

SPECIFICATION

BLU Products, Inc.

M8L 2022 Antenna
FCC ID: YHLBLUM8L271

Product approval sheet

Customer	BLU	Band	GSM: 850/1900; WCDMA: B2/B4/B5; LTE: B2/4/5/7/12/1766/71; BT/WIFI 2.4G
Project	M8L 2022	Colour	Black

Customer check:

Reach requirement of customer: OK NG

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1 General description

1.1 information of DUT

Set Type	Tablet
Dimension	NA
Band	GSM: 850/1900; WCDMA: B2/B4/B5; LTE: B2/4/5/7/12/1766/71; BT/WIFI 2.4G
Antenna Material	FPC

1.2 Photo of DUT

Please refer to 'Antenna Set up Photo' for details.

EUT appearing diagram

Please refer to 'Antenna Set up Photo' for details.

1.3 Antenna appearing diagram



Main antenna



DIV antenna



WIFI/BT/GPS antenna

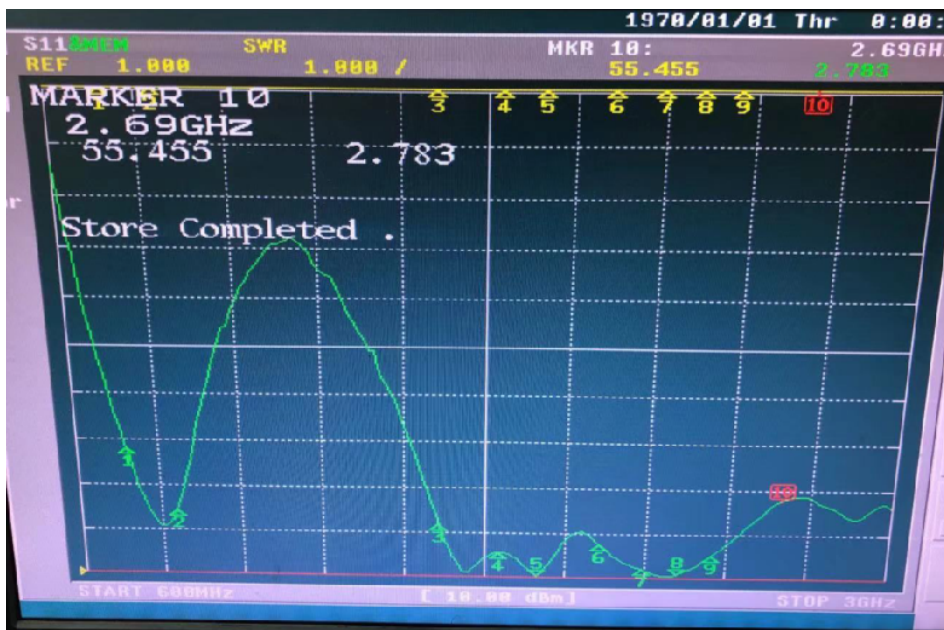
2 Electrical performance

2.1 Passive result

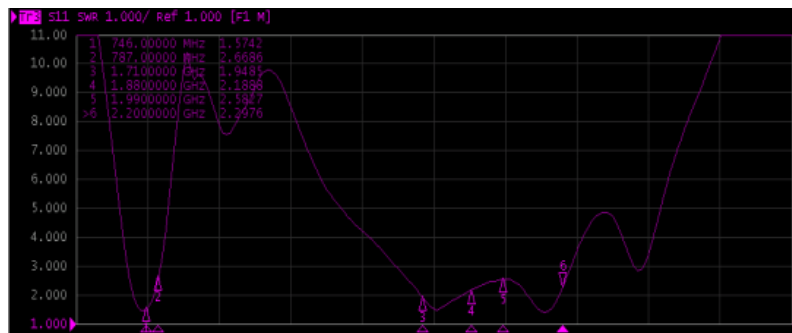
2.11 VSWR&Return Loss-Main

antenna

VSWR&Return Loss test connector: R&S ZVL network analyzer→Cable→JIG

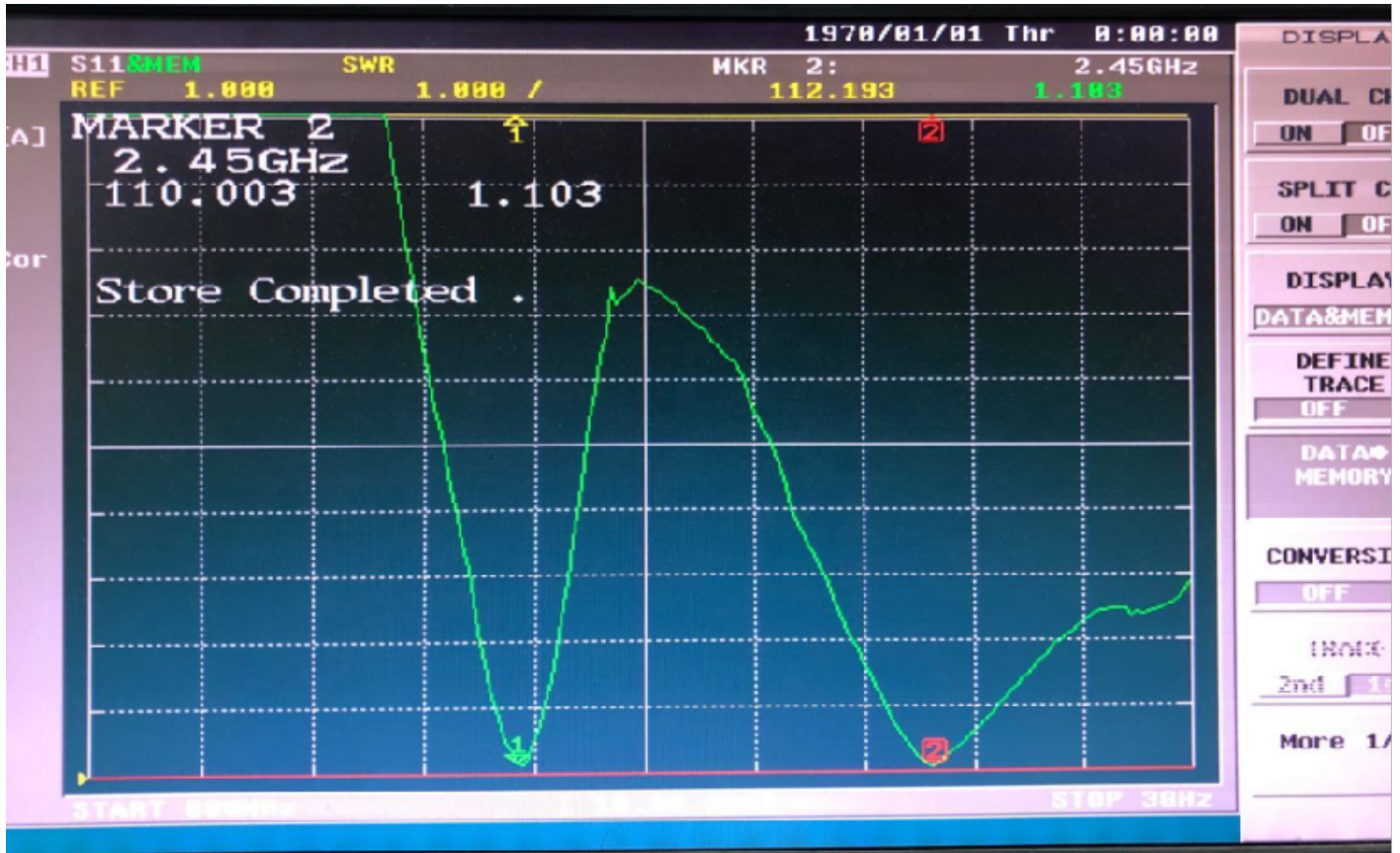


VSWR &Return Loss (GSM2/3/5/8 LTE B2/3/4/5/7/66 WCDMA 2/4/5/8)



VSWR &Return Loss (LTE B12/17/28A/28B/71)

2.12 VSWR & Return Loss -3 in 1 (WIFI&BT&GPS) antenna



2.13 Gain test

Band	Gain
GSM850	-0.3dBi
PCS1900	0.4dBi
WCDMA850	-0.2dBi
WCDMA1700	0.5dBi
WCDMA1900	0.5dBi
BAND 2	0.5dBi
BAND 4	0.5dBi
BAND 5	0.2dBi
BAND 7	0.7dBi
BAND 12	-0.5dBi
BAND 17	-0.6dBi
BAND 66	0.5dBi
BAND 71	0.7dBi
Bluetooth	0.6dBi
WIFI	0.6dBi

