

深圳市泓德致新科技有限公司

金森 P20 机型

天线规格书

客户： 深圳金森电子科技有限公司		项目名 X20
	日期： 2022.10.16	版本： R:A
研发	结构： 诸葛冲 射频： 孙建	批准： 张林
客户审核：		客户批准：

4G 主天线 HDZXJ1210 4G 分集天线 HDZX-J105
HDZX-529 线长 L=220MM 0.81 线黑色

contents

contents.....	1
1. PROJECT INFORMATION AND ELECTRICAL SPECIFICATION.....	3
1-1 Project picture	3
1-2 Frequency Band:	3
1-3 Impedance matching	3
2. VSWR	3
2-1 Measuring Method:	3

2-2 S11 parameter values4

3. EFFICIENCY AND GAIN.....4

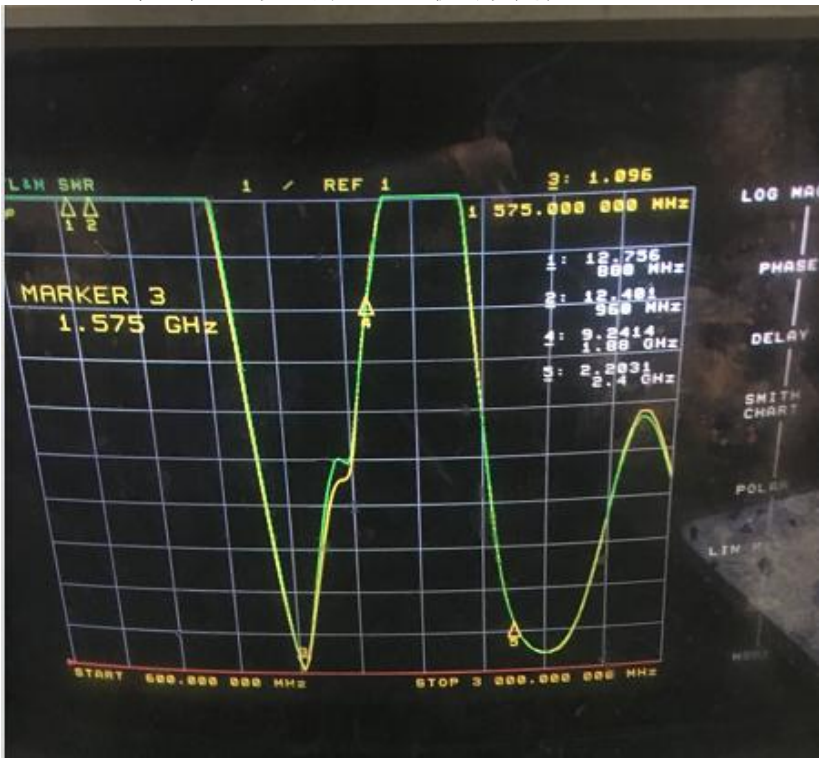
3-1 Efficiency/Gain- WIFI.....5

4. THE PRODUCTION INDEX.....7

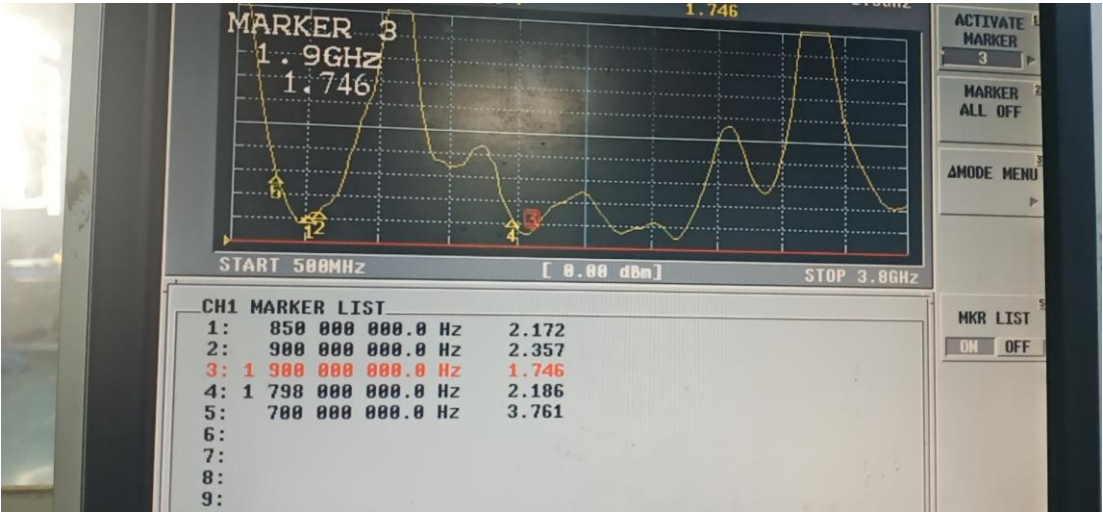
5. STRUCTURAL DRAWINGS错误！未定义书签。

WIFI GPS 波形图

GPS 室外 5 个 36 以上的 90 秒可以定位。



4G 天线波形图



