



# TAOGLAS®

# Datasheet

## DSRC Button Mount Antenna

**Part No:**  
**DCM.59.0ZZ11**

### **Description:**

DSRC Connector Mount Antenna  
With FAKRA Code Z Connector

### **Features:**


C-V2X Full Band coverage  
Low profile  
Peak gain 8.5 dBi  
Dimensions: 34mm \*34mm \* 13mm  
RoHS and REACH Compliant

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# 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 evenmore.

Typical Applications include:

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

The DCM.59 comes with a FAKRA Code Z Waterblue 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

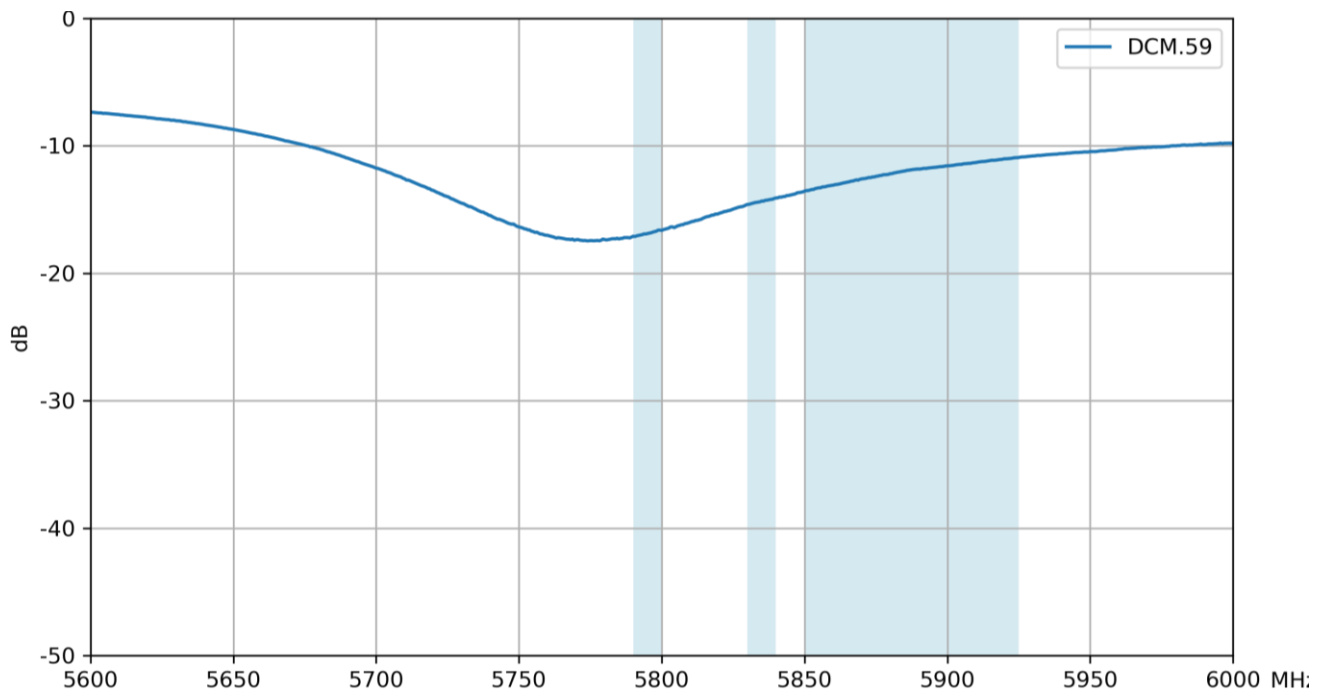
Dimensions	32 x 32 x 25mm
Weight	4g
Plastic Material	PC
Connector	FAKRA Code Z WaterBlue Jack

