

深圳市新领科技有限公司

Shenzhen New Link Technology Co.,Ltd

样品规格书

ANTENNA APPROVAL SHEET

客户：乐韵瑞

Customer: Le Yunrui

项目：WiiM Sound

Project:

料号 Part number		审核 Audit	
射频工程师 RF Engineer		结构工程师 Structural Engineer	
地址 address	深圳南山区高新科技园北区第五工业区办公大楼五楼 The fifth floor of the office building of the Fifth Industrial Zone, North District, High-tech Park, Nanshan District, Shenzhen		
电话 Phone	13902948715	网站 site	www.kpantenna.com
公司邮箱 Company email address	sales@kpanenna.com	联系人 Contact	李鹏 Li Peng

客户硬件 Customer hardware		客户项目 Customer projects	
客户结构/MD Customer Structure/MD		客户品质 Customer quality	

本承认书为调试金机数据，只针对金机负责，建议贵司在我司保留金机一台，我司对与金机物料及软件等相同的量产机器保证天线性能。

This acknowledgment is the debugging of the gold machine data, only for the gold machine is responsible, it is recommended that your company keep a gold machine in our company, and our company will have the same amount as the gold machine materials and software The production machine guarantees the antenna performance.

project: : WiiM Sound	write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G		
date: 2025.08.05		
version V1	to examine: liufang	
Mold products		
CONFIDENTIAL Brotone.com		

1.概述 Overview

此报告主要描述新领科给乐韵瑞机器调试天线的性能。乐韵瑞 WiiM Sound 项目，使用频率范围为，2.4G/5G/6GWIFI 该机天线为 PIFA 形式，位于机器内部。

This report mainly describes the performance of the antenna tuning by Xinlinko for the Leyunrui machine. The WiiM Sound project uses a frequency range of 2.4G/5G/6GWIFI The antenna of the machine is in the form of PIFA and is located inside the machine.

2.详细介绍 Detailed introduction

2.1 匹配电路 （匹配未改动） Matching circuit (matching unchanged)