1. Project information and Electrical Specification

Those specifications were specially defined for 2.4G model, and all characteristics were measured under the model's handset testing jig .

1-1Antenna picture

1-2 Frequency Band:

1-3 Impedance matching

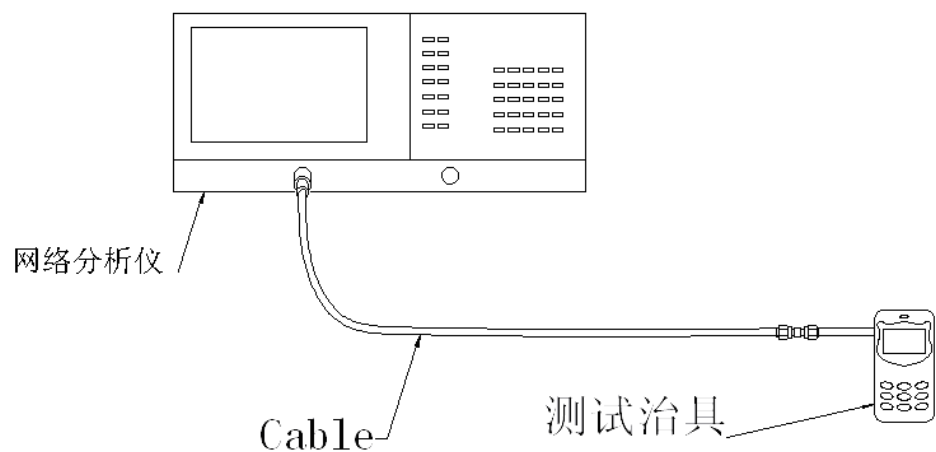
天线原匹配

2.VSWR

2-1 Measuring Method:

- 1. A 50 Ω coaxial cable is connected to the antenna. Then this cable is connected to a network analyzer to measure the VSWR,*
- 2. Keeping this jig away from metal at least 20cm.*

测试示意图如下:



2-2 S11 parameter values

频率 (MHZ)	1550	1580	2389	2450	2500
驻波	1.3	1.2	1.38	1.63	1.23

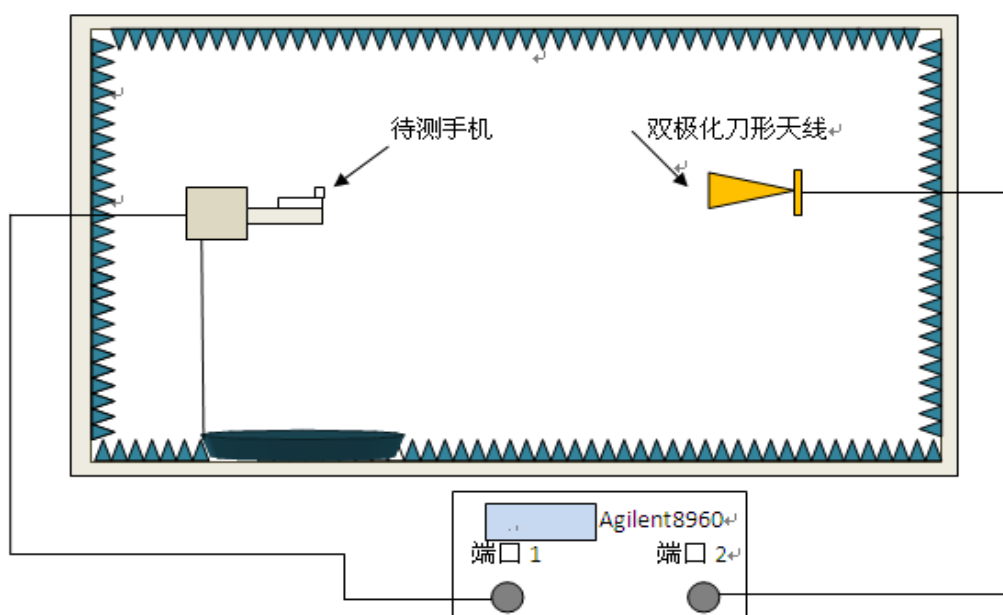
3. Efficiency and Gain

*measuring and test instruments:

