



# TAOGLAS®



# Datasheet

## Blade

**Part No:**  
TD.95.6H31

### Description:

Blade 868/915MHz Omnidirectional Dipole Terminal Mount Antenna  
With N-Type Male Connector

### Features:

Covers Sigfox/LoRA/ISM Frequencies: 868 and 915 MHz  
Mechanically Robust for Indoor/Outdoor Applications  
Omnidirectional Dipole (Ground Plane Independent) Antenna  
PC/ABS Enclosure  
Connector: N-Type Male Connector  
Dimensions: 228\* $\varnothing$ 22.8mm  
RoHS & Reach Compliant

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## 1. Introduction



The Taoglas Blade TD.95.6H31 is a high performance, Omnidirectional Terminal mount Dipole Antenna for use with SigFox/LoRA/ISM network applications. It covers both widely used SigFox/LoRA/ISM frequencies of 868 and 915MHz. The TD.95 uses a robust PC/ABS enclosure, ideal for outdoor applications. The TD.95 is a dipole antenna; thus, this antenna performs well without a ground plane - at least >57% efficiency and 1dBi Gain while also maintaining an Omni-directional pattern for constant reception/transmission.

Typical Applications Include:

- Remote Monitoring
- Digital Signage
- Mesh Networks
- Vending Machines

The TD.95.6H31 can be supplied in gray, for this gray version the part number is: **TD.95.6H31G**. This antenna can also be supplied without the Taoglas logo – please contact Taoglas for information regarding this.

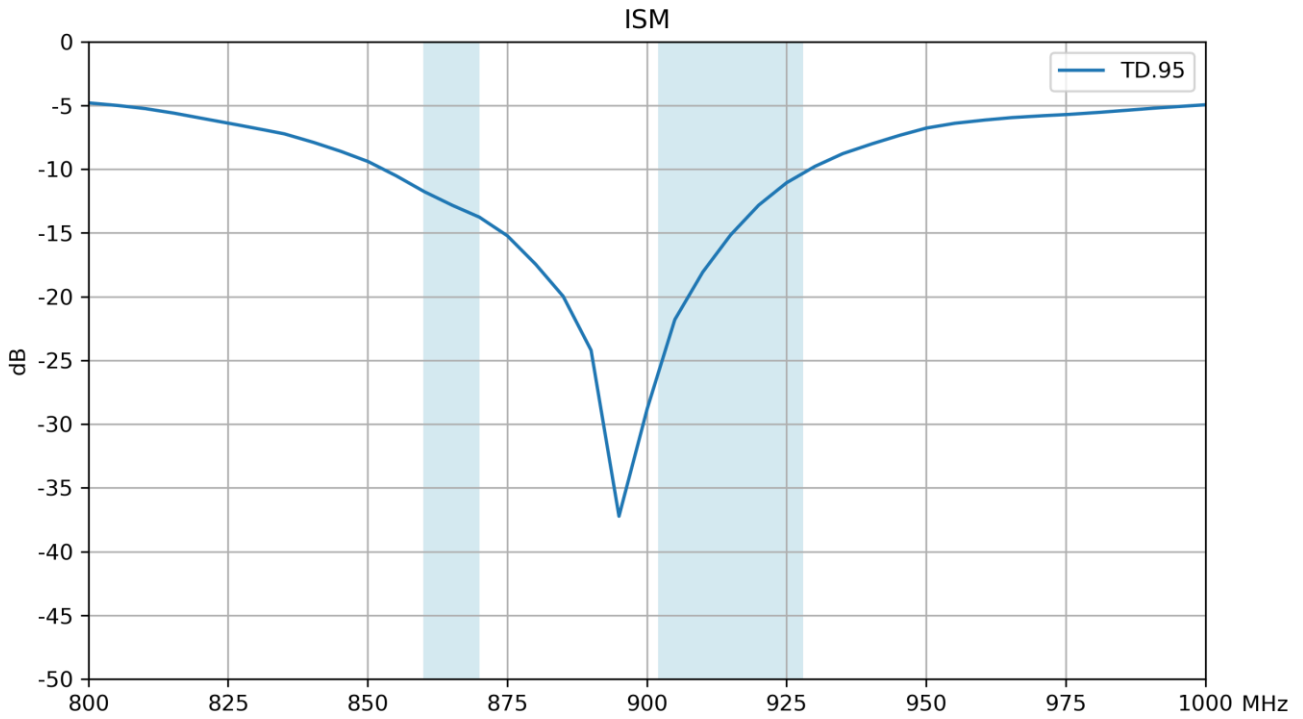
The TD.95.6H31 antenna is supplied with a Direct mount N-Type connector, however this can be customized subject to MOQ and NRE. For further information regarding customization or installation of this antenna, please contact your regional Taoglas customer support team.

