

**-7RF Antenna-**  
**EPS-421003-LS-01**  
**PCB SMT Cellular Antenna**

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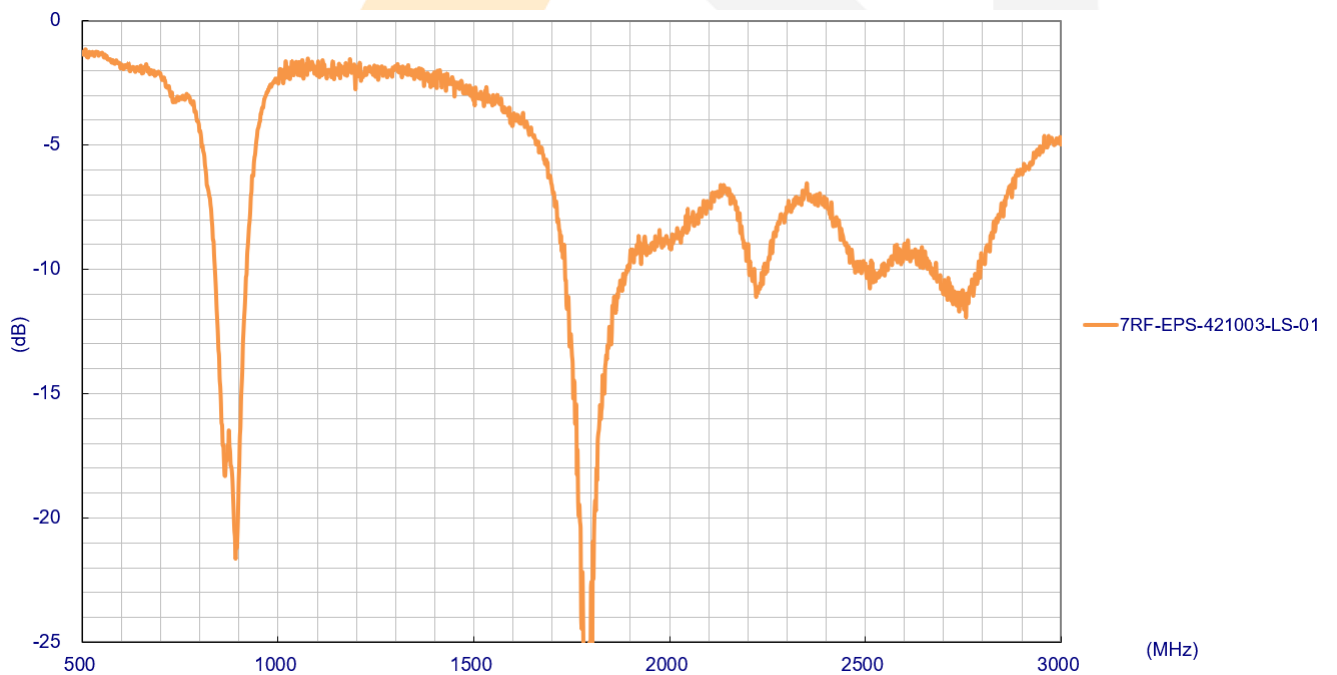


## I. Antenna Specification Table

EPS-421003-LS-01					
Electrical Characteristics					
	GSM850	GSM900	DCS	PCS	WCDMA I
Frequency (MHz)	824-896	880-960	1710-1880	1850-1990	1920-2170
Return Loss (dB)	<-5				
Efficiency (%)	44.92	38.89	64.40	63.08	57.31
Peak Gain (dBi)	1.63	1.54	4.32	1.97	1.93
Average Gain (dBi)	-3.76	-4.33	-1.92	-1.94	-2.44
Polarization	Linear				
Radiation Pattern	Omni-directional				
Mechanical Characteristics					
Dimension (mm)	42 * 10 * 3				
Mounting Type	Direct SMT				
Storage Temperature (°C)	-40~+85				
Operate Temperature (°C)	-40~+85				

