle	1

		Shenzhen free technology Co., LTD									
		Third Angle		Project	HD540 avionics wifi		Date		2022.8.19		
0~10	±0.05		0.02	Part Name	WIFI		Designed by				
10~18	±0.10		∅0.03	Part No.	N12-7217-ROA		Checked by	MD	tianjin		
18~30	±0.12		0.02	Material				RF	maohuitao		
30~40	±0.15		0.04								
40~	±0.20	Angle	±0.5°	DWG No.			Approved by				
Location							Unit	mm	Scale	1:1	Rev

一: Finished antenna

[illegible]

Four: The box is sealed, and the outer box is affixed with our production label and ROHS label.