

Antenna Specifications

CUSTOMER		佳维视	
CS P/N		JWS3399-WIFI	
HX P/N		<u>A20-008-WIFI</u>	
Checked by(RF)	Checked by(ME)	Checked by(QA)	Approval led by
Customer Approval			



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1. General Description

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

1.1 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 Hengxiangtong before further mass production batches can be delivered.

1.2 Coordinate System

The coordinate system for the phone is defined as follows:

- Origin in center of gravity.
- Positive X axis is perpendicular to, and directed from, front plane.
- Positive Y axis is perpendicular to, and directed from, right side plane (as seen from front).
- Positive Z axis is perpendicular to, and directed from, top plane.

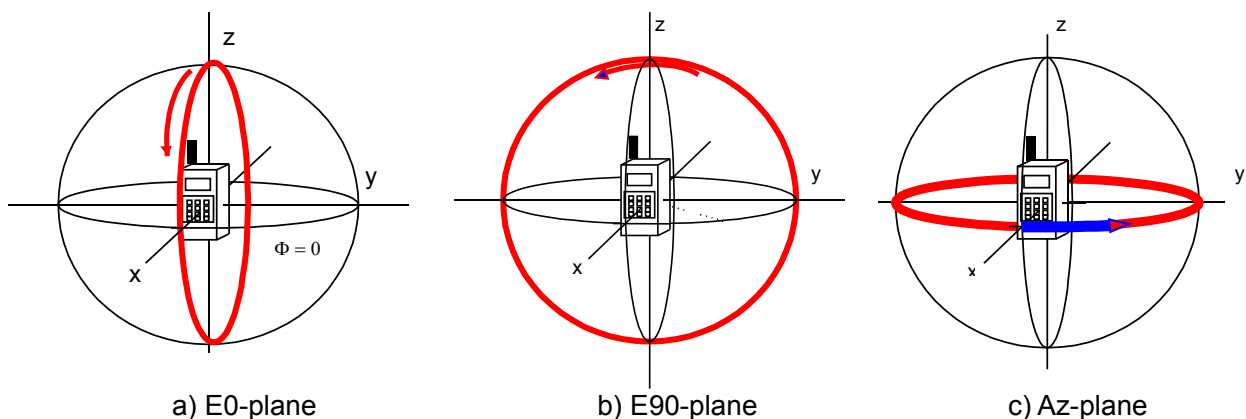


Figure 1-1 The coordinate system for the phone



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2. Specifications

This report mainly provides the testing conditions of various electric and structural performance parameters for cell phone antenna ---- JWS3399. Figure 2-1 shows the antenna designed by HX & The fixturing of JWS3399

Figure 2-1 The antenna designed by HX & The fixturing of JWS3399

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2.1 Frequency Band

Band	Frequency(MHz)
2.4G	2400-2500
5G	5100-5900

2.2 Impedance

2.2.1 Nominal

Nominal Impedance(including matching circuit) : 50 ohms

2.2.2 Matching Circuit

The matching circuit is as Figure 2-2.

无

Figure 2-2: Matching circuit

2.3 Passive Measurements

2.3.1 VSWR & Gain Specifications

VSWR		GAIN	
Freq. Band	SPEC	Freq. Band	SPEC
2400-2500MHz	≤ 4.0	2400-2500	$\geq 0\text{dBi}$
5100-5900MHz	≤ 4.0	2400-2500	$\geq 0\text{dBi}$

2.3.2 S11 of the Typical Sample

Freq (MHz)	2400	2450	2500	5150	5450	5750
RL	-9.2	-8.7	-8.1	-8.6	-8.9	-9.5
VSWR	2.1	2.3	2.6	2.4	2.3	2.1