## II. Antenna Parameters

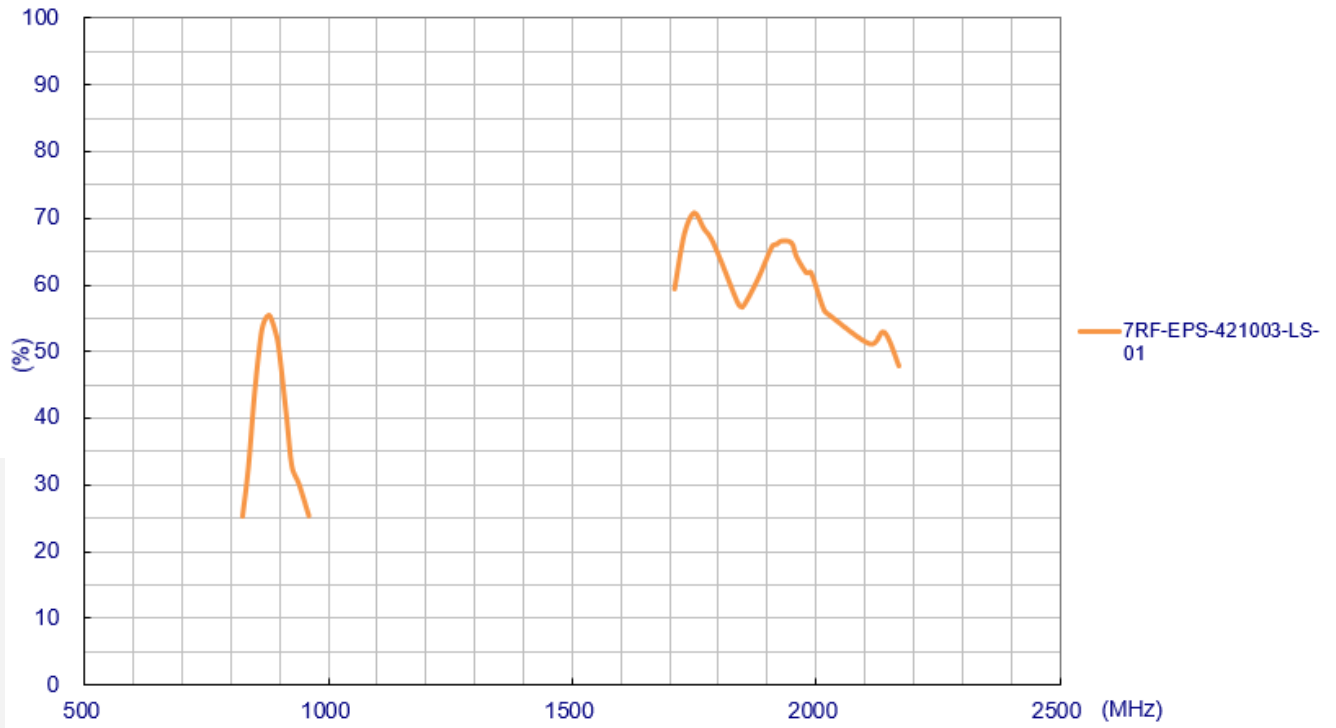
Return Loss:



