



TAOGLAS®



Datasheet

Guardian

Part No:
MA910.A.CG.001

Description:

Guardian 2-in-1 Adhesive Mount Combination Antenna with
2*Wi-Fi MIMO

Features:

Low-Profile Adhesive Mount Housing – Mounts Flush to Wall
2* Wi-Fi (including Wi-Fi 6) MIMO 2.4GHz/5.8/7.1GHz
IP67 Waterproof Resistant Enclosure
Cable: 3m TGC-200
Connectors: RP SMA(M)ST
Dimensions: 146 * 134 * 20 mm
RoHS & Reach Compliant

1. Introduction	3
2. Specifications	4
3. Antenna Characteristics	5
4. Radiation Patterns	8
5. Mechanical Drawing	10
6. Packaging	11
Changelog	12

Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein. Reproduction, use or disclosure to third parties without express permission is strictly prohibited.



1. Introduction



The MA910 Guardian is a low-profile 2-in-1 Wi-Fi (with Wi-Fi 6 included) MIMO adhesive mount external antenna. As part of the first series of panel antenna worldwide designed for IoT gateway and router devices, it belongs to a new generation of combination antenna. The antenna functions at all Wi-Fi frequencies (2.4-2.5GHz, 5-7.125GHz) meaning it is a future-proof solution for any devices

The MA910 Guardian is ideal for Wi-Fi applications requiring the increased data throughput and range provided by MIMO technology, all in a convenient and compact form factor. It is designed with high efficiency and gain as well as high isolation between the antennas to prevent self-interference. Low loss cables are used to keep efficiency high over long cable lengths. With its heavy-duty, fully IP67 casing, the MA910 Guardian can withstand a range of environments.

All these factors make the MA910 Guardian antenna an excellent choice for use by RF professionals in:

- IoT Gateway and Routers
- HD Video Streaming
- Transportation
- Remote monitoring applications

The standard MA910 Guardian antenna comes with 3 meter, low loss TGC-200 coaxial cable. Customized cables and connector versions are also available. Also available in white, contact your regional Taoglas customer support team for further information.

