



TAOGLAS®



Datasheet

915MHz Road Marker Antenna

Part No:
RI.09.A.0121

Description:

902-928MHz Adhesive Direct Mount Road Marker Antenna

Features:

- Adhesive Roadmarker
- 902-928MHz Band
- IK10 Rated Housing
- Vandal resistant PP housing
- SMA(F) Direct Mount
- RoHS & REACH Compliant

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1. Introduction



The Taoglas RI.09.A.0121 is an Adhesive Roadmarker antenna designed for use in conjunction with “Bott’s dots”. The UV and vandal resistant, non-reflective, low-profile housing allows it to be directly mounted onto the pavement or road. The RI.09 has been designed for the 902-928MHz ISM band and uses the existing Roadmarker style housing created by Taoglas with a new style 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. The 3M VHB 4955 Adhesive is used to mount this antenna onto the required surface.

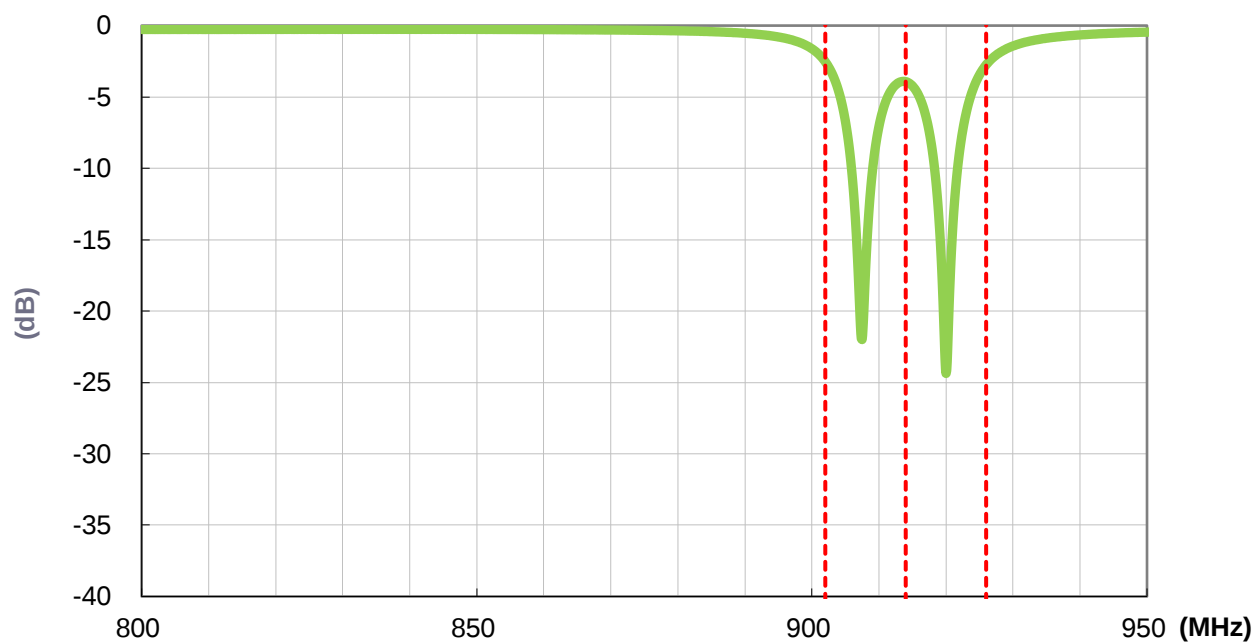
All cable and connectors are customizable, contact your regional Taoglas sales office for customization and additional support.