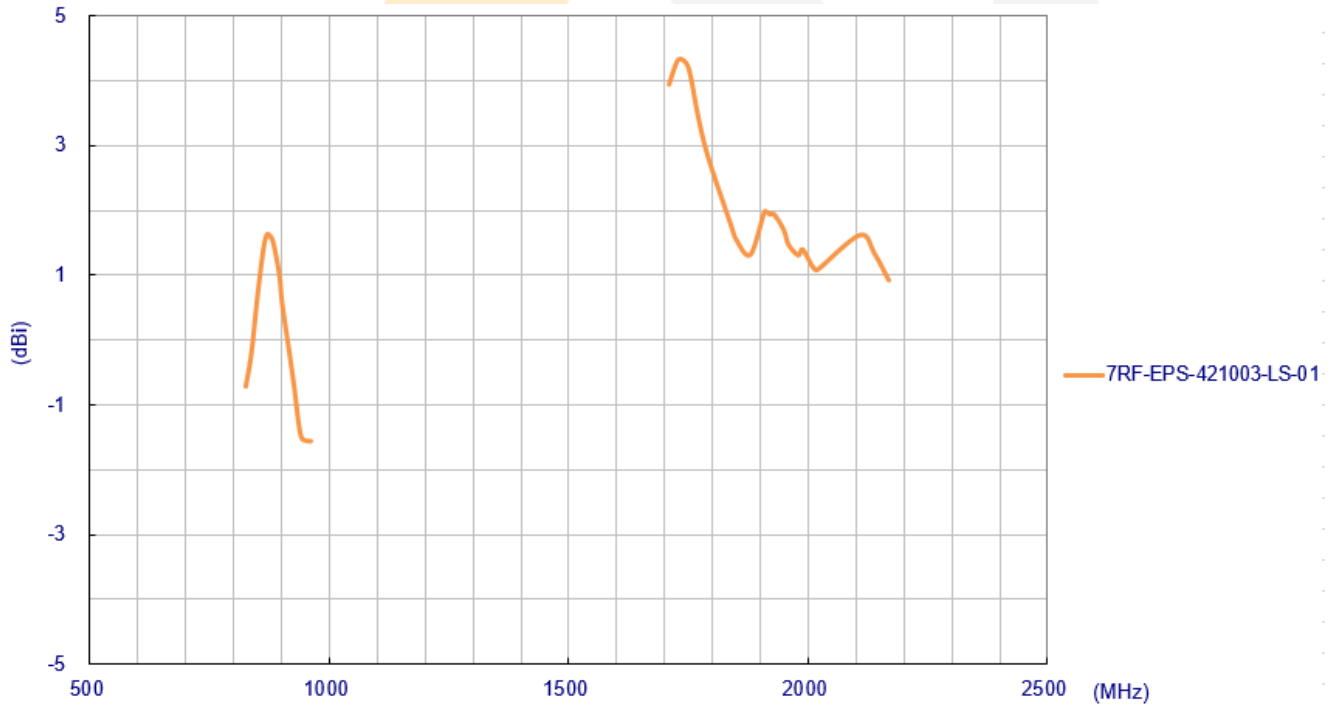
\*ISO-SPEC-19-11-A



Efficiency:



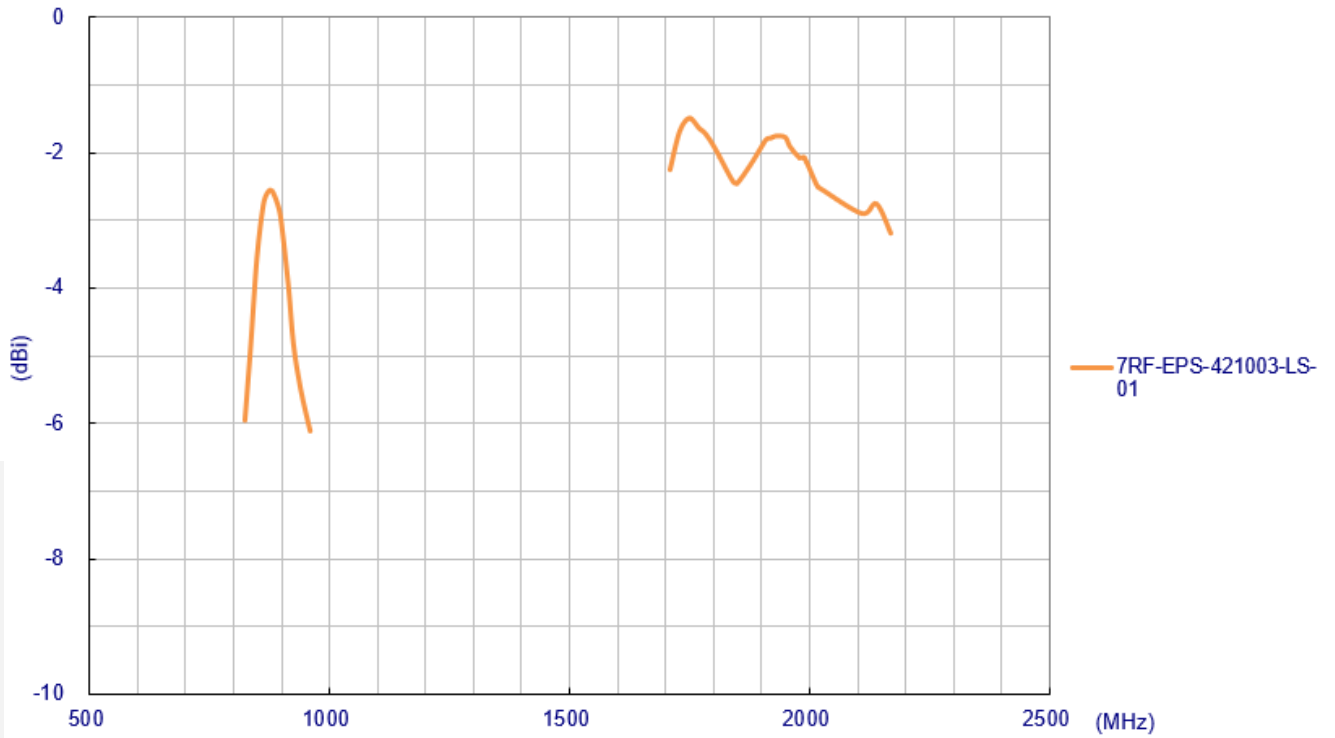
Peak Gain:



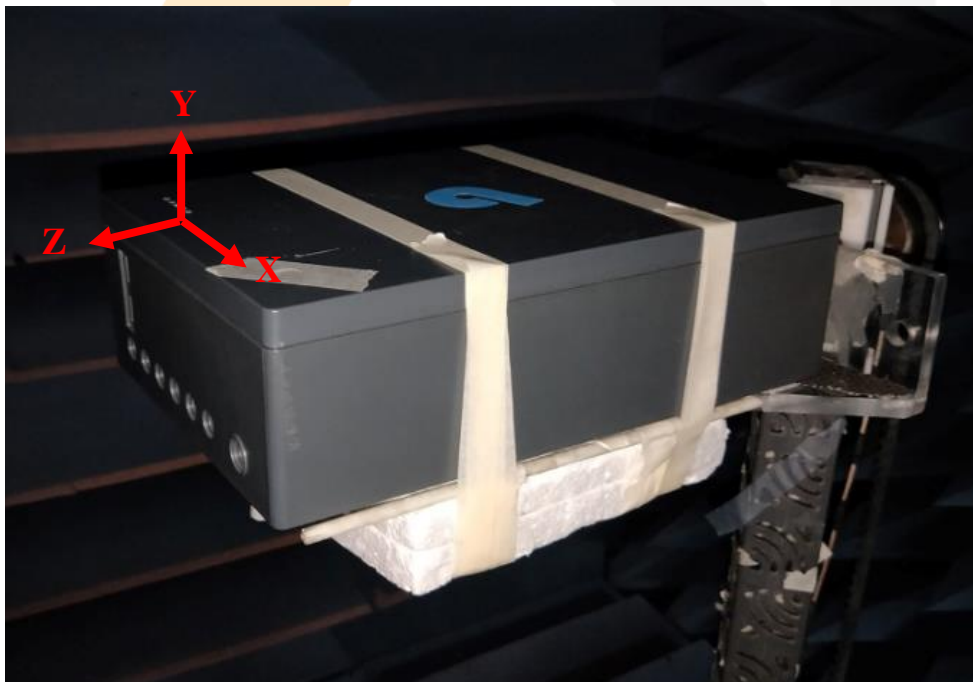
\*ISO-SPEC-19-11-A



Average Gain:

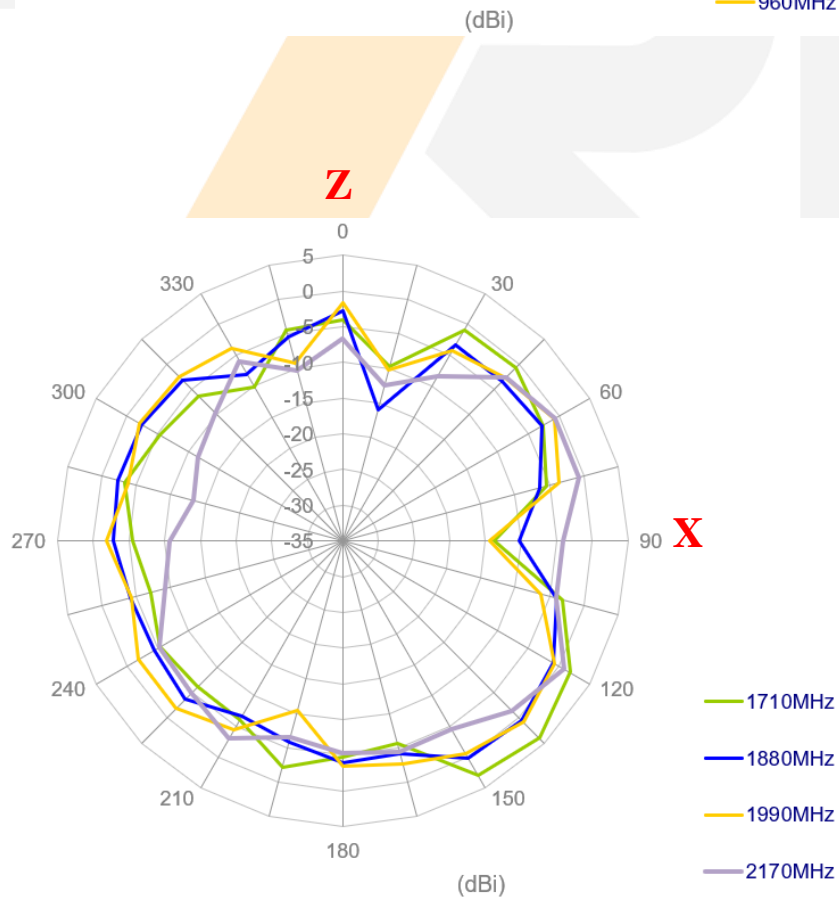
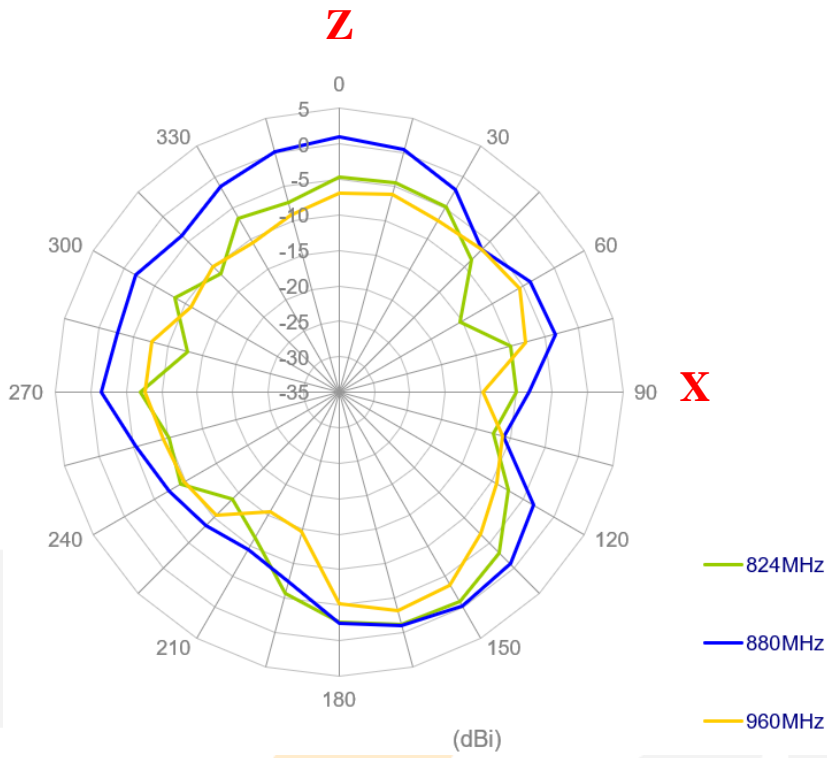