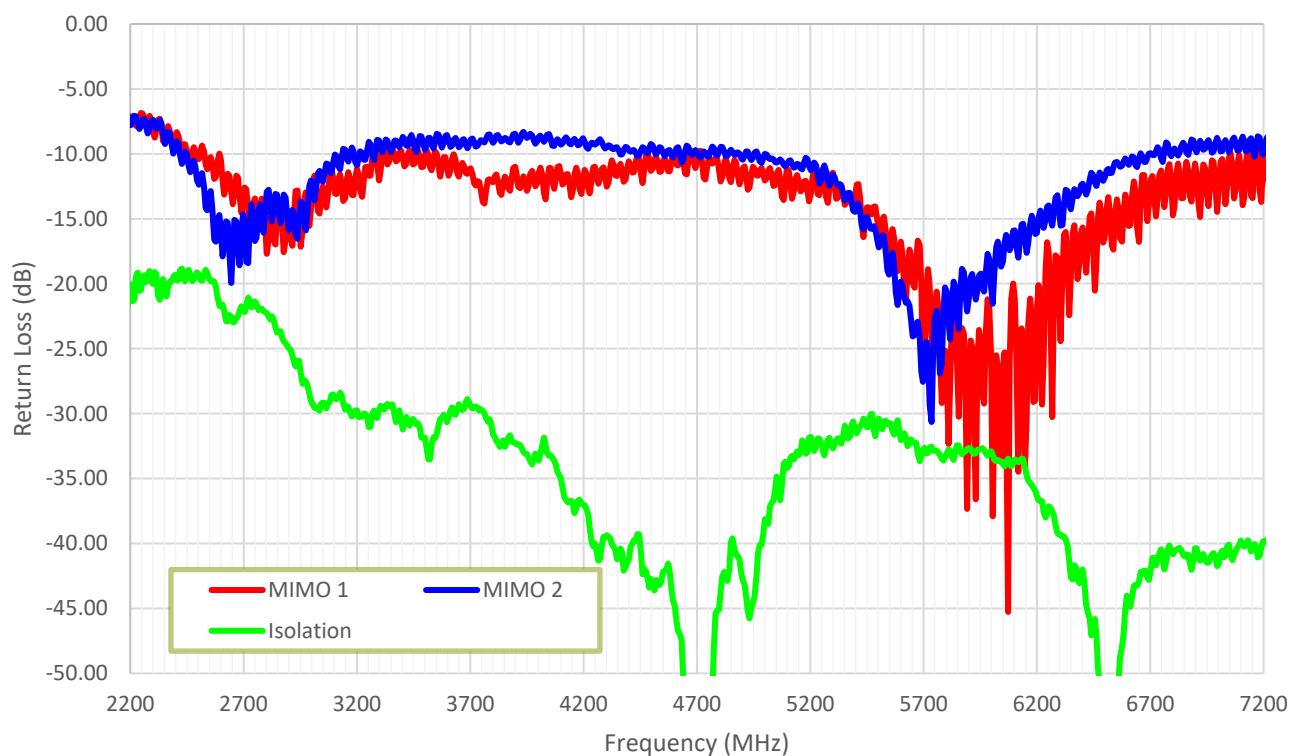
2. Specifications

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	20.2	-6.9	0.8	50 Ω	10W	Linear	Omni-Directional
		MIMO2	20	-7	-0.1				
5.8GHz Wi-Fi	5150~5850	MIMO 1	20.7	-6.8	0.5				
		MIMO2	20.6	-6.9	1.6				
7.1GHz Wi-Fi 6	5925~7125	MIMO 1	25.5	-6	1.6				
		MIMO2	22	-6.8	3				

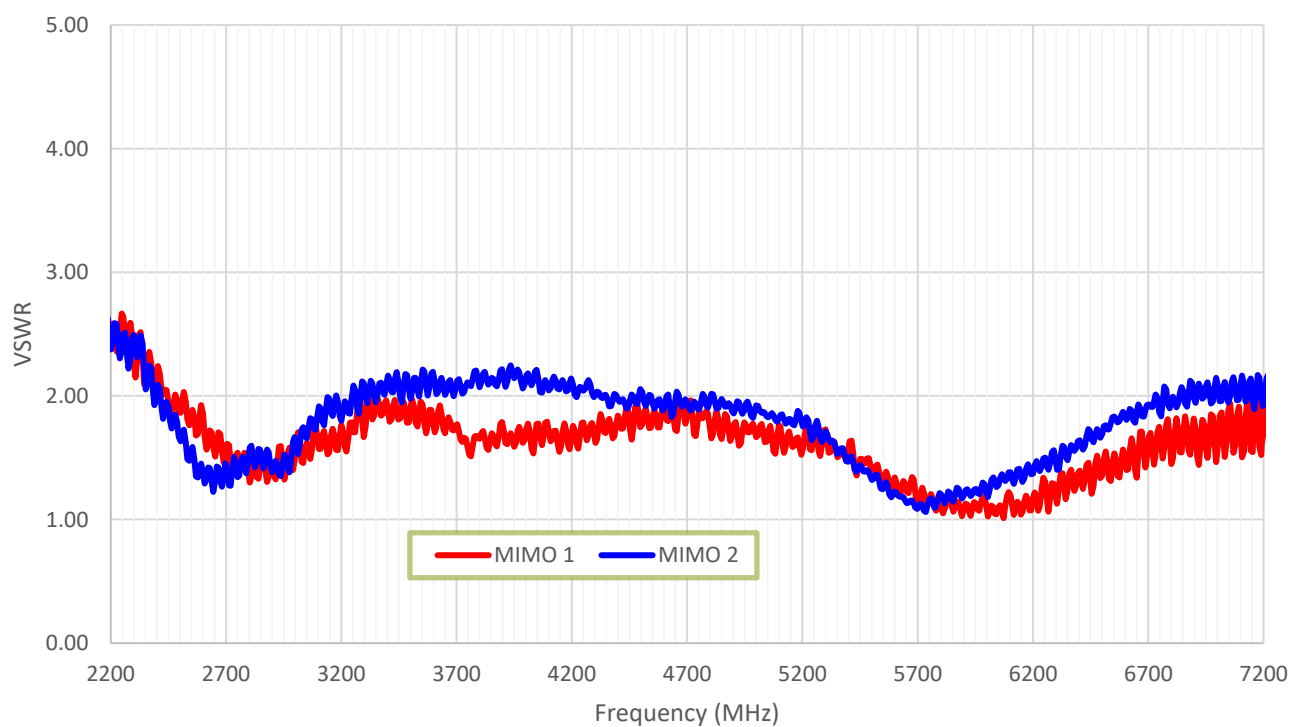
Mechanical	
Antenna Dimensions	146*134*20mm
Casing	ASA
Weight (including cable)	455g
Ingress Protection Rating	IP67
Connector	2* RP-SMA(M)
Cables	2* 3000mm TGC200
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

