



TAOGLAS®



Datasheet

868MHz Road Marker Antenna

Part No:
RI.08.A.0121

Description:

862-870MHz Adhesive Mount Road Marker/Manhole Antenna

Features:

Adhesive Mount
862-870MHz Band
IK10 Rated Housing
Vandal Resistant ABS housing
SMA(F) Direct Mount
RoHS & REACH Compliant

1. Introduction	3
2. Specifications	4
3. Antenna Characteristics	5
4. Radiation Patterns	7
5. Mechanical Drawing	11
6. Packaging	12
Changelog	13

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1. Introduction



The Taoglas RI.08.A.0121 is an adhesive mount 868MHz road marker/manhole antenna designed for use in conjunction with “Bott’s dots”. The vandal resistant, non-reflective, low-profile housing allows it to be directly mounted onto the pavement, road or manhole. The RI.08 has been designed for the 862-870MHz ISM band and uses the existing road marker style housing created by Taoglas and include a direct mount SMA female connector.

This antenna can be used in many different applications, such as:

- Remote Monitoring
- Smart Metering
- Security

When installing this antenna, the SMA female direct mount can be used to directly mount onto a surface, Taoglas can also supply a customized cable with connector to suit a customer’s needs. It is recommended that 3M VHB 4955 Adhesive is used to mount this antenna onto the required surface.

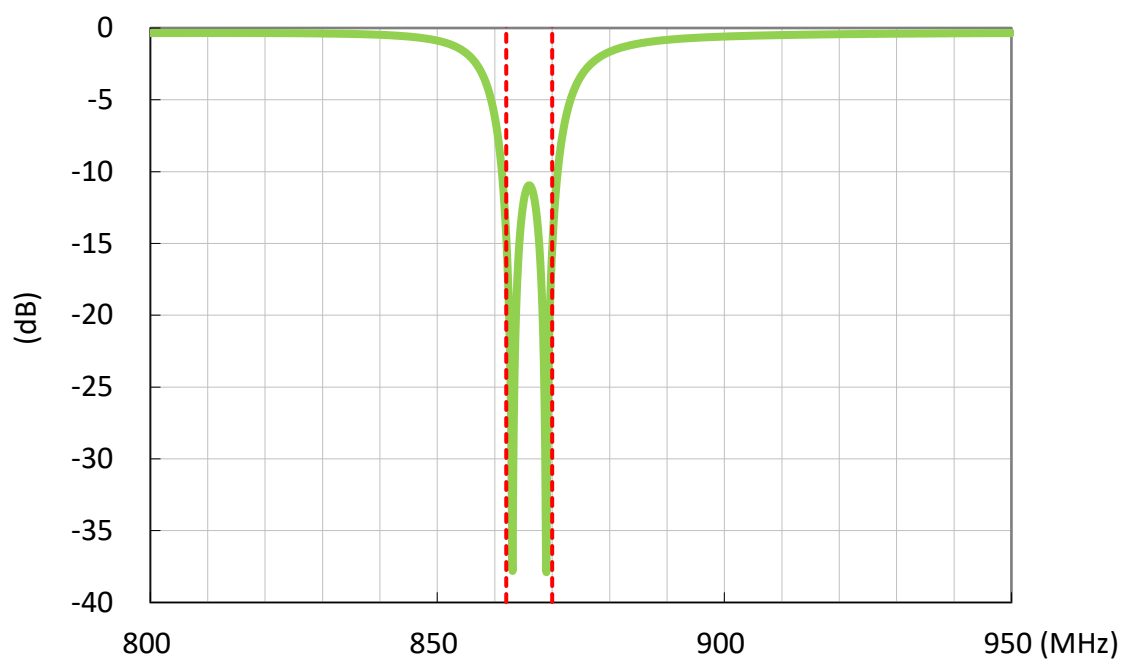
All cable and connectors are customizable, contact your regional Taoglas sales office for customization and additional support.

