DRAFT SPECIFICATION

Part No. : **TD.80.6H31**

Description : Blade 6dBi DSRC 5.9GHz Dipole Terminal
Antenna N-type(M) Connector

Feature : 5850-5925MHz DSRC band
For V2V and V2X Applications
Dipole Terminal Antenna
N-type(M) Connector
Length 229mm, Φ21.8mm
RoHS Compliant

1. Introduction

The TD.80 Triton dipole terminal antenna is a high performance, compact 6 dBi omnidirectional antenna designed to operate between 5850-5925MHz for DSRC systems.

DSRC (Dedicated Short Range Communications) is the communications media of choice for active safety V2V (Vehicle to Vehicle) and V2X (Vehicle to Other) systems, primarily allocated for vehicle safety applications. DSRC supports high speed, low latency, and short-range V2V/V2X wireless communications. The TD.80 does not require a ground-plane to connect to and has market leading efficiency of 42%.

Connection is made via N-type connector. For further optimization to customer specific devices, contact your regional Taoglas office for service and support.

2. Specification

ELECTRICAL	
DSRC Bands	
Frequency (MHz)	5850~5925MHz
Efficiency (%)	
Straight Pose	42.01
Average Gain (dBi)	
Straight Pose	-3.77
Peak Gain (dBi)	
Straight Pose	6.10

MECHANICAL	
Dimensions	Length 229.15mm, Φ21.8mm
Casing	ASA
Connector	N-type Male connector
Weight	74.2g

ENVIRONMENTAL	
Temperature Range	-40°C to 85°C
Waterproof	IPX7
Humidity	Non-condensing 65°C 95% RH

