

SMD Antenna Specification

2.4G/5G WIFI Bandwidth antenna

Model: **AB-W01**

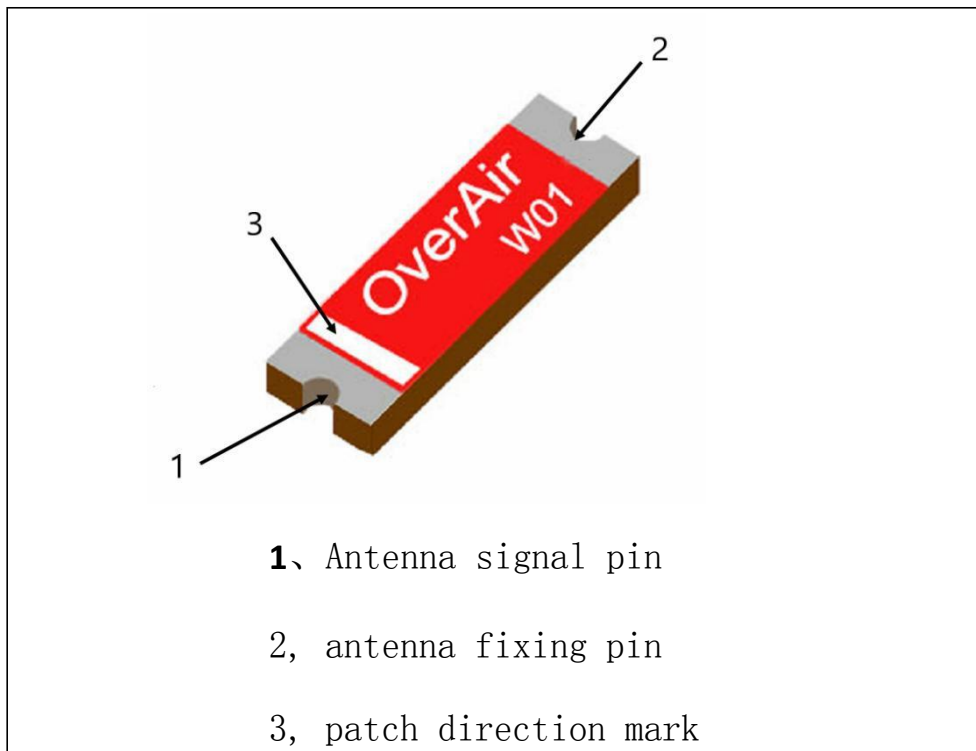
特点:

1. 1. Size: 8.0 X 3.0 X 1.0 mm.
2. 2. Low energy loss, high efficiency antenna.
3. 3. High stability under temperature and humidity changes.

Application:

1. 1. Application of products in 2.4G/5G WIFI frequency bands.
2. 2. Wireless applications for other work in the 2.4G or 5G bands.

Structure:



Size

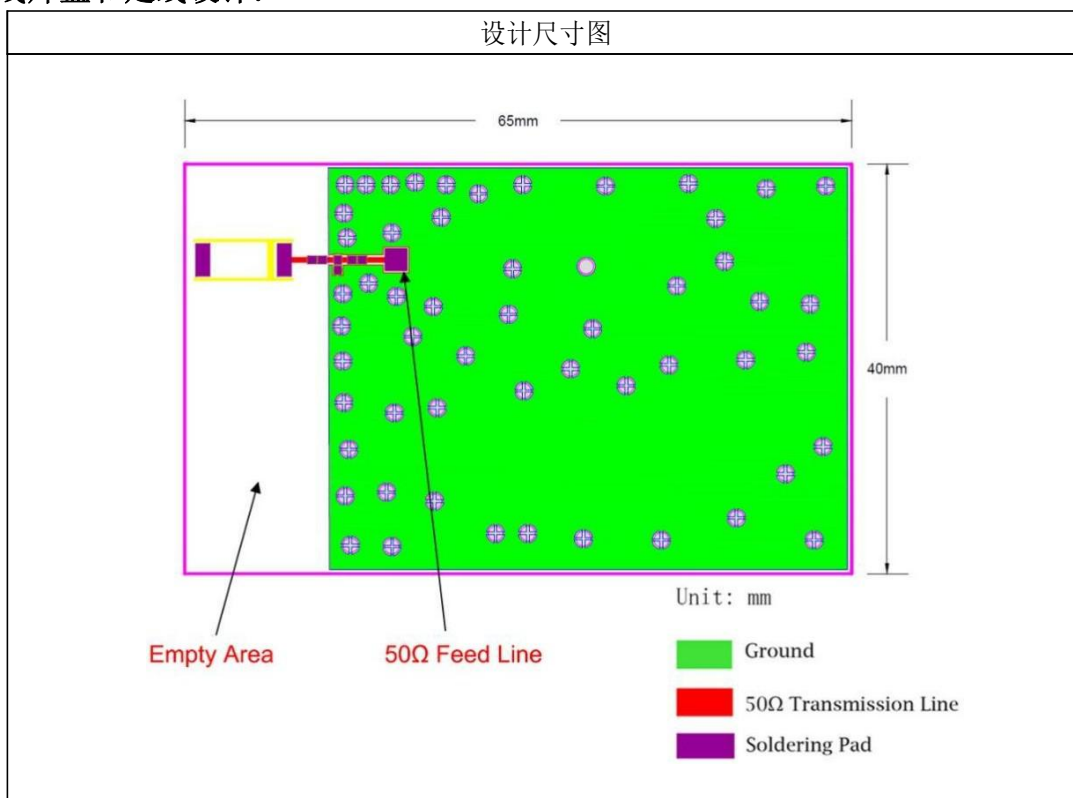
三视图	符号	尺寸(mm)
	L	8.0±0.1
	w	3.0±0.1
	T	1.0±0.1
	a	0.6±0.1

