Antenna Specifications

CUSTOMER		长芯通信	
CS P/N		T3	
HX P/N		A35-004-T3	
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.

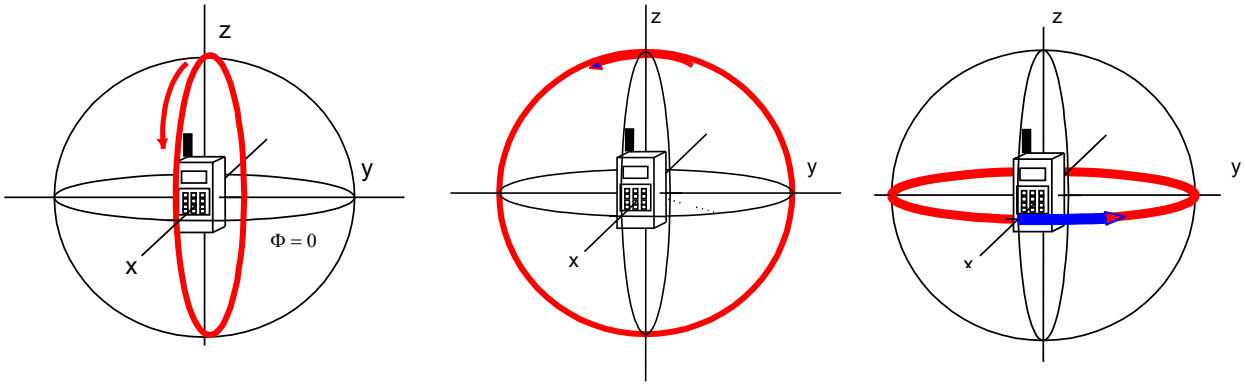
1.1 Print Acceptance

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 HX 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.



a) E0-plane b) E90-plane c) Az-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 ---T3 Figure 2-1 shows the antenna designed by HX & The fixturing of T3