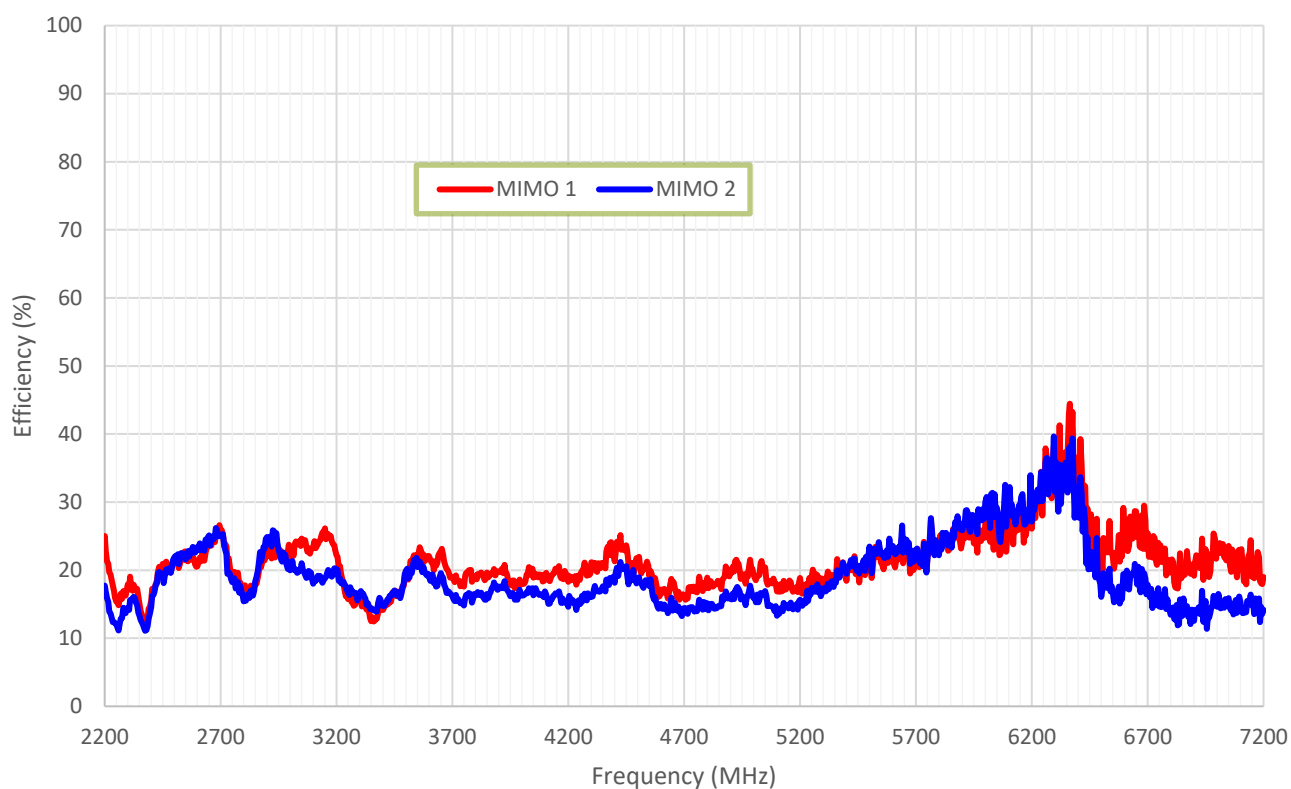
3.1 Return Loss



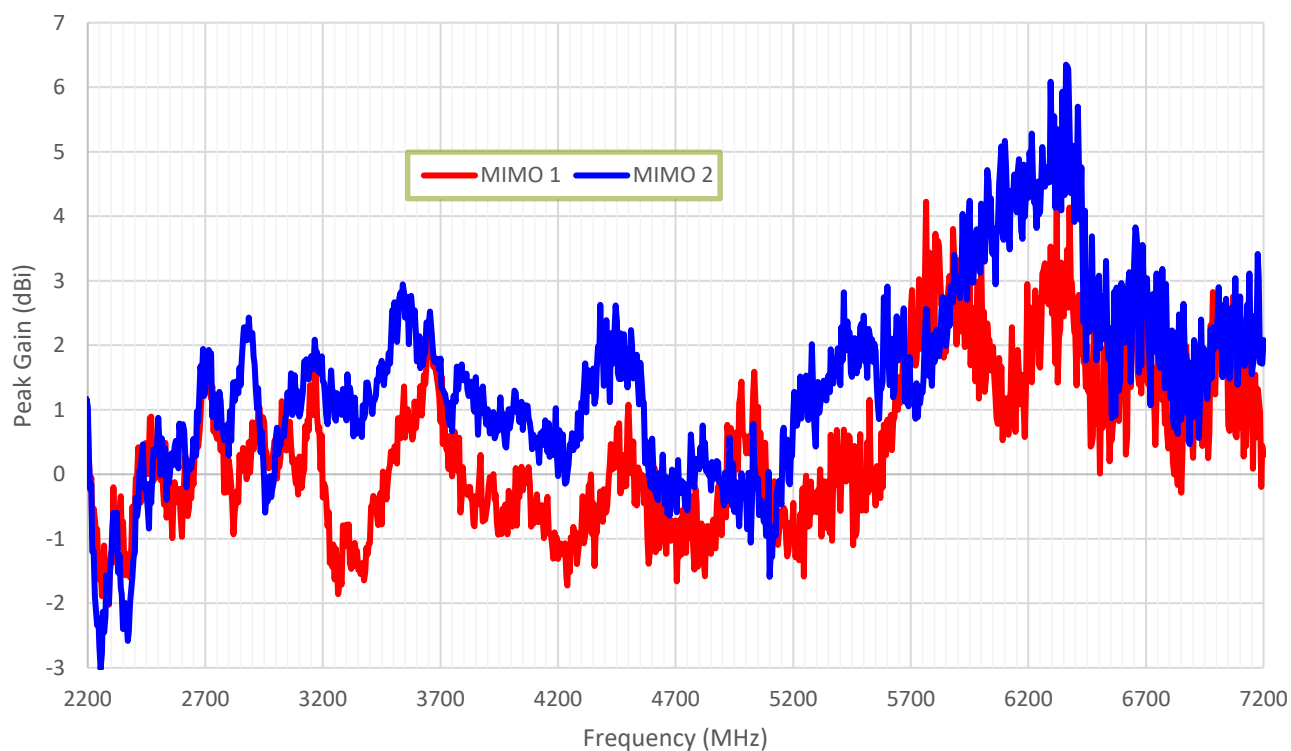
3.2 VSWR



