



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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046



IATF16949



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.

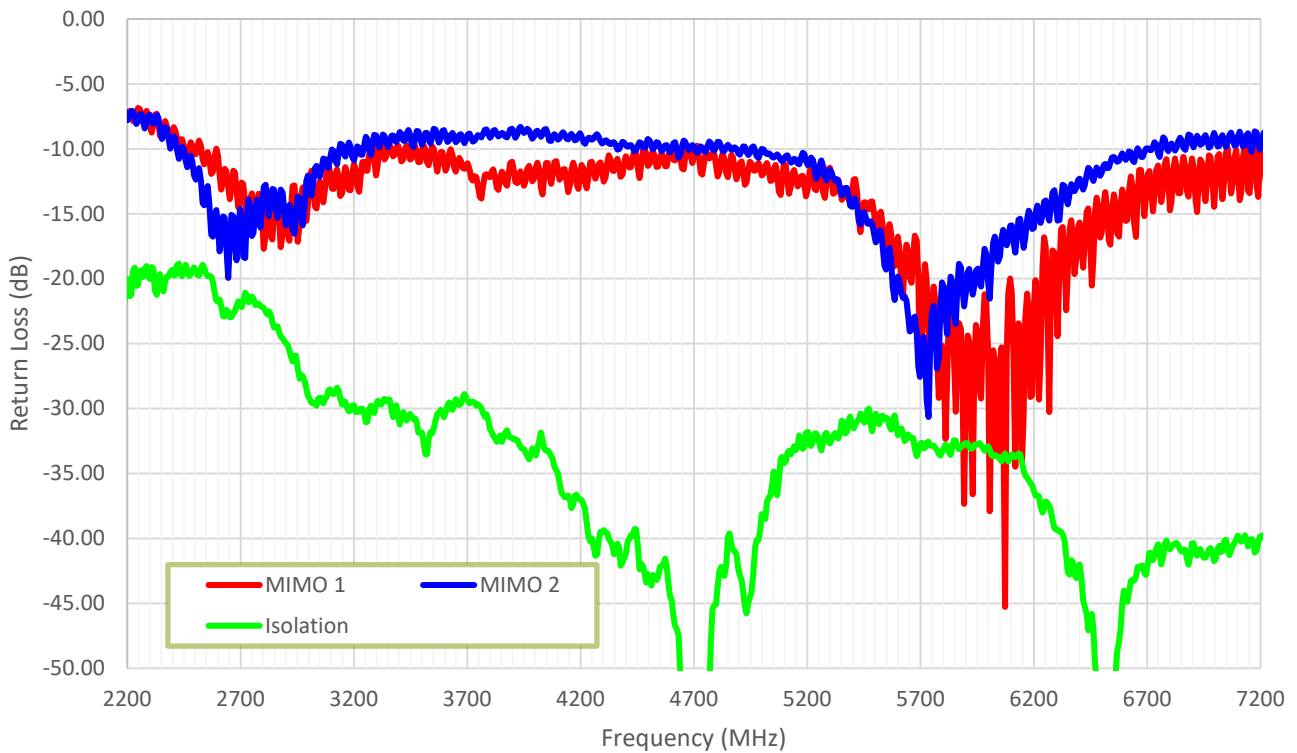
2. Specifications

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				

