



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: 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.

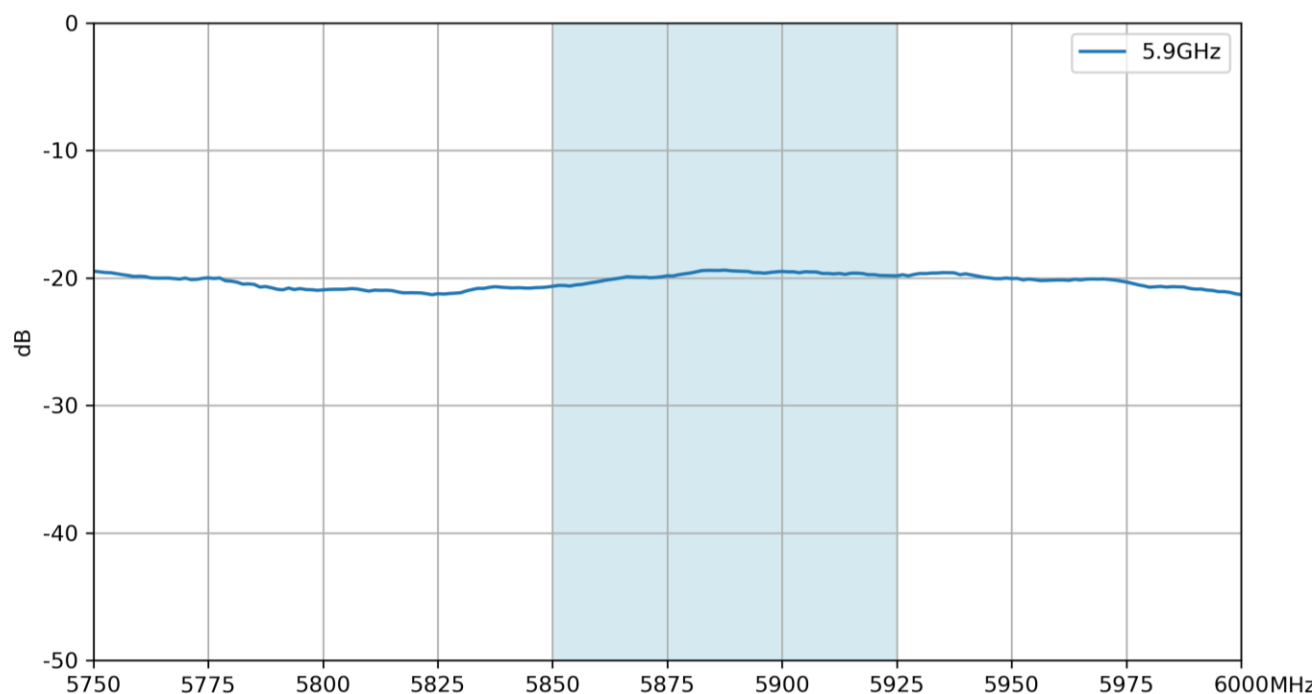
2. Specifications

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