2. Specifications

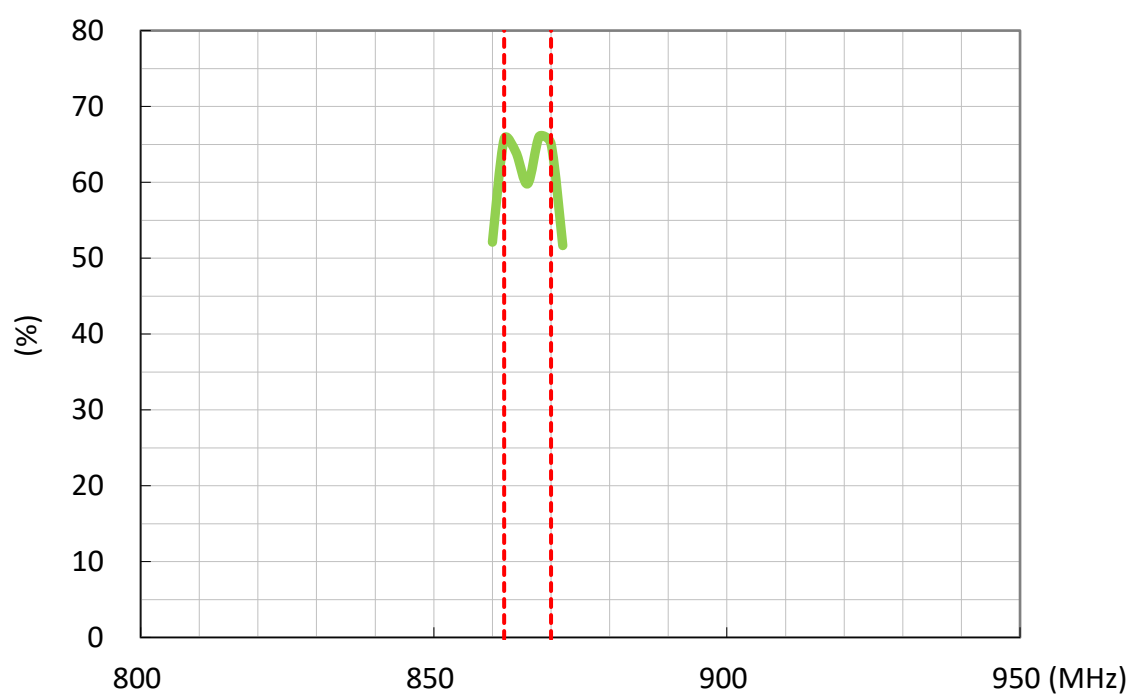
Electrical			
Frequency (MHz)	862MHz	868MHz	870MHz
Peak Gain (dBi)			
	3.9	3.4	3.9
Average Gain (dB)			
	-1.8	-2.2	-1.8
Efficiency (%)			
	65.6	59.8	65.0
Impedance	50Ω		
Polarization	Linear		
Radiation Pattern	Omni		
Input Power	10 W		
Mechanical			
Diameter	101.4mm		
Height	17.6mm		
Casing	ABS		
Connector	SMA Female Direct Mount		
Housing Rating	IK10		
Shock (Drop Test)	1m drop on concrete 6 axes		
Environmental			
Temperature Range	-40°C to 85°C		
Humidity	Non-condensing 65°C 95% RH		
Corrosion	5% NaCl for 96hrs		

