

APPROVAL SHEET

■ **MODEL NAME :** LP Antenna_FCC
■ **PART NUMBER** 421060065
■ **PART NAME :** ANT UHF RFID/ LP_FCC,S10,PCB,V01,KDT
■ **Standard :** FR-4
■ **DATE :** 2026-01-22

Contents

1. Cover Page
2. Component Assembly Drawing
3. Product History Management
4. Product Drawing
5. Product Features and Specifications
6. Electrical Test Environment
7. Electrical Characteristics
8. 3D Gain
9. Measurement Data

RoHS2 H/F

협력사	Equipment Design	R&D	APPROVED
	 01/22	 01/22	 01/22
고객사	R&D	MANUFACTURER	QA
	/	/	/

RECORD OF REVISION	
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PART NAME : ANT UHF RFID/ LP_FCC,S10,PCB,V01,KDT

[illegible]

5. Product Features and Spec.

5-1. Mechanical characteristics

DIMENSION	thickness:	[TOP] 67mmX68mm
	0.8T	[BTM]75mmX75mm
ANTENNA - BASE	PCB	
ANTENNA - PATTERN	Copper	
WEIGHT	17.6g	
OPERATING TEMP	20 ± 5 °C	
OPERATING HUMIDITY	55 ± 15 %	

- Humidity is controlled to prevent oxidation of the antenna plating area.

Simple discoloration of the plating area does not affect the antenna performance.

The temperature and humidity of product storage are managed in principle, and the warranty period is one year, excluding product damage caused by impact.

5-2. Normal Spec.

INPEDANCE	50 ohm
RADIATION PATTERN	Directional
POLARIZATION	Linear
POWER HANDLING	2W

6-3. Product Features and Spec..(Frequency Band & Passive Spec.)

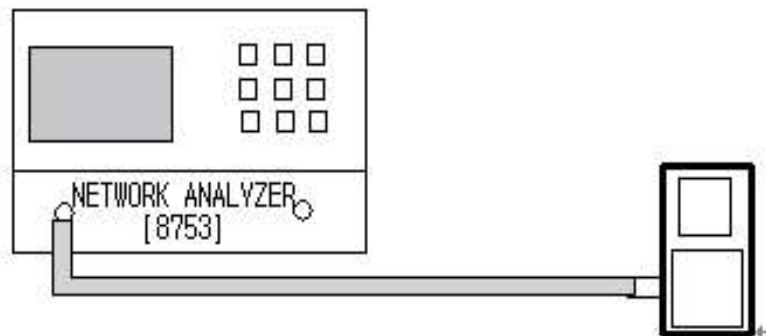
Mode	Set – Antenna		
Frequency	900.0MHz	915.0MHz	930.0MHz
VSWR Spec.	≤2 ∴ 1	≤2 ∴ 1	≤2 ∴ 1
3D Gain Spec	Peak 3.86dBi	Peak 4.32dBi	Peak 3.10dBi

- Since variations may occur depending on the equipment, environment, and jig, the marker (setting frequency) is applied based on the VSWR value of the master sample.

6. Electrical test environment (conditions/methods)

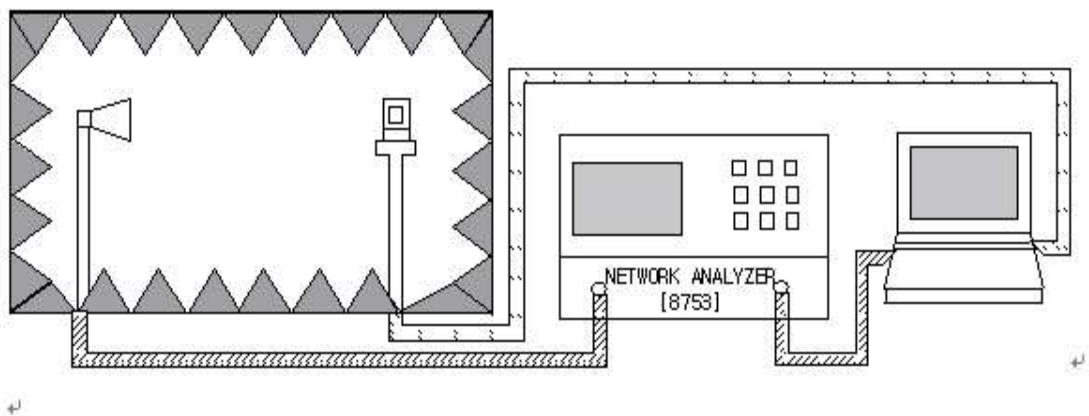
6-1. VSWR

- Step 1. Connect the measurement cable to the network analyzer.
- Step 2. Set the network analyzer to match the frequency to be measured and calibrate it.
- Step 3. Mount the set and measure the VSWR.



