

# DAPX-30600U Embedded Antenna

2.4G x 2 / 5G x 2



## ✓ RF Specification

Port	Ant-1	Ant-2	Ant-3	Ant-4
Frequency Range	4900~5875	4900~5875	2400~2500	2400~2500
Polarization	Horizontal	Vertical	Vertical	Horizontal
Peak Gain	4.5~5.5	5.3~7.9	4.8~5.0	3.0~3.4
Efficiency	57~62%	58~66%	67~70%	54~57%
VSWR	2.0 Typ.:1	2.0 Typ.:1	2.0 Typ.:1	2.0 Typ.:1
Cable Length	160mm	340mm	185mm	345mm

## ✓ Environmental & Mechanical Characteristics

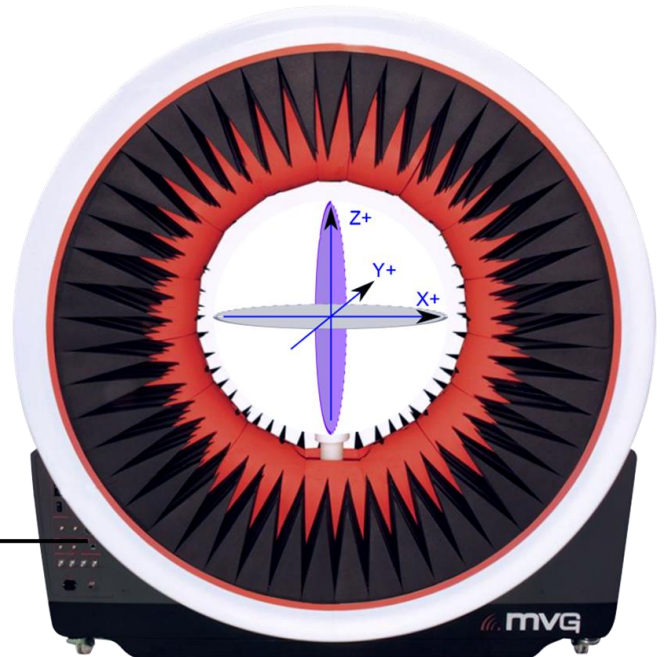
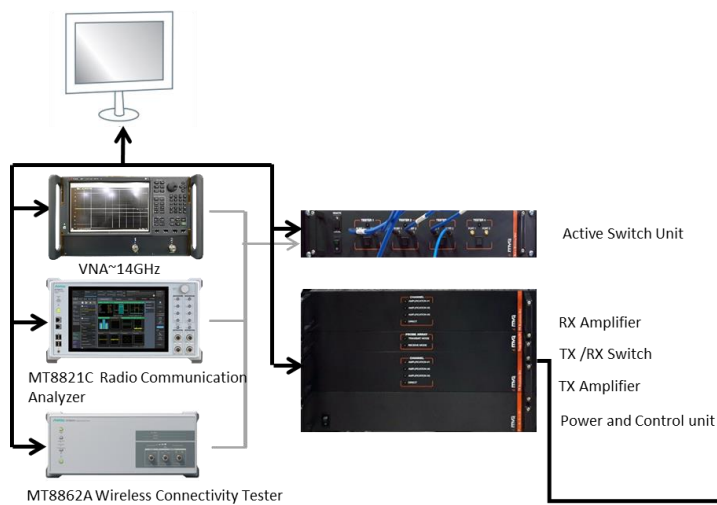
- Temperature: -30°C to +70°C
- Humidity: 95% @55°C
- Weight: 730g
- Antenna Housing Material: PC
- Dimensions: 235.7(L)x272.7(W)x 49.51(H)mm(W/O Mount)

