

## FAI/IGC Cat 1 event Antenna requirements

The installation of an external antenna for use with the IGC/OGN tracker is a mandatory requirement for participation in an FAI/IGC CAT I event



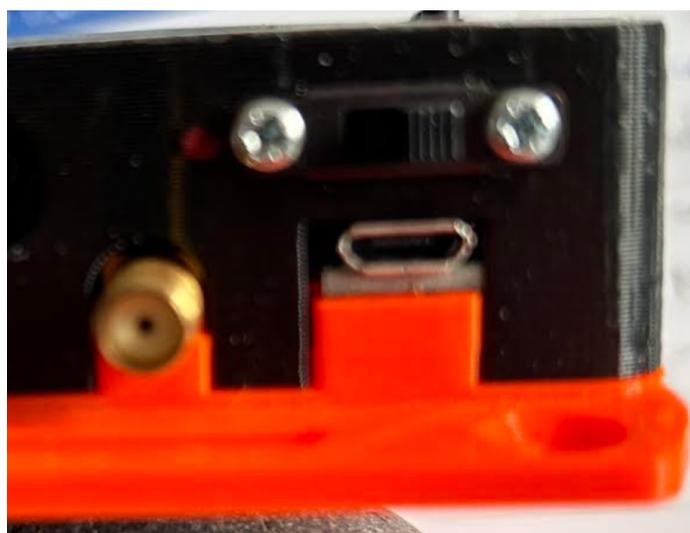
The external antenna will be connected to the IGC/OGN tracker provided by the organization.

**The IGC/OGN tracker** (as well as the Flarms) operates on the frequencies that are on the ISM band. We require an antenna with a gain of 3dBi or better.

The ISM band is a little bit different in Europe of the Americas, however because are close enough, it will work across both sides of the Atlantic.

The antenna should be placed below the cockpit pointing down and requires a 7 mm diameter hole on the fuselage (the drain hole could be used for this purpose), the antenna is connected to a coaxial cable (50 ohm, we recommend Aircell7 or Ecoflex10 given the frequencies that we use) to the IGC/OGN Tracker using a SMA male connector. The antenna has to be located vertical as shown on the following pictures, taken from current installations.

The antenna has usually a SMA **male** connector see examples below, the termination of the cable has to be **SMA male** connector as well, going to the IGC/OGN tracker that has a **SMA female** connector, see the picture below.



The installation has to be ready before the scrutineering .

The installation will be checked by the scrutinizing team. The IGC/OGN tracker with an inside GPS antenna, will be installed on the cockpit in a place where it has GPS satellites visibility. The location will be checked as well by the scrutineering team.

**See below for some examples of antennas and installations**

You can use a low profile antenna like the one from Dolba & Dolba Flarm Antenna, you can find the details at:

[https://www.navboys.com/DOLBAANTENNA\\_BD9.html](https://www.navboys.com/DOLBAANTENNA_BD9.html)



or from Aliexpress



or from 2J antenna



or from Mouser

Example of some original installations using the larger antenna.

