

承 认 书

SPECIFICATION FOR APPROVAL

客户名称：江苏矽望电子科技有限公司

Customer Name:

项目名称:

Project Name:

产品料号：HX-FPC24-4212-250B4

PRODUCT P/N:

产品名称：2.4G FPC天线

PRODUCT NAME:

出厂签章

SIGN	品质 (DQE)	结构 (ME)	射频 (RF)
	汤杨阳	黄小宇	庄伟峰

客户签章

SIGN	项目 (PM)	结构 (ME)	品质 (DQE)

版本更改记录

Revise Record

版本号 Version	变更记录 Record of change	拟制 Made	批准 Approve	日期 Date
V1	首次发行	黄小宇	庄伟峰	2025.10.21

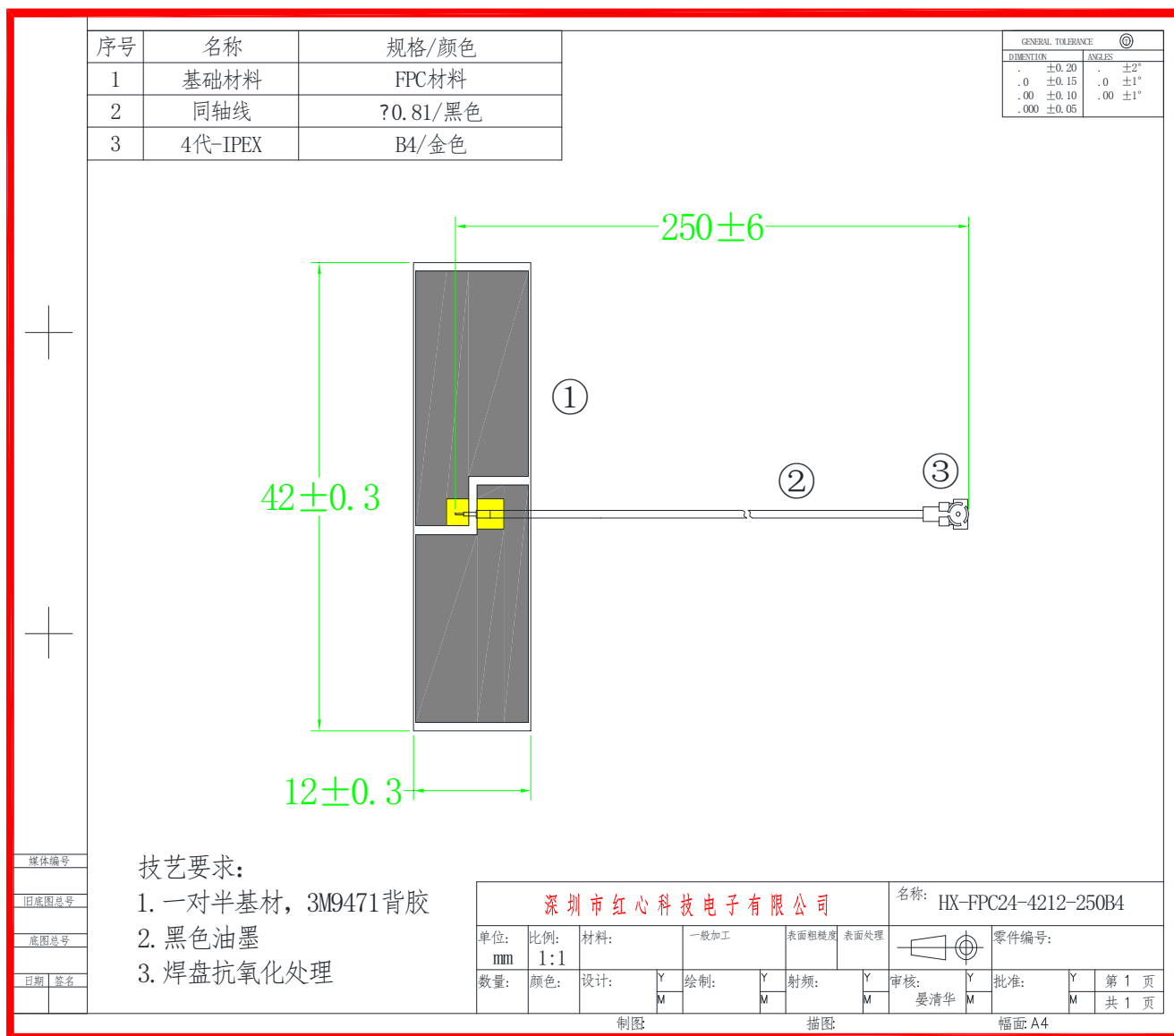
备注：

1、更改产品指标时，版本号需更换（V1换为V2、V3.....）；

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1. 2D图纸以及实物照片(2D Drawing & Product Picture)



