

# APPROVAL SHEET

## 样品承認書

Zylux Part Number : 1029-0A00206

Part Description : Antenna

Manufactuer Part No. : LDTC114EET1G

Firmware version : NA

Approved date : 2024/1/24

Approval Condition			
Conditional Approval 限量承認		Formal Approval 正式承認	✓

料件之所有組成物質，必須遵守有害物質要求(如符合請勾選V)  
All components of the material must comply with the hazardous material requirments (comply please tick V)

HALOGEN FREE(無鹵)		RoHS2.0	✓	REACH	✓	PRO65		CARB2	
詳細的有害物質管控制 Detailed Harzardous substances Restriction									
Zylux QMI-P40-01	✓	Samsung 0QA-2049		✓	Sony SS-00259				

抗靜電電壓  
Antistatic Voltage NA

器件耐熱等級  
Device Heat Resistance Level NA

SUPPLIER(供應商)		
REPORTED 製作	CHECKED 核對	APPROVED 批准
WAH	FOUNTAIN	ROX

WISON TECHNOLOGIES CO. LTD.  
AUTHORIZED SIGNATURE

ZYLUX(朝陽)		
REPORTED 製作	QC CHECKED 核對	APPROVED 批准

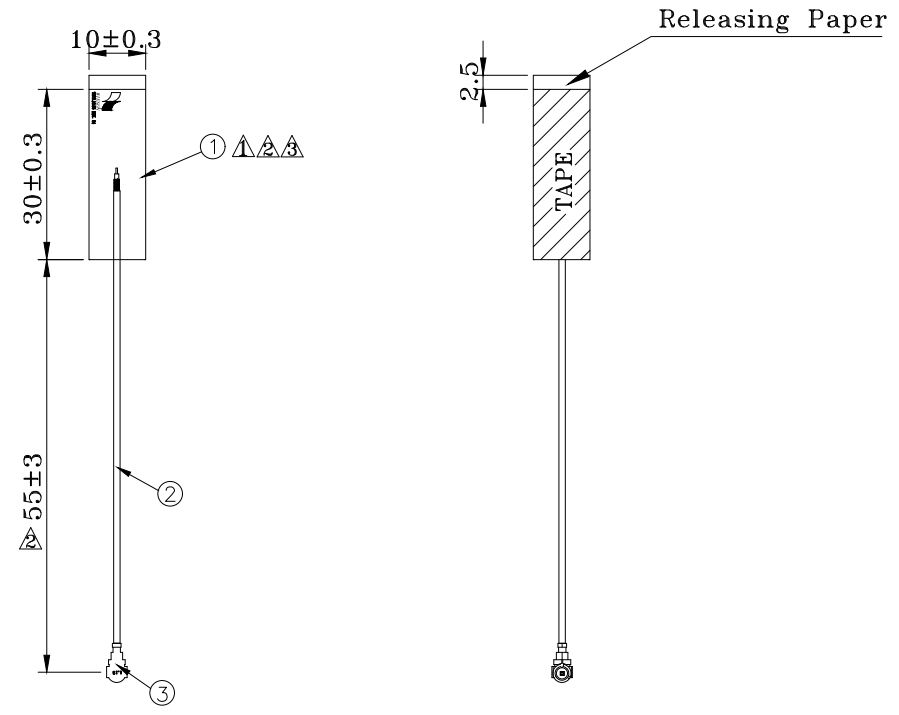
### Supplier Contact point

Company Address : (地址)	东莞市厚街镇环岗工业区新保威工业城
TEL : (電話)	0769-38858188



**RoHS Compliant**

REV	DATE	DESCRIPTION	ECN NO.	NAME
A1	23.06.09	PROPOSAL		DAVID
A2	23.07.12	△ MODIFY LAYOUT		DAVID
A3	23.08.29	△ MODIFY LAYOUT		DAVID
A4	23.10.05	△ MODIFY LAYOUT		LIEF
A5	23.10.17	△ MODIFY PCB SIZE		DAVID



CUST NO.:

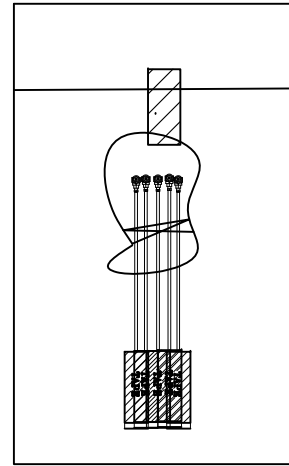
WIESON TECHNOLOGIES CO., LTD  
 WIESON  
 PART NO.: ARY196-4044-002-00

TITLE: **Antenna**

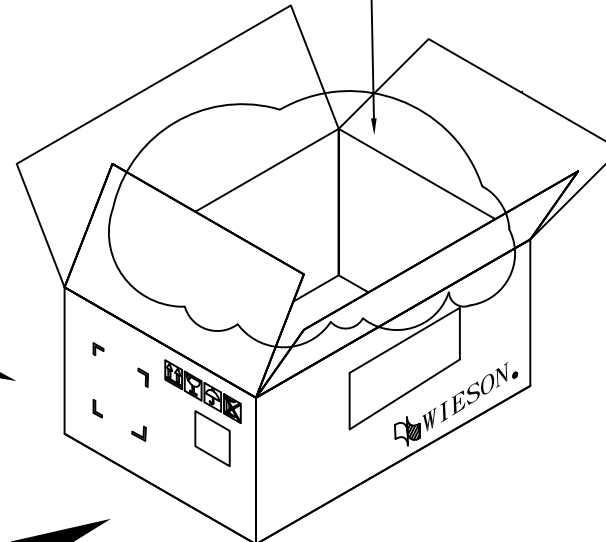
④	Tape	G9000 , Size: 29.2 x 9.2mm	1		
③	Connector	MHF I Plug For 1.13mm Cable , Gold Plated	1	<b>DRAWN BY</b>	LIEF(WST)
②	Cable	1.13mm Normal Coaxial Cable , FEP Black Jacket	1	<b>CHECKED BY</b>	
①	PCB	FR-4 , Size: 30 x 10 x 0.4mm△△	1	<b>APPROVED BY</b>	
NO.	ITEM	DESCRIPTION	QTY	<b>SORTING NO.</b>	WSC
				<b>PAGE</b>	1 OF 1

**RoHS Compliant**

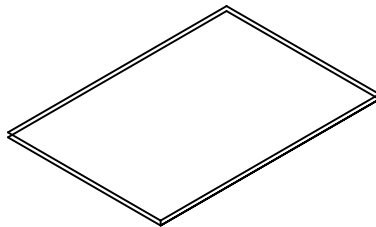
REV	DATE	DESCRIPTION	ECN NO.	NAME
A	24.01.31	PROPOSAL		JINGYI



WATERPROOF BAG



CARTON SIZE: 400\*300\*150MM



A PARTITION



CORNER CARDBOARD\*4

CUST NO.:

WIESON TECHNOLOGIES CO., LTD  
 WIESON  
 PART NO.: **ARY196-4044-002-00**

TITLE: **Antenna PACKING**

DRAWN BY	JINGYI	DRAWING NO.	ARY196-4044-002-00	
CHECKED BY	YHUA	DRAWING SIZE		A4
APPROVED BY	ROX	UNIT	mm	
SORTING NO.	WSC	PAGE	1 OF 1	



朝陽電子(深圳)有限公司/Zhaoyang Elec.(Shen Zhen)Co.,Ltd.

