

1.目的:

使用 AT7020-E3R0HBA 做阻抗匹配並提供電容、電感值及場型量測圖。
(圖形如附件 1)

2.結論與建議

2.1 頻寬: 天線頻寬量測結果如下表所示.

Antenna type	Bandwidth	10dB Frequency Range
AT7020-E3R0HBA	172 MHz	2.376 ~ 2.548 GHz

2.2 天線增益:天線增益量測結果如下表所示.

Gain Table

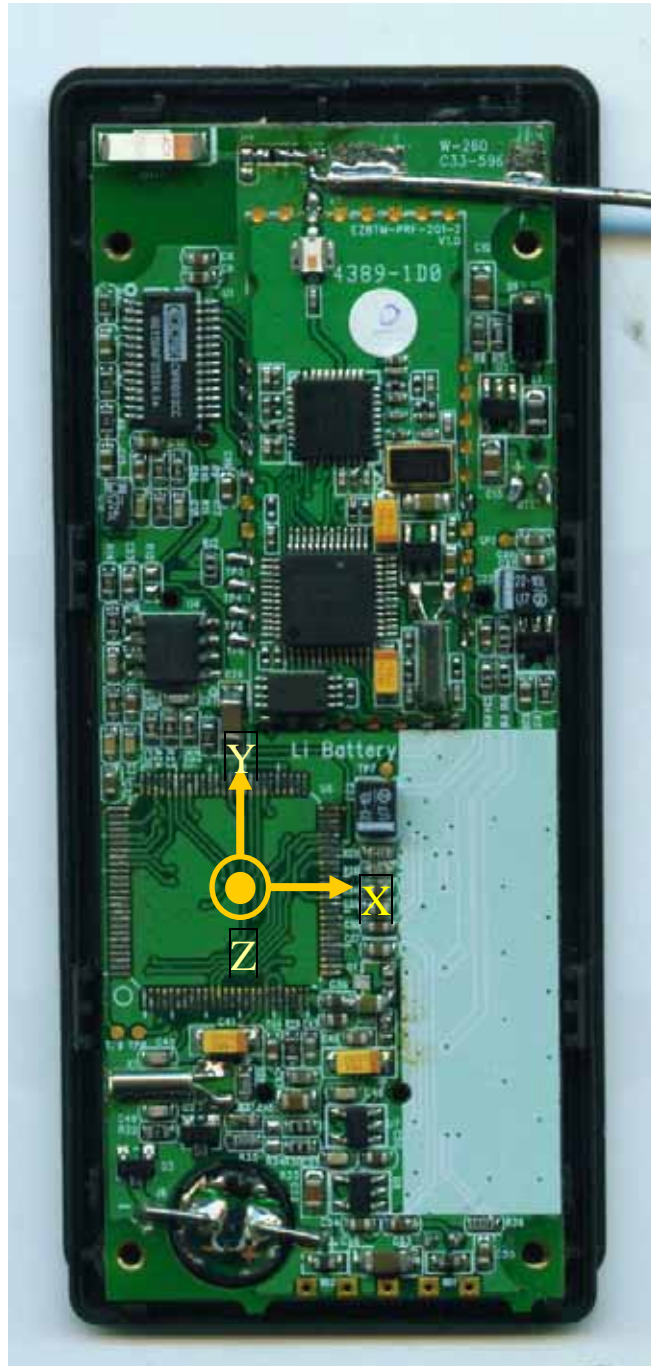
2.45GHz	AT7020-E3R0HBA	
	Peak	Average
XY_V	-10.90	-18.87
XY_H	4.58	-3.86
XZ_V	-4.30	-8.59
XZ_H	-6.80	-11.48
YZ_V	-3.93	-7.90
YZ_H	2.59	-4.61

