

Antenna Specifications

CUSTOMER		Trackimo China	
CS P/N		Curve 2	
HX P/N		<u>A53-026-LDS-CURVE 2</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 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.

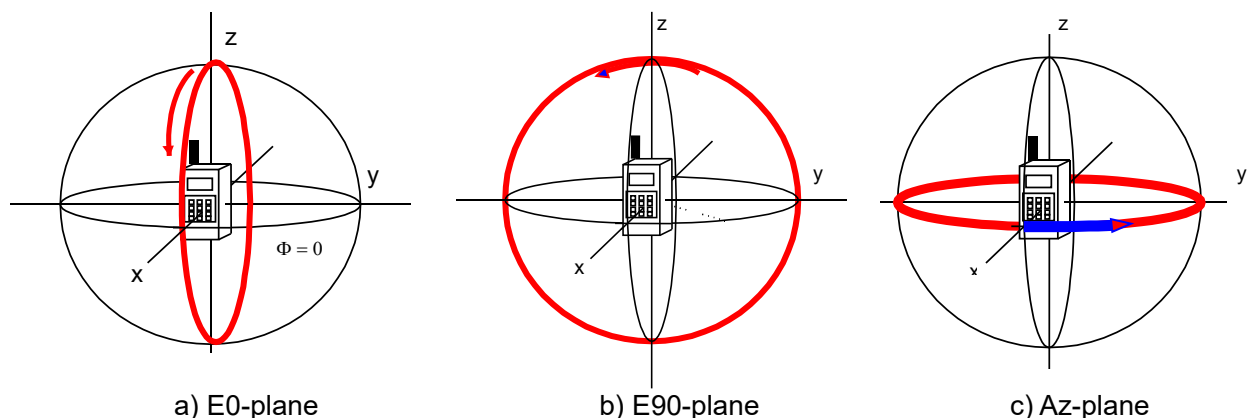


Figure 1-1 The coordinate system for the phone

2. Specifications

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

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

2.1 Frequency Band

Band	Frequency(MHz)
GSM850/GSM900	824-960
DCS1800/PCS1900	1710-1990
W850/900	824-960
W2100/1900	1850-2167
LTE1/2/3/4/7/25/41	1710-2690
LTE5/8/12/17/18/19/20/26	703-960
WIFI/BT	2400-2500
GPS	1575

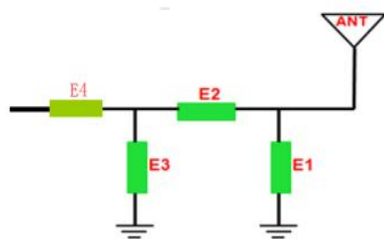
2.2 Impedance

2.2.1 Nominal

Nominal Impedance(including matching circuit) : 50 ohms

2.2.2 Matching Circuit

The GSM matching circuit is as Figure 2-2.GSM



Main Antenna		GPS Antenna		WIFI Antenna		BT Antenna	
Element	Value	Element	Value	Element	Value	Element	Value
E1(0201)	5.1nH	E1(0201)	NC	E1(0201)	NC	E1(0201)	NC
E2(0201)	1.8nH	E2(0201)	0Ω	E2(0201)	0Ω	E2(0201)	0Ω
E3(0201)	NC	E3(0201)	NC	E3(0201)	NC	E3(0201)	NC
E4(0201)	0Ω						

开关逻辑	RF1:	0Ω	G900+W8+LTE8
	RF2:	6.8nH	G850/DCS1800/PCS1900+W1/W2/W5+LTE1/2/3/4/5/7/18/19/20/25/26
	RF3:	18nH	LTE12/17
	RF4:	NC	

Figure 2-2: Matching circuit

2.3 Passive Measurements

2.3.1 Active Measurements Data TRP&TIS

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2G	CH	TRP	TIS(次)
GSM850	128	18.81	-92.58
	190	19.45	-92.31
	251	20.19	-92.02
EGSM900	1	20.36	-94.12
	62	21.06	-94
	124	21.57	-93.97
DCS1800	512	20.4	-99.95
	698	20.58	-99.82
	885	20.5	-99.71
PCS1900	512	21.24	-100.12
	661	21.95	-100
	810	21.71	-99.98