2.2 Active result

2.21 Test equipment

Equipment information:

GTS 2800 3D Chamber test system

Base Station Emulator CMW-500

Quad-Ridge Horn Antenna

Agilent8960 E5515C

2.22 OTA Test Data

手机型号	3#	备注说明						手机型号	3#	备注说明					
测试项目	GSM900测量数值			DCS1800测量数值			测试项目	WCDMA850测量数值			WCDMA900测量数值				
信道	1	62	120	512	698	885	信道	4357	4400	4458	2937	3012	3088		
TRP (dBm)	28.35	28.0	27.64	26.18	26.43	26.2	TRP (dBm)	19.15	19.84	19.97	18.32	18.06	17.6		
TIS (dBm)			-102.71			-104.77	TIS (dBm)			-106.1			-107.18		
测试项目	GSM850测量数值			PCS1900测量数值			测试项目	LTE-FDD-B2			LTE-FDD-B3				
信道	128	190	251	512	661	810	信道	650	950	1150	1250	1575	1900		
TRP (dBm)	28.64	28.91	29.42	25.82	25.31	25.1	TRP (dBm)	20.15	20.13	20.34	21.35	21.46	21.66		
TIS (dBm)			-107.12			-104.35	TIS (dBm)			-92.69			-95.43		
测试项目	WCDMA1900测量数值			WCDMA1700测量数值			测试项目	LTE-FDD-B4			LTE-FDD-B5				
信道	9662	9800	9938	1537	1637	1738	信道	2000	2175	2350	2450	2525	2600		
TRP (dBm)	20.04	20.02	19.94	19.61	20.03	20.25	TRP (dBm)	20.65	20.61	20.48	20.1	20.35	20.67		
TIS (dBm)			-103.78			-106.77	TIS (dBm)			-94.4			-94.21		

手机型号	3#	备注说明					
测试项目	LTE-FDD-B7 (20MHZ)			LTE-FDD-B12 (5MHZ)			
信道	2800	3100	3400	5060	5095	5130	
TRP (dBm)	17.65	17.8	17.83	16.41	16.76	16.68	
TIS (dBm)			-91.12			-89.08	
测试项目	LTE-FDD-B17			LTE-FDD-B28			
信道	5780	5790	5800	9260	9340	9420	
TRP (dBm)	16.52	16.79	16.66	16.96	16.68	17.11	
TIS (dBm)			-89.87			-89.25	
测试项目	LTE-FDD-B66			LTE-FDD-B71			
信道	L	M	H	L	M	H	
TRP (dBm)	20.15	20.17	20.39	14.43	15.5	16.43	
TIS (dBm)			-93.69			-89.64	

3 Overview of test sample

3.1 VSWR&Smith chart test

Test progress:

- 1、 Use ‘start’ key and ‘stop’ key to set up frequency range
- 2、 Calibrate test port of the instrument
- 3、 Connect EUT and instrument with RF cable, and finish VSWR&Return Loss&Smith chart
- 4、 Export and save test result.

Please refer to ‘Antenna Set up Photo’ for details.

