

PSA

PASSIVE SYSTEM ALLIANCE  
WALSIN TECHNOLOGY CORPORATION

# 明泰RG-18

Presented by

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Version	Date	Description	Author
V01	2021/10/06	New Release	Ethan
V02	2021/10/08	不使用 $\pi$ 型電路Matching阻抗, 重新調測天線	Ethan

# OUTLINE

## 1. Measurement Information

1.1 Experimental Setup

1.2 Antenna Solution Detail

## 2. Antenna Characteristics

2.1 Return Loss

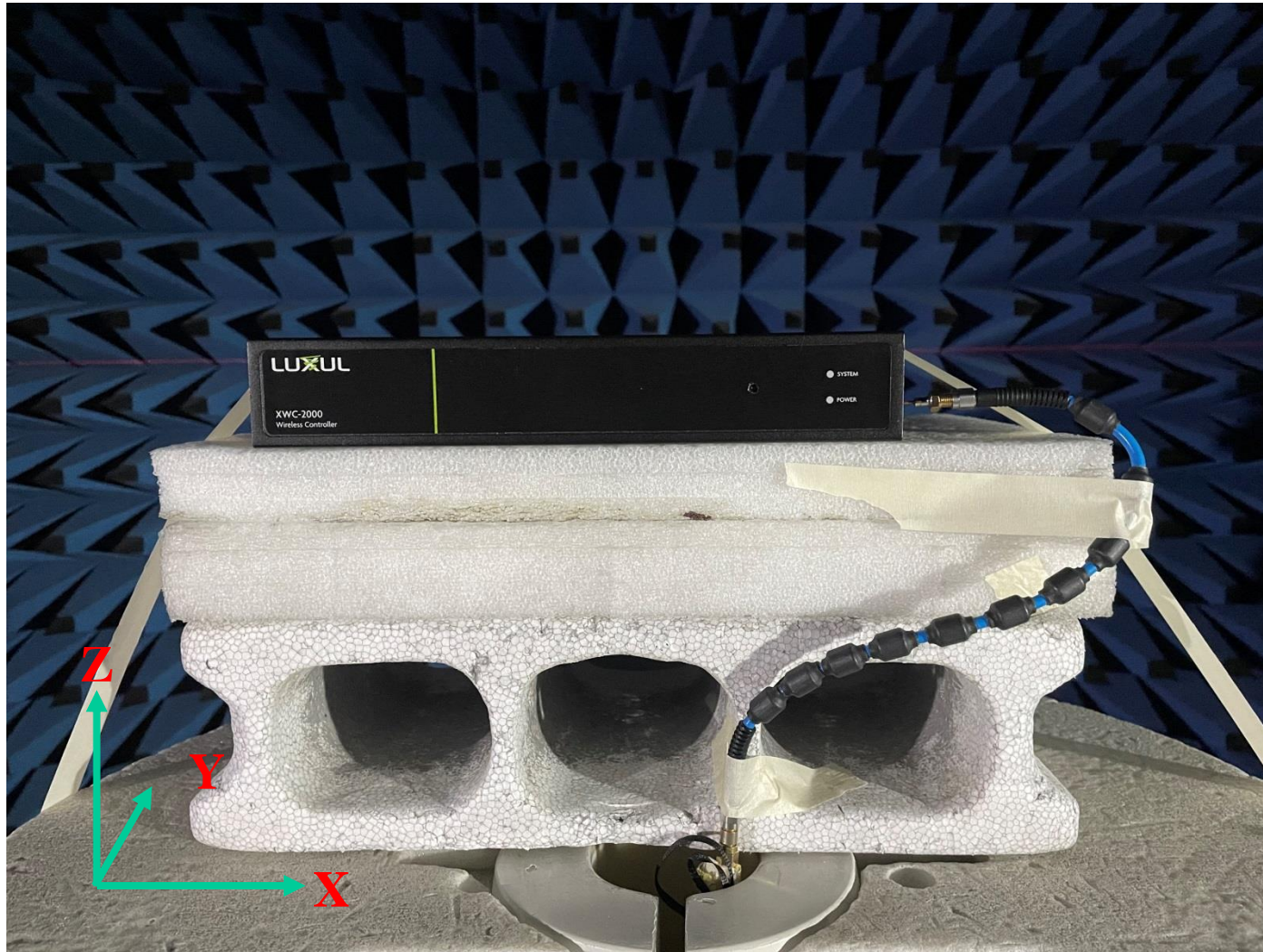
2.2 Antenna Efficiency and Peak Gain

2.3 3 views of antenna & 2D Radiation Patterns

## 3. Summary

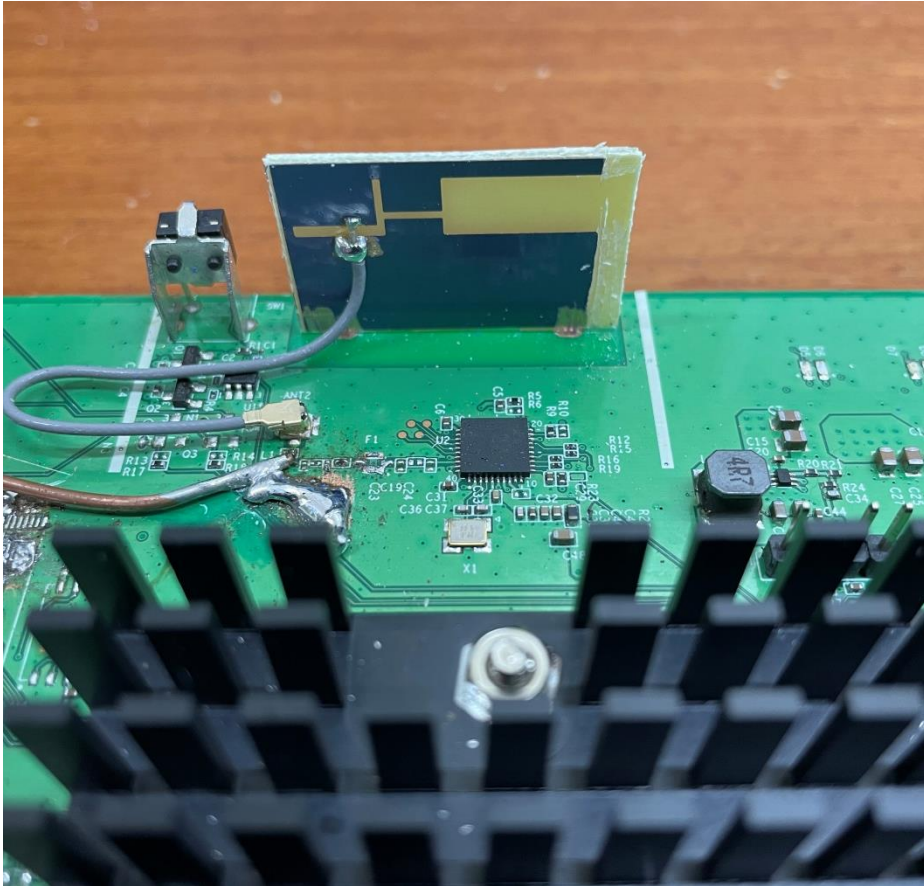