3. Antenna Characteristics

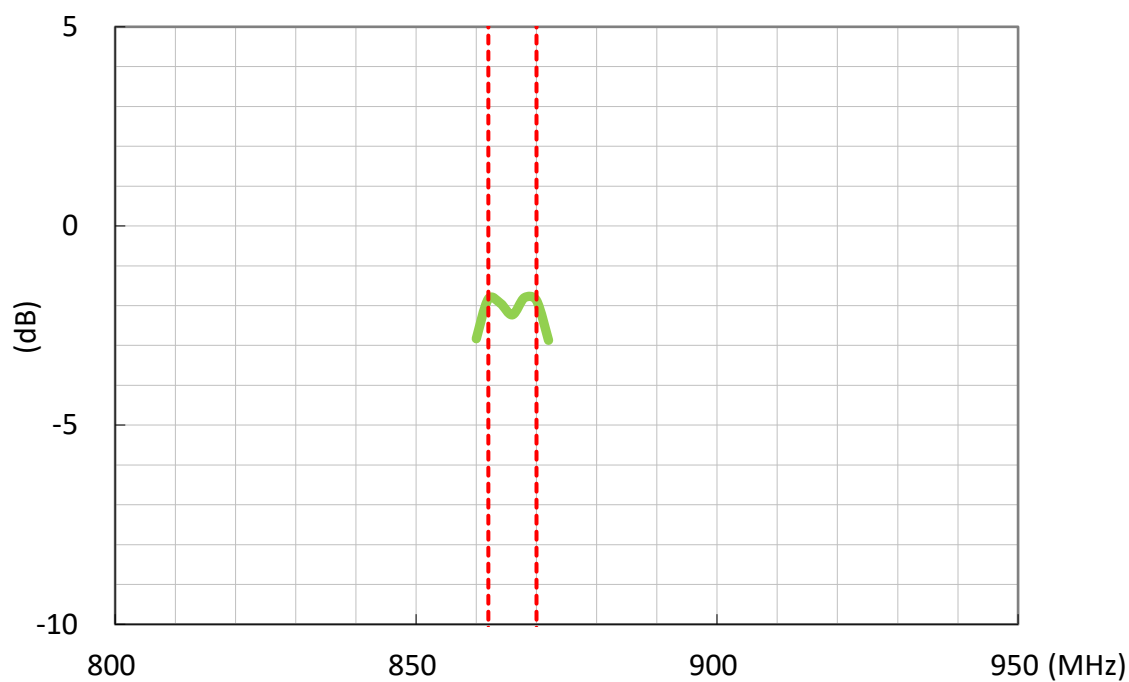
3.1 Return Loss



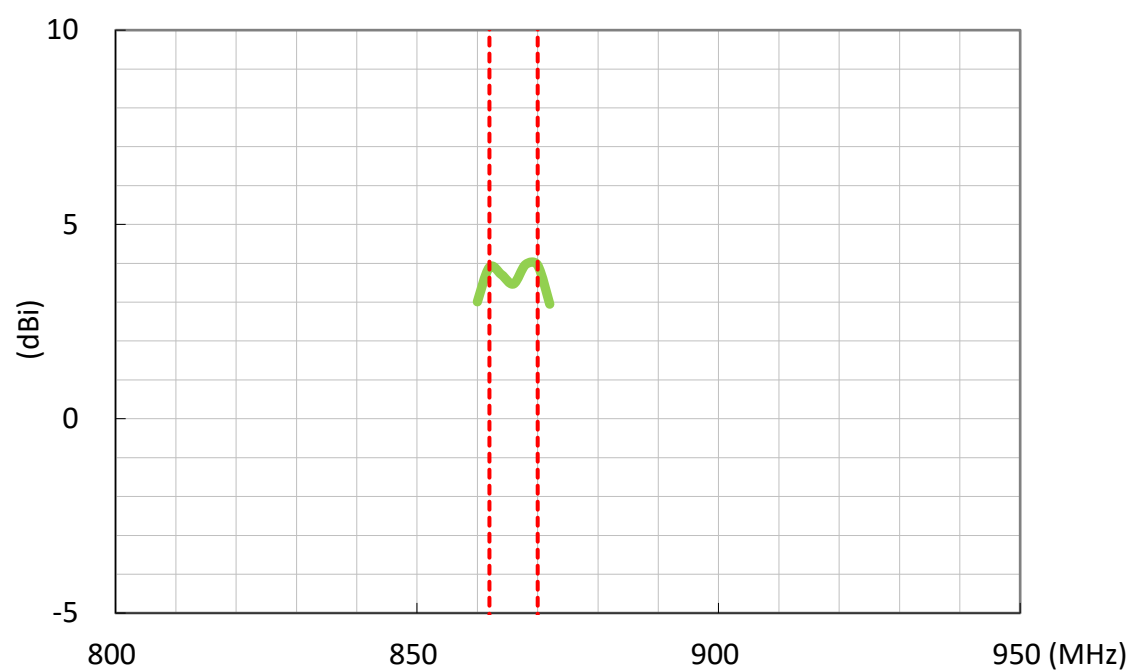
3.2 Efficiency