### Environmental

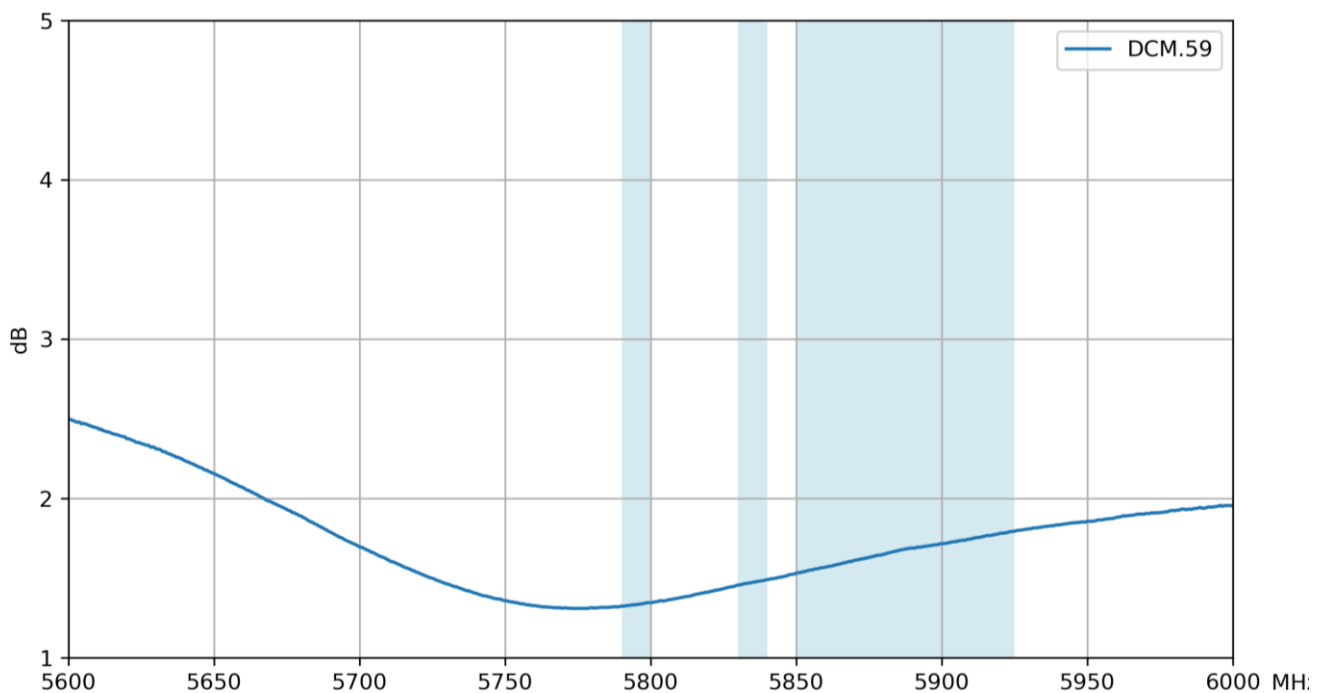
Temperature Range	-40°C to 85°C
Waterproof Rating	IP52

