



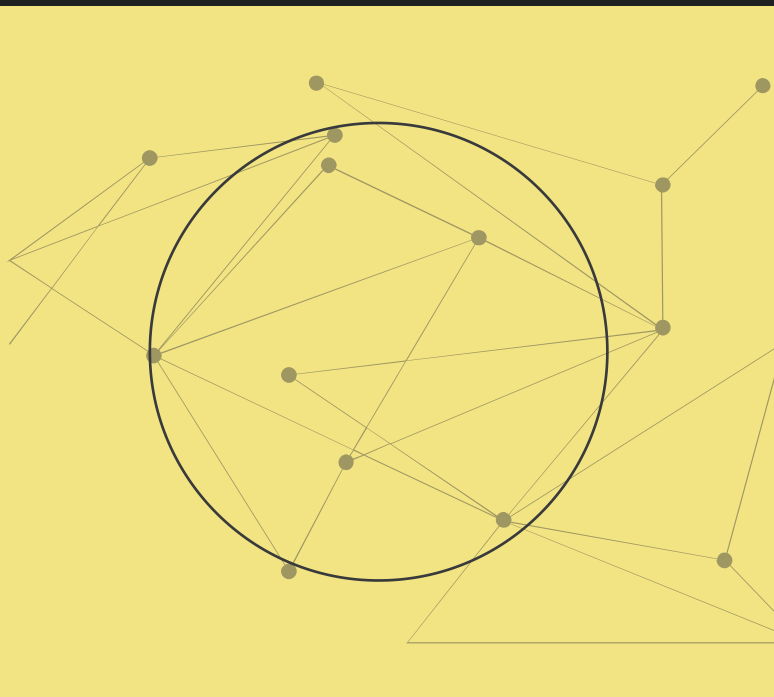
2024

深圳祥博一科技有限公司

Shenzhen Xiangboyi Technology Co. Ltd

天线规格书

Antenna spec.



01 客户名称/Customer : SmartAction

02 项目名称/Project: HiBy R4

03 立项编号/Project NO: XBY230426

04 工程师/Engineer: 何国荣
电话/Phone: 18123875607

PART 1

测试报告版本/Report version

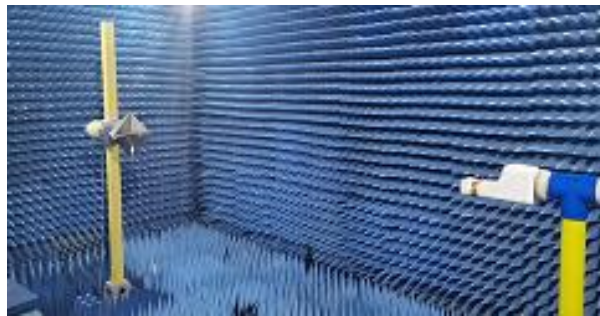
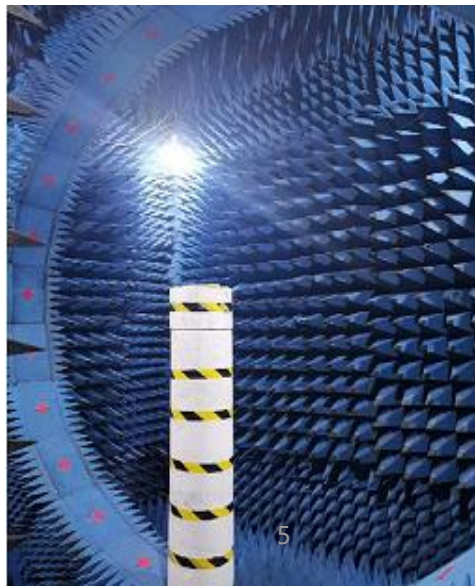
日期 Date	天线版本 Antenna version	主板版本 PCB version	变更描述 Description of Change
2023-11-06			天线测试数据
2024-1-16			天线测试数据