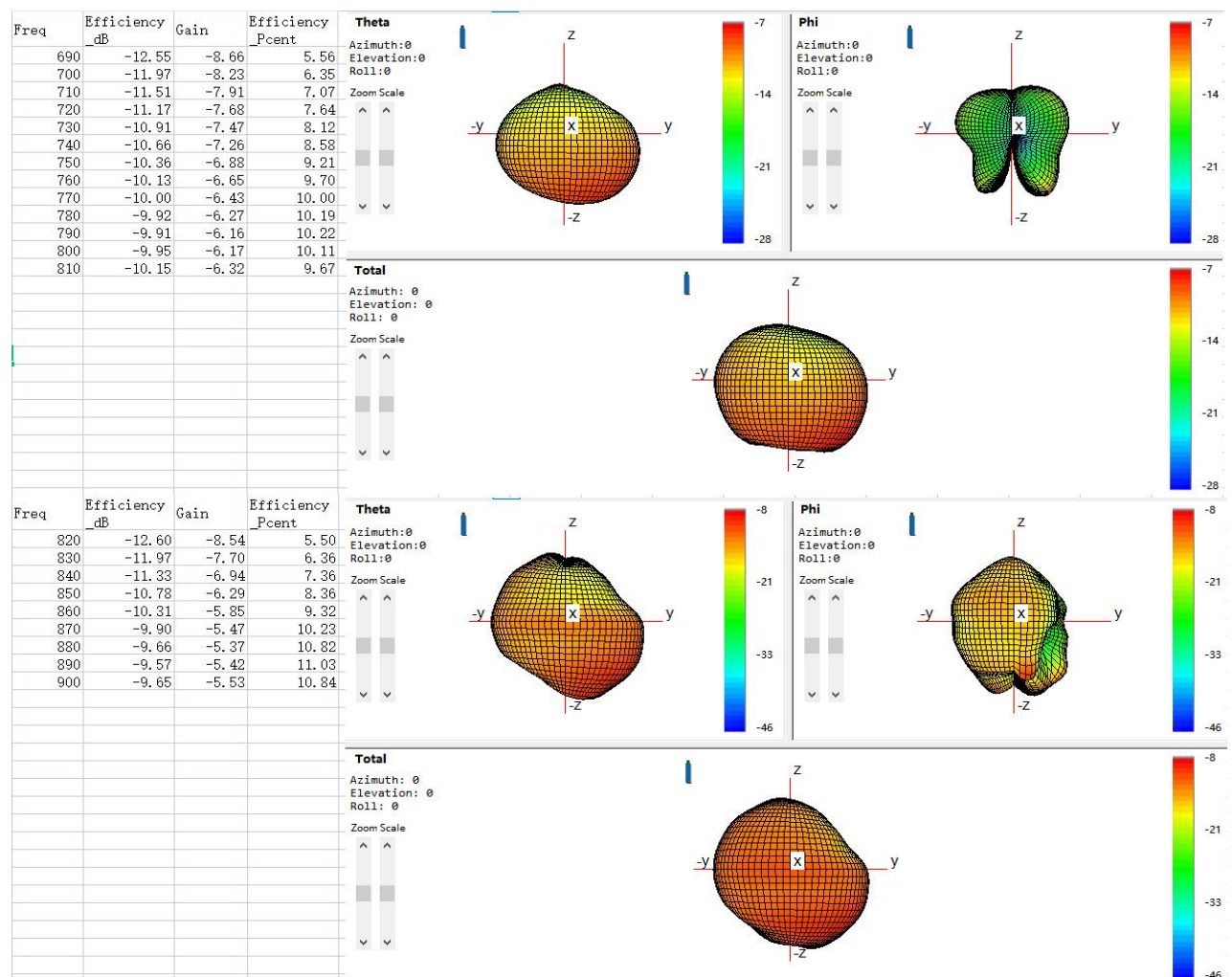
3G	CH	TRP	CH	TIS(次)
WCDMA1	9612	15.79	10562	-100.52
	9750	15.27	10700	-100.41
	9888	14.95	10838	-100.37
WCDMA2	9262	14.45	9662	-100.54
	9400	14.77	9800	-100.21
	9538	15.04	9938	-100.17
WCDMA5	4132	8.05	4357	-90.12
	4183	8.87	4408	-90
	4233	9.38	4458	-89.21
WCDMA8	2712	8.82	2937	-90.85
	2787	8.97	3013	-90.79
	2863	9.5	3088	-90.76

