



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

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Taiwan
ISO 9001:2015
Certified



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.

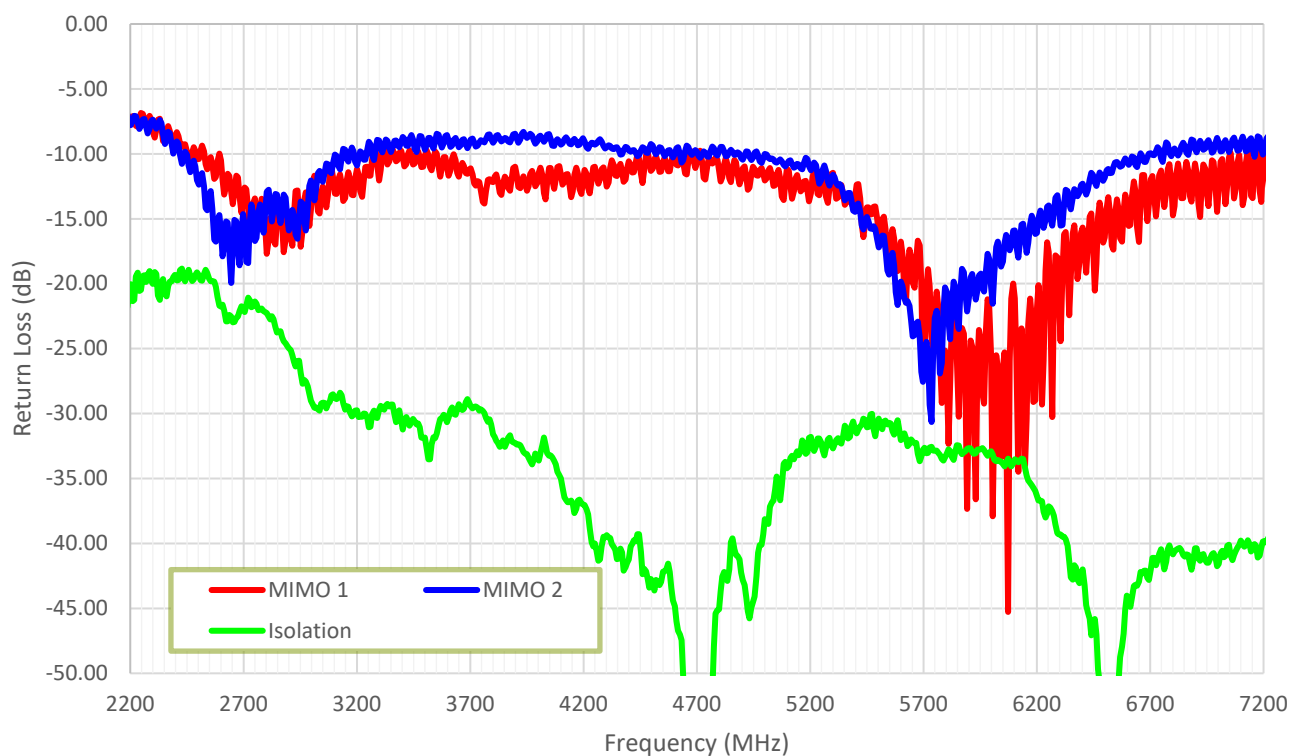
2. Specifications