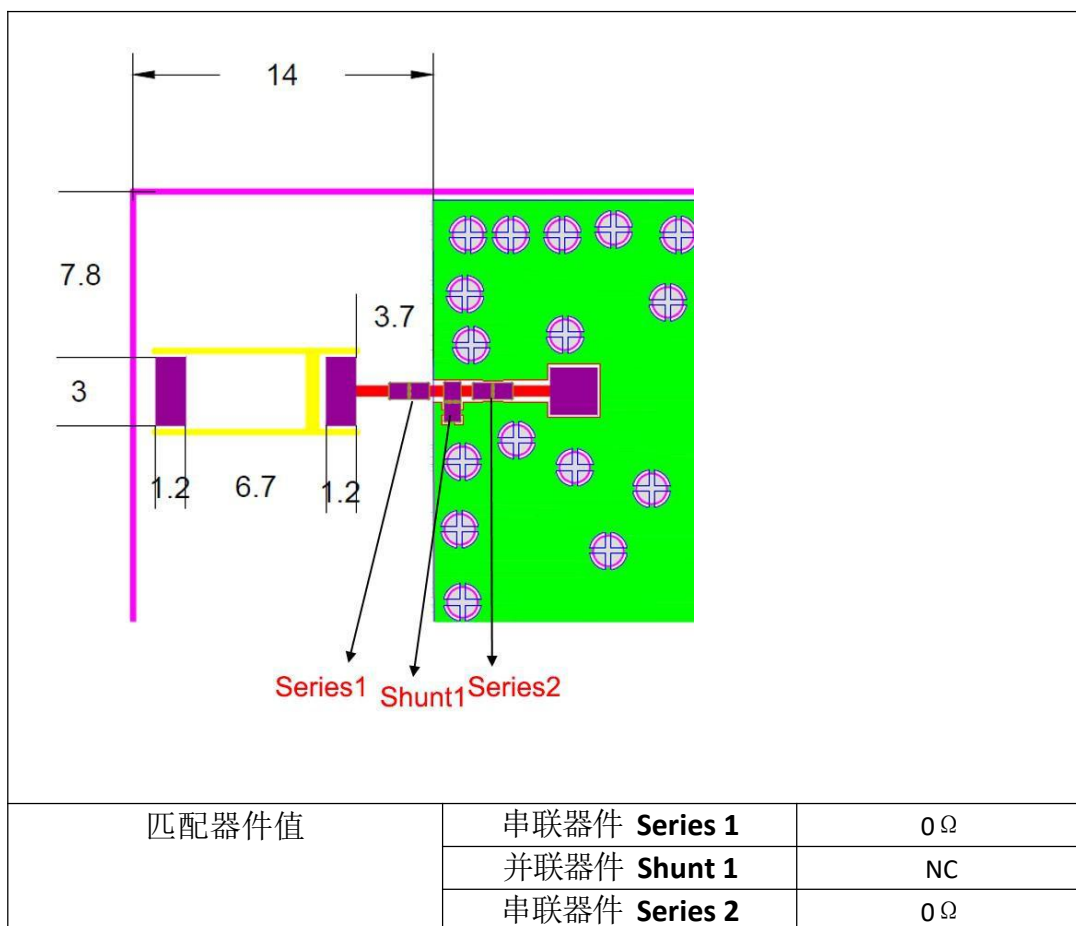
电气特性:

AB-W01	Specification
工作频率范围 Working Frequency	2400-2500MHz, 5200-6000MHz
阻抗 Impedance	50 Ω
增益 Gain(dBi)	6.1dBi (2.45GHz), 3.67dBi (5.5Ghz)
驻波比 VSWR	<2
工作温度 Operation Temperature	-40℃~+85℃
可承受功率 Power Capacity	3W

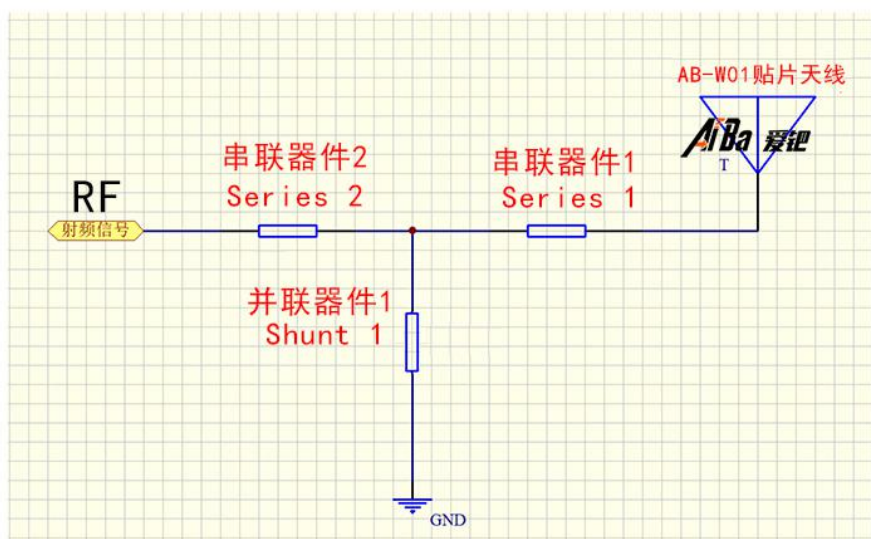
天线工作频率需要通过阻抗匹配器件调试来实现.

天线焊盘和走线设计:

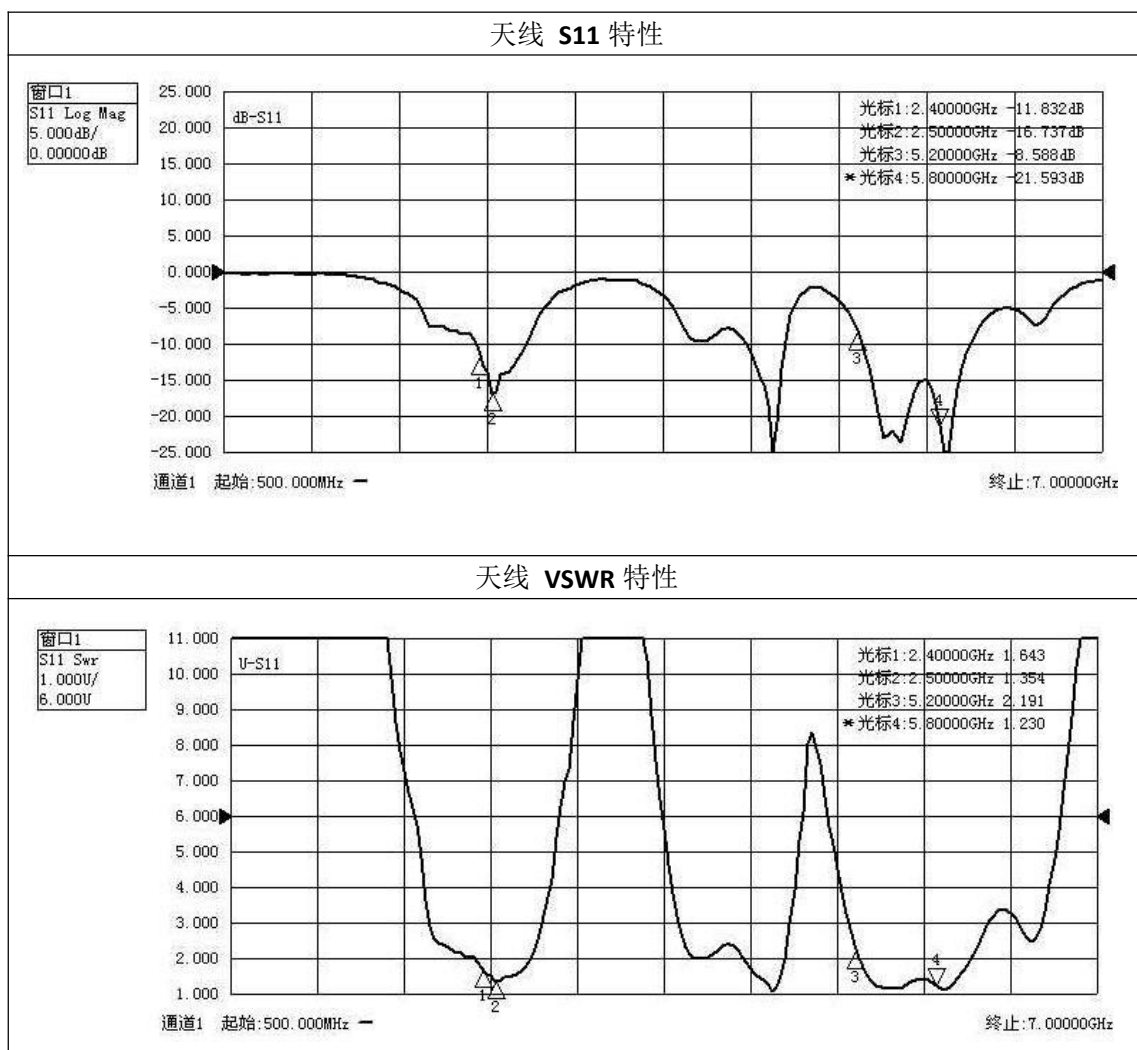




天线阻抗匹配网络原理图



注意：射频芯片参考设计要求的外围器件值请按照芯片厂家参考设计使用，
以上天线匹配器件相互独立不可互相替换

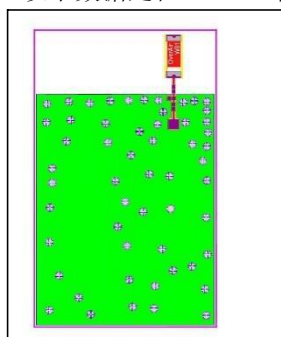


效率和辐射图 (DEMO板 PCB厚度1.0mm) :