# Antenna Testing Setup and Orientation



## 3D OTA Chamber-SATIMO Starlab® 2019

Polarization diagram



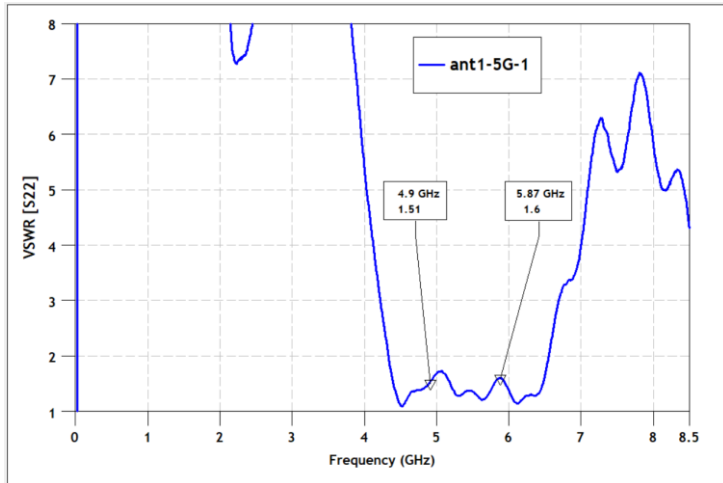
Satimo StarLab System

# Performance Summary

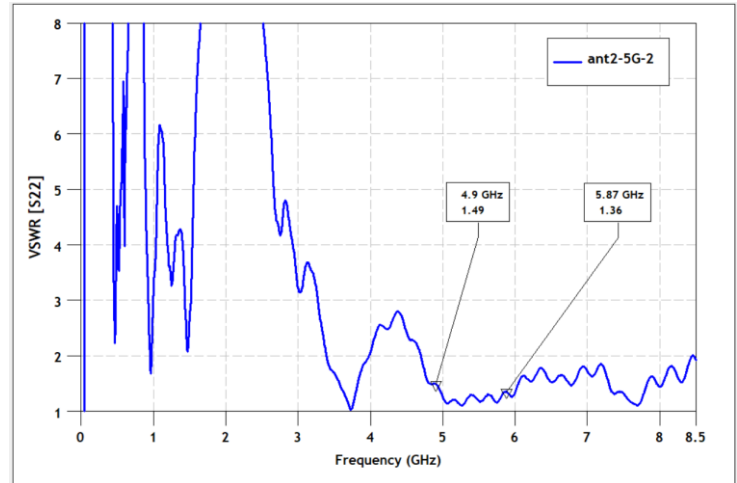
## VSWR 2400-2500 / 4900~5875 MHz

Frequency(MHz)	2400~2500	4900~5875
VSWR	2.0 Typ.:1	2.0 Typ.:1

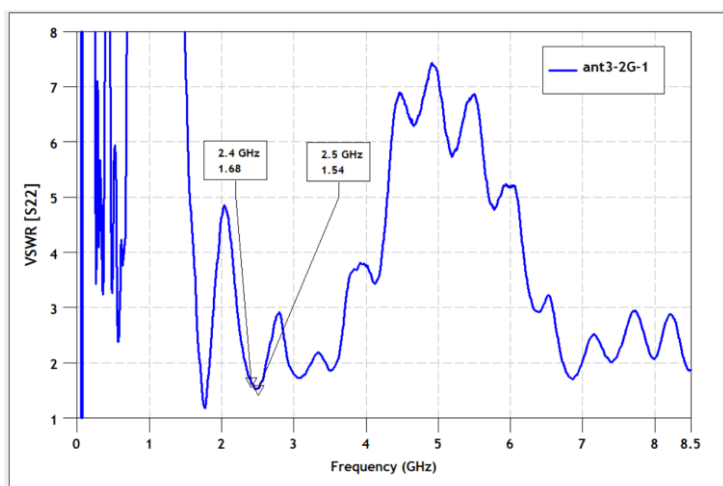
### ANT#1 5G(H)



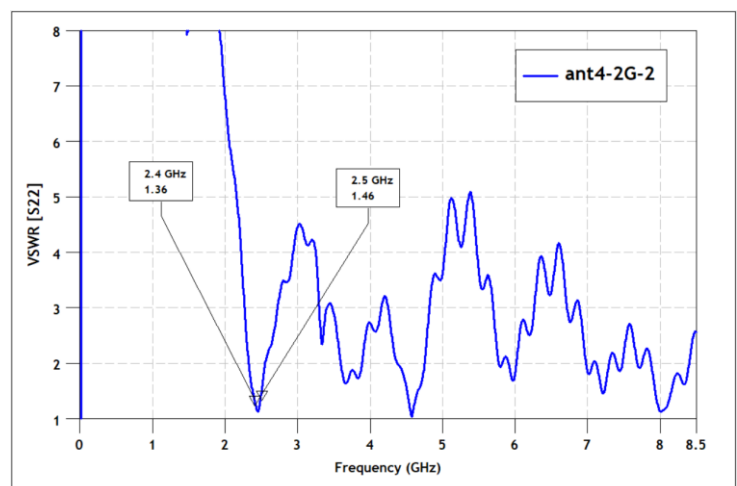
### ANT#2 5G(V)