### III. Radiation Pattern

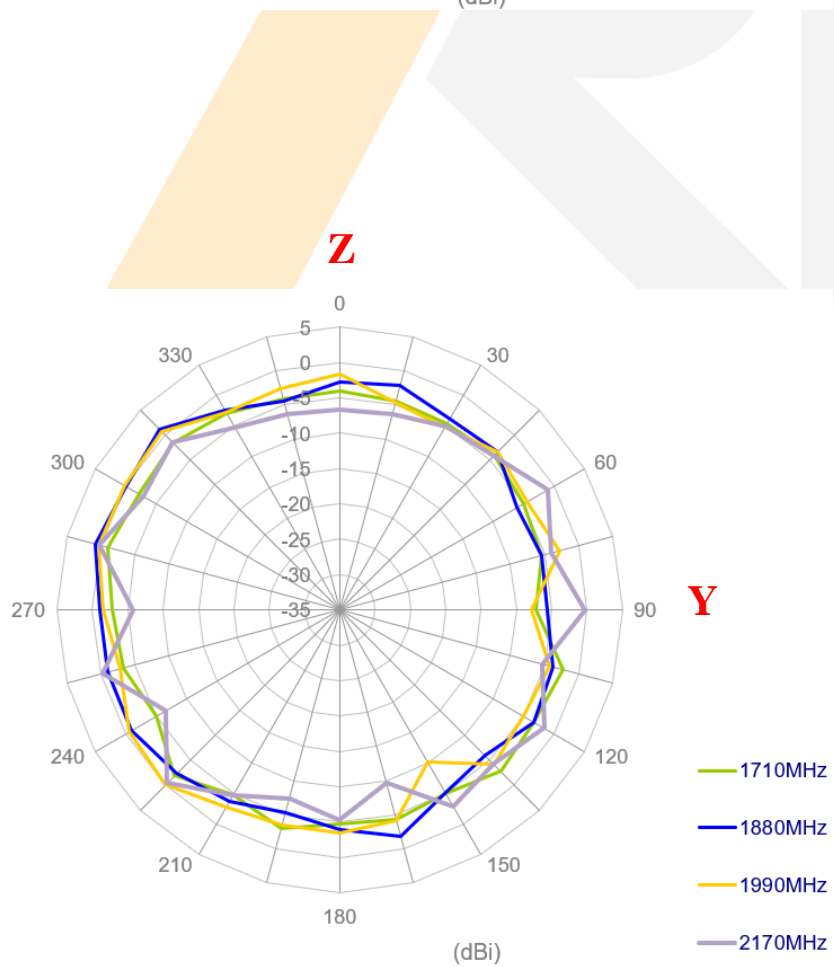
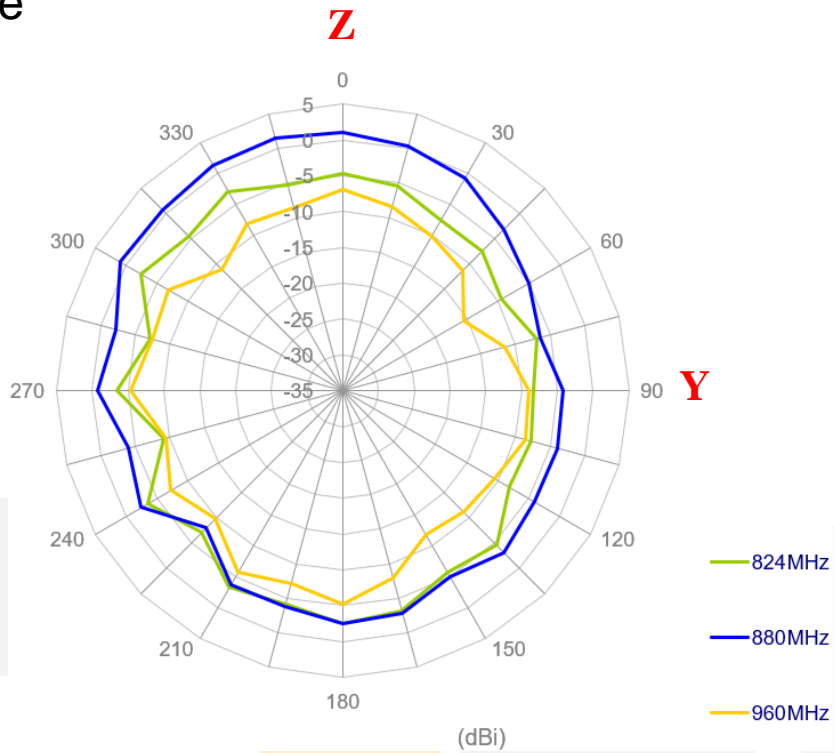