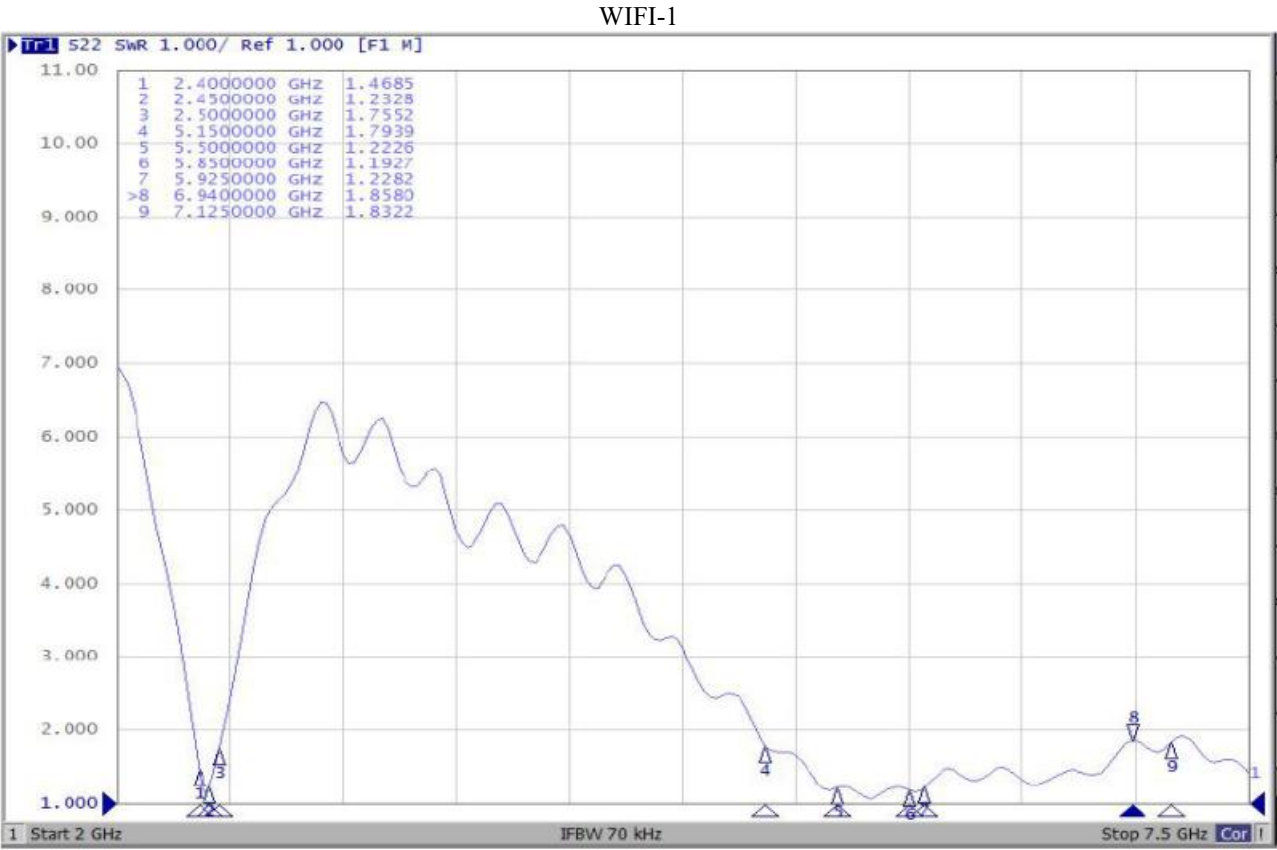
3.调试设置 Debug the settings

发射功率(TX Power)和接收灵敏度(RX Sensitivity)。 TX Power and RX Sensitivity

发射功率和接收灵敏度是使用 CMW500/8960 在微波暗室(6m*3m*3m)里测得的 3D 结果

The transmit power and receive sensitivity are 3D results measured using the CMW500/8960 in a microwave anechoic chamber (6m*3m*3m).

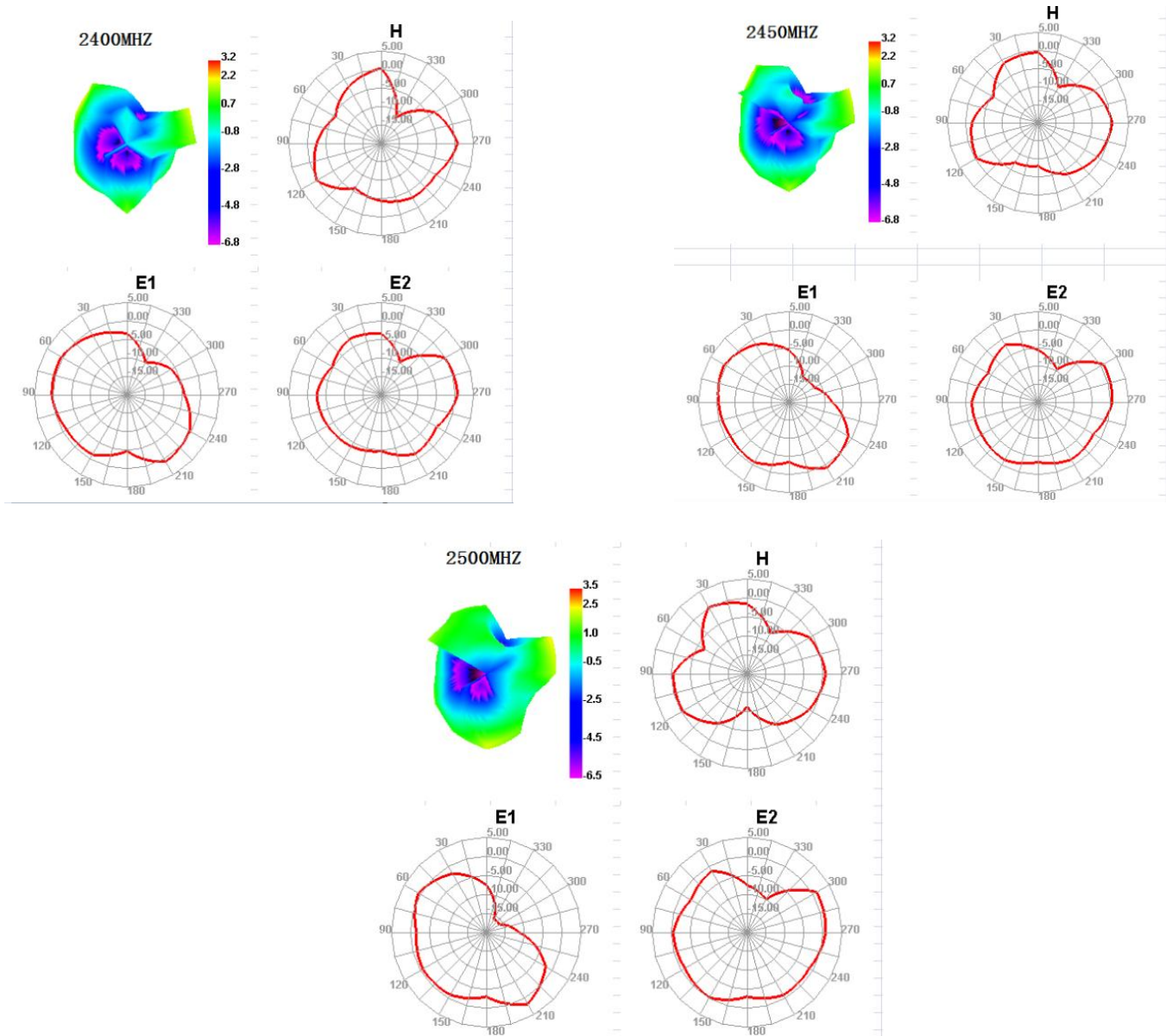
3.1 天线无源数据 Antenna passive data



project: : WiiM Sound		write:	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G		Zhang hai	
date: 2025.08.05		ong	
version	V1	to examine:	
Mold products		liufang	
CONFIDENTIAL			
Brotone.com			