3. Antenna Characteristics

3.1 Testing setup
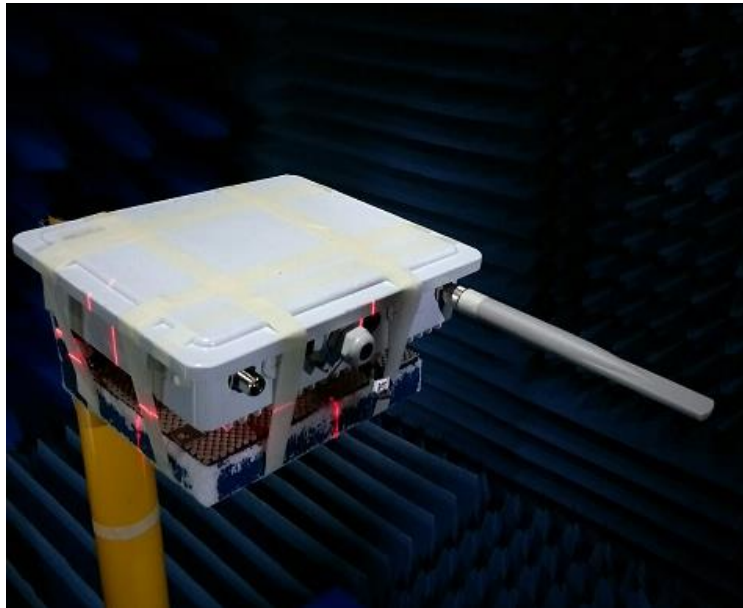
