

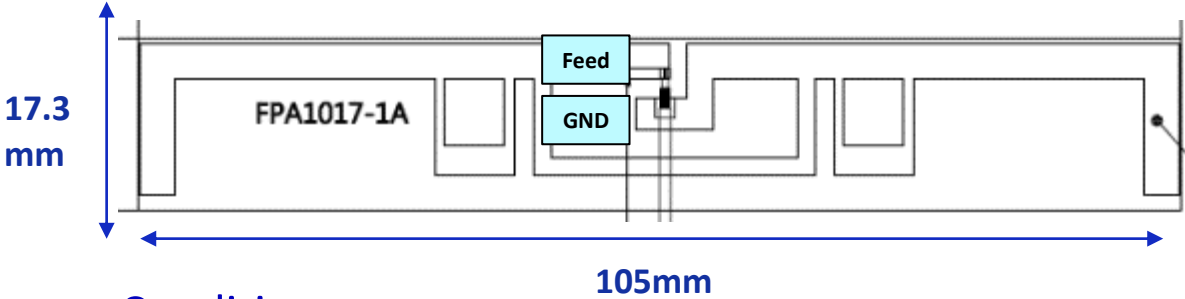
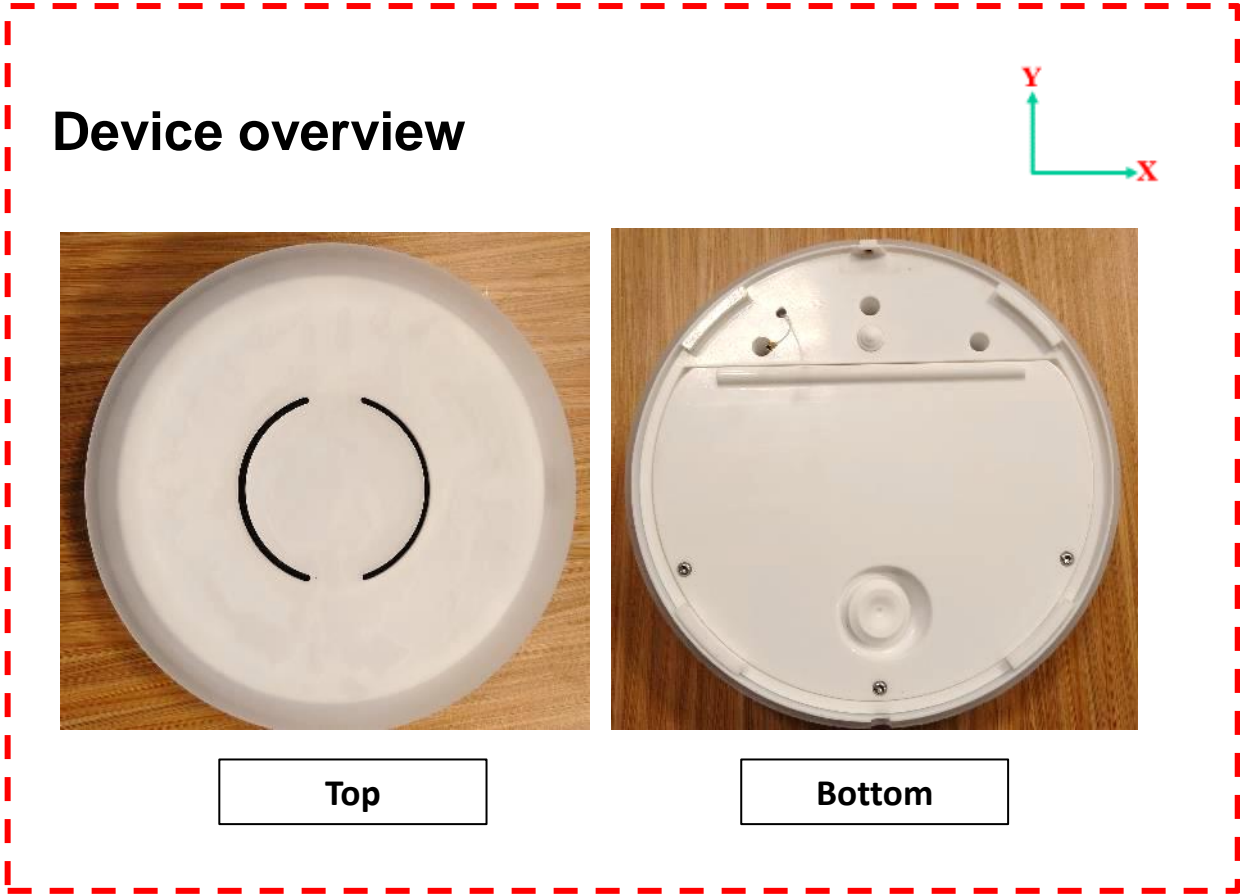
ES5004 Antenna Report