原材(物)料檢驗表/Material Inspect Sheet

品名/Part Name	Antenna	料號/Part NO.	1029-0A00206	*第/次試模/T__	*模號/Mold NO.	/	*生產設備/Machine	/		
規格/Description	MINI COAXIAL1.13 黑色L55mm 環保						溫/濕度/Temperature/Humidity	/		
廠商 Vendor	WIESON	*模具廠商 Mold Maker	/	檢驗日期 Check Date	2023/10/27	*模穴號 Cav.NO.	/	重量 Weight	生產產地 Produce place	東莞
檢查項目/Ins.Item	出線長	PCB板長	PCB板寬					單重/g		
規格/Specification	55	30	10					0.62		
公差/Tolerance	±3	±0.3	±0.3					±5%		
測定值 Data	1	55	30.03	10.11				0.62		
	2	56	30.11	10.10				0.62		
	3	55	30.09	10.00				0.62		
	4	55	29.98	10.01				0.62		
	5	55	29.98	10.10				0.62		
	6									
	7									
	8									
	9									
	10									
判定欄/Judgement										
外觀記錄/Appearance Record	OK			<input checked="" type="checkbox"/> 合格/OK <input type="checkbox"/> 不合格/NG				主管/Approval	檢驗者/Inspector	
裝配記錄/Assembly Record	OK			備注 Remark				xlin	LYQING	

\* \_\_僅對屬於本廠模具或有指定時方填寫/\* \_\_Only for Zylux'mold need

(QMR-P14-09.B)



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*WIESON*



				Approvals	
Rev	Date	Description	Edited by	Prepared :	WAH
01	2024/01/24	ISSUE	WAH	Checked :	FOUNTAIN
				Approved :	ROX
				Issued No :	01
				Sheet :	<b>1 OF 16</b>



**WIESON TECHNOLOGIES CO.,LTD**

***BILL OF MATERIAL***

Cust.		TITLE	Antenna				
Cust.P/N	1029-0A00206	WIESON P/N	ARY196-4044-002-00				
NO.	DESCRIPTION	SUPPLIER	SUPPLIER PART NO.	UL NO.	AVL	QUANTITY	REMARK
1	FR-4 , Size: 30 x 10 x 0.4mm					PCS	
2	1.13mm Normal Coaxial Cable , FEP Black Jacket					MM	
3	MHF I Plug For 1.13mm Cable , Gold Plated					PCS	
4	G9000 , Size: 29.2 x 9.2mm					PCS	
5							
6							
7							
8							

**APPROVED BY: ROX**

**CHECKD BY: FOUNTAIN**

**DESIGNED BY: WAH**





# 喬暘 SL512x-86

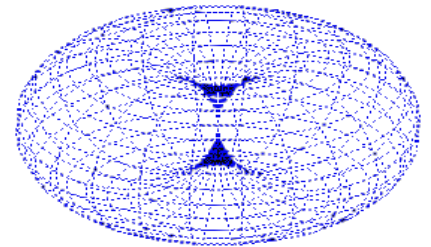
Engineer : BZ

Report date : 2023/12/05 REV.06



# Executive Summary

- **Revision History**
- **Antenna specification**
- **Antenna photo**
- **Antenna S-Parameter Measurement**
  - **VSWR**
- **The antenna anechoic chamber measurement**
  - **Antenna Measurement Photo**
  - **Antenna Measurement**
    - **Peak Gain** 、 **Avg-Gain** 、 **Radiation Efficiency**
    - **2D Antenna Radiation pattern**
    - **3D Antenna Radiation pattern**
- **Conclusion & Recommendations**



# Revision History

Revision	Date	Engineer	Description
01	2023/05/29	Ting	New Release.
02	2023/05/31	Jane	Change the placement of the antenna
03	2023/07/12	Jane	Change the placement of the antenna
04	2023/08/25	BZ	Change the antenna form
05	2023/10/04	BZ	Change the antenna form
06	2023/12/04	BZ	Confirm Antenna Performance

# Antenna specification

Main Antenna  
Cable Type  
Normal 1.13  
Cable:71mm

Item	Specification
Operating Frequency(MHz)	2400-2480
Bandwidth	80 MHz (Min.)
Return Loss	10 dB (Min.)
Polarization	Linear
Azimuth Bandwidth	Omni-directional
Peak Gain	3.61dBi (Max.)
Impedance	50Ω
Material	PCB
Connector	MHF 1
Cable Type	O.D. 1.13
Maximum Power	1W
V.S.W.R	2 : 1
Radiation	Omni directional
Efficiency	44%(Max.)
Operating Temperature	-10~60°C
Storage temp	-10~70°C