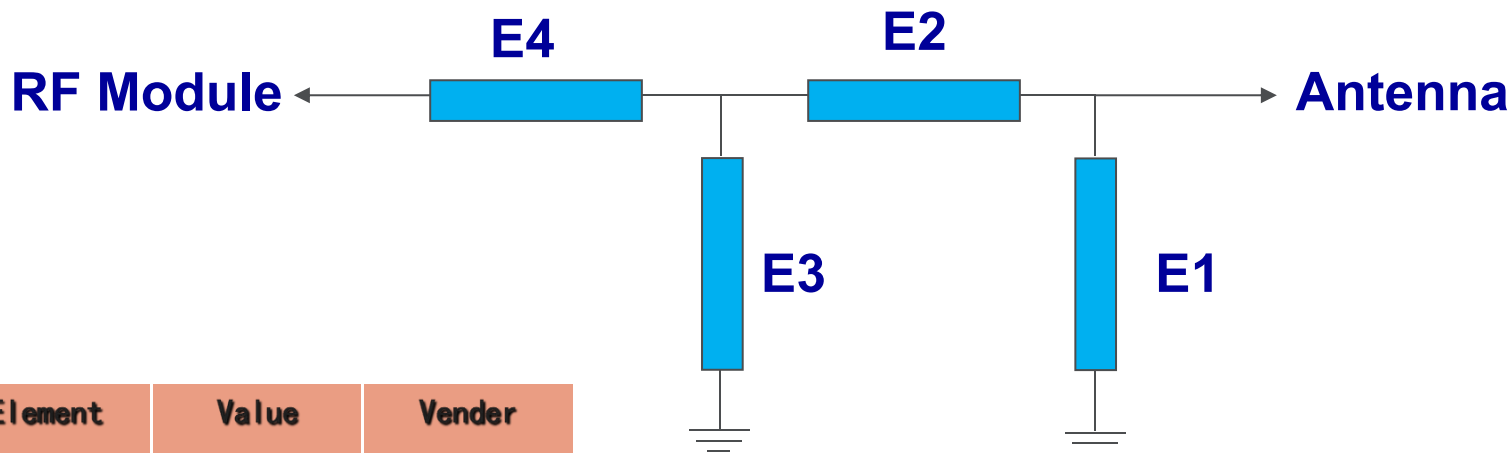
NO	ITEMS	DETAILS
1	工作频段 Operating band	WIFI: B/G/N/A模 BT
2	频率范围 Frequency band	WIFI/BT: 2400-2500Mhz; 5180-5850Mhz
3	天线类型 Antenna type	MAIN: monopole
4	天线材质及实现形状 Material and implementation shape	PCB+焊线 PCB welding wire

PART 3

Test system and equipment

	测试项目/Test items	设备/equipment
1: S参数 S parameter	1. 回波损耗 Return loss 2. 驻波比 VSWR	网络分析仪/Network analyzer: A338/A333
2: 耦合功率测试 Active test	1. 发射功率 Transmitting power 2. 接收灵敏度 Receiving sensitivity	综合测试仪/Comprehensive test instrument: Agilent 8960/ CMW500
3: 辐射模式与增益 Radiation mode and gain	1. 辐射模式 Radiation mode 2. 天线增益 Gain	1. 暗室/Shielding room: 7x4x3 m (ETS-3D) 2. 网络分析仪/Network analyzer: HP 8753D





Element	Value	Vender
E1 (0402)	NA	
E2 (0402)	0 Ohm	
E3 (0402)	NA	
E4 (0402)	0 Ohm	

Original match unchanged.

PART 5

有源测试数据/Active Test data

WIFI BAND	802.11a : 54Mbps (5G)			802.11n : MCS7 (2.4G)		
Channel	CH36	CH149	CH161	CH1	CH6	CH11
TRP	7.24	8.21	8.31	8.16	9.31	9.47
TIS			-68.29			-69.64

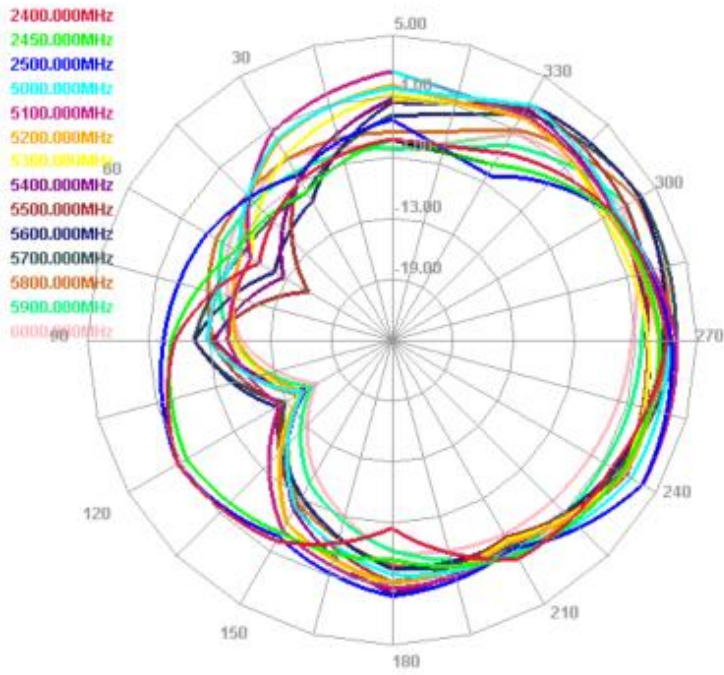
WIFI BAND	802.11b : 11Mbps (2.4G)			802.11g : 54Mbps (2.4G)		
Channel	CH1	CH6	CH11	CH1	CH6	CH11
TRP	10.71	11.46	11.21	8.28	8.81	9.12
TIS			-81.56			-70.38

