TAOGLAS®

Datasheet

Part No:
GW55.A.07.B.001

Description:

2*Wi-Fi® MIMO 2.4/5.8/7.125GHz Swivel Mount Antenna 2 Cables

Features:

Compact Swivel Mount Housing – Mounts to router through hole

2* Wi-Fi® (including Wi-Fi® 6) MIMO 2.4GHz/5.8/7.1GHz

Cable: 150mm of 0.81mm

Connectors: I-PEX MHF®I (U.FL)

Dimensions: 167 * 23 * 13 mm

RoHS & Reach Compliant

Ireland & USA
ISO 9001:2015
Certified

Taiwan
ISO 9001:2015
Certified

IATF16949

1. Introduction

The GW55 is a revolutionary Wi-Fi® MIMO antenna, it allows one terminal enclosure to be used for 2 different antenna feeds. At Taoglas, we consistently push the boundaries of antenna design with our various styles and form factors. With the GW55 we are helping customers regain board real estate by combining 2 off-board antennas into one compact enclosure for optimizing Wi-Fi® MIMO applications.

The GW55 allows customers to utilize one typical antenna enclosure but with 2 antennas internally. The GW55 allows a customer to connect their modem and antennas via cables and connectors as opposed to having 2 different SMA connections on the edge of a router we have one mechanical connection with 2 RF connections via cable and connectors on the inside.

Typical Applications Include:

- Gateways and Routers
- Point of Sale Kiosks
- Smart Home
- Office and Building Networking

The mounting method for the GW55 is a click-fit style, commonly used in gateway or router applications where the use of an on-device connector is not feasible or in the design plan. The details for how to install this product are listed in section 6.

The GW55's cables and connectors are fully customizable based on customer specifications. For further information please contact your regional Taoglas customer support team.

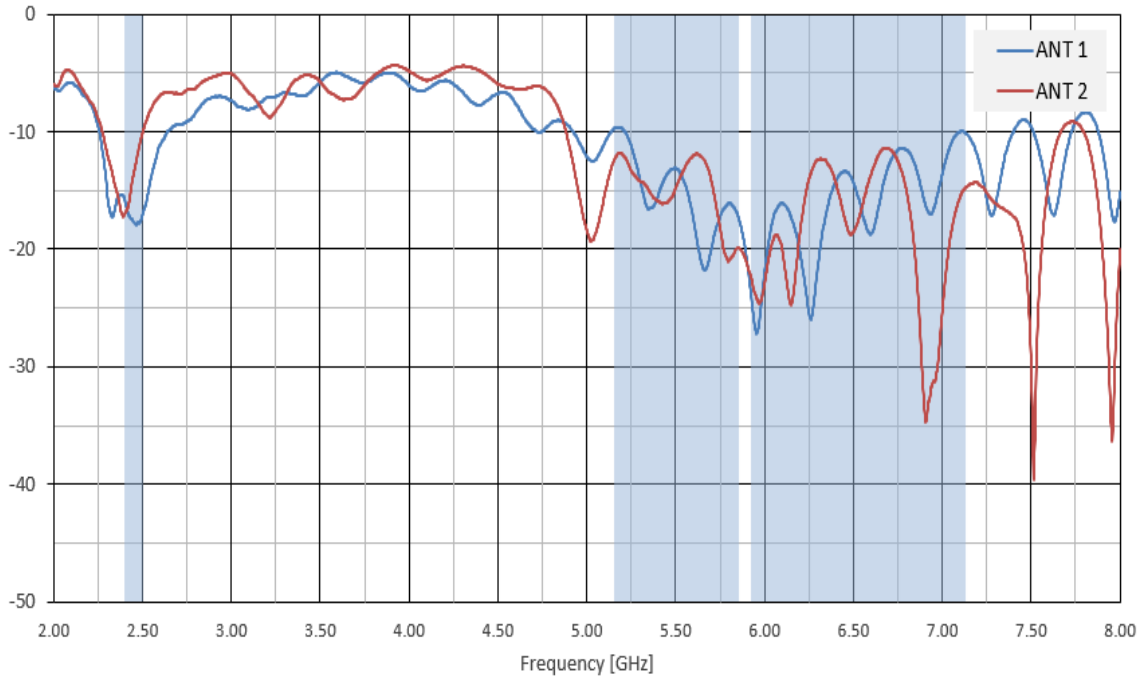
2. Specifications

Wi-Fi MIMO Free Space Electrical									
Band	**Frequency (MHz)**	**Setup**	**Efficiency (%)**	**Average Gain (dB)**	**Peak Gain (dBi)**	**Impedance**	**Max Power Input**	**Polarization**	**Radiation Pattern**
2.4GHz Wi-Fi	2400~2500	MIMO 1	66.2	-1.8	2.1	50 Ω	10W	Linear	Omni-Directional
		MIMO2	67.6	-1.7	2.2				
5.8GHz Wi-Fi	5150~5850	MIMO 1	47.8	-3.2	2.9				
		MIMO2	55	-2.6	4.2				
7.1GHz Wi-Fi 6	5925~7125	MIMO 1	50.2	-3	3.5				
		MIMO2	60.6	-2.2	3.3				