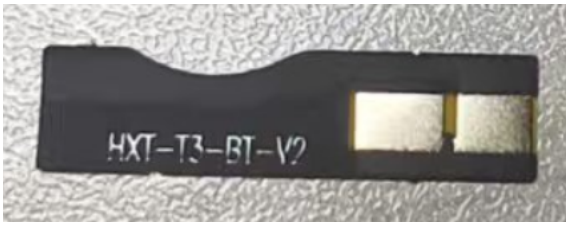


Figure 2-1 The antenna designed by HX & The fixturing of T3

2.1 Antenna frequency band and switching logic

网络模式Mode	频段Band
BT	2.4G

2.2 Impedance

2.2.1 Nominal

Nominal Impedance(including matching circuit) : 50 ohms

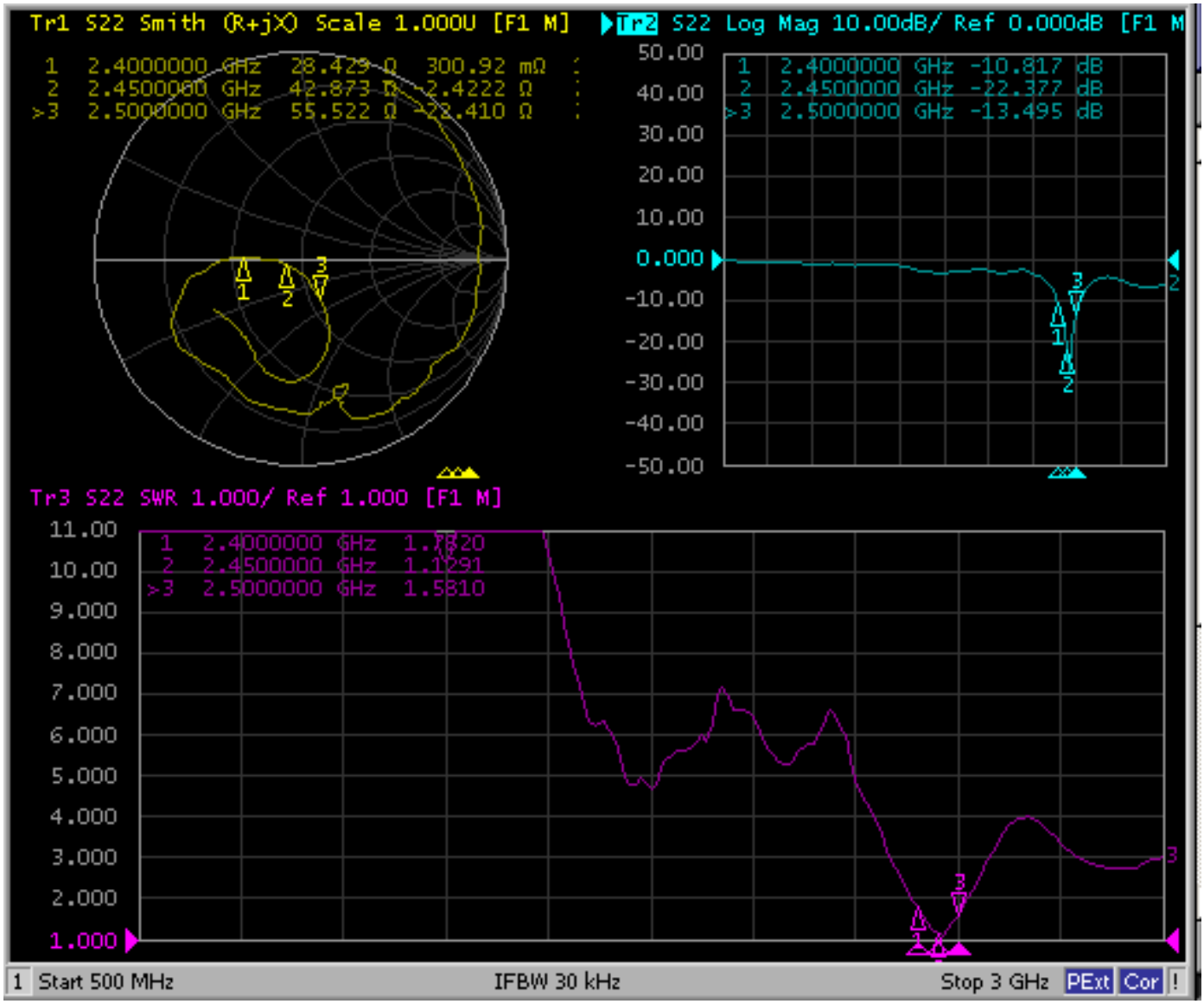
2.2.2 Matching Circuit

无匹配改动

2.3 Passive Measurements

2.3.1 Parameters of antenna S11

2.4G



