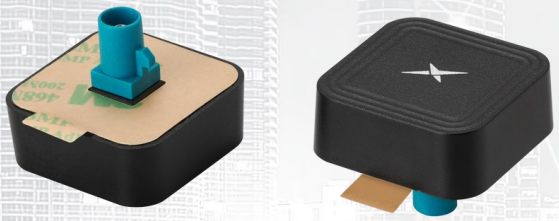
TAOGLAS



Datasheet

DSRC Button Mount Antenna

Part No:
DCM.59.0ZZ11

Description:

DSRC Connector Mount Antenna

With FAKRA Code Z Connector

Features:

DSRC Full Band coverage

Low profile

Peak gain 8.5 dBi

Dimensions: 32 x 32 x 25.3 mm

RoHS and REACH Compliant

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Ireland ISO 9001: 2015 Certified
Taiwan ISO 9001: 2015 Certified

1. Introduction

The Taoglas DCM.59 is a DSRC antenna for in-car use. The DCM.59 has been designed based on the stringent demands of the automotive industry, and with the future of DSRC applications various use cases for this antenna will continue to emerge. Some DSRC use cases gaining traction include vehicle-to-vehicle (V2V), vehicle-to-infrastructure (V2I), vehicle-to-pedestrian (V2P), and vehicle-to-cloud (V2C) communication, and are all being integrated into the next generation of vehicles.

C-V2X will be an important communication method for future automotive applications and improve road safety, reduce collisions, and allow autonomous vehicles to be used more widely, enhancing road safety even more.

Typical Applications include:

- Telematics Devices
- Parking payment systems
- Vehicle Security
- Road Safety
- Traffic Management Systems

The DCM.59 comes with a FAKRA Code Z Water blue Jack connector as standard and this can be customized subject to MOQ and NRE, contact your regional Taoglas customer support team for more information.