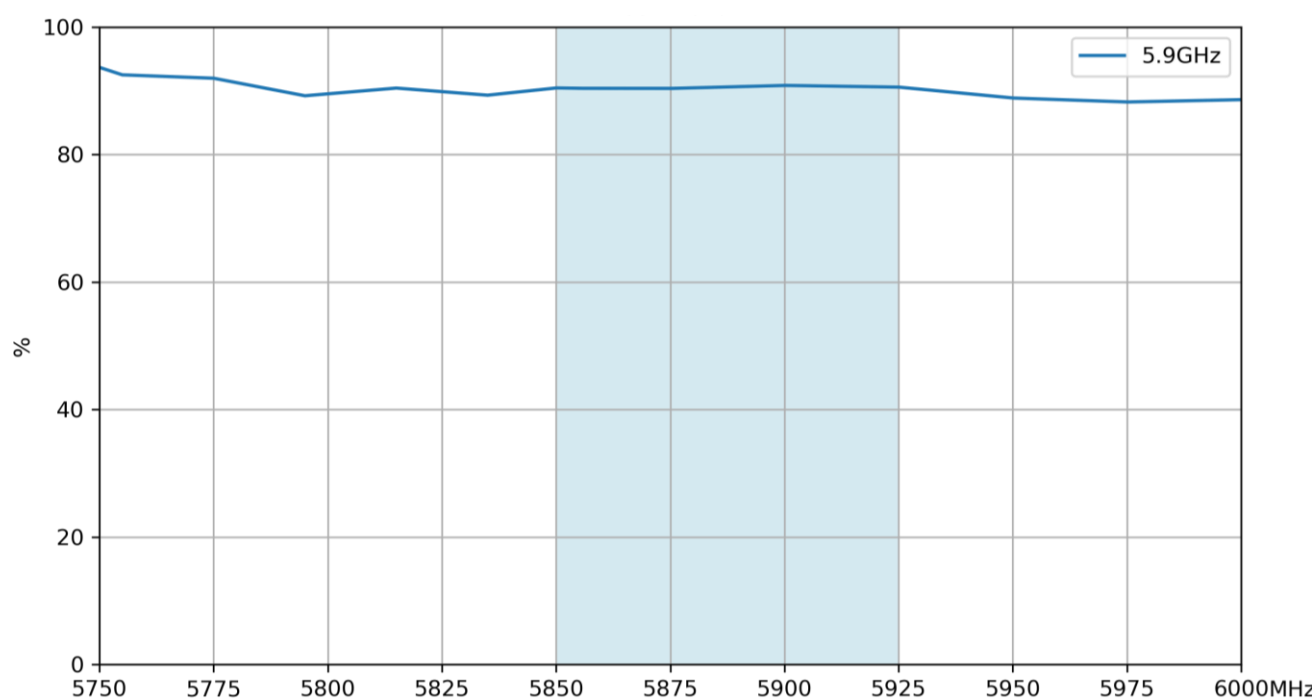
Mechanical	
Dimensions	Ø22.8 x 180.20mm
Material	PC+ABS
Weight	62.5 g
Connector	N-Type Male
Environmental	
Temperature Range	-40°C to 85°C
Waterproof Rating	IP67
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