### 3. Antenna Characteristics

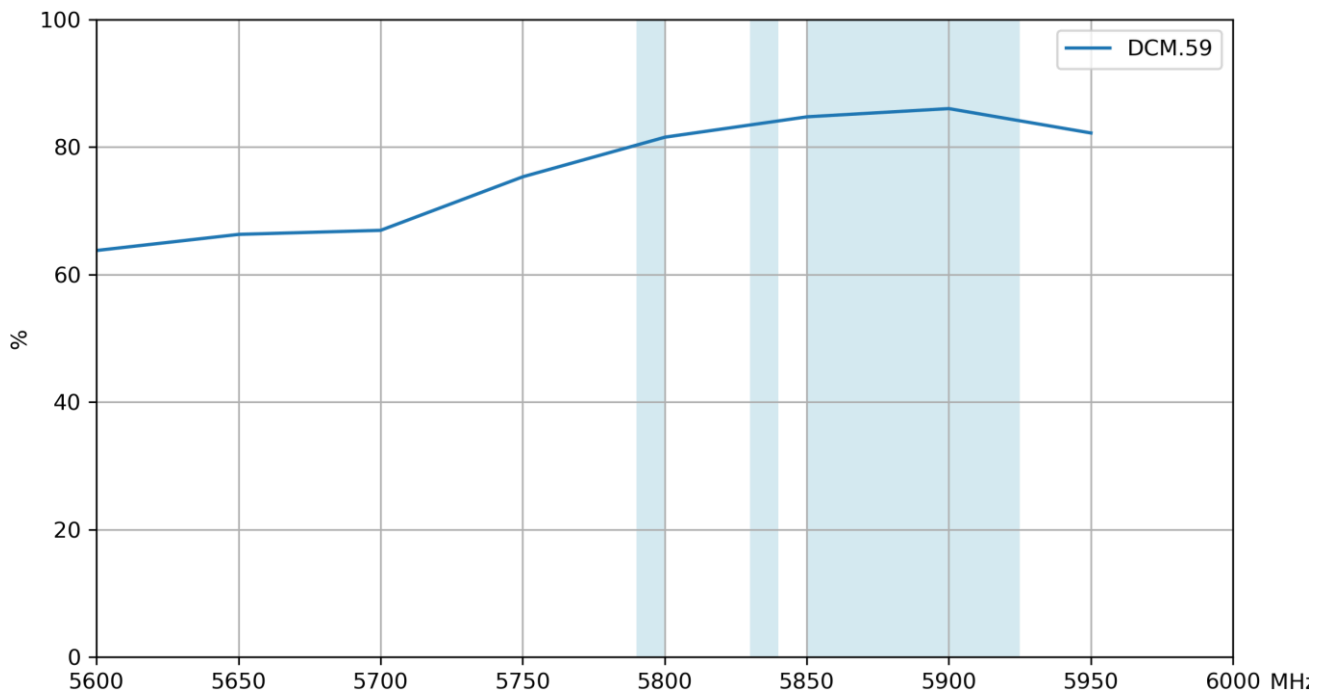
#### 3.1 Return Loss



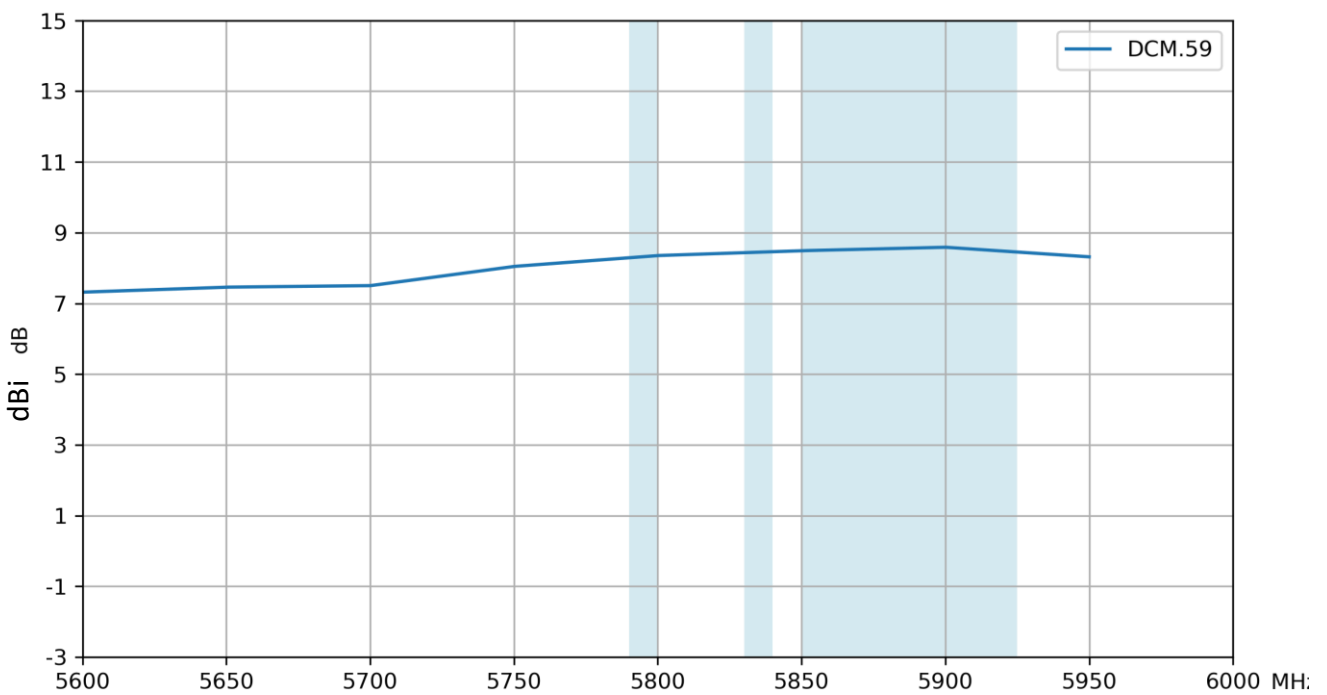
#### 3.2 VSWR



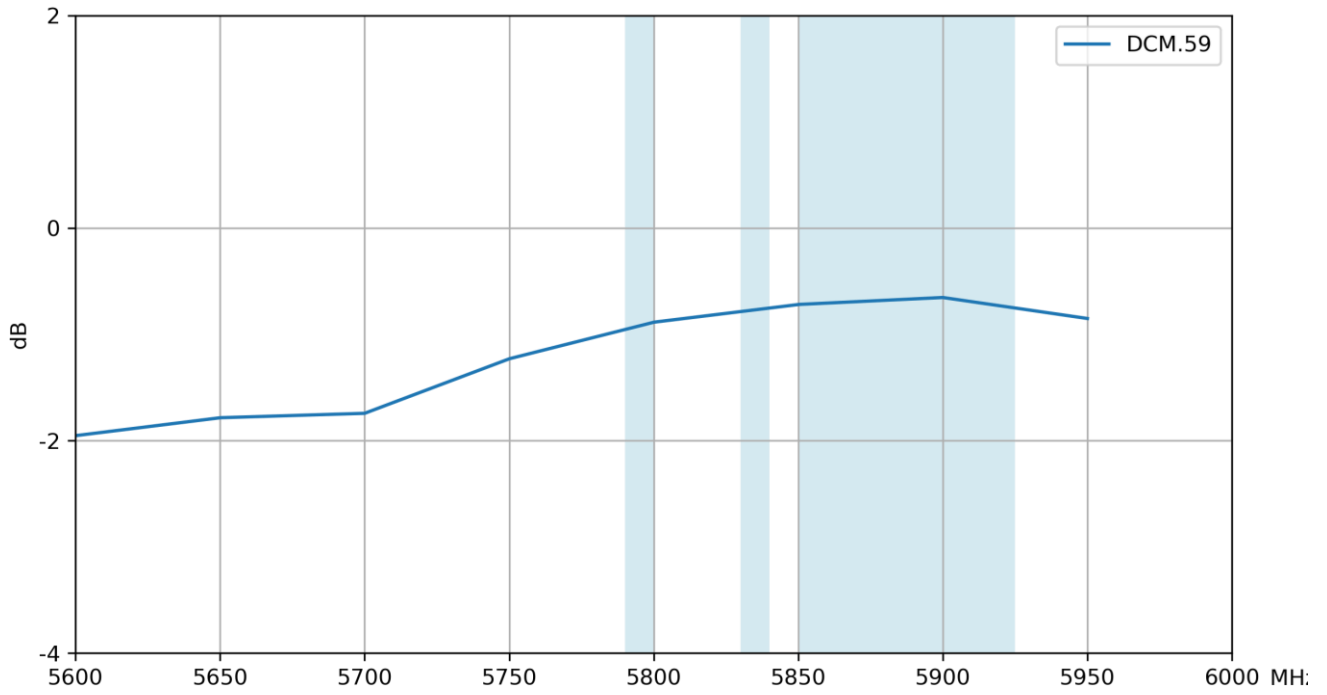