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				

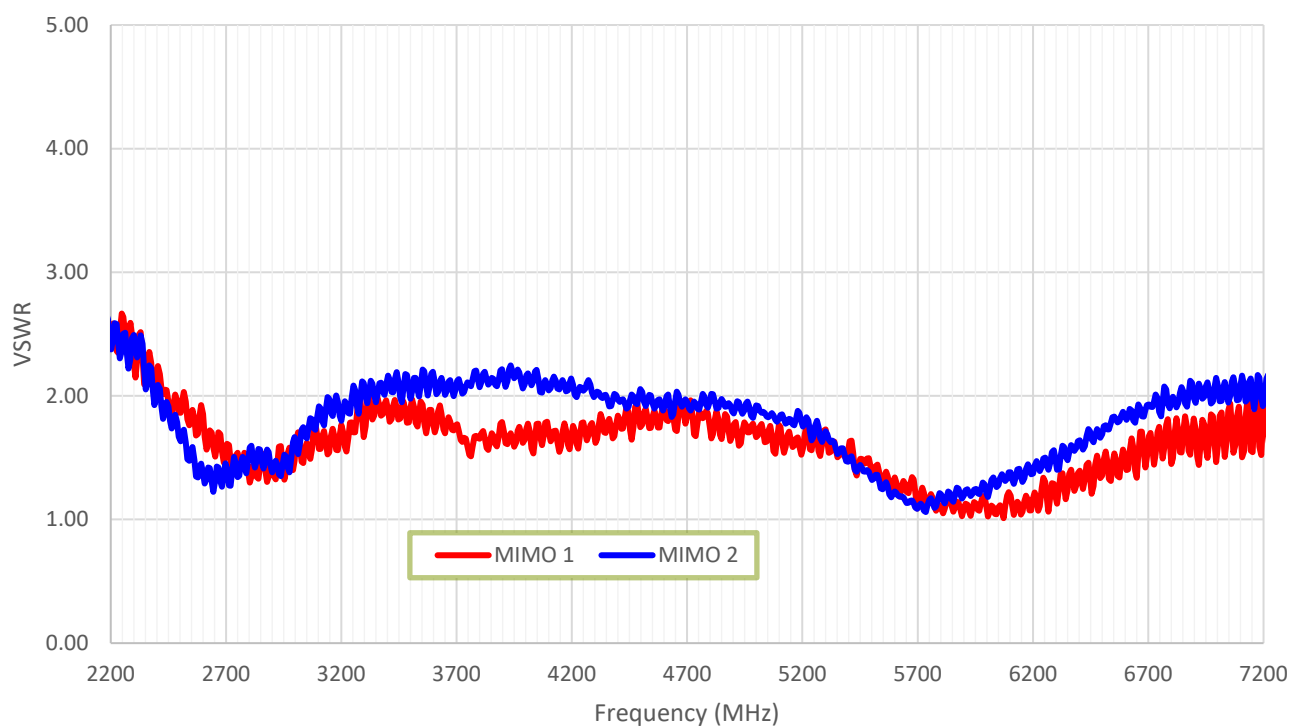
Mechanical	
Antenna Dimensions	146*134*20mm
Casing	ASA
Weight (including cable)	455g
Ingress Protection Rating	IP67
Connector	2* RP-SMA(M)
Cables	2* 3000mm TGC200
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