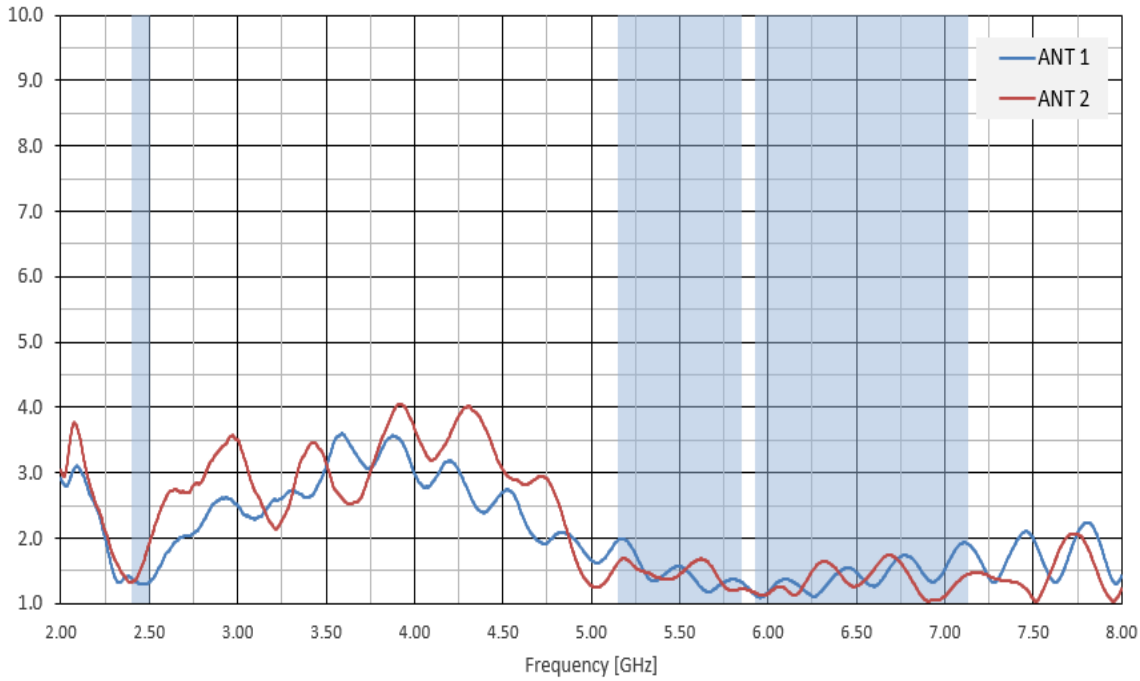
Mechanical	
Antenna Dimensions	167 * 23 * 13 mm
Casing	ABS+PC
Weight (including cable)	
Ingress Protection Rating	
Connectors	I-PEX MHF®I (U.FL)
Cables	150mm of 0.81mm
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