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# XZ-Plane



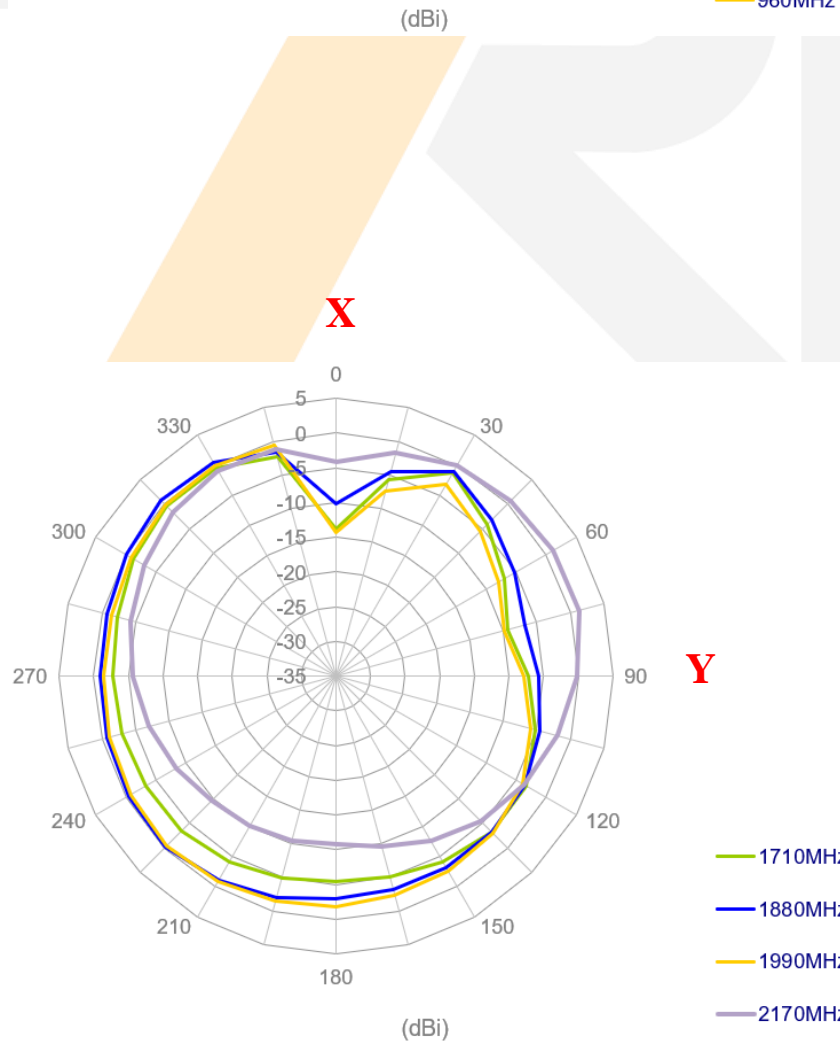
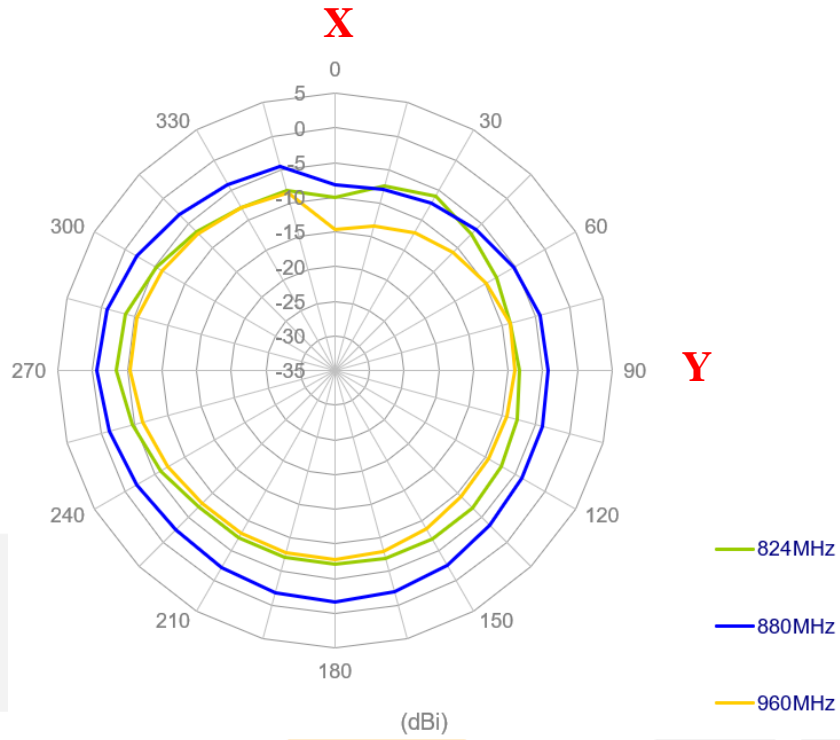
# YZ-Plane