2. 天线规格(Antenna Specification)

2.1 电气参数(Electrical Specification)

电气参数-Electrical Specification	
频率范围- Operation Frequency (MHz)	2400-2500
输入阻抗 -Impedance (Ohms)	50
驻波比 -VSWR	<1.8
效率 -Efficiency (%)	35~80
峰值增益- Peak Gain (dBi)	3
辐射方向 -Radiation Properties	Omnidirectional 全向
极化方式- Polarization	Linear polarization 线极化
功率容量 -Max input Power (Watts)	50

2.2 机械参数(Mechanical Parameter)

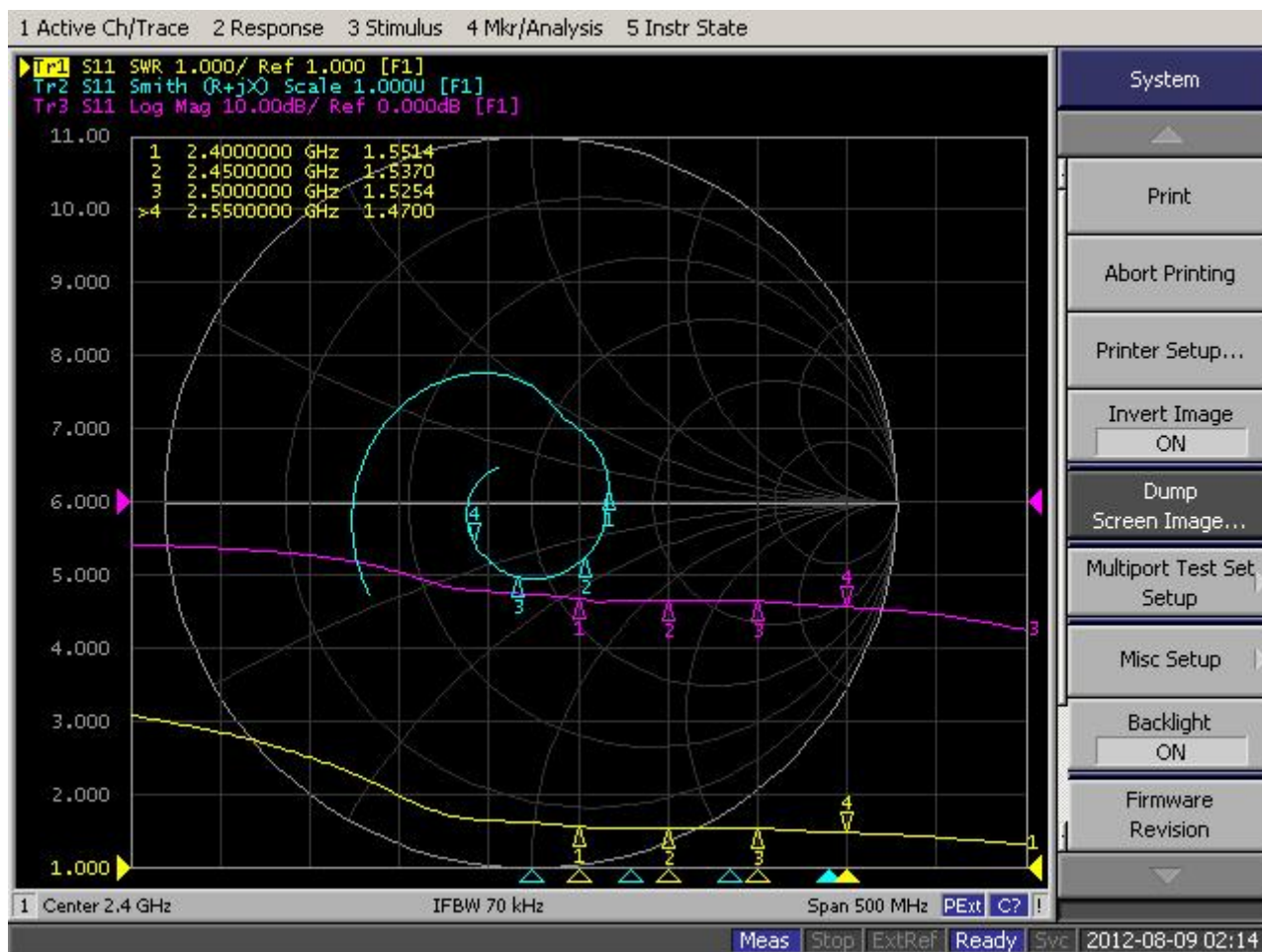
机械参数-Mechanical Parameter	
结构方式-Structure Type	FPC天线
尺寸-Dimension	42*12
材料-Material	FPC+CABLE+PLUG
盐雾测试-Salt Spray	48H