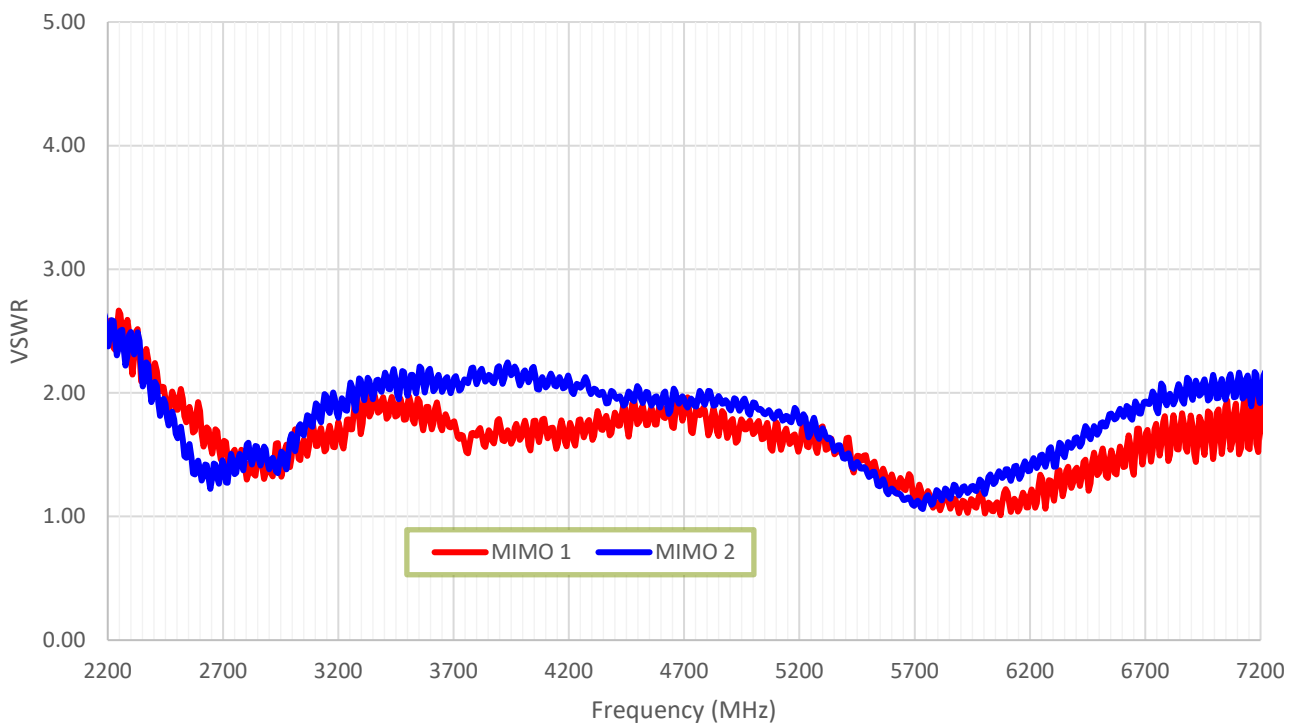
Mechanical	
Antenna Dimensions	146*134*20mm
Casing	ASA
Weight (including cable)	455g
Ingress Protection Rating	IP67
Connector	2* RP-SMA(M)
Cables	2* 3000mm TGC200
Environmental	
Operation Temperature	-40°C to 85°C
Storage Temperature	-40°C to 90°C
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