2. Specifications

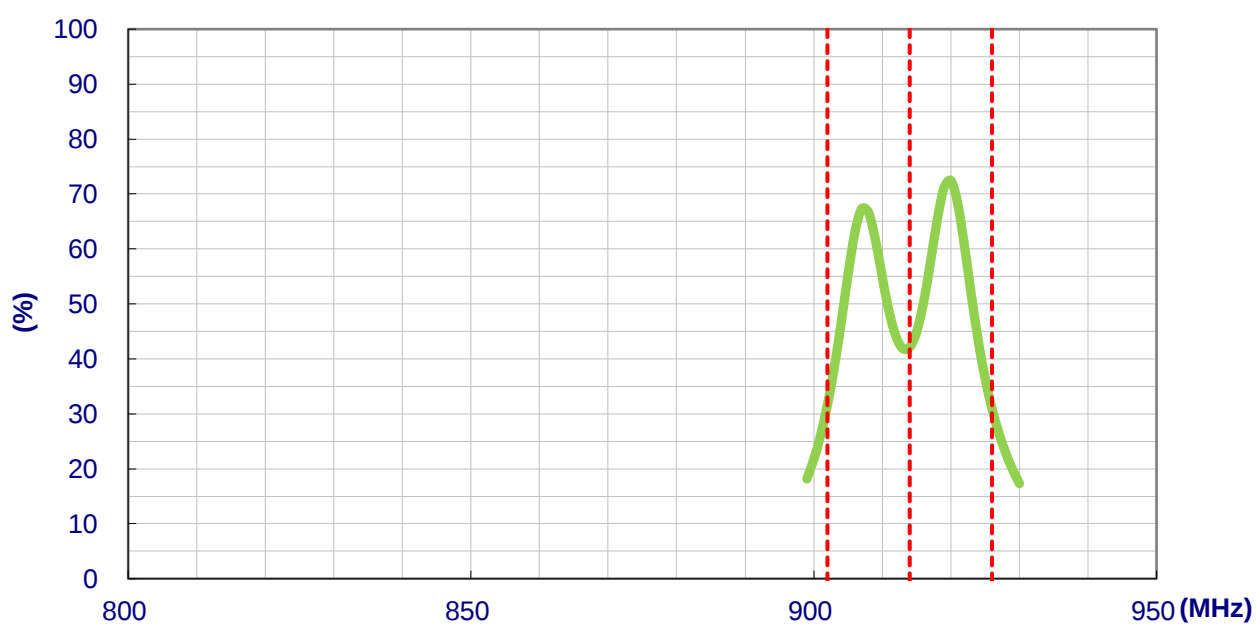
Electrical			
Frequency (MHz)	902MHz	915MHz	926MHz
Peak Gain (dBi)			
	1.74	3.15	1.59
Average Gain (dB)			
	-5	-3.48	-5.09
Efficiency (%)			
	31.64	44.9	30.95
Impedance	50Ω		
Polarization	Linear		
Radiation Pattern	Omni		
Input Power	10W		
Mechanical			
Diameter	101.4mm		
Height	17.6mm		
Casing	PP		
Connector	SMA Female Direct Mount		
Housing	IK 10		
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