3.2 Return Loss
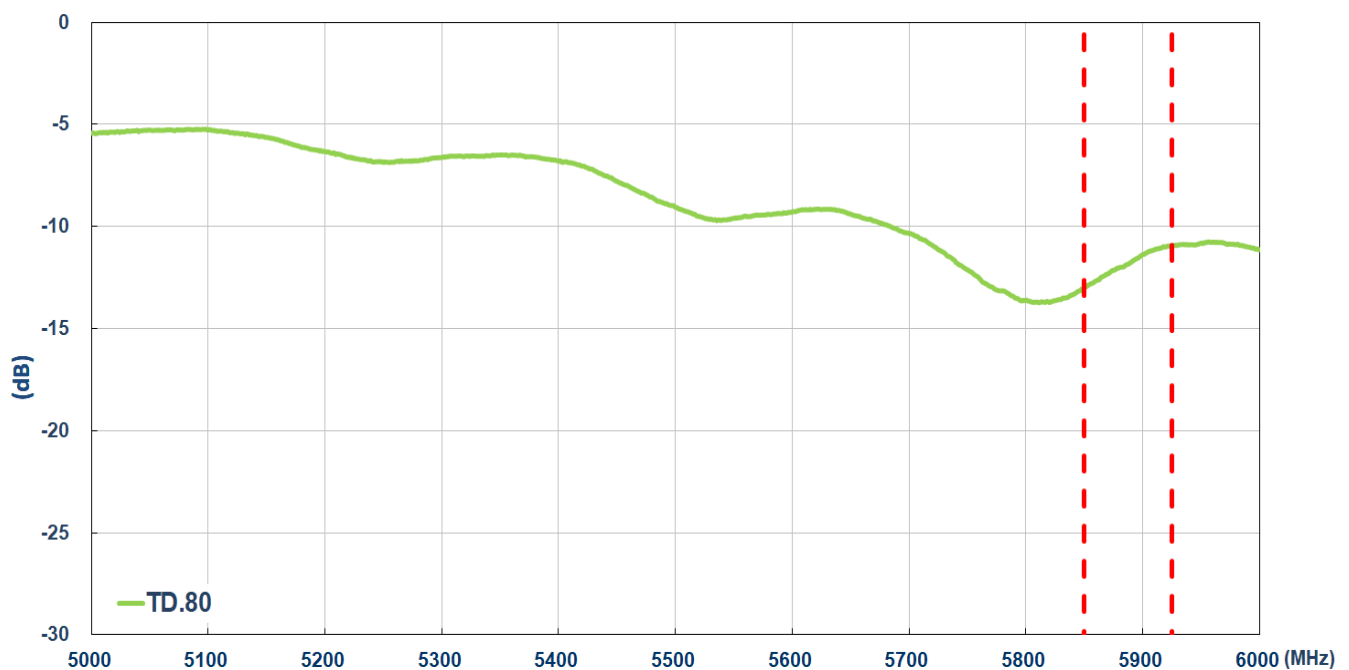
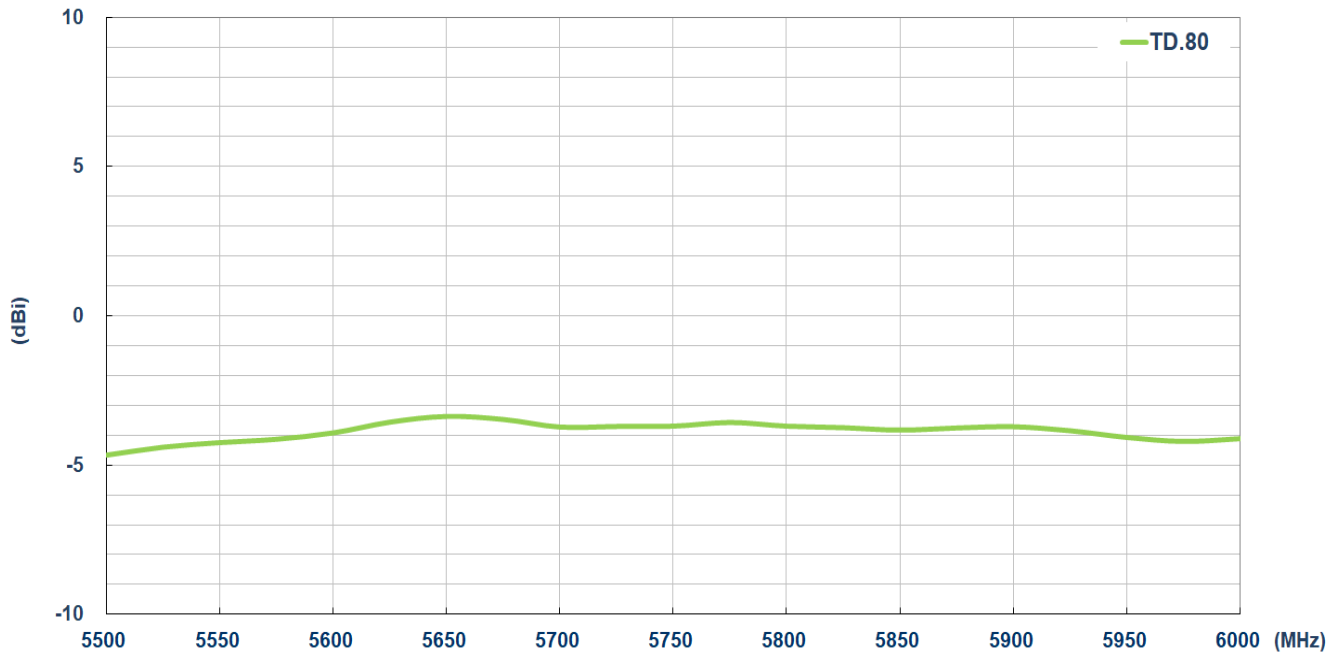## 3.3. Peak Gain
