

# Airgain® ))))

Customer Name & Project: Slimca2

Prepared By: Chris

Date: 22<sup>nd</sup> Aug 2023

Airgain Project Code:

# Introduction

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- Airgain proposes a FPC antenna solution1 for Slimca2

# DUT Description

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- Total 1 antenna need to be integrated into limited housing space:

- 2.4GHz Signal Band Antenna \*1

Ant1 Frequency Range : 2400-2490 (MHz)

- Passive measurement results are presented

# Summary of Requirements

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- Return Loss:  
<-10dB

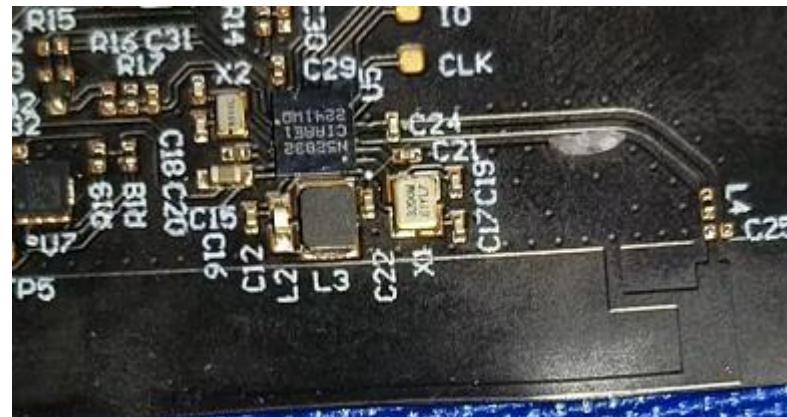
# Airgain Antenna System Proposal

# Antenna System Proposal

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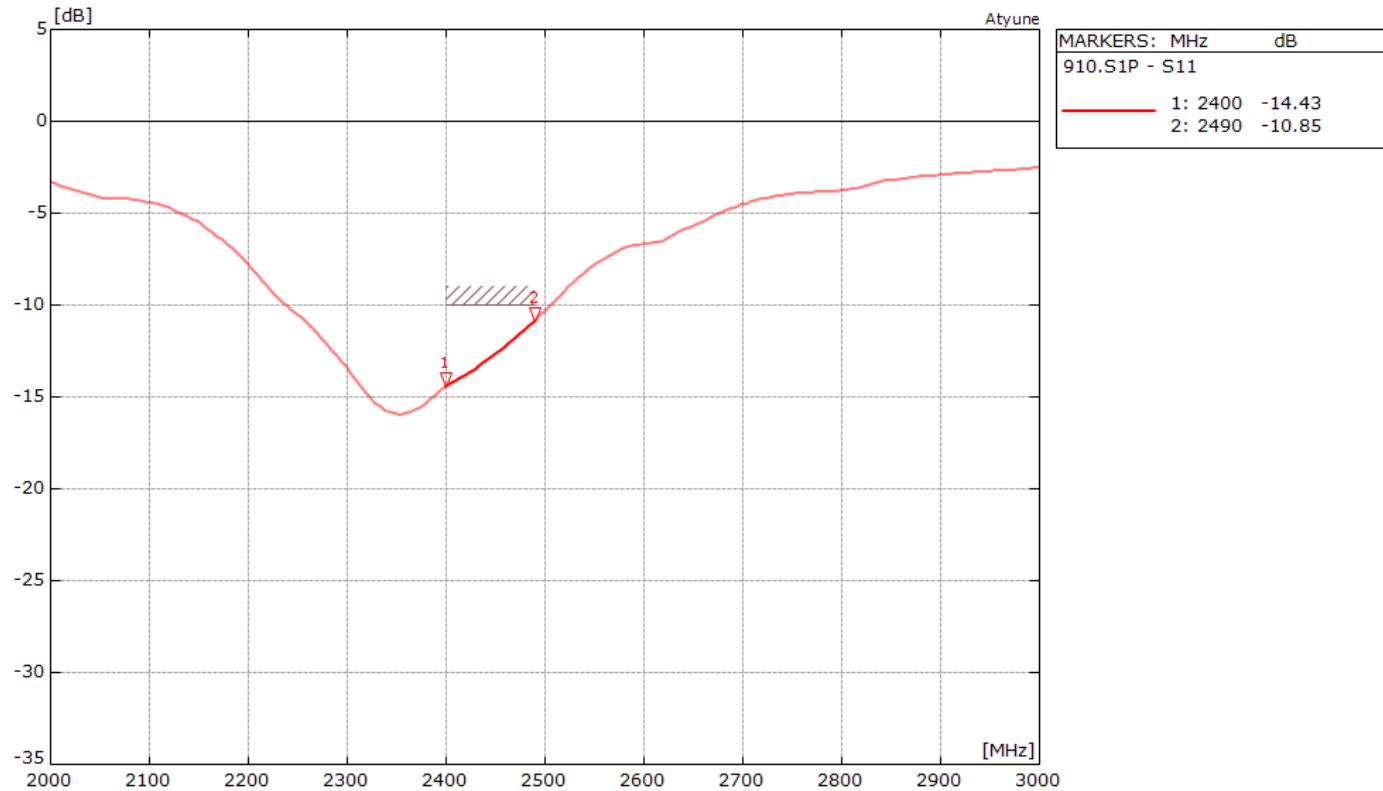
Antenna #	Part Number
ANT_2.4G	TBD