2.3 結論: 本次客服使用 AT7020-E3R0HBA 進行阻抗匹配得到頻寬約 172MHz , gain 的部份則如上表所示。

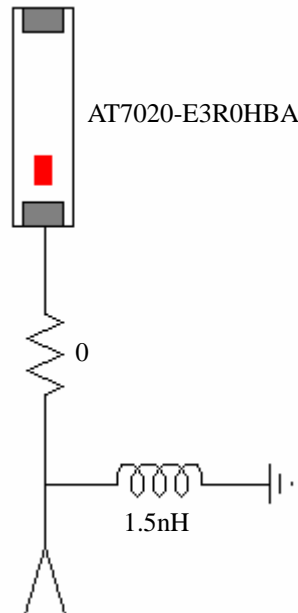
3. 建議 Matching 值: 詳見附件 2

4. 場形及各項量測方法、結果:詳見附件 3

1. PCB 和外殼結構圖：



2. 天線匹配電路示意圖：



3. 場形及各項量測方法、結果：

A. 儀器設定

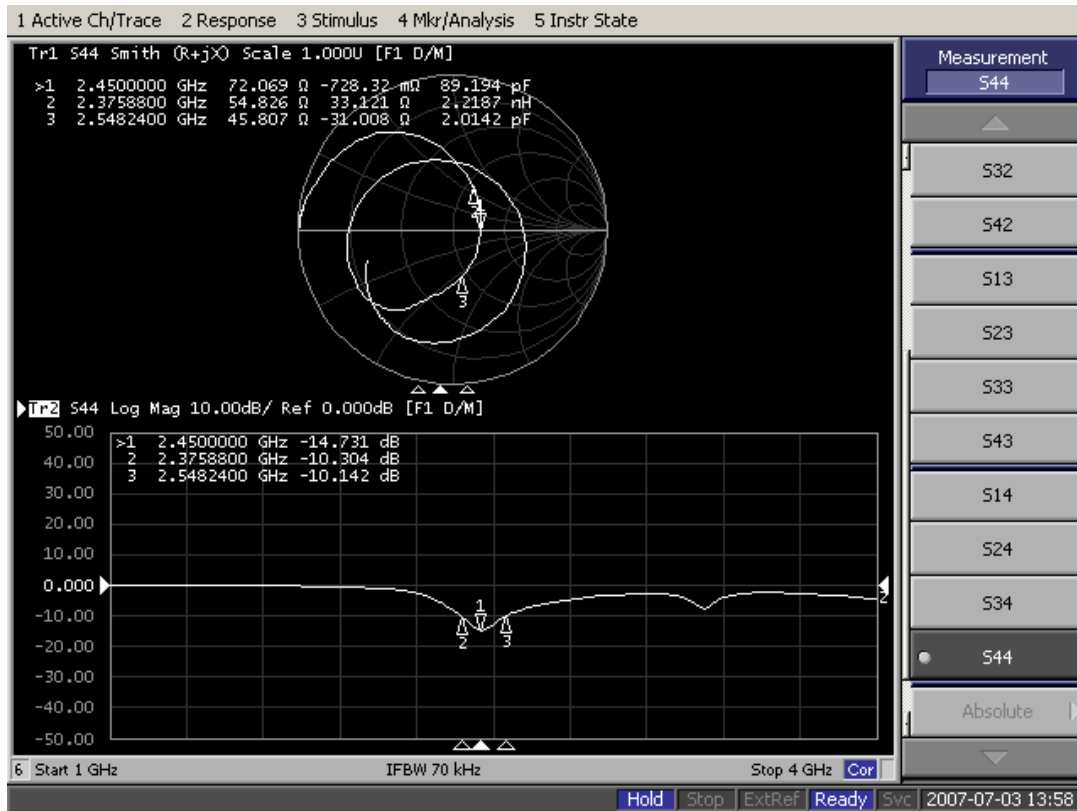
▲返回損耗(Return Loss) / 駐波比(VSWR):

- ◆量測儀器 : vector network analyzer-Agilent E5071A/B
- ◆校正方法 : open/short/load –Cal. Kit 85052D

▲Radiation pattern :