# 1. Measurement Information

## 1.1 Experimental Setup



# 1. Measurement Information

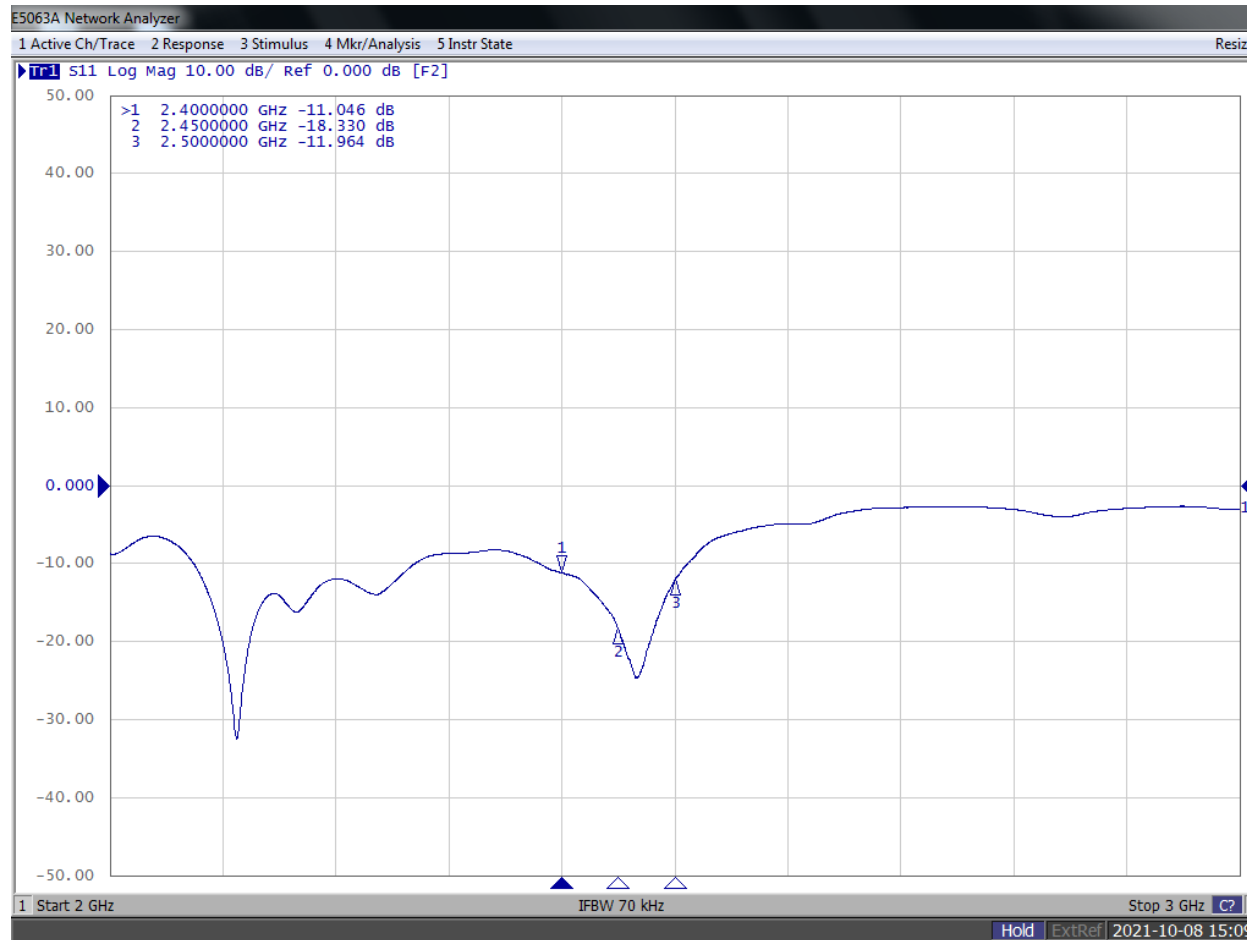
## 1.2 Antenna Solution Detail



Cable length:  
 $1.13 \times 70\text{mm}$

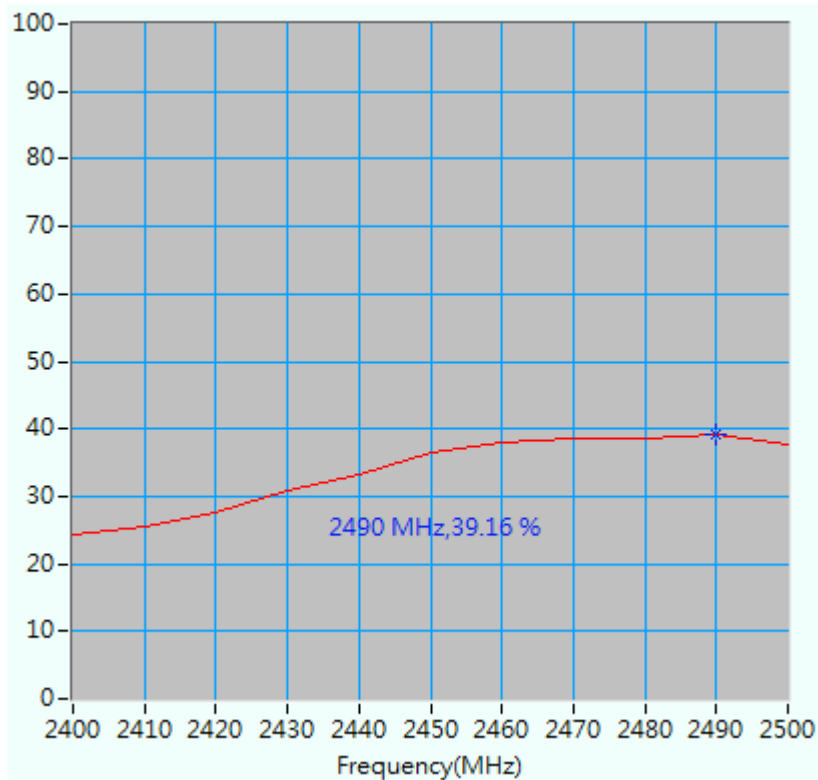
## 2. Antenna Characteristics

### 2.1 Return Loss

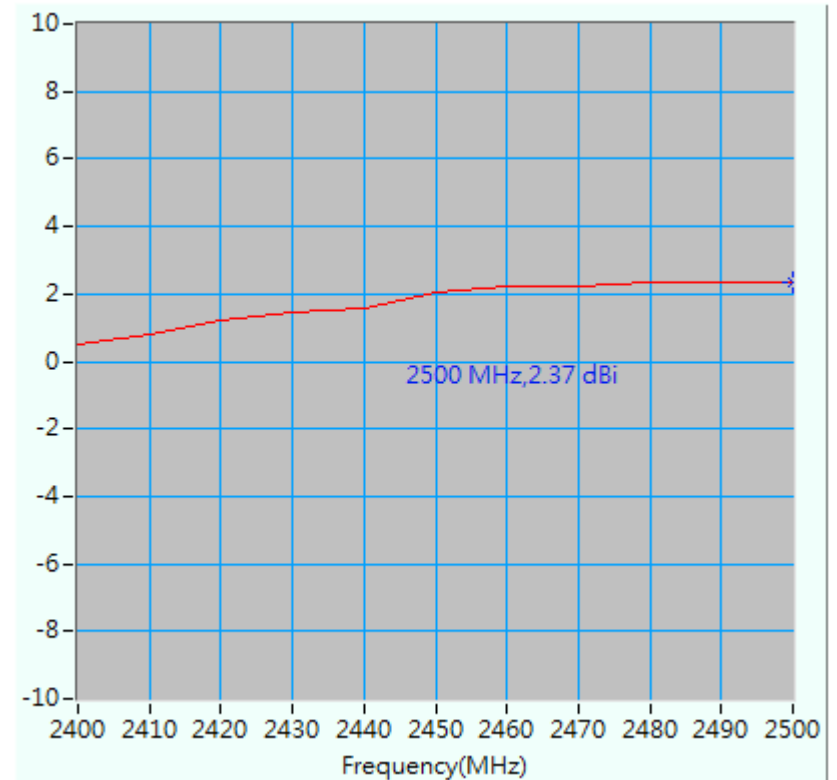


