GNSS ANTENNA

GALILEO,GLONASS, GPS,SBAS,BEIDOU

The CM0212A1 time reference is a high-gain GNSS antenna specifically designed for timing applications where high levels of near-out-of-band interfering signals can be expected.

It covers the BEIDOU B1, GALILEO E1, GPS L1, GLONASS L1 AND SBAS (WAAS, EGNOS, QZSS & MSAS) frequency band (1557 to 1606 MHz).

This antenna is well suited for long-term deployments within harsh environment of critical infrastructure such as ground station, shelters or military centers.

With a low noise level and a high gain amplifier, this antenna is well suited to address problems associated with applications requiring long cables (less than 110 meters)

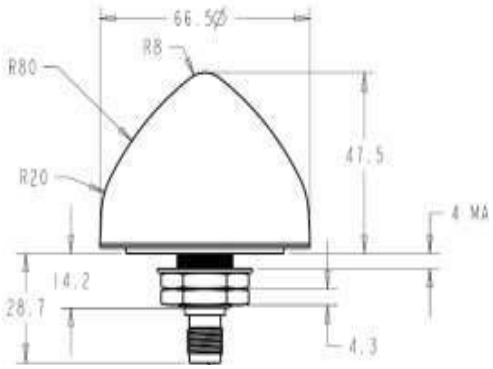
The proprietary design coupled with multi-stage filtering provides better out-of-band rejection than traditional patch antennas.

This multiband antenna covers GPS, GLONASS and SBAS frequencies.

Their unique radome shape repels water and ice, while eliminating problems with perching birds.

A range of compatible mounting configurations is possible. Custom templates or site kits options are also available.
This antenna is made of materials that fully respect the provisions of the European Directives CE, RoHS and REACH.

The antenna also has ESD protection up to 15KV air discharge.



Features

- **Great axial ratio: 1 dB typ.**
- **Low noise LNA: 1 dB**
- **High rejection SAW filter**
- **High gain LNA: 40 dB typ.**
- **Low current: 19 mA typ.**
- **Wide voltage input :2.5/16 VDC**
- **IP67 weather proof housing**

Benefits

- **Circular polarization throughout the full bandwidth**
- **Superior multipath signal rejection**
- **Excellent signal to noise ratio**
- **Great out of band signal rejection**
- **Increased system accuracy**
- **Ideal for harsh environments**
- **RoHS and REACH compliant**

Specification

Antenna

Architecture	Dual, Quadrature Feeds
2 dB Bandwidth	47Mhz
Antenna Gain (with 100mm ground plane)	4,25 dBic
Axial ratio (over full bandwidth)	<2dB typical, 3dB max

