



Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from,Europe,America and south Asia,supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of “Quality Parts,Customers Priority,Honest Operation,and Considerate Service”,our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip,ALPS,ROHM,Xilinx,Pulse,ON,Everlight and Freescale. Main products comprise IC,Modules,Potentiometer,IC Socket,Relay,Connector.Our parts cover such applications as commercial,industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



Contact us

Tel: +86-755-8981 8866 Fax: +86-755-8427 6832

Email & Skype: info@chipsmall.com Web: www.chipsmall.com

Address: A1208, Overseas Decoration Building, #122 Zhenhua RD., Futian, Shenzhen, China



SPECIFICATION

- Part No. : **A.40.A.301111**
- Product Name : GPS-GLONASS-GALILEO Hercules Heavy Duty
Screw Mount
- Feature : Height 28.5mm Diameter 47.8mm
Heavy duty screw mount
IP67 & IP69K Waterproof Rating
GPS/GLONASS/GALILEO - 3M RG174 SMA(M)
Customizable
ROHS Compliant



1. Introduction

The A.40 Hercules is a high performance thread mount GPS-GLONASS-GALILEO antenna designed for external use on vehicles and outdoor assets. Designed for heavy duty work with one piece C&C machined nickel plated steel base and threads, there are also convenient side slots for running cables laterally. Durable UV resistant PC housing is resistant to vandalism and direct attack. At only 29mm high it complies with the latest EU directives for height restrictions, whilst also enabling covert operation with a diameter of only 49mm. The antenna is completely waterproof with an IP67 rating, plus an additional IP69K rating for waterproof resistance against high pressure water jets used in cleaning.

Cable lengths, types and connectors are fully customizable.