2.3 环境规格(Environment Specification)

环境规格-Environment Specification	
工作温度-Operating temperature	-40°C ~ +80°C
存储温度-Storage temperature	-40°C ~ +80°C

3 无源测试数据(Passive Test Data)

3.1 驻波比/史密斯圆图/回波损耗(VSWR / Smith chart / Return loss)

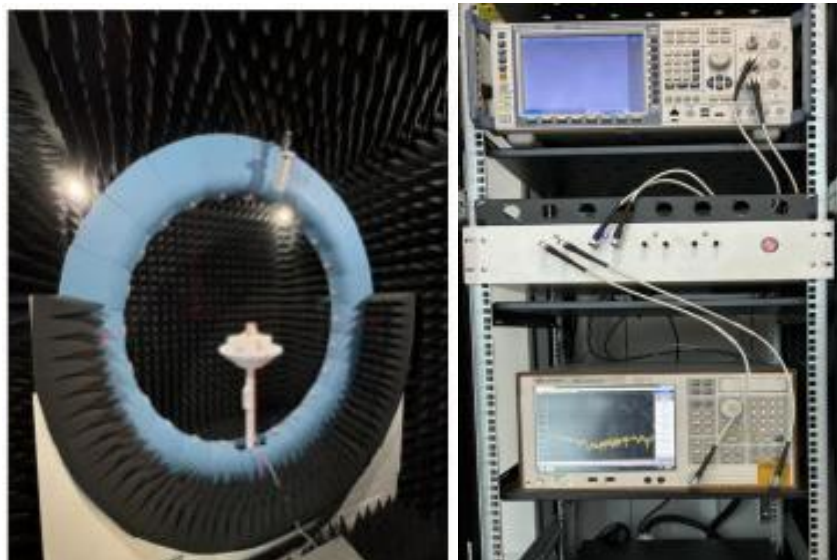


频段: 2400MHz-2500MHz

3.2 测试系统(Test System)

Multi-probe spherical near-field anechoic chamber test system that meets the relevant international regulations such as CTIA and 3GPP, a multi-functional wireless test system with excellent performance in radio frequency, absorption, and mechanical structure. The system has high integration and reliability. It supports pendulum sampling frequency-doubling technology and can be adapt to the testing needs of small multi-lobed antennas. It is suitable for the wireless testing of small high-integration electronic devices such as IoT devices, drone modules, car machine modules, smart home devices, and mobile communication equipment. It can also meet the testing needs of ceiling antennas, miniature base stations, and embedded routers, etc., which have high dependence on the passive performance of antennas.