3.3 Average Gain

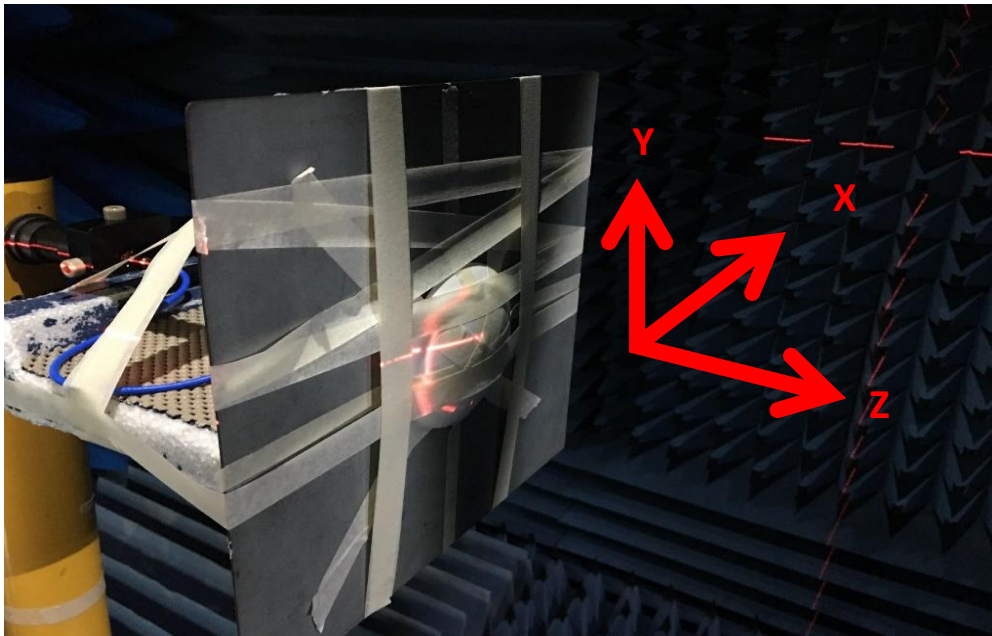


3.4 Peak Gain



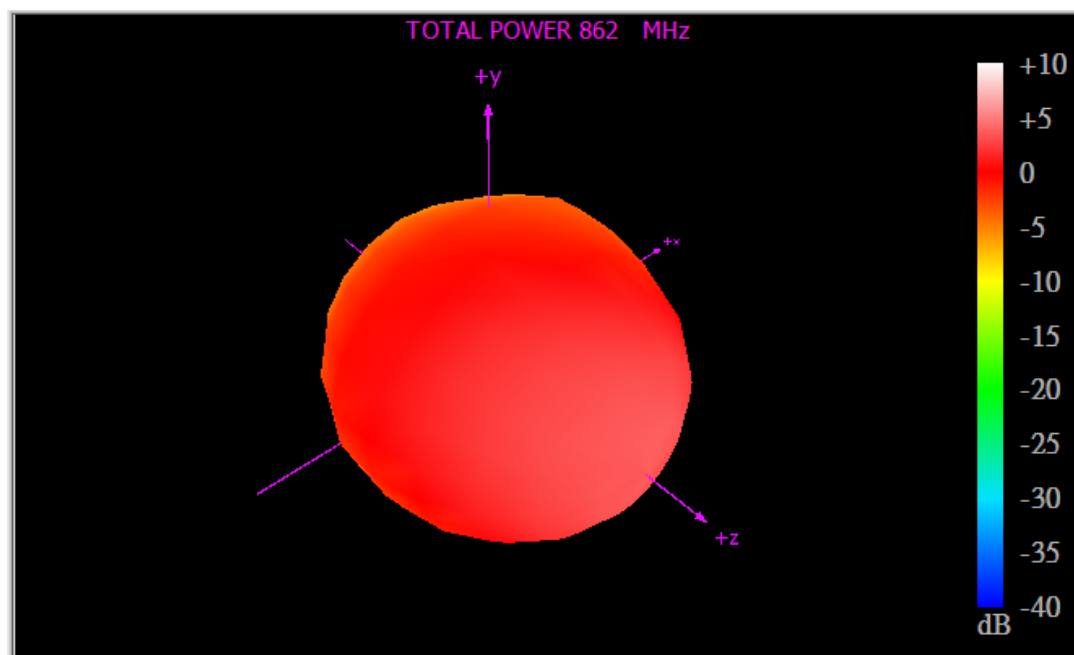
4. Radiation Patterns

4.1 Test Setup