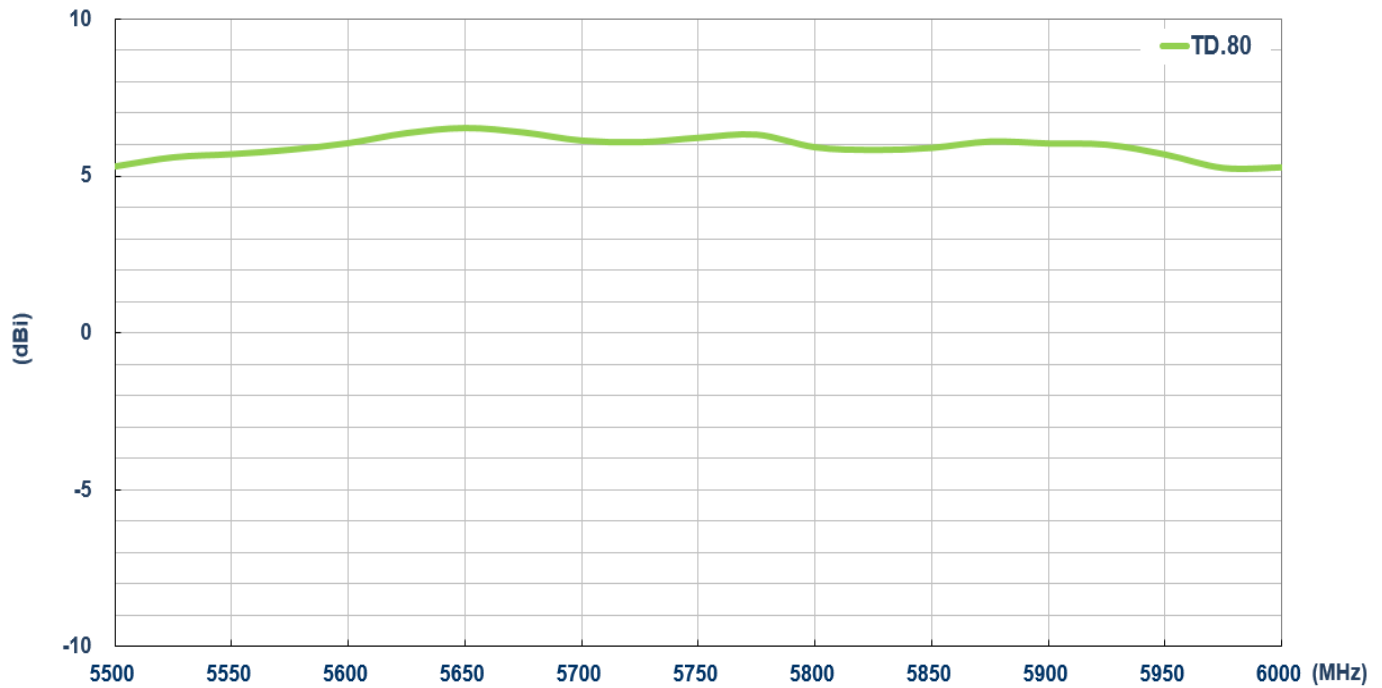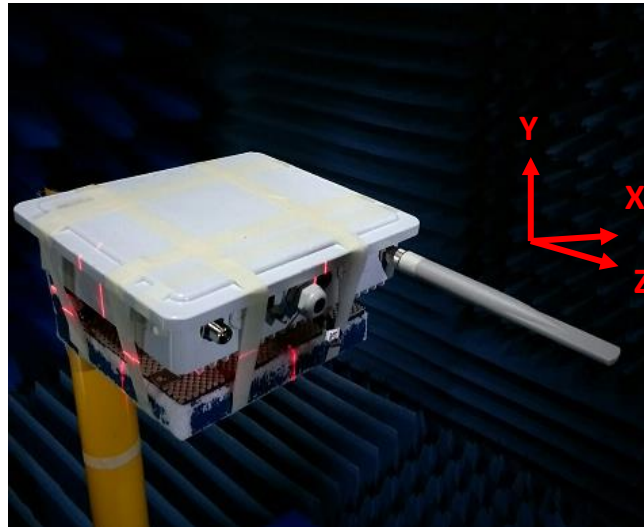