BT BAND	BT					
Channel	CH0	CH36	CH78			
TRP	2.33	3.76	3.26			
TIS			-80.35			

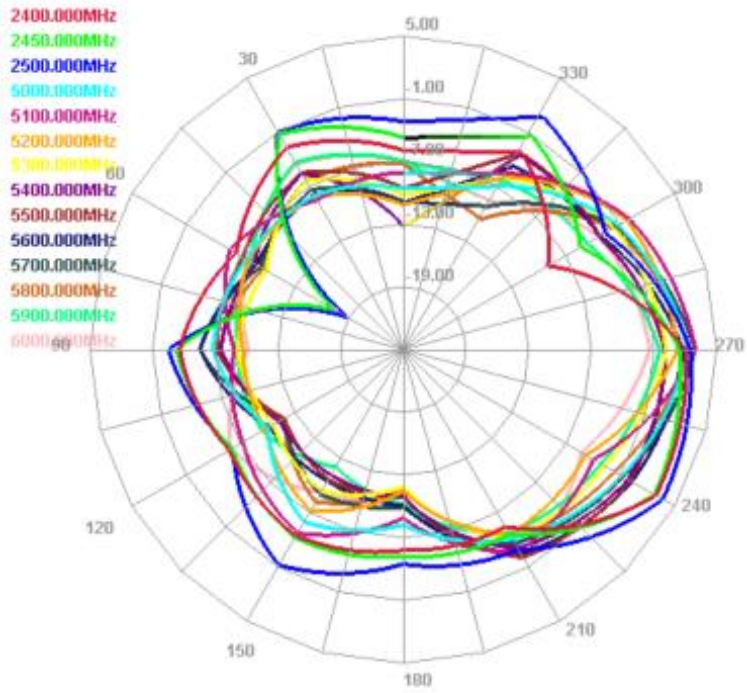
Freq (MHz)	Effi (%)	Gain (dBi)
2400	33.27	1.28
2410	37.82	-0.62
2420	34.01	-0.12
2430	33.32	-1.89
2440	38.91	-0.23
2450	33.84	-1.15
2460	35.56	-0.04
2470	36.79	-0.73
2480	37.14	-0.22
2490	35.42	-0.31
2500	35.4	0.63

Freq (MHz)	Effi (%)	Gain (dBi)
5000	41.05	2.63
5100	38.35	3.57
5200	40.52	1.88
5300	36.7	2.26
5400	41.64	2.92
5500	42.7	1.64
5600	39.68	2.47
5700	40.96	2.34
5800	38.58	1.53

