



# TAOGLAS®



# Datasheet

## DSRC Terminal Mount Antenna

**Part No:**  
TD.59.6H31

### Description:

DSRC 5.9GHz Dipole Terminal Mount Antenna  
With N-Type Male Connector

### Features:

5850-5925MHz DSRC band  
Omnidirectional Dipole Antenna  
Terminal Mount via N-Type Male Connector  
IP67 Rated Enclosure  
Dimensions:  $\varnothing$ 22.8 x 180.20mm  
RoHS & Reach Compliant

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# 1. Introduction



The Taoglas TD.59.6H31 is a high performance, omnidirectional antenna designed to operate between 5850-5925MHz covering the frequencies of DSRC systems. It is a dipole antenna design making it ground plane independent and it operates with a peak gain of up to 6 dBi. The enclosure is made from PC/ABS and IP67 waterproof rated making it suitable for demanding outdoor applications.

Typical applications include:

- Public Safety & Smart Cities
- Traffic Management
- Connected Transportation

The TD.59 is connected via an N-Type Male connector at the base of the antenna, this connector can be customized subject to MOQ and NRE. For further information contact your regional Taoglas customer support team.

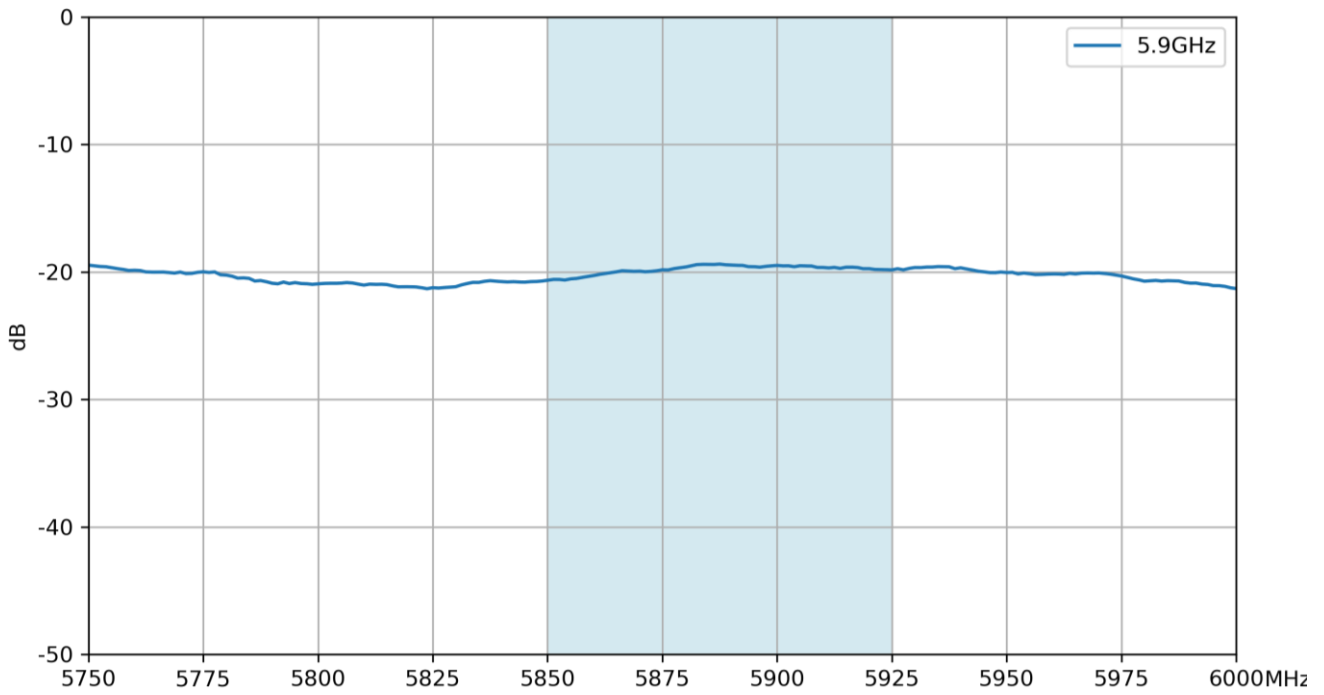
## 2. Specifications

DSRC Electrical	
Frequency (MHz)	5850~5925MHz
Efficiency (%)	
90.5	
Average Gain (dB)	
-0.43	
Peak Gain (dBi)	
6.88	
Impedance	50Ω
Polarization	Linear
Radiation Pattern	Omnidirectional
Max. Input Power	10W

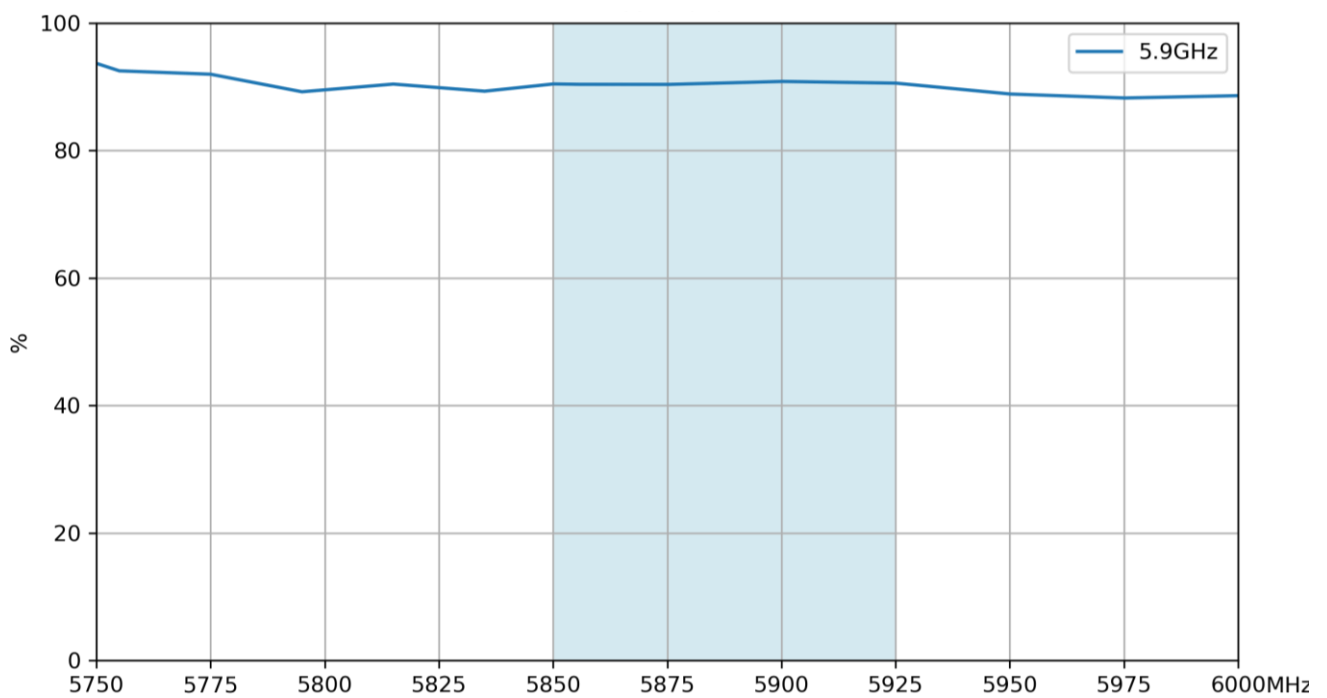
Mechanical	
Dimensions	Ø22.8 x 180.20mm
Material	PC+ABS
Weight	62.5 g
Connector	N-Type Male
Environmental	
Temperature Range	-40°C to 85°C
Waterproof Rating	IP67
Humidity	Non-condensing 65°C 95% RH