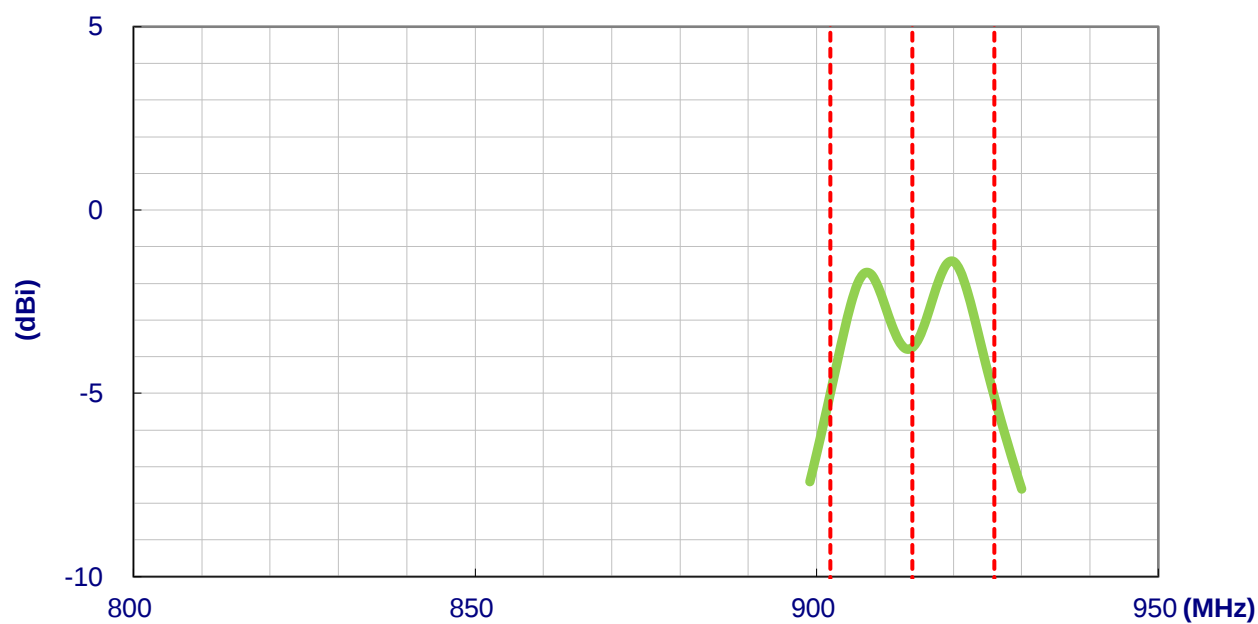
3.1 Return Loss



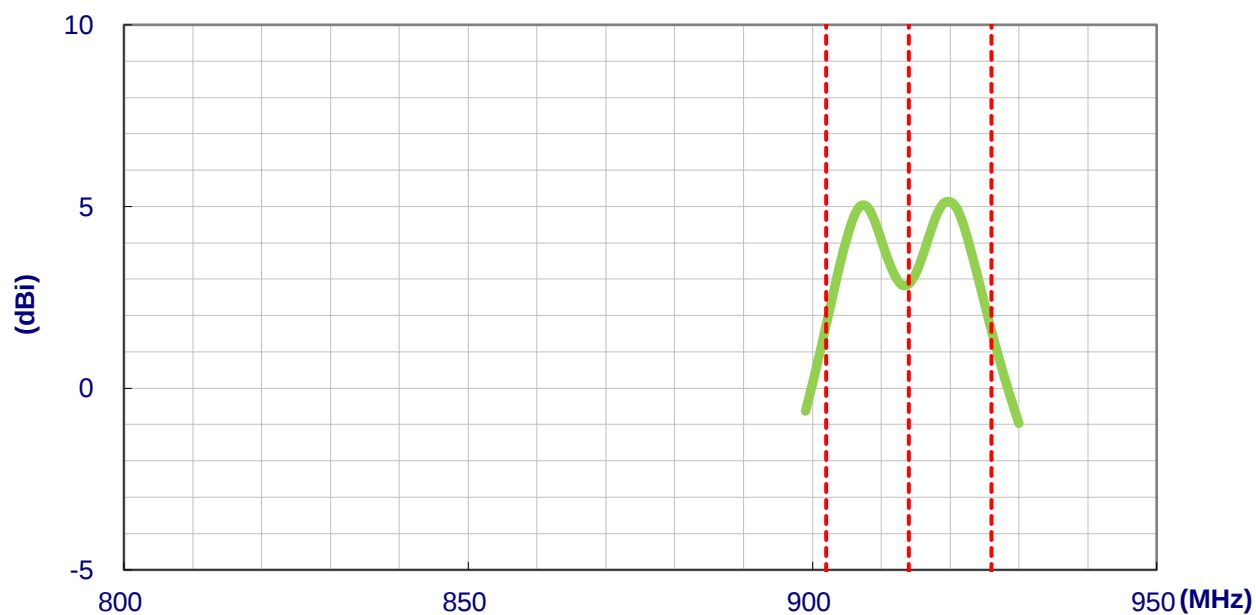
3.2 Efficiency



3.3 Average Gain

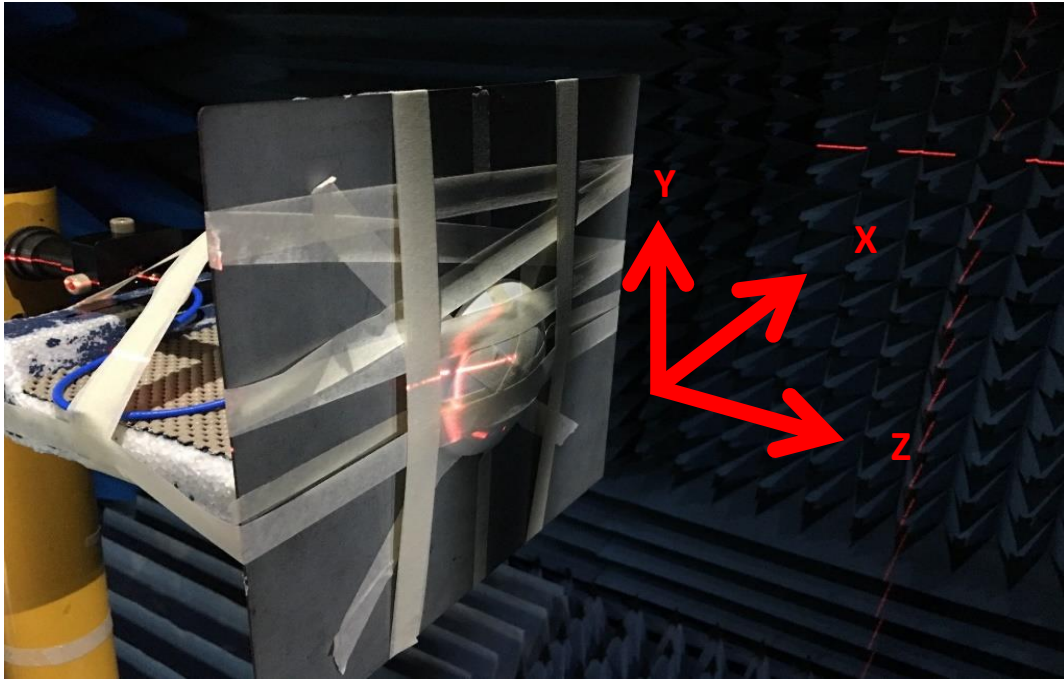