### ANT#3 2.4G(V)



### ANT#4 2.4G(H)

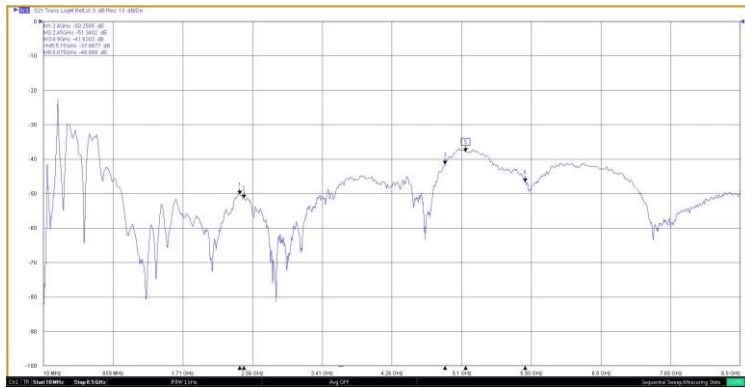


# Performance Summary

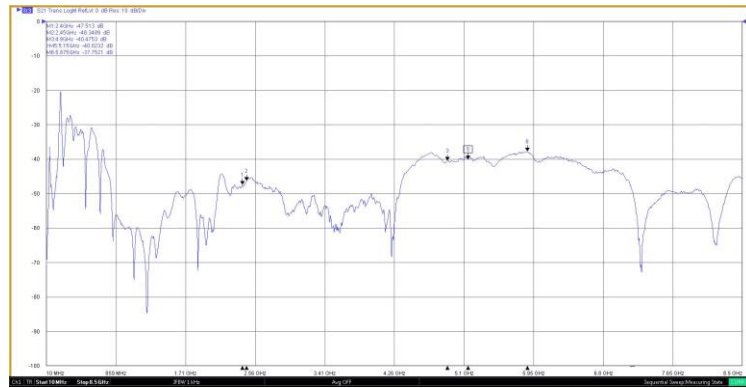
## Isolation

In-band Isolation between antennas	ANT#1 5-H	ANT#2 5-V	ANT#3 2.4 -V	ANT#4 2.4 -H
ANT#1 5-H		-37 dB	-37 dB	-42 dB
ANT#2 5-V	-37 dB		-36 dB	-41 dB
ANT#3 2.4 -V	-37 dB	-36 dB		-41 dB
ANT#4 2.4 -H	-42 dB	-41 dB	-41 dB	