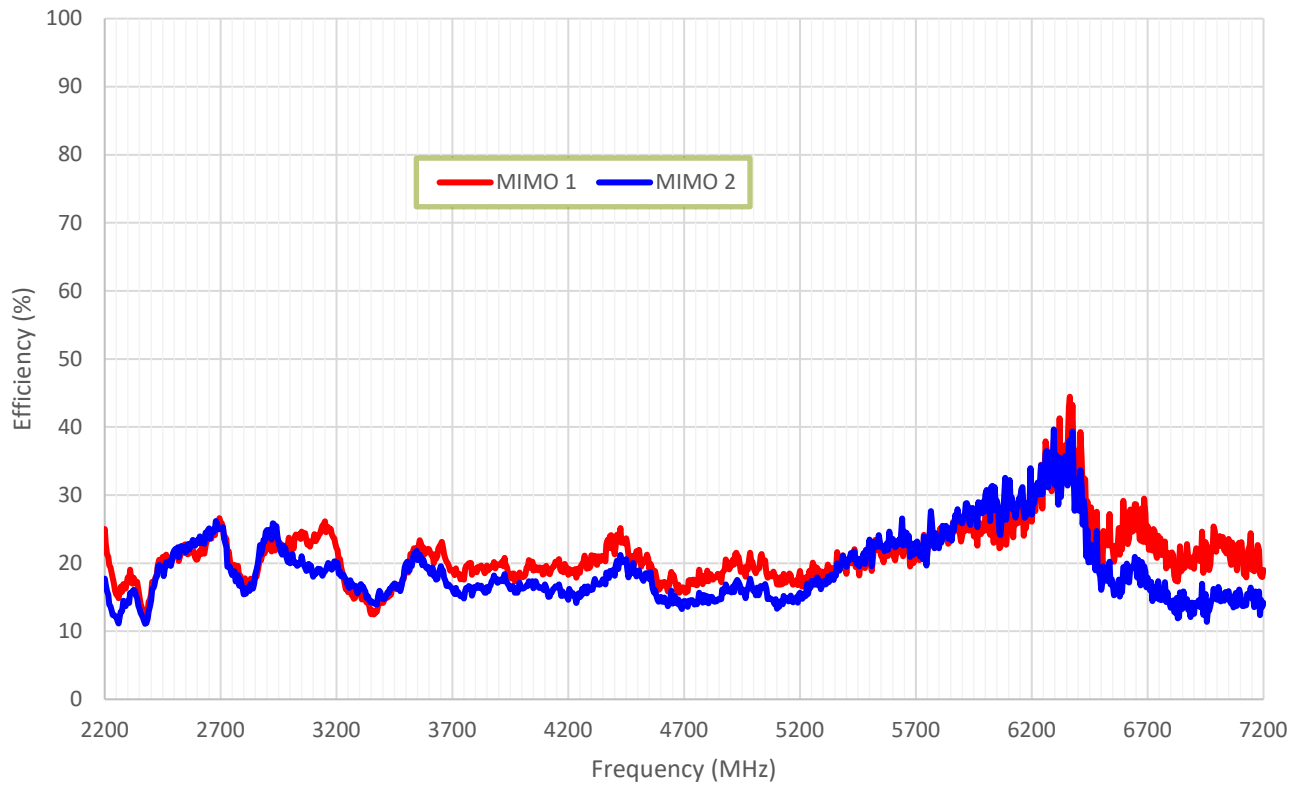
3.1 Return Loss



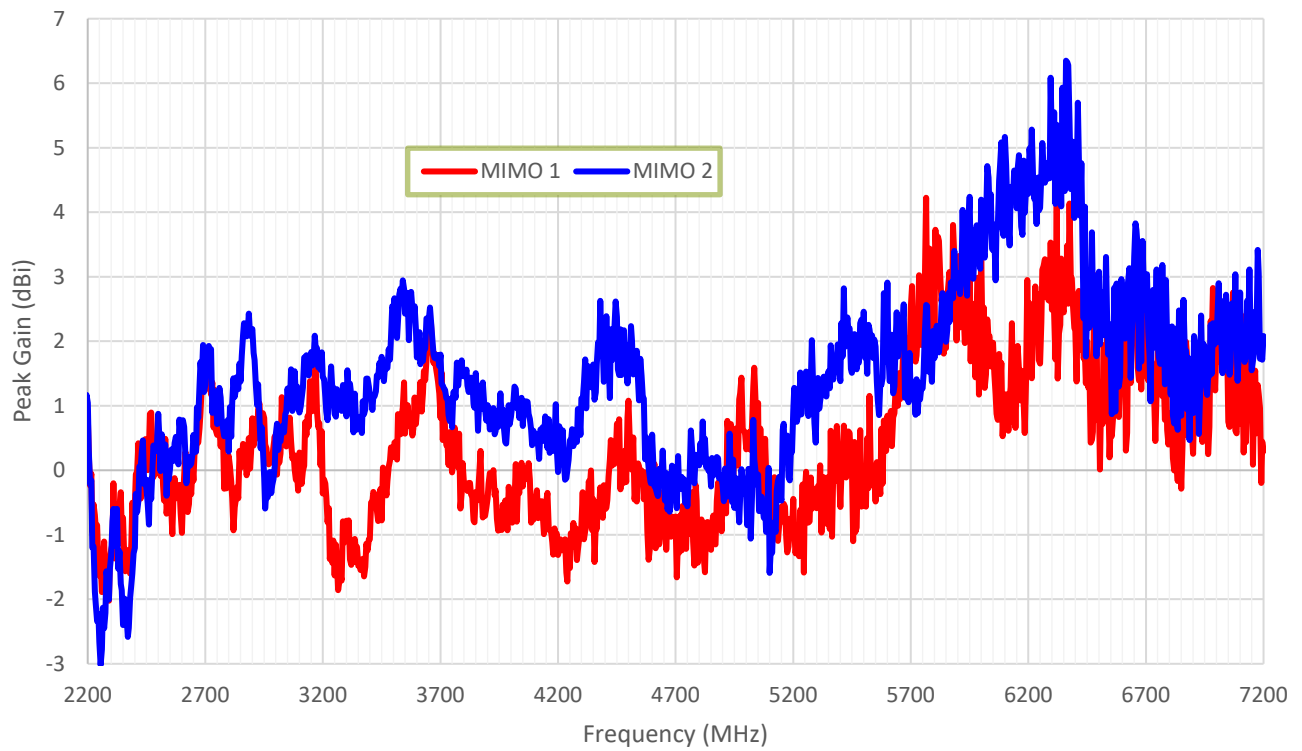
3.2 VSWR



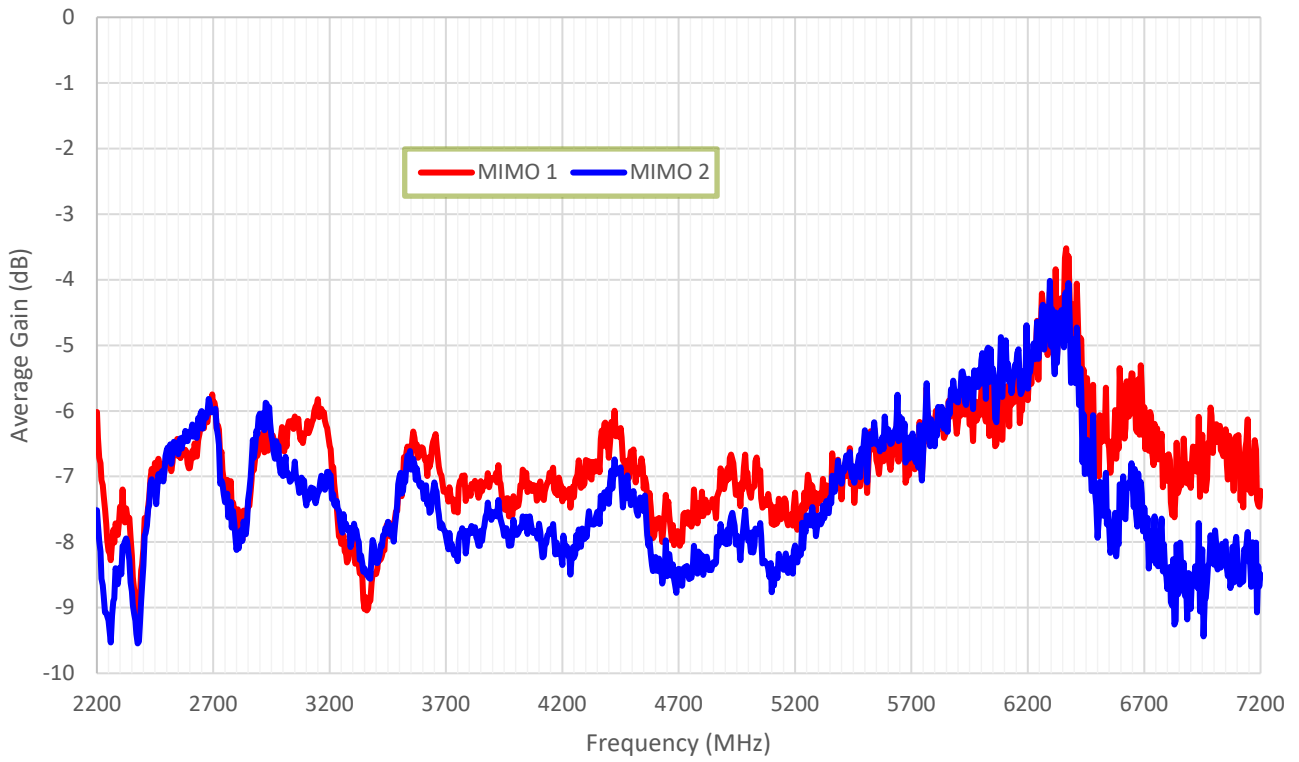
3.3 Efficiency



3.4 Peak Gain

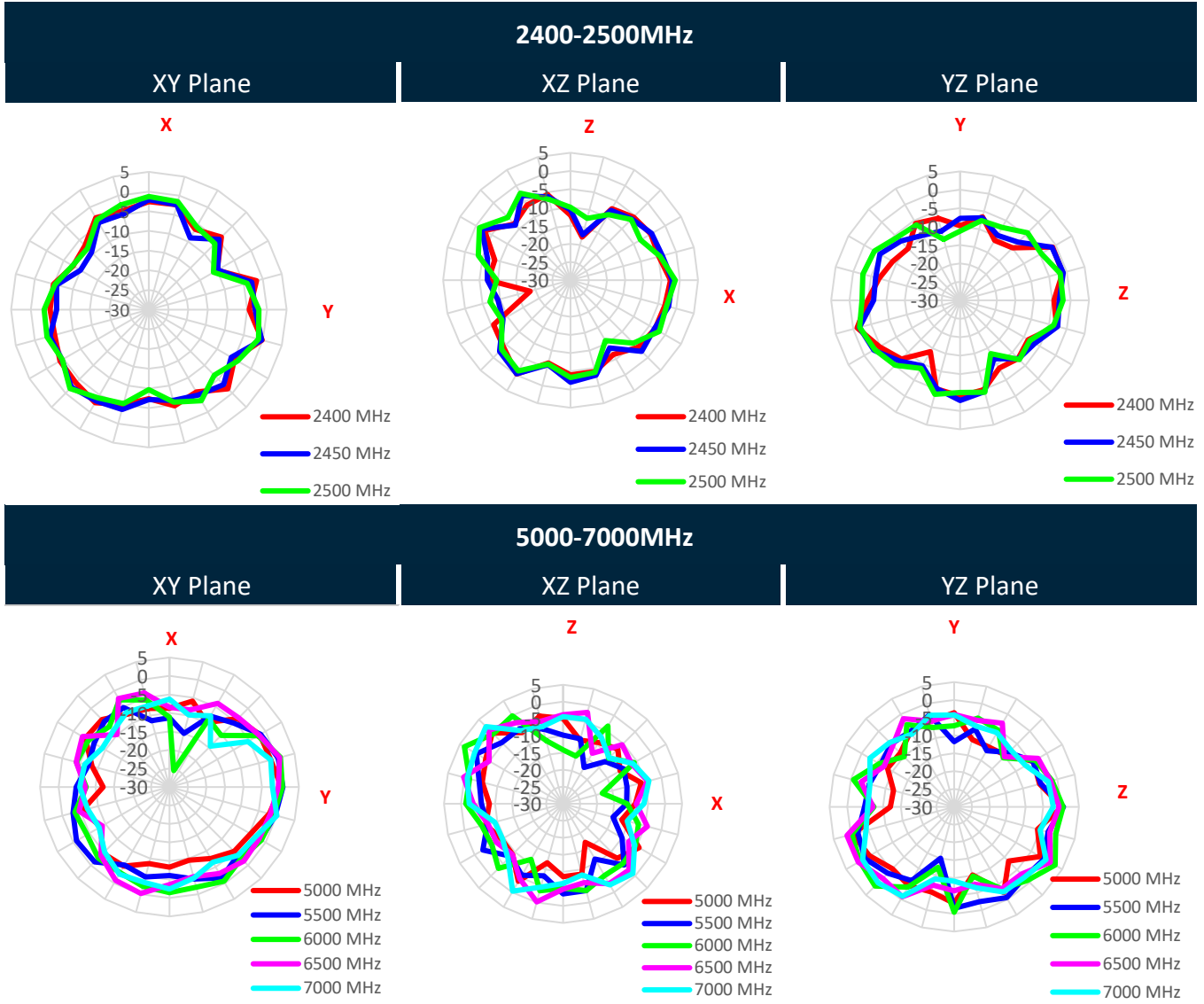


