



TAOGLAS®



Datasheet

Guardian

Part No:
MA910.W.A.CG.001

Description:

White 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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1. Introduction



The MA910.W Guardian is a white 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 black, contact your regional Taoglas customer support team for further information.

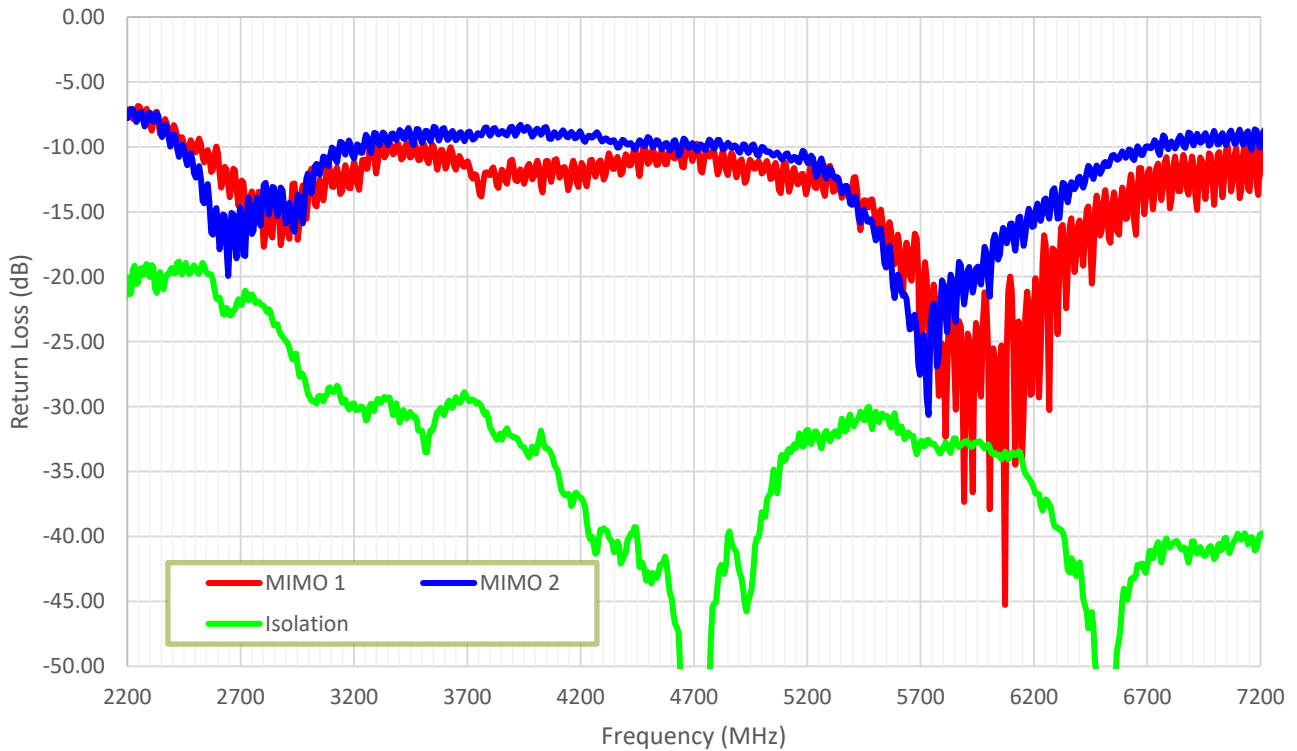
2. Specifications

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				

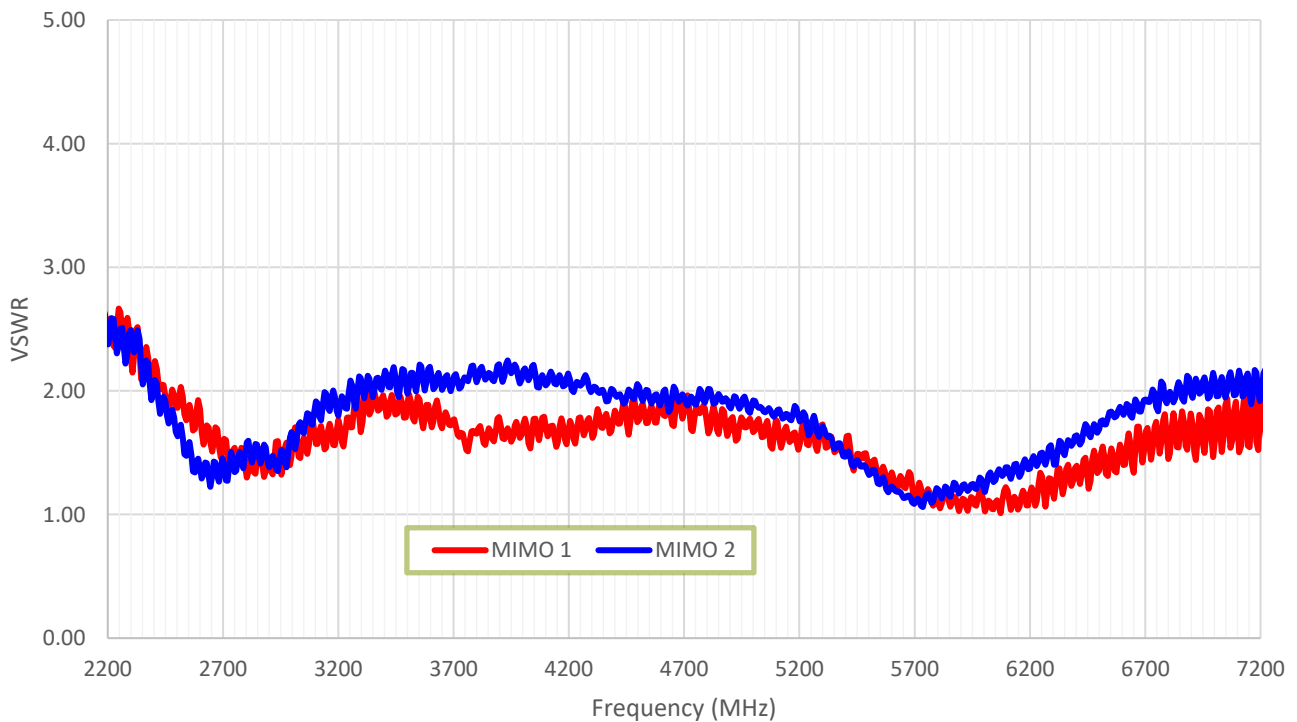
Mechanical	
Antenna Dimensions	146*134*20mm
Casing	ASA
Weight (including cable)	445g
Ingress Protection Rating	IP67
Connector	2* RP-SMA(M)
Cables	2* 3000mm TGC200
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