Tested on 1*1m Metal Ground Plane

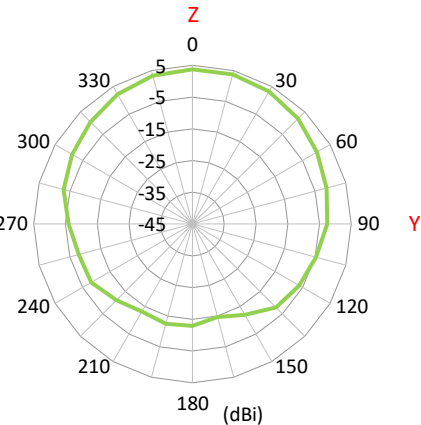
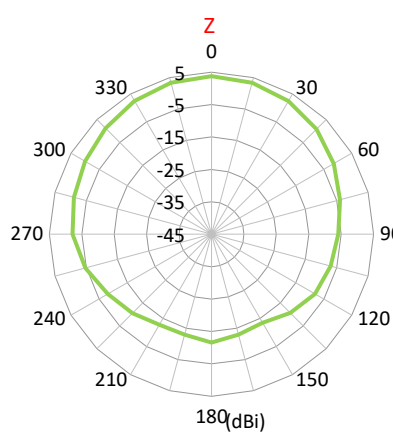
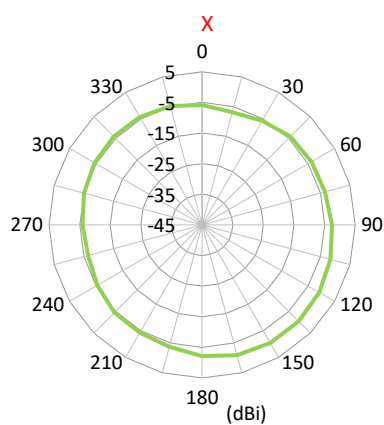
