

中山市光音美电子科技有限公司  
Zhongshan GYM Electronic Technology Co., Ltd.  
Add: No. 2, Lane 5, Huazhonghuaifu Road, Haizhou, Zhongguancun Town, Zhongshan City, Guangdong Province  
Tel: 0086-159 1910 5687

## PRODUCT SPECIFICATION

### 规格书

Customer Name 客户名称	
Customer Project Name 客户项目	JR-08
Part NO 产品型号	JR-08 Built-in Bluetooth antenna
Remarks 备注栏	

CUSTOMER			SUOBO		
APPROVED	CHECKED	CHECKED	APPROVED	CHECKED	PREPARED
					Owening

## Specification

### APPLICATIONS

1. 2.4GHz ISM band RF applications
2. Bluetooth, Wireless, HomeRF

### CONSTRUCTION

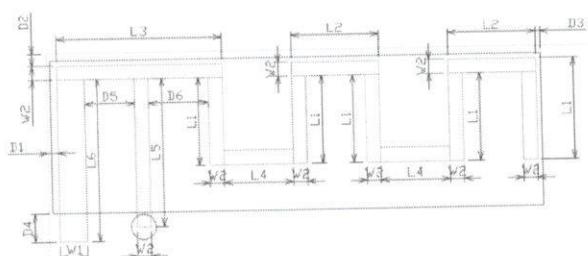


Table 1: Antenna Dimensions:

L1	3.06mm
L2	2.62mm
L3	4.93mm
L4	2.08mm
L5	4.44mm
L6	4.86mm
W1	0.82mm
W2	0.42mm
D1	0.32mm
D2	0.37mm
D3	0.14mm
D4	0.85mm
D5	1.48mm
D6	1.78mm

### ELECTRICAL CHARACTERISTICS

JR-08 Built-in Bluetooth antenna		Specification
Working Frequency Range		2450±50 MHz
Fc(GHz)		2.9
Gain(dBi)		2.12dBi
VSWR		2 max
Matching component value	Series 1	6.8nH
	Series 2	-
Operation Temperature		-40°C+85°C

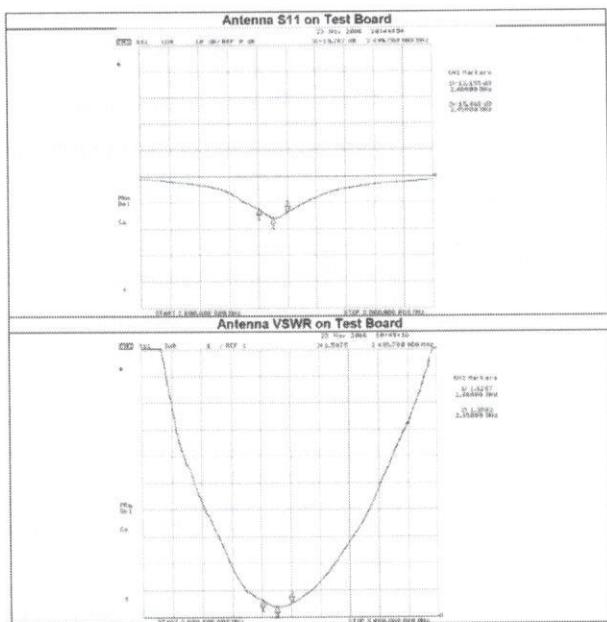
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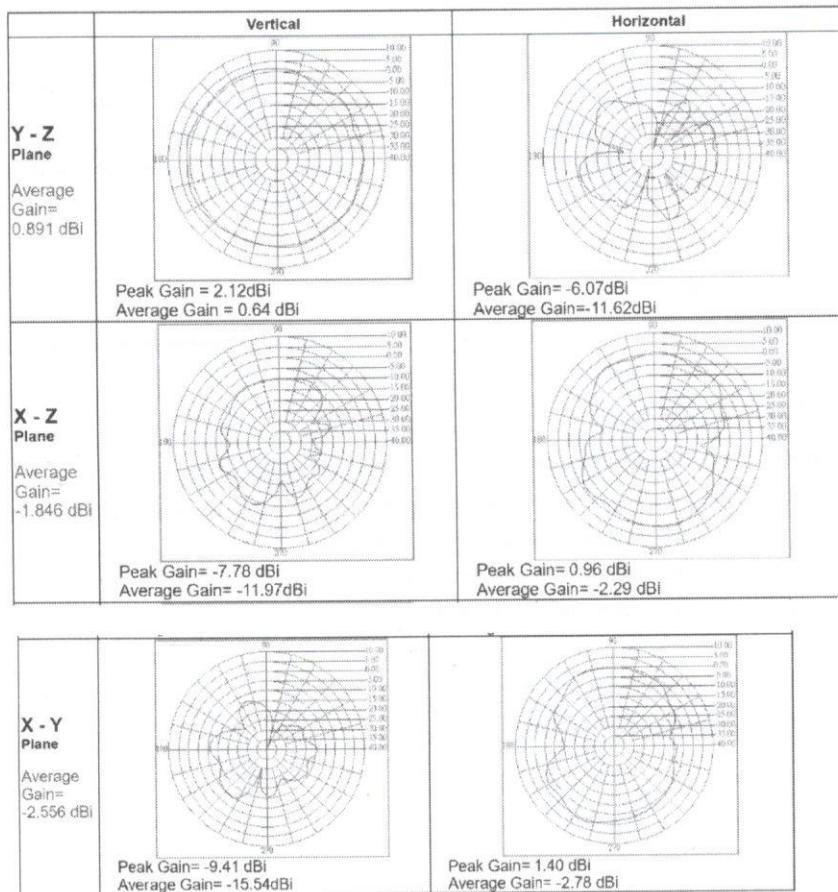
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### Antenna on Test Board