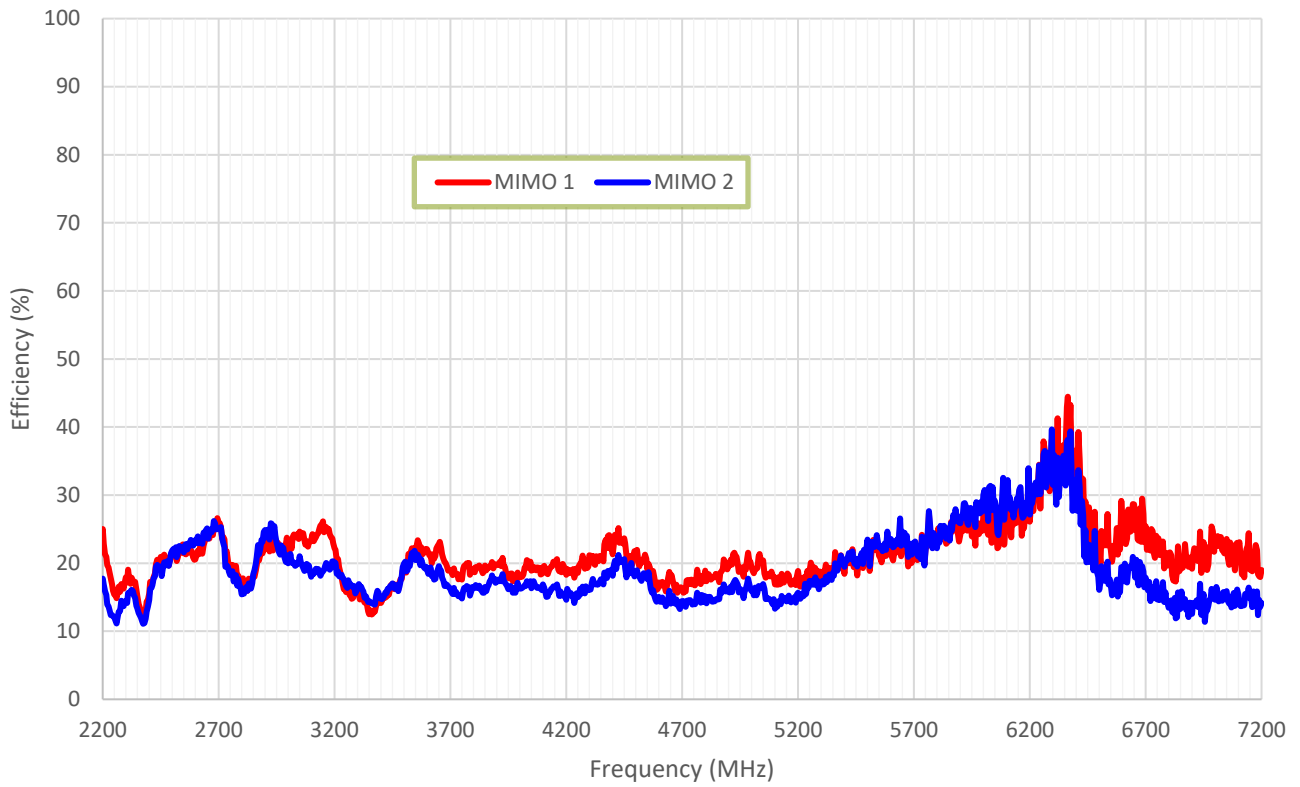
3.1 Return Loss



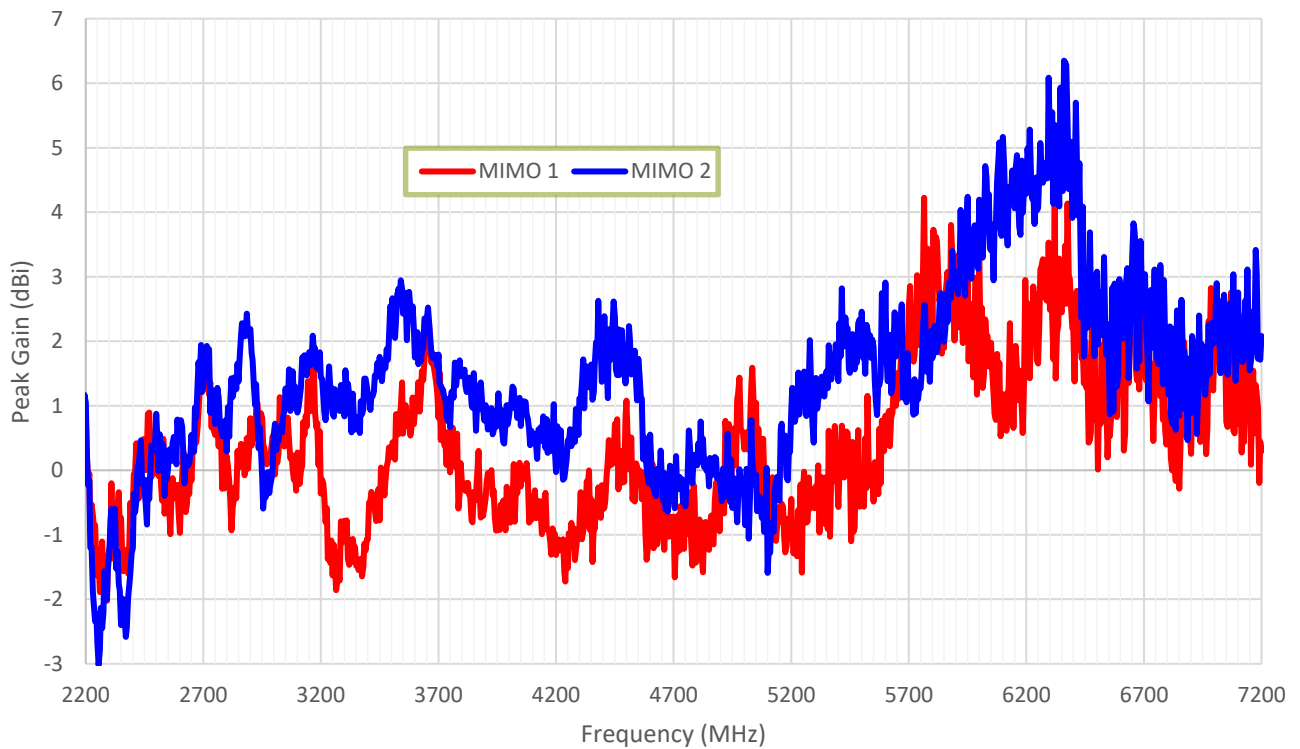
3.2 VSWR



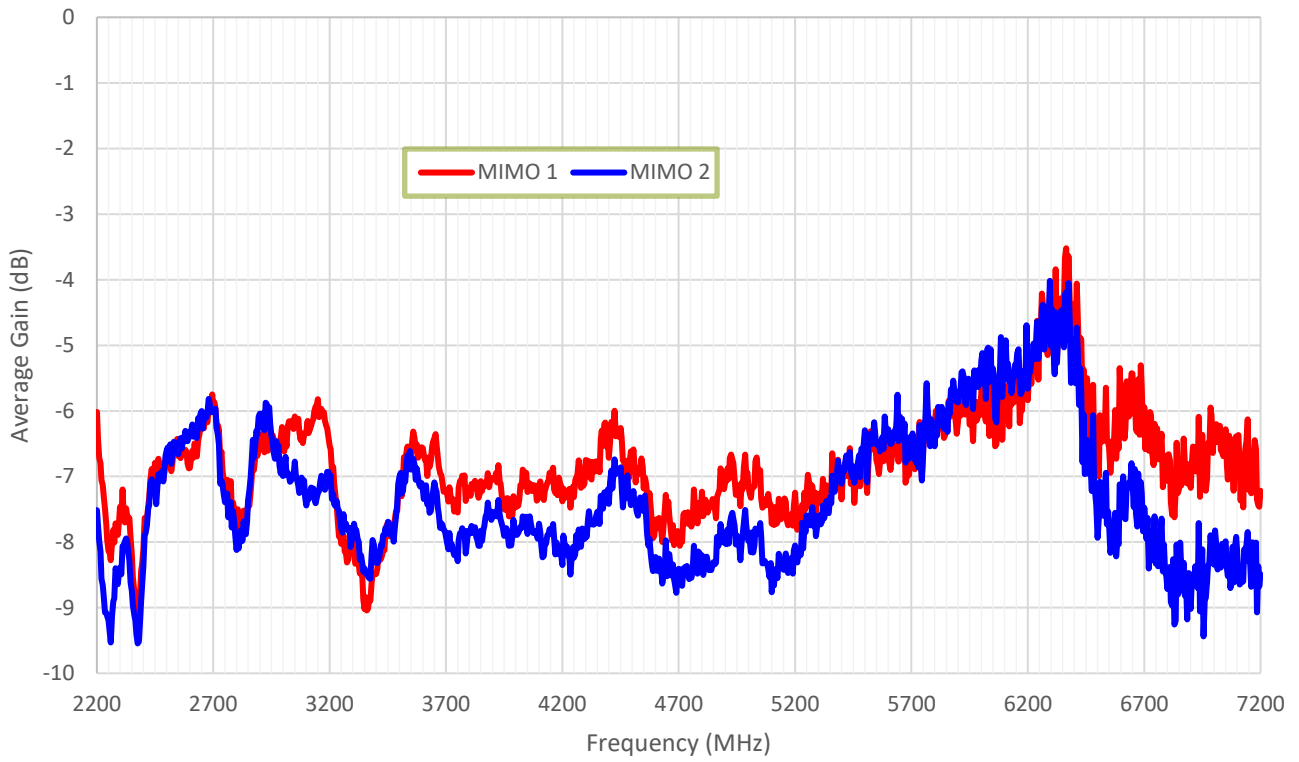
3.3 Efficiency



3.4 Peak Gain



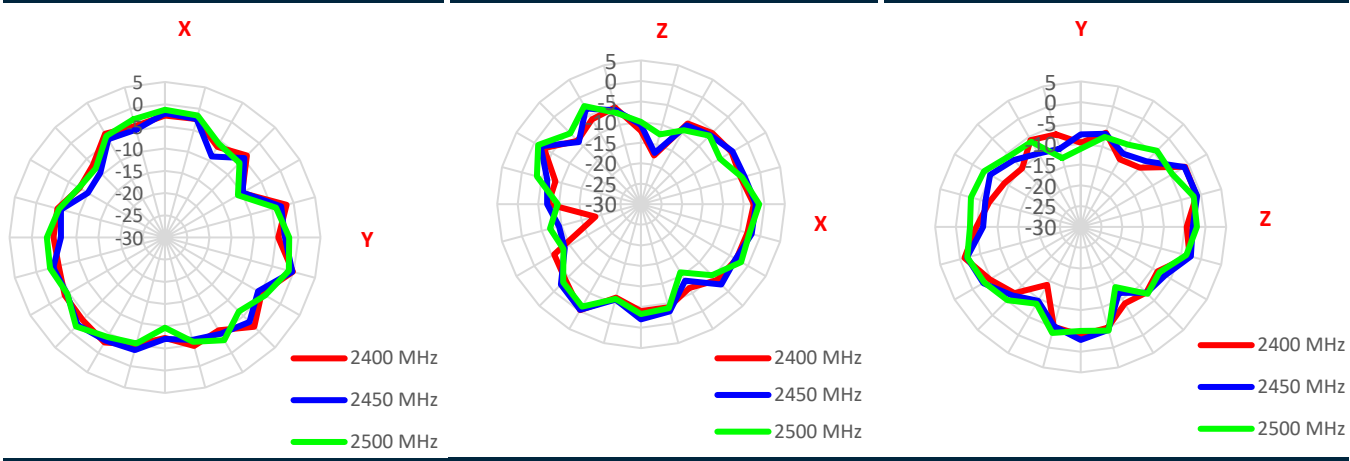
3.5 Average Gain



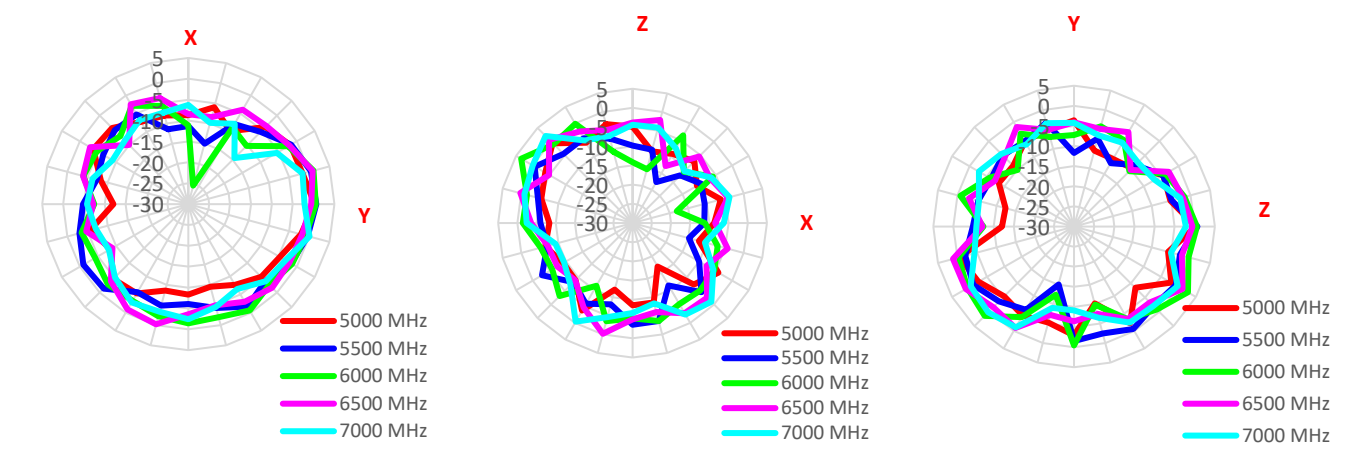
4. Radiation Patterns