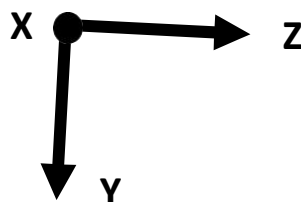
效率、辐射图、增益等性能是基于测试板设计得到。

AB-W01天线的规格特性测试数据是基于测试PCB板尺寸以及下图所示的测试方向所得到。

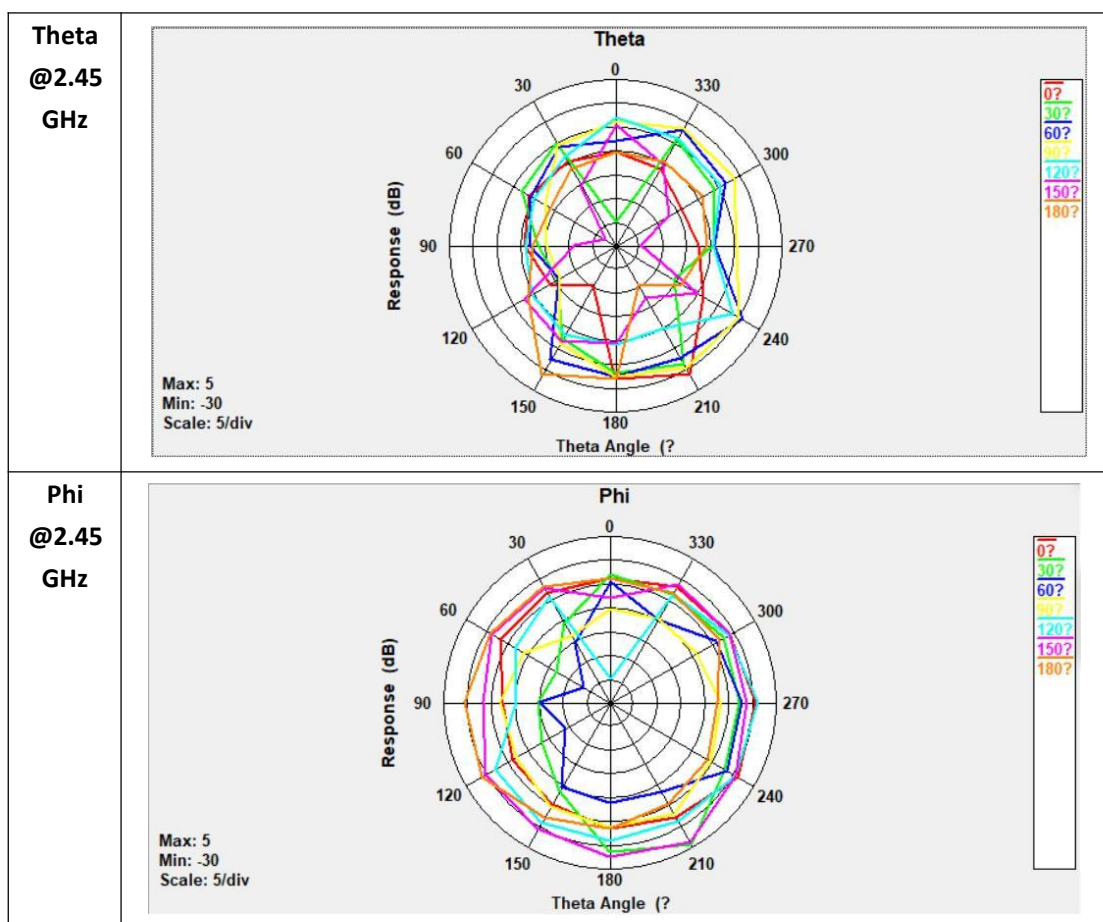
以下数据是在 ETS 3D微波暗室测试完成。

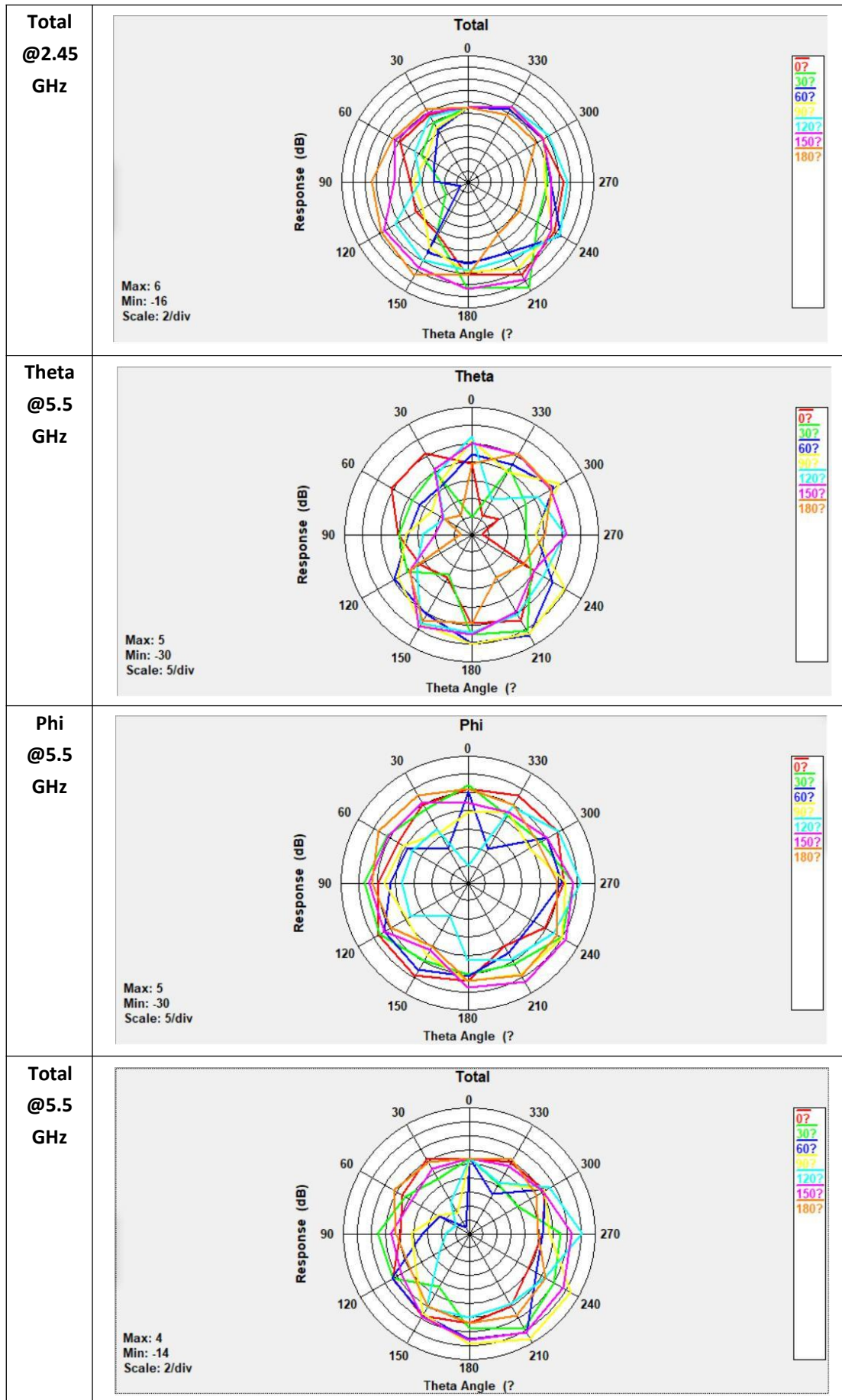


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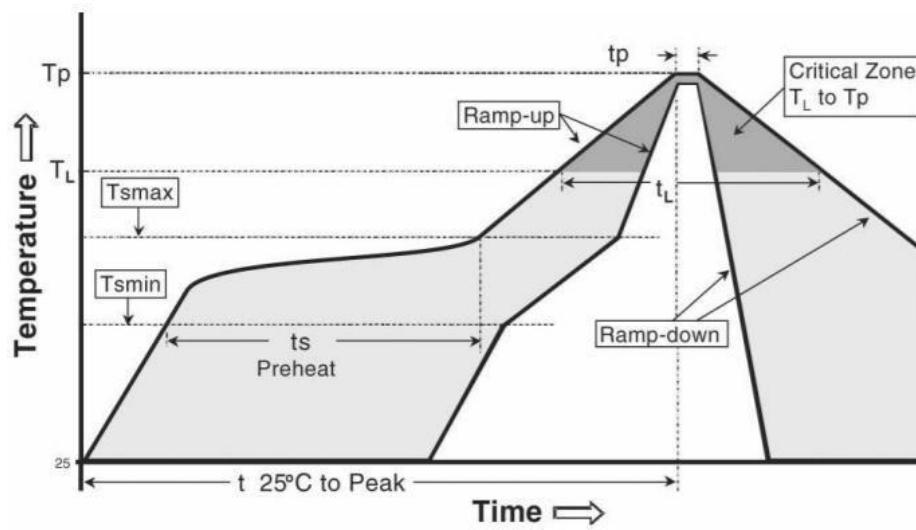
增益和效率	带宽 2.4G-2.5GHz	带宽 5.2G-5.8GHz
峰值增益 Peak Gain	6.1dBi	3.67dBi
带内平均增益 Average Gain across the band	5.7dBi	2.63dBi
带内增益范围 Gain Range across the band	5.5dBi~6.1dBi	1.33dBi~3.67dBi
峰值效率 Peak Efficiency	82.5%	62.4%
带内平均效率 Average Efficiency across the band	79%	51%
带内效率范围 Efficiency Range across the band	74.8%~82.5%	30.77%~62.4%