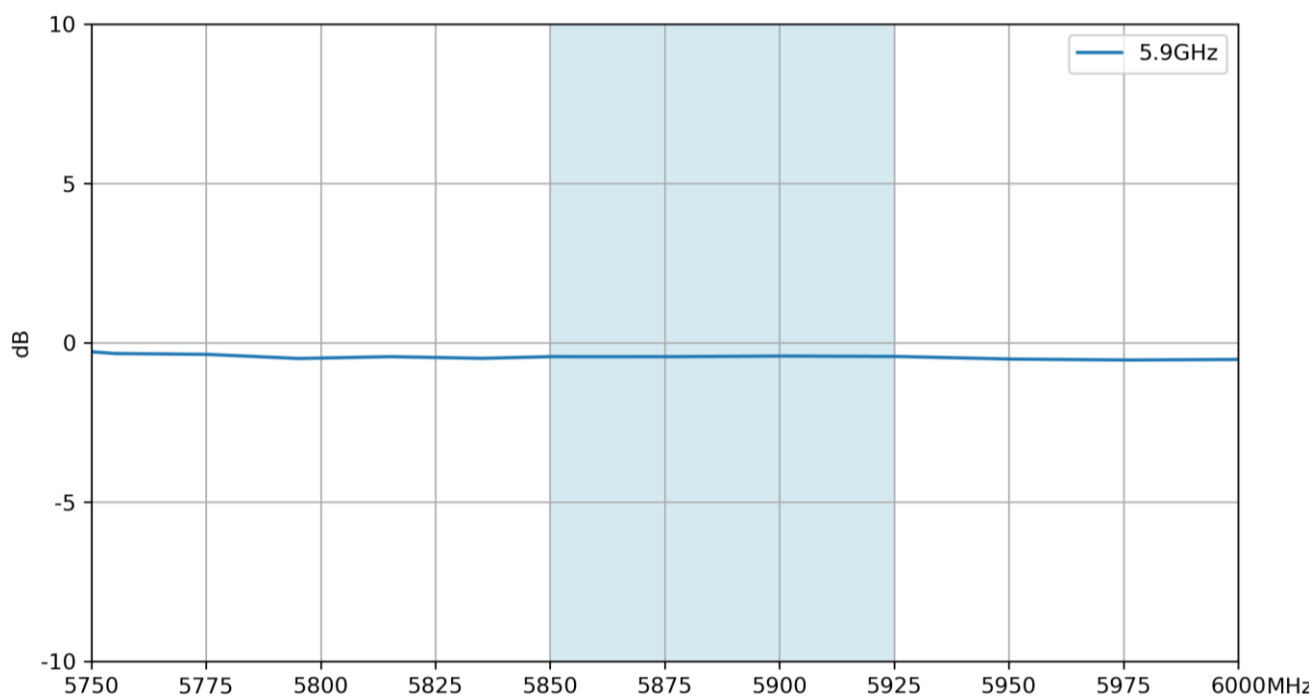
3.1 Return Loss



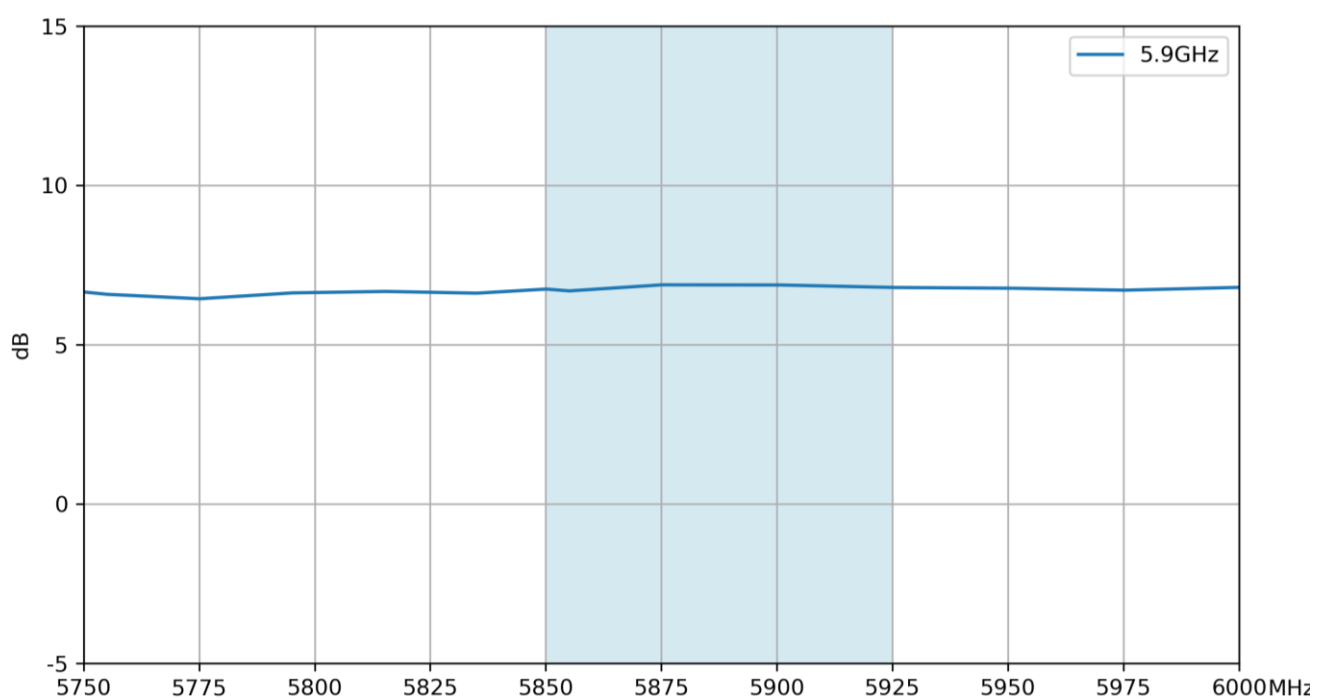
3.2 Efficiency