4.2 862Hz 3D and 2D Radiation Patterns



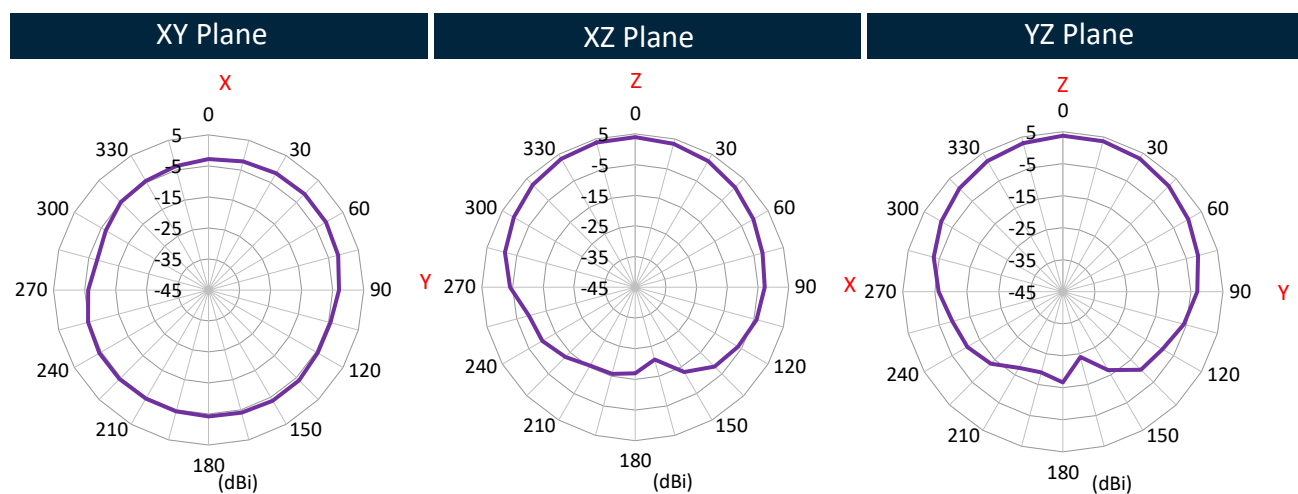
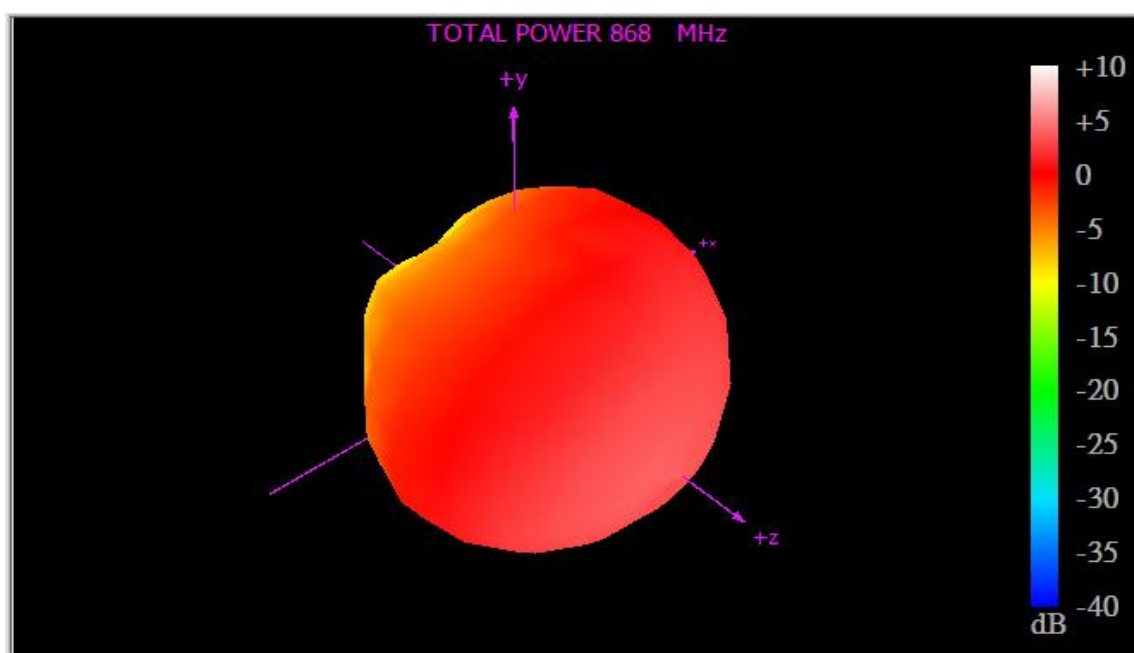
XY Plane