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

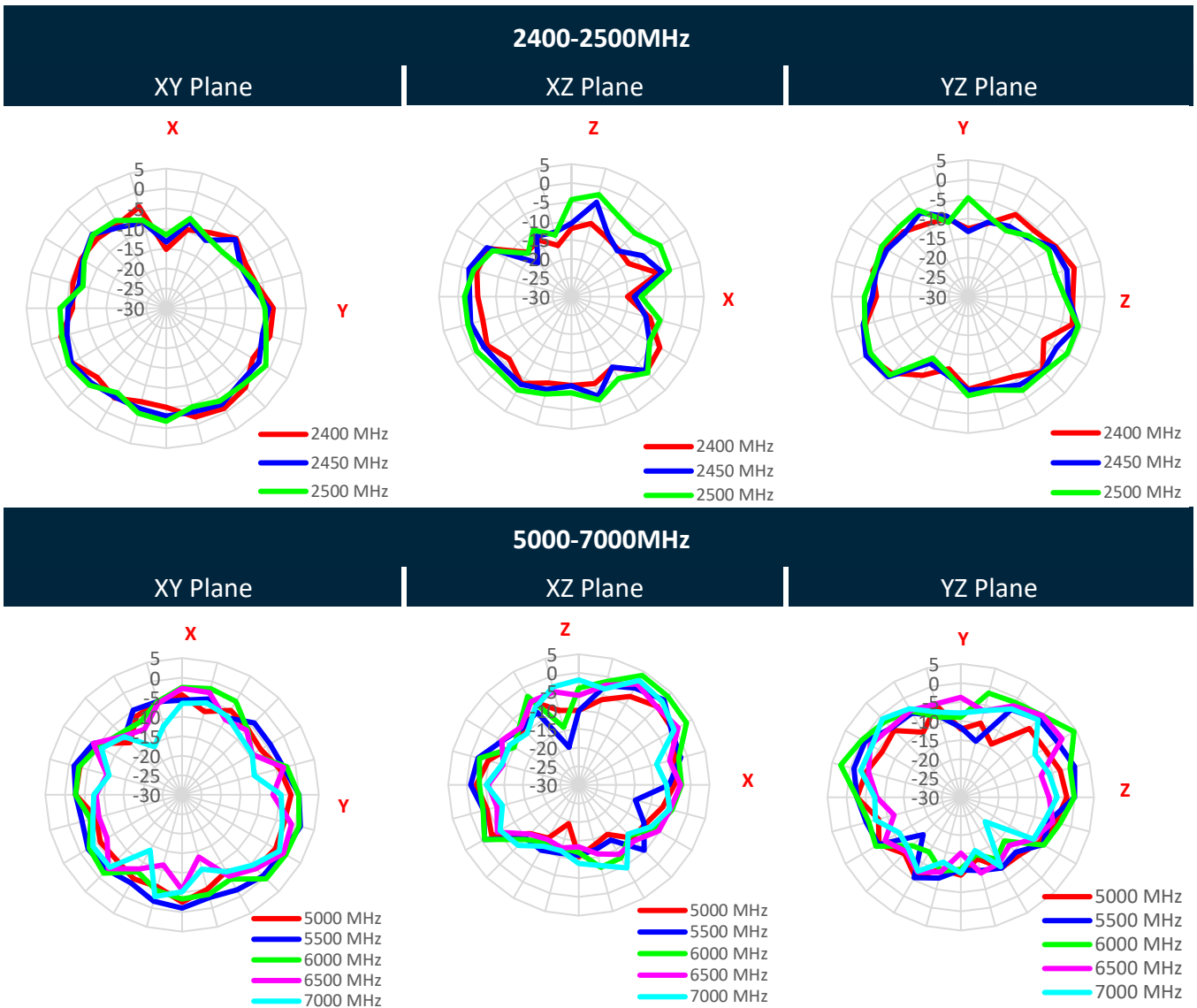
2400-2500MHz



5000-7000MHz



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



5. Mechanical Drawing (Units: mm)

6	5	4	3	2	1				
ISO NO: EDW-18-8-6203		<Release>		REV	ZONE	DESCRIPTION	ENG	APPROVED	ISSUED DATE