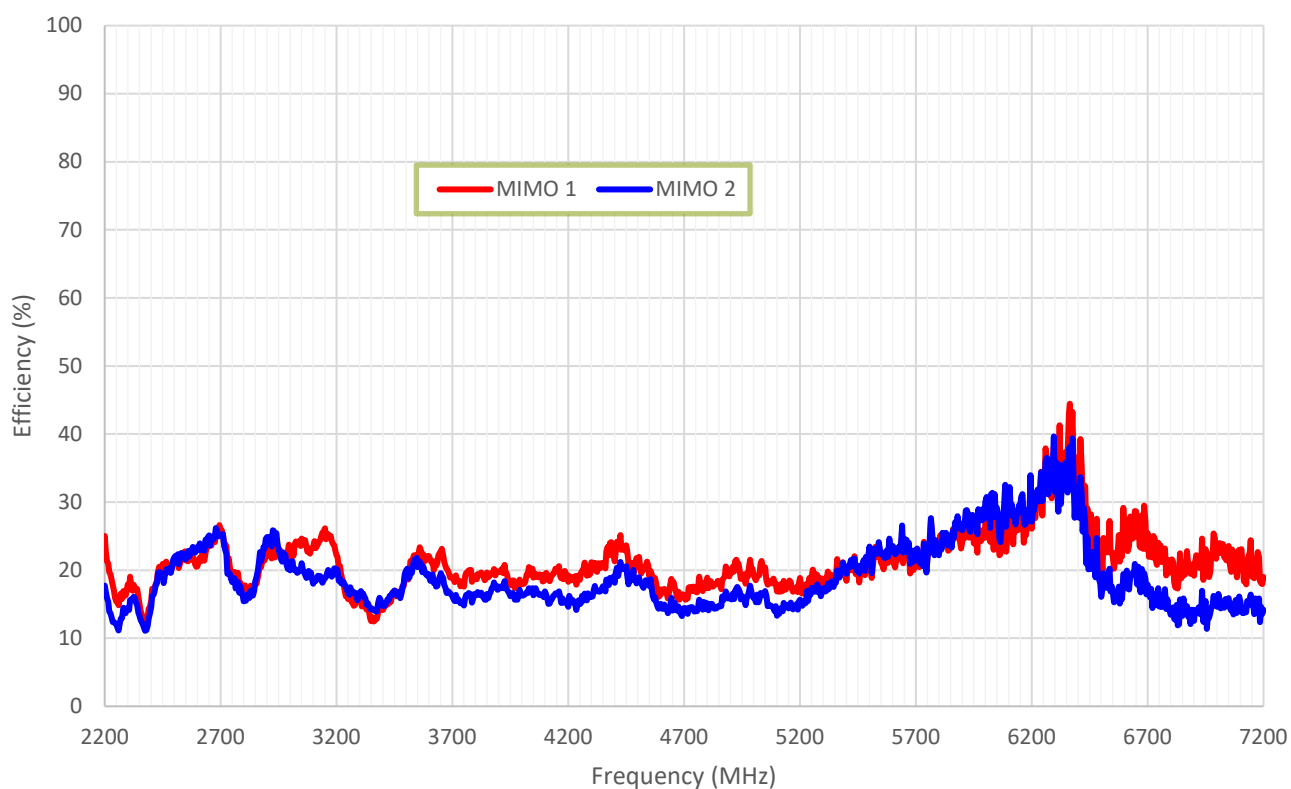
3.1 Return Loss



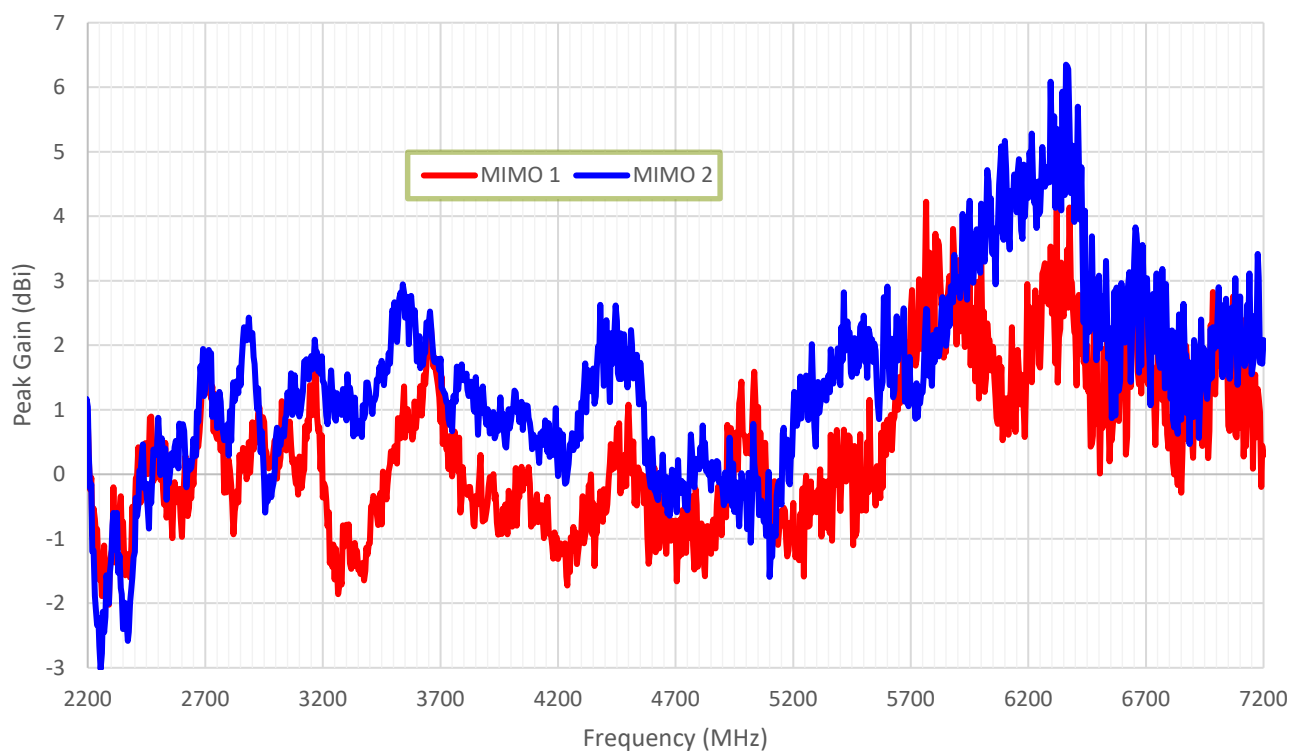
3.2 VSWR