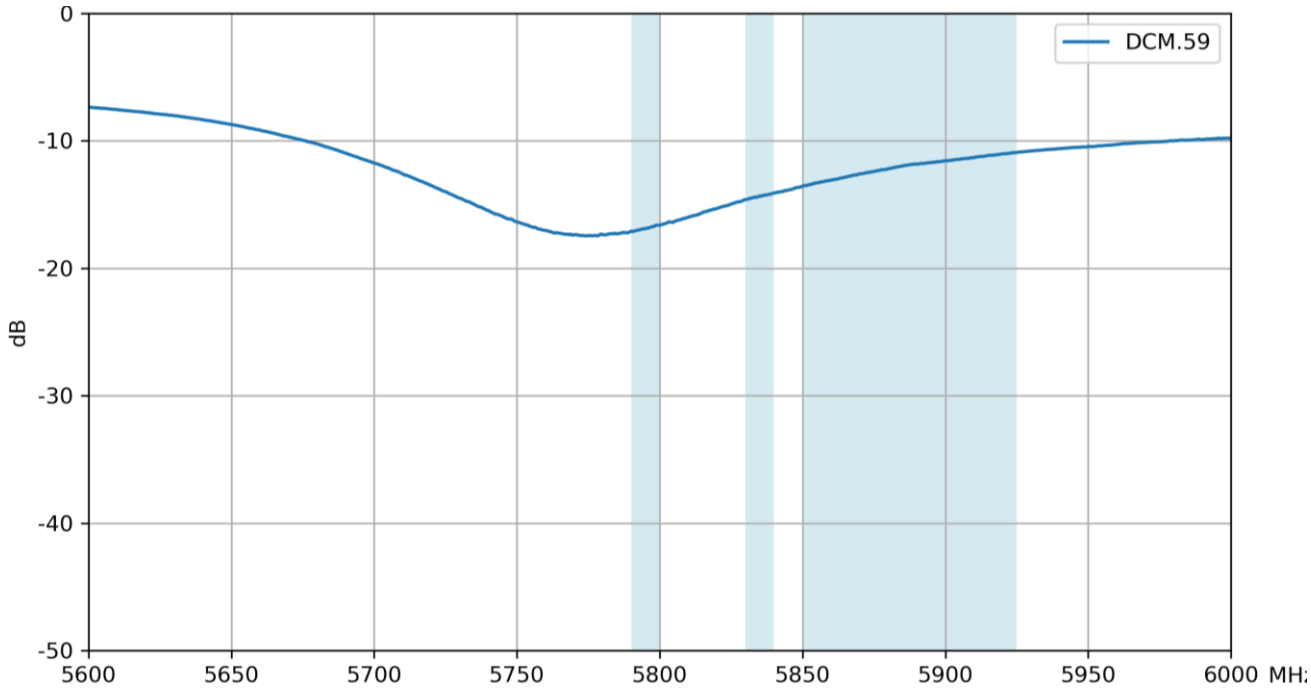
2. Specifications

Electrical										
Band	**Frequency (MHz)**	**Efficiency (%)**	**Average Gain (dB)**	**Peak Gain (dBi)**	**XPD**	**HPBW**	**Impedance**	**Max Input Power**	**Polarization**	**Radiation Pattern**
C-V2X	5790-5925	82	-0.8	8.5	9	< 70 degrees	50 Ω	10W	RHCP	Directional

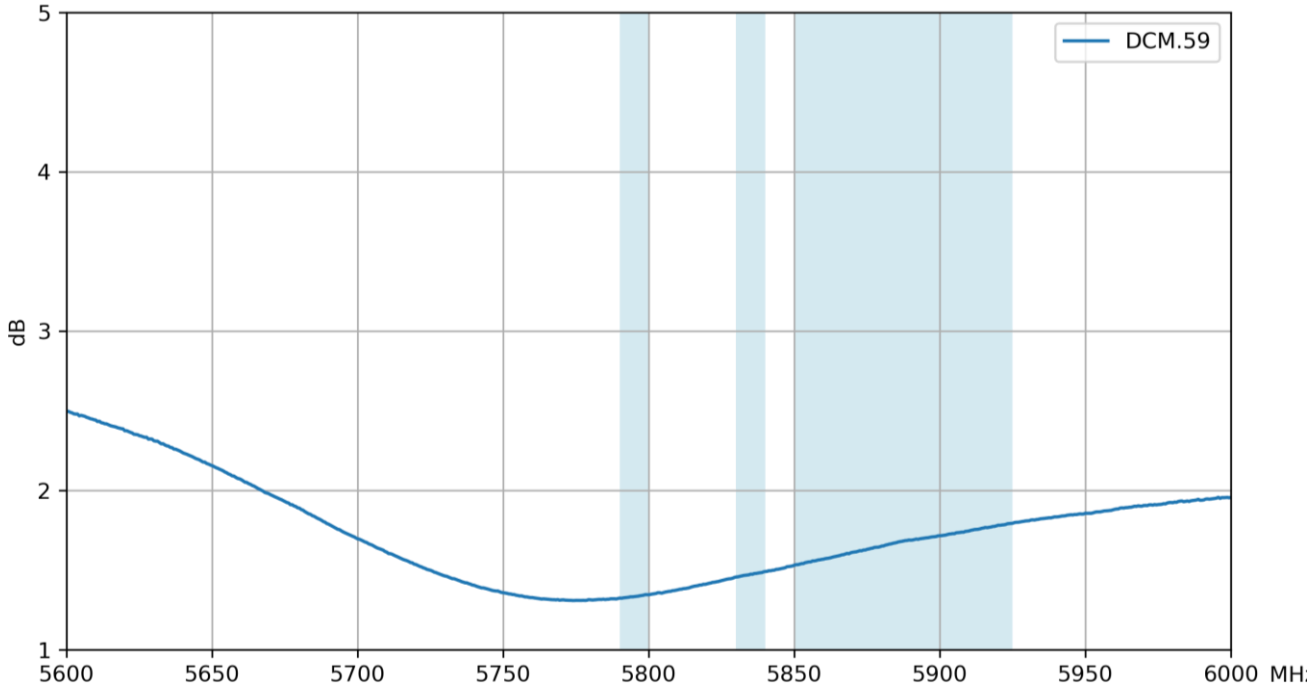
Mechanical	
Dimensions	32 x 32 x 25.3 mm
Weight	12g
Plastic Material	PC
Connector	FAKRA Code Z Water Blue Jack
Environmental	
Temperature Range	-40°C to 85°C
Waterproof Rating	IP52