3.4 Peak Gain



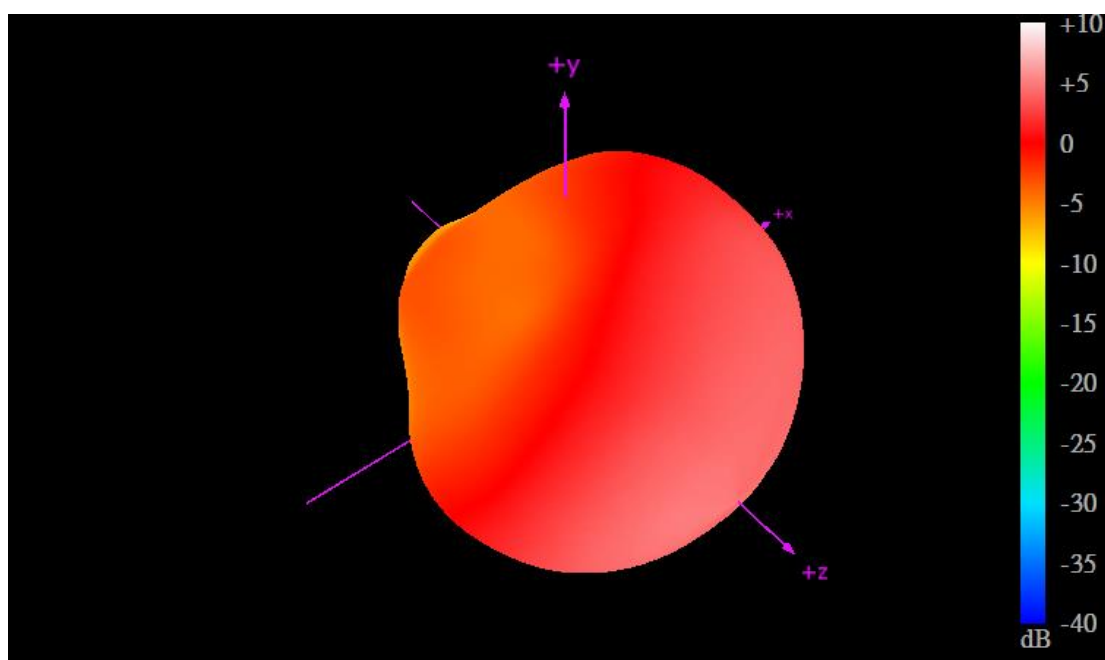
4. 2D Radiation Patterns

4.1 Test Setup

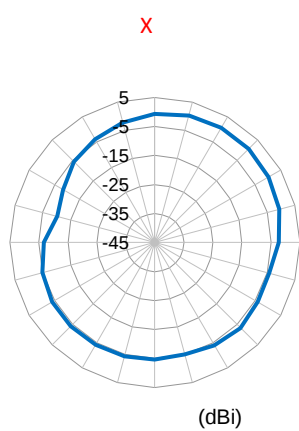


On 1*1m Square Metal Ground Plane