### 3. Antenna Characteristics

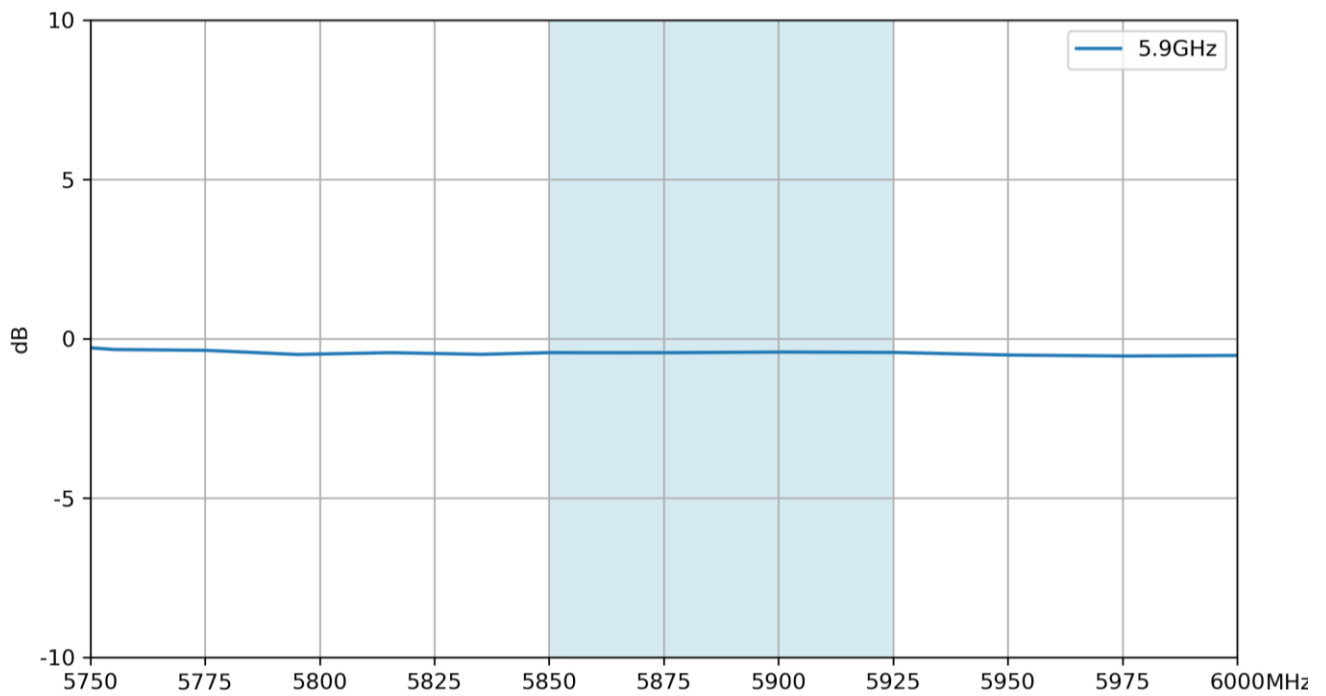
#### 3.1 Return Loss



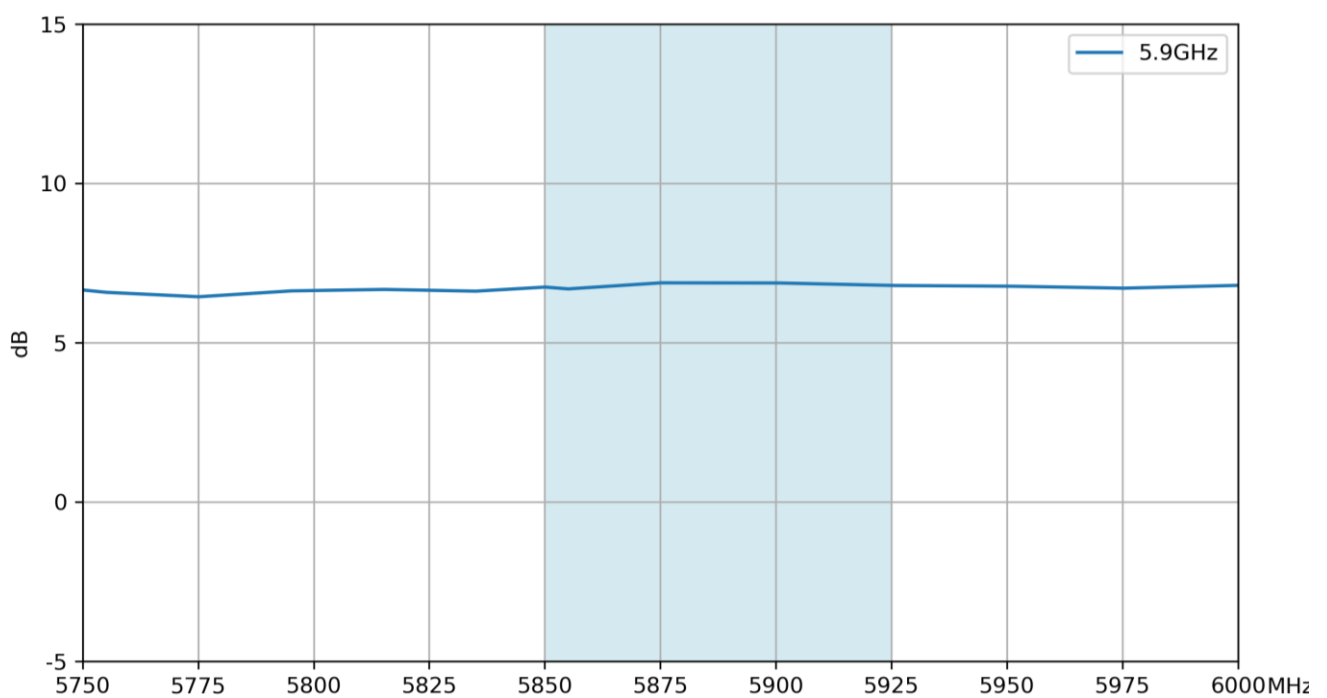
