

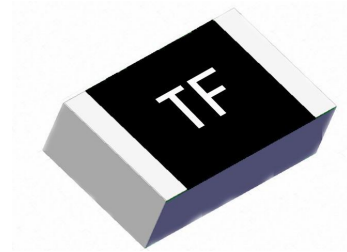
特征 Feature

- 重量轻，结构紧凑 Light weight, compact
- 宽带大，低成本 Wide bandwidth, low cost
- 高增益内置天线 Built-in antenna with high gain
- 工作温度 Operating Temp. : -40℃~+85℃

应用 Application

- 蓝牙,无线局域网,移动电视 Bluetooth, Wireless LAN, Mobile TV
- 家用射频系统 Home RF system, etc

CA-2450-21



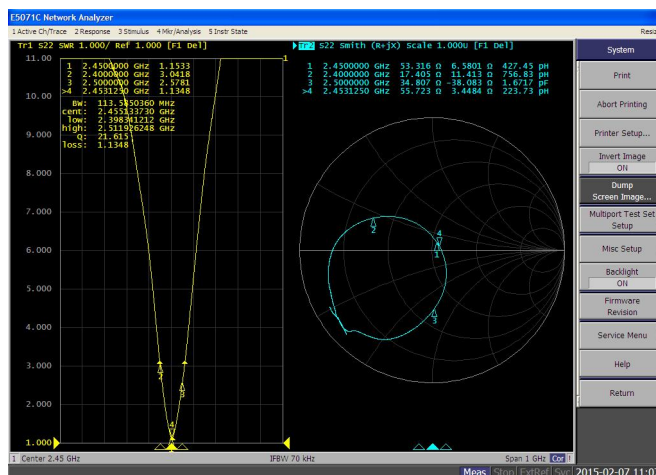
电气特性 Electrical Characteristics per line (T_A=25℃)

参数 Parameter	规格 Specification	单位 Units
频带 Frequency Band	2400~2483	MHz
驻波比 VSWR	≤3	
极化 Polarization	Linear	
*峰值增益 Peak Gain	0.35	dBi
*峰值效益 Peak Efficiency	72.6%	%
阻抗 Impedance	50	Ω

*测试条件：测试板尺寸98×65mm；匹配电路：π型匹配电路。 Test condition: Test board size 98*65 mm; Matching circuit: Pi matching circuit will be required