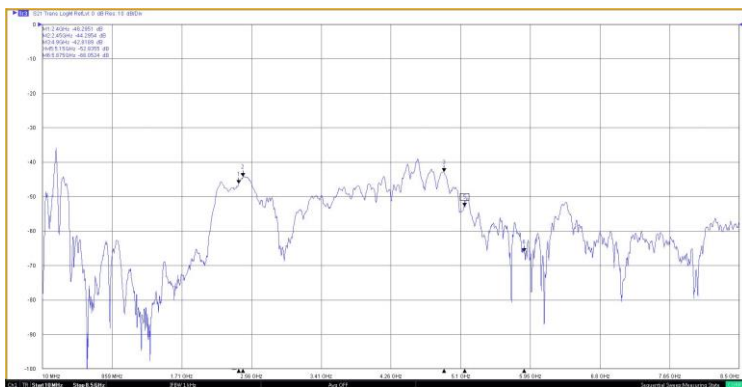
### S12



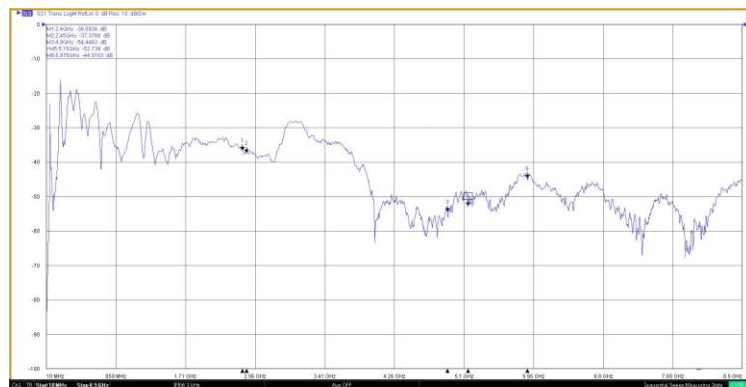
### S13



### S14



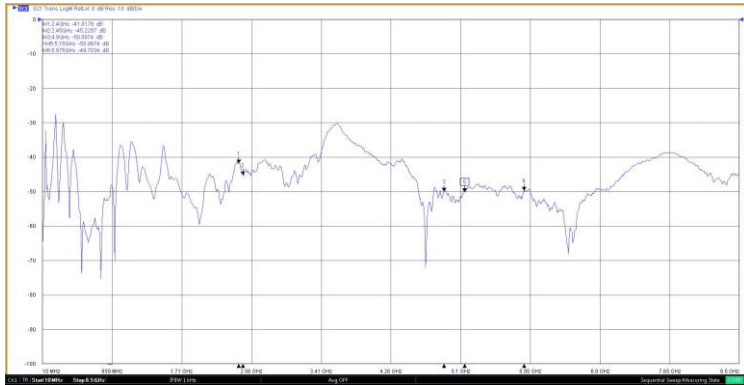
### S23



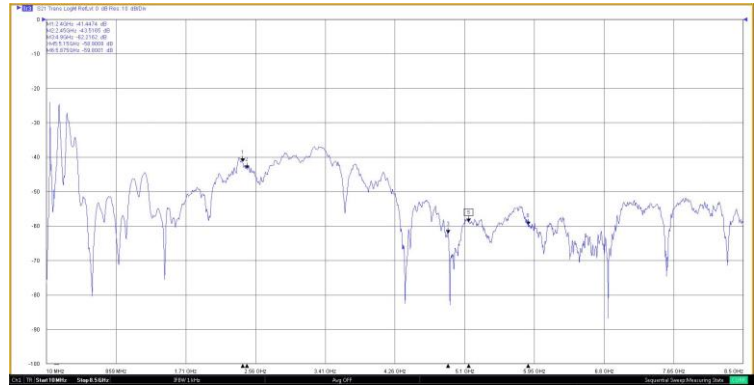
# Performance Summary

## Isolation

S24



S34





# Performance Summary

## Gain Table

ANT#1 5G(H)

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
4900	59%	-2.3	5.5
5150	61%	-2.2	5.4
5350	62%	-2.1	5.1
5475	61%	-2.2	4.6
5725	60%	-2.2	4.1
5875	57%	-2.4	4.5

ANT#2 5G(V)

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
4900	62%	-2.1	5.3
5150	66%	-1.8	5.5
5350	65%	-1.9	5.8
5475	64%	-1.9	6.3
5725	61%	-2.1	7.3
5875	58%	-2.4	7.9

ANT#3 2.4G(V)

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400	70%	-1.5	5.0
2450	67%	-1.7	4.8
2500	68%	-1.7	4.9

ANT#4 2.4G(H)

Frequency (MHz)	3D		
	Efficiency	Avg. Gain	Peak Gain
2400	57%	-2.4	3.1
2450	57%	-2.4	3.4
2500	54%	-2.6	3.0

## 3D Peak gain & above 30 elevation degree

Frequency (MHz)	2G-1		2G-2		5G-1		5G-2	
	Peak Gain	Peak gain Above 30 elevation degree	Peak Gain	Peak gain Above 30 elevation degree	Peak Gain	Peak gain Above 30 elevation degree	Peak Gain	Peak gain Above 30 elevation degree
2400	3.1	-2.8	5.0	1				
2450	3.4	-2.5	4.8	1				
2500	3.0	-2.6	4.9	0.7				
5150					5.4	-2.0	5.5	-2.0
5500					4.3	-0.4	6.1	-3.4
5850					3.4	1.4	7.3	-2.9

# Radiation Pattern

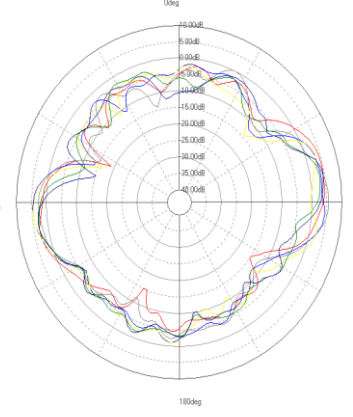
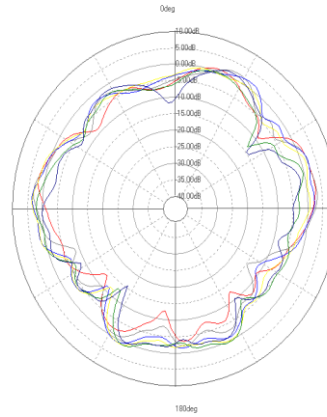
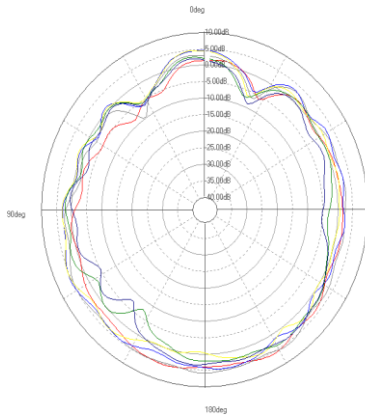
## XY-plane