3.3 Average Gain

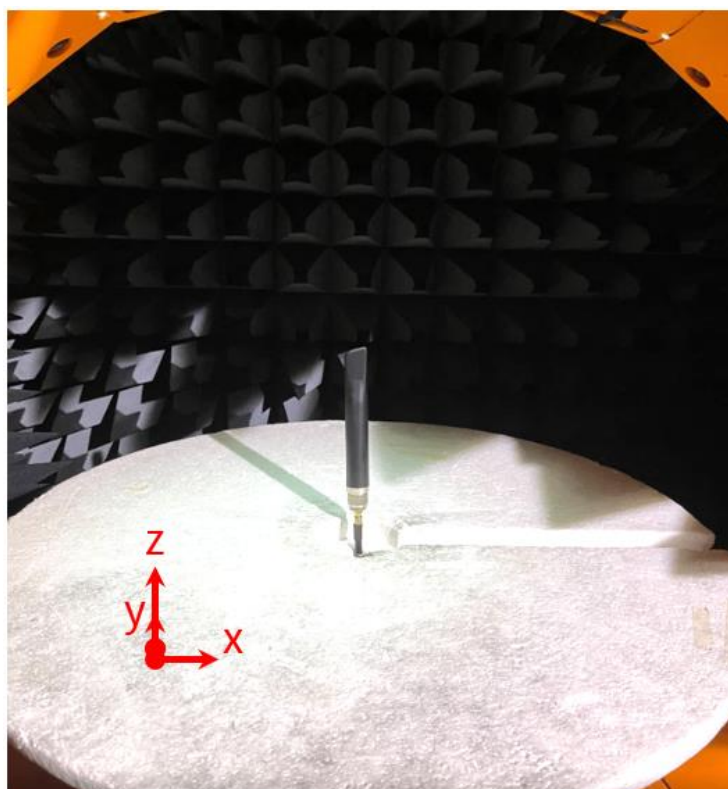
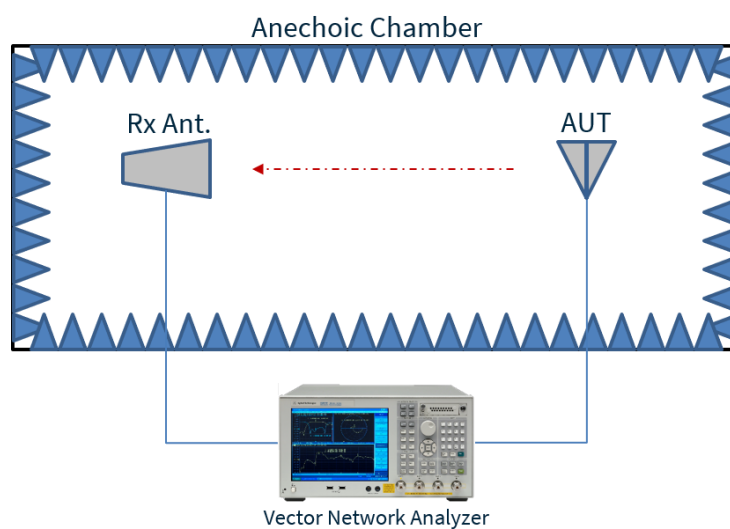