## 2. Specifications

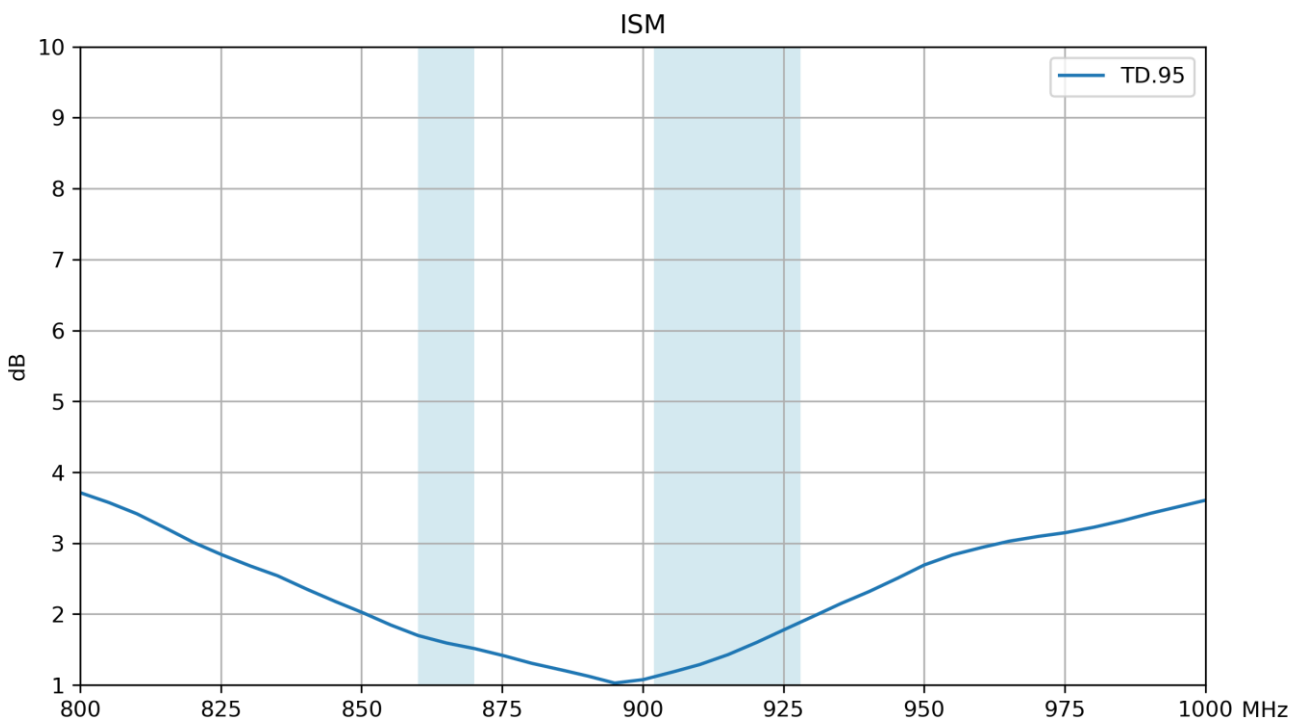
| ISM Electrical    |                            |       |
|-------------------|----------------------------|-------|
| Frequency (MHz)   | 868                        | 915   |
| Efficiency (%)    |                            |       |
| Free Space        | 57.2                       | 58.9  |
| Average Gain (dB) |                            |       |
| Free Space        | -2.43                      | -2.30 |
| Peak Gain (dBi)   |                            |       |
| Free Space        | 1.33                       | 1.54  |
| Impedance         | 50 Ω                       |       |
| Polarization      | Linear                     |       |
| Radiation Pattern | Omni                       |       |
| Max. input power  | 10W                        |       |
| Mechanical        |                            |       |
| Dimensions        | 228*22.8(mm)               |       |
| Weight            | 70g                        |       |
| Material          | PC/ABS                     |       |
| Connector         | N-Type(M)                  |       |
| Environmental     |                            |       |
| Temperature Range | -40°C to 85°C              |       |
| Humidity          | Non-condensing 65°C 95% RH |       |