## YZ-plane

## ZX-plane

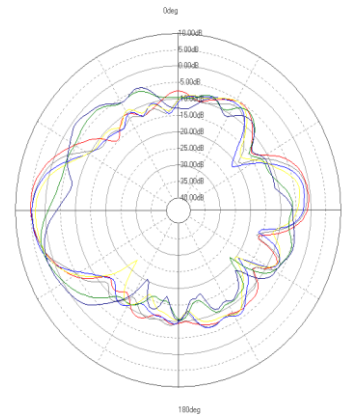
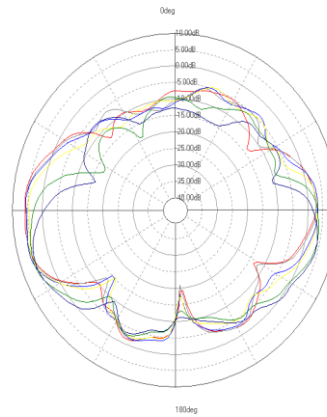
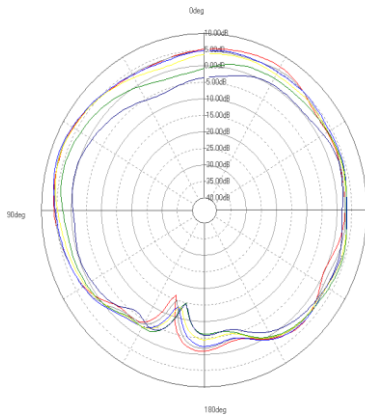
### ANT#1 5G(H)

- Legend
- 4900(MHz)
  - 5150(MHz)
  - 5350(MHz)
  - 5475(MHz)
  - 5725(MHz)
  - 5875(MHz)



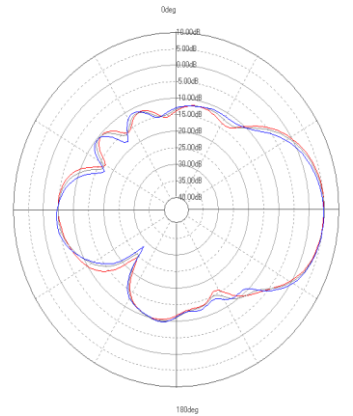
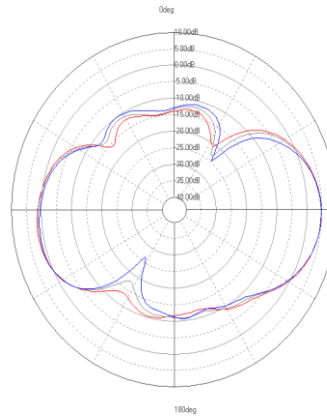
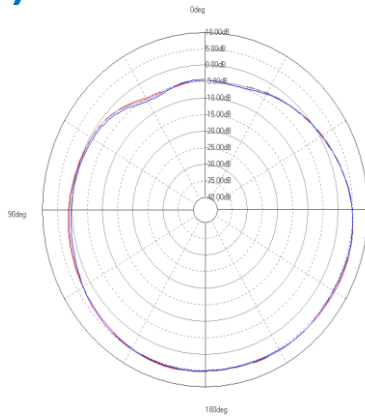
### ANT#2 5G(V)

- Legend
- 4900(MHz)
  - 5150(MHz)
  - 5350(MHz)
  - 5475(MHz)
  - 5725(MHz)
  - 5875(MHz)



### ANT#3 2.4G(V)

- Legend
- 2400(MHz)
  - 2450(MHz)
  - 2500(MHz)



### ANT#4 2.4G(H)

- Legend
- 2400(MHz)
  - 2450(MHz)
  - 2500(MHz)