Efficiency/Gain- WIFI/BT 2.4G

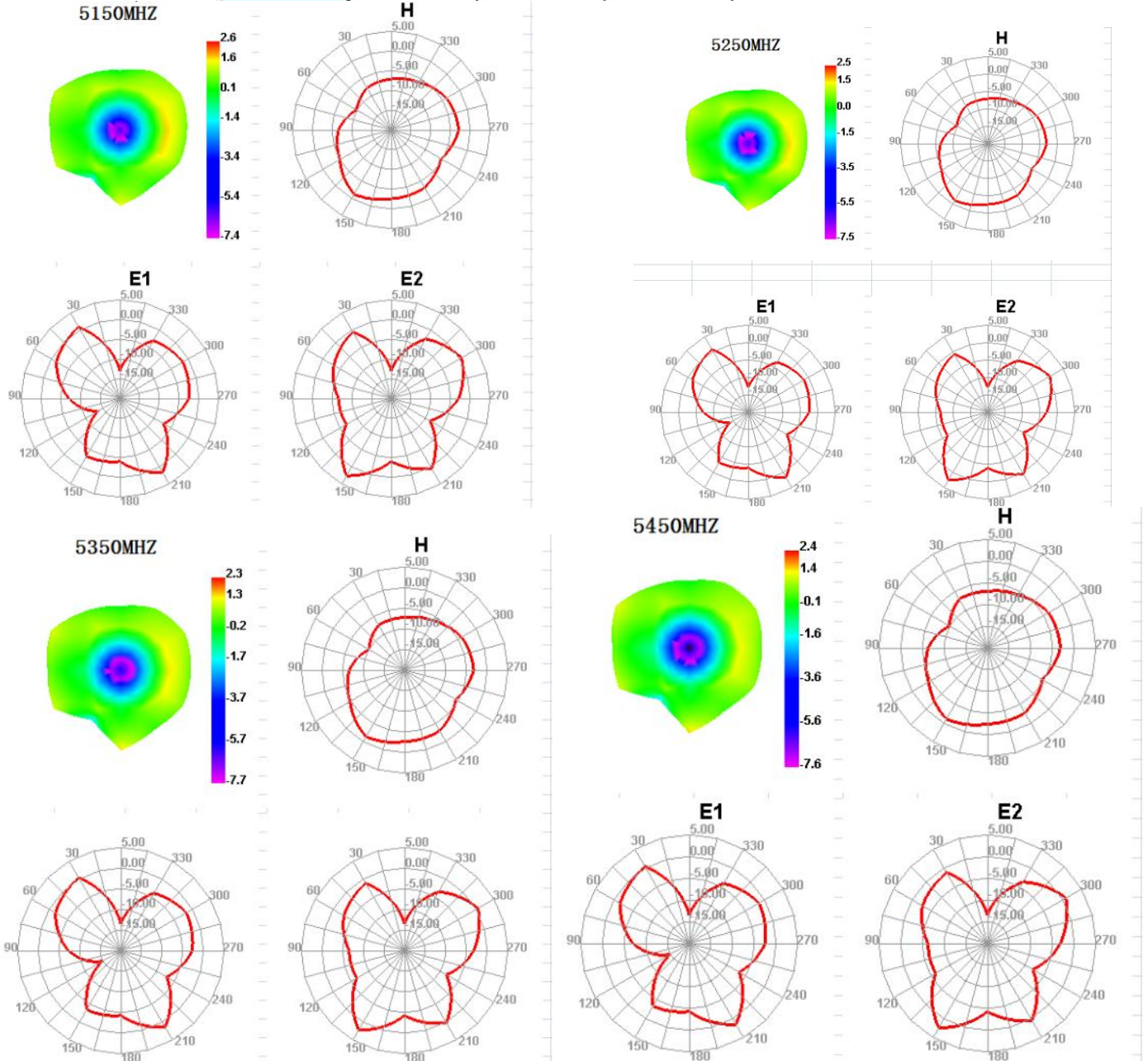
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
2400	62.8	-2.02	3.21
2450	66.1	-1.8	3.24
2500	69.56	-1.58	3.46



project: : WiiM Sound		write:	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G		Zhang hai	
date: 2025.08.05		ong	
version	V1	to examine:	
Mold products		liufang	
CONFIDENTIAL			
Brotone.com			

5G

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
5150	54.17	-2.66	2.6
5250	53.88	-2.69	2.51
5350	51.47	-2.88	2.26
5450	53.89	-2.68	2.44
5550	54.92	-2.6	2.44
5650	57.62	-2.39	2.67
5750	53.77	-2.69	2.15
5850	57.78	-2.38	2.46