4G	CH	TRP	CH	TIS(次)
FDD-B1(10M)	18050	16.12	50	-89.55
	18300	16.05	300	-89.21
	18550	15.88	550	-89.18
FDD-B2(10M)	18650	16.08	650	-89.35
	18900	16.51	900	-89.12
	19150	16.96	1150	-89.01
FDD-B3(10M)	19250	11.06	1250	-89.52
	19575	12.24	1575	-89.41
	19900	13.65	1900	-89.37
FDD-B4(10M)	20000	11.44	2000	-89.67
	20175	12.24	2175	-89.62
	20350	13.85	2350	-89.59
FDD-B5(10M)	20450	7.18	2450	-78.86
	20525	7.75	2525	-78.55
	20600	8.11	2600	-78.22
FDD-B7(10M)	20800	16.57	1250	-89.74
	21100	16.85	1575	-89.61
	21400	17.08	1900	-89.55
FDD-B8(10M)	21500	8.19	3500	-80.38
	21625	8.55	3625	-80.32
	21750	9.16	3750	-80.29
FDD-B12(10M)	23060	4.03	5060	-79.89
	23095	4.55	5095	-79.55
	23130	5.62	5130	-79.23
FDD-B17(10M)	23780	4.07	5780	-79.69
	23790	5.06	5790	-79.62
	23800	5.54	5800	-79.51

4G	CH	TRP	CH	TIS(次)
FDD-B18(10M)	23900	7.18	5900	-80
	23925	7.89	5925	-79.99
	23950	8.53	5950	-79.97
FDD-B19(10M)	24050	7.85	6050	-79.55
	24075	7.96	6075	-79.42
	24100	8.55	6100	-79.38
FDD-B20(10M)	24200	7.11	6200	-80.48
	24300	7.85	6300	-80.51
	24400	8.81	6400	-80.59
FDD-B25(10M)	26090	16.23	8090	-89.56
	26365	16.75	8365	-89.35
	26640	17.03	8640	-89.23
FDD-B26(10M)	26740	7.26	8740	-80.46
	26865	7.95	8865	-80.41
	26990	8.37	8990	-80.34