XZ Plane

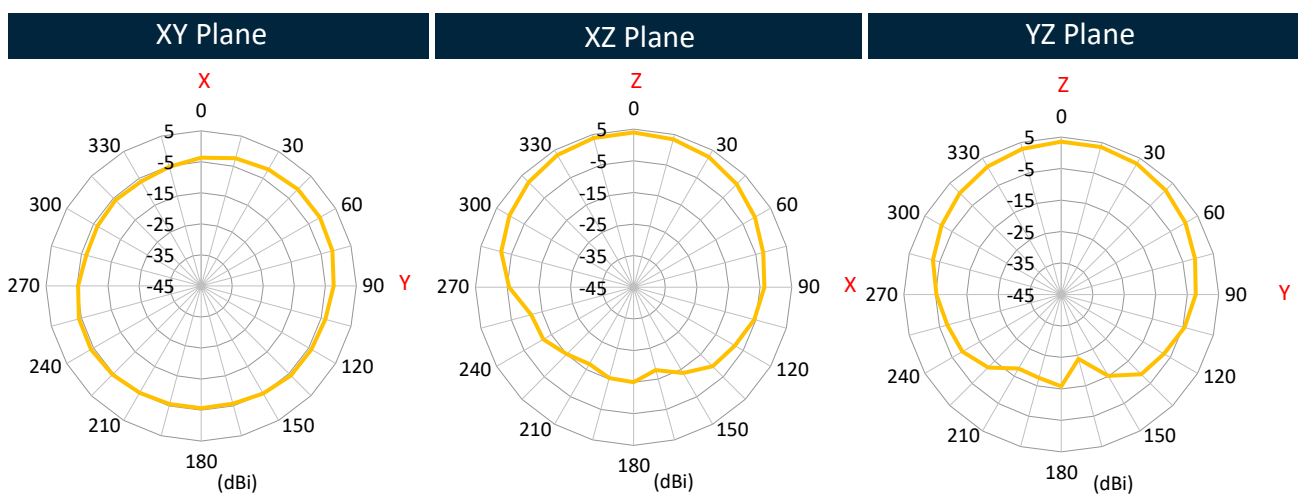
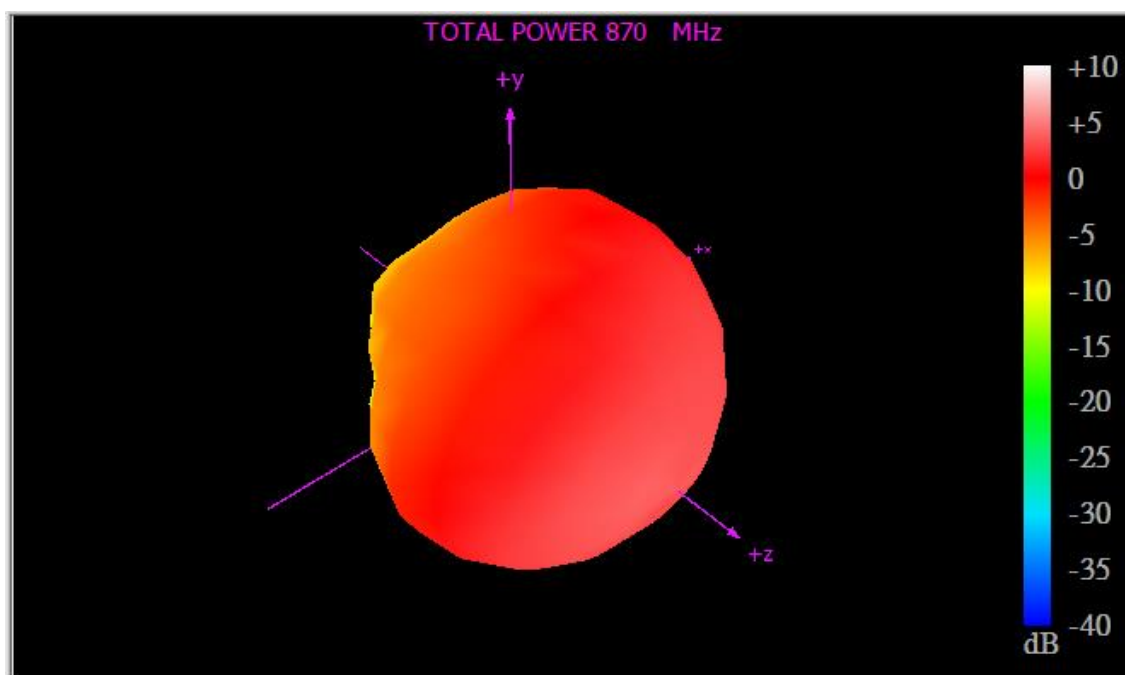
YZ Plane