project: : WiiM Sound

Antenna model: WiiM S-Speaker
W700-1B-G

date: 2025.08.05

version V1

Mold
products

write:
Zhang hai
ong

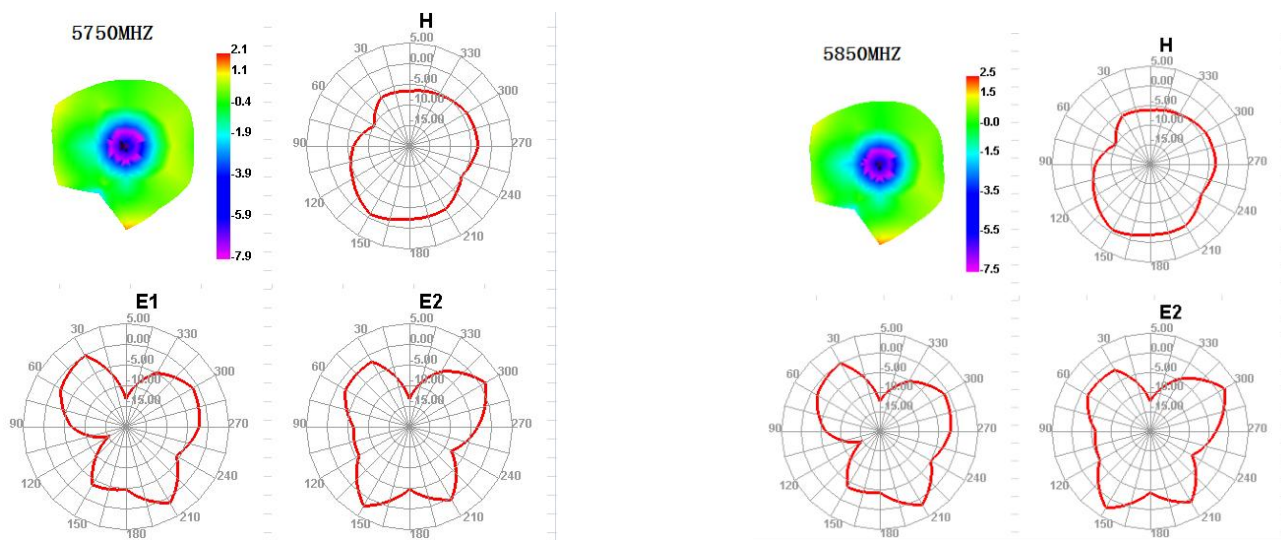
to examine:
liufang

file name

Le yun rui WiiM Sound Antenna
specification

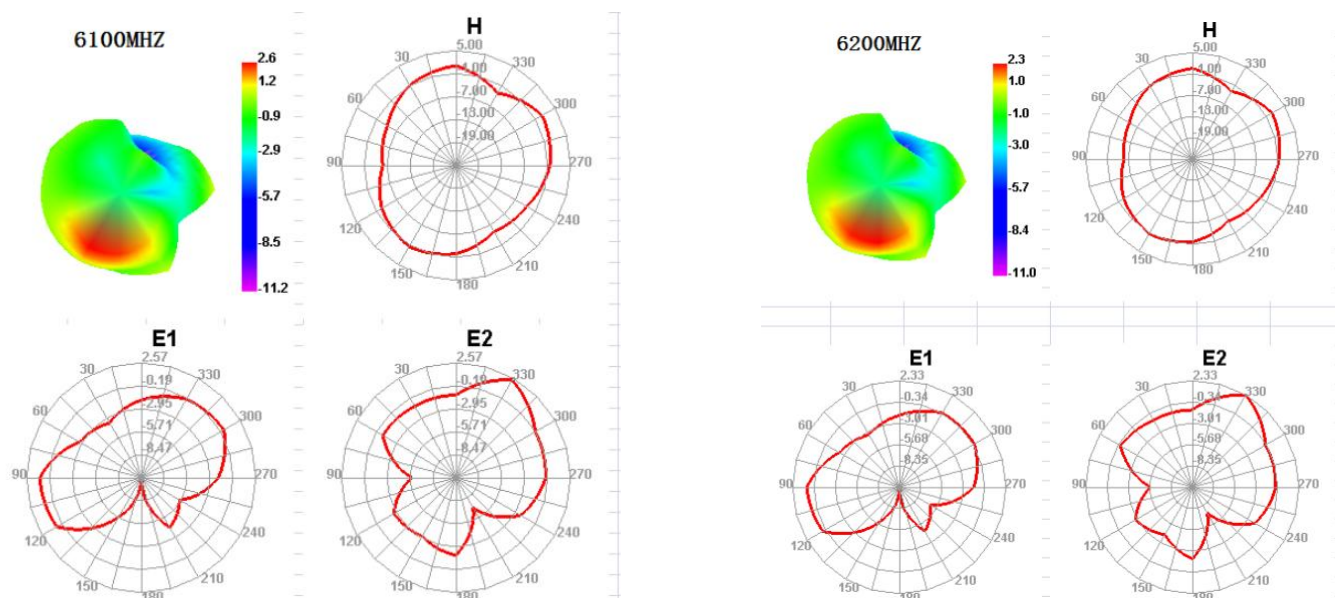
CONFIDENTIAL

Brotone.com

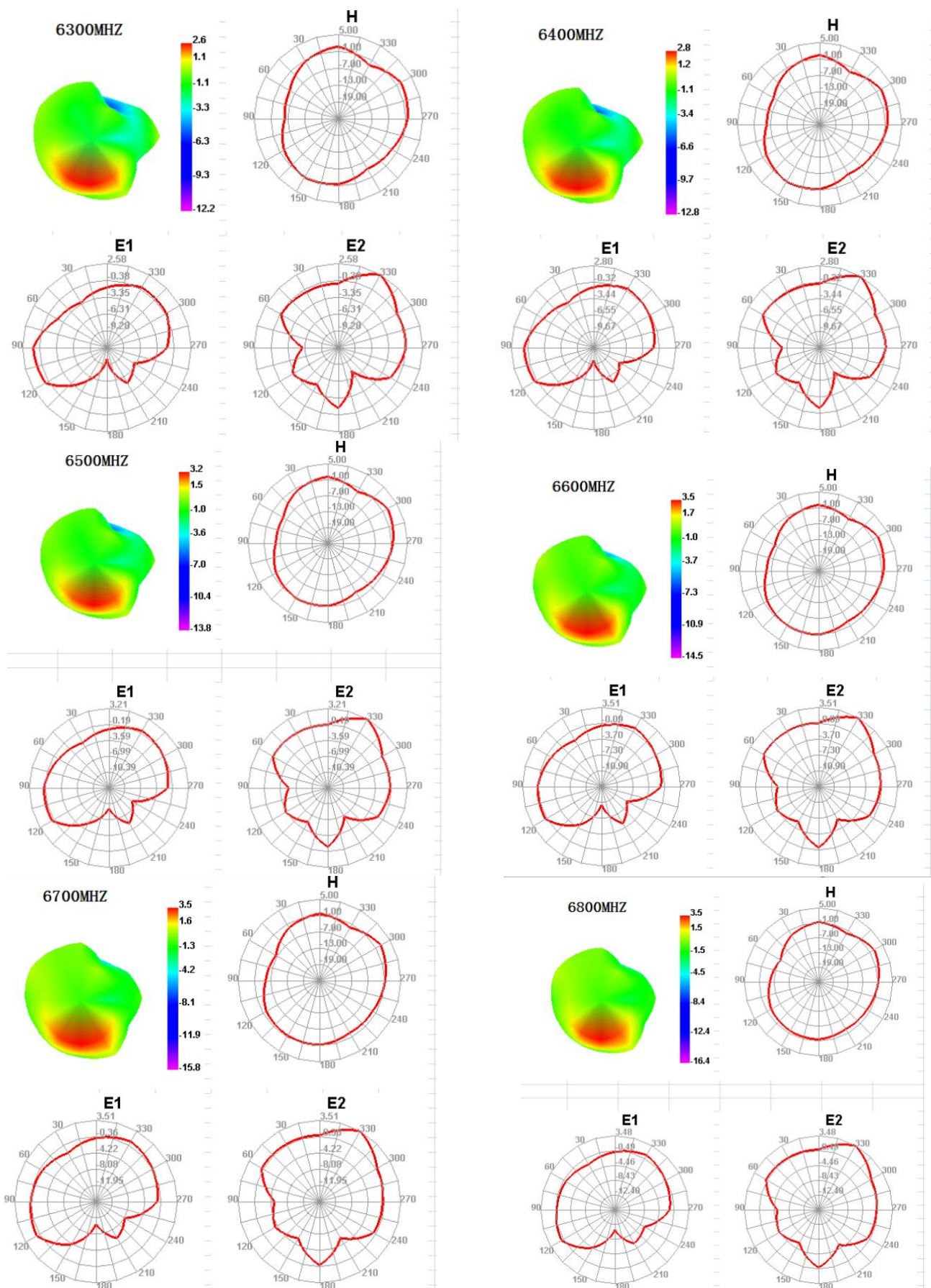


6G

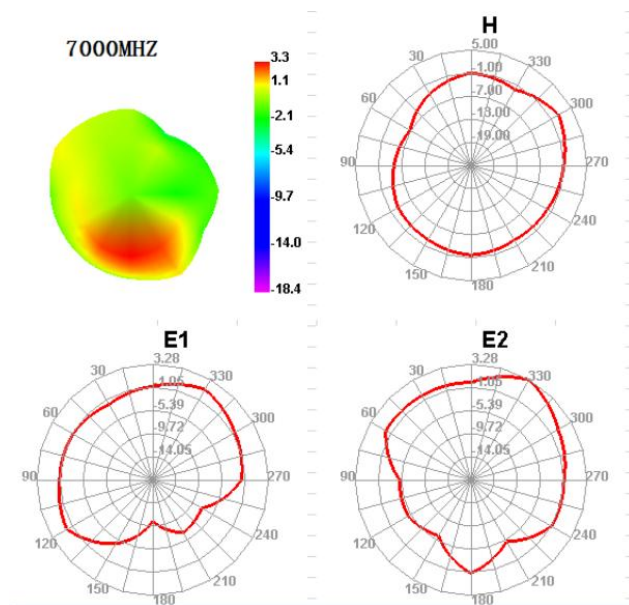
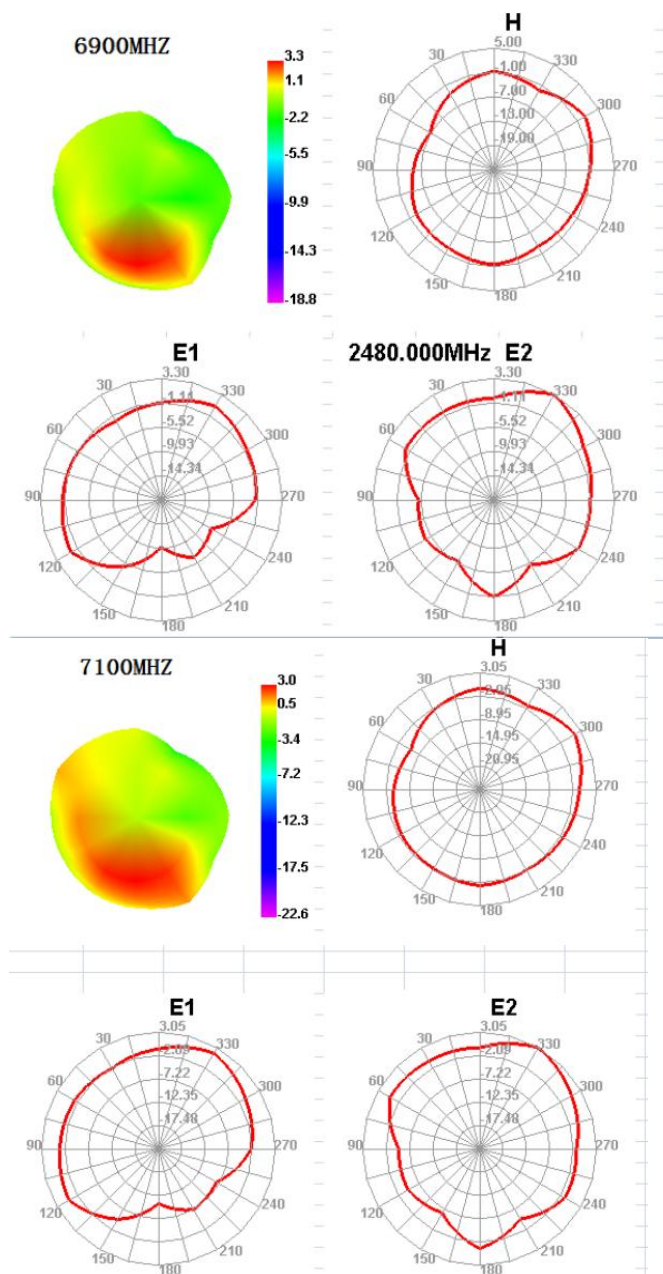
Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)
6100	43.52	-3.61	2.57