### 3.3 Efficiency



### 3.4 Peak Gain

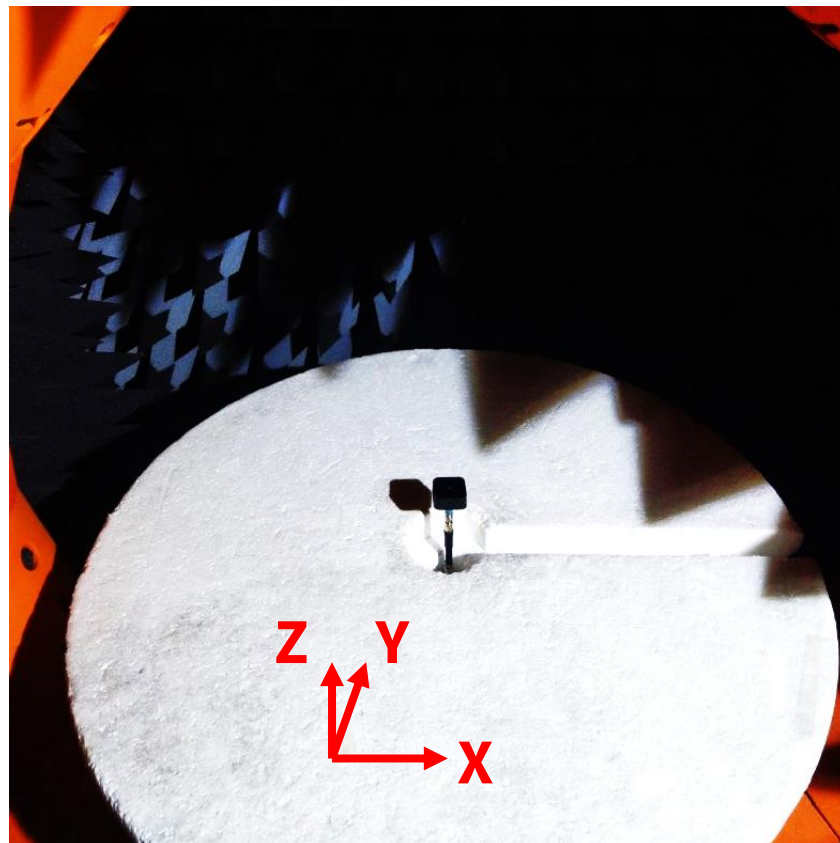
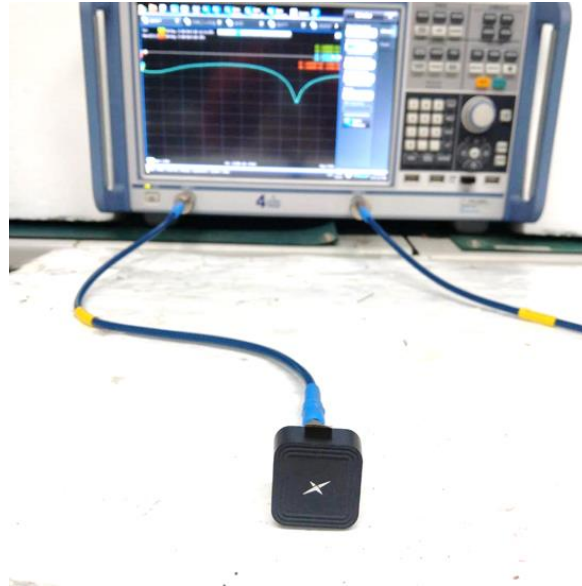


3.5 Average Gain



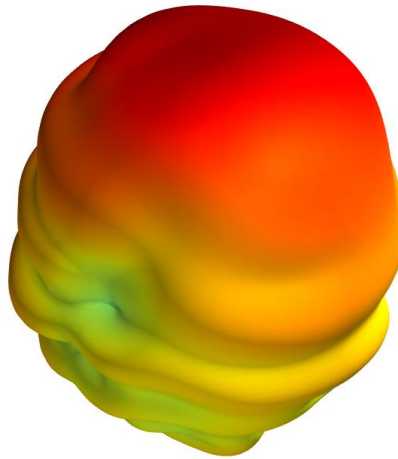