典型特征 Typical Characteristics

Fig.1 驻波比 VSWR

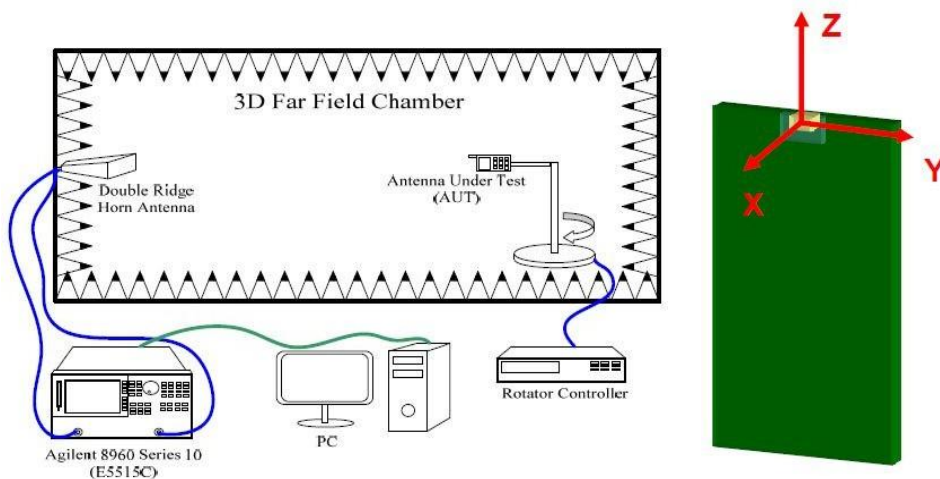


序号	频率	驻波比
Mark	Frequency	VSWR
1	2400 MHz	3.04
2	2450 MHz	1.15
3	2500 MHz	2.57

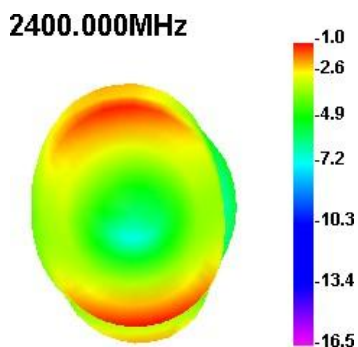
辐射模式 Radiation Pattern

增益模式是在云科暗室进行测试的，被测件放在桌肩位置，用标准的喇叭天线和矢量网络分析仪来收集数据。The Gain pattern is measured in Yunke's FAR-field chamber. DUT is placed on the table of rotator, a standard horn antenna and Vector Network Analyzer is used to collect data.

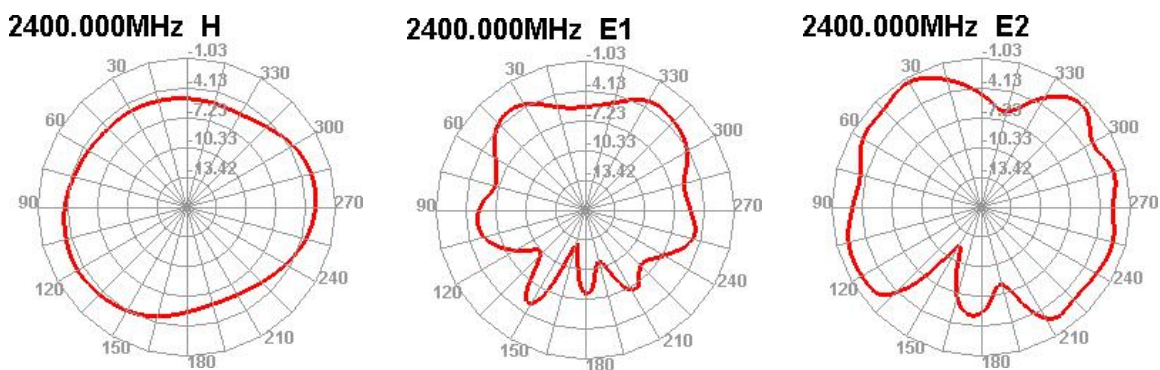
Fig.2 暗室示意图 FAR-field Chamber



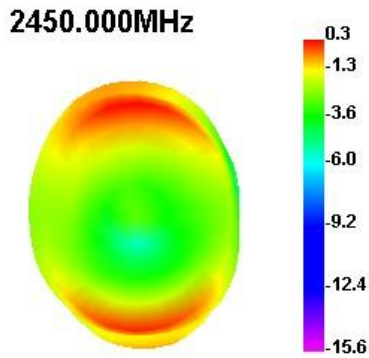
3D 增益模式 3D Gain Pattern (2400 MHz)



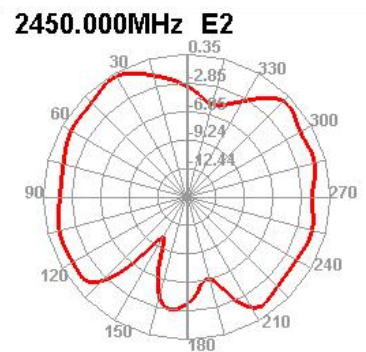
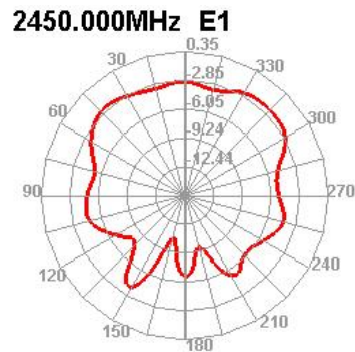
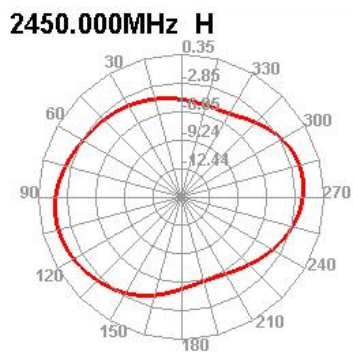
2D 增益模式 2D Gain Pattern (2400 MHz)