3.4 Efficiency
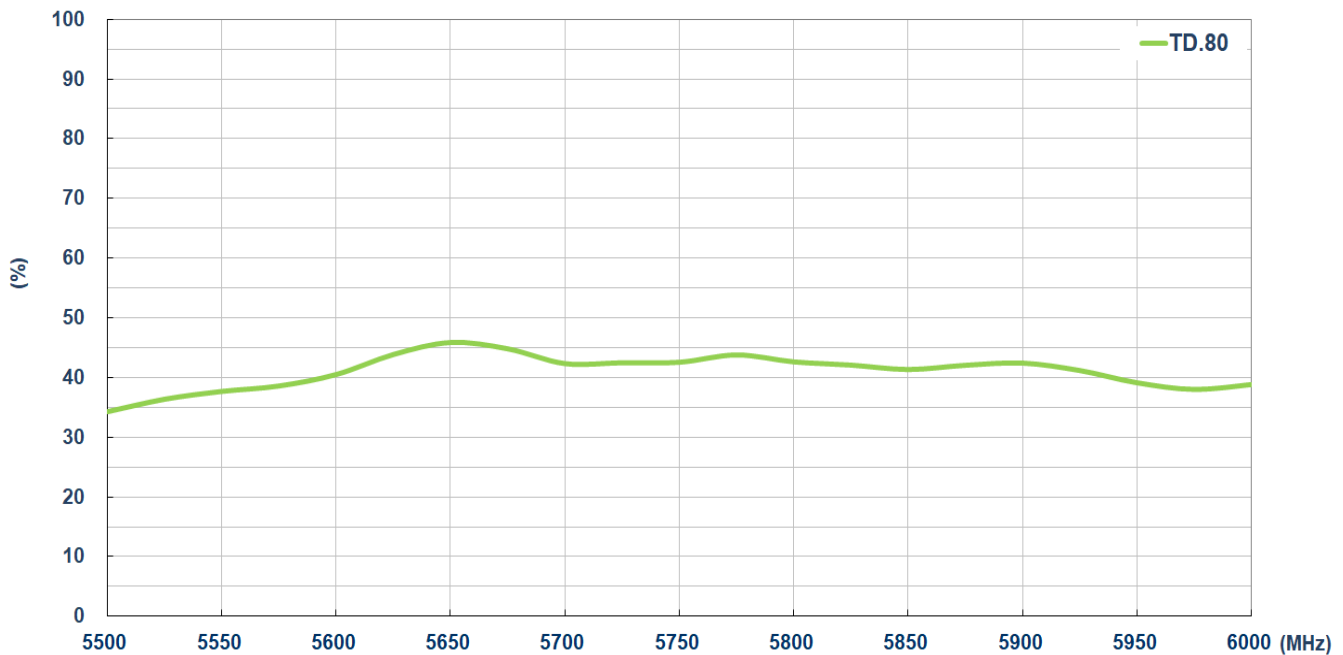
3.5 Average Gain

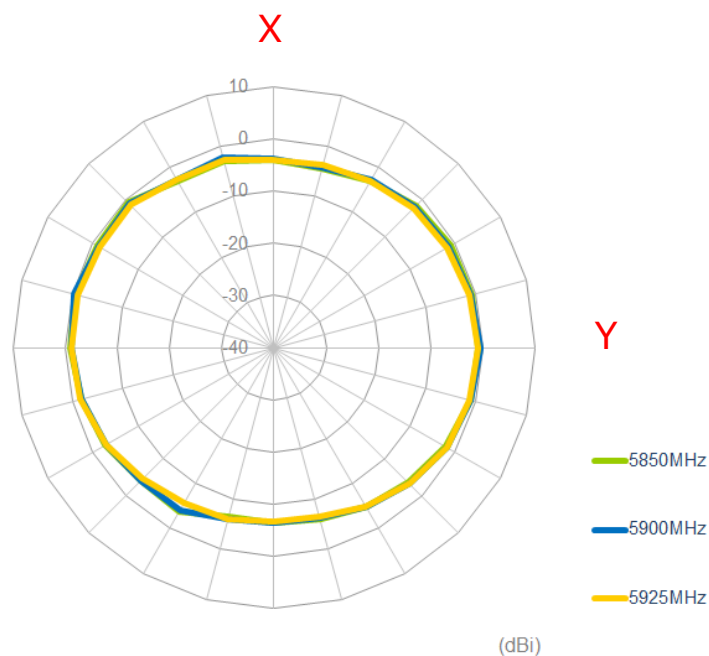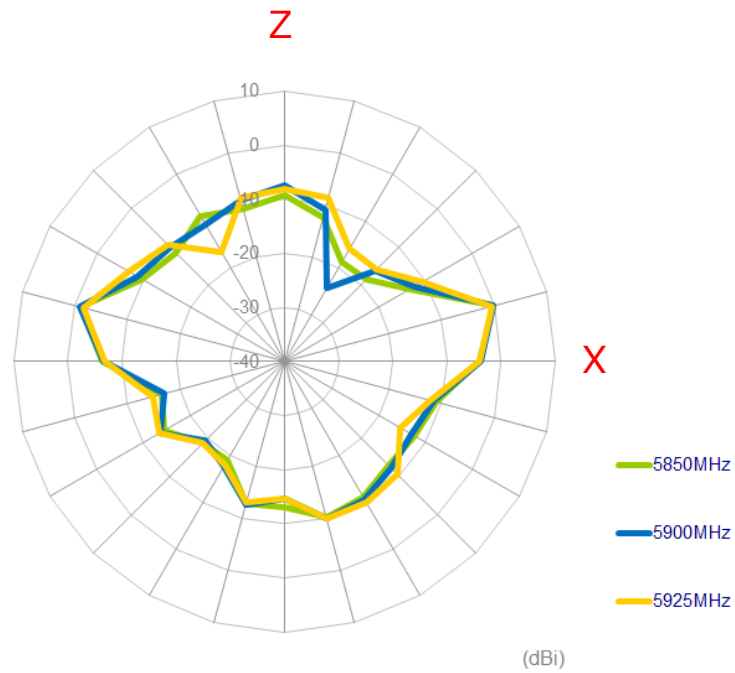# 4. Antenna Radiation Pattern