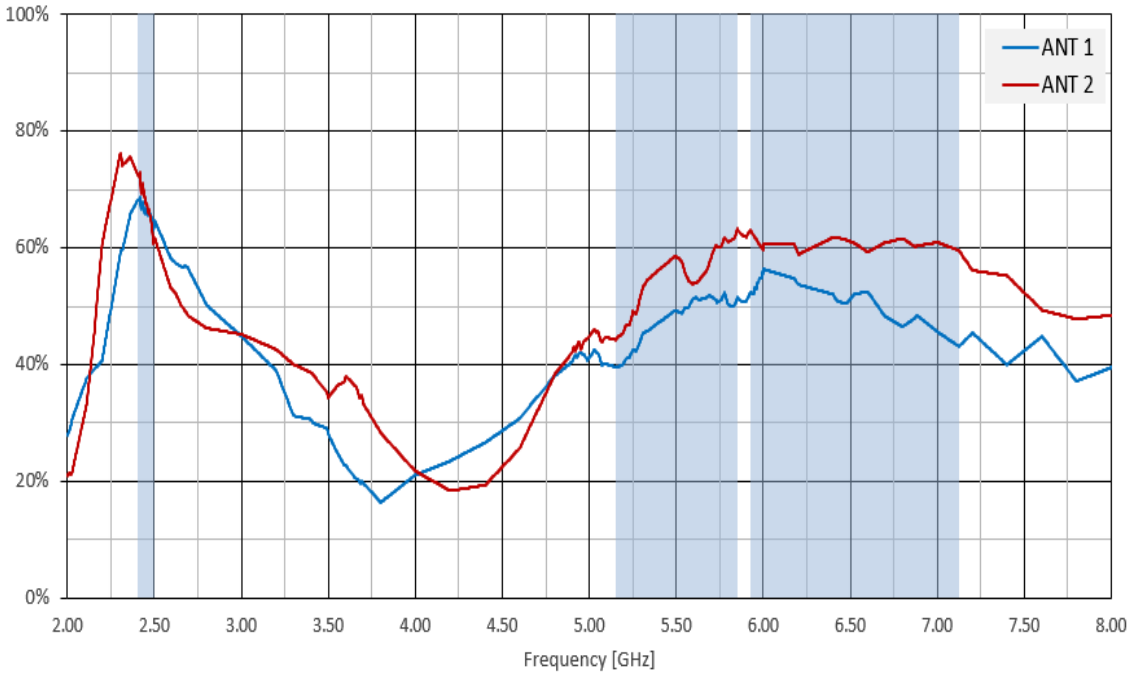
3.1 Return Loss



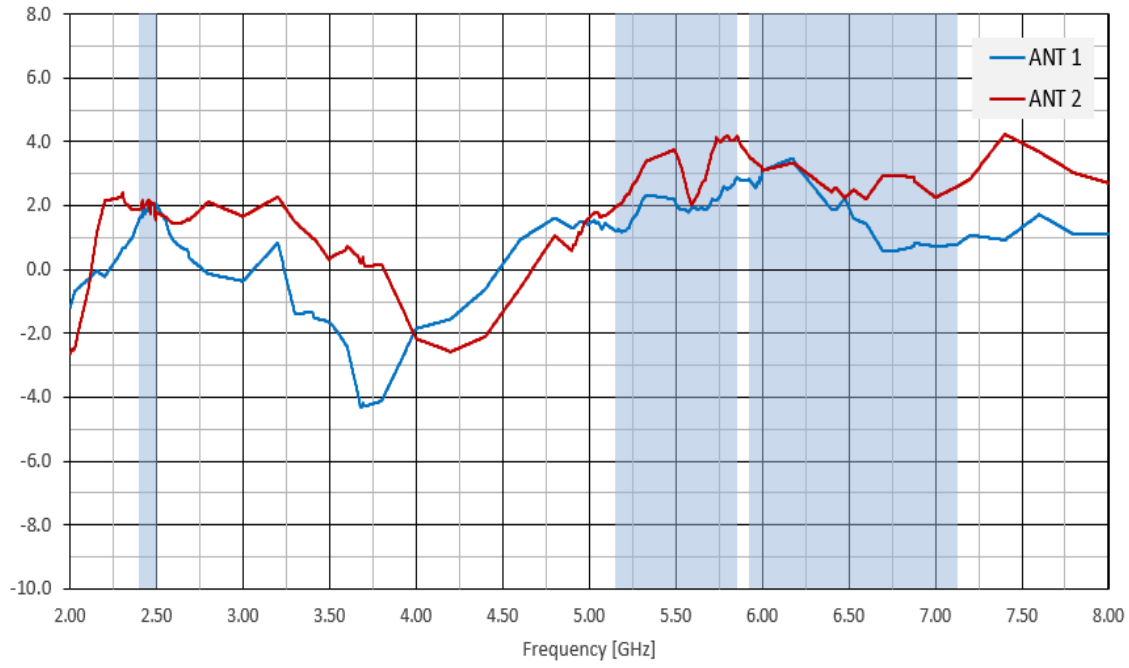
3.2 VSWR



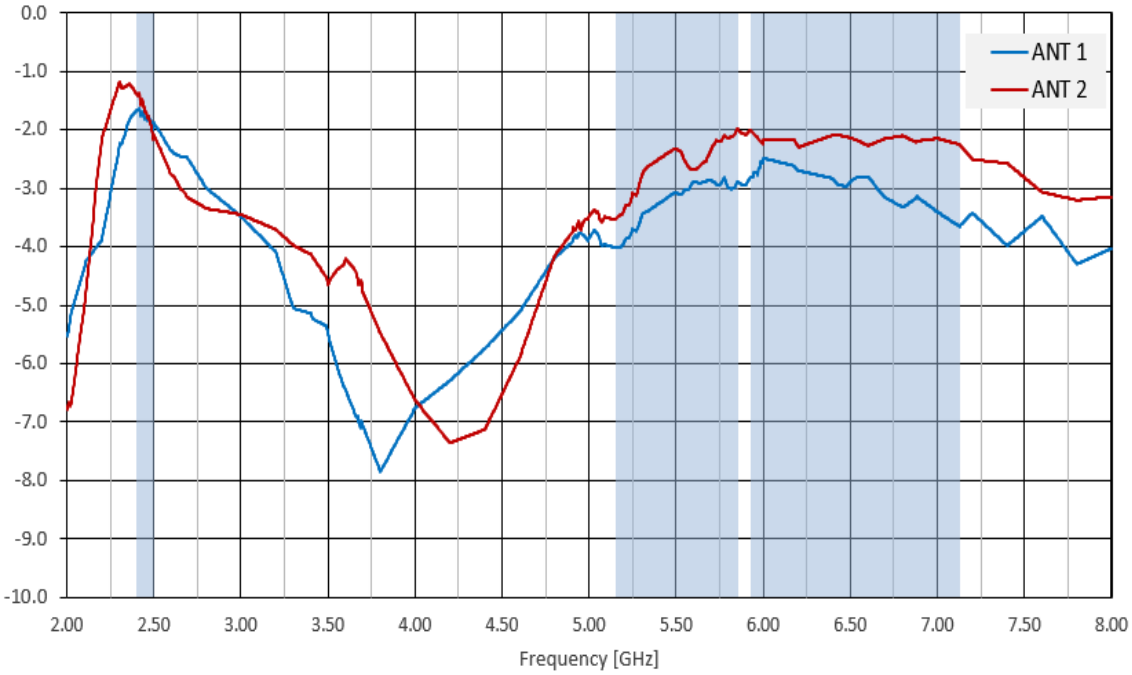
3.3 Efficiency



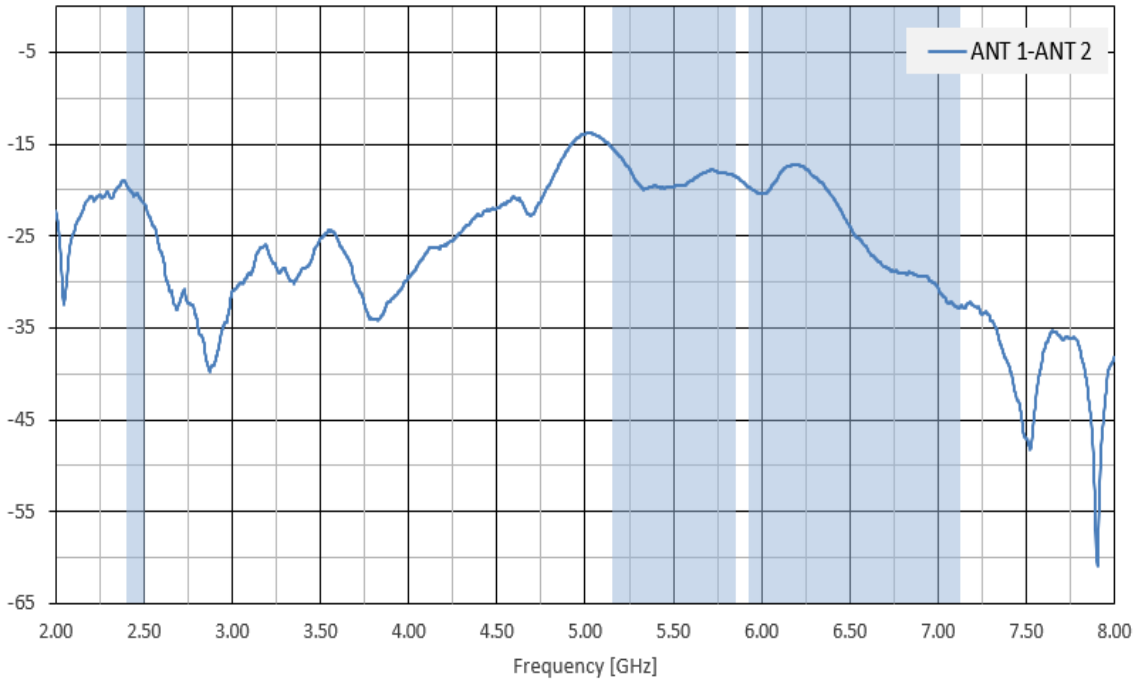
3.4 Peak Gain



3.5 Average Gain



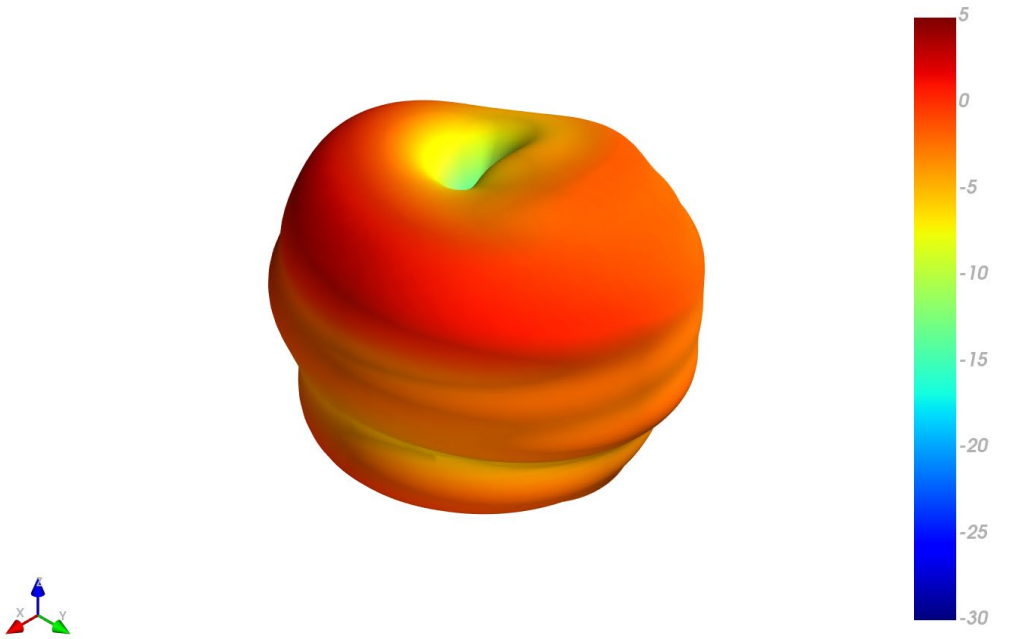
3.6 Isolation