# Antenna photo

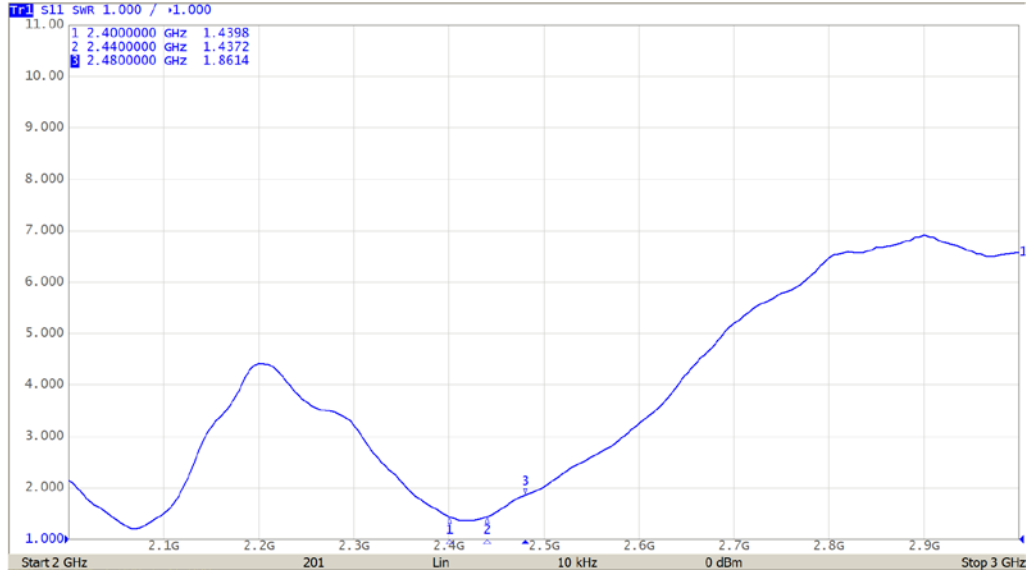


# Antenna S-Parameter Measurement

(VSWR 、 Return loss)

