

# APPRO

版本: A1

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DESCRIPTION: 2.4G Antenna-L200mm

PART NO.: YS030-0105

CUS PART NO.:

D A T E: 2024-12-23

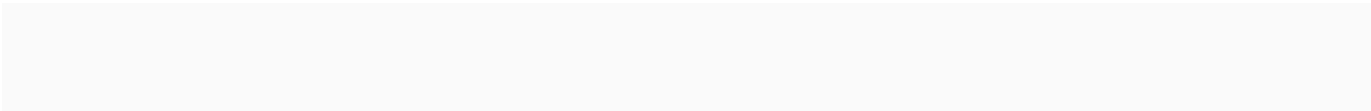
ADDRESS.: Room 303, Building A, No. 164 Junxin Road,  
Guanlan Street, Longhua District, Shenzhen  
City, Guangdong Province

ENGINEERING DEPARTMENT	Q C DEPARTMENT	SALES DEPARTMENT

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ENGINEERING DEPARTMENT	Q C DEPARTMENT	PURCHASING DEPARTMENT

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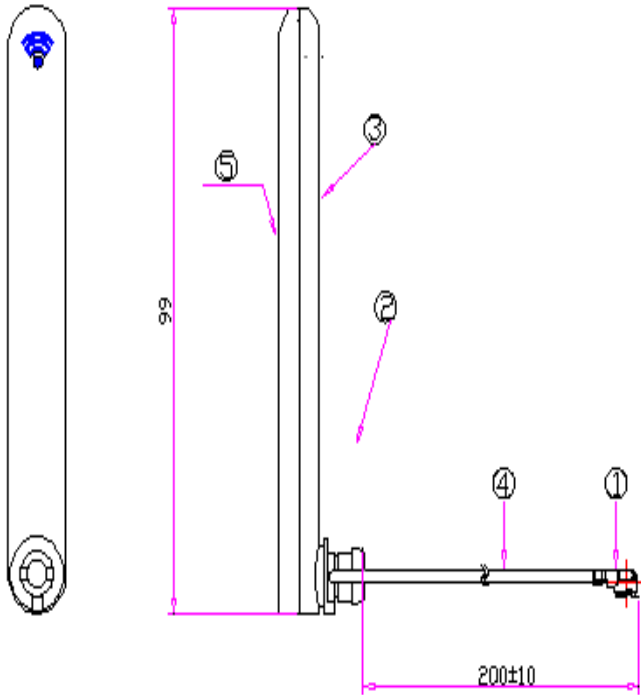


Electrical Specifications	
Frequency Range	2400-2483.5MHZ
VSWR	≤2.0
GAIN	2.5DBI
Input Impedance	50 Ω
Mechanical Specifications	
Antenna Color	WHITE
Input connector	IPEX1.13
Cable length	200mm
Working Temperature	-40℃ ~+85℃
Working Humidity	20~80%

