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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: Ø22.8 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.

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2. Specifications

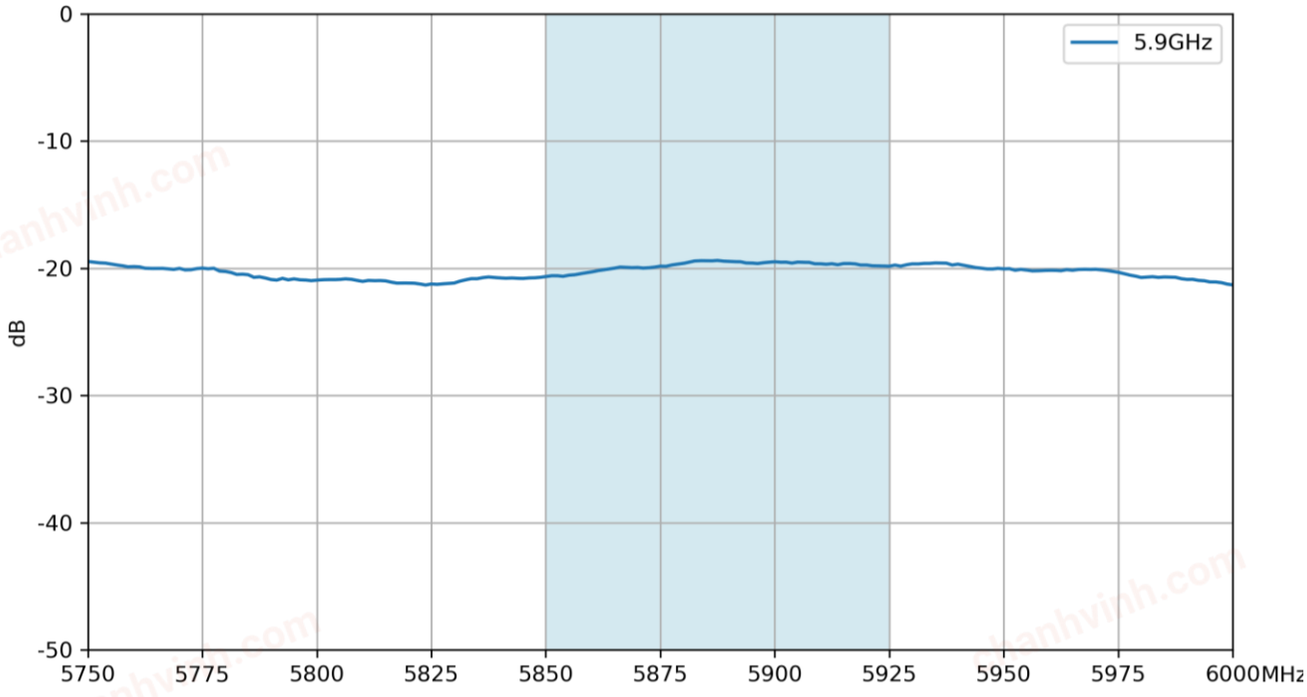
DSRC Electrical	
Frequency (MHz)	**5850~5925MHz**
Efficiency (%)	
90.5	
Average Gain (dB)	
-0.43	
Peak Gain (dBi)	
6.88	
Impedance	50Ω
Polarization	Linear
Radiation Pattern	Omnidirectional
Max. Input Power	10W