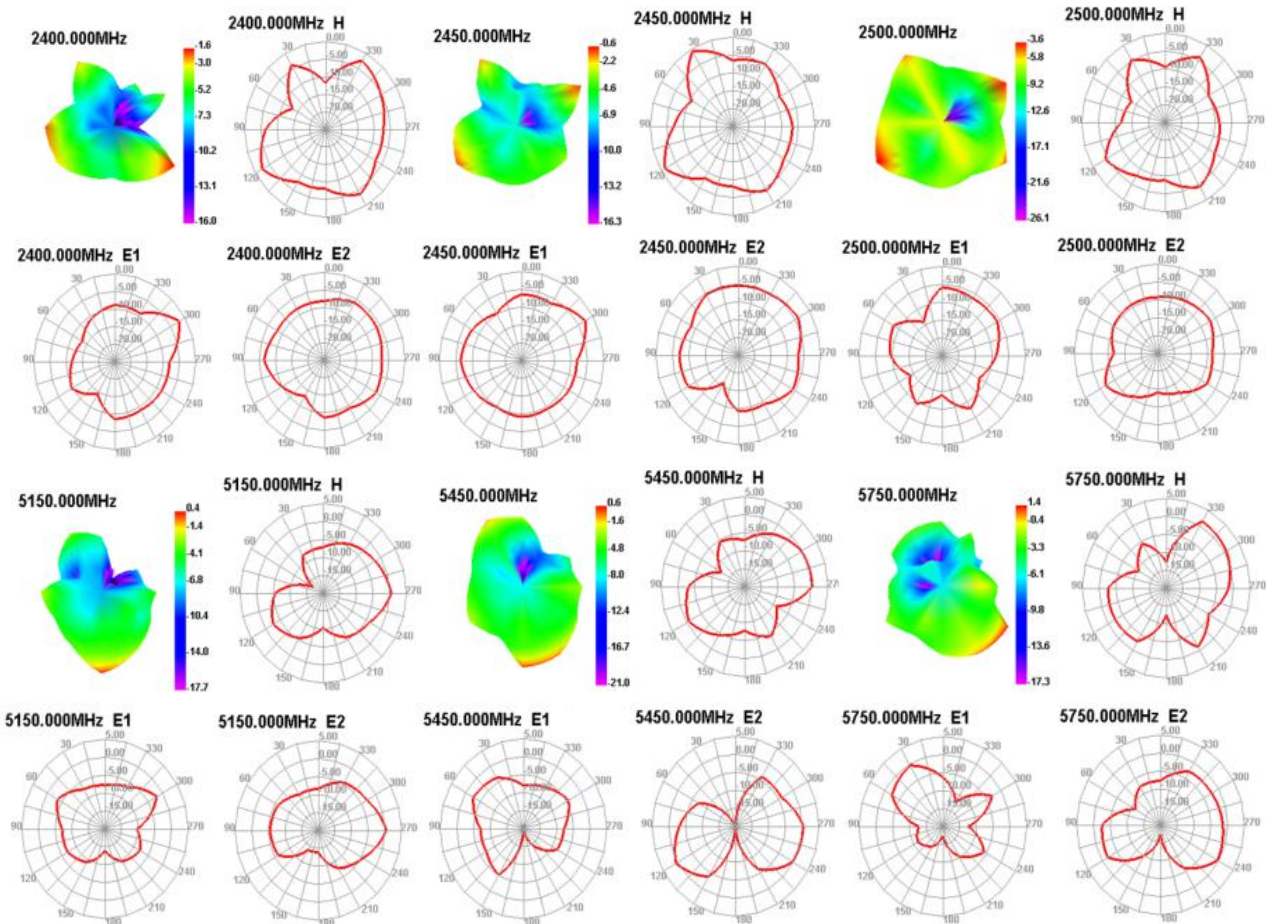
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2.3.3 Gain Effi. & Ratiation Pattern of the Typical Sample

Passive Test For WiFi-2.4G			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
2400	24.4	-6.13	-1.59
2410	25.29	-5.97	-1.92
2420	26.03	-5.85	-1.55
2430	25.37	-5.96	-1.47
2440	26.45	-5.77	-1.06
2450	28.08	-5.52	0
2460	27.44	-5.62	-0.85
2470	25.68	-5.9	-1.26
2480	22.79	-6.42	-2.15
2490	19.87	-7.02	-2.87
2500	16.61	-7.8	-3.56

Passive Test For WiFi-5G			
Freq	Effi	Effi	Gain
(MHz)	(%)	(dB)	(dBi)
5100	23.55	-6.28	-0.81
5150	25.5	-5.93	0
5200	23.71	-6.25	-0.03
5250	22.42	-6.49	-1.13
5300	23.33	-6.32	-0.9
5350	30.56	-5.15	0
5400	33.27	-4.78	0
5450	31.73	-4.99	0
5500	34.66	-4.6	0
5550	38.16	-4.18	0
5600	33.29	-4.78	0
5650	32.06	-4.94	0
5700	33.99	-4.62	0
5750	34.19	-4.66	0
5800	31.19	-5.06	-0.43
5850	32.55	-4.87	0
5900	34.55	-4.62	0



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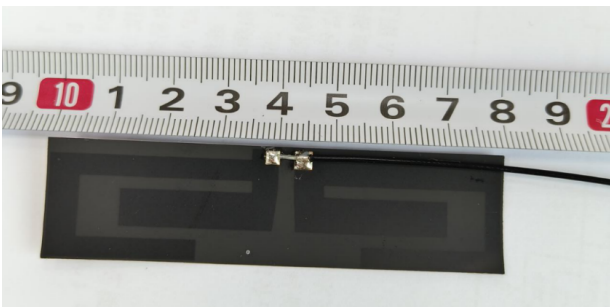


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3.Mechanical Properties

3.1 Sample Photo



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2. Environmental Characteristic

Test Item	Test description
1. Low Temperature	Temp.: -20 °C Time: 24 hours
2. High Temperature	Temp.: 80°C Time: 24 hours
3. Salt Fog	5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1°C Time:24 hours