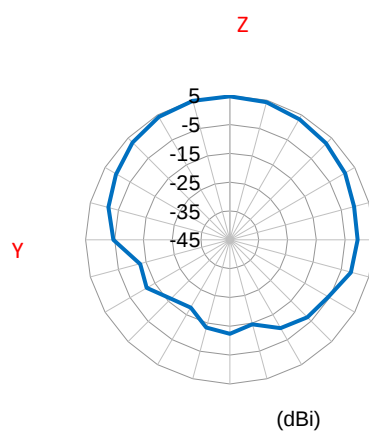
4.2 902MHz 3D and 2D Radiation Pattern



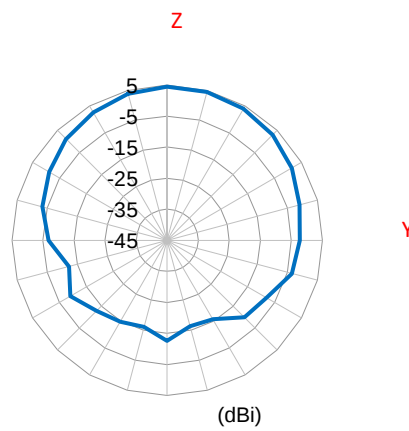
XY Plane



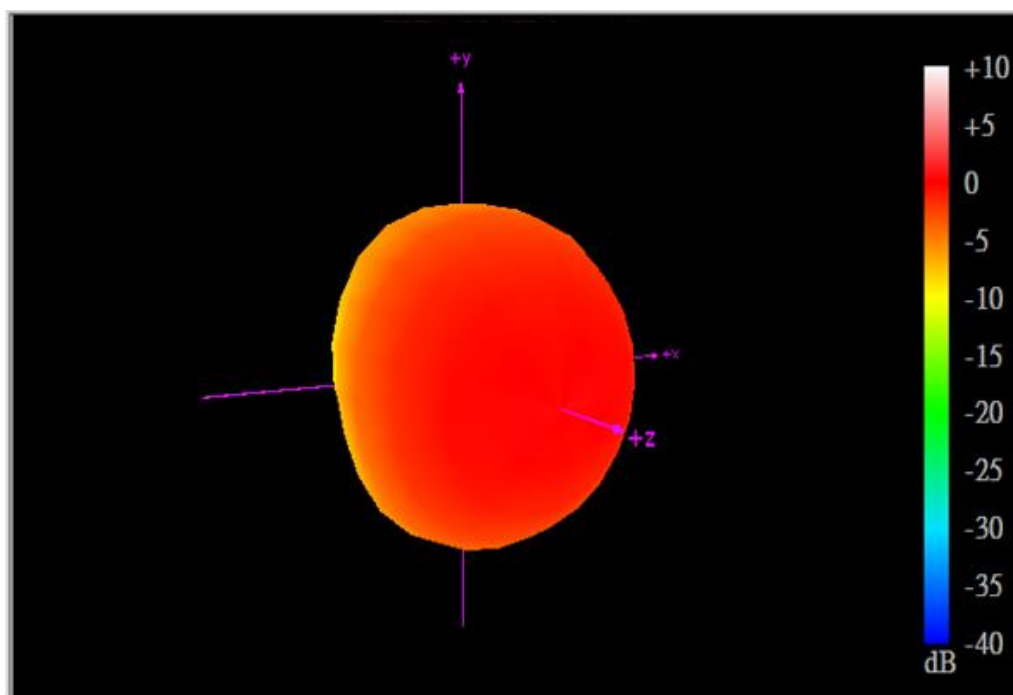
XZ Plane