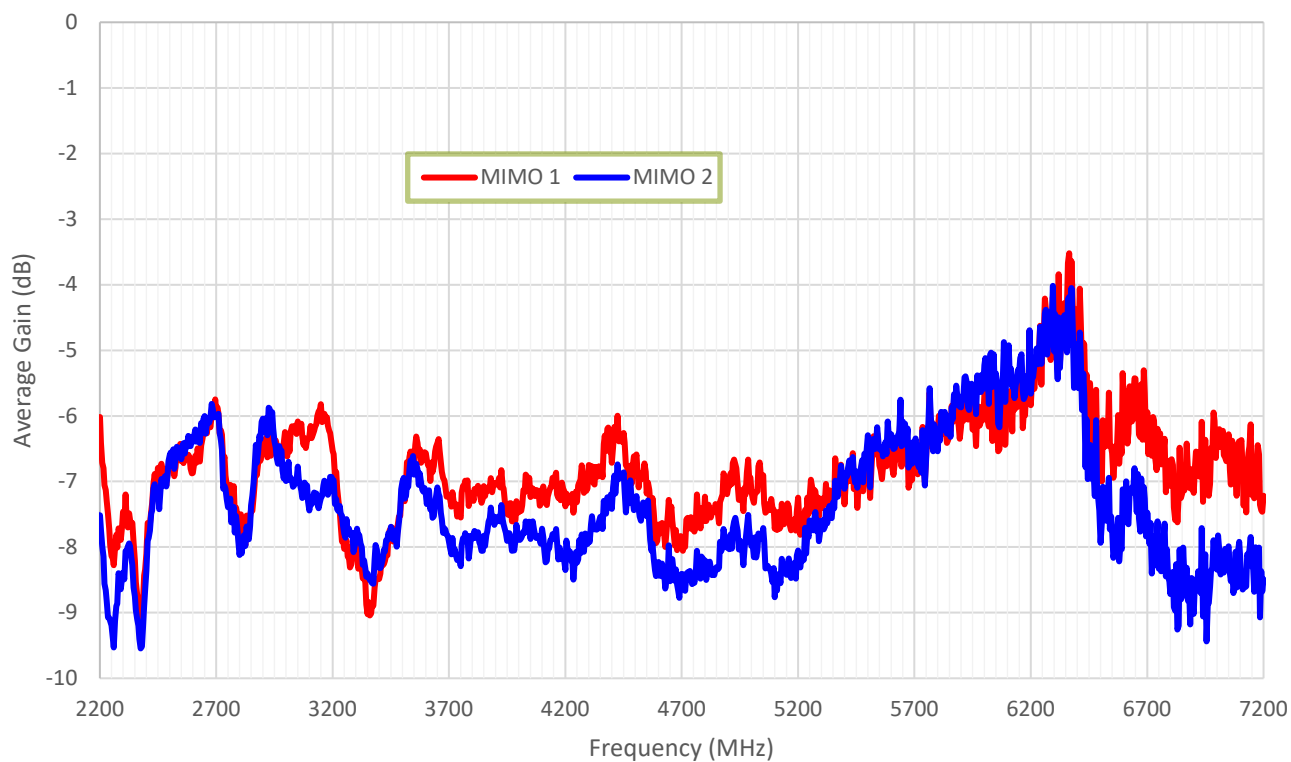
3.3 Efficiency



3.4 Peak Gain



3.5 Average Gain

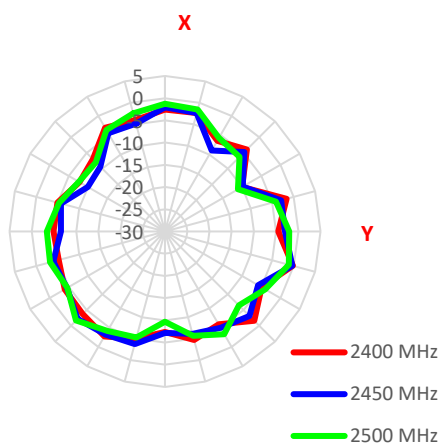


4. Radiation Patterns

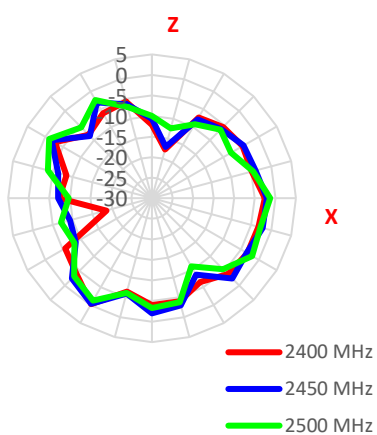
4.1 Wi-Fi MIMO 1 3D and 2D Radiation Patterns