2. Specification

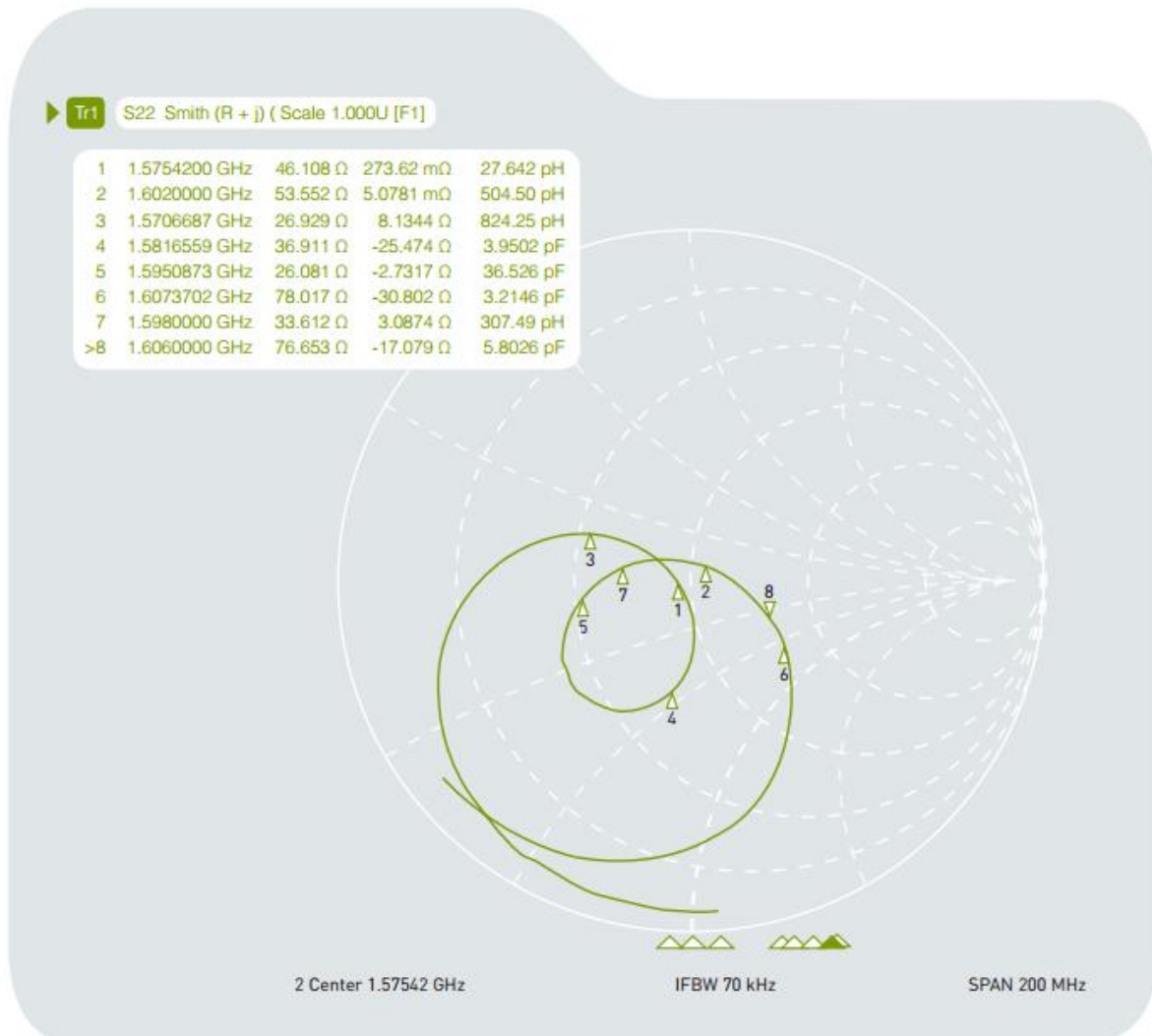
| ELECTRICAL | |
|--|--|
| Frequency(MHz) | 1574~1606MHz |
| Impedance(Ohm) | 50Ω |
| GPS/GALILEO Patch Gain@ Zenith GLONASS Patch Gain@ Zenith | -1.4dB Passive Gain @ Zenith -1.3dBi Gain @ Zenith |
| VSWR | 2.0 max |
| Axial ratio | 3.0dB max |
| Polarization | RHCP |
| Out Band Rejection | fo = 1575.42MHz fo ± 30 MHz 5dB Min. fo ± 50 MHz 20dB Min. fo ± 100 MHz 25dB Min. |
| Input Voltage(V) | Typ. 2.5~5.5V |
| Total Gain @ Zenith | 27dB typical at 3.0V |
| Current consumption(mA) | 10mA typical at 3.0V |
| Noise figure | 1.3dB typical |
| MECHANICAL | |
| Dimensions | Φ49mm , Height 28.5mm |
| Cable type | RG174 |
| Cable length | 3000±30mm |
| Casing | UV Resistant PC |
| Connector | SMA Male |
| Recommended Mounting Torque | 24.5N·m |
| Maximum Mounting Torque | 29.4N·m |
| ENVIRONMENTAL | |
| Temperature Range | -40°C to 85°C |
| Waterproof | IP67 and IP69K |
| Thermal Shock | 100 cycles -40°C to +85°C |
| Shock (drop test) | 1m drop on concrete 6 axes |
| Humidity | Non-condensing 65°C 95% RH |