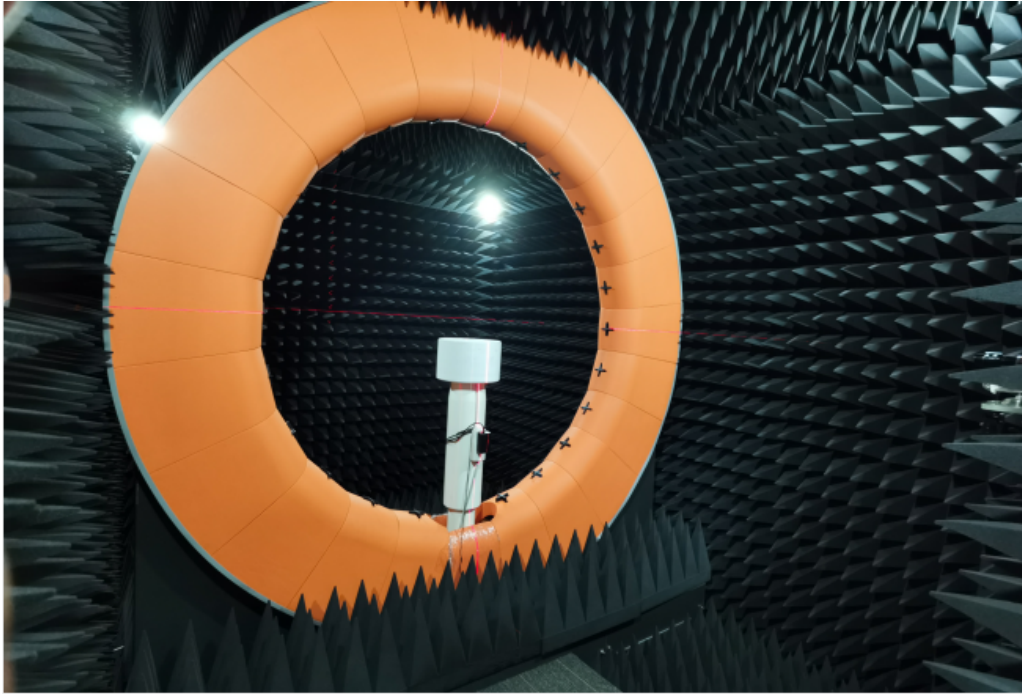
Overview of EUT

3.2 Gain test

Test progress:

Confidential Information

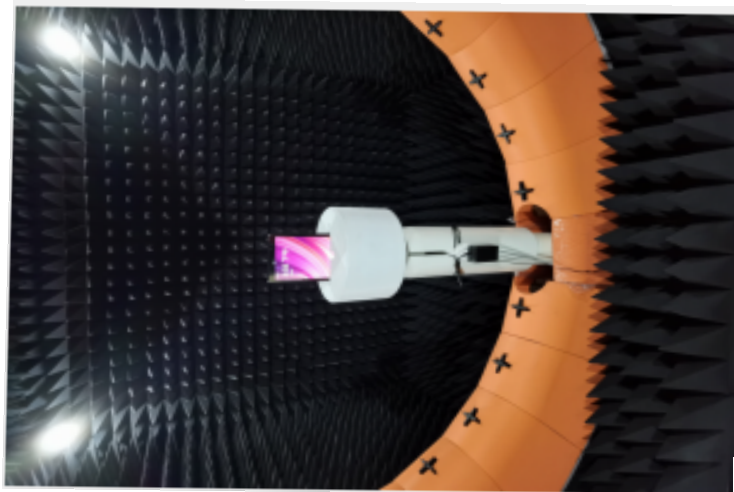
- 1、 Open computer and instrument ,choose passive test include Gain by program-controlled computer
- 2、 Put EUT on turntable and connect EUT with RF cable
- 3、 Set up frequency point by 10MHz step
- 4、 Control computer desk and finish test
- 5、 Export and save test result



Overview of EUT

3.3 Active test

- 1、 Open computer and instrument ,chosed active test include TRP and TIS by program-controlled computer
- 2、 Place on top of the Styrofoam mast in a holding fixture
- 3、 Logon and start EUT with instrument by program-controlled computer
- 4、 Export and save test result



Overview of EUT

4 Reliability Testing Report

深圳市大显科技有限公司

盐水喷雾试验记录表

编号: QR/QC-WI09-01 版本 B

试验时间: 2022 年 10 月 26 日 15:00 至 10 月 28 日 15:00 共计 48 小时

(喷雾时间) 试验若有中断, 其原因为:

□ 盐水试验法: 试验室温度 35°C, 饱和空气桶温度 47°C

1.氯化钠品质	99.50%	2.纯净水品质	纯净水
3.喷雾采取 PH 值	雾化前 6.5~7.2	4.试验液 PH 值	6.0
5.压力表	1.0 Kg f/cm2	6.试验室相对湿度	30%
7.试验室温度	35 °C	8.压力桶温度	47 °C
9.盐水浓度	5±0.1 %	10.其他	

判定: 依 GB6461-2002 标准判定

结果: 合格

备注: 试验结束后, 如果试样状态允许, 可不经清洗进行检查。如果污垢和盐类沉积物等掩盖了缺陷而使检查难以进行时, 宜用蘸有中性肥皂液的海绵对表面进行擦拭, 然后用水漂洗。但在此过程中不应施加压力, 以免洗掉腐蚀产物而造成评级偏高。清洗液不应覆盖层产生任何破坏。中途或定期检查时不允试清洗试样, 否则影响测试结果