#### 3.2 Efficiency



### 3.3 Average Gain

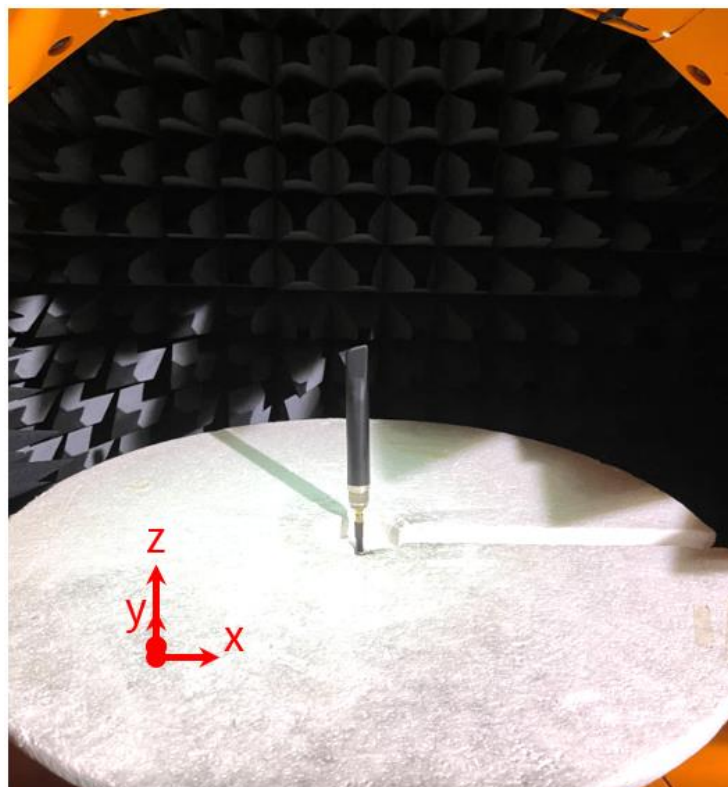
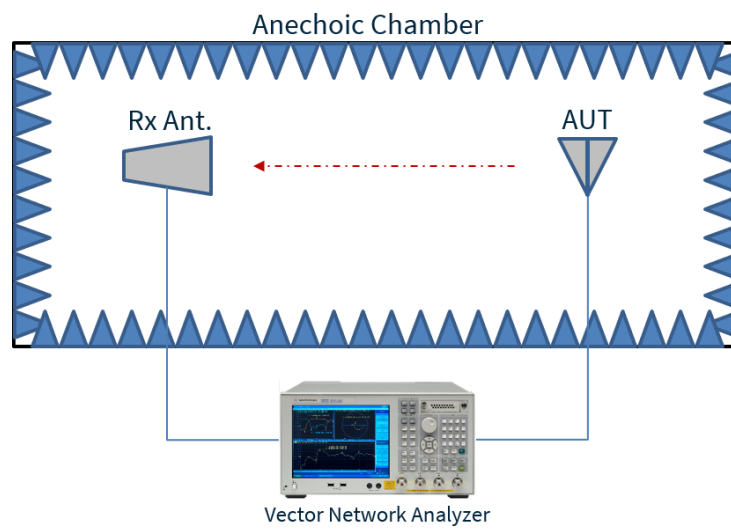