YZ Plane



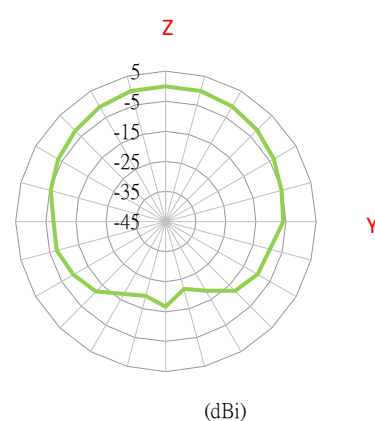
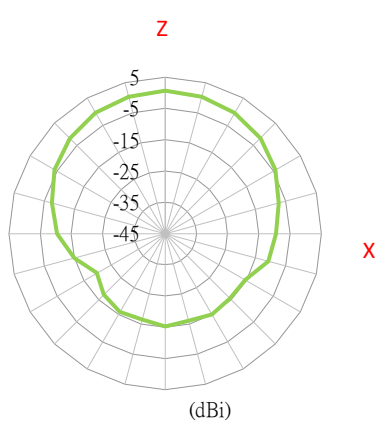
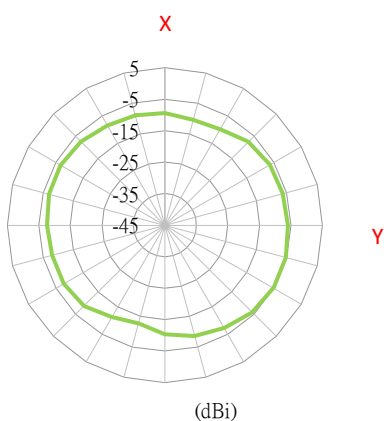
4.3 915MHz 3D and 2D Radiation Pattern