多探头球面近场空腔暗室测试系统，符合CTIA和3GPP等相关国际法规的多功能无线测试系统。该系统在射频、吸波和机械结构等有良好的表现，系统的集成度和可靠性较高。系统支持摇摆式采样倍频技术，可适应小型多副瓣天线的测试需求，适用于物联网、无人机、车机模块、智能家居、移动通信设备等小型高集成度电子设备的无线测试。同时也可满足吸顶天线、微型基站、嵌入式路由器等对天线无源性能依赖度高的无线设备测试。

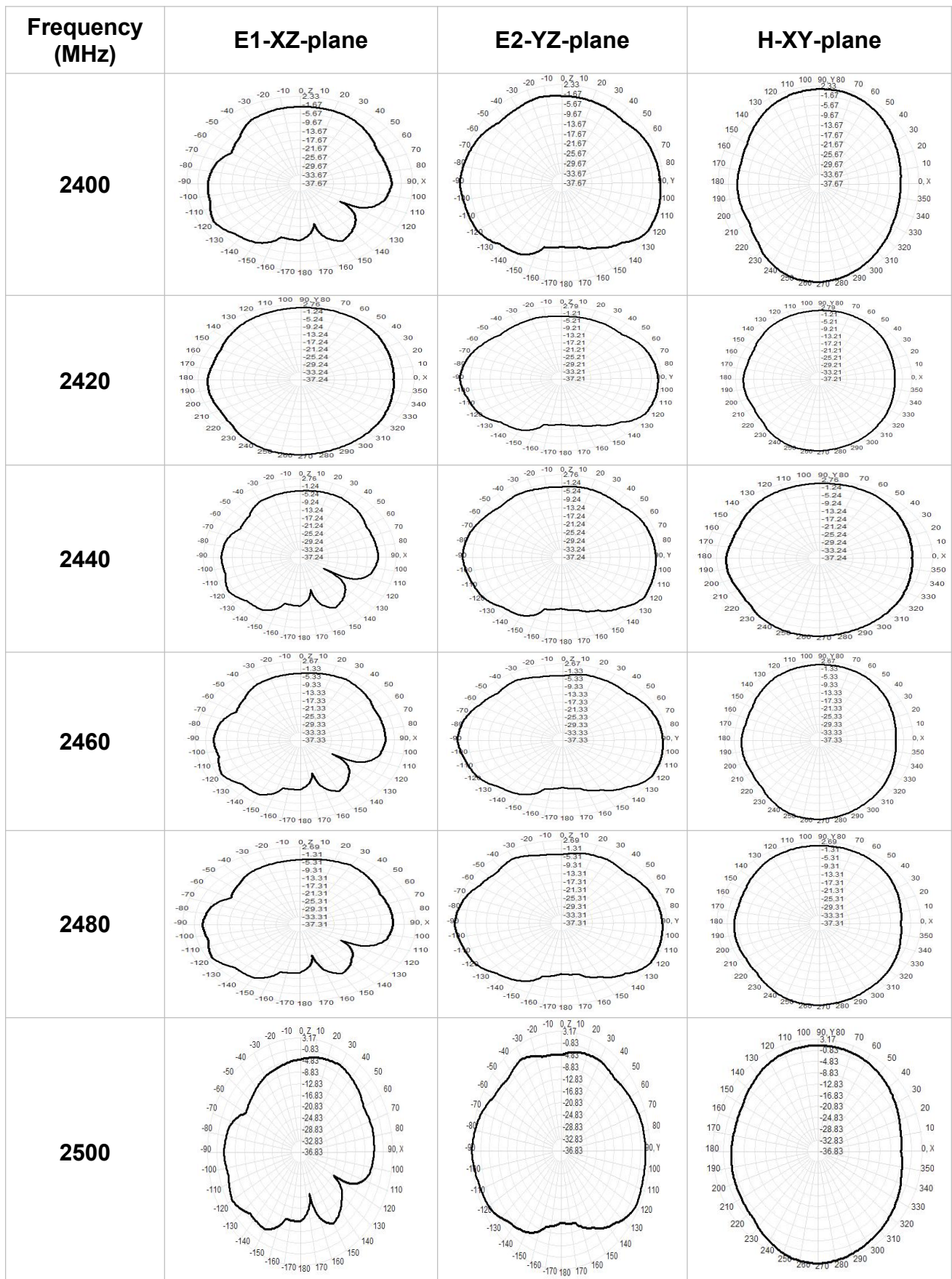


可支持频率 Supported Bnad	600MHz-9GHz (Expand. 12GHz)
测试内容 Test Item	Passive: Gain/Efficiency/2D/3D radiation/non-circularity(不圆度)/axial ratio(轴比) ... Active: TRP/TIS/EIRP/EIS
测试制式 Test Standard	2G/ 3G /4G / 5G/ Wi-Fi b/g/n/a/ac/ax/蓝牙/NB-IOT /Cat-M(eMTC)/ GPS/ BEIDOU/ GLONASS/ ZigBee/ LoRa (Non-signaling 非信令)...