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

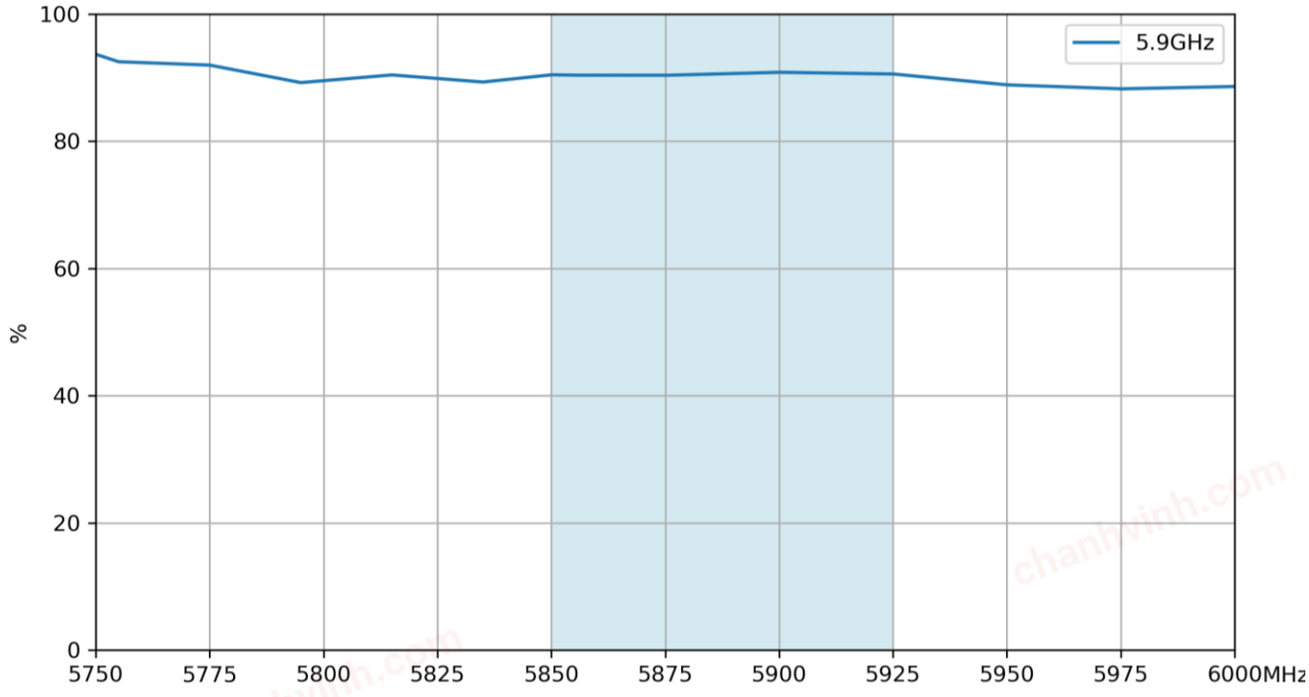
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3. Antenna Characteristics