### 3. Antenna Characteristics

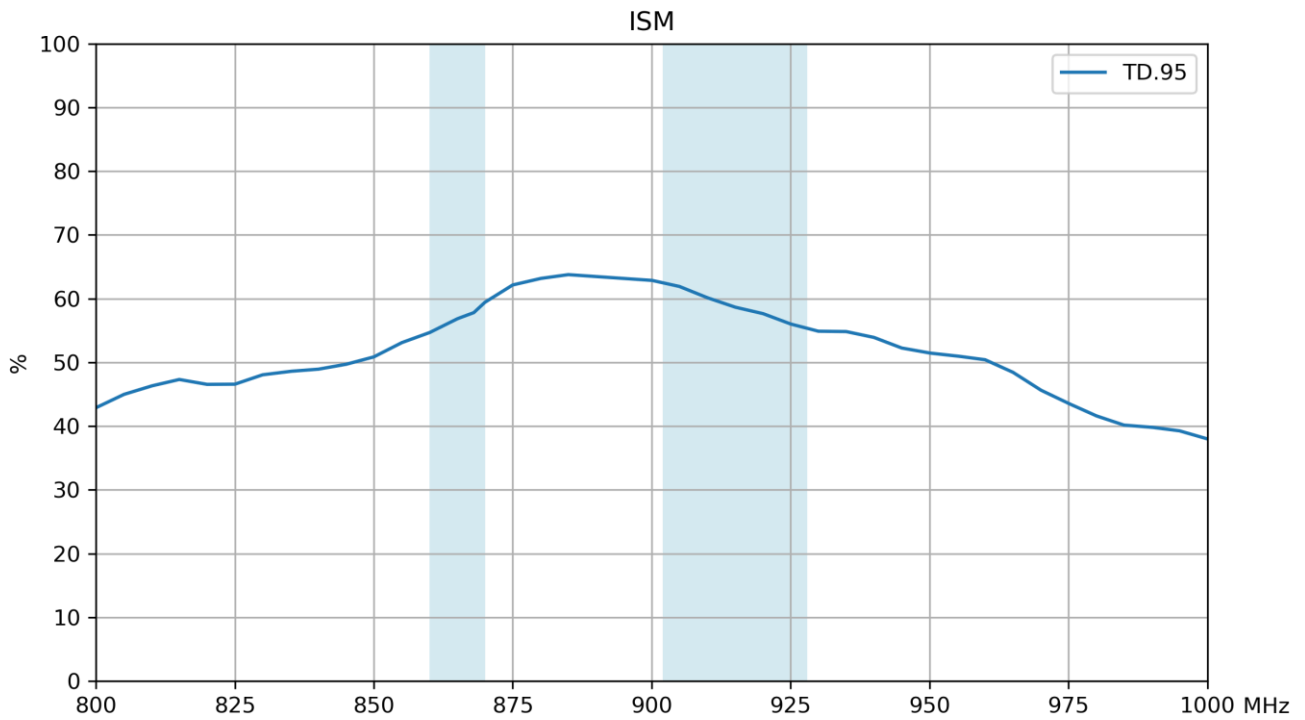
#### 3.1 Return Loss



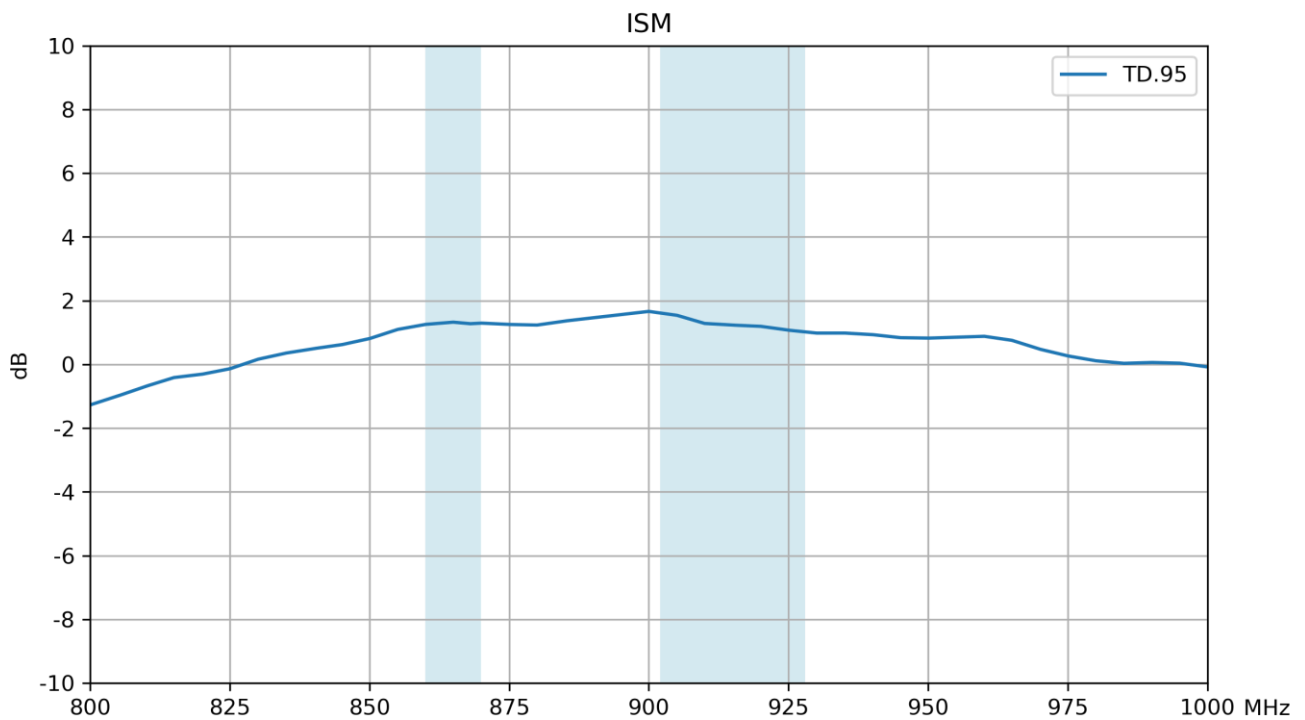