## 4. Radiation Patterns

### 4.1 Test Setup

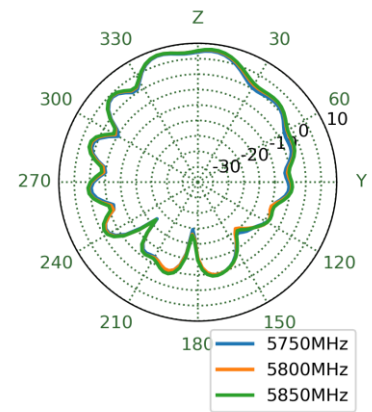
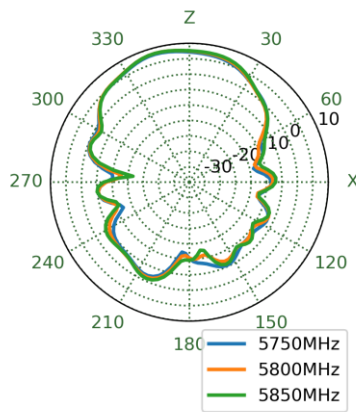
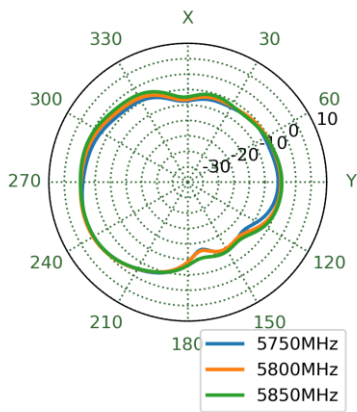