3. Antenna Characteristics

3.1. Return Loss



3.2. Smith Chart – Impedance



4. Antenna Radiation Pattern

H-Plane

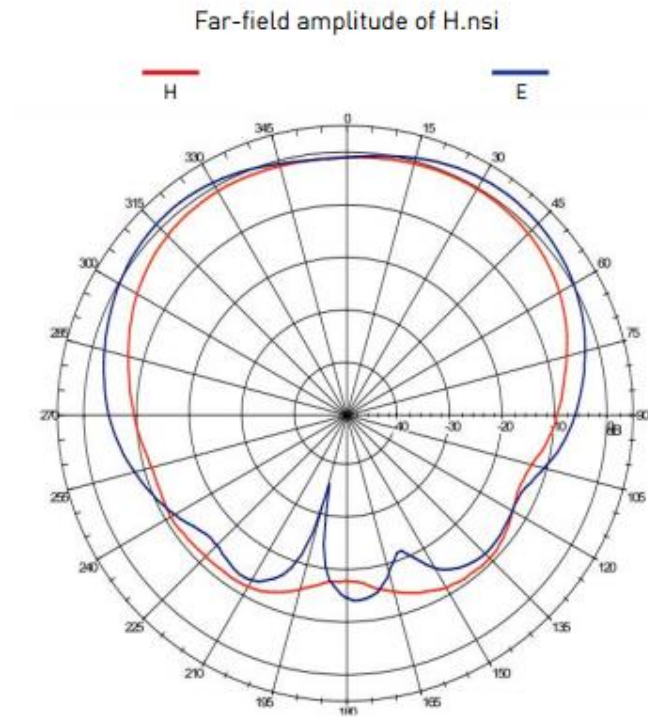


E-Plane

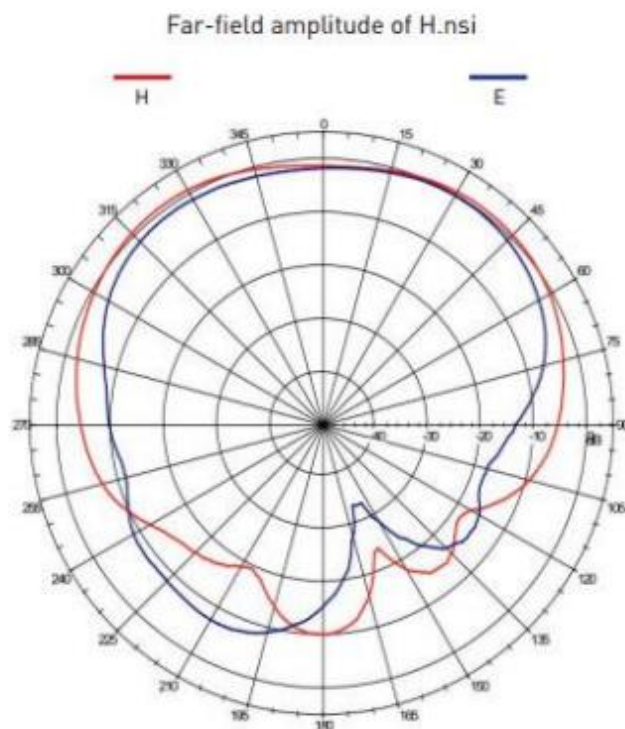




4.1. 1575.42MHz

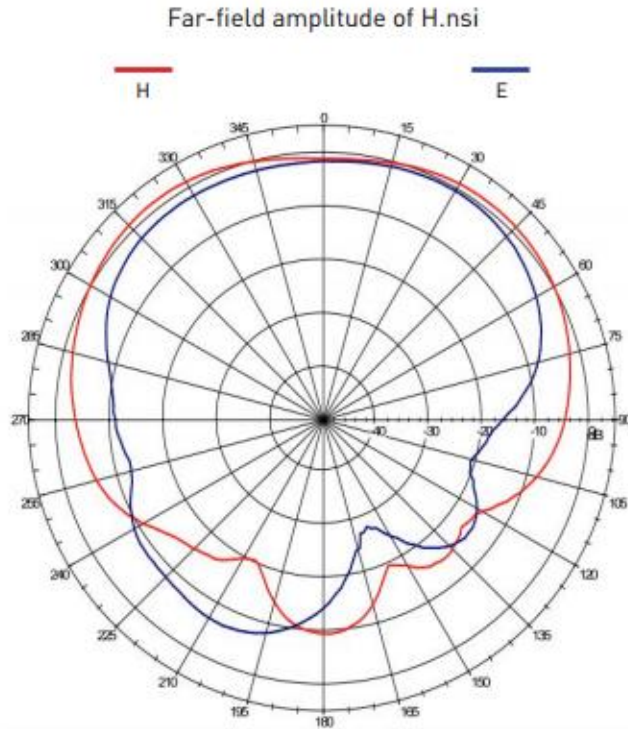