LITEON

Outline

- Overview
- Return Loss
- Radiation Pattern & Efficiency
- Summary

Device Overview

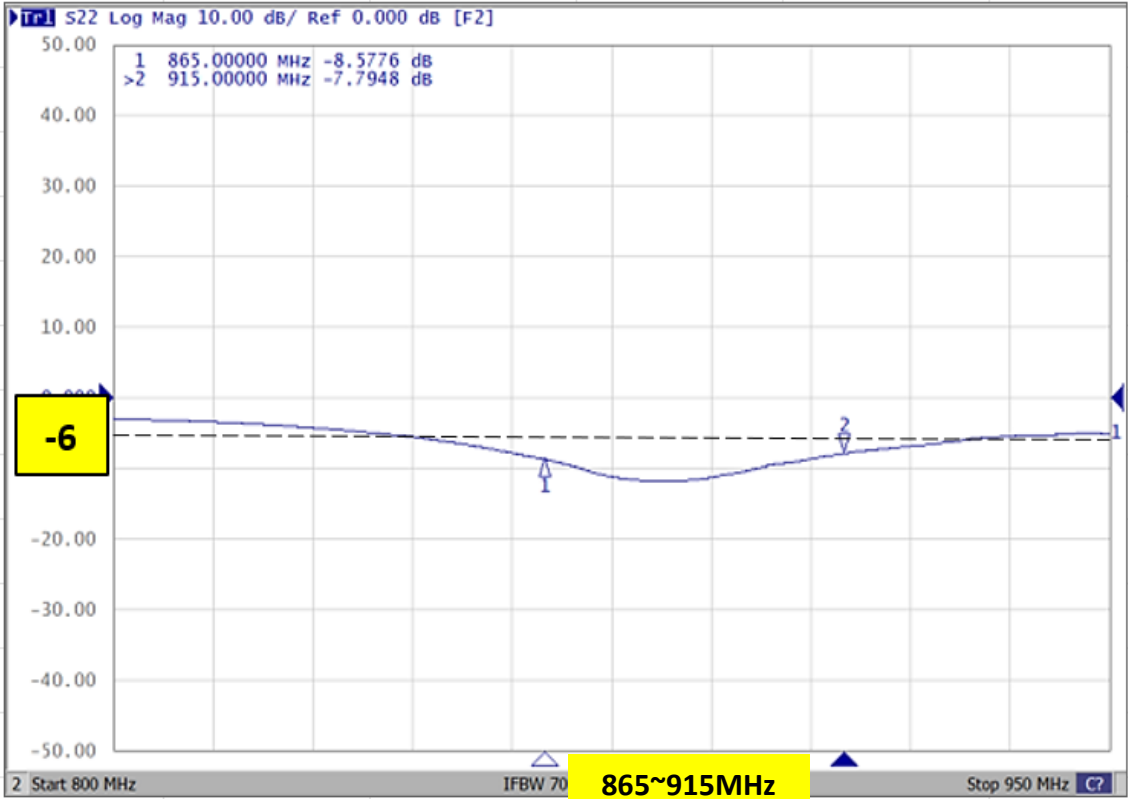


Condition:

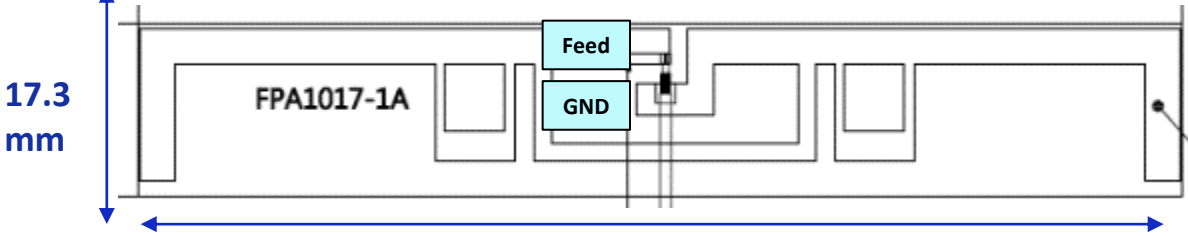
- Assembly: Device + Metal Mounting
- Pattern dimension: 17.3mm*105mm
- Single band 865~915MHz