2400-2500MHz

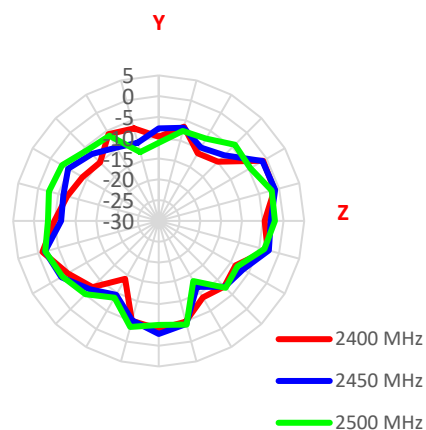
XY Plane



XZ Plane

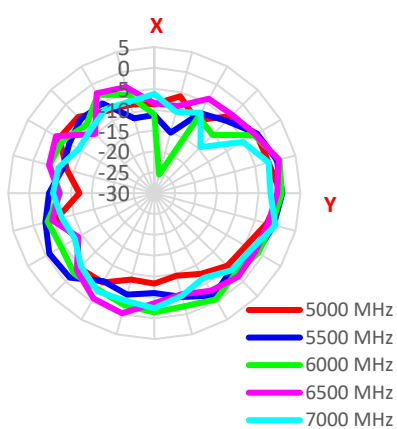


YZ Plane

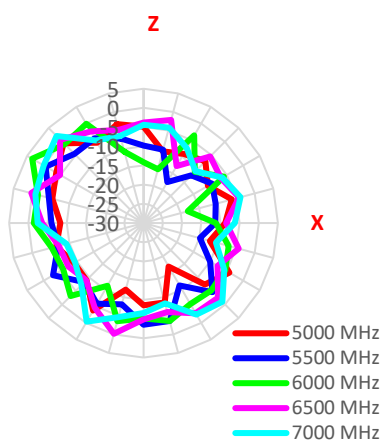


5000-7000MHz

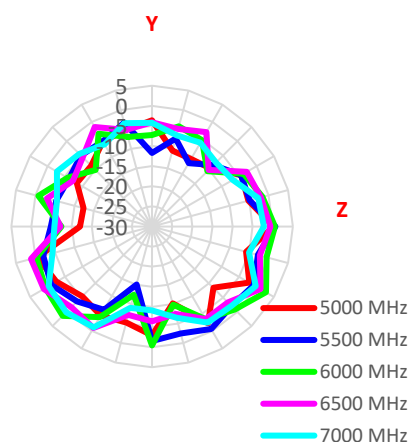
XY Plane



XZ Plane



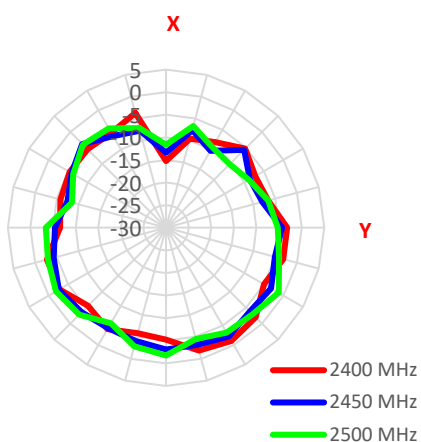
YZ Plane



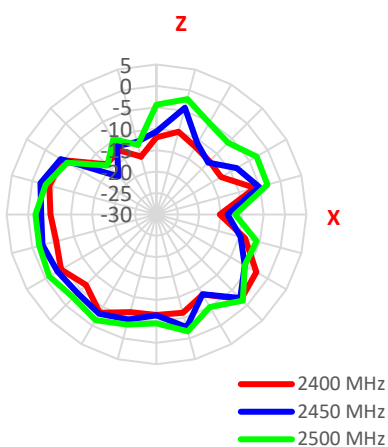
4.2 Wi-Fi MIMO 2 3D and 2D Radiation Patterns