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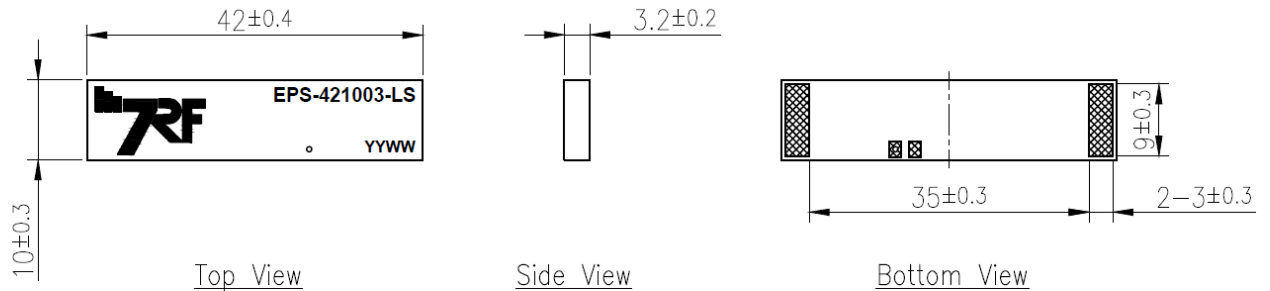
# XY-Plane



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## IV. Antenna Drawing

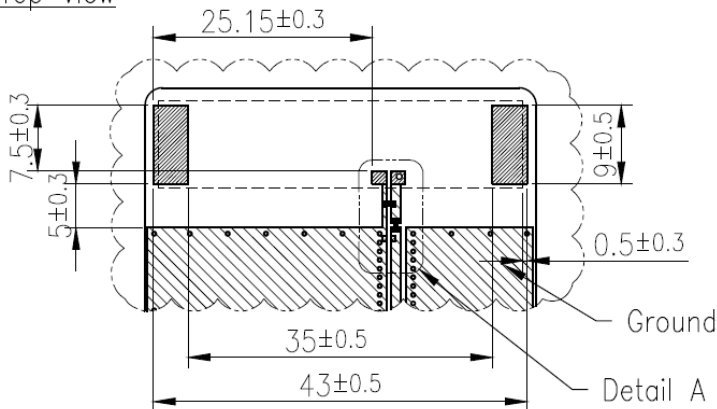


Note:

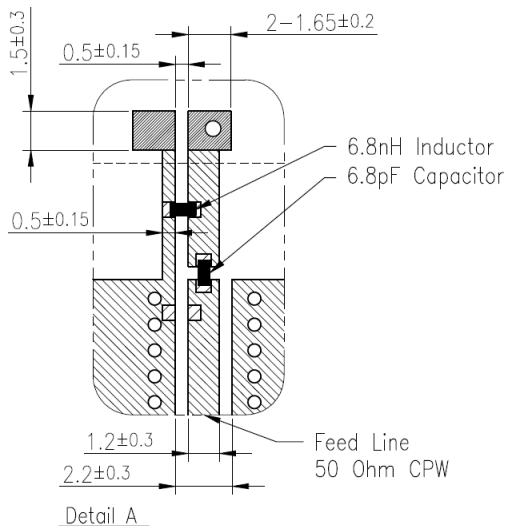
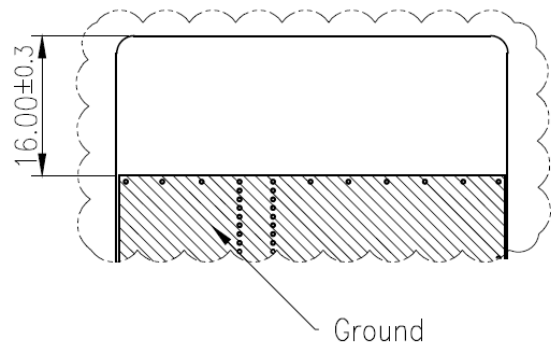
1. Material: High Temperature Composite
2. Finish: Sn Plated
3. Logo & Text Ink Printing : White
4. Soldermask: Black