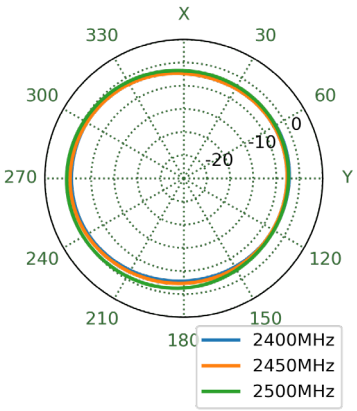
4. Radiation Patterns

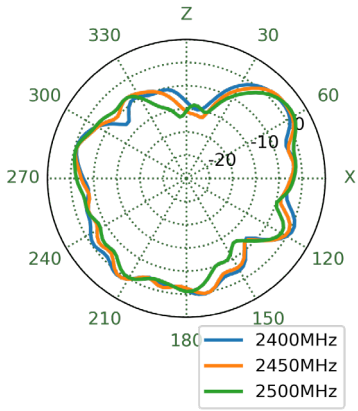
4.1 MIMO 1 3D and 2D Radiation Patterns

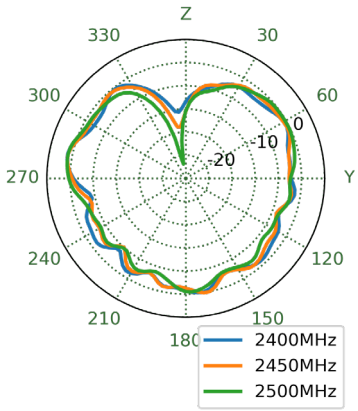
2450MHz



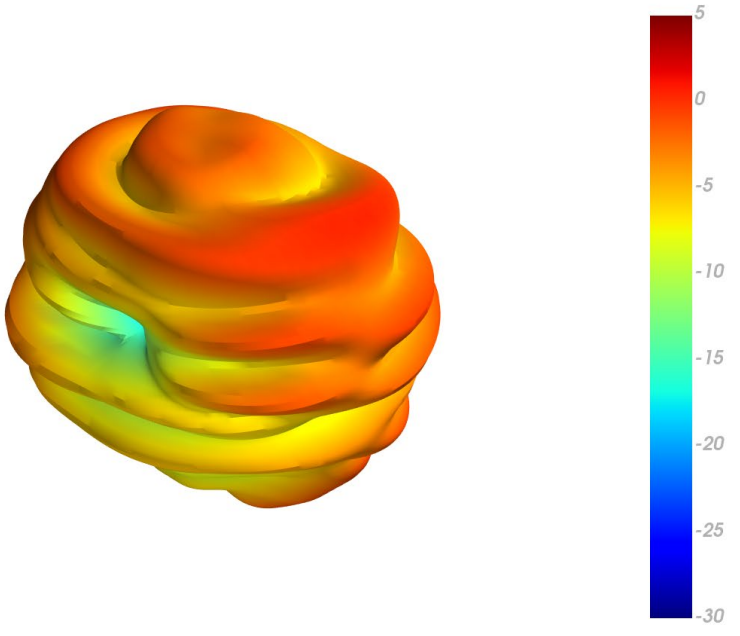
XY Plane	XZ Plane	YZ Plane







5490MHz