3.5 Average Gain

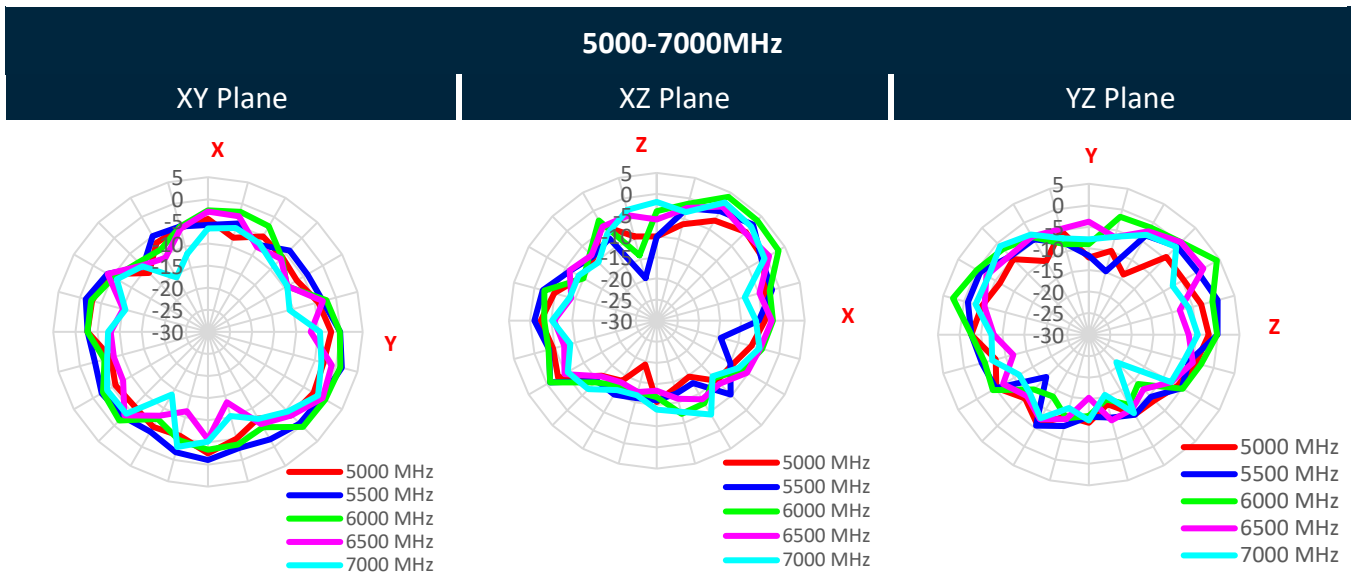
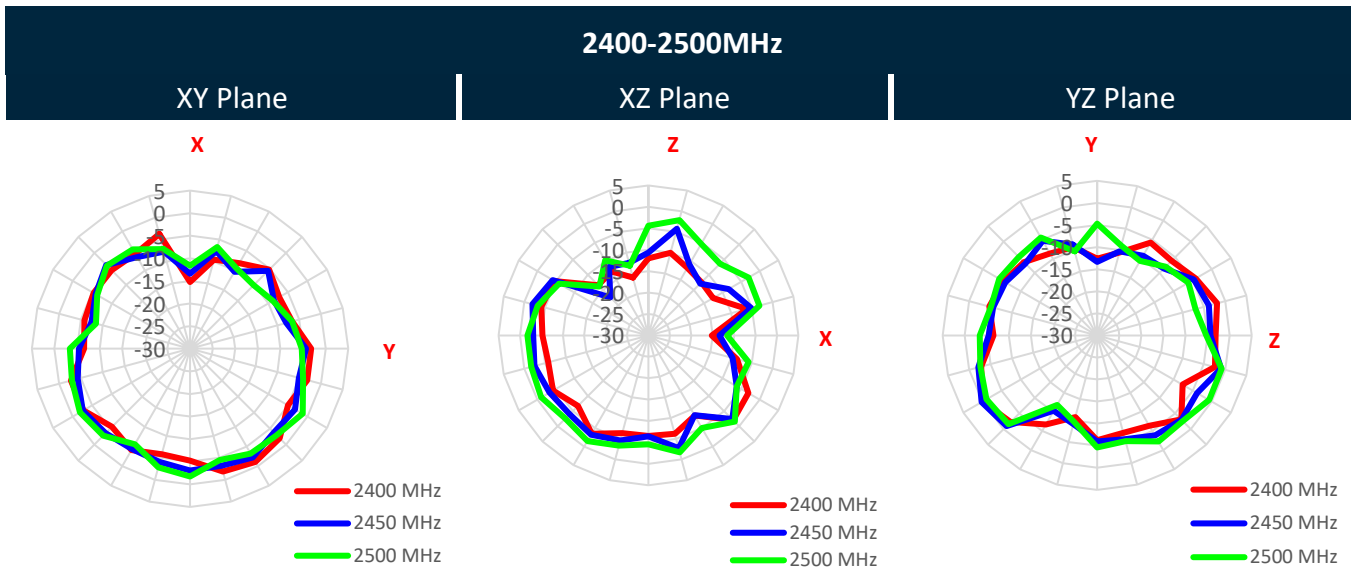


4. Radiation Patterns

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



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-18-8-6200		REV ZONE DESCRIPTION ENG APPROVED ISSUED DATE			
<Release>		1		2016/12/12	
		2		2019/01/16	
		3		2019/11/20	
		4		2020/06/30	
		5		2021/08/05	
		6			

Front View

Bottom View

Side View

Back View

Detail A Scale: 2:1

Double sided Adhesive(Black Foam)

NOTES:

- All material must be RoHS compliant.
- The connector orientation has a fixed position to the antenna as per drawing.
- Double Sided Adhesive Area :