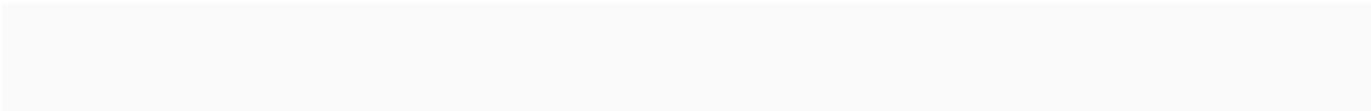
（Product picture）：



（Product Specification）：

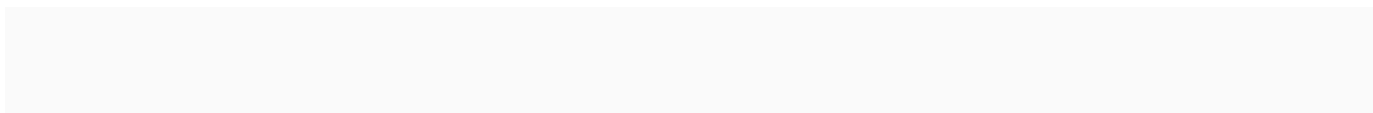


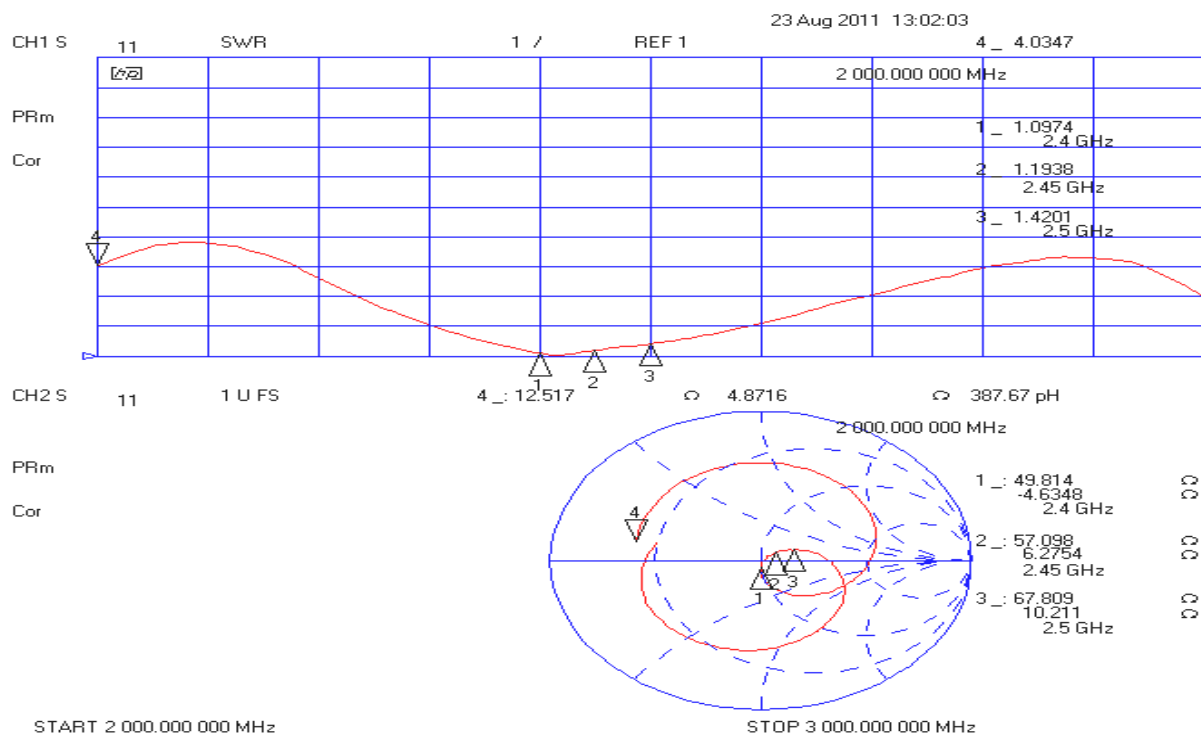
（Environmental performance test）：



ITEM	TEST CONDITION	TEST RESULT
The storage environment	<p>In the absence of the specified circumstances test temperature, humidity, air pressure is as follows:</p> <p>1 temperature is -30 °C ~ +80 °C</p> <p>2 relative humidity for 45%-85%</p> <p>The 3 pressure is 86kpa-106kpa</p>	Electrical and mechanical properties of normal
Thermocycling ;	<p>5 cycles between 70 °C and 40 °C, then under normal conditions</p> <p>1-2H, appearance quality inspection.</p>	<p>Dimensions should meet the requirements and shall satisfy</p> <p>In the mechanical, electrical properties</p>
Resistance to damp heat Test	<p>Relative humidity is <math>95 \pm 3\%</math>, test temperature: 40 °C. Continue after 2H,</p> <p>Test within the product after removing the 5min determination of the electrical properties, in the normal sample</p> <p>Under 1-2H, the appearance of quality inspection</p>	<p>Dimensions should meet the requirements and shall satisfy</p> <p>In the mechanical, electrical properties</p>
vibration test ;	<p>Displacement amplitude of vibration frequency range: 10-55HZ, 0.35MM, the amplitude of acceleration:</p> <p>50.0M/S, sweep cycle times: 30 times</p>	Electrical and mechanical properties of normal
fall-down test ;	1M high altitude in accordance with the perpendicular axis free fall 3	Electrical and mechanical properties of normal