3.4 Peak Gain



4. Radiation Patterns

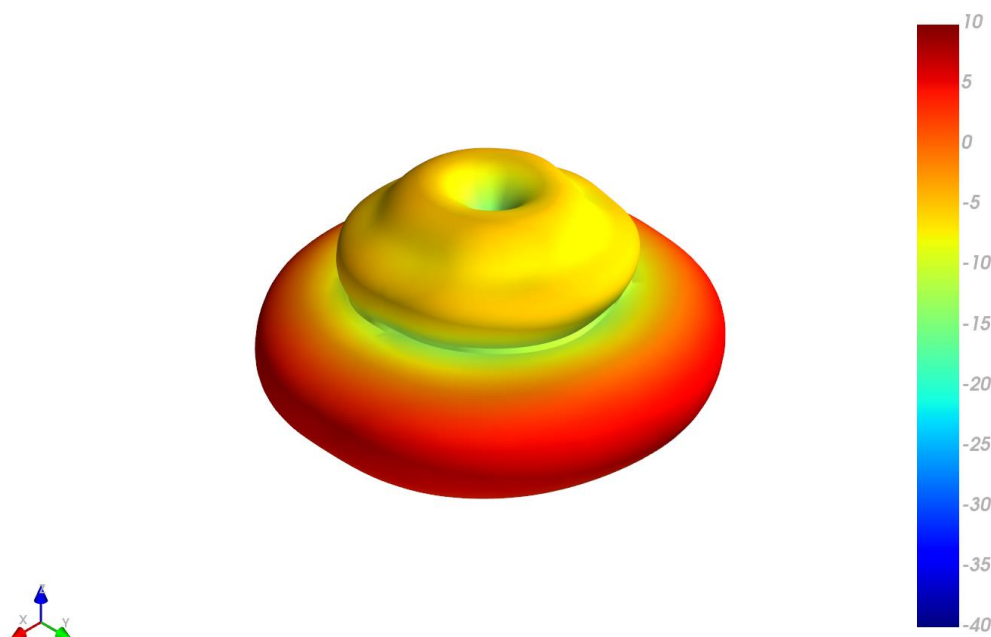
4.1 Test Setup



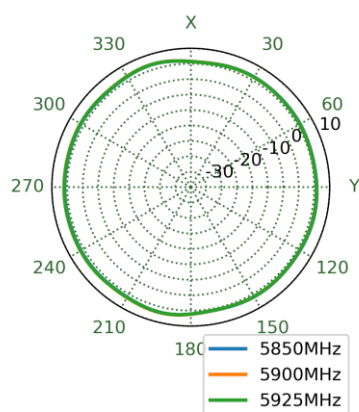
Testing in Free Space

4.2 3D and 2D Radiation Patterns

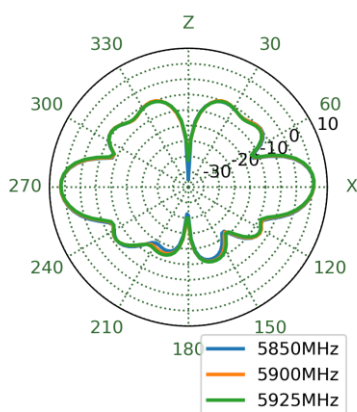
5900MHz



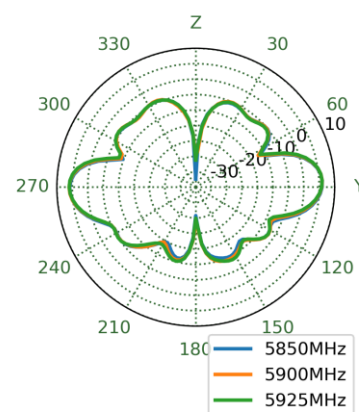
XY Plane



XZ Plane



YZ Plane



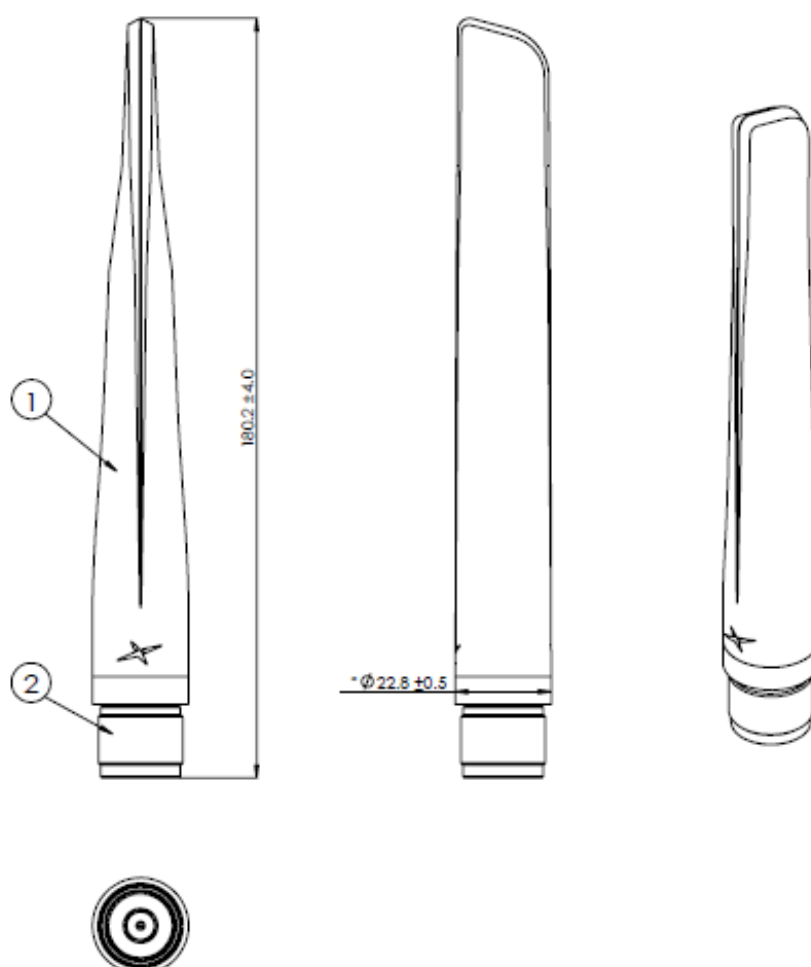
5. Mechanical Drawing (Units: mm)

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

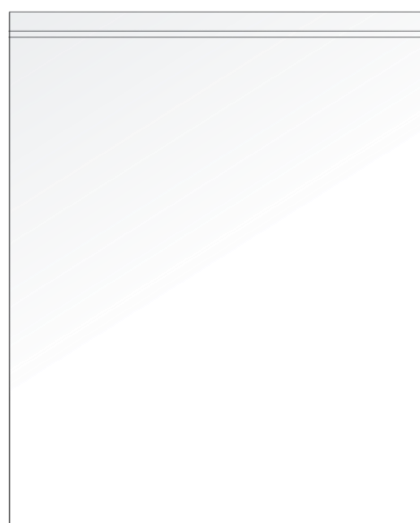