# S-Parameters

# Reflection Coefficient for 2.4GHz Signal Band Antennas

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# Radiated Measurements

# Antenna Peak Gain & Efficiency – 2.4 GHz Wi-Fi Antennas

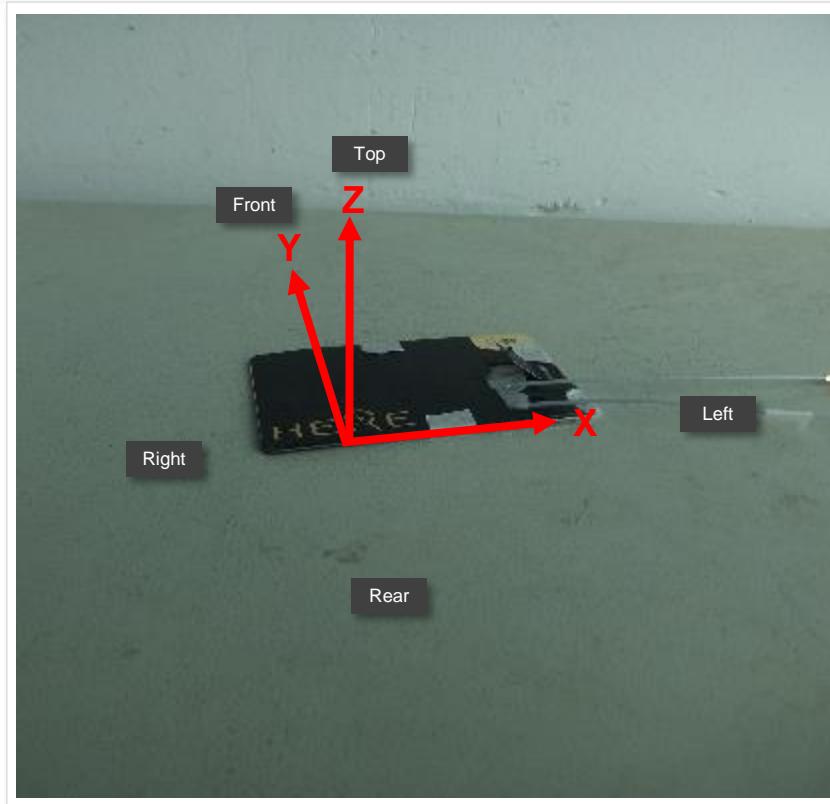
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Frequency (MHz)	Peak Gain (dBi)	Efficiency (%)
2400	0.8	26.1
2410	1.0	27.1
2420	0.9	27.1
2430	0.9	27.3
2440	1.1	27.9
2450	1.1	27.8
2460	1.0	27.7
2470	1.1	28.2
2480	1.1	28.1
2490	1.1	27.9
Average	-	27.5

# Radiation Patterns

# Coordinate System for Radiation Pattern Visualization

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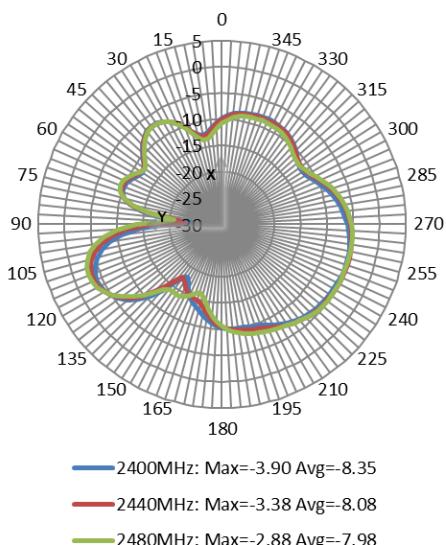


