

**Appendix 9.**

# **Antenna Specification**

# Specifications of Ceramic Patch Ant.

MESSRS. 하이웨이브(주)

ITEM : Ceramic Patch Antenna  
 PART NAME : MPAC45SF915P-TA  
 MODEL NAME  
 FEATURES : Antenna dimension is as small as Teflon antenna  
 Using high quality factor dielectric  
 Provide highly stabilized performance  
 DATE : June 16, 2009  
 QUANTITY : 1 pcs

SUPPLIER : MAC technologies Inc.		
DRAWN	CHECKED	APPROVED



MAC technologies Inc.

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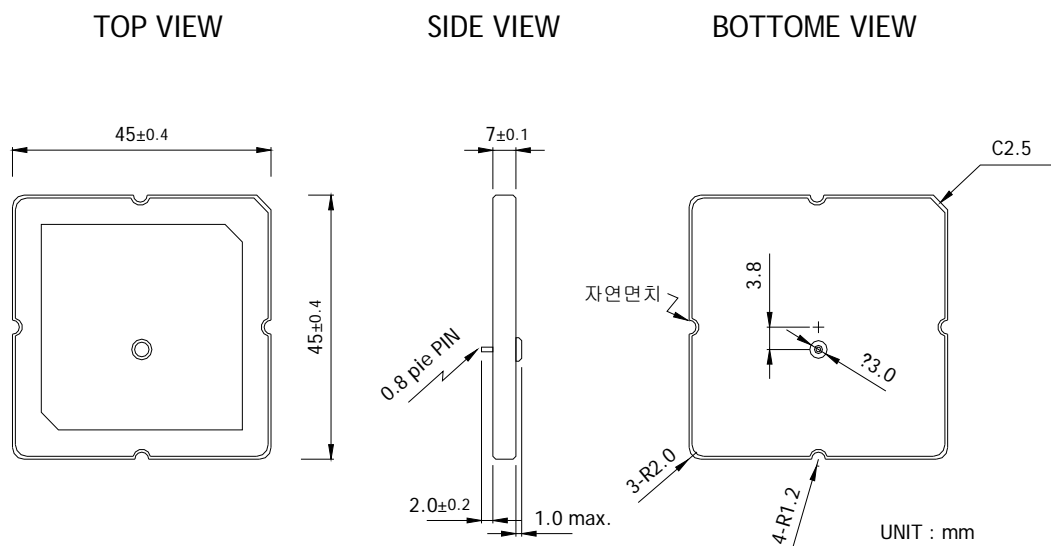
Title	RFID Ceramic Patch Ant. Sample Specification
Document Number	MACQM730-05-09094
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## 1. Electrical Specifications.

NO.	Parameters	Spec. (After Ass'y)	Unit	Remark
1	Frequency	912 $\pm$ 3	MHz	
2	Band Width	8 min.	MHz	@ -10 dB R.L.
3	VSWR	2.0 : 1 max.	Ratio	@ C.F
4	Impedance	50	Ohms	
5	Peak Gain	-0.87	dBiL	0.5
6	Polarization	RHCP		
7	Beam Width	90 typ.	Deg.	

## 2. Mechanical Dimensions.

### 2-1. ANTENNA ELEMENT

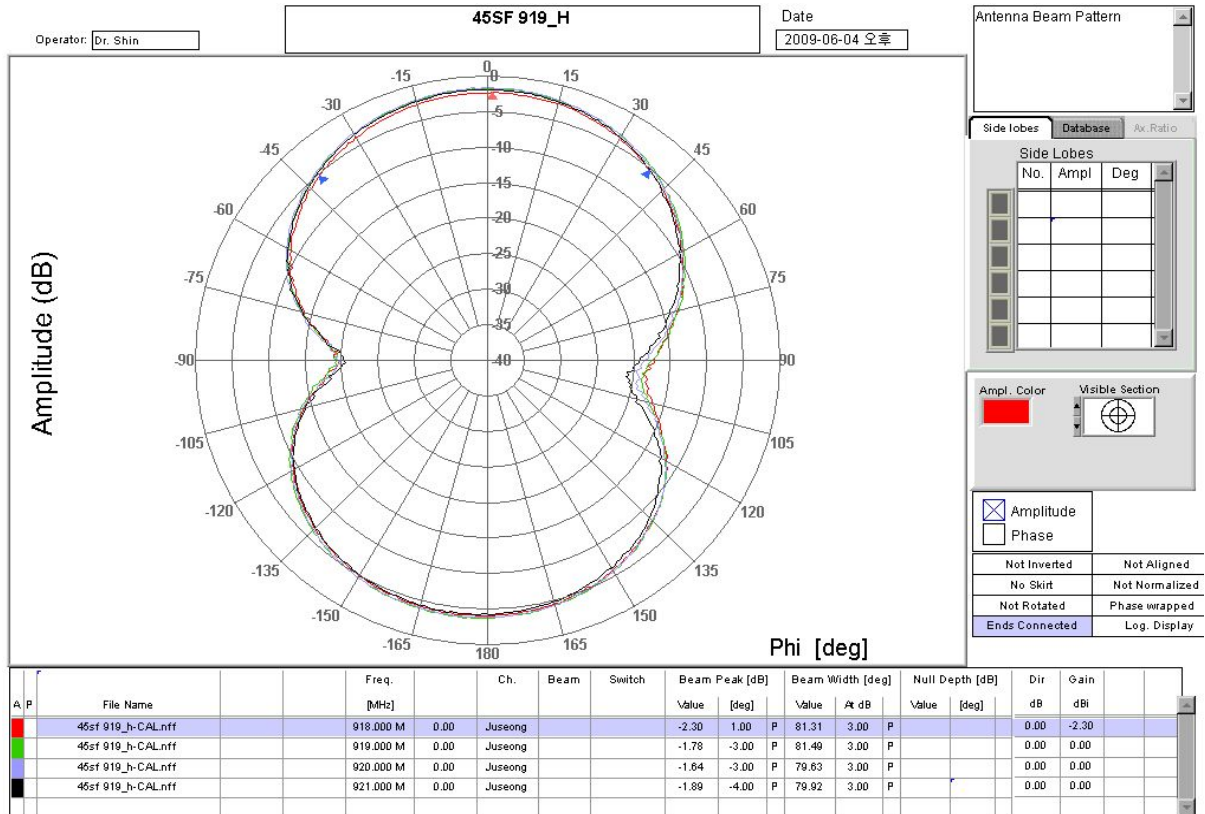




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## 4. Radiation Pattern

### 4-1 H-PLANE



### 4-2 Axial Ratio