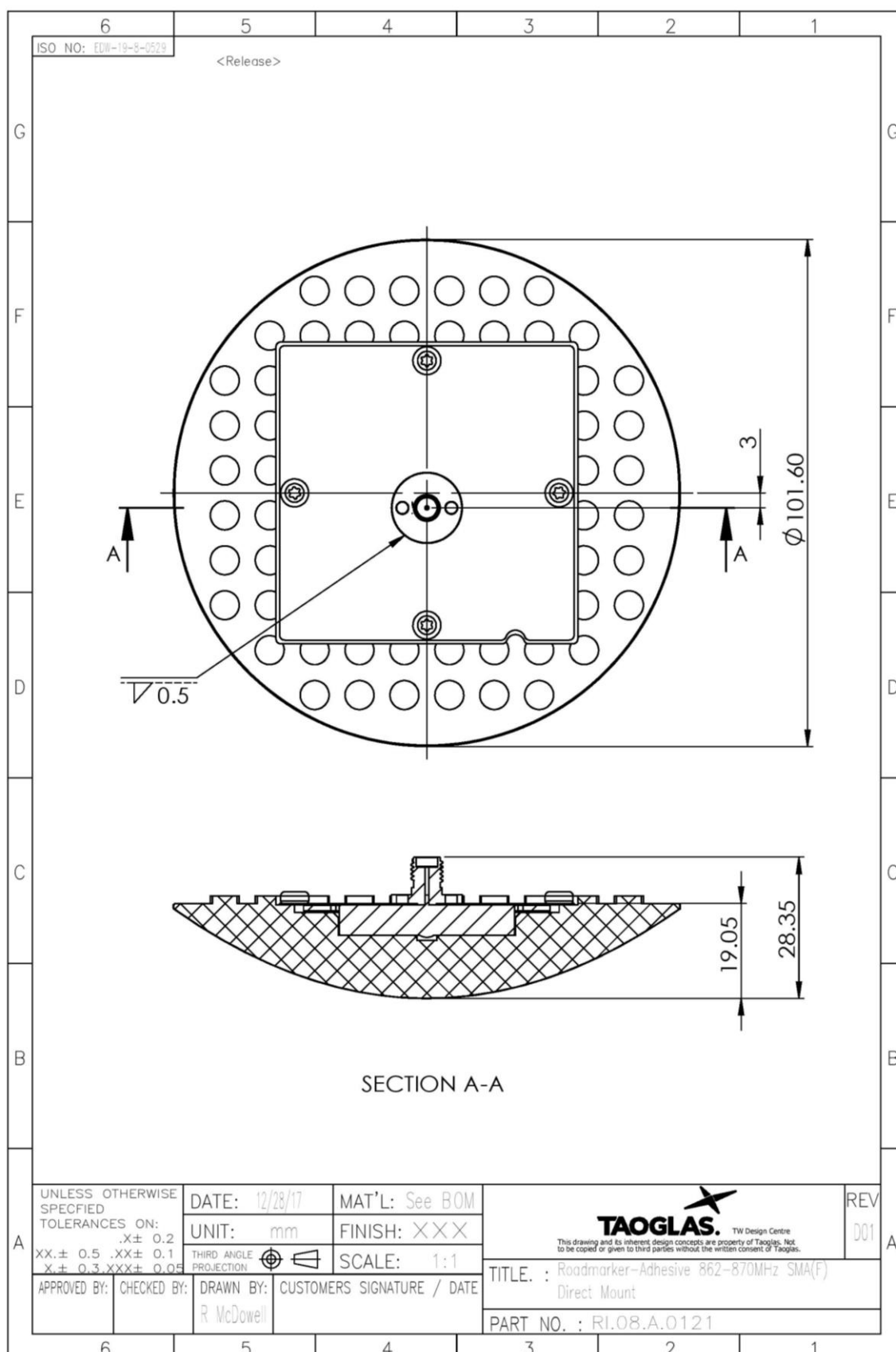
4.3 868Hz 3D and 2D Radiation Patterns



4.4 868Hz 3D and 2D Radiation Patterns

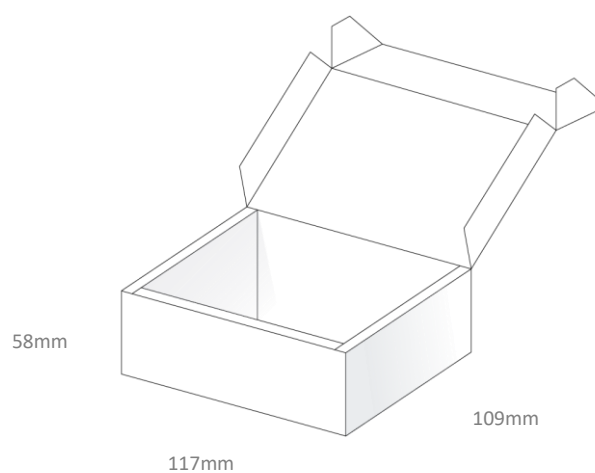


5. Mechanical Drawing (Units: mm)

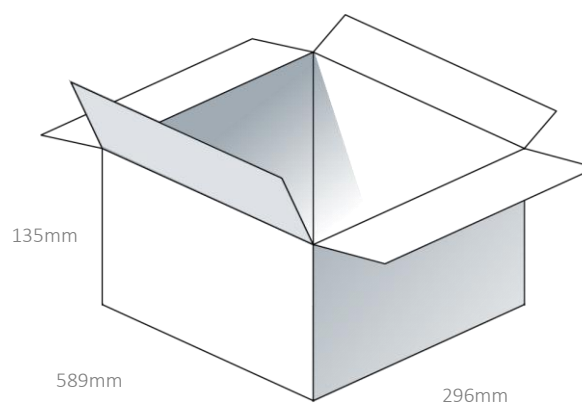


6. Packaging

1pc RI.08.A.0121 per Carton
 Inner Carton Dimensions: 117*109*58mm
 Weight: 162g



24pcs RI.08.A.0121 per Carton
 Dimensions - 135*296*589mm
 Weight – 4.736Kg



Changelog for the datasheet

SPE-19-8-093 – RI.08.A.0121

Revision: C (Current Version)

Date:	2023-10-16
Changes:	Updated casing material
Changes Made by:	Cesar Sousa

Previous Revisions

Revision: B

Date:	2020-06-02
Changes:	Removed Reference to adhesive
Changes Made by:	Jack Conroy

Revision: A (Original First Release)

Date:	2019-08-06
Notes:	
Author:	Jack Conroy



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