### 3.4 Peak Gain



## 4. Radiation Patterns

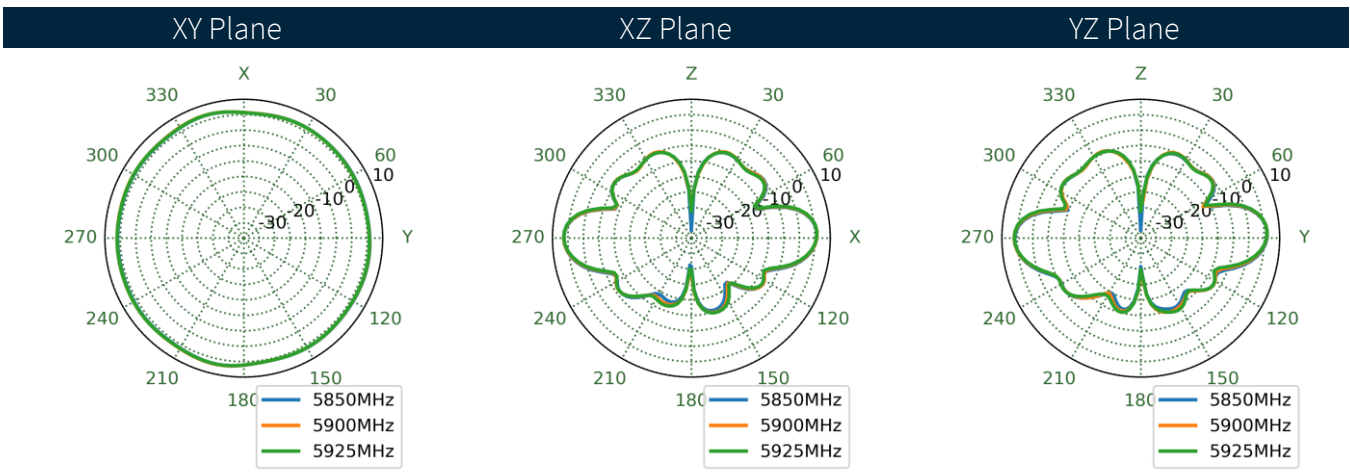
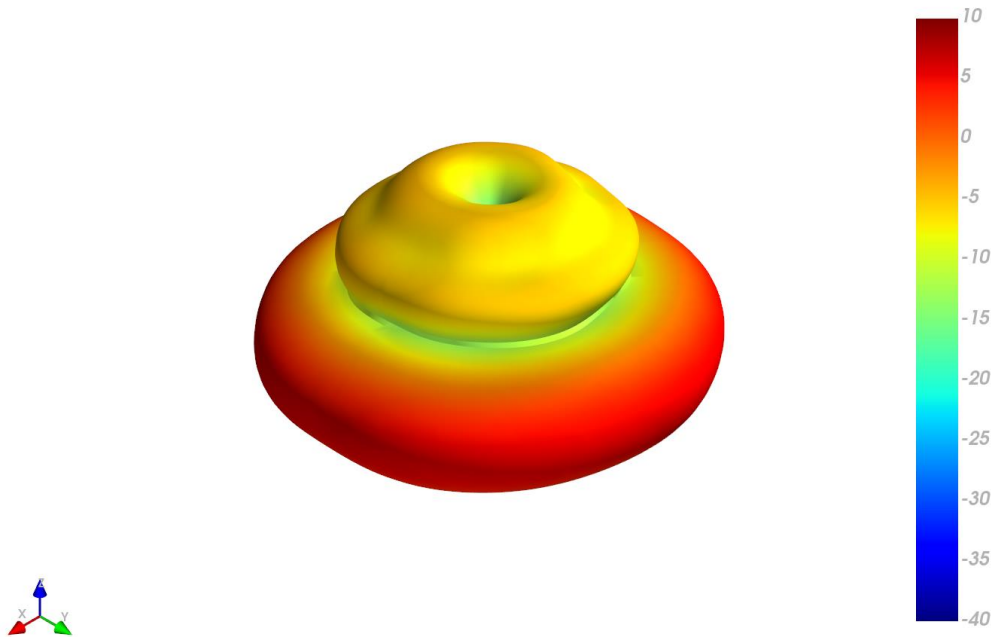
### 4.1 Test Setup