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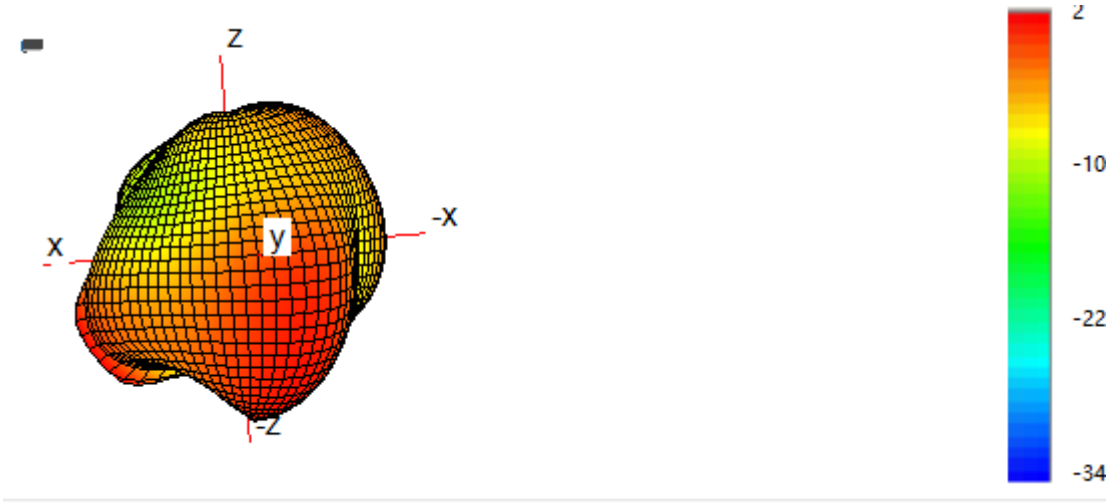
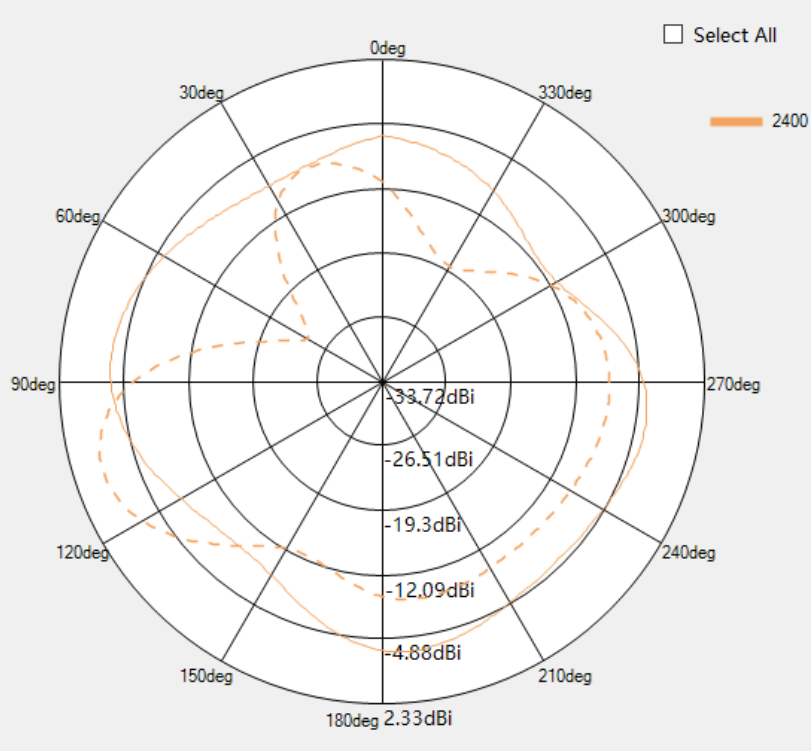
2.3.2 Passive efficiency of antenna

Bluetooth passive efficiency			
Freq (MHz)	Effi (dB)	Gain (dBi)	Effi (%)
2400	-4.03	0.88	39.52
2410	-3.95	1.24	40.28
2420	-3.91	1.47	40.61
2430	-3.78	1.2	41.89
2440	-3.74	1.12	42.24
2450	-3.7	1.17	42.63
2460	-3.86	0.77	41.09
2470	-3.76	1.23	42.1
2480	-3.77	1.17	42.01
2490	-3.71	1.12	42.54
2500	-3.99	1.1	39.93