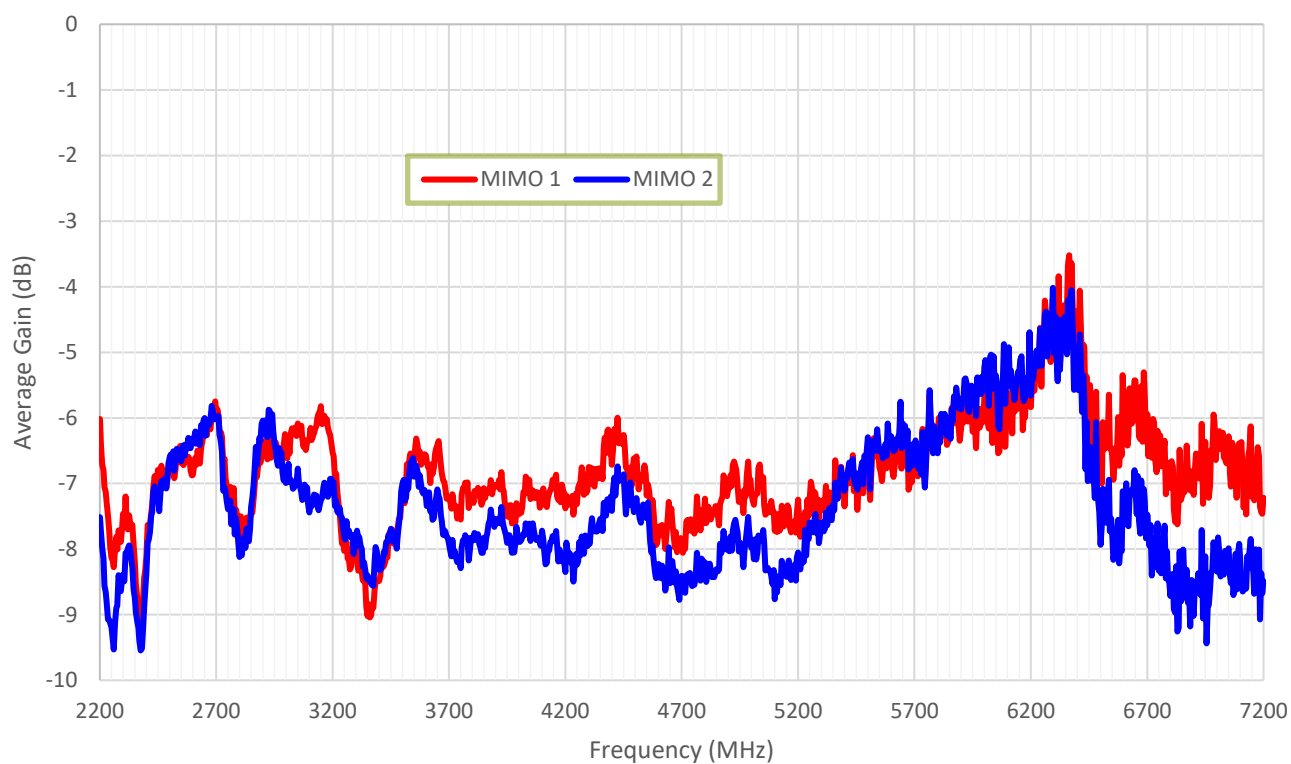
3.3 Efficiency



3.4 Peak Gain



3.5 Average Gain

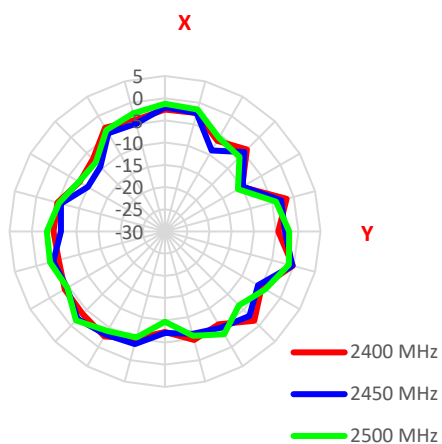


4. Radiation Patterns

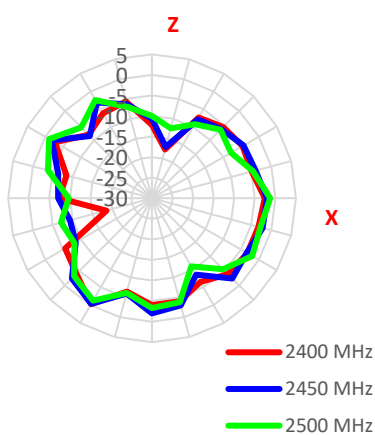
4.1 Wi-Fi MIMO 1 3D and 2D Radiation Patterns