3.1 Return Loss

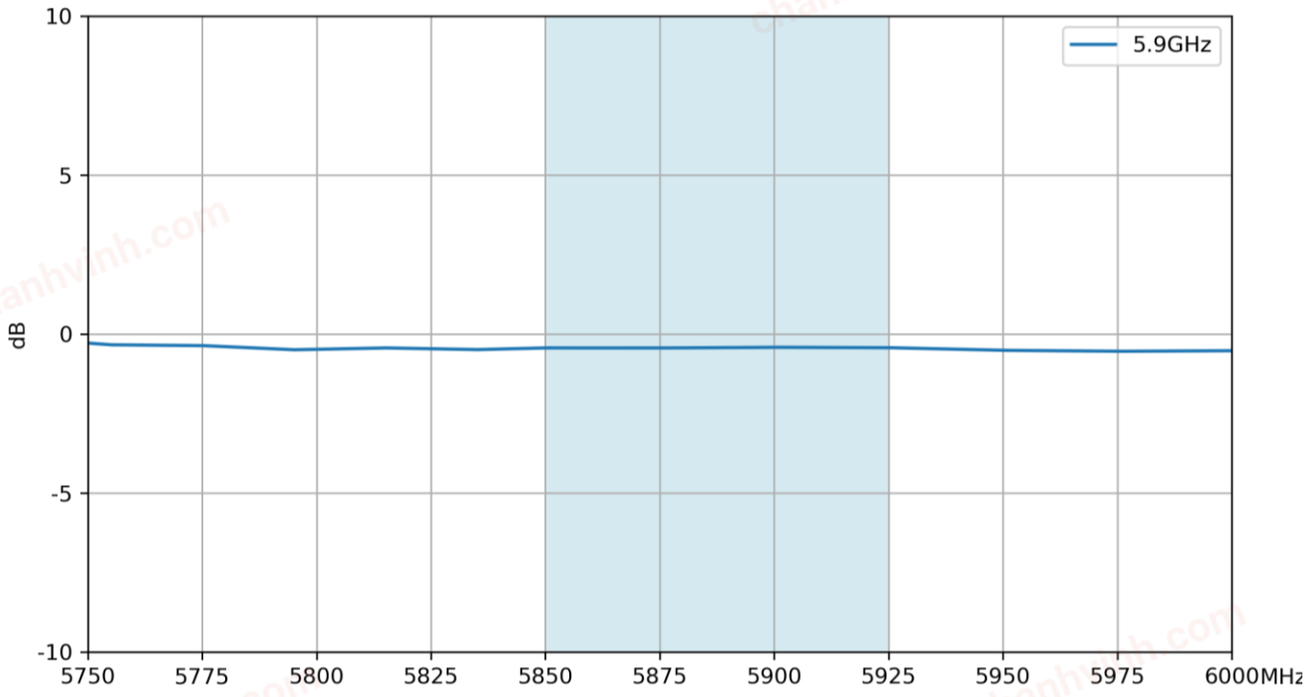


3.2 Efficiency

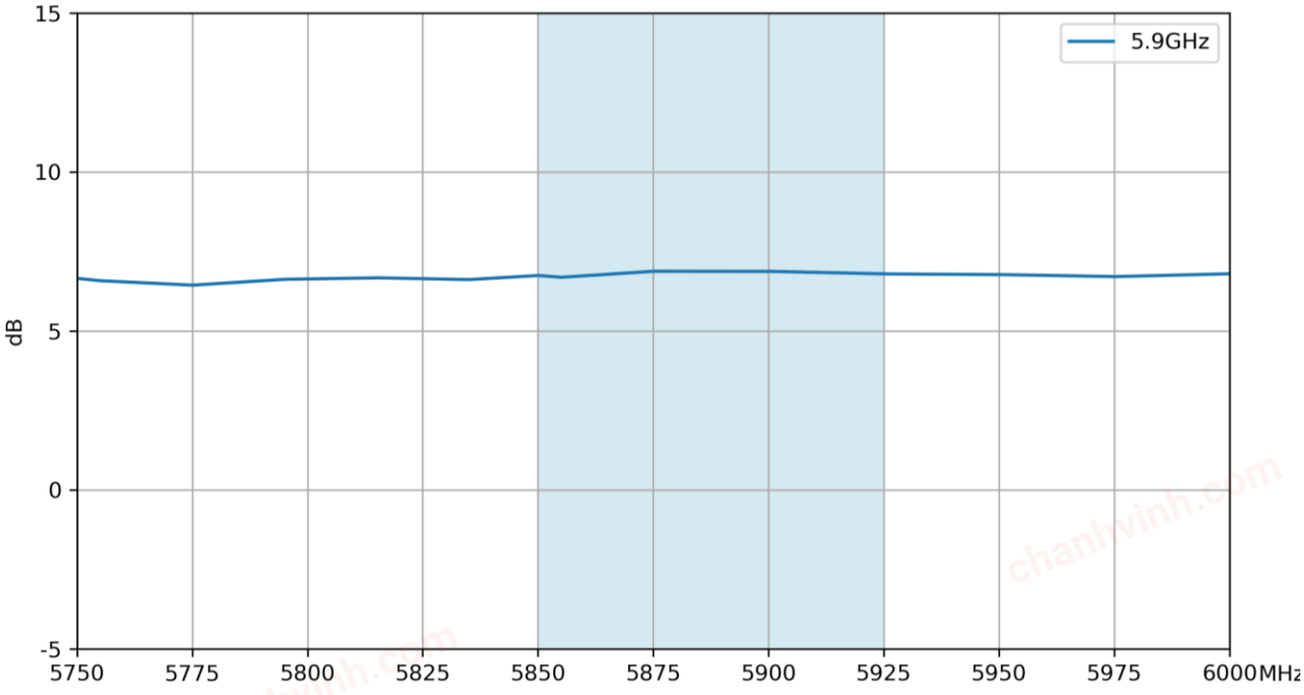


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3.3 Average Gain



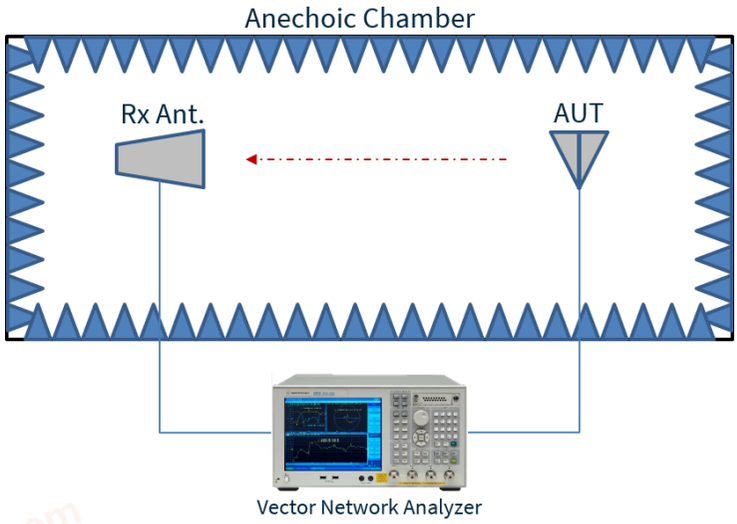