2.3.3. 3D Radiation Drawing



2.3.4. directional drawing of horizontal plane



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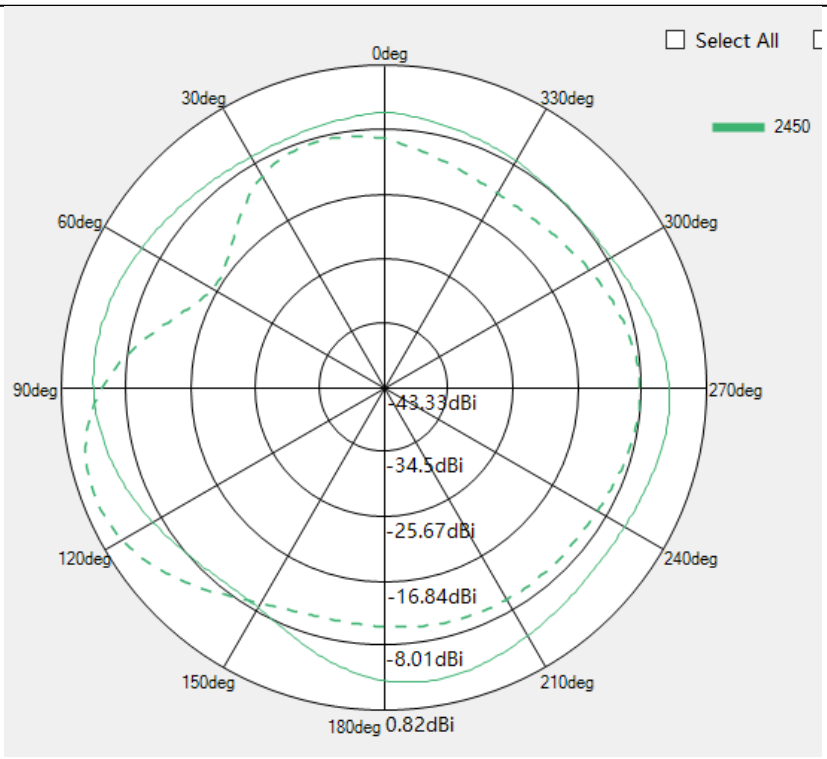