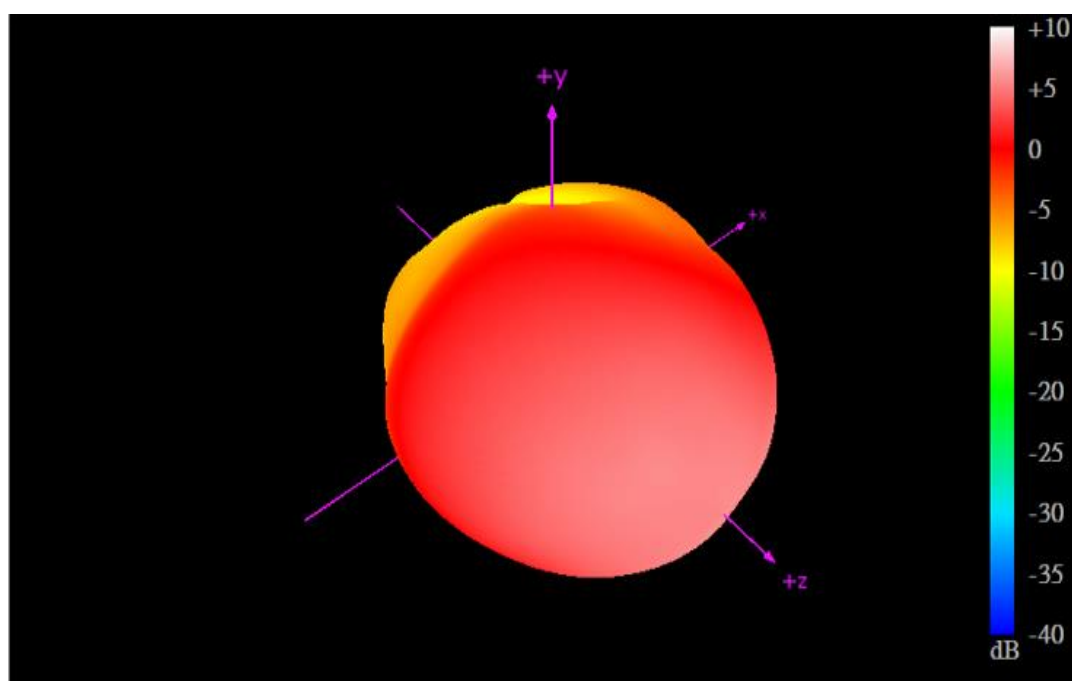
XY Plane

XZ Plane

YZ Plane



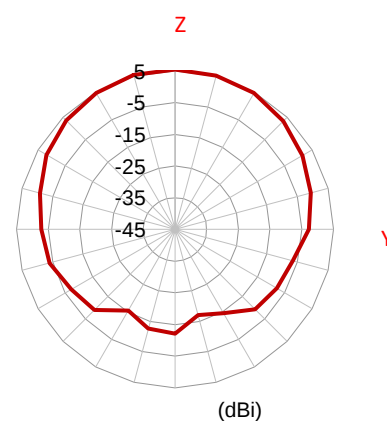
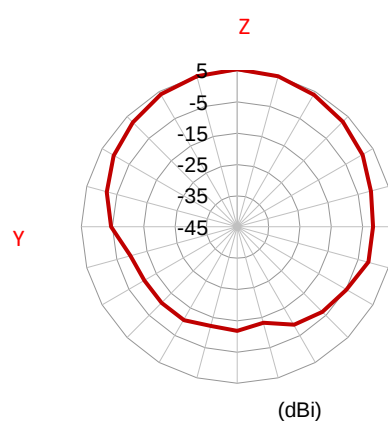
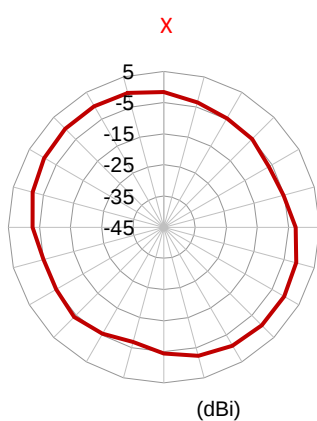
4.4 928MHz 3D and 2D Radiation Pattern