*Orientation of Slimca2*

# Total Gain Patterns: Antenna\_2G4

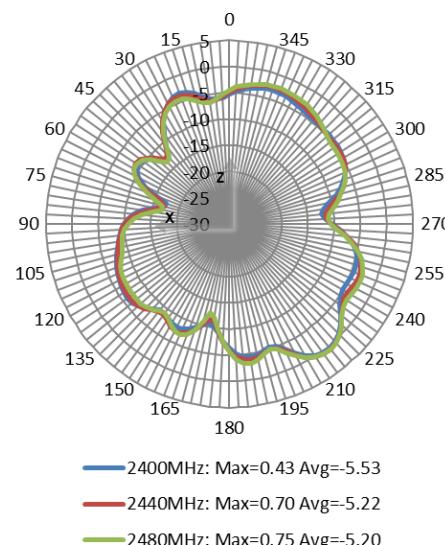
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Antenna\_2G4 Azimuth XY



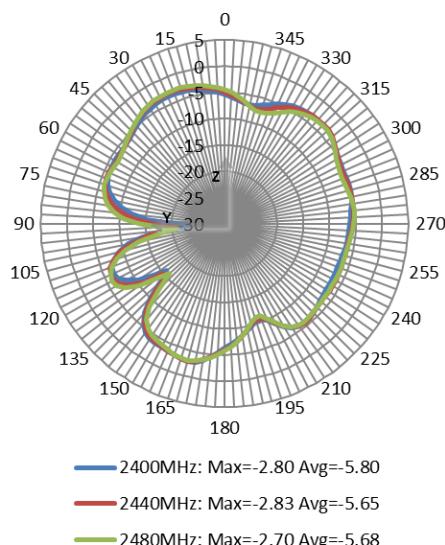
Azimuth (XY)

Antenna\_2G4 Elevation XZ

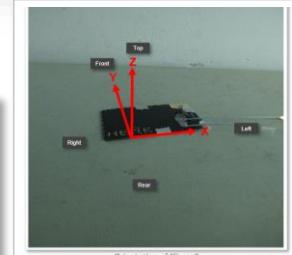


Side to Side (XZ)

Antenna\_2G4 Elevation YZ



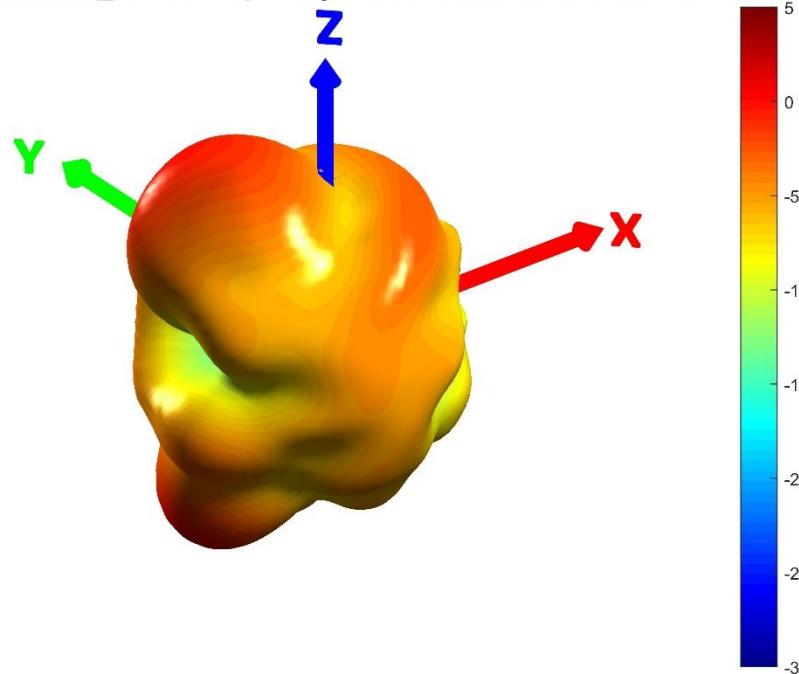
Front to Back (YZ)



# Total Gain 3D Pattern: Antenna\_2G4 at 2440MHz

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Slimca2 Antenna\_2G4: Frequency = 2440 MHz Max Gain= 1.1 dBi



- Return Loss :  
2.4G antenna < -10dB
- Average efficiency > -27.5%