



FIXED GROUND STATION (FGS)

Stationary system for ground-based air
situational awareness¹

Purpose: The Fixed Ground Station (FGS for short), also called sector antenna, is a very powerful stationary traffic receiving station for large-scale airspace surveillance. As a sensor for air traffic data, it receives ADS-B (Automatic Dependent Surveillance - Broadcast) and FLARM (Flight Alarm) signals from surrounding air traffic participants (e.g. gliders, helicopters, motorized aircraft). These signals are fed via LTE into the Droniq UTM (UAS Traffic Management) system, where they are analyzed together with other data sources. In addition, the FGS sends its own position to the Droniq UTM and is also visible there.

With UTM web access from Droniq, all traffic data available in the UTM is displayed in fused form: in this way, the FGS complements the UAS pilot's aerial display.

The antenna has been specially optimized for 24/7 operation at highly exposed locations such as TV towers. Due to the directivity of the FGS, a fully equipped tower includes four individual antennas in e.g. north-south-east-west orientation.

The main field of application is large-scale airspace surveillance and support of the UAS remote pilot during BVLOS flight in combination with a HOD4track.

¹ The product is delivered ready for use in Germany. On request, we offer solutions for use in other countries.

Product features:

- ADS-B & FLARM Receiver
- LTE Connectivity
- Droniq UTM Integration
- GNSS Multi-Constellation



Technical data:

HARDWARE

Antennas and alignment

- GNSS: Clear view of the sky
- Attach antenna housing vertically

Weight

- 13 kg

Dimensions

129 x 29 x 13.4 cm

Operating temperature

-30°C to +40°C

Certification

IP67

CONNECTIVITY¹

Technologie

LTE 4G Cat1

SENSORS

GNSS

- Systems: multi-constellation (GPS, GALILEO, GLONASS, EGNOS)
- Precision: at 2.5m CEP

FLARM Receiver

- Frequency: 868 MHz
- Range: About 70 km (depending on positioning)
- License: Lifetime FLARM license

ADS-B Receiver

- Frequency: 1090 MHz
- Range: About 600 km (depending on positioning)

Antenna characteristics

- 120° sector horizontal

POWER SUPPLY

Source

- Power cable

Power consumption:

- 1,5 W

Voltage:

- 100 – 240 V AC

INSTALLATION

Max. Wind speed

- 125 mph

Wind load

- 148 lbf @ 125 mph

SCOPE OF DELIVERY

- FGS connectivity included
- FLARM and ADS-B antenna integrated
- GNSS and LTE antenna external
- Power cable (Schuko)
- USB cable
- FGS mounting kit
- LTE connectivity
- FLARM license

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