		XX		ALL	Correct the Heat Shrink Tube	Ruby	Aaron	2020/07/31	
		YY		ALL	Modify the Cable to TGC-200<EC-21-08-004>	Aron Yan	Aaron	2020/08/08	

Front View

Side View

Back View

Bottom View Double sided Adhesive(Black Foam)

Detail A
Scale: 2:1

Name	P/N	Material	Finish	QTY
1 Top Housing	000115C020000A	ASA	White	1
2 Bottom Housing	000115C030000A	ASA	White	1
3 Rubber-2 Holes	000715H010000A	Silicone Rubber	Black	2
4 Clear Label	001015H030000A	PET	Transparent	1
5 Heat Shrink Tube (Wi-Fi-1)	001316L060000A	PE	Yellow Tube/Black Text	1
6 Heat Shrink Tube (Wi-Fi-2)	001316L070000A	PE	Yellow Tube/Black Text	1
7 Empty Label(48x30)	001015G000000A	PEPA	White	1
8 Barcode Label(25x9)	001015G010000A	PET	White	1
9 Double Sided Adhesive(Black Foam)	001019C010000A	3M 300	White Liner	1

Name	P/N	Material	Finish	QTY
XX Cable Type	306718E000000A	TGC-200	Black	2
YY Connector Type	200220K00001GA	RP-SMA(M)ST	Au Plated	2

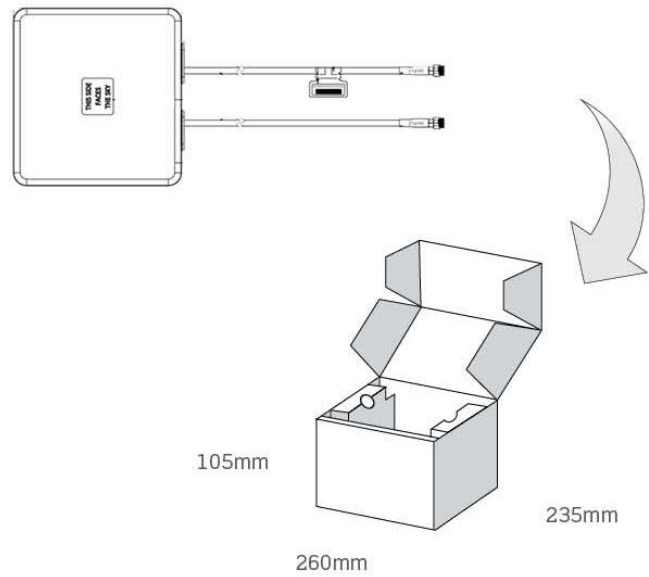
NOTES:

- All material must be RoHS compliant.
- The connector orientation has a fixed position to the antenna as per drawing.
- Part No..MA910.W.A.C305151.G305151
- Double Sided Adhesive Area :

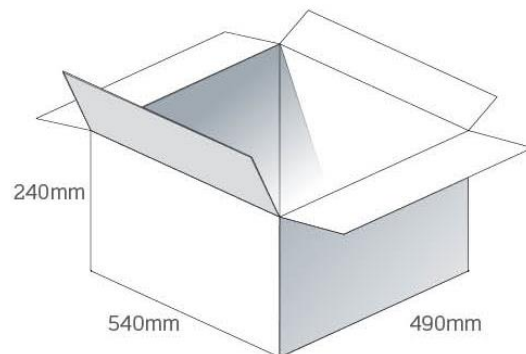
UNLESS OTHERWISE SPECIFIED TOLERANCES ON: .X± 0.2 XX± 0.5 .XX± 0.1 X.± 0.3 .XXX± 0.05	DATE: 2016/12/06	MAT'L:	TW Design Centre This drawing and its inherent design concepts are property of Taoglas. Not to be copied or given to third parties without the written consent of Taoglas.	REV D07
	UNIT: mm	FINISH:		
THIRD ANGLE PROJECTION	SCALE: 1/2.5		TITLE. : 2in1 White Adhesive Wi-Fi(1&2) 3000mm TGC-200 RP-SMA(M)	
APPROVED BY: Paul	CHECKED BY: Jack/Jason	DRAWN BY: Haley	PART NO. : MA910.W.A.CG.001	

6. Packaging

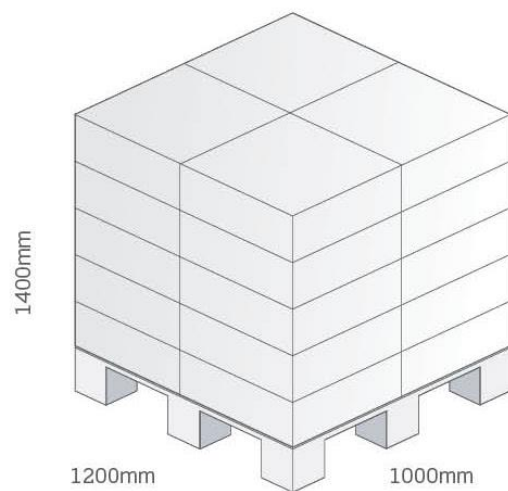
1 No. MA910.W.A.CG.001 per small box
 Box Dimensions - 260 x 235 x 105mm
 Weight - 0.75Kg



8 pcs MA910.W.A.CG.001 per carton
 Carton Dimensions - 540 x 490 x 240mm
 Weight - 6.6Kg



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



Changelog for the datasheet

SPE-17-8-078 – MA910.W.A.CG.001

Revision: E (Current Version)	
Date:	2022-07-12
Changes:	Drawing Updated
Changes Made by:	Cesar Sousa

Previous Revisions

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

Revision: C	
Date:	2019-11-21
Changes:	Drawing Updated
Changes Made by:	Jack Conroy

Revision: B	
Date:	2018-04-27
Changes:	Peak Gain
Changes Made by:	Jack Conroy

Revision: A (Original First Release)	
Date:	2017-10-31
Notes:	
Author:	Jack Conroy