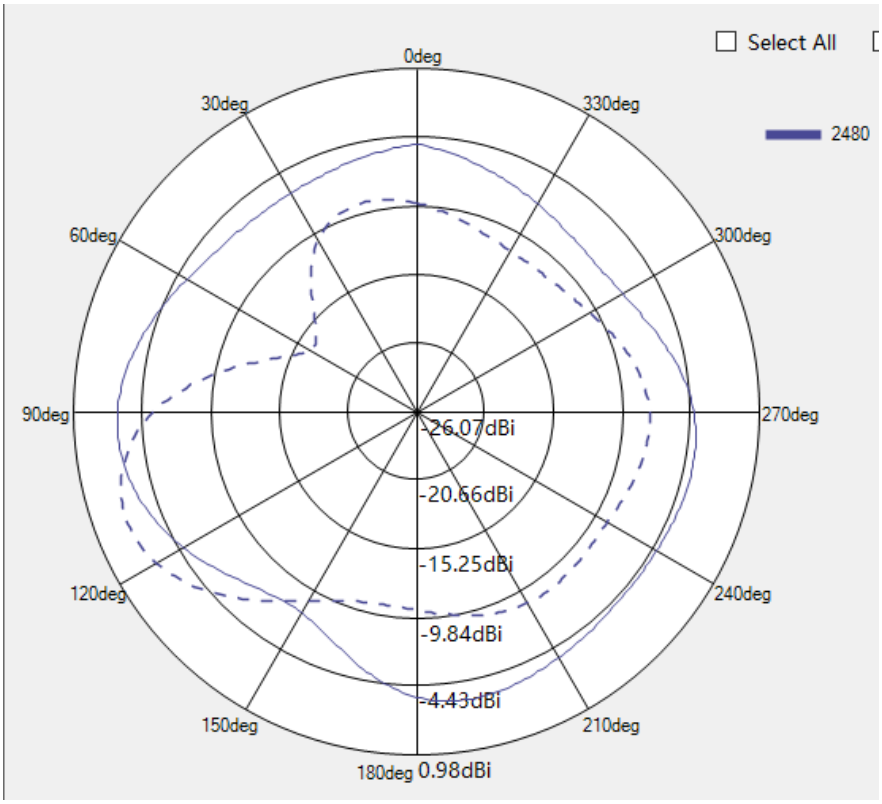

3. Environmental treatment of the whole machine

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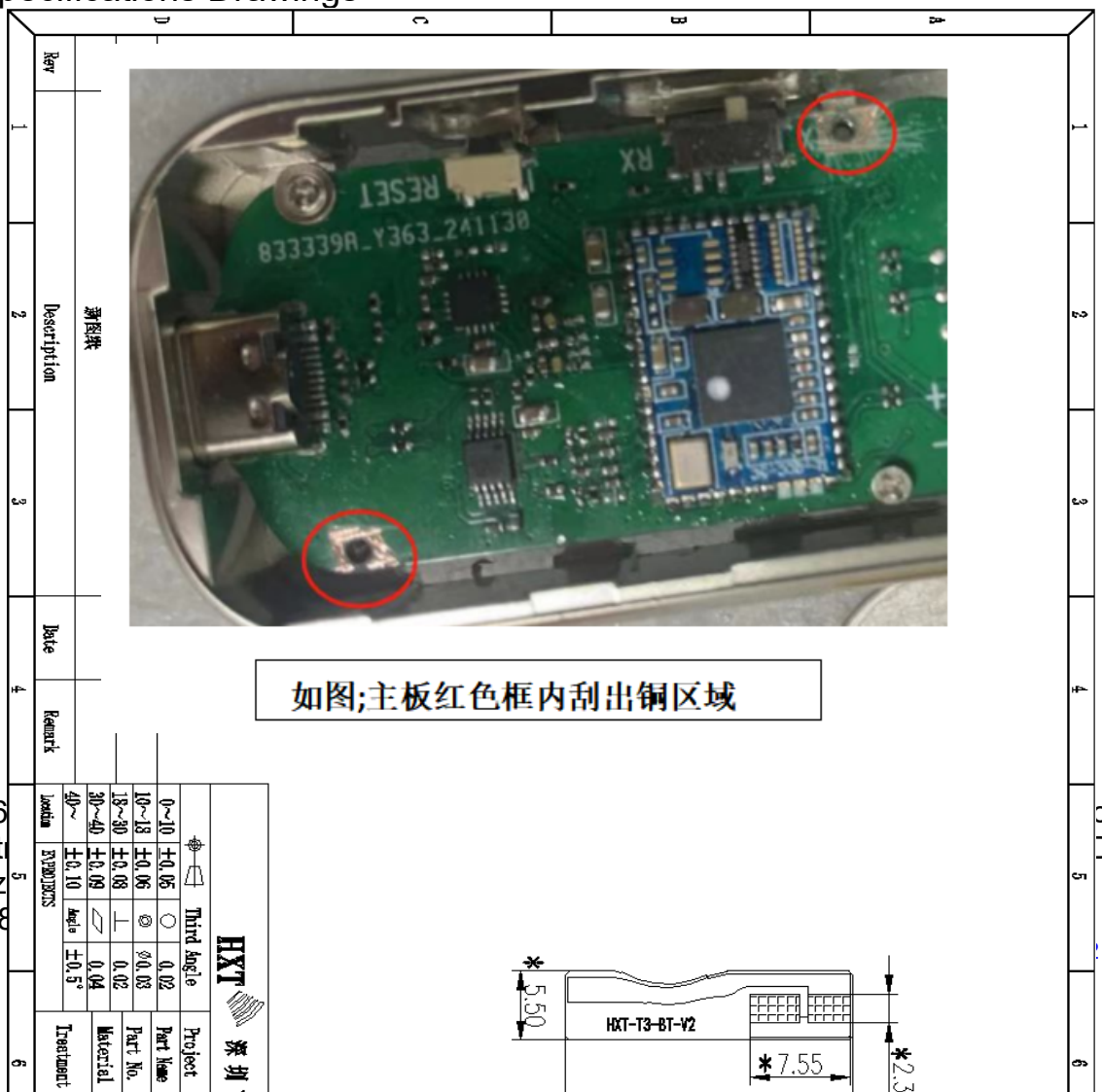
4. Mechanical Properties

4.1 Specifications Drawings



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5. Environmental Characteristic

Test Item	Test description
1. Low Temperature	Temp.: -20 ℃ Time: 24 hours

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2. High Temperature	Temp.: 80℃ Time: 24 hours
3. Salt Fog	5±0.1% Nad salt fog PH Value: 6.5-7.2 Temp: 35±1℃ Time:24 hours

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