2400-2500MHz

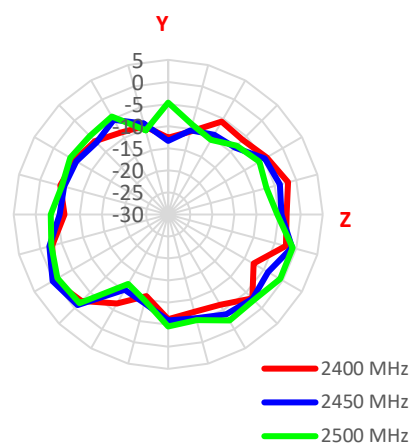
XY Plane



XZ Plane

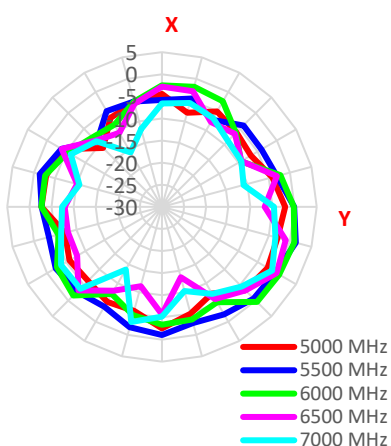


YZ Plane

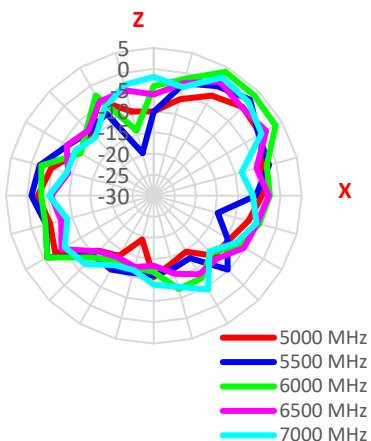


5000-7000MHz

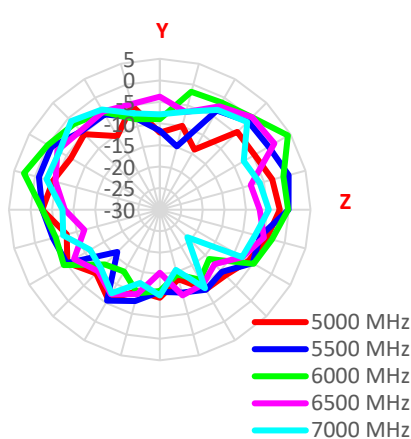
XY Plane



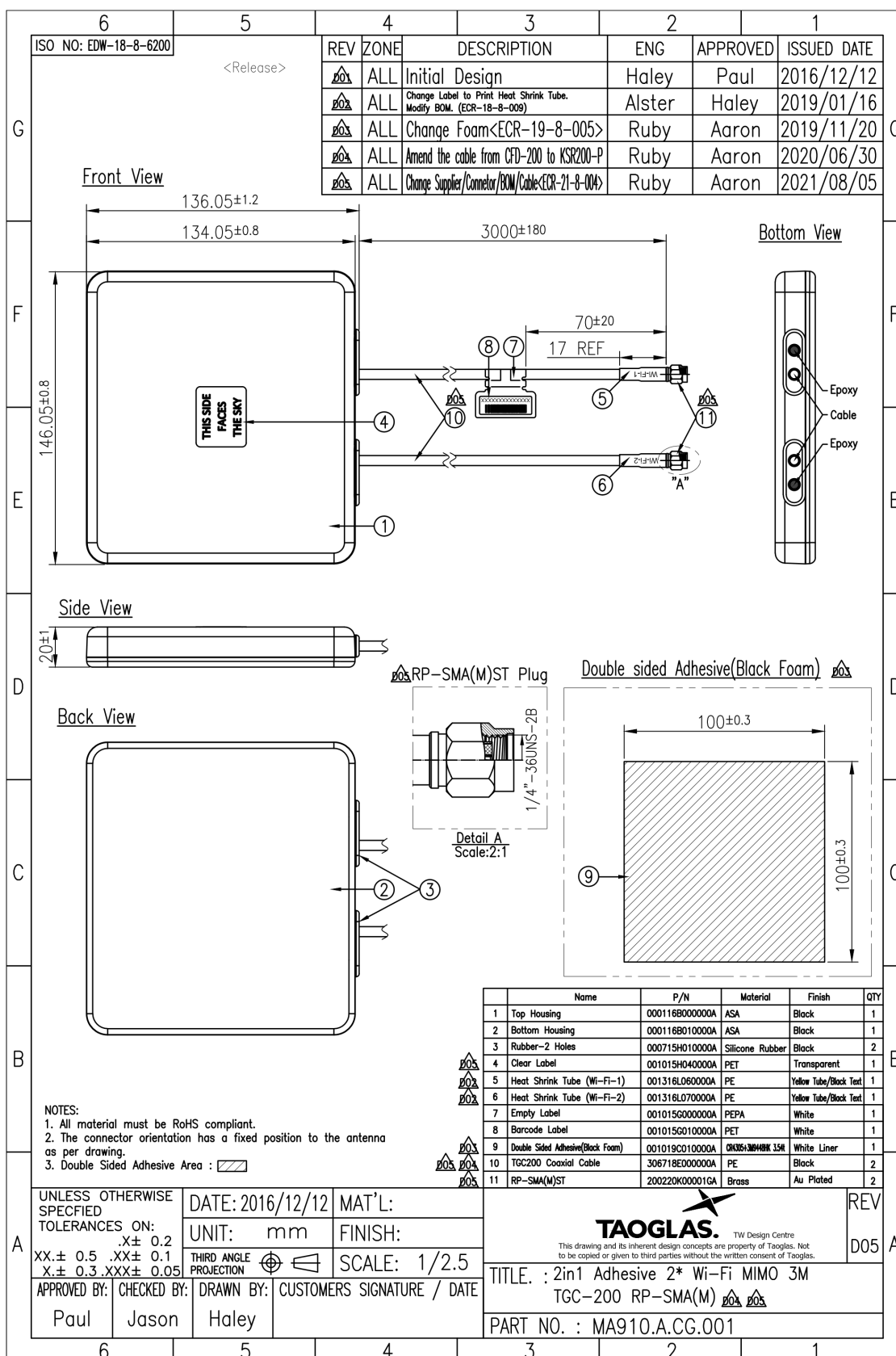
XZ Plane