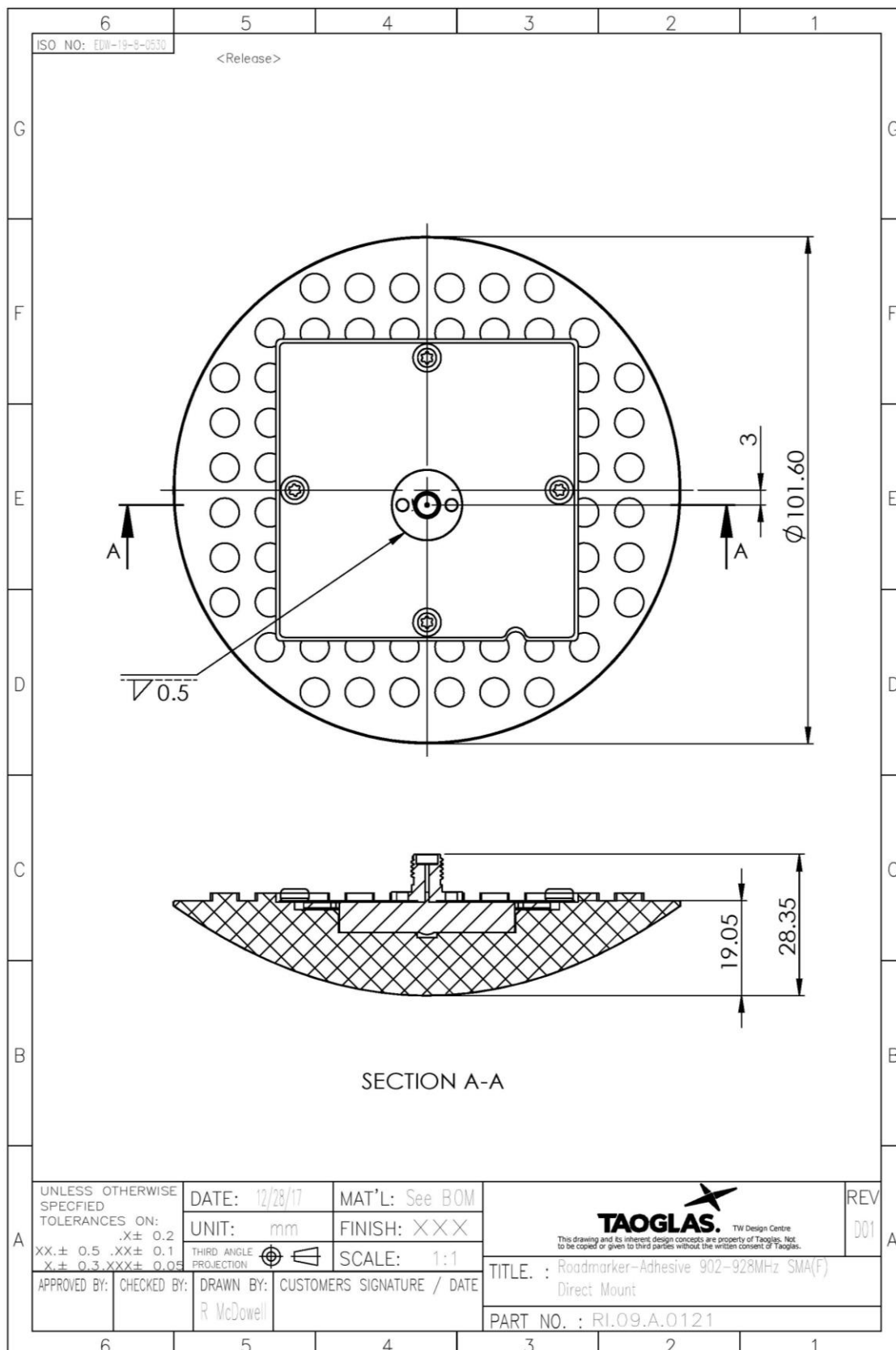
XY Plane

XZ Plane

YZ Plane



5. Mechanical Drawing (Units: mm)



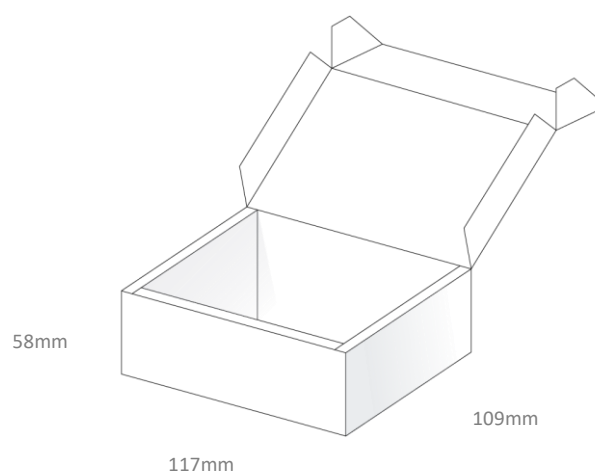
Download Drawing



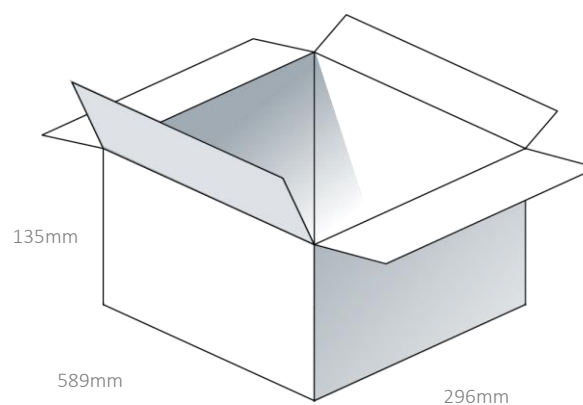
Download 3D Model

6. Packaging

1pc RI.09.A.0121 per Carton
 Inner Carton Dimensions: 117*109*58mm
 Weight: 162g



24pcs RI.09.A.0121 per Carton
 Dimensions - 135*296*589mm
 Weight – 4.736Kg



Changelog for the datasheet

SPE-19-8-101 – RI.09.A.0121

Revision: B (Current Version)

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

Previous Revisions

Revision: A (Original First Release)

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



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