6200	41.2	-3.85	2.33
6300	40.71	-3.9	2.58
6400	40.09	-3.97	2.8
6500	35.58	-4.49	3.21
6600	35.9	-4.45	3.51
6700	38.57	-4.14	3.51
6800	39.36	-4.05	3.48
6900	38.55	-4.14	3.3
7000	40.6	-3.91	3.28
7100	41.94	-3.77	3.05



project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G			
date: 2025.08.05			
version	V1	to examine: liufang	
Mold products			
CONFIDENTIAL			
Brotone.com			



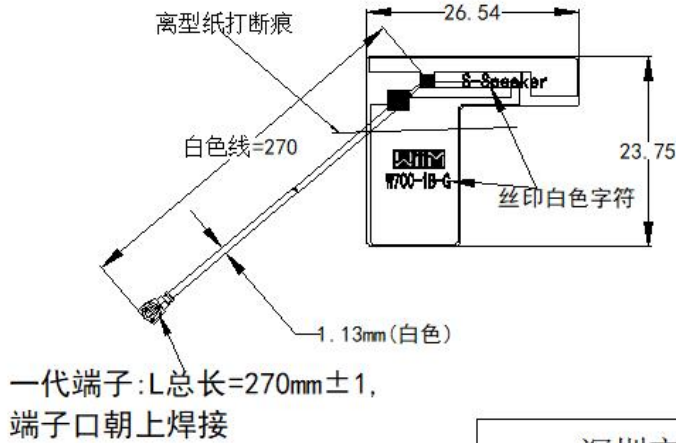
project: : WiiM Sound		write:	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G		Zhang hai	
date: 2025.08.05		ong	