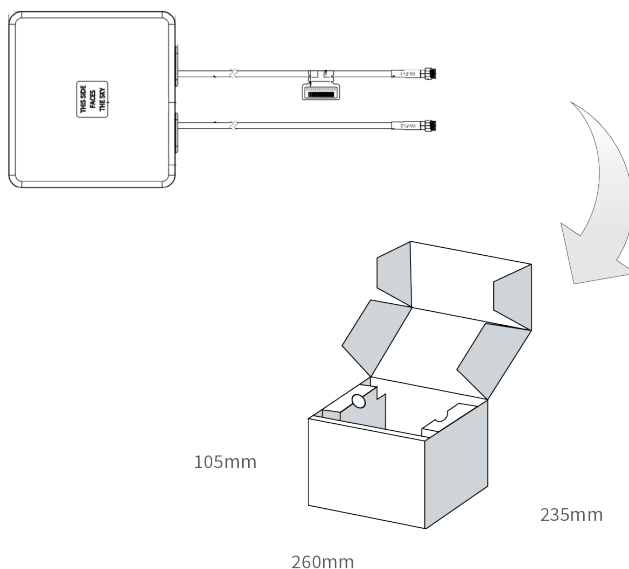
YZ Plane



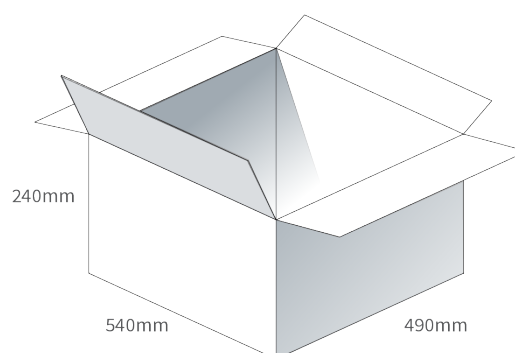
5. Mechanical Drawing (Units: mm)



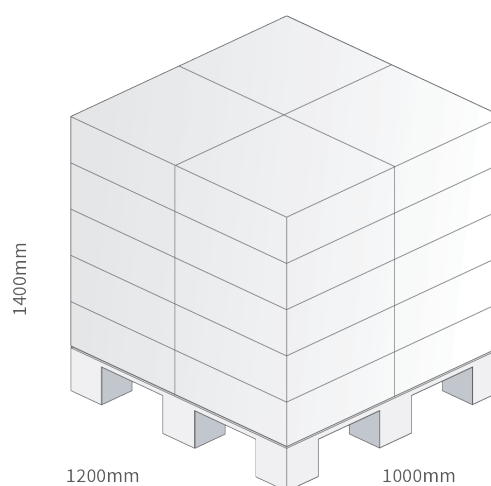
6. Packaging



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



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