4.1 Antenna setup

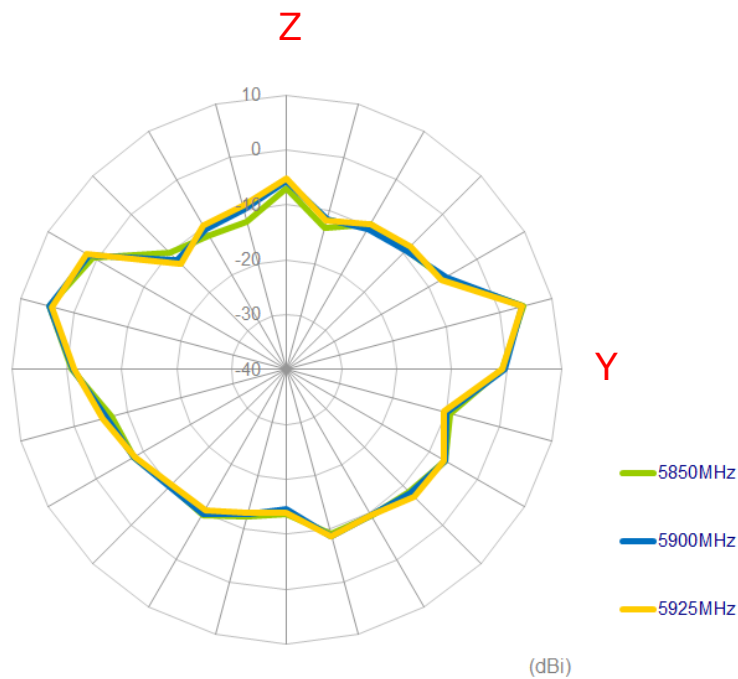Straight on the customer device

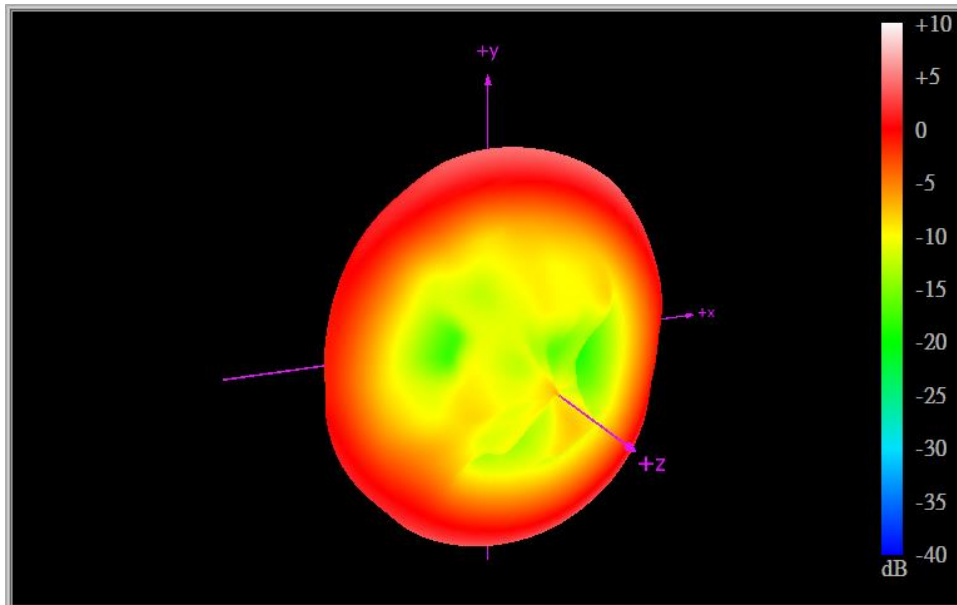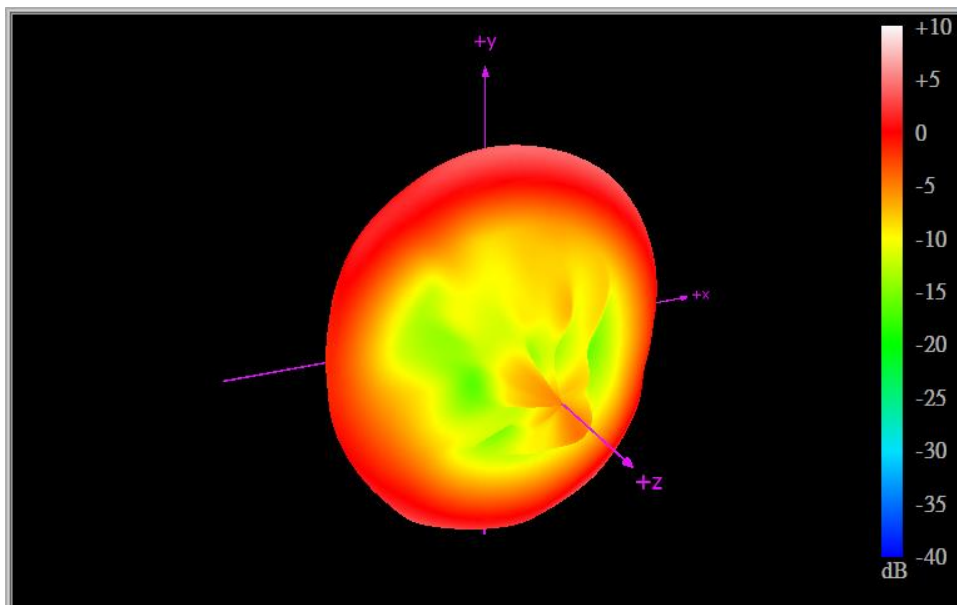## 4.2 2D Antenna Radiation Patterns

XY Plane

XZ Plane

YZ Plane

4.3 3D Antenna Radiation Patterns

At 5850MHz

At 5925MHz

5. Drawing

(Unit: mm)

229.15±4.5

206.55±3.5

6.6±0.6

①

ø21.8±0.6

②

"A"

20±1.5

③

Detail A
Scale:2:1