

# MULTI-CONSTELLATION ANTENNA

Single band anti-jamming

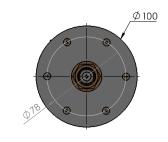
Option J

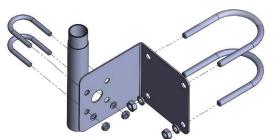
This antenna is a precision high-gain GNSS antenna, providing single-band GPS/QZSS-L1, GLONASS-G1, GalileoE1, and BeiDou-B1 coverage, including the satellite-based augmentation system (SBAS) available in the region of operation [WAAS (North America), EGNOS (Europe), MSAS (Japan), or GAGAN (India)].

The anti-jam feature modifies the radiation pattern of the GNSS antenna such that it is "deaf" to signals arriving from 10 ° below and 15 ° above the horizon while slightly increasing the gain of the antenna at zenith. Since jamming signals typically originate at low elevations, the antenna mitigates signals below 15 °.

The antenna features a precision-tuned, dual-feed patch element. The signals from the two orthogonal feeds are combined in a hybrid combiner, amplified in a wideband LNA, then band-split for narrow filtering and further amplified before recombination at the output. The antenna also has a strong pre-filter to mitigate inter-modulated signal interference from LTE and other cellular bands. The antenna offers an excellent axial ratio and a tightly grouped phase centre variation.







### **General characteristics**

• Weight: 0,370 kg

- Dimensions: 100.0 mm (dia.) x 102 mm (h.)

Bandwidth (2dB): 47 Mhz

· Color: black

#### Mechanical characteristics

• Vibration: 3 axes, balayage = 15 min, balayage de 10 à 200 Hz: 3 g

• Shock: Vertical axis: 50 G, other axes: 30 G

• Ratio axes: <2 dB typ., 3 dB max.

• Fixation: Permanent 3/4" (19mm) through hole mounting

· Support: in L or on tube

# **Environmental specificities**

• Compliance: IPC-A-610, FCC, RED / CE Mark, RoHS, REACH

• Operating Temperature: -40°C to + 85°C

Storage Temperature: -50°C to +95°C

- Humidity / Salt Fog: MIL-STD-810F Section 509,4

• IP Rating: IP67

## **Electrical characteristics**

- Architecture: Pre-filter  $\rightarrow$  LNA stage 1  $\rightarrow$  filter  $\rightarrow$  LNA stage

• Gain: 2 38 dB min.

• Noise Figure: 3.0 dB typ

• VSWR: < 1.5:1 typ. | 1.8:1 max.

• Supply Voltage Range: 2.5 to 16 VDC nominal (12 VDC rec. max..)

• Supply Curren: 19 mA typ.

• ESD Circuit Protection: 15 kV air discharge

• P 1dB Output: 11 dBm:

- Group Delay Variation: 17 ns @ GPS-L1 | <1.0 ns @ GLONASS-G1

• Group Delay: L1 (1575.42 MHz): 31 ± 1 ns

### **FASTENING KIT INCLUDING**

1 hollow tube 20cm long

1 plate

• M6 and M8 nuts

M6 and M8 washers

· Fixing brackets