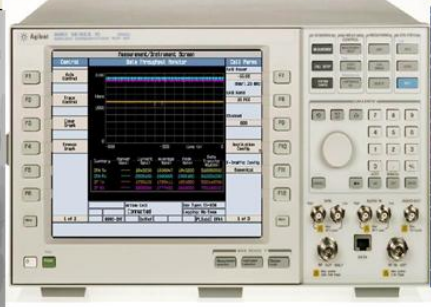
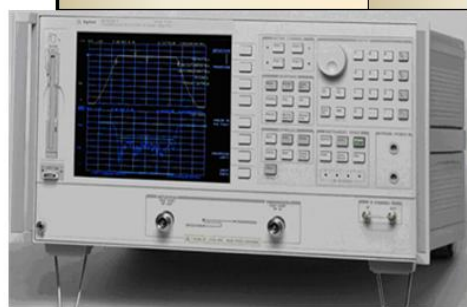
(Agilent network analyzer test chart) :



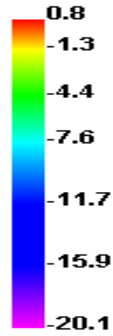
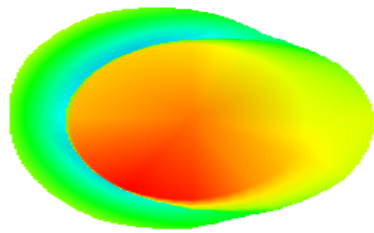


(Gain-Tset):

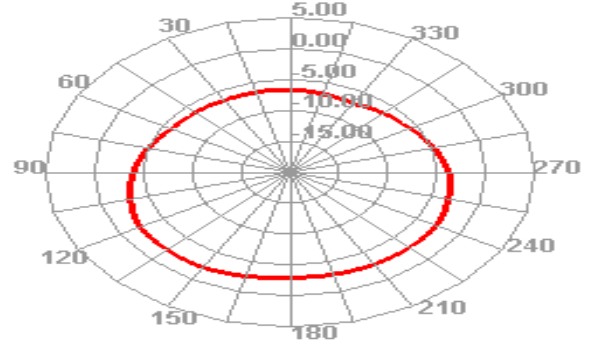
	测试项目	设备
1. S参数	1. 回波损耗 2. 驻波比	网络分析仪: Agilent E5071B
2. 耦合功率测试	1. 发射功率 2. 接收灵敏度	GSM 测试仪: Agilent 8960 E5515C LTE /WIFI/BT测试仪: R&S CMW500
3. 辐射模式与增益	1. 辐射模式 2. 天线增益	1. 暗室: 8x4x4 m (3D) 2. 网络分析仪: Agilent E5071B