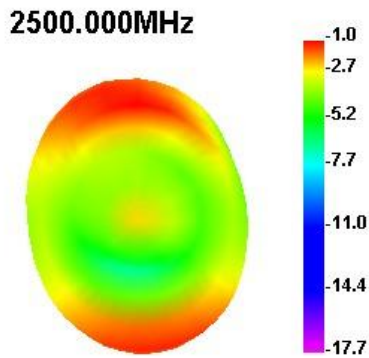
3D 增益模式 3D Gain Pattern (2450 MHz)



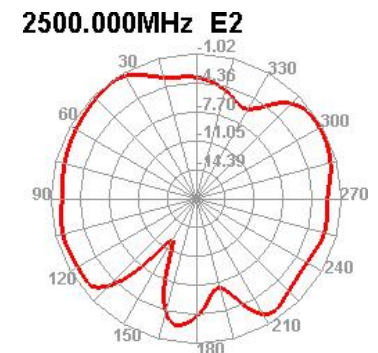
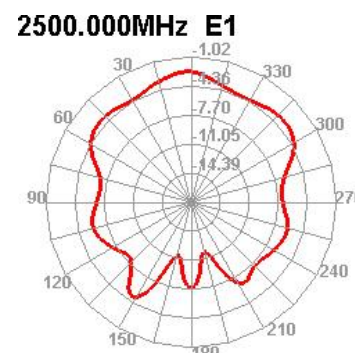
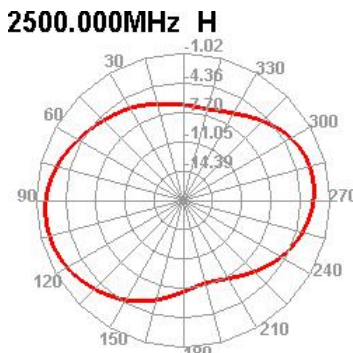
2D 增益模式 2D Gain Pattern (2450 MHz)



3D 增益模式 3D Gain Pattern (2500 MHz)



2D 增益模式 2D Gain Pattern (2500 MHz)



环境参数 Environmental Characteristics

(1) 可靠性测试 Reliability Test

Item	Condition	Specification
Thermal shock	1. 30±3 minutes at -40° C±5° C, 2. Convert to +105° C (5 minutes) 3. 30±3 minutes at +105° C±5° C, 4. Convert to -40° C (5 minutes) 5. Total 100 continuous cycles	No apparent damage Fulfill the electrical spec. after test.
Humidity resistance	1. Humidity: 85% R.H. 2. Temperature: 85±5° C 3. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
High temperature resistance	1. Temperature: 150° C±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Low temperature resistance	1. Temperature: -40° C±5° C 2. Time: 1000 hours.	No apparent damage Fulfill the electrical spec. after test.
Soldering heat resistance	1. Solder bath temperature : 260±5°C 2. Bathing time: 10±1 seconds	No apparent damage
Solderability	The dipped surface of the terminal shall be at least 95% covered with solder after dipped in solder bath of 245±5°C for 3±1 seconds.	No apparent damage

(2) 储存环境Storage Condition

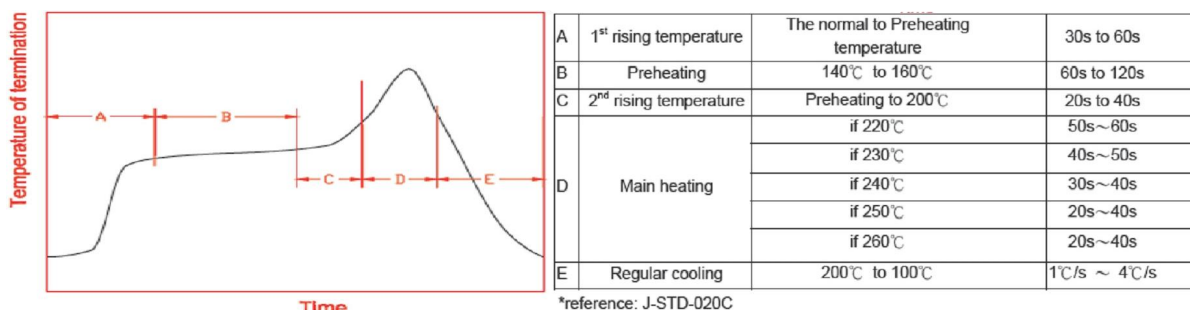
(a) 仓库：温度应在0~30°C之间，湿度应小于60%湿度，产品应在交货之日起1年内使用。At warehouse: The temperature should be within 0 ~ 30°C and humidity should be less than 60% RH.The product should be used within 1 year from the time of delivery.