3. Antenna Characteristics

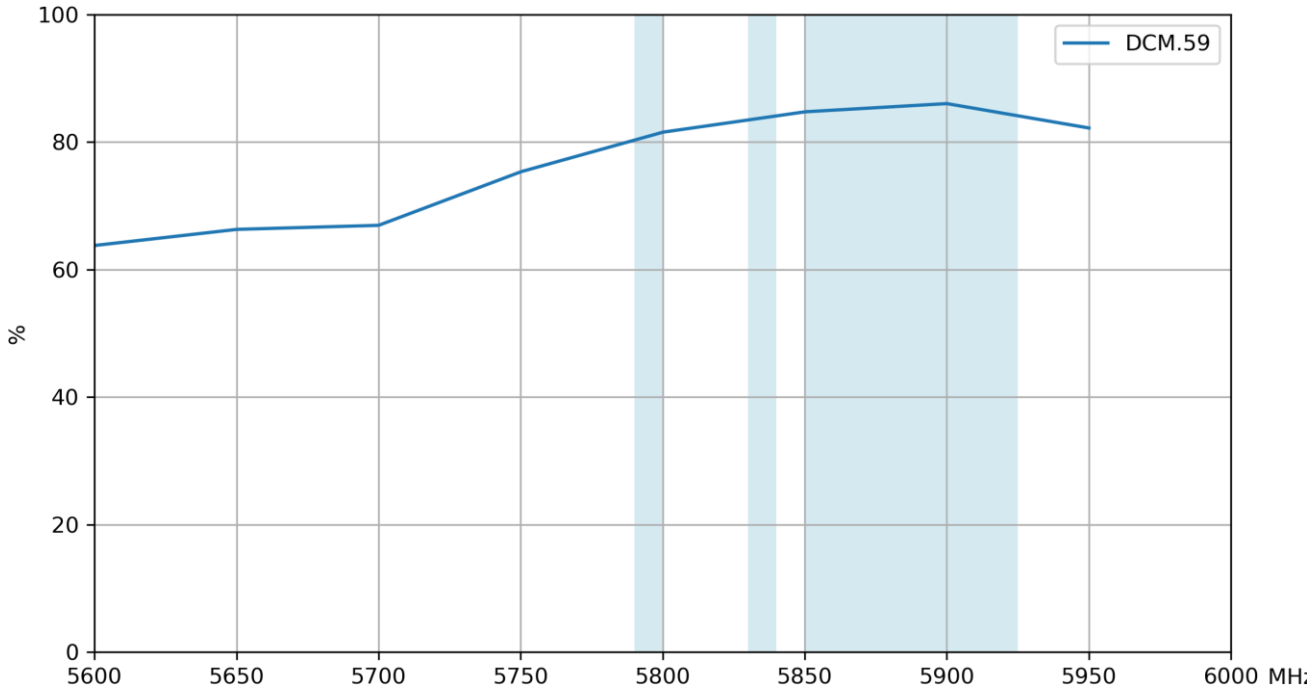
3.1 Return Loss



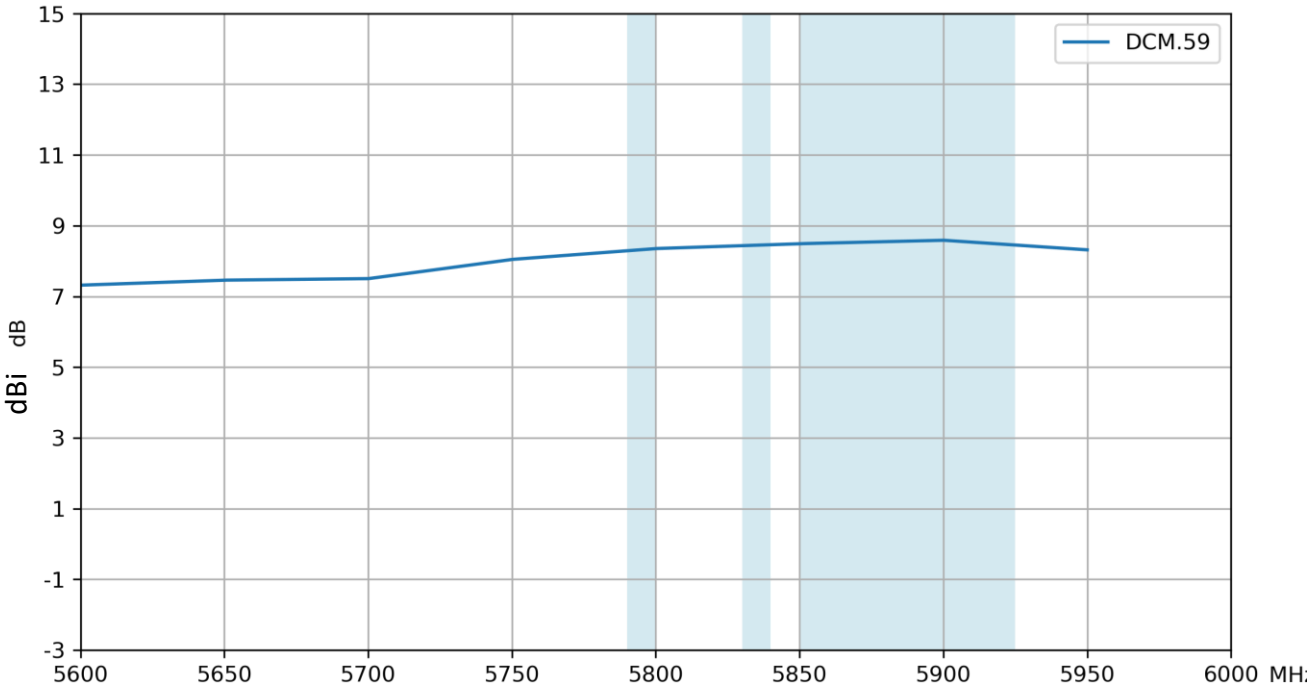
