DA275

High precision, multi-band L1/L2/L5 RHCP helical GNSS Antenna for demanding environments

Datasheet - In Production

Features

- 3V to 16V - 45mA power supply
- Rubber sealing ring (IP67)
- Low noise, High gain
- Excellent out-of-the band rejection
- Small and lightweight
- Gold plated SMA-J connector

Applications

- Drones
- RTK Base
- Ground vehicles
- Precise navigation
- Portable devices

Description

The Drotek **DA275** is a high-performance multi-band GNSS antenna designed for precision navigation and positioning applications.

Leveraging multi-arm, multi-feed point technology, it supports L1, L2 & L5 signal reception across BeiDou, GPS, GLONASS and Galileo satellite systems

Engineered with a built-in multi-stage filter and low-noise amplifier, the DA275 delivers superior out-of-band suppression and robust anti-interference capabilities, ensuring reliable operation even in harsh electromagnetic environments.

Its IP67-rated enclosure ensures dustproof and waterproof protection, and with an operational temperature range of -40°C to +85°C, the DA275 is built to deliver reliable performance in the most demanding environments.

Table 1. Device summary

Order ref code	Temperature range [°C]	Product size [mm]	Weight [g]
DA275	-40 to +85	54.0 x 27.8	18

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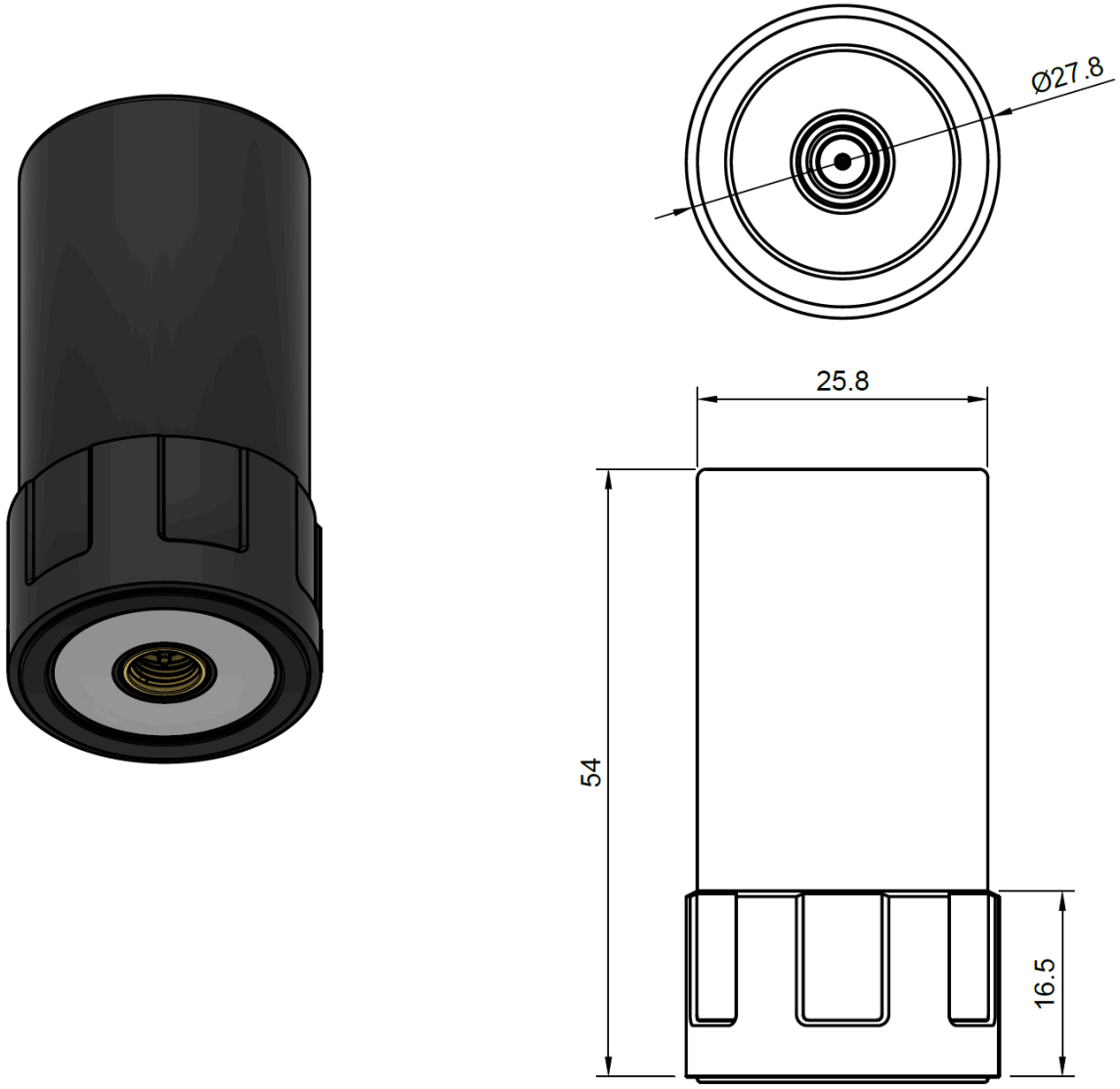
1. Specifications

Table 1. DA275 mechanical and electrical specifications

Symbol	Parameter	Value
ANTENNA		
Arch	Antenna architecture	Quadrifilar helix
Gband	GNSS signal bands	GPS: L1/L2/L5 GLONASS: G1/G2 BDS: B1/B2/B3 Galileo: E1/E5/E6
Gpp	Peak gain	≥2.0 dBi
Pol	Polarization	RHCP
Arat	Axial ratio @ zenith	≤3.0dB
Acov	Azimuth coverage	360°
Z	Impedance	50Ω
LNA		
Vdd	Operating voltage	3.0V ~ 16V
Idd	Operating current	≤45mA
Fran	Frequency Range	1164MHz ~ 1278MHz 1525MHz ~ 1615MHz
Glna	LNA gain	32±2.0dB (Typ. @25°C)
MECHANICAL & ENVIRONMENTAL		
IP	Waterproof	IP67
Con	Connector	SMA-J
Wei	Weight	18g
Top	Operating temperature	-40°C to +85°C

2. Mechanical drawings

Figure 1. DA275 v1.0 mechanical drawings



3. Revision history

Table 2. Document revision history

Date	Revision	Changes
13-Sep-2025	1.0	DrotekDoc_DA275 / Initial release

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