## V. PCB Footprint Recommendation

Top View



Bottom View



NOTES:

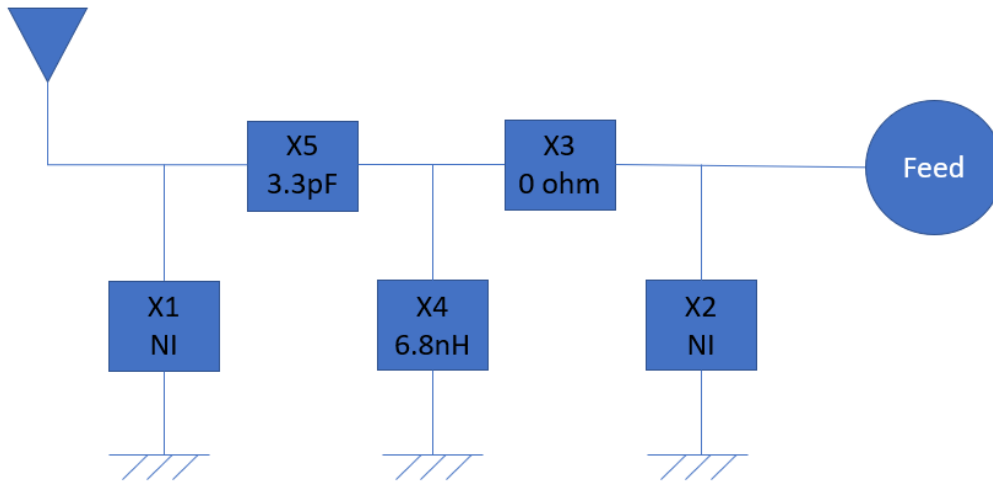
1. Copper Area
2. Solder Area
3. Ground Keepout area
4. Ground keepout should extend through any inner PCB layers and any sides around the antenna till the board edge to minimize coupling from RF feed to ground, except the side facing system ground.
5. Any vias in pads should be either filled or tented to prevent solder from wicking away from the pad during reflow.
6. The dimension tolerances should follow standard PCB manufacturing guidelines

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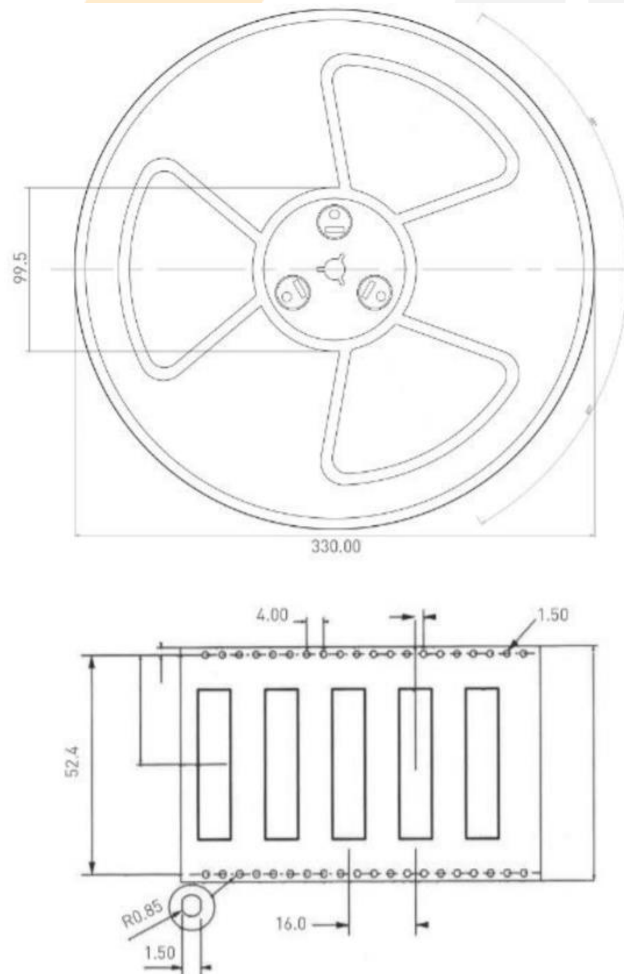


## VI. Reference Matching Circuits



## VII. Packaging Method

1k pieces/ reel  
1 reel/ 1 vacuum bag



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