3.4 Peak Gain

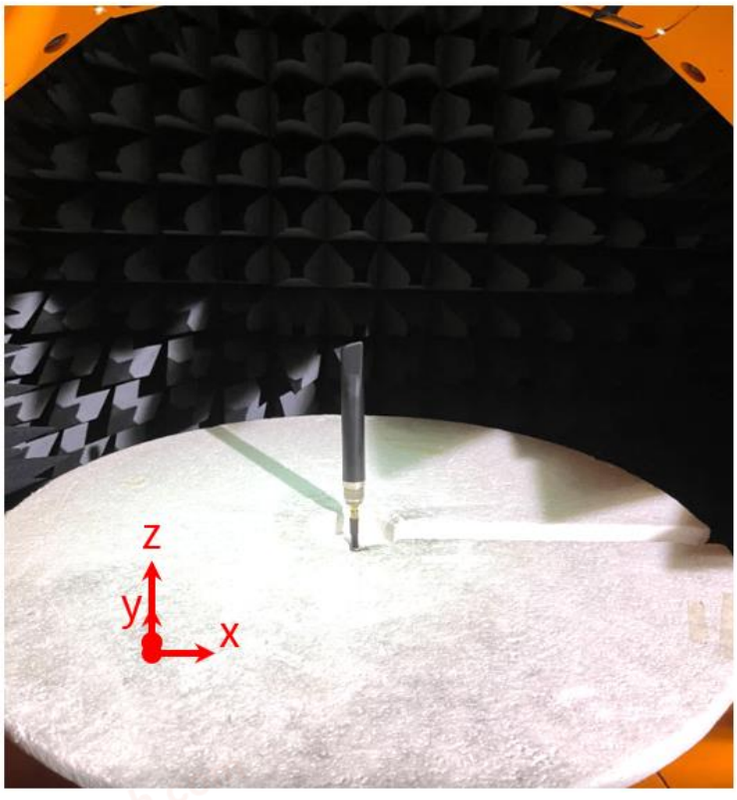


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4. Radiation Patterns

4.1 Test Setup



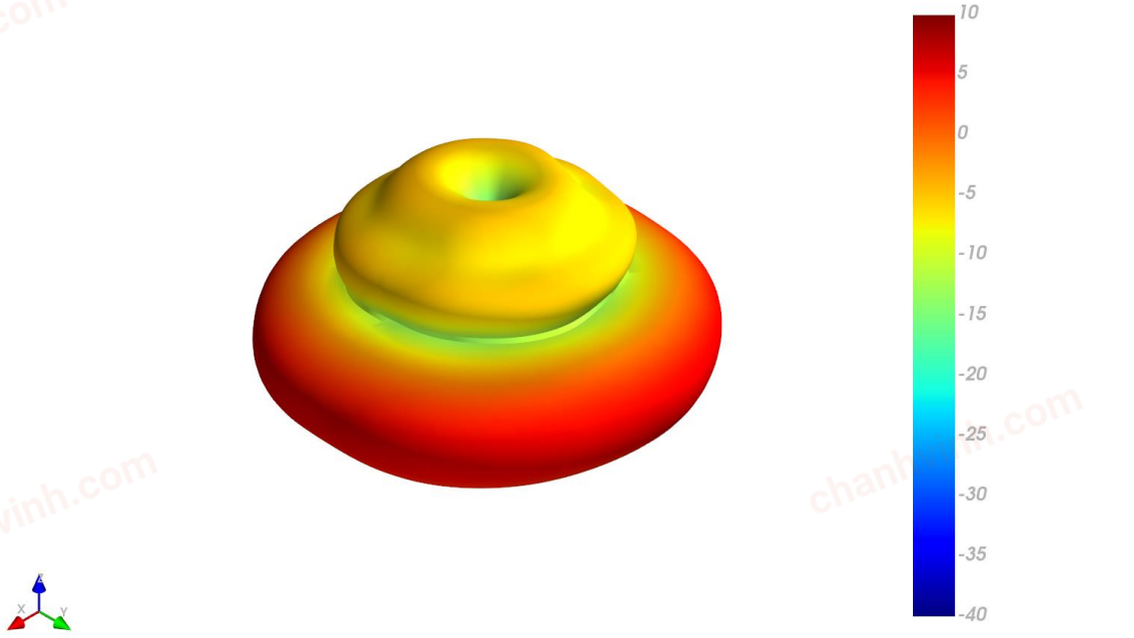


