

F.A.Q. SHEET

Operator

No problem to find

IsoLOG 3D

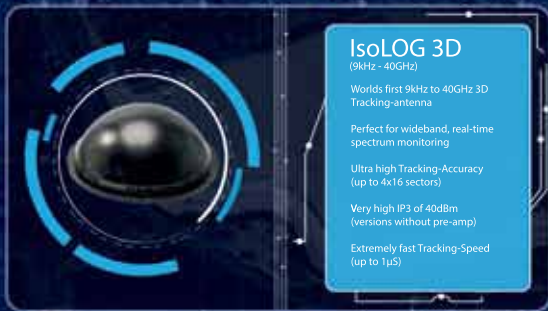
Range: More then 3 km!

Visual

Range: ca. 100 m

Acoustic

Range: ca. 40 m



IsoLOG 3D

(9kHz - 40GHz)

Worlds first 9kHz to 40GHz 3D Tracking-antenna

Perfect for wideband, real-time spectrum monitoring

Ultra high Tracking-Accuracy (up to 4x16 sectors)

Very high IP3 of 40dBm (versions without pre-amp)

Extremely fast Tracking-Speed (up to 1µs)

IsoLOG 3D

Visual

Acoustic

3000 m

Google

Real-Time RF Drone and Radar Detection System

The rapid proliferation of micro/mini UAVs is a growing potential threat to national and commercial security. Easy to make, cheap to buy, simple to fly, and hard to detect, commercially available drones are one of the most quickly evolving technological threats to military and civilian interests.

The Aaronia Drone Detection System provides users with a rapidly deployable, and scalable, and modular system to detect, locate and identify potential threats using RF and μ W Sensors & Analysis.

AaroniaUSA

Unlimited in size & numbers of receivers, arbitrarily scalable and expandable

Real-Time Measurement of the RF emissions from Drone's / UAV's, Radar etc.

Fast, sensitive, very high POI of all signal/drone types

Drone detection software (special Plugin for RTSA)

Low system price

Covers a frequency range from 9kHz to 20GHz, captures Drone's of any kind

Frequency range up to 20GHz

Real-time remote control via Ethernet / LAN

Allows a 24/7 monitoring and recording without any gaps



CAN THE SYSTEM DETECT THE DRONE OPERATOR?

Yes, with the Aaronia Drone Detector it is possible to detect the Drone Operator as well.

WHAT ARE THE DETECTION MECHANISMS?

Real time RF signal detection and pattern triggering

WHAT IS THE DETECTION RANGE?

The system has no limitation in detection range. Usually the detection range is the same as the usable distance from the operator to the drone (or better). It always depends on the transmitter power of the drone/operator. Depending on the drone type it could be several km / miles without problems.

DOES THE SYSTEM WORK AT NIGHT?

Yes, daytimes have no influence on the system.

DOES THE SYSTEM WORK UNDER BAD WEATHER?

Yes, no problem at all. Fog, rain, snow etc. have no influence on the tracking accuracy.

IS THE SYSTEM WEATHERPROOF?

Yes, the system is weatherproof and watertight.

IS IT SALT WATER PROOF?

All parts of the IsoLOG 3D antenna are salt water resistant so coast and marine environment is no problem.

CAN THE SYSTEM BE INSTALLED ON A CAR?

Yes, the mobile drone detection system can be installed on a car.

CAN THE SYSTEM BE INSTALLED ON A BOAT?

Yes, the mobile system can be installed on a boat, the IsoLOG 3D antenna array is salt water proof.

WHAT IS THE USABLE TEMPERATURE RANGE?

The included IsoLOG 3D antenna array has a usable temperature range of -40° to $+80^{\circ}$ C. The real time spectrum analyzer (XFR V5 PRO) offers a usable temperature range of -20° to $+60^{\circ}$ C.

DOES THE SYSTEM WORK ONLY WITHIN LINE OF SIGHT?

Accurate detection is best within line of sight but the system can even detect RF signals behind buildings, inside a forest, behind trees, bushes or within a crowd of people. This is the nature of RF signals. As mentioned the range is almost unlimited it simply depends on the signal strength of the drone and/or operator.

CAN THE SYSTEM DETECT SEVERAL DRONES AT ONCE?

Yes, the system can detect several drones at once, including the same as well as different models.

WHAT IS THE AVERAGE TIME TAKEN FOR DETECTION OF A DRONE?

Between 10μ s to 500ms, depending on the complexity of the system, number of used IsoLOG 3D antenna arrays etc.

DO YOU HAVE ANY PRODUCTS THAT CAN PREVENT A DRONE FROM OVER-FLYING THE FACILITY?

We are working with different partners and are able to offer various solutions to „keep the drone away“. Please contact us for further details.

DOES ONE SYSTEM ENABLE 360° COVERAGE?

Yes, the included IsoLOG 3D antenna array covers 360° . It can also be adjusted to specific needs if e.g. 180° coverage is requested only.

DOES YOUR SYSTEM EMIT ANY RADIATION THAT MAY INTERFERE WITH OPERATIONS OF e.g. A NEARBY AIRPORT?

No, our system does not emit radiation that can interfere with such operations.

WHEN THE SYSTEM TRIGGERS AN ALARM THAT IT HAS DETECTED A DRONE, CAN IT PROVIDE ANY INFORMATION AS TO THE LOCATION OF THE DRONE OR THE OPERATOR? IF SO, TO WHAT LEVEL OF ACCURACY?

That depends on the number of systems/antennas you use. In case a single system is used it can at least provide the direction from where the signal is coming from, the accuracy depends on the used IsoLOG version and is minimum 45° (sector accuracy) with the standard antenna, but the real life accuracy is even much higher. In case several antennas are used it would be possible to use signal triangulation to locate the position (not only the direction) of the drone and/or operator.

WHAT IS THE LIKELIHOOD OF FALSE ALARMS DUE TO COMMERCIAL PLANES, BIRDS OR OTHER AIRBORNE OBJECTS?

Those things don't influence our system at all so they will not produce any false alarms.

ARE THERE ANY INFRASTRUCTURE REQUIREMENTS FOR THE SYSTEM?

It depends on the system: We offer portable systems with independent battery power supply. Other systems at least need a power connection. Systems based on multiple units need Ethernet cable connections and power. You might need an internet connection from time to time if you want to update the software or the smart trigger data base.

WHO MAY NEED A DRONE DETECTION SYSTEM?

Companies from the automotive and chemicals industry, nuclear power stations, public facilities, institutions, such as prisons, ministries, airports, stadium operators, security firms and constructors that protect private property.

IS THE EXPORT OF THE SYSTEM ALLOWED?

There are no export issues as long as we don't install the maximum real time bandwidth option (175MHz). The standard system can be exported without any export license.

WHERE IS THE SYSTEM MANUFACTURED?

The Aaronia Drone Detection System is developed and produced in Germany.

WHAT IS THE WARRANTY TIMEFRAME?

The system comes with a 2 years warranty which can be extended upon request.

WHAT IS THE COST OF THE SYSTEM?

To get a price of the entire system please feel free to contact us at sales@aaroniausa.com.