微波暗室, Agilent 网络分析仪, Agilent 频谱分析仪, 8960 综合测试仪, 标准天线

*test method:

equipment 以 H 面放于转台中心位置固定, 与喇叭天线中心位置在同一个水平线上。



4G 测试数据

Max power	24.2	24.7	24.9	23.7	24.2	25.5	29.2	28.7	29.6	29.1	29.6	29.0
TRP	22.7	23.2	23.5	22.3	21.5	22.0	27.2	25.8	25.6	25.0	26.4	25.8
Sensitivity	-104.0	-105.2	-104.3	-105.7	-106.1	-105.5	-107.5	-106.8	-106.5	-104.4	-105.3	-105.5
TIS	-103.5	-102.7	-102.8	-103.2	-103.5	-103.0	-104.5	-103.7	-103.4	-103.0	-103.0	-103.2

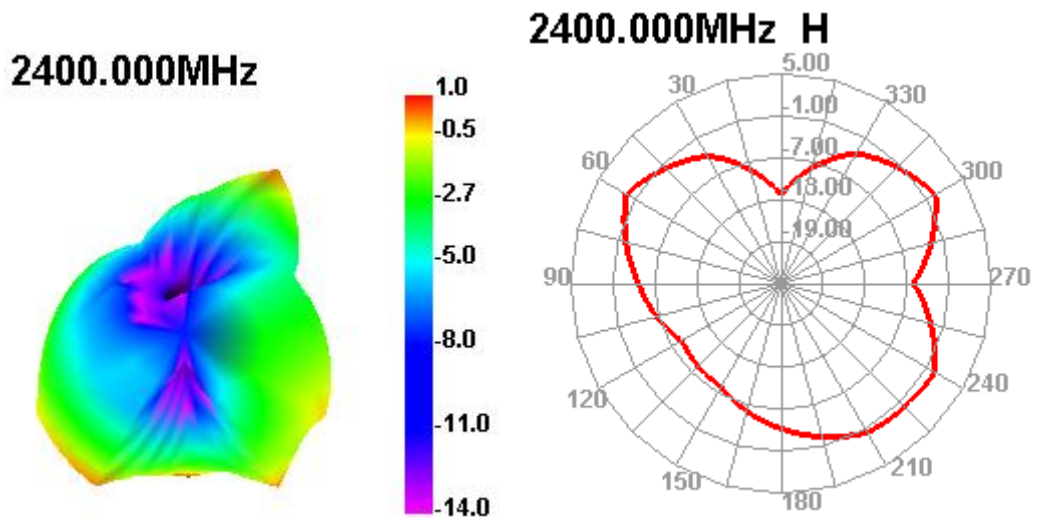
信道	WCDMA900			WCDMA2100		
	CH2937	CH3013	CH3088	CH10562	CH10730	CH10838
Max power	22.7	22.2	22.5	22.3	22.5	22.0
TRP	16.8	16.5	16.9	16.8	16.5	16.9
Sensitivity	-104.4	-105.5	-105.5	-104.3	-104.9	-103.3
TIS	-102.4	-102.5	-102.6	-103.6	-101.5	-102.8