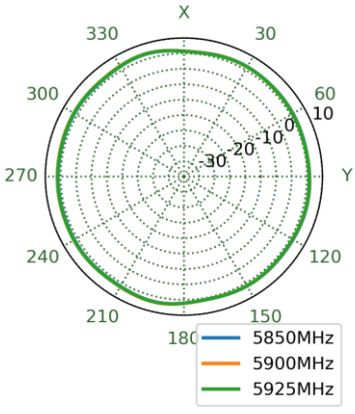
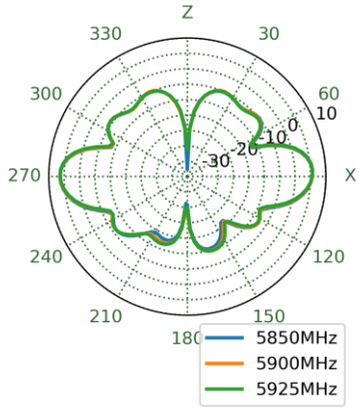
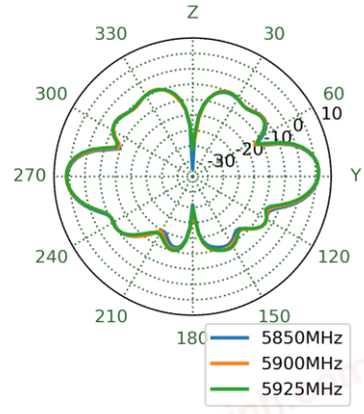
Testing in Free Space

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4.2 3D and 2D Radiation Patterns