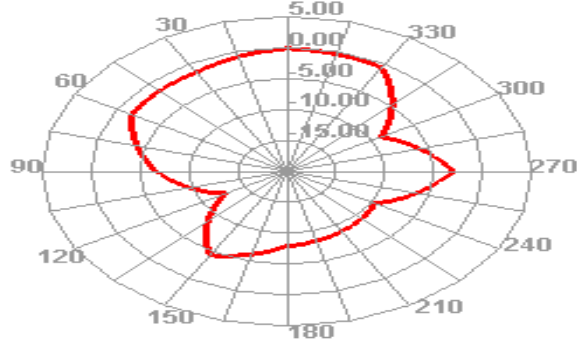
2400.000MHz



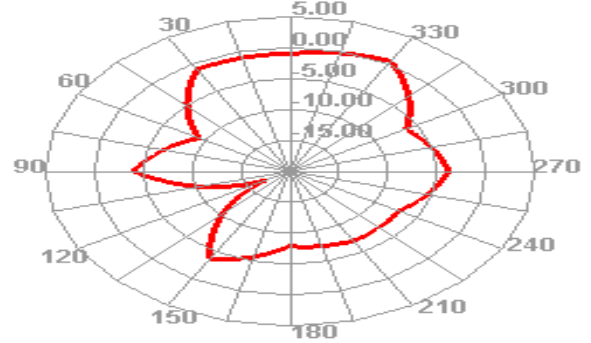
2400.000MHz H



2400.000MHz E1



2400.000MHz E2



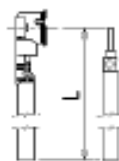
Passive Test For 2.4-5.8

Freq (MHz)	Effi (%)	Effi (dB)	Gain (dBi)	Gain (dBd)	UHS (%)	DHS (%)	Max (dB)	Min (dB)	Attenuat Hor	Attenuat Ver
2200	33.96	-4.69	-0.38	-2.53	20.318	13.645	-0.38	-20.54	44.82	43.93
2250	41.03	-3.87	0.11	-2.04	24.423	16.604	0.11	-18.71	45.23	44.53
2300	37.92	-4.21	0.1	-2.05	23.408	14.512	0.1	-21.08	45.78	45.31
2350	37.41	-4.27	-0.07	-2.22	22.677	14.729	-0.07	-19.21	46.38	45.92
2400	34.11	-4.67	0.79	-1.36	22.873	11.234	0.79	-20.1	46.87	46.67
2450	34.91	-4.57	0.82	-1.33	26.498	8.41	0.82	-20.44	47.72	47.63
2500	37.35	-4.28	1.35	-0.8	30.749	6.6	1.35	-16.56	47.75	47.52
2550	33.02	-4.81	0.64	-1.51	28.059	4.962	0.64	-19.86	47.22	46.83
2600	43.64	-3.6	1.28	-0.87	36.884	6.755	1.28	-17.04	47.84	47.56
2650	46.2	-3.35	1.43	-0.72	38.444	7.758	1.43	-16.52	48.18	48.08
2700	43.25	-3.64	0.9	-1.25	35.536	7.714	0.9	-16	48.52	48.56
2750	43.27	-3.64	0.74	-1.41	34.558	8.715	0.74	-14.41	49.05	49.21
2800	49.02	-3.1	1.01	-1.14	38.365	10.654	1.01	-13.09	49.69	49.92
2850	49.05	-3.09	0.49	-1.66	37.492	11.555	0.49	-12.68	49.92	49.65

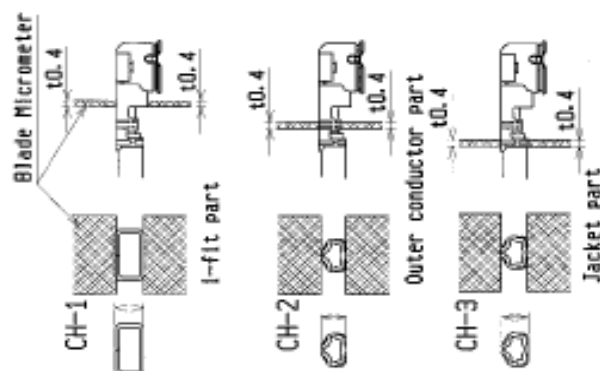
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[illegible]

Cable cut length



Crimp Height



Part No. of non halogen free type	20278-101R-00		20278-101R-13		20278-101R-32		20278-101R-18	
	20278-102R-08		20278-102R-13		20278-102R-32		20278-102R-18	
Part No. of halogen free type	20278-102R-08		20278-102R-13		20278-102R-32		20278-102R-18	
	20278-102R-08		20278-102R-13		20278-102R-32		20278-102R-18	
Housing color	White		Black		Black		White	
Applicable cable nominal dimension	2.09±0.1 1.25±0.1 1.16±0.1		2.09±0.1 1.25±0.1 1.16±0.1		2.09±0.1 1.25±0.1 1.16±0.1		2.09±0.1 1.25±0.1 1.16±0.1	
Jacket	Dielectric core Outer conductor silver or tin plating Inner conductor silver plating		Dielectric core Outer conductor silver or tin plating Inner conductor silver plating		Dielectric core Outer conductor silver or tin plating Inner conductor silver plating		Dielectric core Outer conductor silver or tin plating Inner conductor silver plating	
Braded shield of Outer conductor	Single / 1層構造		Single / 1層構造		Double / 2層構造		Single / 1層構造	
P/N of hand Tool	90187-008C		90187-013C		90187-032C		90233-018	
P/N of seal auto termination machine	90213-008C		90213-013C		90213-032C		90232-018	
Sect. M-M	1.68		2.24		2.29		2.71	
	1.12		1.48		1.95		1.9	
Sect. L-L	1.72		2.28		2.37		3.1	
	1.19		1.55		1.71		2.26	
Crimp Height	CH-1		1.34~1.40		1.34~1.40		1.34~1.40	
	CH-2		0.76~0.84		1.20~1.30		1.41~1.49	
	CH-3		0.85~0.97		1.26~1.46		1.70~1.80	

NOTE-1  
中心導体、外部導体への半田コーティングは不可  
Must not use solder coated  
Inner conductor and outer conductor.