3.2 VSWR



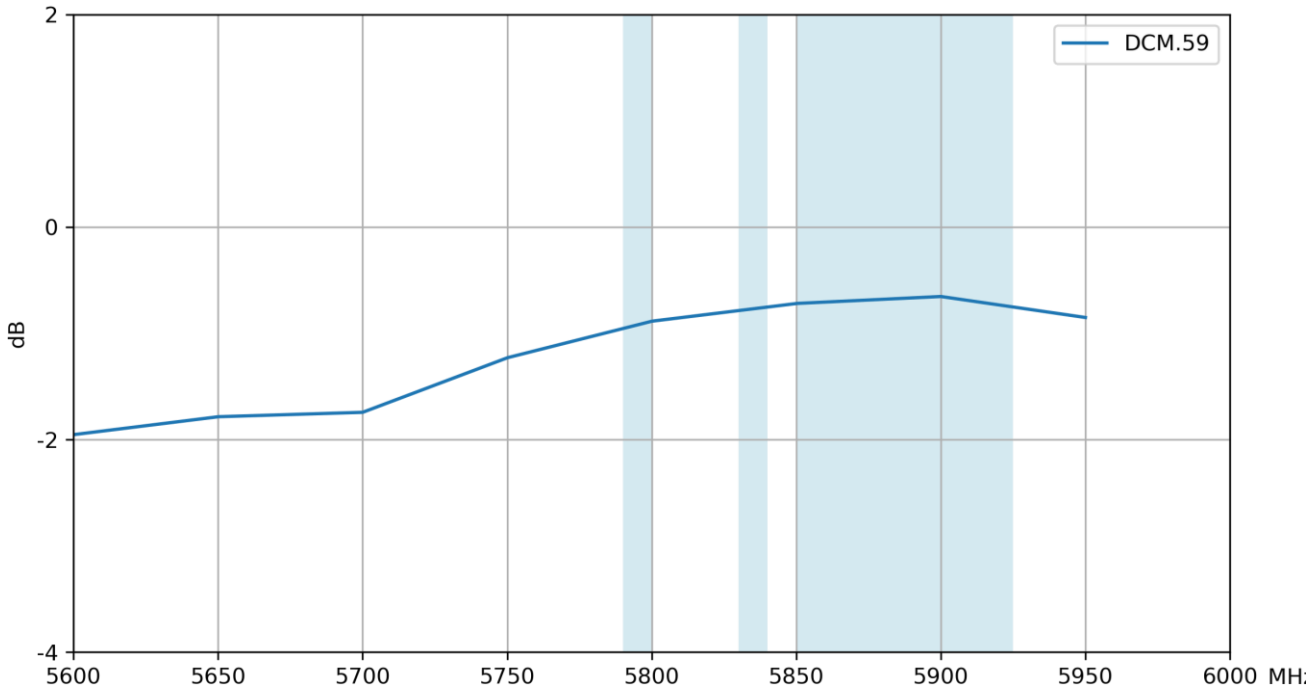
3.3 Efficiency



3.4 Peak Gain

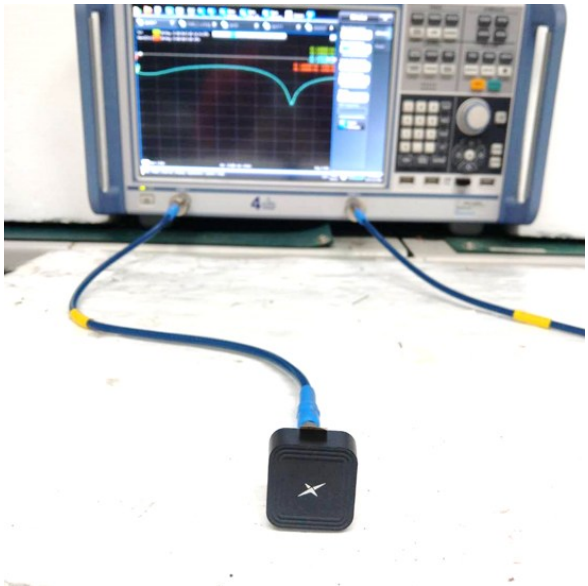