(b) 在板：温度应在40~85°C之间，湿度应小于85%湿度。On board: The temperature should be within -40~85°C and humidity should be less than 85% RH.

(3) 工作环境温度Operating Temperature Range

工作温度范围：-40°C to +85°C。 Operating temperature range : -40°C to +85°C.

推荐回流焊接曲线Recommended Reflow Soldering



(1) 电烙铁的使用 Soldering Gun Procedure

以下注意事项仅针对使用电烙铁进行个别器件更换。 Note the follows, in case of using solder gun for replacement.

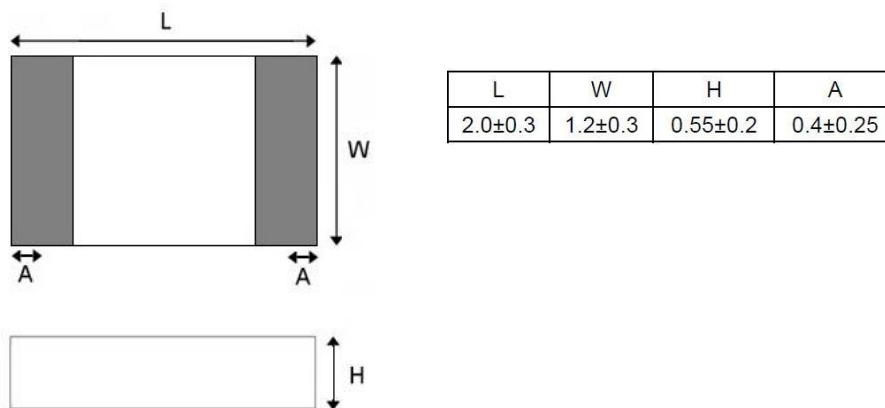
(a) 使用小于30W的电烙铁，温度不高于350°C，焊接时间小于3秒。 The tip temperature must be less than 350°C for the period within 3 seconds by using soldering gun under 30 W.

(b) 烙铁不可直接接触器件本体 The soldering gun tip shall not touch this product directly.

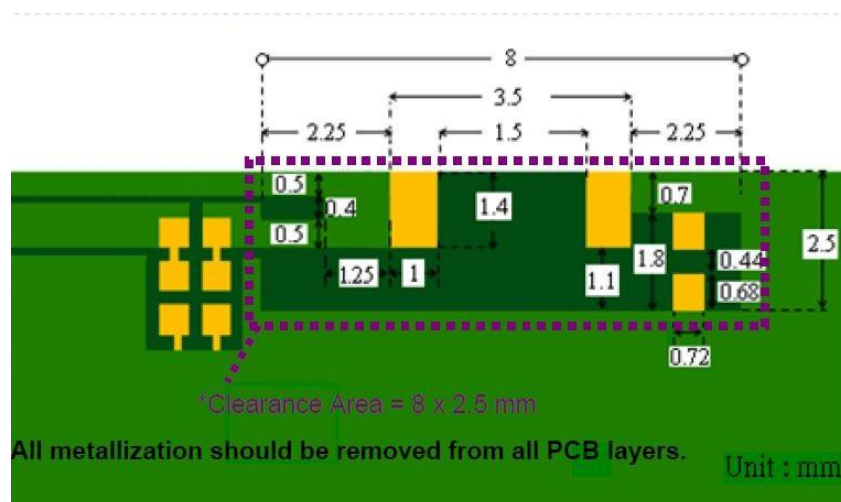
(2) 焊锡量 Soldering Volume

注意焊接过程中过多的焊锡量会损害器件本体。 Note that excess of soldering volume will easily get crack the body of this product.