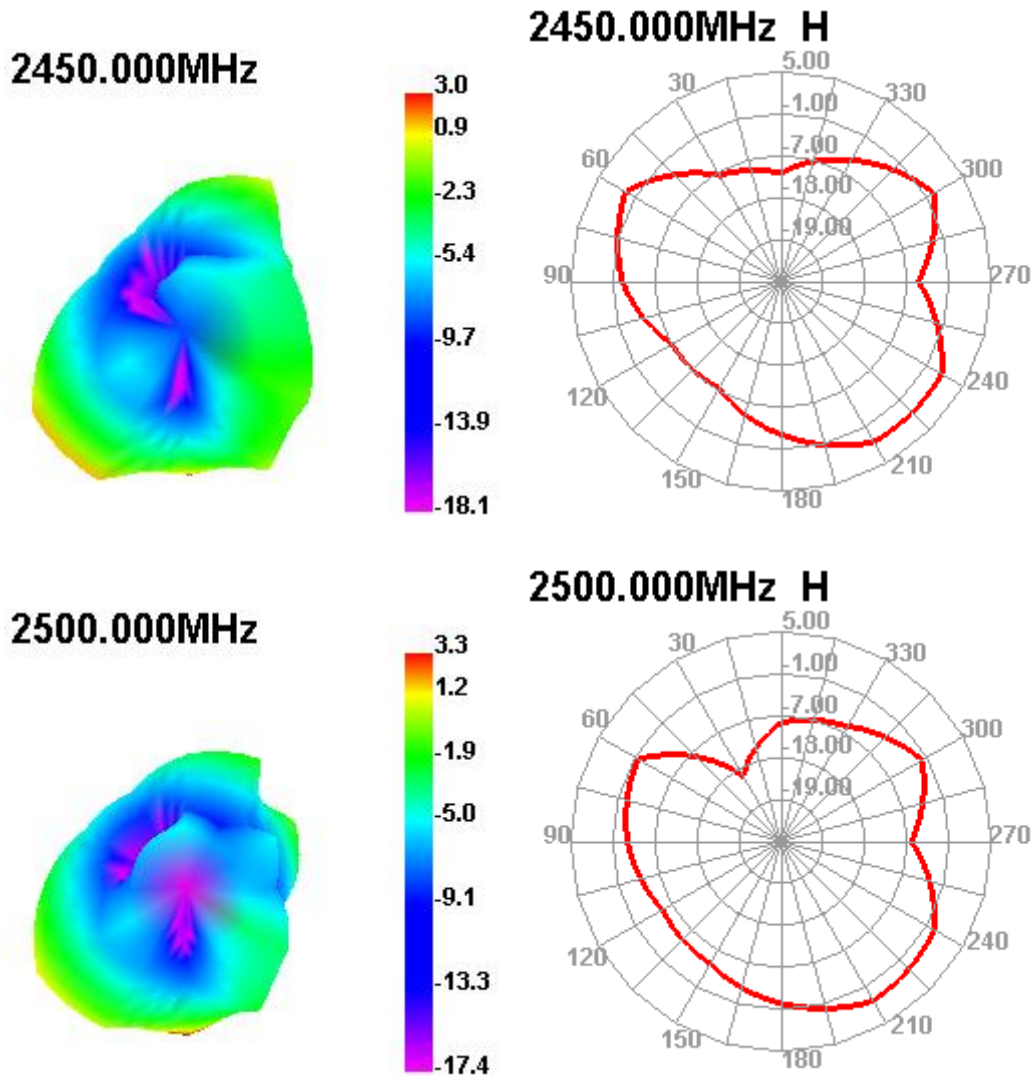
Band	LTE1			LTE3		
Channel	18050	18300	18550	19250	19575	19900
MAX(dB)	21.92		20.28	23.39		21.94
TRP	17.96		16.91	19.70		18.18
MAX(dB)			-96.59			-96.01
TIS			-92.83			-92.88
Band	LTE7			LTE8		
Channel	24050	24075	24100	21500	21625	21750
MAX(dB)	25.93		25.99	20.49		19.17
TRP	18.26		18.40	18.32		17.32
MAX(dB)			-96.48			-90.90
TIS			-89.99			-88.75

Band	LTE20			LTE28		
Channel	24200	24300	24400	27260	27435	27610
MAX(dB)	18.05		18.41	20.18		20.69
TRP	16.01		16.38	16.31		16.80
MAX(dB)			-92.33			-91.11
TIS			-90.47			-88.72

3-1 Efficiency/Gain- WIFI

	Average gain(dBi)	Peak gain(dBi)	Efficiency
G850	-1.2	2.2	30%
G900	-4.16	-0.59	20%
G1800	-2.9	1.2	32%
G1900	-1.84	2.2	37%
FDD2	-1.92	2.36	34%
FDD4	-1.16	2.24	34%
FDD5	-1.58	3.18	39%
FDD7	-1.44	2.92	39%
2.4G WIFI/BT	-1.15	1.90	46%
5G WIFI	-1.25	2.21	41%





4. The production index

天线量产时，以驻波比作为量产测试标准。

根据项目本身的差异,给出如下标准:

频率	量产标准
GPS(1560_1580MHZ) WIFI (2400-2500Mhz/)	VSWR (量产产品) < VSWR(设计样品)+0.5