Testing in Free Space

4.2 3D and 2D Radiation Patterns

5900MHz





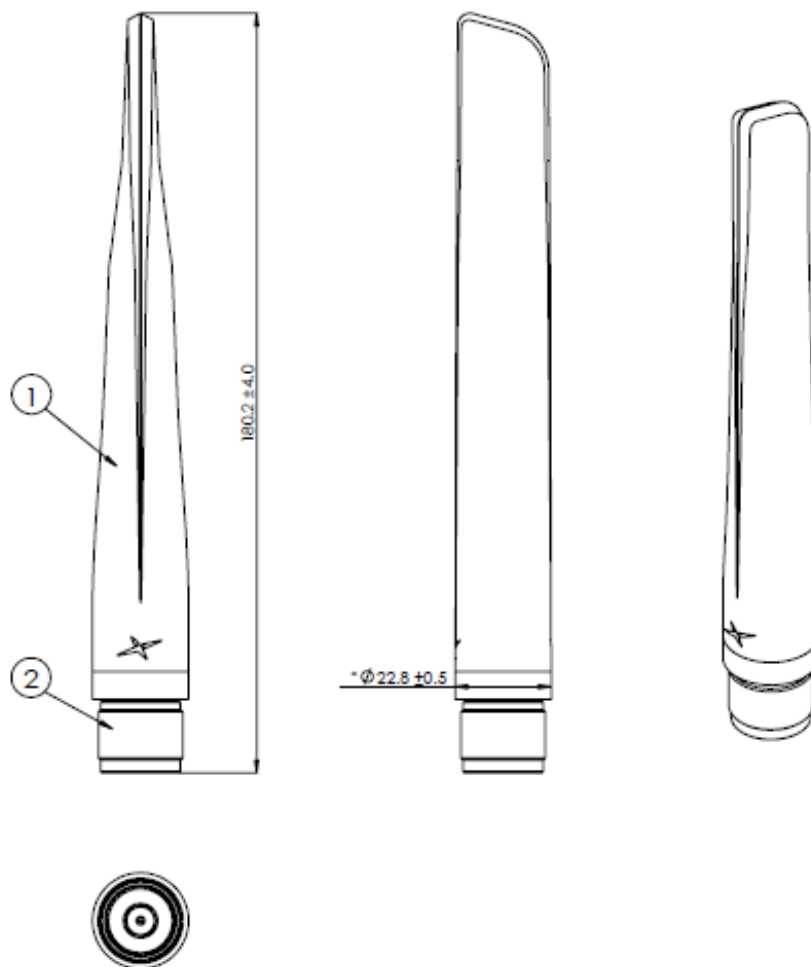
# 5. Mechanical Drawing (Units: mm)