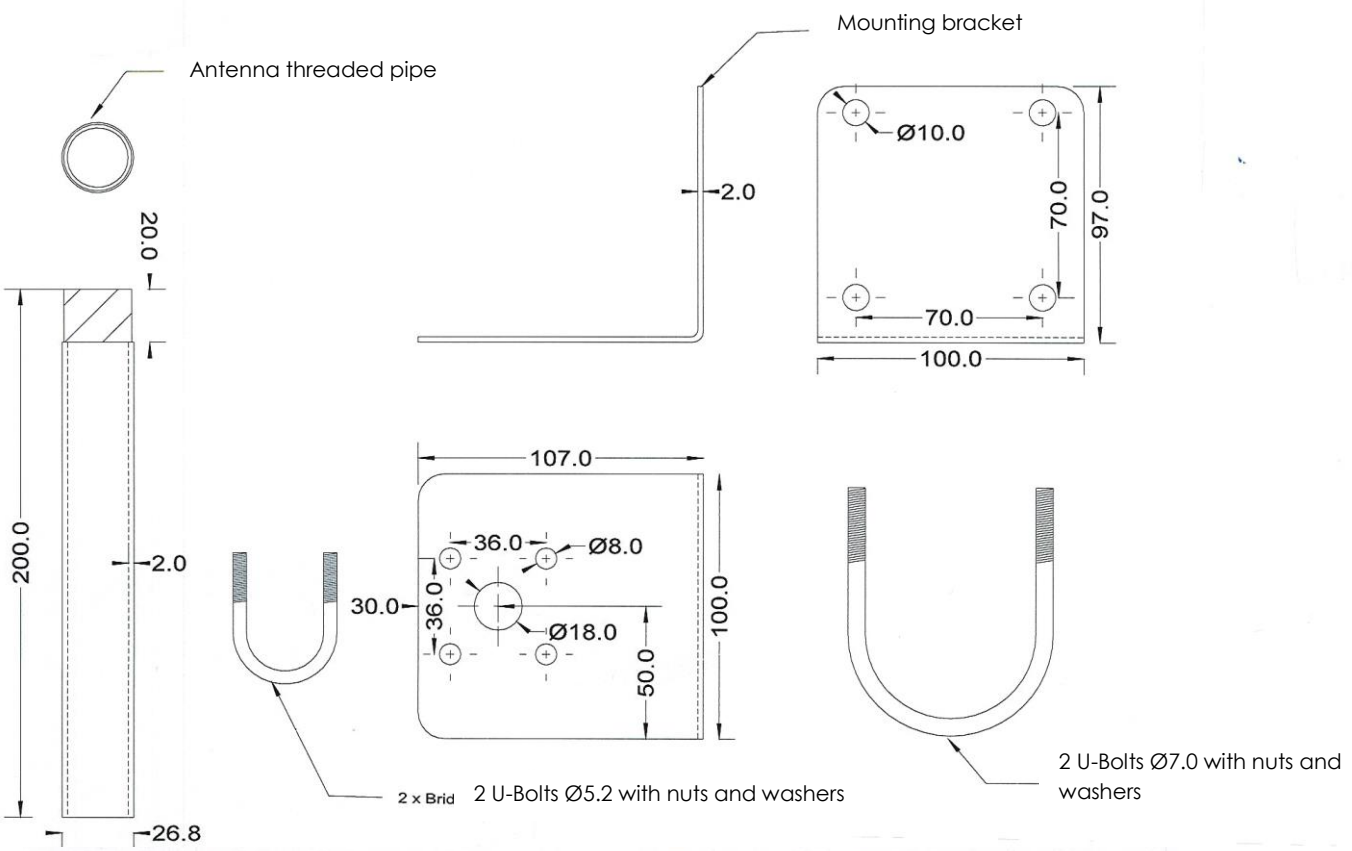
Electrical

Filtered LNA Frequency Bandwidth	1559 to 1606MHz
Polarization	RHCP
LNA Gain	40dB min
Gain Flatness	+/-2 dB, 1559 to 1606 MHz
Out-of-Band Rejection <1500MHz	>32dB
Out-of-Band Rejection <1640MHz	>35dB
VWSR (at LNA output)	<1.5:1 typical, 1.8:1 max
Noise Figure	1dB typical
Supply Voltage Range (over coaxial cable)	2,5 to 16 VDC nominal
Supply current	19mA typical
ESD Circuit Protection	15 KV air discharge

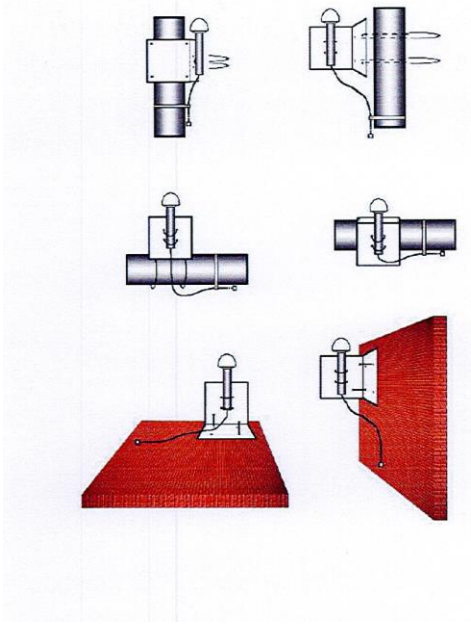
Mechanicals & Environmental

Mechanical size	66,5 mm diameter * 21mm H
Operating Temperature Range	-40 to +85°C
Storage Temperature Range	-45 to +85°C
Enclosure	Radome:EXL9330, Base: ZAMAK White Metal
Weight	150g
Attachment Method	Permanent
Environmental	IP67, RoHS, REACH, ITAR Free and RED compliant
Shock	Vertical axis: 50G, other axes: 30G
Vibration	3 axis, sweep=15min, 10 to 200Hz sweep: 3G
Salt Spray	MIL-STD-810F section 509,4

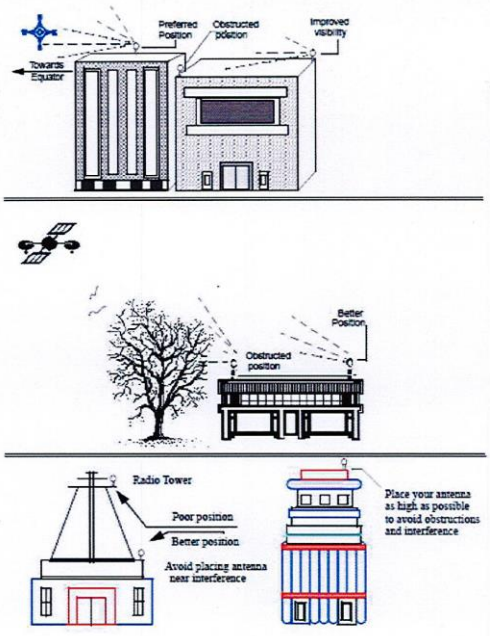
Antenna installation and mounting kit



GPS antenna installation using the mechanical Kit



Where to install the GPS antenna



Order code

CMO212A1: GNSS Antenna