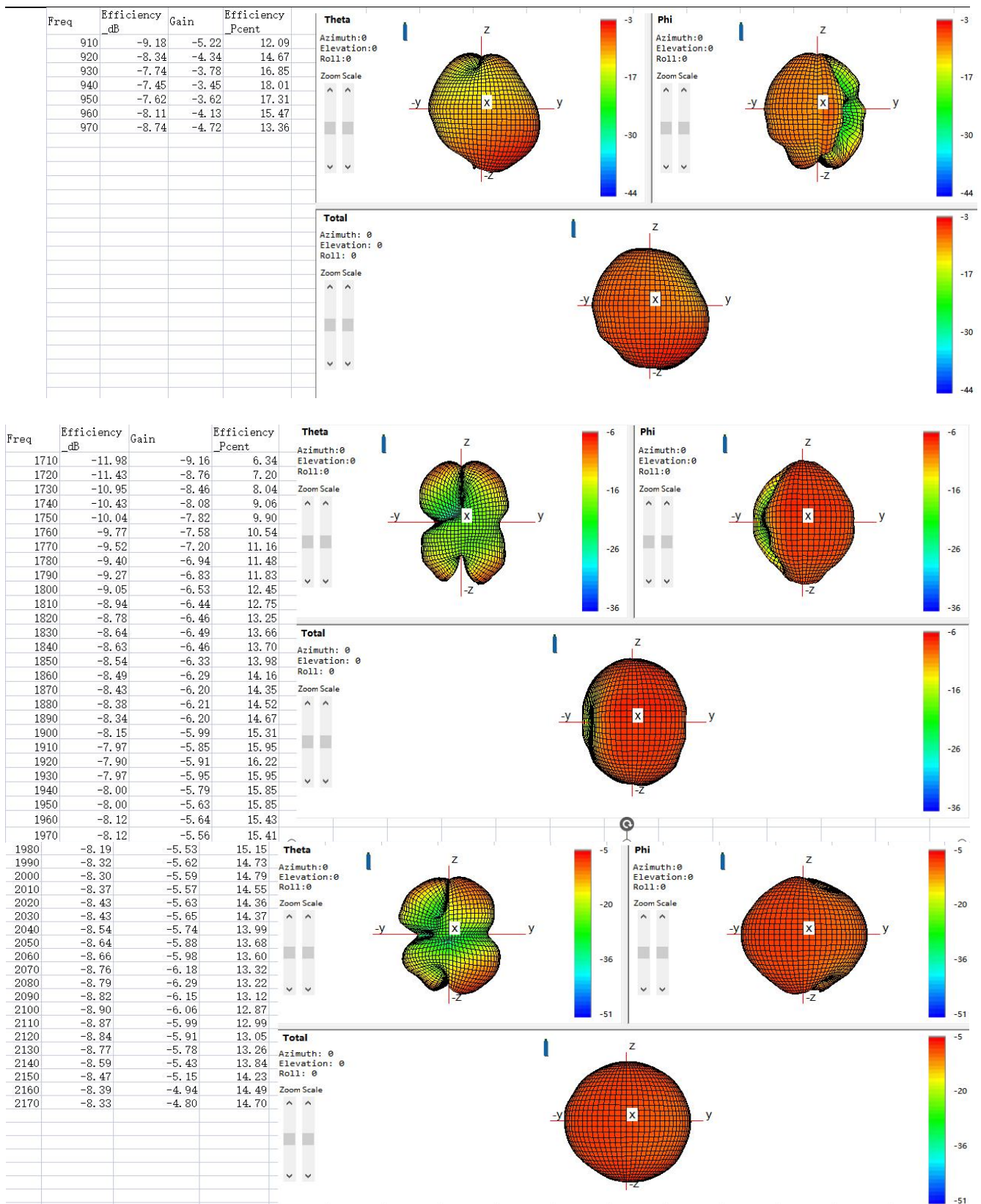
注：以上数据为三个板分三路测试状态

2.3.2 Effi.& Gain Test Data&Radiation Patterns



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 Tel. +86-755-27657751 Fax +86-755-27599500

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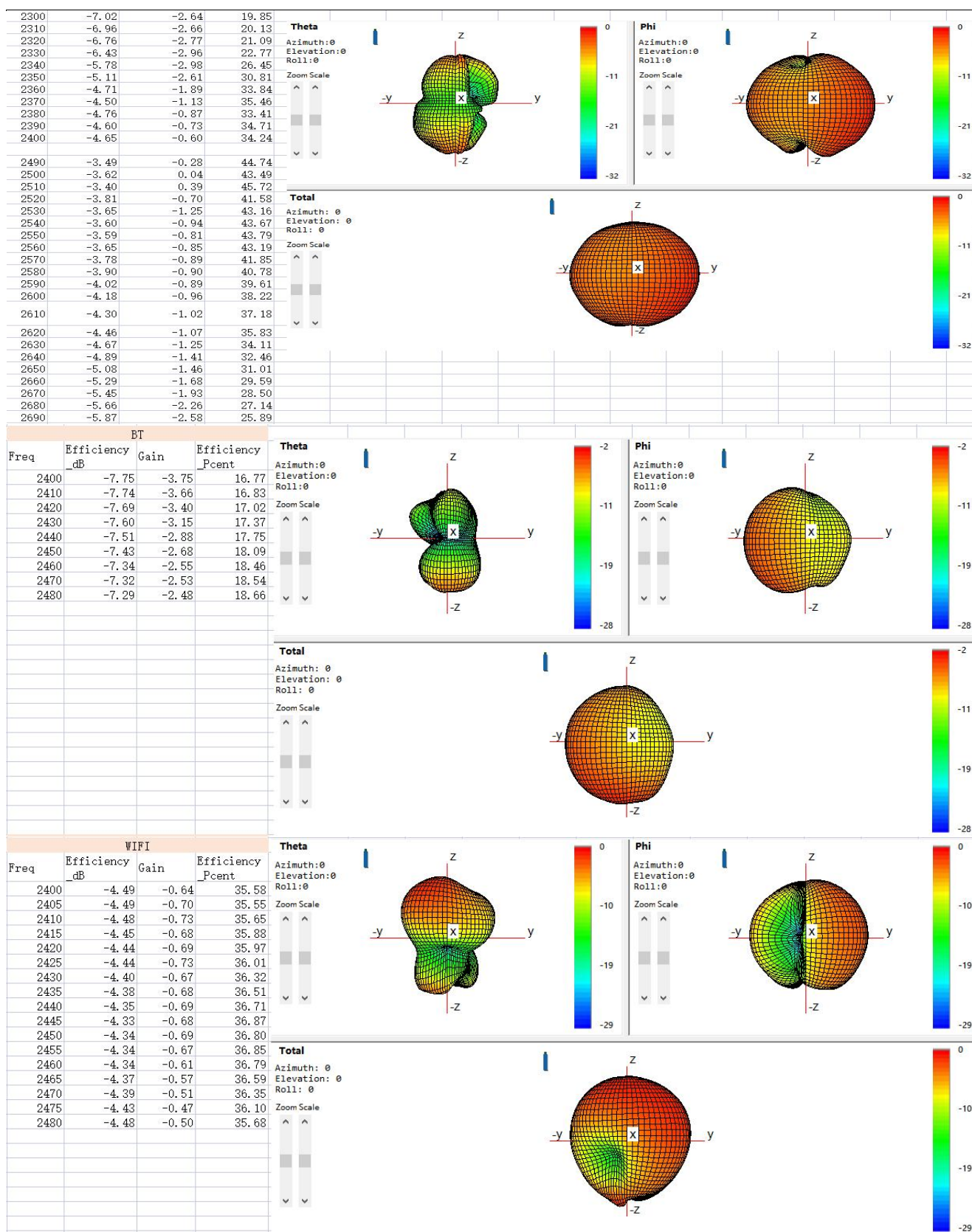