## 2. Antenna Characteristics

### 2.2 Antenna Efficiency and Peak Gain



Maximum Efficiency at 2490 MHz : 39.1 %



Maximum Peak Gain at 2500 MHz : 2.37 dBi



## 2. Antenna Characteristics

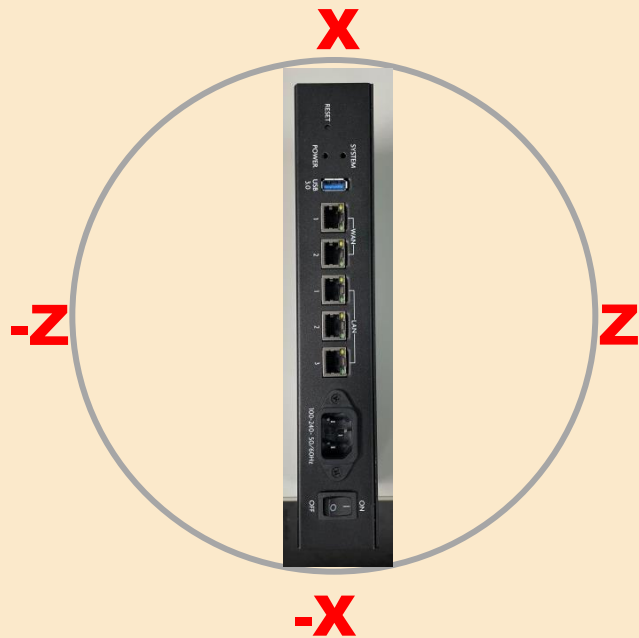
### 2.2 Antenna Efficiency and Peak Gain