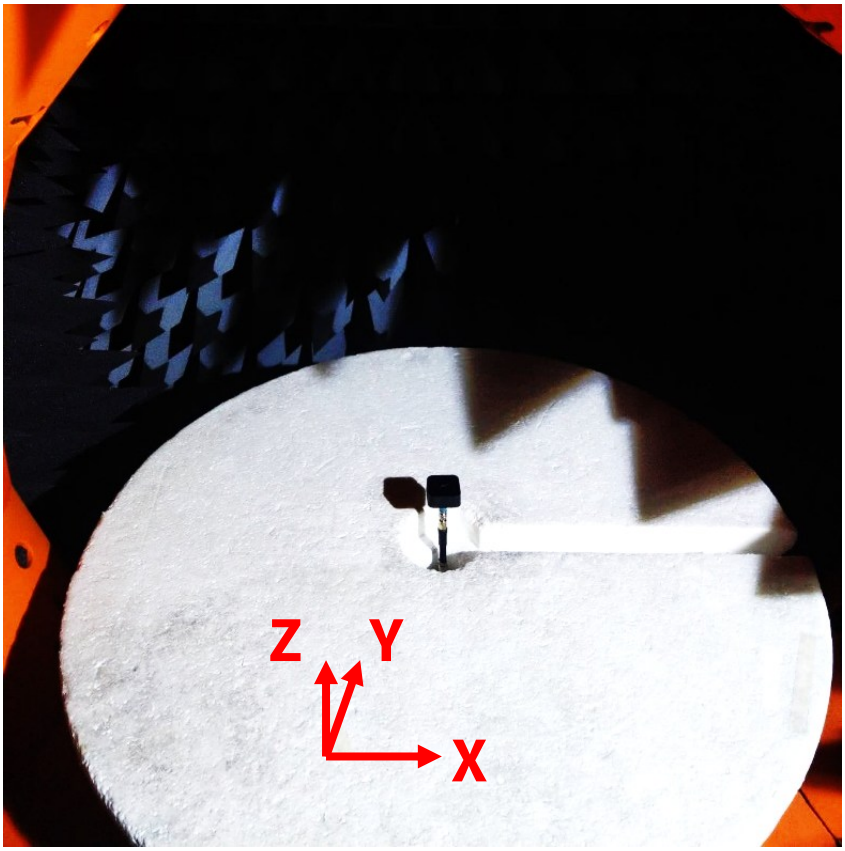
3.5 Average Gain



4. Radiation Patterns

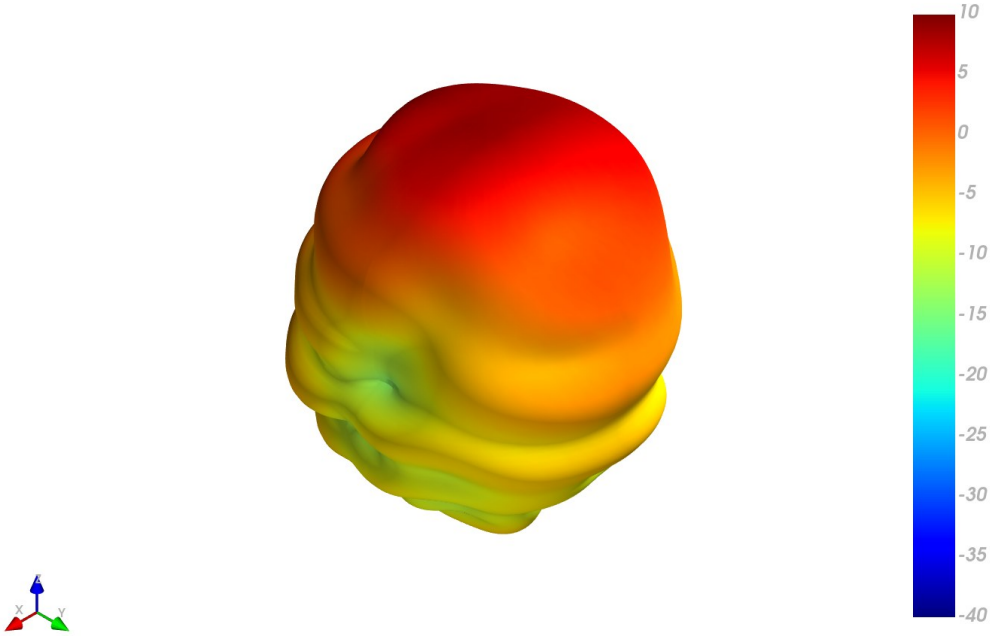
4.1 Test Setup



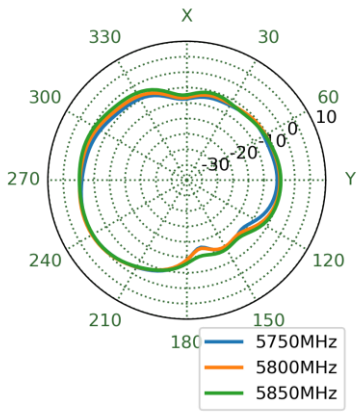


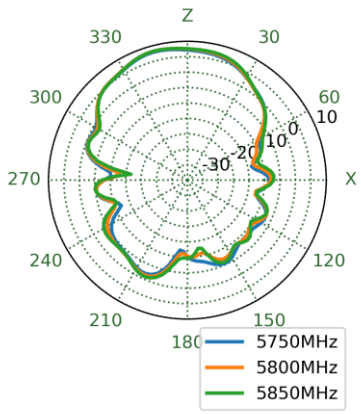
4.2 3D and 2D Radiation Patterns – Straight