2400-2500MHz

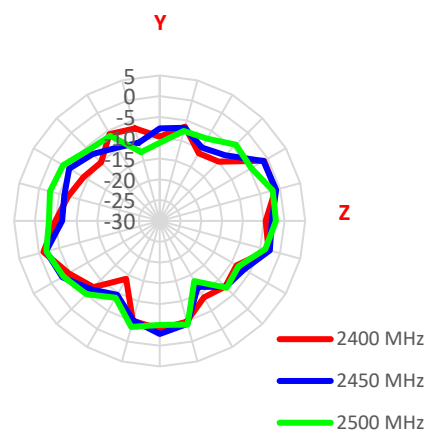
XY Plane



XZ Plane

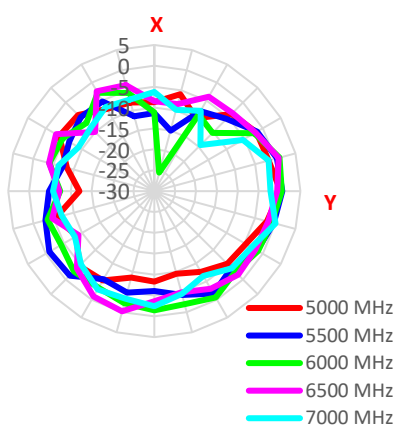


YZ Plane

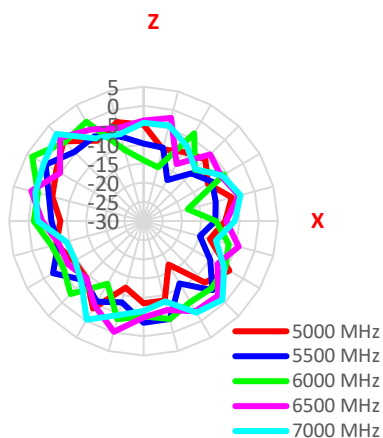


5000-7000MHz

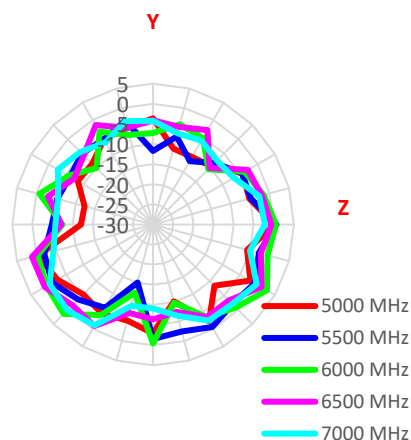
XY Plane



XZ Plane



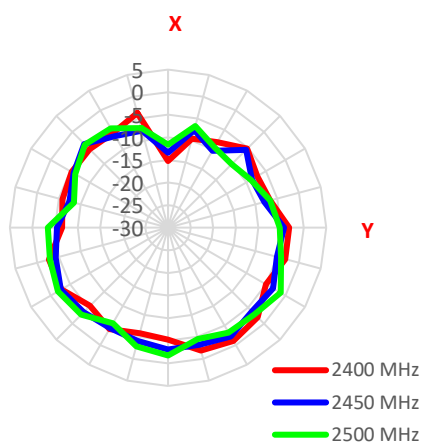
YZ Plane



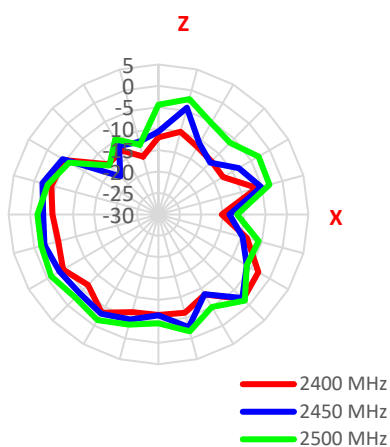
4.2 Wi-Fi MIMO 2 3D and 2D Radiation Patterns