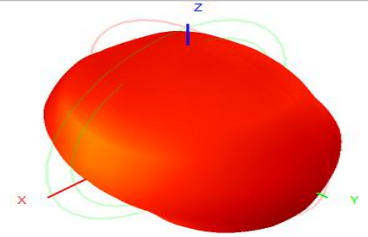
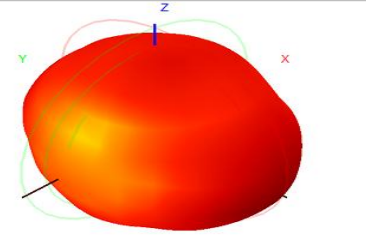
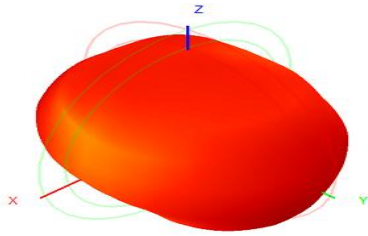
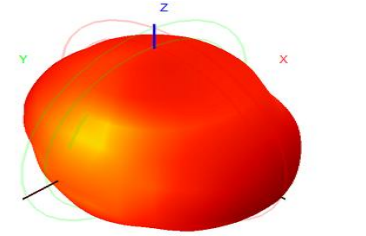
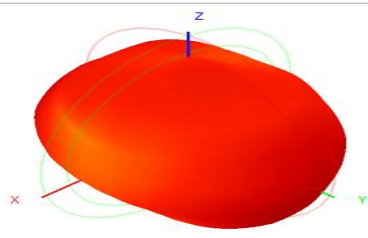
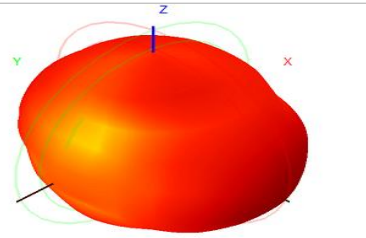
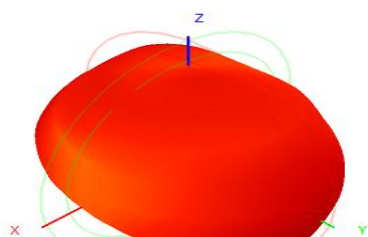
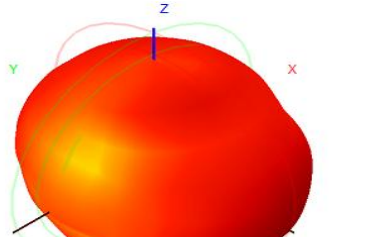
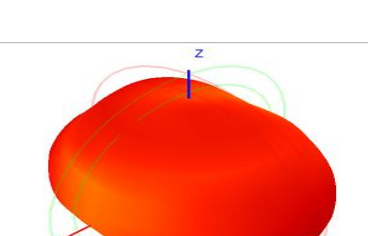
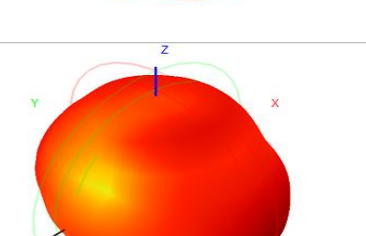
3.3 效率&增益(Efficiency & Gain)

Frequency (MHz)	Gain (dBi)	Efficiency (%)	Frequency (MHz)	Gain (dBi)	Efficiency (%)
2400	2.33	52.83			
2420	2.79	54.05			
2440	2.76	54.21			
2460	2.67	54.49			
2480	2.69	52.74			
2500	3.17	54.75			
AVG	2.73	53.84			

3.6 2D 辐射模型(2D Radiation Model)



3.7 3D 辐射模型(3D Radiation Model)

Frequency (MHz)	H+V	Back View
2400		
2420		
2440		
2460		
2480		
2500	