Name	P/N	Material	Finish	QTY
1 Top Housing	000116B000000A	ASA	Black	1
2 Bottom Housing	000116B010000A	ASA	Black	1
3 Rubber-2 Holes	000715H010000A	Silicone Rubber	Black	2
4 Clear Label	001015H040000A	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	001015G000000A	PEPA	White	1
8 Barcode Label	001015G010000A	PET	White	1
9 Double Sided Adhesive(Black Foam)	001019C010000A	GRUBS-3MM48K 35H	White Liner	1
10 TGC200 Coaxial Cable	306718E000000A	PE	Black	2
11 RP-SMA(M)ST	200220K00001GA	Brass	Au Plated	2

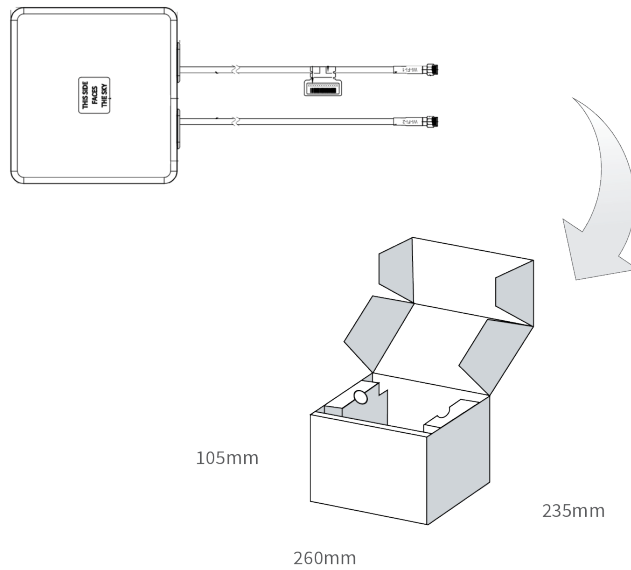
TW Design Centre
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UNLESS OTHERWISE SPECIFIED TOLERANCES ON:		DATE: 2016/12/12	MAT'L:	TW Design Centre This drawing and its inherent design concepts are property of Taoglas. Not to be copied or given to third parties without the written consent of Taoglas.	REV D05 A
.X± 0.2		UNIT: mm	FINISH:		
XX± 0.5 .XX± 0.1		THIRD ANGLE PROJECTION	SCALE: 1/2.5		
X± 0.3 .XXX± 0.05		APPROVED BY: CHECKED BY: DRAWN BY: CUSTOMERS SIGNATURE / DATE			
Paul Jason Haley					

TITLE : 2in1 Adhesive 2* Wi-Fi MIMO 3M TGC-200 RP-SMA(M)

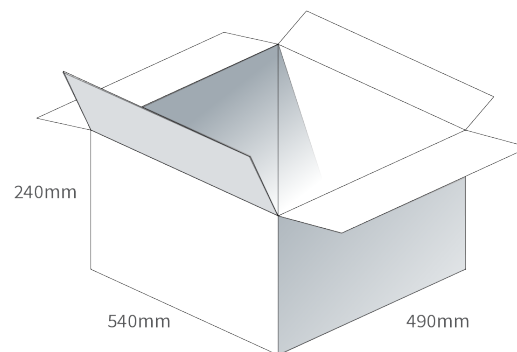
PART NO. : MA910.A.CG.001

6. Packaging

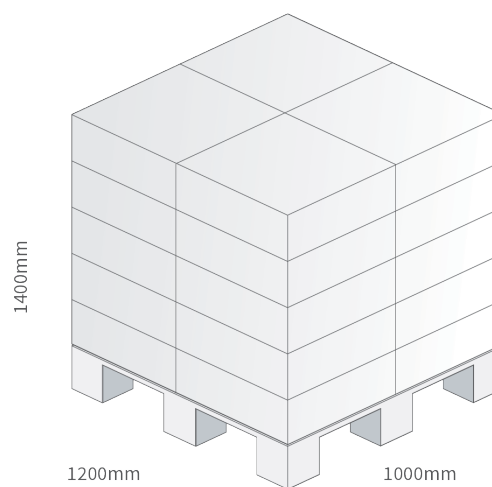


1 No. MA910.A.CG.001 per small box
 Box Dimensions - 260 x 235 x 105mm
 Weight - 0.45Kg

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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