#### 3.2 VSWR



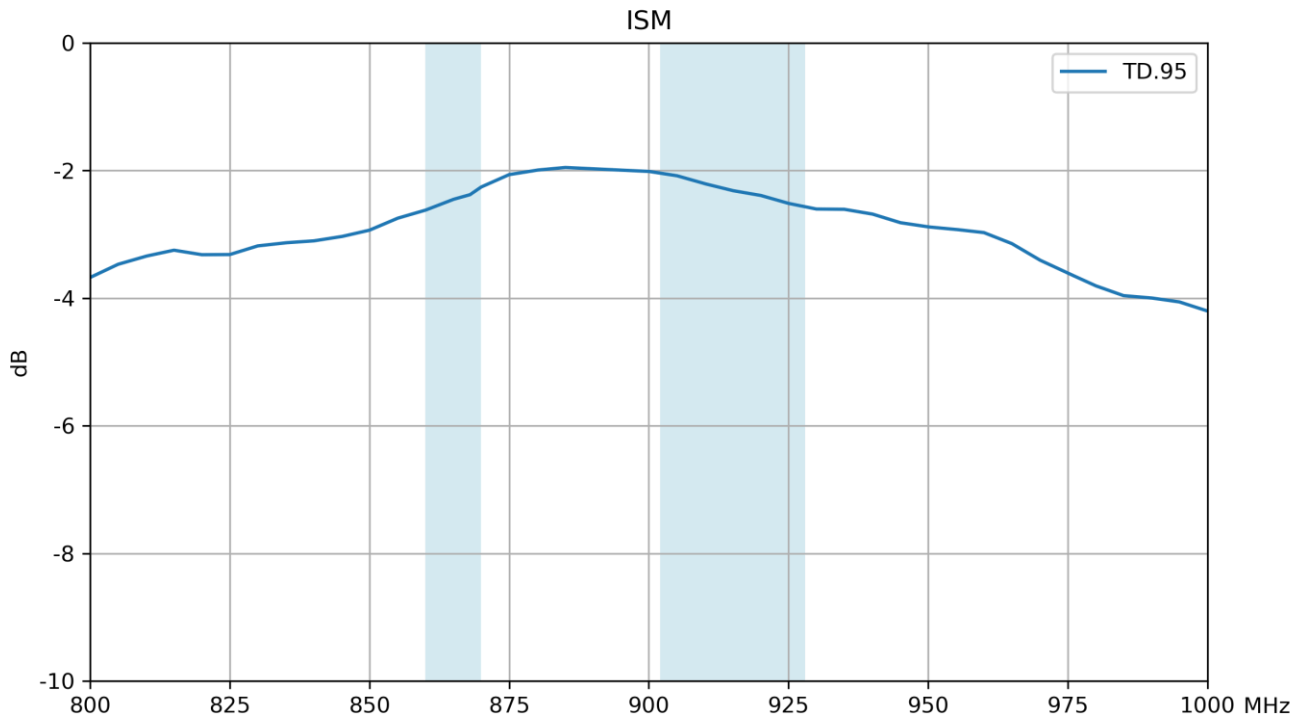
### 3.3 Efficiency



### 3.4 Peak Gain



3.5 Average Gain