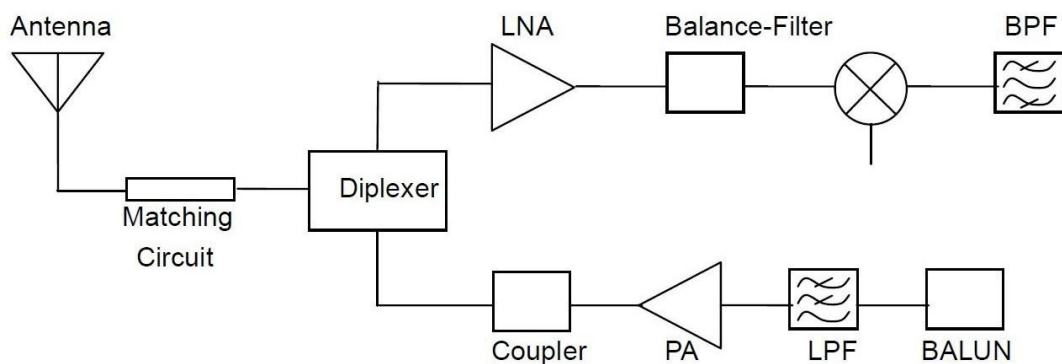
产品尺寸 Product Dimension



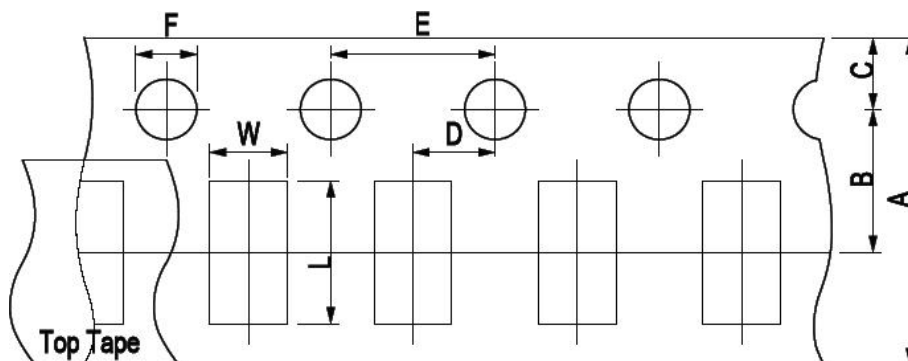
推荐焊盘 Evaluation Board



应用环境 Application Guide



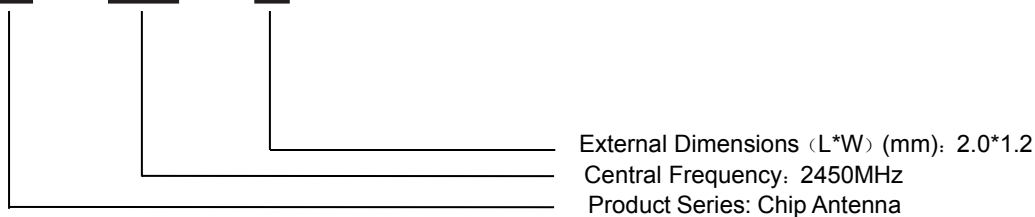
包装信息 Package Information



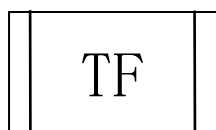
A	B	C	D	E	F	L	W
8.00±0.3	3.50±0.05	1.75±0.1	2.00±0.05	4.00±0.1	1.50±0.1	2.30±0.1	1.55±0.1

编码规则 Part Number System

CA - 2450 - 21



丝印 Marking



订货信息 Order Information

Device	Package	Net Weight	Carrier	Quantity	HSF Status
CA-2450-21	2012	0.0014g	Tape & Reel	3000pcs	RoHS compliant

版本信息 Revision history

Date	Revision	Description of changes
2015-9-15	1.0	First Version
2016-10-12	1.1	Update the package information
2017-2-6	1.2	Update the cover color

The contents of this data sheet are subject to change without notice.
Please confirm the specifications and delivery conditions when placing your order.

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