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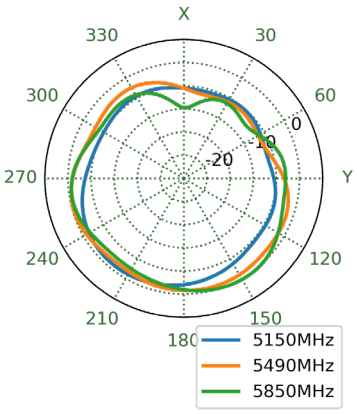
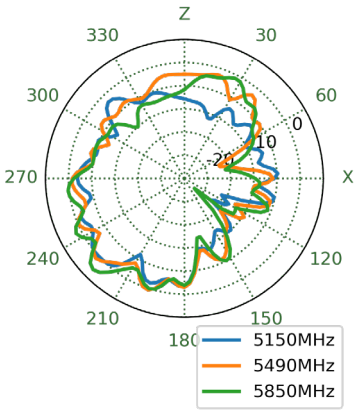
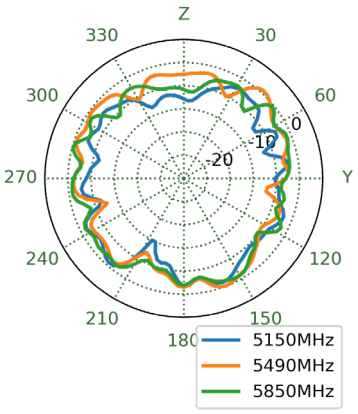
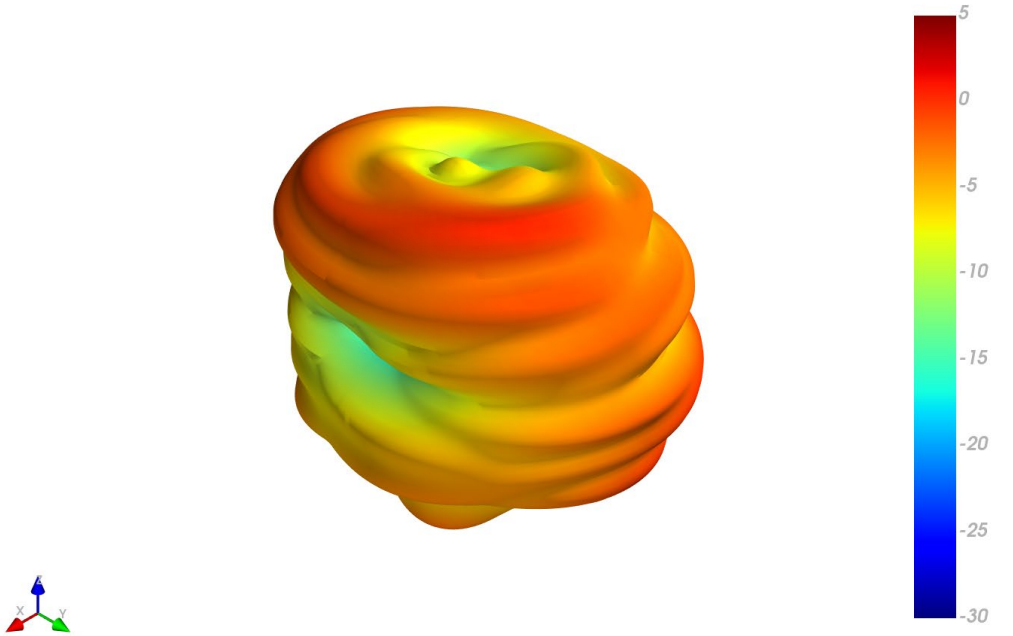
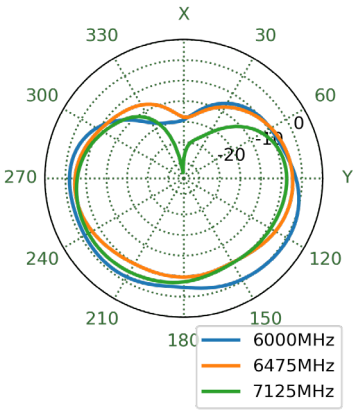
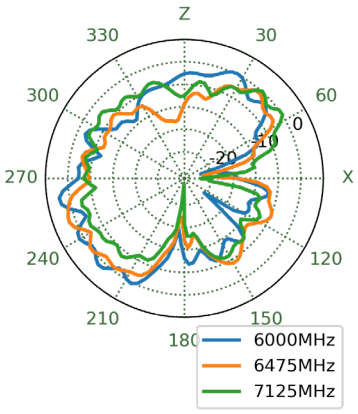
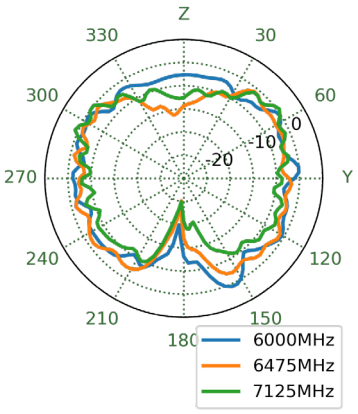
		