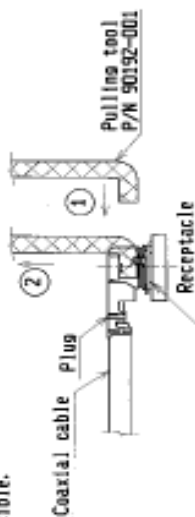
DESIGN D BY		DATE
CHK D BY		DATE
APP D BY		DATE
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REV RECORD	APP	
SERIES No.	2814	
CUSTOMER COPY		
PROJECTION SCALE	UNIT	mm
DWG. No.	20278	
TITLE	I-PEX Interconnect and Protective Enclosures TOKYO, JAPAN	
General	General	
SHEET	3/4	REV
	19C	

# 5-2 Unmating.

## 5-2 コネクタ抜き

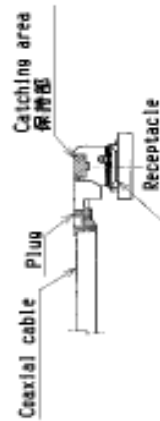
- (1) In case of unmating by pulling tool.  
Please use the pulling tool as the following drawing, and please pull plug to vertical direction as directly as possible.

- (1) 抜き工具を用いる場合  
下図のようにて必ず抜き  
工具に引き抜いて下さい。



- (2) In case of unmating directly by hand  
Please catch the catching area of plug, and please pull plug to vertical direction as directly as possible.

- (2) 手で直接抜き出す場合  
下図の保持部をつかみ、できる  
だけ垂直に引き抜いて下さい。



### 5-3 Crimp over standards of outer conductor

### 5-3 外伝導体はみ出し量

Standards: Less than 10% from total numbers of outer conductor  
(Numbers of outer conductor's crimp over from outer conductor's barrel)

外伝導体はみ出し量規定  
: 外伝導体トータル本数の  
10%以下  
(外伝導体バレルの外に  
はみ出した量)

### 5-4 Caution about Heat shrinkage tubes

Please be careful not to melt housing when using heat shrinkage tubes.  
It will become cause of open circuit.

5-4 熱収縮チューブについて  
熱収縮チューブで外伝導体  
を覆う場合は、溶融しない  
原因にならないよう、熱に  
よりハウジングを溶融させな  
いよう注意してください。

### 6. This is 'Pb-free' connector.

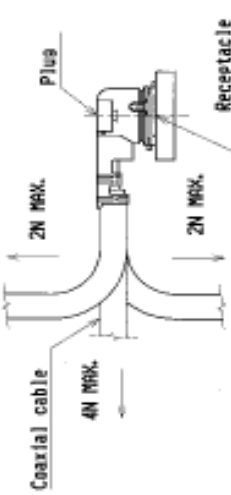
6. コネクタは 'Pb-free'  
である

### 6. This is 'Pb-free' connector.

6. コネクタは 'Pb-free'  
である

#### Notes

- Material  
(1) Housing : PBT, UL94V-0  
(2) Contact  
phosphor bronze  
solid plating 0.1μm MIN.  
over nickel 1.27μm MIN.  
(3) Ground contact  
phosphor bronze  
solid plating 0.05μm MIN.  
over nickel 1.27μm MIN.  
(4) Packing : reel
- Mating partner part No.  
: 20279-001E-01, 20441-001E-01
- Permissible load of cable at mating



#### 5. Suggestions for mating & unmating operation.

#### 5. コネクタの挿入および抜き操作の注意

5-1 Mating.  
Please mate the connector straightly to vertical direction as much as possible, adjusting the mating axis of plug and receptacle.  
If excessive slant angle mating may break the connector, please don't do it.

5-1 コネクタ挿入時  
PlugとReceptacleの中心合わせを  
行い、できるだけ垂直に挿入して下さい。  
傾斜した状態で挿入を行うと、コネクタの破損の原因となり、製品の不良の原因となります。

DESIGN BY		DATE	CHK'D BY		DATE	APP'D BY		DATE
REV. EON		BY	DATE	APP	REV. RECORD		SERIES No. 2814	
CUSTOMER COPY		PROJECTION SCALE UNIT		Dwg. No.		20278		REV. 4/4 19C
TITLE		I-PEX		Interconnect and Passive Electronics TOKYO, JAPAN		General		REV. 4/4 19C