5900MHz



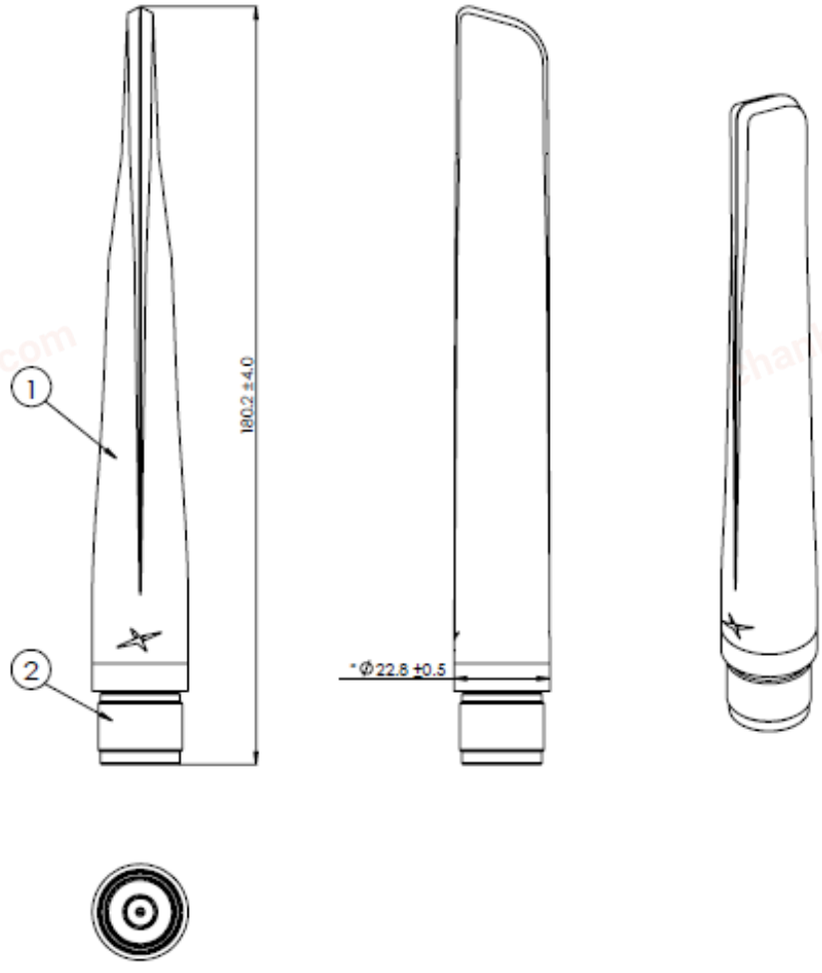
XY Plane	XZ Plane	YZ Plane
		

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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
D01	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
CHECK BY: Aaron
DRAWN BY: Aron Yan
DATE: 2023/6/8
UNLESS OTHERWISE SPECIFIED TOLERANCES ON: XX ±0.5, X ±0.3, .X ±0.2, .XX ±0.1, .XXX ±0.05
THIRD ANGLE PROJECTION

TAOGLAS. TW Design Centre
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TITLE: 5.9GHz Dipole Omnidirectional Terminal Antenna N-Type(M)
PART NO.: TD.59.6H31
UNIT: mm | SCALE: 1:1.5 | PAGES: 1/1 | REV. D01

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6. Packaging

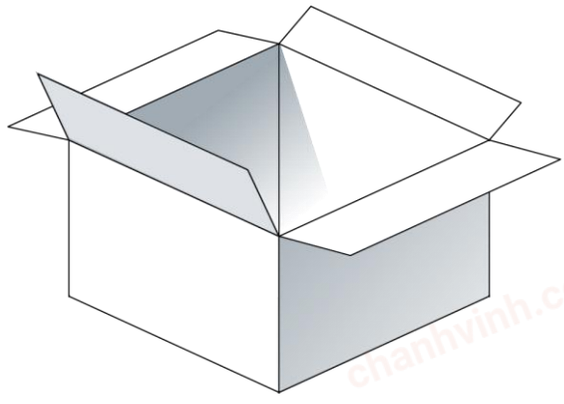
1pcs TD.59.6H31 per Small PE Bag



20pcs TD.59.6H31 per Large PE Bag



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



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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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