version	V1	to examine:	
Mold products		liufang	
CONFIDENTIAL			
Brotone.com			



4.结构图 Structural diagram

project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G			
date: 2025.08.05			
version	V1	to examine: liufang	
Mold products			
CONFIDENTIAL Brotone.com			

料号: 1140300109



技术要求:

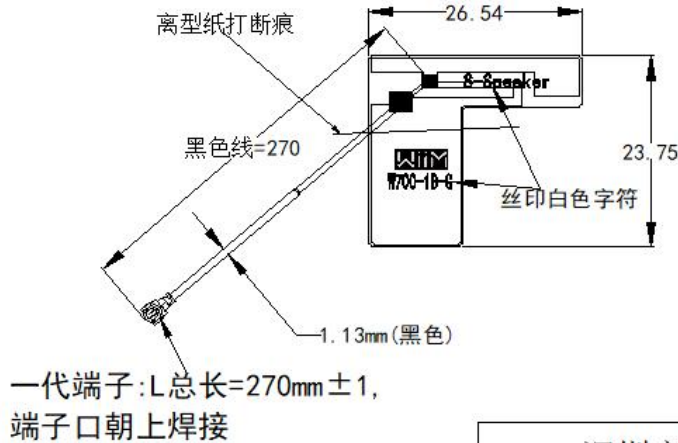
- 1、材质: FPC(黑油, 一对一电解铜基材), T<0.15mm; 反面背胶类型: 3M9471 (粘性需过热冲击实验)
- 2、标“*”号为重点管控尺寸, 未注公差按图框中自由公差管控; 未注尺寸以菲林片检验为准(电性能需测试OK);
- 3、产品符合ROHS标准;
- 4、**镀点抗氧化处理**, 不可有**抗氧化**后易断裂及脱落, 导电不良, 电路部分断裂等不良现象;