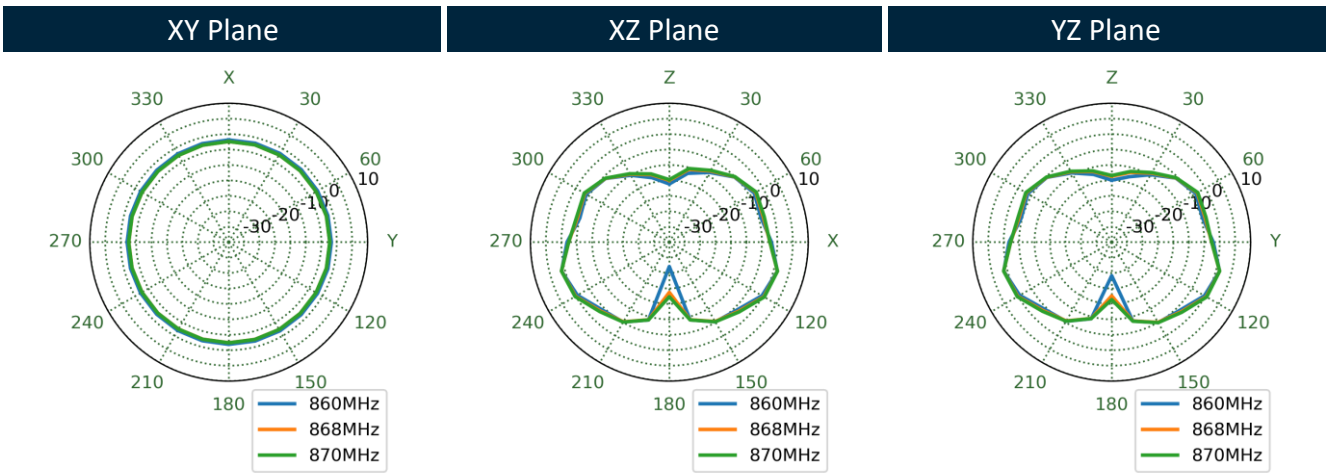
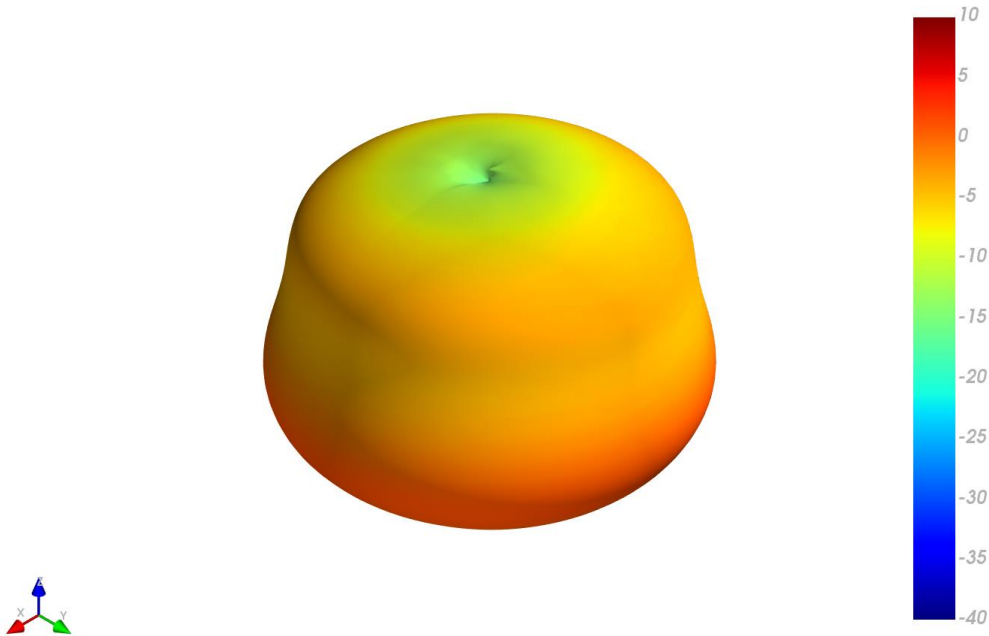
## 4. Radiation Patterns