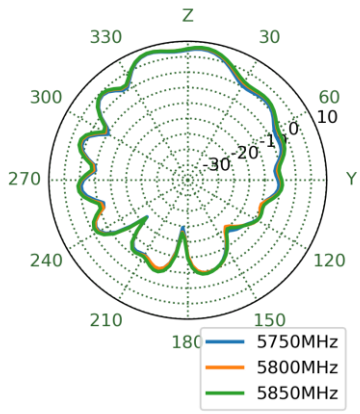
5850MHz



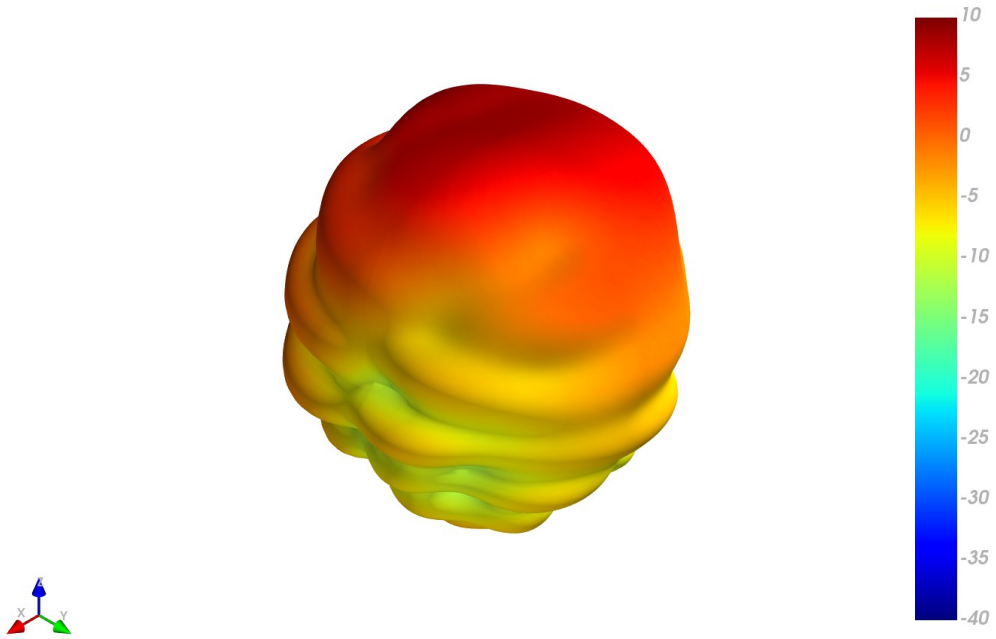
XY Plane	XZ Plane	YZ Plane



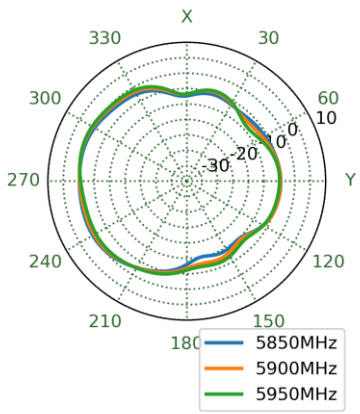


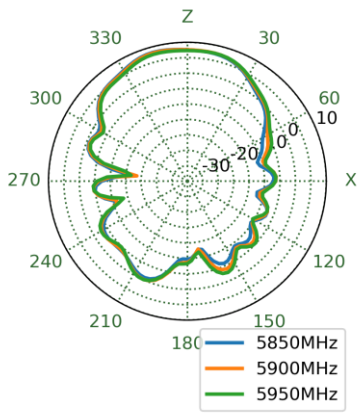


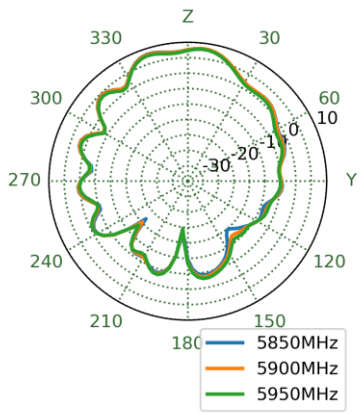
663MHz



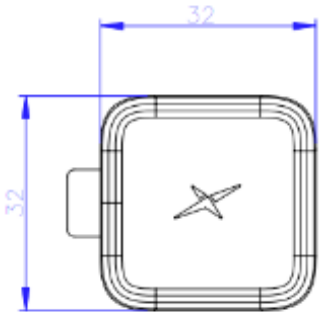
XY Plane	XZ Plane	YZ Plane

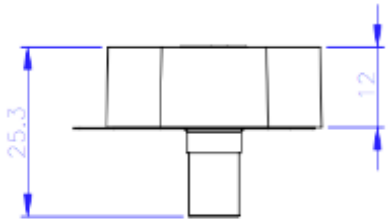






5. Mechanical Drawing (Units: mm)



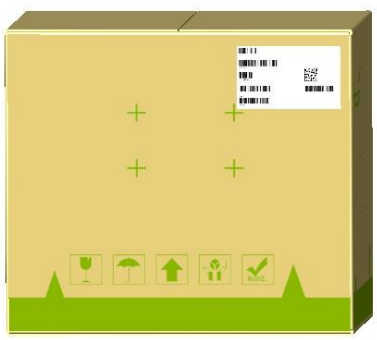


	Name	P/N	Material	Finish	QTY
1	Top Housing	000122L000000A	Bayer Makrolon 2405 PC	MT-11006,Black	1
2	Bottom Housing	000122L010000A	Bayer Makrolon 2405 PC	MT-11006,Black	1
3	Top Stamping	000522L000000A	STPE T=0.4	Sn plating	1
4	Bottom Stamping	000522L010000A	STPE T=0.4	Sn plating	1
5	PCB	100222L000000A	FR-4	Soldermask, Green	1
6	Adhesive Tape	001022L000000A	3M468	Natural	1
7	Fakra Connector	FK0MZPCB	Zn Alloy,PTFE,Brass,PBT	Ni Plating	1

6. Packaging

☑ 1 PCS / PE Bag

☑ 50 PCS / Big PE Bag



☑ 300 PCS / Carton

☑ Carton(mm): 320x250x230

Changelog for the datasheet

SPE-23-8-237 – DCM.59.0ZZ11

Revision: A (Original First Release)	
Date:	2023-08-16
Notes:	
Author:	Jack Conroy

Previous Revisions

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