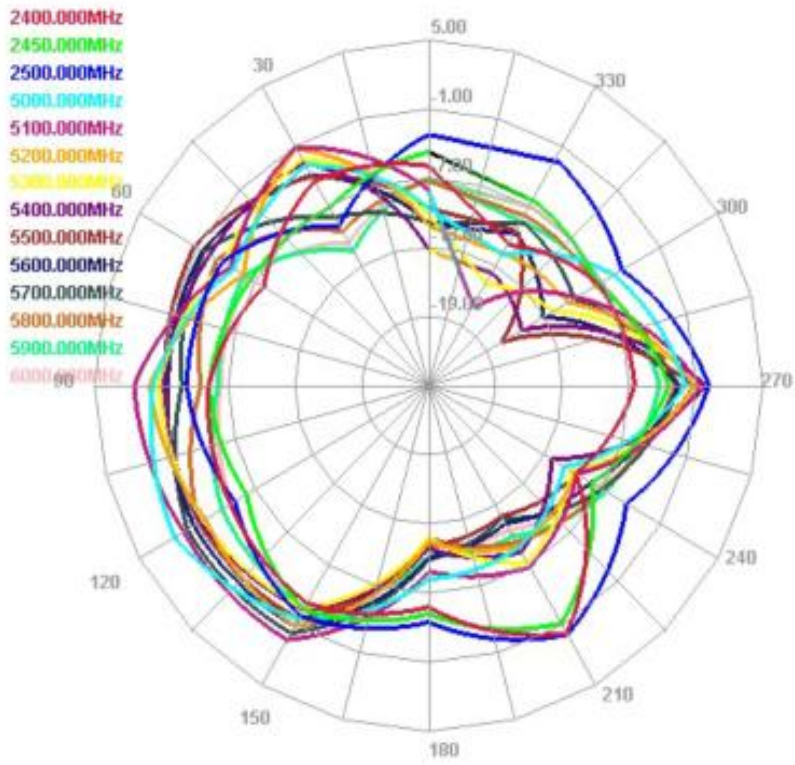
Horizontal



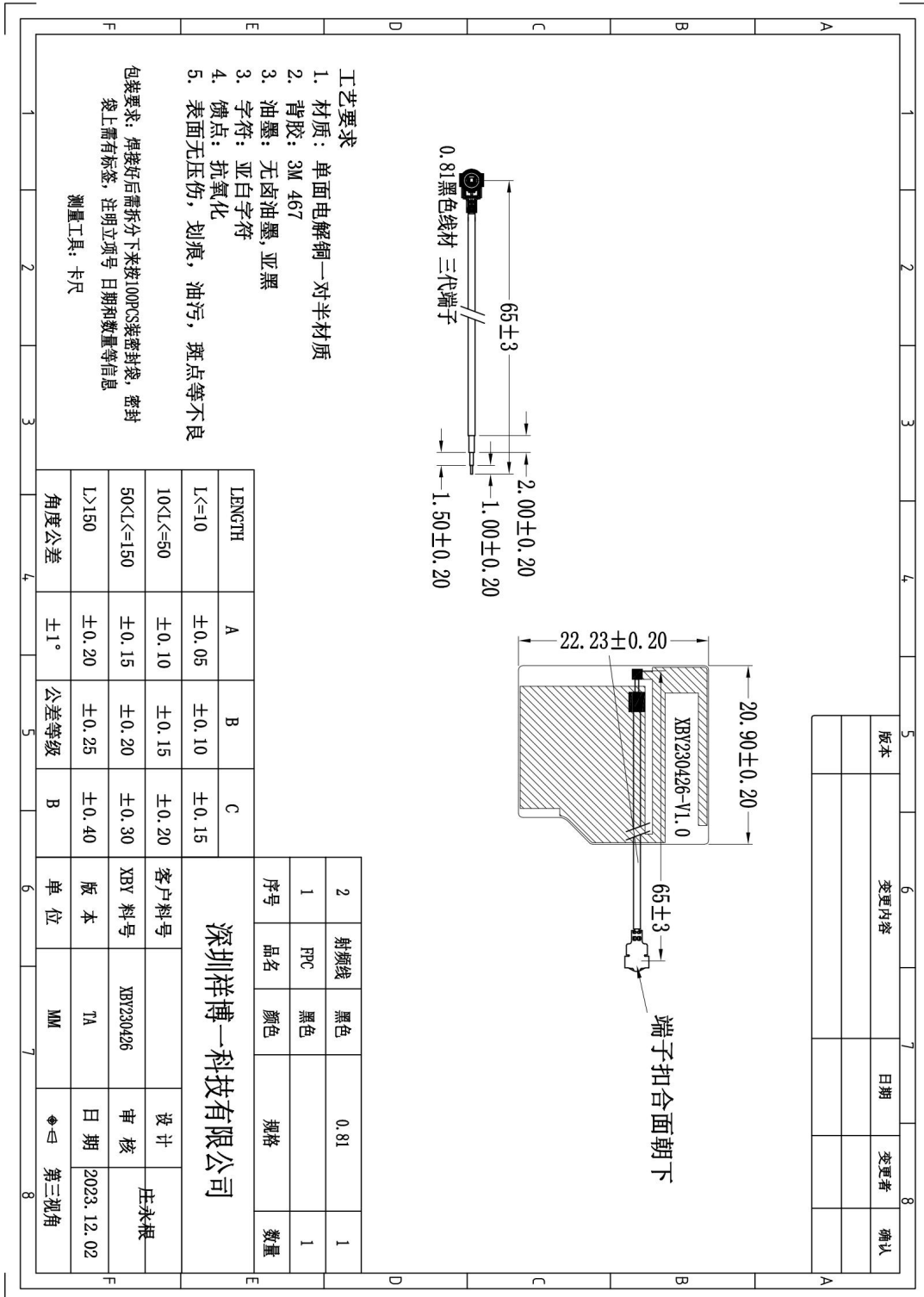
E2 Face



E1 Face



工程图 Engineering Drawing



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