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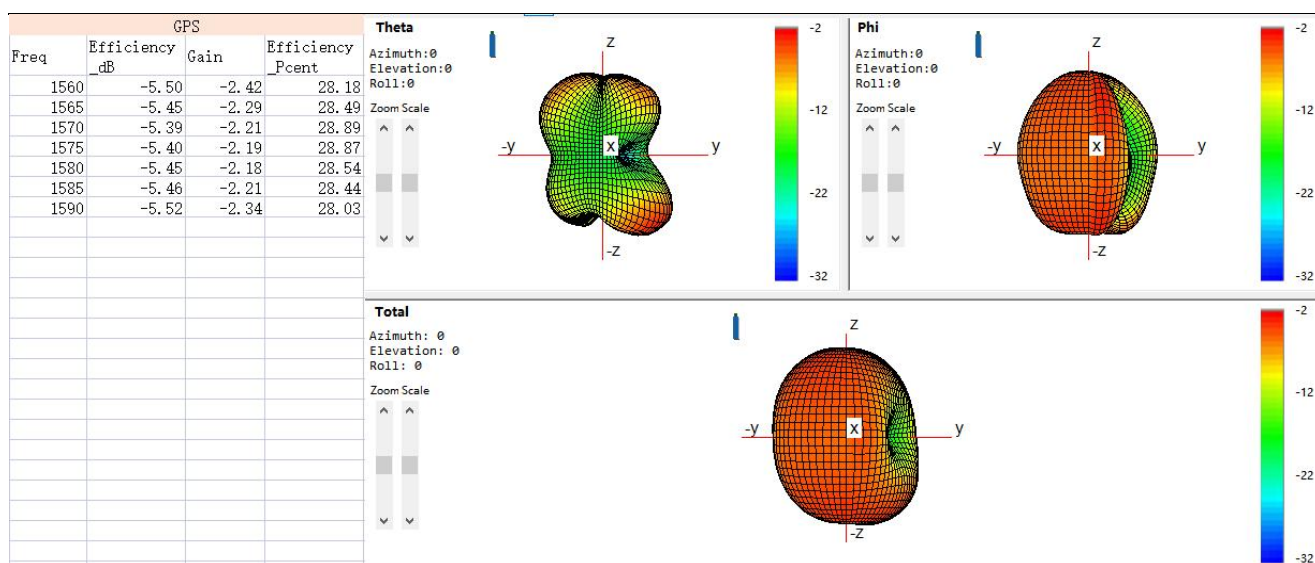


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4. Environmental Characteristic

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