2400-2500MHz

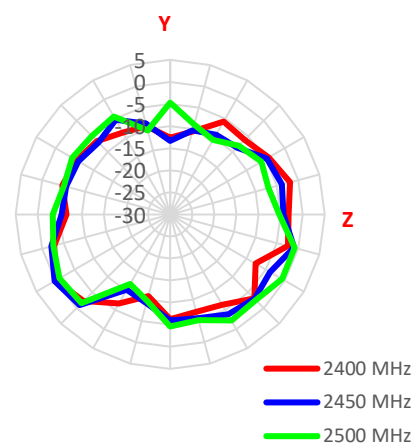
XY Plane



XZ Plane

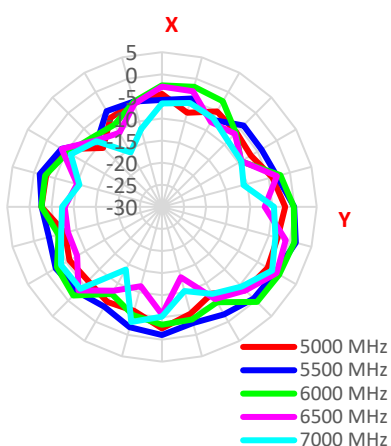


YZ Plane

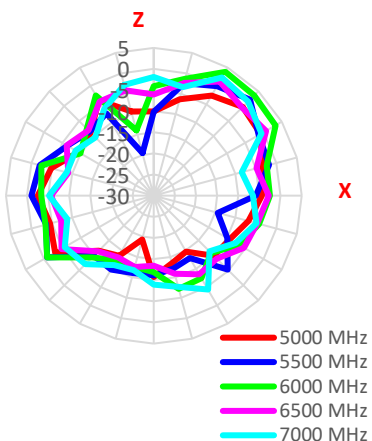


5000-7000MHz

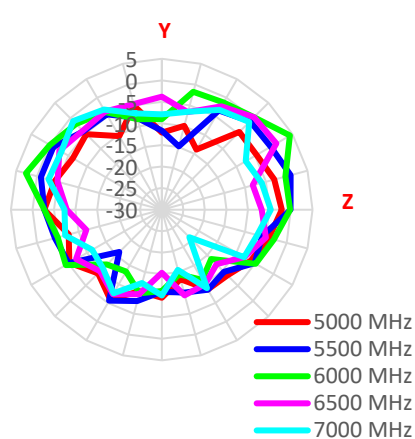
XY Plane



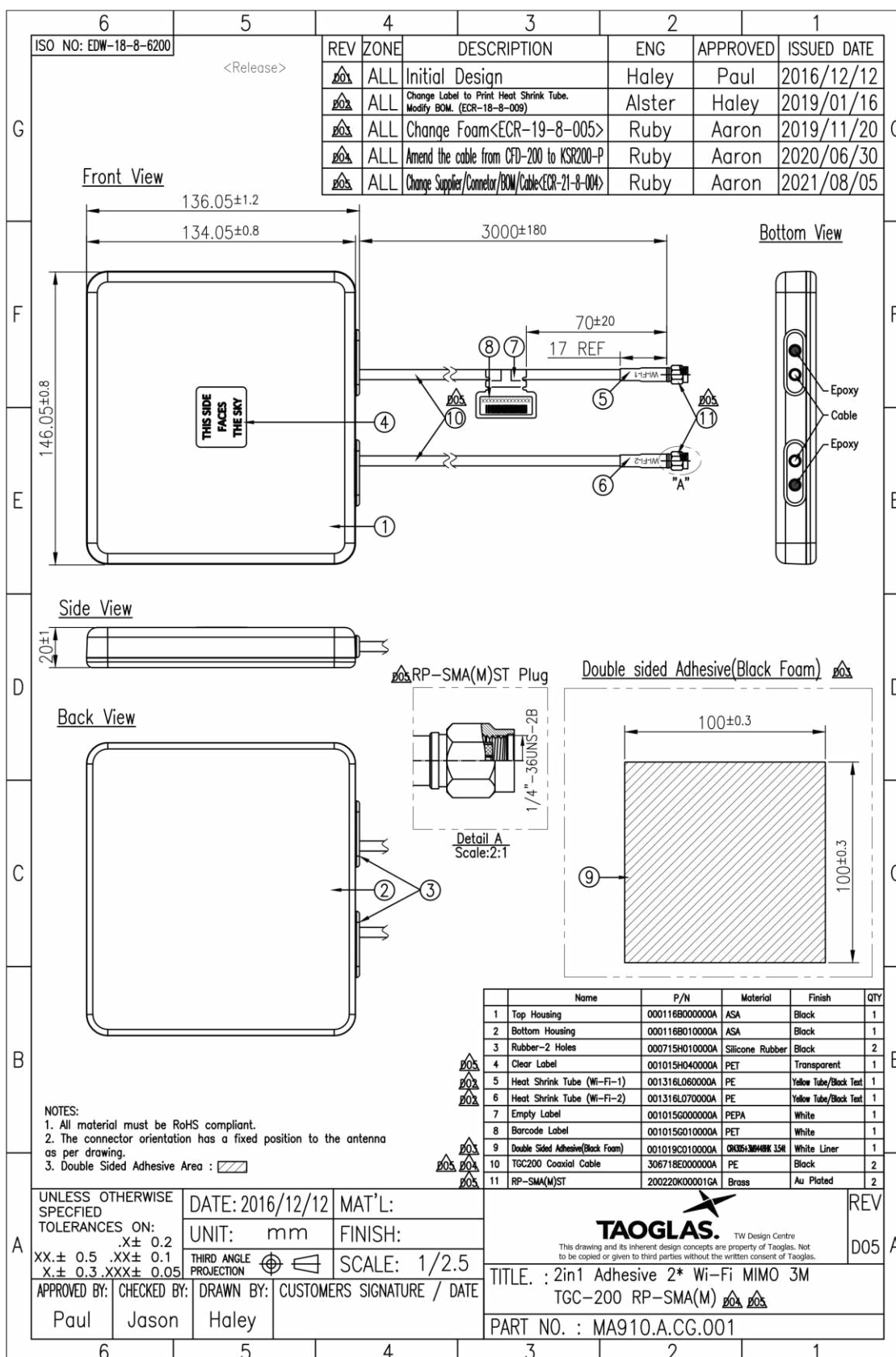
XZ Plane



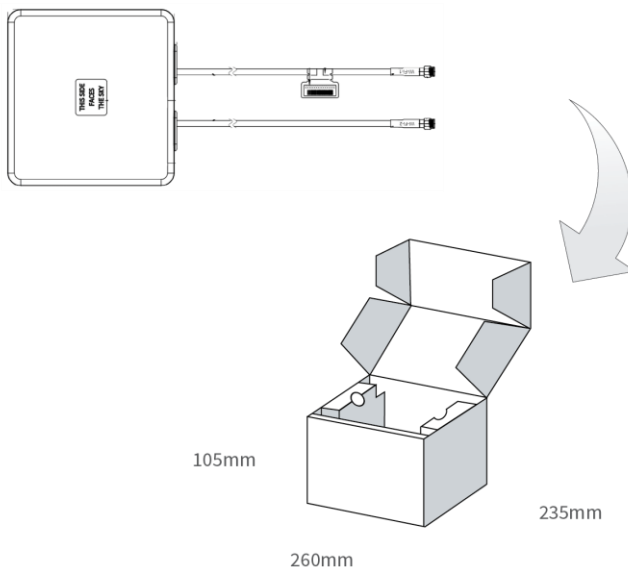
YZ Plane



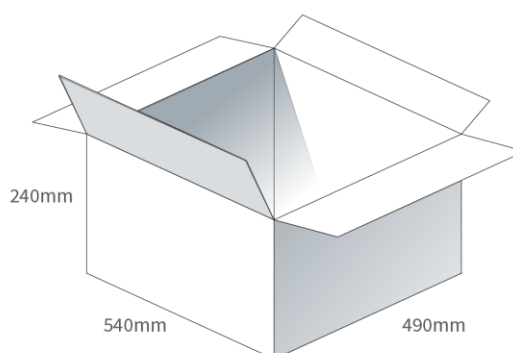
5. Mechanical Drawing (Units: mm)



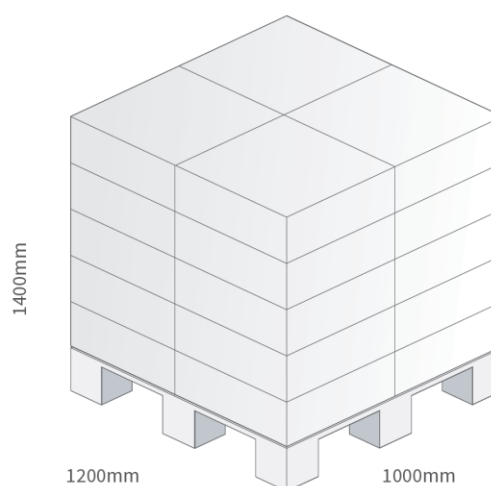
6. Packaging



1 No. MA910.A.CG.001 per small box
Box Dimensions - 260 x 235 x 105mm
Weight - 0.45Kg



8 pcs MA910.A.CG.001 per carton
Carton Dimensions - 540 x 490 x 240mm
Weight - 3.6Kg



Pallet Dimensions 1200 x 1000 x 1400mm
20 Cartons per Pallet
4 Cartons per layer
5 Layers

Changelog for the datasheet

SPE-17-8-077 – MA910.A.CG.001

Revision: E (Current Version)

Date:	2022-07-11
Changes:	Drawing updated
Changes Made by:	Cesar Sousa

Previous Revisions

Revision: D

Date:	2021-03-08
Changes:	Updated Antenna Weight.
Changes Made by:	Gary West

Revision: C

Date:	2020-09-08
Changes:	Packaging Details and Wi-Fi 6 Updated
Changes Made by:	Jack Conroy

Revision: B

Date:	2019-11-20
Changes:	Drawing Updated
Changes Made by:	Jack Conroy

Revision: A (Original First Release)

Date:	2017-10-31
Notes:	
Author:	Jack Conroy



www.taoglas.com