Return Loss

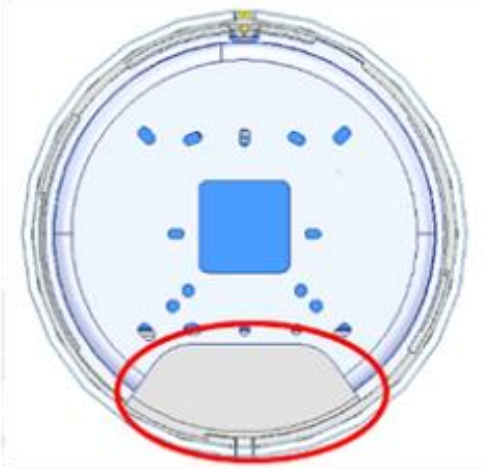
- Present the antenna pattern based on the entire device with metal mounting.
- Antenna: FPC type pasted at the side wall.



Antenna pattern



FPC location

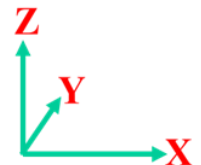
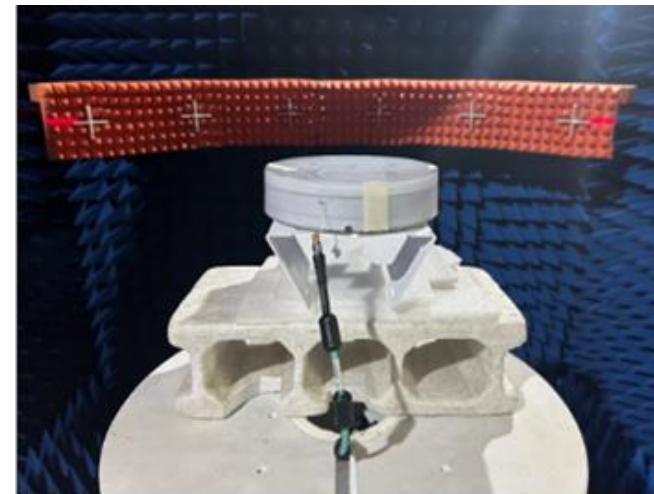
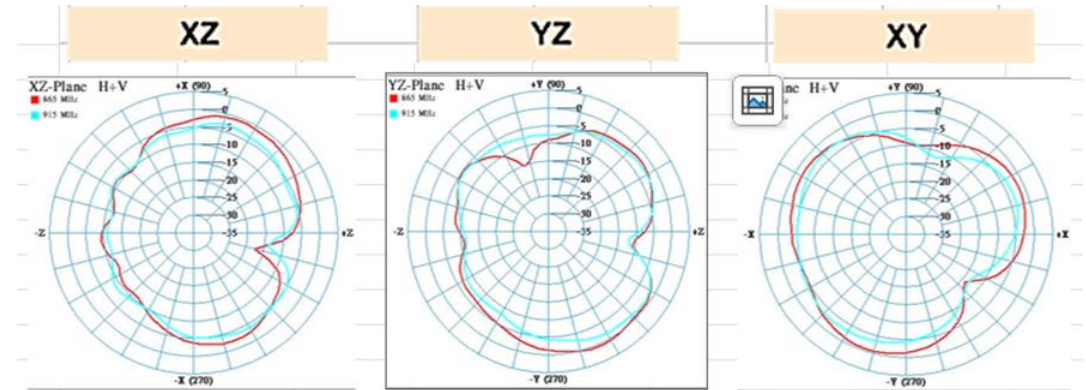


Radiation

Radiation Efficiency

Frequency (MHz)	Metal mounting	
	Efficiency (%)	Peak Gain (dBi)
865.5	44.6%	2.5 dBi
866.6	44.6%	2.5 dBi
867.5	44.6%	2.5 dBi
870.0	48.3%	2.7 dBi
875.0	52.0%	2.9 dBi
880.0	51.3%	2.7 dBi
885.0	55.1%	2.7 dBi
915.00	43.4%	1.7 dBi
915.35	43.4%	1.7 dBi
915.70	43.4%	1.7 dBi

Radiation Pattern



Summary

- This report proposed the optimized patterns based on the device with metal mounting.
- Evaluate the Sub-GHz antenna efficiency is around 40~50%.

Brand	PSA
Manufacture	No. 566-1, Gaoshi Road, Yangmei District, Taoyuan City
Model	EFR32FG23
Frequency Range	865.5MHz to 867.5MHz / 915MHz to 915.7MHz
Antenna Gain(dBi)	865.5/866.5/867.5MHz: Peak gain 2.5dBi
	915/915.35/915.7MHz: Peak gain 1.7dBi
Antenna Type	FPC Type antenna