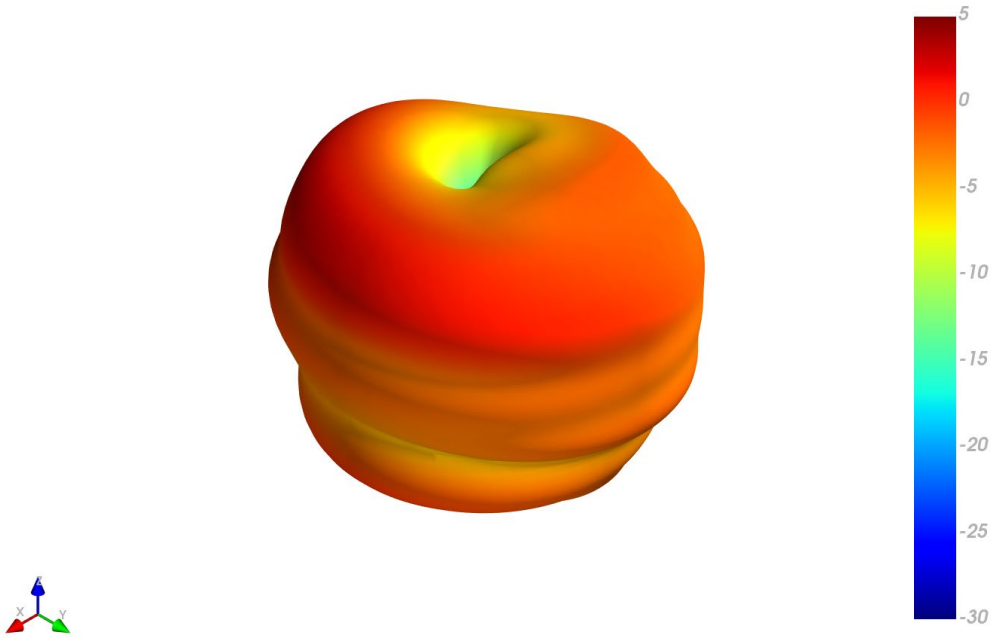
6475MHz



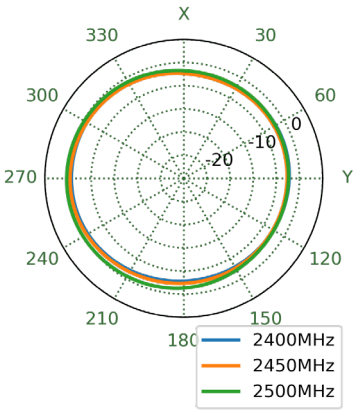
XY Plane	XZ Plane	YZ Plane
		

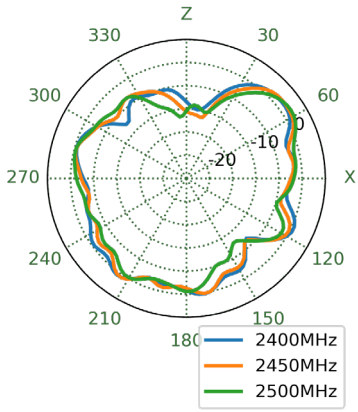
4.2 MIMO 2 3D and 2D Radiation Patterns

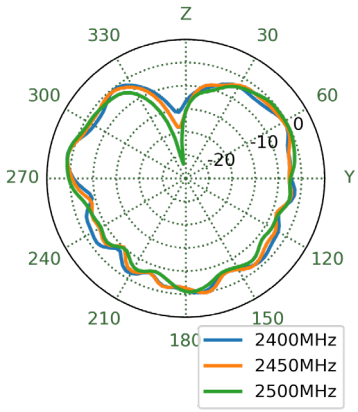
2450MHz



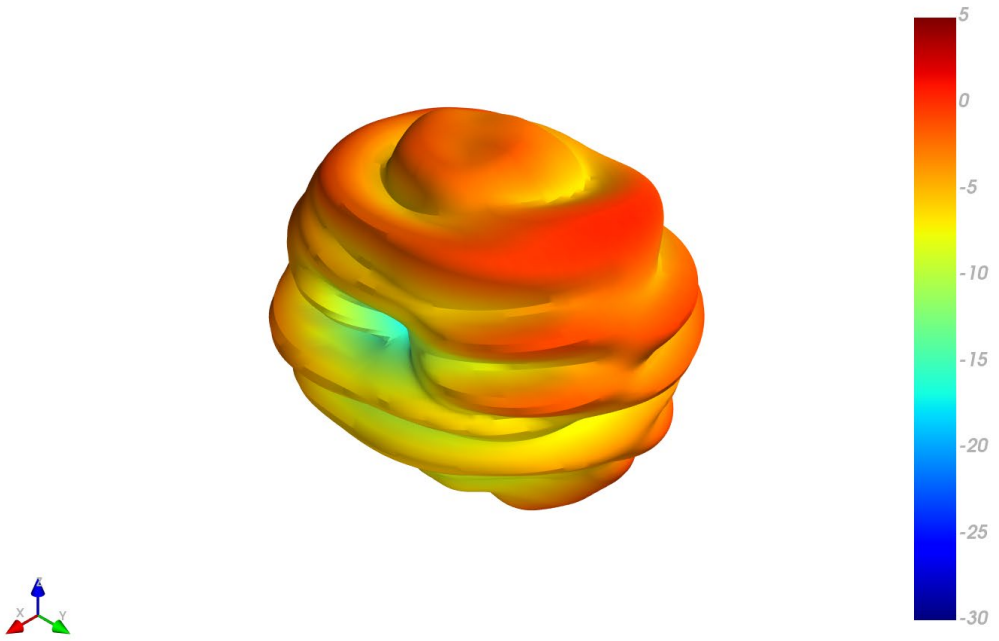
XY Plane	XZ Plane	YZ Plane



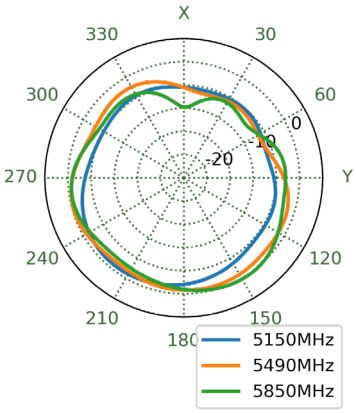