深圳市新领科技有限公司

第三视角	项目名称:	日期	2025-07-31
	WiiM Sound	设计	Zsb
	产品名称:	审核	MD
	wifi天线		
	产品料号:	RF	
材料:		批准	
FPC+一代端子同轴线		单位:mm	比例:FIT

第 1 页, 共 1 页

料号: 1140300110



技术要求:

- 1、材质: FPC(黑油, 一对一电解铜基材), T<0.15mm; 反面背胶类型: 3M9471 (粘性需过热冲击实验)
- 2、标“*”号为重点管控尺寸, 未注公差按图框中自由公差管控; 未注尺寸以菲林片检验为准(电性能需测试OK);
- 3、产品符合ROHS标准;
- 4、**镀点抗氧化处理**, 不可有**抗氧化**后易断裂及脱落, 导电不良, 电路部分断裂等不良现象;

深圳市新领科技有限公司

第三视角	项目名称:	日期	2025-07-31
	WiiM Sound	设计	Zsb
	产品名称:	审核	MD
	wifi天线		
	产品料号:	RF	
材料:		批准	
FPC+一代端子同轴线		单位:mm	比例:FIT

第 1 页, 共 1 页

project: : WiiM Sound		write:	file name
Antenna model: WiiM S-Speaker W700-1B-G		Zhang hai	
date: 2025.08.05		ong	
version	V1	to examine:	Le yun rui WiiM Sound Antenna specification
Mold products		liufang	

CONFIDENTIAL

Brotone.com

5.盐雾检测报告 Structural diagram

产品型号 Product model	WiiM Sound			测试数量 Number of tests	5PCS		
测试标准 Test Standards	GB2423.17			货品素材 Product materials	FPC		
测试项目 Test items	要求标准 Requirement Standards	实际数值 Actual values	判定 decision	测试项目 Test items	要求标准 Requirement Standards	实际数值 Actual values	判定 decision
测试仪器规格 Test Instrument Specifications	KD-60	KD-60	OK	测试时间 Test time	24H	24H	OK
盐雾测试类型 Types of salt spray tests	NSS 中性 NSS neutral	NSS 中性 NSS neutral	OK	盐雾箱温度 Salt spray box temperature	35℃	35℃	OK
盐水 PH 值 SALINE PH	6.5-7.2	6.8	OK	盐雾沉降量 (H.80C) Salt spray sedimentation	1-2ml	1.8ml	OK
喷雾方式 Spray method	连续喷雾 Spray continuously	连续喷雾 Spray continuously	OK	货品材质 Material of the goods	FPC	FPC	OK
盐水成份 Brine ingredients	5%/NaCL	5%/NaCL	OK	压缩空气节压力 Compressed air section pressure	1 ± 0.1KG/CM2	1	OK
饱和温度 Saturation temperature	47℃	47℃	OK	试样放置角度 Specimen placement angle	90°	90°	OK
测试观察时间 Test observation	观察现象 Observe the phenomenon						

project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification	
Antenna model: WiiM S-Speaker W700-1B-G				
date: 2025.08.05				
version	V1	to examine: liufang		
Mold products				
CONFIDENTIAL Brotone.com				

time					
4H	无异常 No anomalies				
12H	无异常 No anomalies				
24H	无异常 No anomalies				
判定标准：依国标 5944-86 评级方法判定，9 级以上为合格					
Judging criteria: According to the national standard 5944-86 rating method, grade 9 or above is qualified					
最终判定结果 Final Judgment	合格√ Eligible √			不合格 Unqualified	
测试人员 Tester	何本源 He Yuanyuan	审核 Audit	王爱兵 Wang Aibing	审批 Approval	
备注：常用的盐雾试验方法有：NSS 中惦盐雾试验，AASS 乙酸盐雾试验，CASS 铜乙酸加速试验.					
Note: The commonly used salt spray test methods are: NSS medium salt spray test, AASS acetate spray test, CASS copper acetic acid accelerated test.					