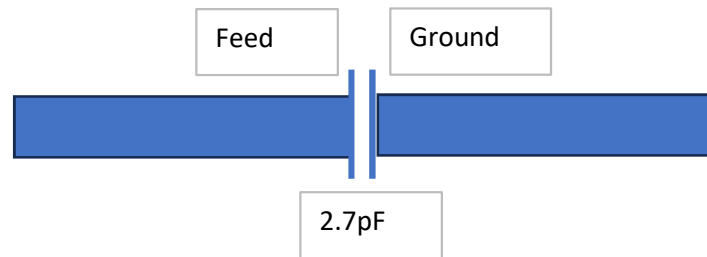
6-2. Radiation Pattern & Gain

- Step 1. Calibrate the chamber system using a reference antenna, and set the software for controlling the chamber system to the frequency band to be measured.
- Step 2. Mount the antenna to be measured.
- Step 3. Measure the gain, efficiency, and radiation pattern.

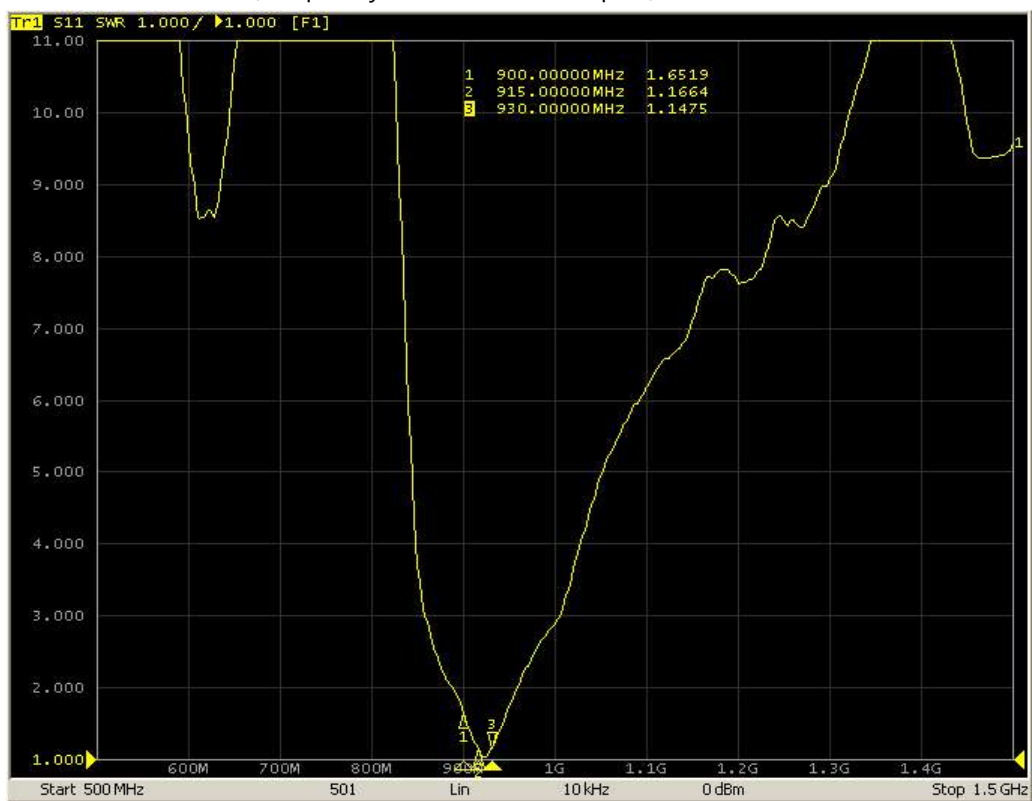


7. Electrical characteristics

7-1. Antenna Circuit



7-2. Electrical characteristics(Frequency Band & Passive Spec.)



- Since variations exist depending on the equipment, environment, and jig, the Marker (Setting Frequency) is applied based on the VSWR value of the Master Sample.

9. 3D GAIN DATA

9-1. Efficiency

No	Frequency	Peak Value		Minimum Value		Avg. Gain	Efficiency
	[MHz]	Value[dBi]	Degree	Value[dBi]	Degree	[dBi]	[%]
1	900.000	3.862	15 / 45	-21.903	165 / 0	-3.388	45.835
2	905.000	3.903	15 / 45	-20.102	165 / 345	-3.303	46.742
3	910.000	4.791	30 / 45	-15.557	165 / 330	-2.271	59.285
4	915.000	4.325	30 / 45	-15.309	135 / 180	-2.613	54.788
5	920.000	3.448	30 / 30	-10.944	75 / 210	-2.269	59.311
6	925.000	3.385	15 / 45	-12.715	75 / 210	-2.258	59.452
7	930.000	3.098	0 / 225	-15.020	90 / 210	-3.460	45.081

9-2. Radiation Pattern