### RADIATION PATTERN



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## RELIABILITY TEST

Test item	Test condition / Test method	Specification
Solderability JIS C 0050-4.6 JESD22-B102D	*Solder bath temperature : $235 \pm 5^{\circ}\text{C}$ *Immersion time : $2 \pm 0.5$ sec *Solder : Sn3Ag0.5Cu for lead-free	At least 95% of a surface of each terminal electrode must be covered by fresh solder.
Leaching (Resistance to dissolution of metallization) IEC 60068-2-58	*Solder bath temperature : $260 \pm 5^{\circ}\text{C}$ *Leaching immersion time : $30 \pm 0.5$ sec *Solder : SN63A	Loss of metallization on the edges of each electrode shall not exceed 25%.
Resistance to soldering heat JIS C 0050-5.4	*Preheating temperature : 120~150°C, 1 minute. *Solder temperature : $270 \pm 5^{\circ}\text{C}$ *Immersion time : $10 \pm 1$ sec *Solder : Sn3Ag0.5Cu for lead-free Measurement to be made after keeping at room temperature for $24 \pm 2$ hrs	No mechanical damage. Samples shall satisfy electrical specification after test. Loss of metallization on the edges of each electrode shall not exceed 25%.
Drop Test JIS C 0044	*Height : 75 cm *Test Surface : Rigid surface of concrete or steel. *Times : 6 surfaces for each units : 2 times for each side.	No mechanical damage. Samples shall satisfy electrical specification after test.
Adhesive Strength of Termination JIS C 0051- 7.4.3	*Pressurizing force : 5N( $\leq$ 0603) ; 10N(>0603) *Test time : $10 \pm 1$ sec	No remarkable damage or removal of the termination.
Bending test JIS C 0051- 7.4.1	The middle part of substrate shall be pressurized by means of the pressurizing rod at a rate of about 1 mm/s per second until the deflection becomes 1mm/s and then pressure shall be maintained for $5 \pm 1$ sec. Measurement to be made after keeping at room temperature for $24 \pm 2$ hours	No mechanical damage. Samples shall satisfy electrical specification after test.

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Temperature cycle JIS C 0025	1. 30±3 minutes at -40°C±3°C, 2. 10~15 minutes at room temperature, 3. 30±3 minutes at +85°C±3°C, 4. 10~15 minutes at room temperature, Total 100 continuous cycles  Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Samples shall satisfy electrical specification after test.
Vibration JIS C 0040	*Frequency : 10Hz~55Hz~10Hz(1min)  *Total amplitude : 1.5mm  *Test times : 6hrs.(Two hrs each in three mutually perpendicular directions)	No mechanical damage. Samples shall satisfy electrical specification after test.
High temperature JIS C 0021	*Temperature : 85°C±2°C  *Test duration : 1000+24/-0 hours  Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Samples shall satisfy electrical specification after test.

Humidity (steady conditions) JIS C 0022	*Humidity : 90% to 95% R.H.  *Temperature : 40±2°C  *Time : 1000+24/-0 hrs.  Measurement to be made after keeping at room temperature for 24±2 hrs  ※ 500hrs measuring the first data then 1000hrs data	No mechanical damage. Samples shall satisfy electrical specification after test.
Low temperature JIS C 0020	*Temperature : -40°C±2°C  *Test duration : 1000+24/-0 hours  Measurement to be made after keeping at room temperature for 24±2 hrs	No mechanical damage. Samples shall satisfy electrical specification after test.