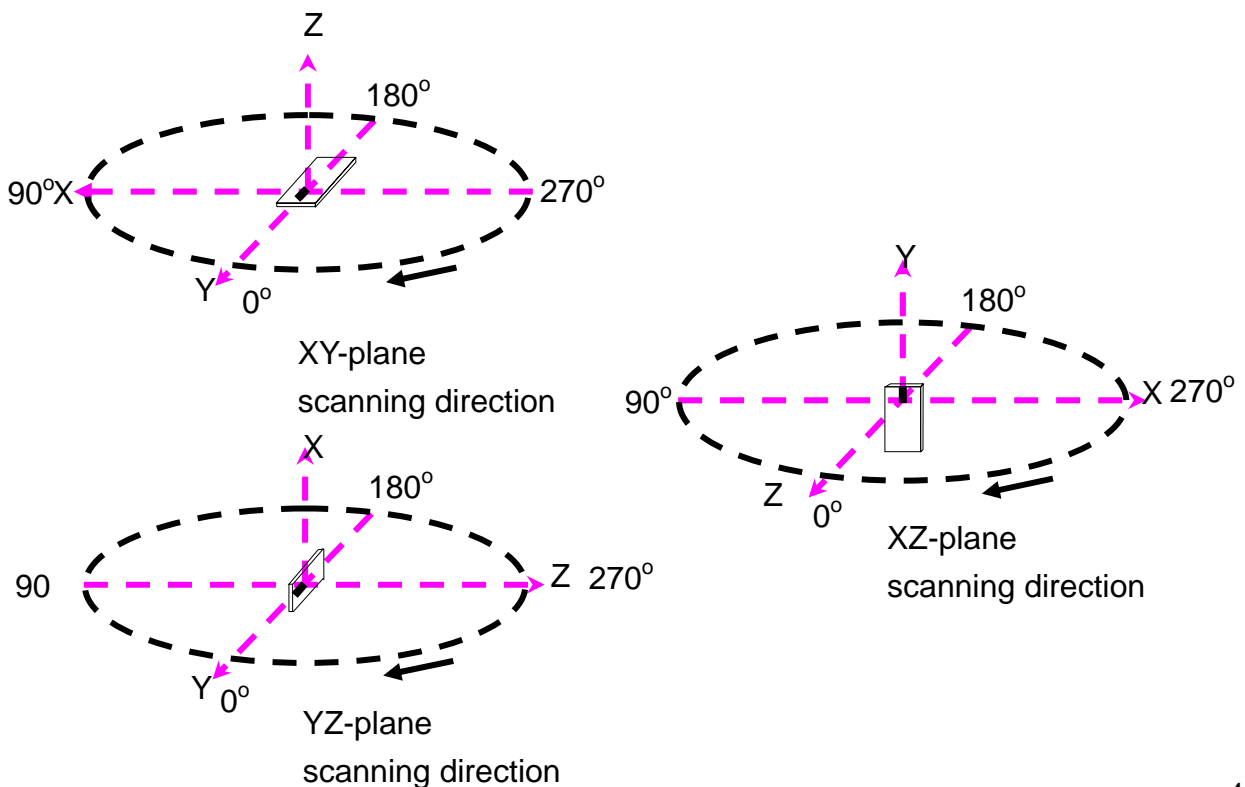
- ◆ACX far-field anechoic chamber

B. AT7020-E3R0HBA 的返回損耗(return loss)量測值



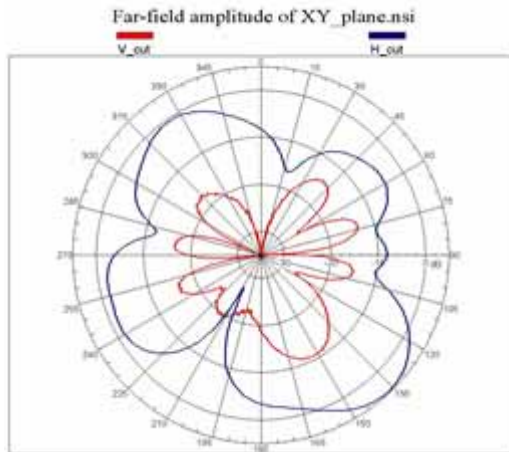
C. 輻射場型圖及電場強度

◆ scanning direction



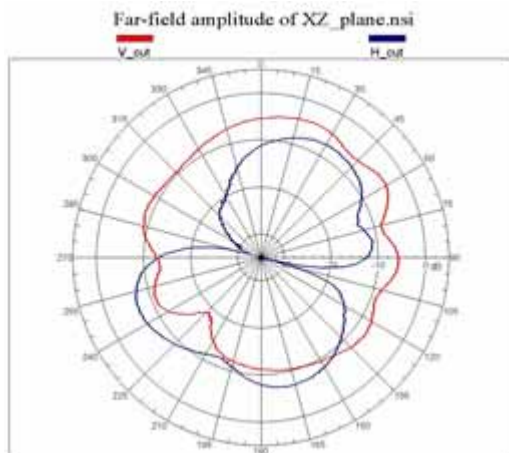
AT7020-E3R0HBA 的輻射場型圖

◆XY-plane



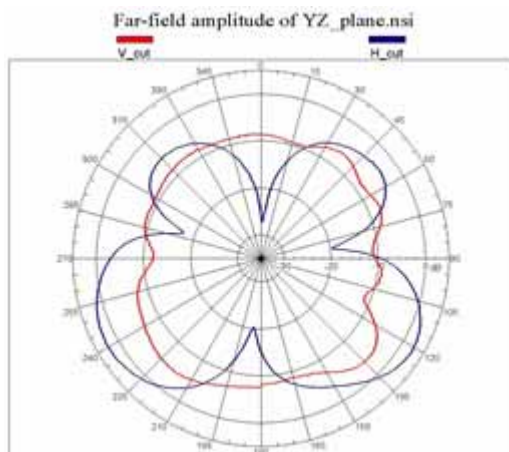
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