### 4.1 Test Setup – Free Space

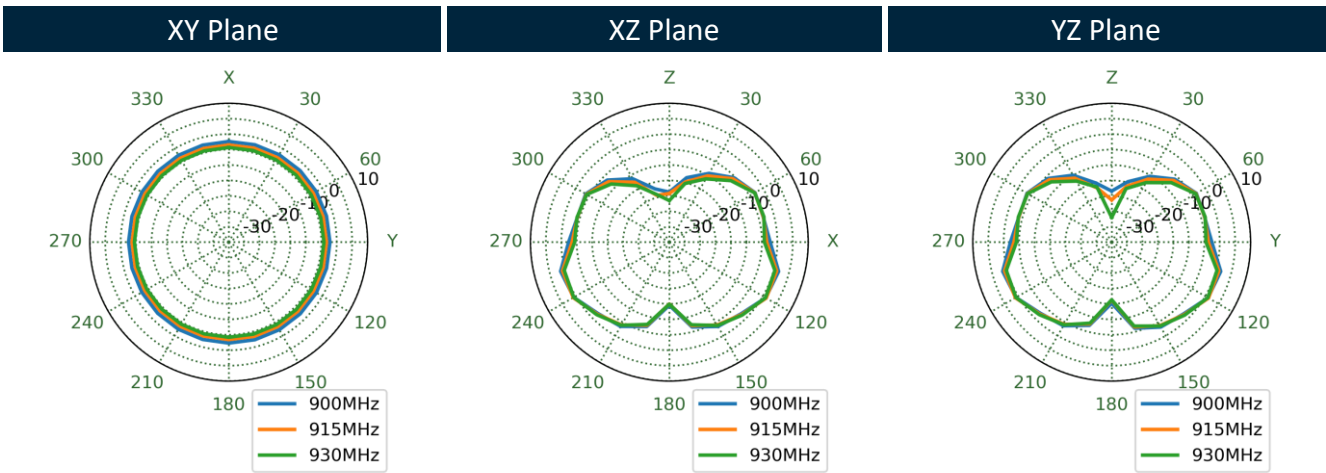
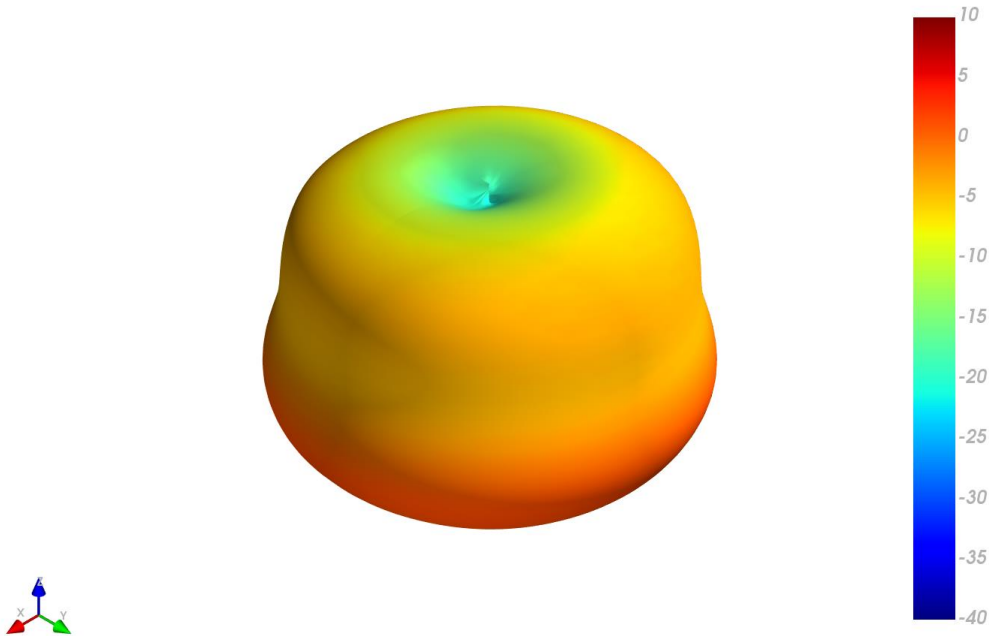