## Vector Network Analyzer

# VSWR

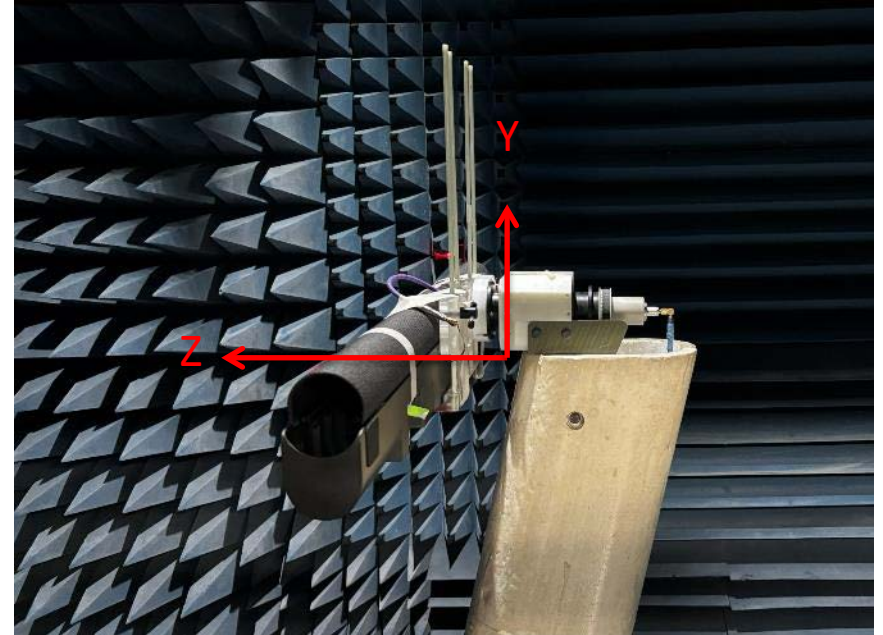
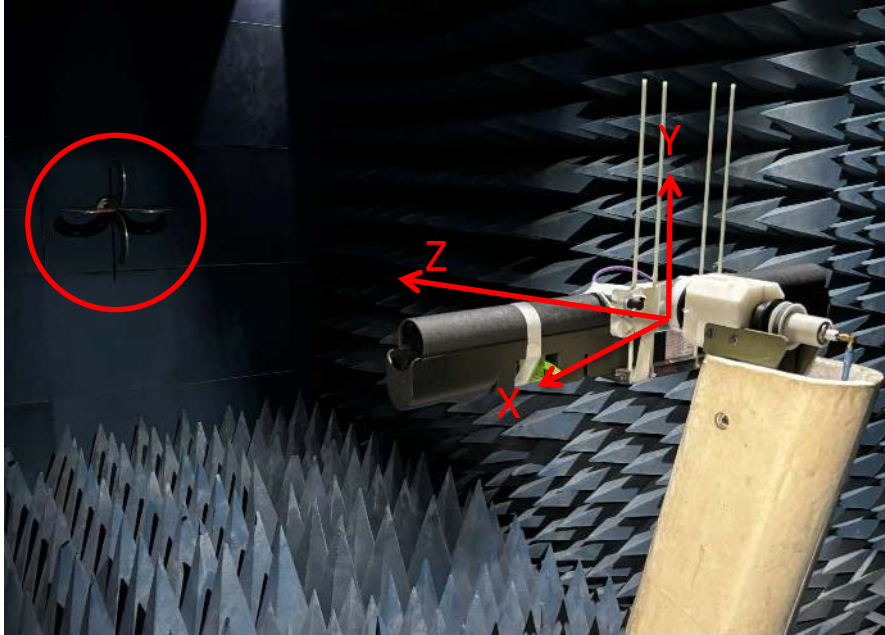