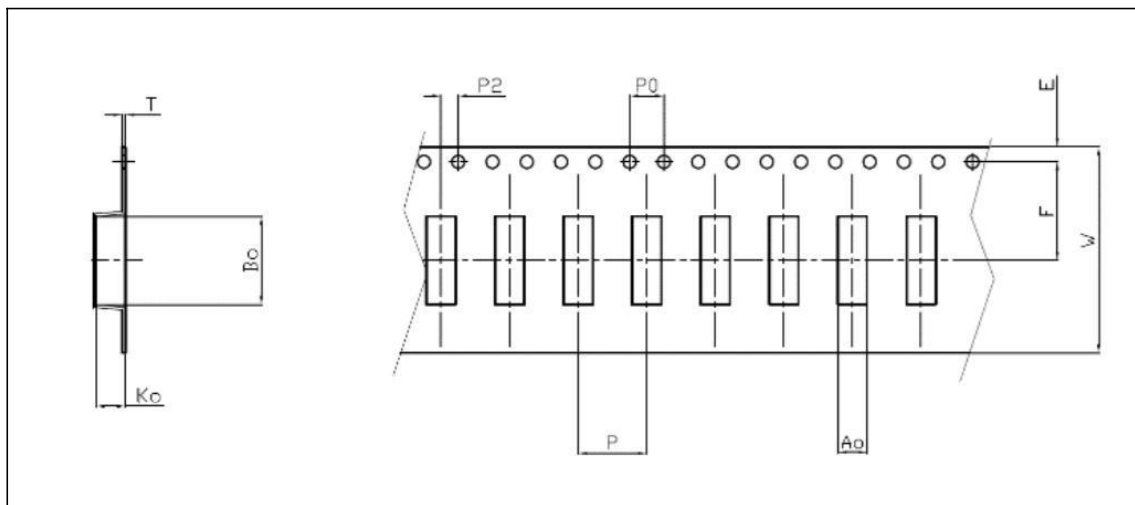
焊接条件:

可靠无损的典型焊接规范如下图所示:



Phase	Profile features	Pb-Free assembly (SnAgCu)
RAMP-UP	Avg. Ramp-up Rate (Tsmmax to Tp)	3 °C / second (max.)
PREHEAT	- Temperature Min (Tsmmin) - Temperature Max (Tsmmax) - Time (tsmin to tsmax)	150 °C 200 °C 60-180 seconds
REFLOW	- Temperature (Tl) - Total Time above Tl (tl)	217 °C 60-150 seconds
PEAK	- Temperature (Tp) - Time (tp)	260 °C 20-40 seconds
RAMP-DOWN	Rate	6 °C/second max
Time from 25 °C to Peak Temperature		8 minutes max

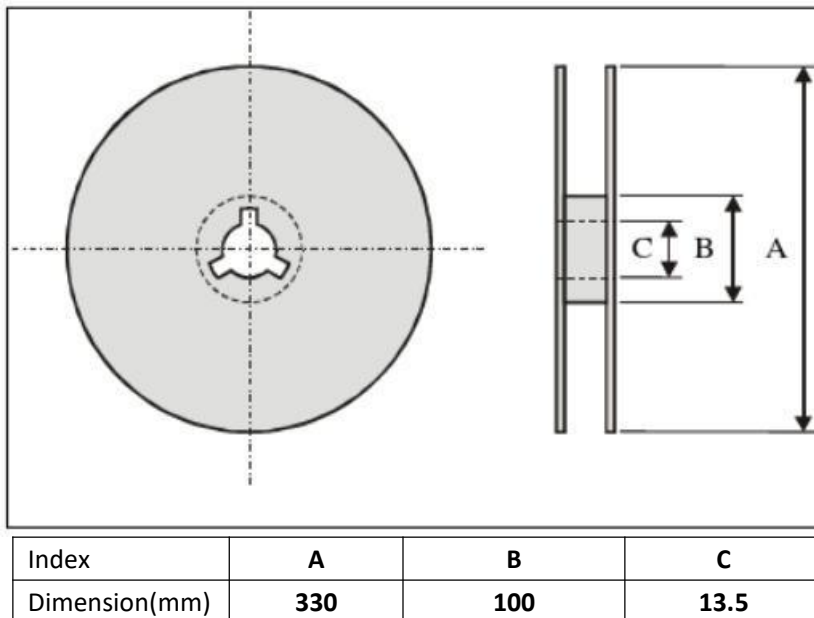
包装:



塑胶载带规格 (单位:mm)

Index	Ao	Bo	Ko	T	W
Dimension (mm)	3.3 ± 0.1	8.4 ± 0.1	1.3 ± 0.1	0.3 ± 0.05	16.0 ± 0.3
Index	E	F	P	P0	P2
Dimension (mm)	1.75 ± 0.1	7.0 ± 0.1	8.0 ± 0.1	4.0 ± 0.1	2.0 ± 0.1

卷盘尺寸:



标准数量: 2000 PCS/盘.