4.2. 1598MHz

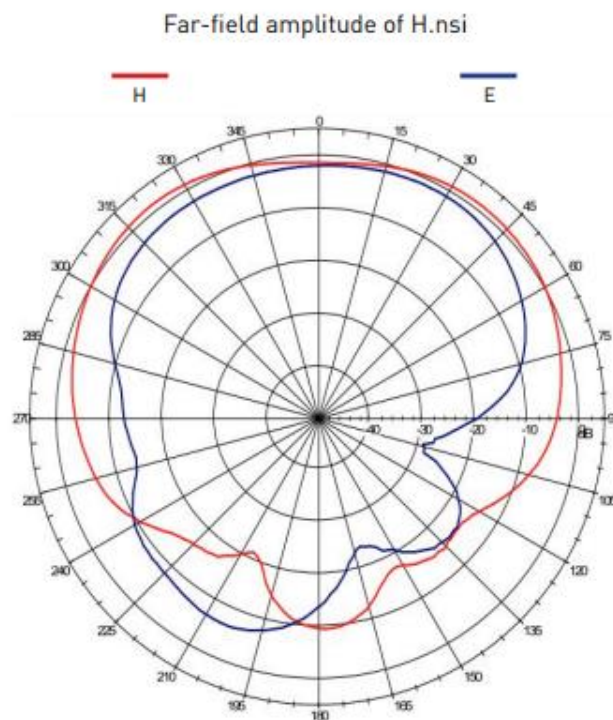




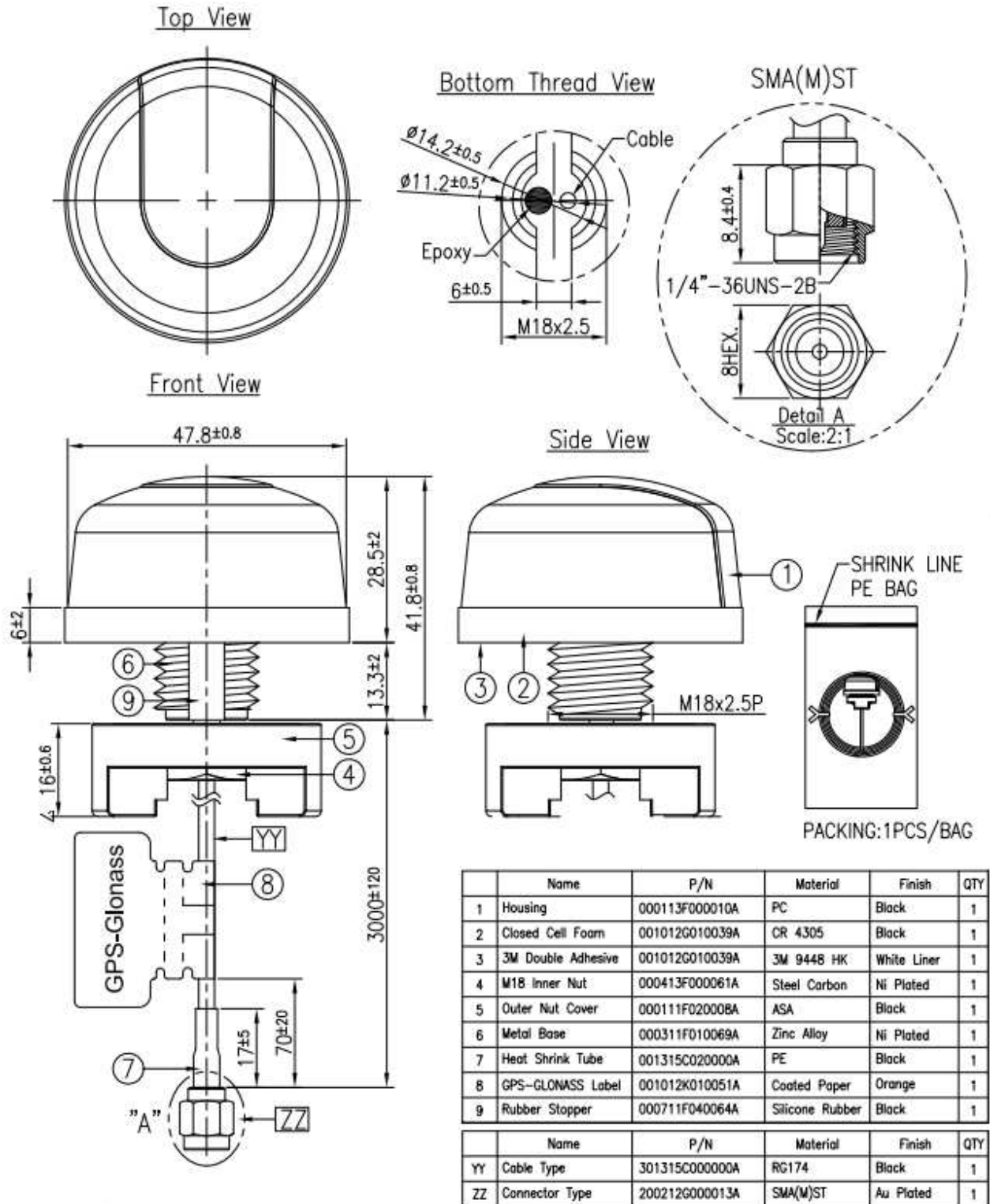
4.3. 1602MHz



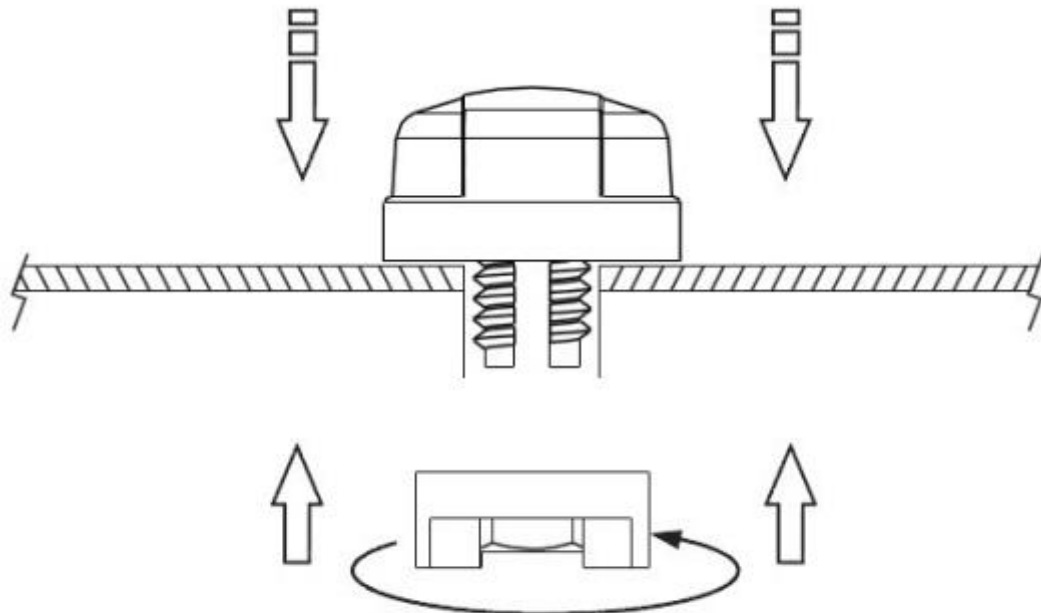
4.4. 1606MHz



5. Drawing



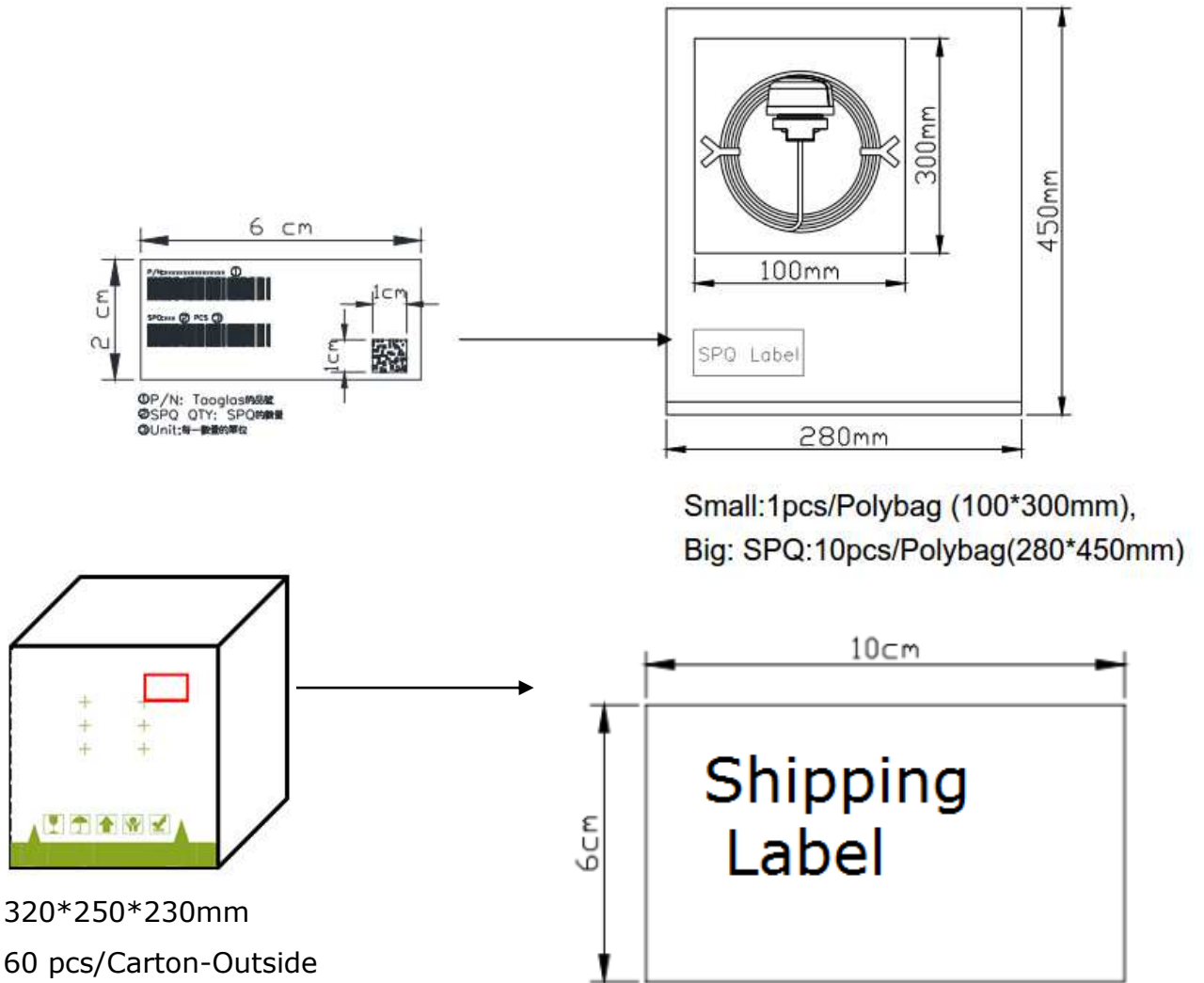
6. Installation



Recommended torque for Mounting is 24.5N·m
Maximum torque for mounting is 29.4N·m



7. Packaging



Taoglas makes no warranties based on the accuracy or completeness of the contents of this document and reserves the right to make changes to specifications and product descriptions at any time without notice. Taoglas reserves all rights to this document and the information contained herein.

Reproduction, use or disclosure to third parties without express permission is strictly prohibited.

Copyright © Taoglas Ltd.