Freq.(MHz)	2400	2440	2480
	1.43	1.43	1.86

# The antenna anechoic chamber measurement



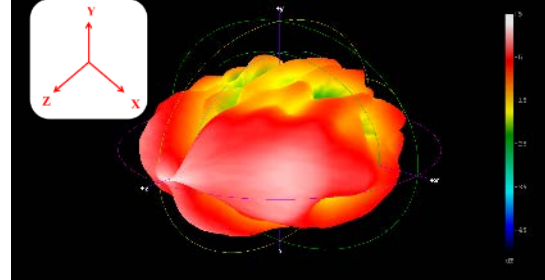
# Chamber Measurement Photo



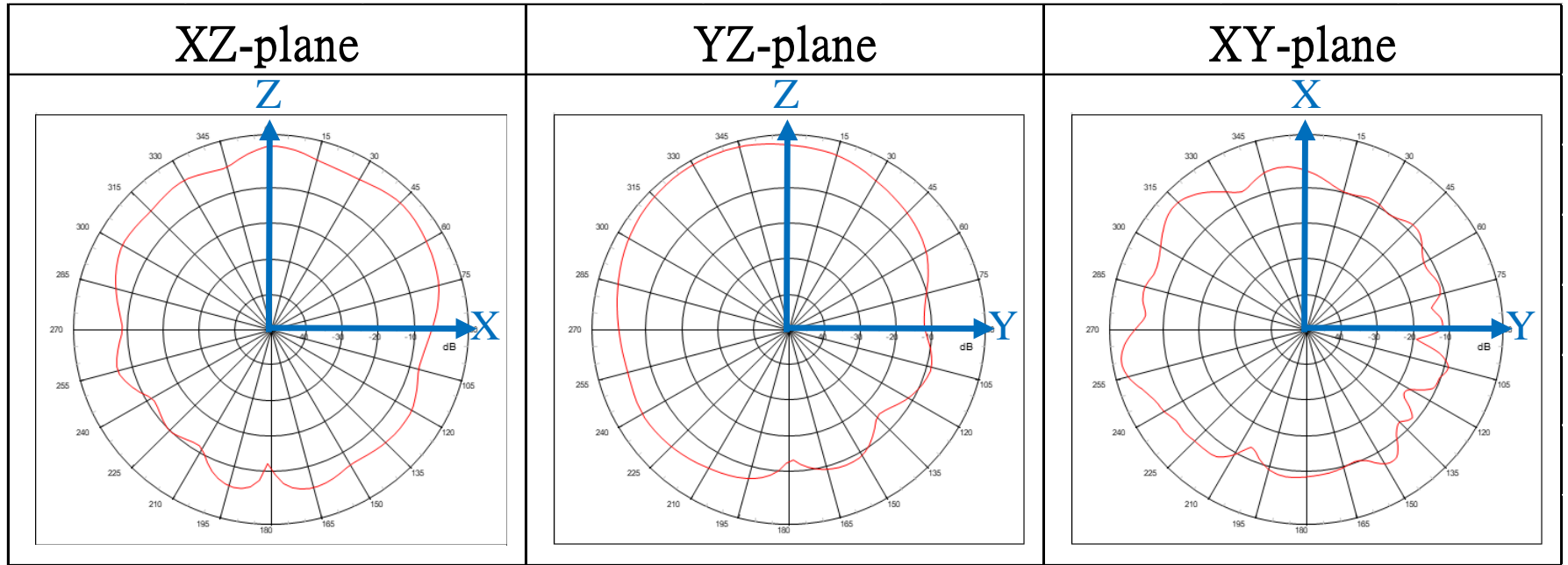
# 3D Gain Total

Frequency (GHz)	Gain(dBi)	3D-avgGain (dBi)	Efficiency(%)
<b>2.4</b>	3.01	-4.73	34
<b>2.41</b>	3.14	-4.14	39
<b>2.42</b>	3.22	-3.83	41
<b>2.43</b>	3.39	-3.69	43
<b>2.44</b>	3.54	-3.63	43
<b>2.45</b>	3.61	-3.61	44
<b>2.46</b>	3.59	-3.59	44
<b>2.47</b>	3.57	-3.57	44
<b>2.48</b>	3.22	-3.9	41

# 2D/3D Antenna Pattern



Frequency : 2440MHz



Far-field amplitude limits:

Max: 5dB

min: -50dB

Antenna Model:ARY196-4044-002-00

Antenna manufacture name: WIESON TECHNOLOGIES (DONG GUAN) CO.,LTD.

Antenna manufacture address:XINBAOWEI INDUSTRIAL BUILDING, HUANGANG INDUSTRIAL ZONE, HOUIE TOWN, DONGGUAN CITY, GUANGDONG PROVINCE, CHINA



創造完美連結

MAKING THE PERFECT CONNECTION

[www.wieson.com](http://www.wieson.com)

# CERTIFICATE

The quality management system of

Unified Social Credit Code: 914419006181620014

## WIESON Technologies (Dongguan) Co., Ltd.

Registered Address: Xinbaowei Industrial Building, Huangang Industrial Zone, Houjie Town, Dongguan City | 523946 Guangdong | China

Operation Address: Xinbaowei Industrial Building, Huangang Industrial Zone, Houjie Town (Exclusion of A Building and 4F, B Building), Dongguan City | 523946 Guangdong | China

has been assessed and certified as meeting the requirements of:

## ISO 9001:2015

for the following activities:

**Design, Manufacture and Sales of Electronic and Automotive Connectors, Cables, Wire Harnesses, RF (Radio Frequency) and Antenna Products, Plastic Injection Parts, Stamping Parts, Plastic & Hardware Molds**

This certificate is valid from 26/01/2024 until 25/01/2027

Issued: 26/01/2024

**Certificate No CA00525-EN**

This registration is subject to the company maintaining a Quality Management System to the above standard, which will be monitored by TÜV Saarland Certification. The validity of this certificate may be verified on both CNCA's website ([www.cnca.gov.cn](http://www.cnca.gov.cn)) and the website of TÜV Saarland Certification ([www.tuv-saar.cn](http://www.tuv-saar.cn)).

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