	RG-18	
Frequency (MHz)	Efficiency (%)	Peak gain (dBi)
2400	24.2	0.52
2450	36.4	2.06
2500	37.7	2.37

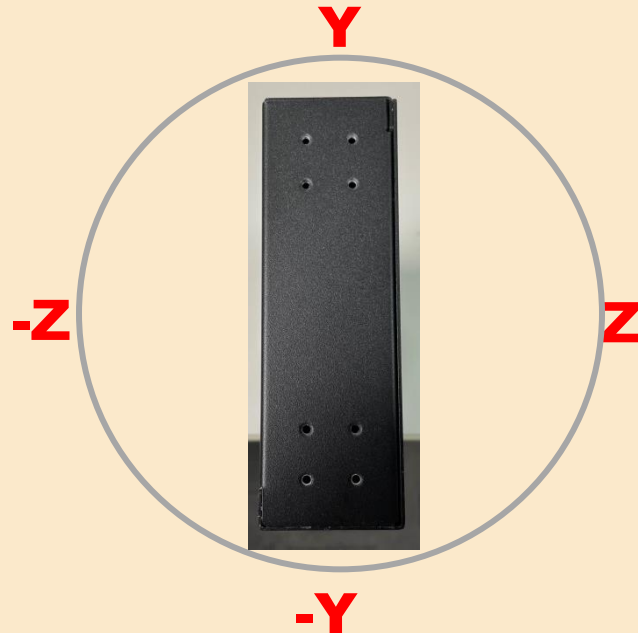
## 2. Antenna Characteristics

### 2.3 3 views of antenna

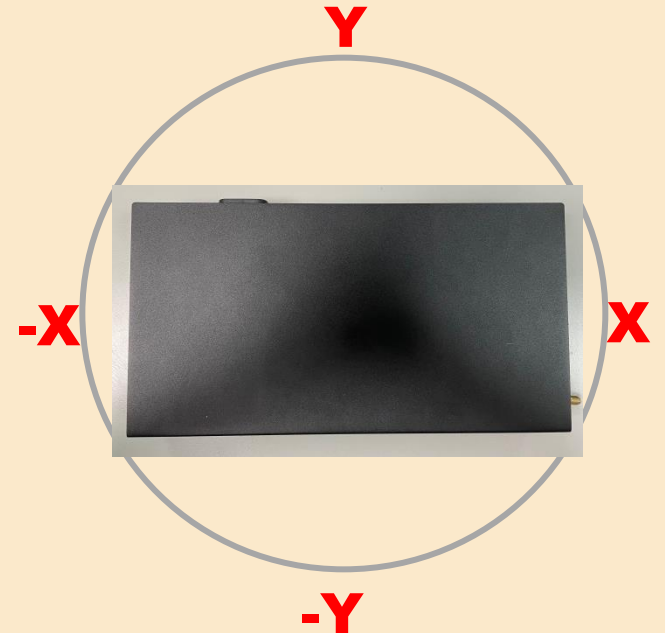
X-Z plane



Y-Z plane

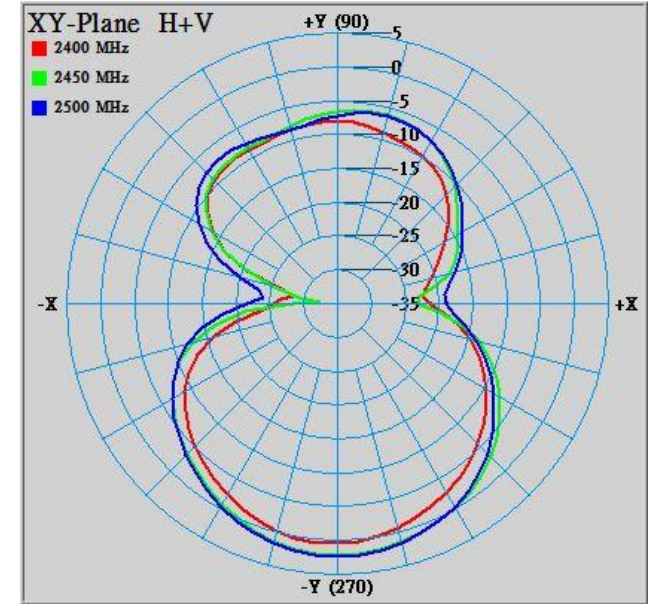
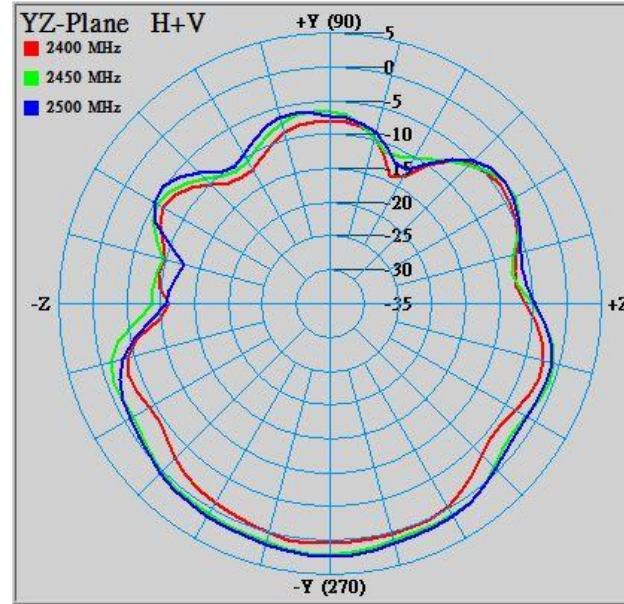
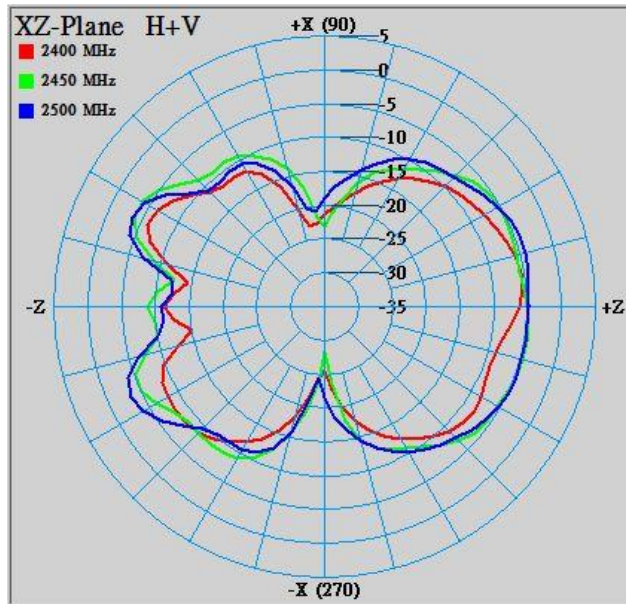


X-Y plane



## 2. Antenna Characteristics

### 2.3 2D Radiation Patterns



	ZX plane		ZY plane		XY plane	
Frequency [MHz]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]	Max Value [dB]	Average [dB]
2400	-5.62	-10.26	0.51	-3.91	0.46	-6.17
2450	-3.84	-8.08	2.07	-2.27	2.07	-4.33
2500	-3.42	-7.91	2.37	-2.12	2.30	-4.17

### 3. Summary

- The performance of antennas is shown in table

	<b>RG-18</b>
<b>Maximum Efficiency (%)</b>	<b>39.1</b>
<b>Maximum Gain (dBi)</b>	<b>2.37</b>

# Thank you

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