ISO NO.: EDW-23-8-0753

STATE: Release

NOTES: 1.All material must be RoHS compliant.  
2.\*\* Critical Dimensions.

REV	ZONE	DESCRIPTION	ENG	APPROVED	DATE
001	All	Initial release	Aron Yan	Chozen	2023/6/8



	Name	Material	Finish	Qty
1	Housing	PC/ABS AC2300	Black	1
2	N Type connector	Brass	NI Plated	1

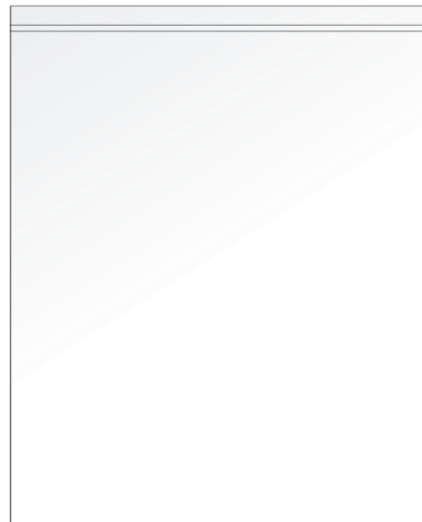
APPROVED BY: Chozen	<p><b>TAOGLAS</b>™ Design Centre This drawing and its related design concepts are property of Taoglas, not to be copied or given to third parties without the written consent of Taoglas.</p>
CHECK BY: Aaron	
DRAWN BY: Aron Yan	
DATE: 2023/6/8	
UNLESS OTHERWISE SPECIFIED TOLERANCES ON:	TITLE : 5.9GHz Dipole Omnidirectional Terminal Antenna N-Type(M) PART NO. : TD.59.6H31
THIRD ANGLE PROJECTION	UNIT: mm    SCALE: 1:1.5    PAGES: 1/1    REV: D01

## 6. Packaging

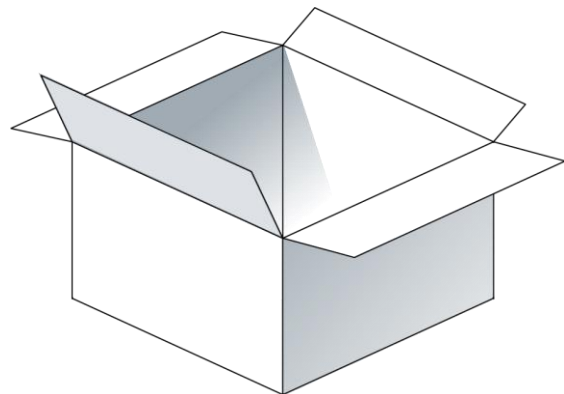
1pcs TD.59.6H31 per Small PE Bag



20pcs TD.59.6H31 per Large PE Bag



200pcs TD.59.6H31 per Carton  
Dimensions – 320x250x230mm



Changelog for the datasheet

**SPE-23-8-265 – TD.59.6H31**

**Revision: A (Original First Release)**

Date:	2023-09-19
Notes:	
Author:	Cesar Sousa

**Previous Revisions**




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