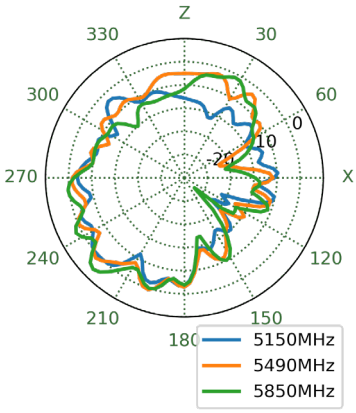


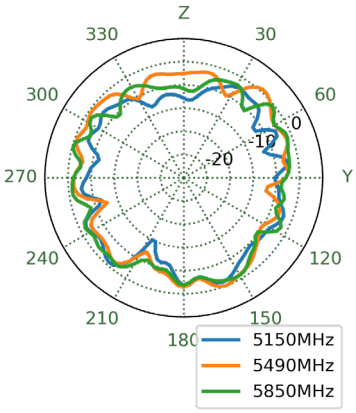
5490MHz



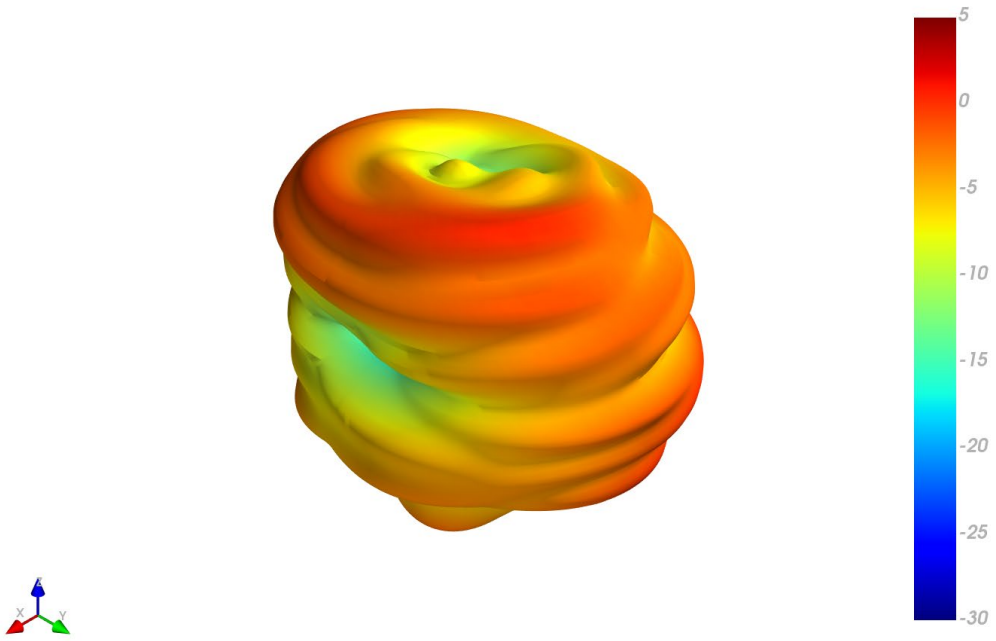
XY Plane	XZ Plane	YZ Plane







6475MHz



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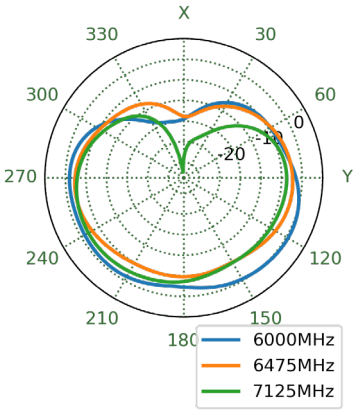
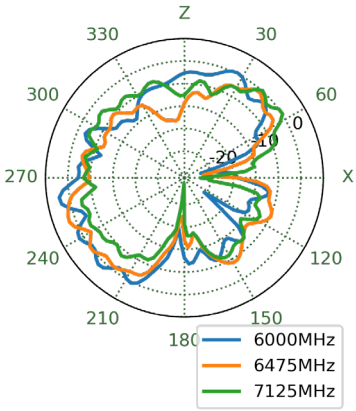
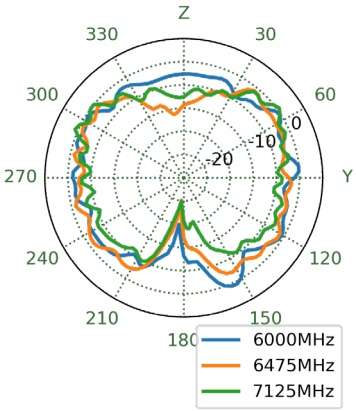