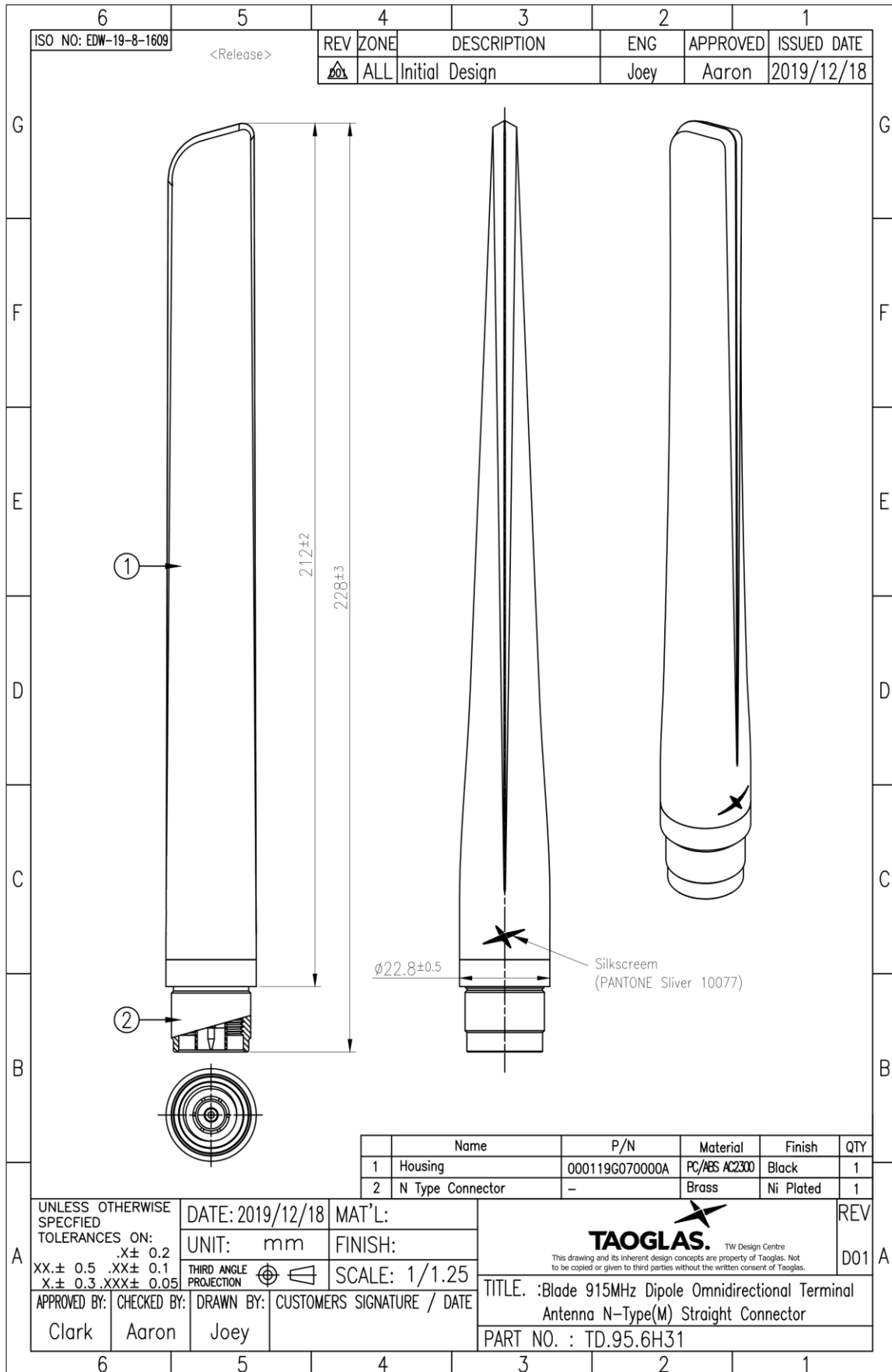
4.2 868MHz 3D and 2D Radiation Patterns



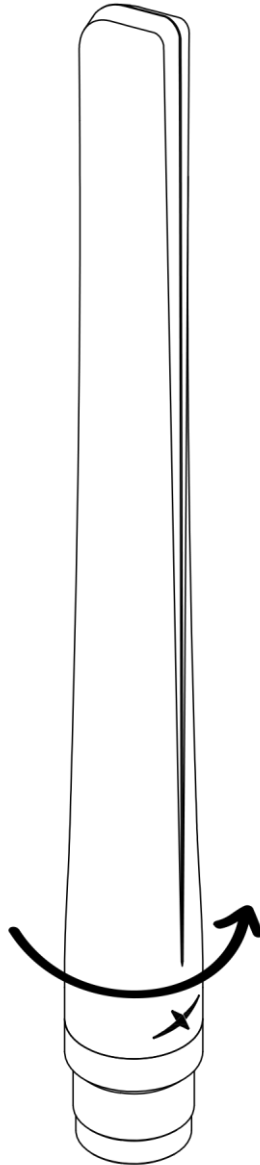
4.3 915MHz 3D and 2D Radiation Patterns



# 5. Mechanical Drawing (Units: mm)



## 6. Installation Instructions

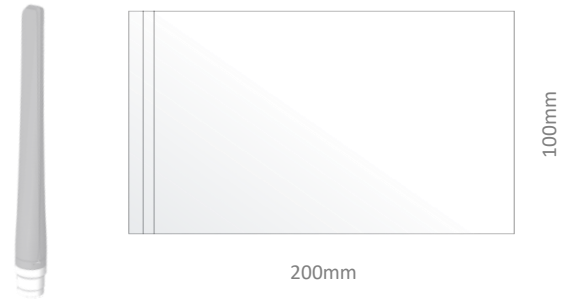


The recommended mounting torque for the TD.95 is 5 Nm.

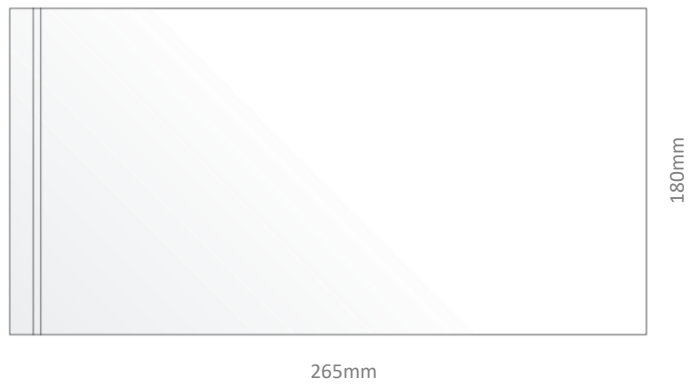
The maximum torque that can be applied is 15 Nm.  
Anything in excess of this value may cause damage to the product.

## 7. Packaging

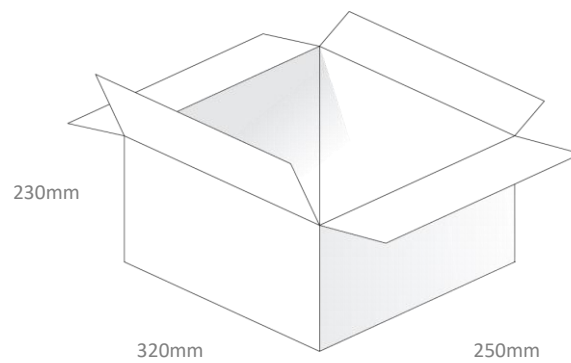
1pc TD.95.6H31 per PE Bag  
 Bag Dimension: 200\*100mm  
 Weight: 70g



20pcs TD.95.6H31 per Large PE Bag  
 Bag Dimensions: 180\*265mm  
 Weight: 1.4Kg



200pcs TD.95.6H31 per Carton  
 Dimensions: 320\*250\*230mm  
 Weight: 14Kg



Changelog for the datasheet

**SPE-20-8-072 – TD.95.6H31**

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

|         |                 |
|---------|-----------------|
| Date:   | 2020-06-18      |
| Notes:  | Initial Release |
| Author: | Jack Conroy     |

**Previous Revisions**

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