APPROVED BY: Chozen	 TAOGLAS TM Design Centre The drawing and its related design concepts are property of Taoglas. Not to be copied or given to third parties without the written consent of Taoglas.
CHECK BY: Aaron	
DRAWN BY: Aron Yan	
DATE: 2023/6/8	
UNLESS OTHERWISE SPECIFIED TOLERANCES ON: XX.XX ±0.5 X.XX ±0.3 X.XX ±0.2 X.XX ±0.1 X.XX ±0.05	TITLE : 5.9GHz Dipole Omnidirectional Terminal Antenna N-Type(M)
THIRD ANGLE PROJECTION	PART NO. : TD.59.6H31
UNIT: mm	SCALE: 1:1.5
PAGES: 1/1	REV: 001

6. Packaging

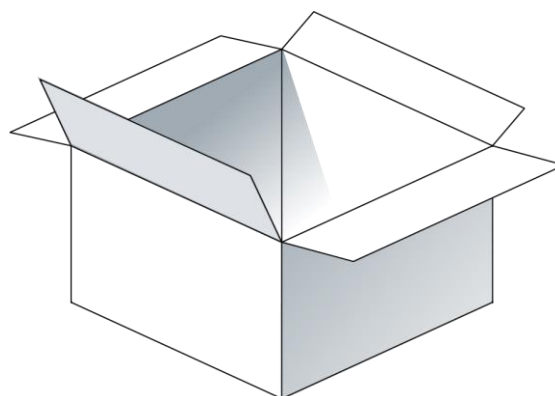
1pcs TD.59.6H31 per Small PE Bag



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



www.taoglas.com