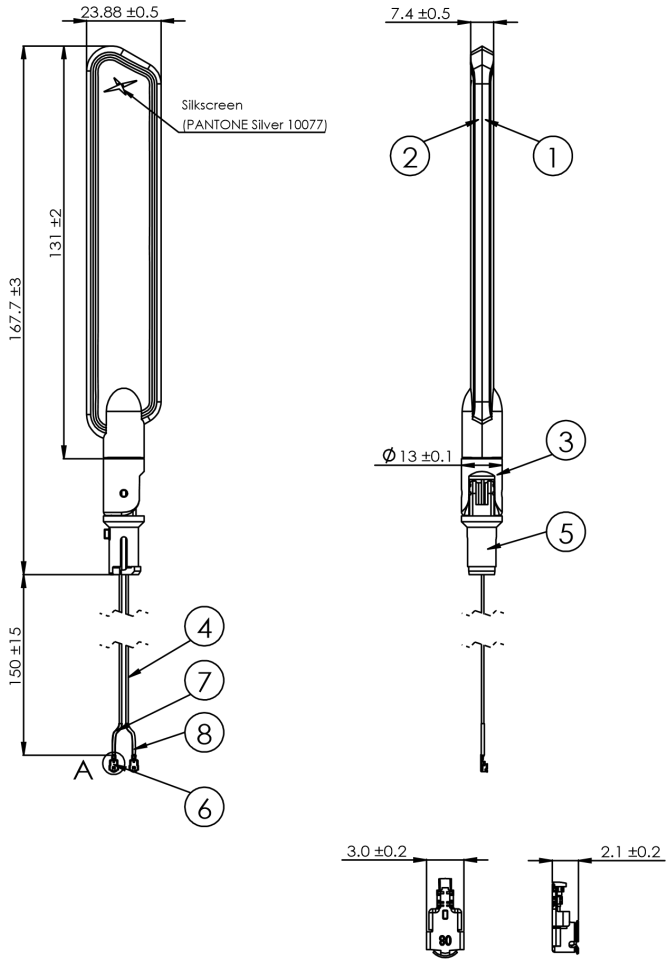




5. Mechanical Drawing (Units: mm)

ISO NO.: EDW.000854
STATE: Release
NOTES:
1. All material must be RoHS compliant.
2. The connector orientation has a fixed position to the antenna as per drawing.
3. Blue tube for antenna 1, red tube for antenna 2

REV.	ZONE	DESCRIPTION	ENG.	APPROVED	DATE
D01	All	Initial release	Aron Yan	Aaron	2023/11/7



Detail A

Scale:2 : 1

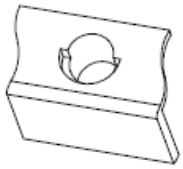
	Name	Material	Finish	Qty
1	Antenna Housing_Top	ABS+PC	Black	1
2	Antenna Housing_Bottom	ABS+PC	Black	1
3	Upper Base	PBT+PC	Black	1
4	0.81 Coaxial Cable	FEP	Black	2
5	Fixed base	PBT+PC	Black	1
6	IPEX.MHF1	Brass	Au Plated	2
7	Heat Shrink Tube ID2.0mm	PE	Blue	1
8	Heat Shrink Tube ID2.0mm	PE	Red	1

APPROVED BY: Chozen
CHECK BY: Aaron
DRAWN BY: Aron Yan
DATE: 2023/11/7
UNLESS OTHERWISE SPECIFIED TOLERANCES ON: XX.±0.5 X.±0.3 .X±0.2 .XX±0.1 .XXX±0.05
THIRD ANGLE PROJECTION

TAOGLAS. TW Design Centre

TITLE : 2.4/5.8/7.125GHz Omni-Directional Swivel Antenna 2 feeds 150mm 0.81 IPEX MHF(U.FL)
PART NO. : GW55.A.07.B.001
UNIT: mm | SCALE: 1:2 | PAGES: 1/1 | REV.: D01

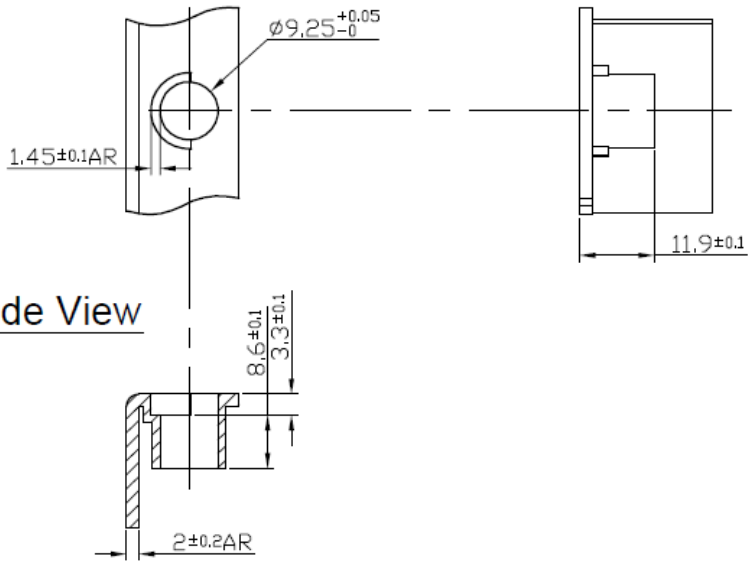
6. Installation

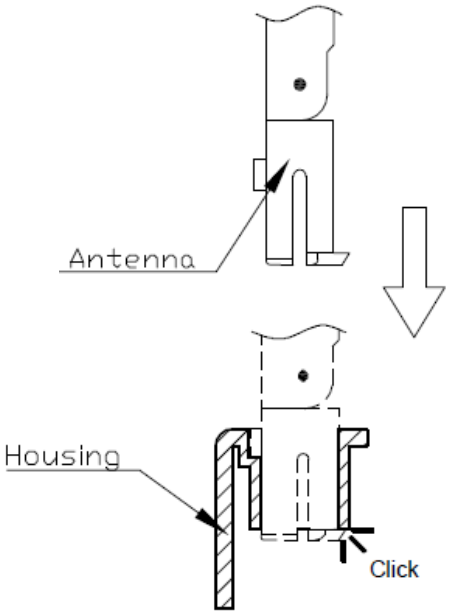


3D View

Top View

Front View





Changelog for the datasheet

SPE-23-8-384 – GW55.A.07.B.001

Revision: A (Original First Release)	
Date:	2023-12-20
Notes:	
Author:	Jack Conroy

Previous Revisions

TAOGLAS®

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