4.2 3D and 2D Radiation Patterns – Straight

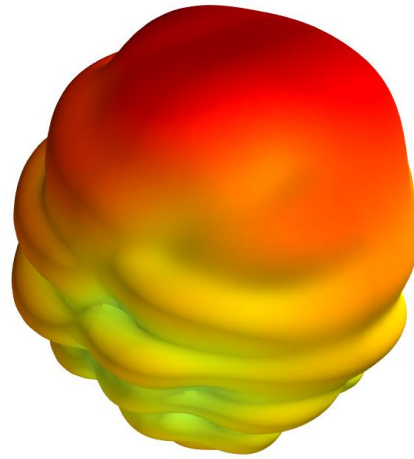
5850MHz



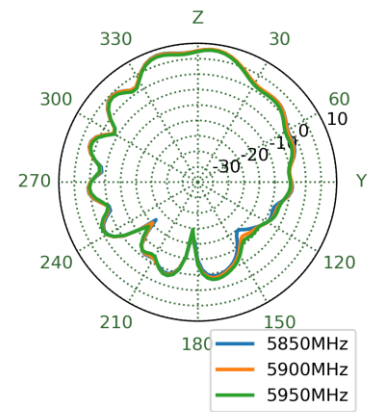
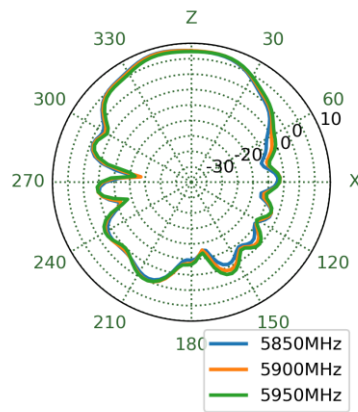
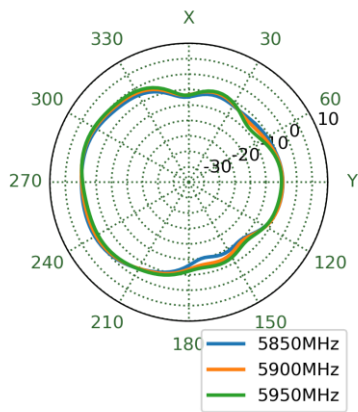
XY Plane XZ Plane YZ Plane



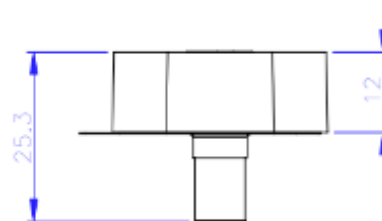
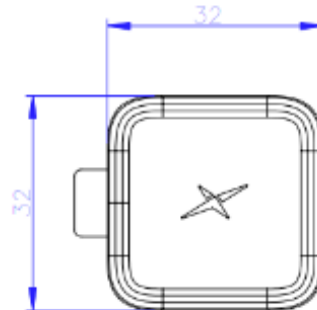
663MHz



XY Plane      XZ Plane      YZ Plane



## 5. Mechanical Drawing (Units: mm)



	Name	PIN	Material	Finish	QTY
1	Top Housing	000122L030000A	Bayer Makrolon 2405 PC	MT-11006,Black	1
2	Bottom Housing	000122L010000A	Bayer Makrolon 2405 PC	MT-11006,Black	1
3	Top Stamping	000522L030000A	STPE T=0.4	Sn plating	1
4	Bottom Stamping	000522L010000A	STPE T=0.4	Sn plating	1
5	PCB	100222L030000A	FR-4	Soldermask, Green	1
6	Adhesive Tape	001022L030000A	3M468	Natural	1
7	Fakra Connector	F60MZPCB	Zn Alloy,PTFE,Brass,PBT	Ni Plating	1

## 6. Packaging

Changelog for the datasheet

SPE-23-8-237 – DCM.59.0ZZ11

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Date:	2023-08-16
Notes:	
Author:	Jack Conroy

Previous Revisions




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