OQC 检验测试报告

OQC inspection and test report

订单号 report		客户料号 Customer part number		检测 项目 Detection items	抽样计划 Sampling plan		AQL	AC	RE	判定 decision
客户型号 Customer model	WiiM Sound			外观 appearance	CR	0.15	0.15	0	1	
数量 quantity	出货数量 : Pcs Shipment quantity				MAJ	0.4	0.4	2	3	合格 qualifi ed
	抽样数量: Pcs Number of samples				MIN	0.65	0.65	3	4	
1. 开路 Open		NIL	10.凹坑/压伤 Pits/crushes		NIL	19.离型纸未切断 The release liner is not			NIL	

project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G			
date: 2025.08.05			
version	V1	to examine: liufang	
Mold products			
CONFIDENTIAL Brotone.com			

				cut	
2. 短路 short circuit	NIL	11.电镀粗脏、金面水印 Plating coarse and dirty, gold watermark	NIL	20.金面氧化 Oxidation of the gold surface	NIL
3. 线路起翘 The line is warped	NIL	12.金面针孔、缺口 Gold pinholes, notches	NIL	21.冲偏/露铜 Offset / exposed copper	NIL
4. 线路损坏 Damaged lines	NIL	13.胶层气泡 Glue line bubbles	NIL	22.未冲断 Not broken	NIL
5. 擦/刮花 Rub/scratch	NIL	14.油墨颜色 Ink color	NIL	23.掉金/甩金 Drop gold/throw gold	NIL
6. 露铜/镍 Exposed copper/nickel	NIL	15.字符不清 Unclear characters	NIL	24.弯曲/变形 Bending/deformation	NIL
7. 掉油 Lose oil	NIL	16.垃圾/异物 Garbage/foreign objects	NIL	25.外形缺口 Form factor notch	NIL
8. 氧化/变色 Oxidation/discoloration	NIL	17.溢胶/流胶 Overflowing/flowing glue	NIL	26.堆胶/缺胶 Glue stacking/lack of glue	NIL
9. 表面脏污 The surface is dirty	NIL	18.皱褶 pucker	NIL	27.补强不良 Poor reinforcement	NIL
判定： Decision:	√合格 □不合格 □特采出货 √ qualified □ unqualified □ special picking				

备注：请将本产品储存在低温、低湿（温度 18-28℃，湿度 35%-75%RH）无腐蚀性气体的环境下，建议开包后一周内使用完。

Note: Please store this product in a low temperature, low humidity (temperature 18-28℃, humidity 35%-75%RH) non-corrosive gas environment, it is recommended to use it within one week after opening.

可靠性测试 Reliability testing		
项目名称 The name of the project	要求 requirements	实 测 Measurements
热冲击实验 Thermal shock experiments	288℃*10S'*3 次	288℃*10S'*3 次无分层、起泡 288℃*10S'*3 times without delamination and blistering
抗剥离实验 Anti-peel experiment	≥1.0 kg f/c m²	1.112 kg f/c m²
油墨拉力测试 Ink pull test	3M600 胶带垂直拉起 The 3M600 tape is pulled up vertically	无掉油墨现象 No ink dropping

project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G			
date: 2025.08.05			
version	V1	to examine: liufang	
Mold products			
CONFIDENTIAL Brotone.com			

生产及检测设备清单 List of production and testing equipment		
生产设备 Production equipment	检测设备 1 Testing equipment 1	检测设备 2 Testing equipment 2
蚀刻外形机 Etching profile machine	二次元摄影机 Two-dimensional camera	千分尺 micrometer

检验员：
Inspectors:

审核：
Audit:

材料成份宣告表

Material Composition Declaration Form

序号 serial number	材料名称 The name of the material	材料型号 Material type	材料供应商 Material Suppliers	环保报告或声明编号 Environmental report or declaration number	报告日期 Report date	备注 remark
1	基材 substrate	一对一材料 One-to-one materials	蔡伦格蒂 Cailenghetti	SHAEC23001049106	2023/2/15	1-9 页 Pages 1-9
2	背胶 Adhesive backing	3M9471LE	3M	SHAEC2217569205	2023/1/04	1-9 页 Pages 1-9
3	油墨 printing ink	黑色 BLACKINK Black BLACKINK	优立 Youli	CANEC23009939703	2023/09/20	1-11 页 Pages 1-11
4	电金 Electricity gold	检测 detect	乾圣 Qiansheng	A2230512090101002C	2023/10/11	1-4 页 Pages 1-4

出货方式

Shipping method

物料类别 The item category	包装方式 Packing	举例图示 Illustration of an example
FPC	1、 PET 塑胶袋包装 1、 PET plastic bag packaging	

备注：请将本产品储存在低温、低湿（温度 18-28℃，湿度 35%-75%RH）无腐蚀性

project: : WiiM Sound	write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G		
date: 2025.08.05		
version V1	to examine: liufang	
Mold products		
CONFIDENTIAL Brotone.com		

气体的环境下，建议开包后一周内使用完,使用中请尽量不要让产品 3M 胶有指纹，以免影响粘着力。

Note: Please store this product in a low temperature, low humidity (temperature 18-28 °C, humidity 35%-75%RH) non-corrosive gas environment, it is recommended to use it within a week after opening the package, please try not to let the product 3M glue have fingerprints during use, so as not to affect the adhesion.

project: : WiiM Sound		write: Zhang hai ong	file name Le yun rui WiiM Sound Antenna specification
Antenna model: WiiM S-Speaker W700-1B-G			
date: 2025.08.05			
version	V1	to examine: liufang	
Mold products			
CONFIDENTIAL Brotone.com			