

MARTOS™

AARONIA

DRONE DETECTION X2

Portable and stationary drone detection system



- ✓ High range up to 40 km
- ✓ Decodes drone protocols
- ✓ Ready to use very quickly

- ✓ Developed and manufactured in Germany
- ✓ Locates drones, operators and homepoints
- ✓ Data recording and playback capability



MADE IN GERMANY

drone-detection-system.com

AARONIA AG
WWW.AARONIA.DE

- ✓ Real-time decoding of DJI OcuSync 1-3, MavLink, DJI WiFi (in preparation: Lightbridge and Autel)
- ✓ Shows exact locations of drone, operator and homepoint
- ✓ Shows further information like type of drone, serial number, height, speed etc.
- ✓ High range of up to 30km (CE) or 40km (FCC) in adequate line-of-sight conditions
- ✓ Highly customizable software included
- ✓ Supports writing and reading mission data sets
- ✓ Raw data recording option
- ✓ Remote control capabilities
- ✓ Extendable with several functionalities, e.g. jammer, camera or radar
- ✓ Ready to use in less than 30 seconds
- ✓ Scalable, to add multiple systems in same software architecture, also at a later stage
- 🇩🇪 Made in Germany



Large Variety of Applications

The AARTOS™ X2 offers security for critical infrastructures in a wide range of applications

Secure the airspace from threats

Protect your critical infrastructure from unauthorized drone access with our advanced defense system. The technology detects and neutralizes drones near your assets without disrupting normal operations. With our system, you are well prepared against potential drone attacks and can focus on the safe operation of your assets.



Powerful mobile drone detection

Introducing our portable counter drone system. Specially designed for law enforcement, organizations and companies working in the field of critical infrastructure. This system is designed to provide on-demand drone detection and optional neutralization capabilities for various scenarios such as crowd control, special operations, and perimeter security.



Easy handling despite high efficiency

The system is portable, easy to use and quick to deploy to any location, making it ideal for a variety of operations. It's built to withstand harsh environments and is weather resistant.

Customizable and always up to date

The AARTOS™ X2 is also customizable to meet the specific needs of your organization. It is constantly updated with the latest security features to ensure maximum protection against threats from drones. Contact us for any special requirement, we are capable to customize your systems for particular needs.

X2 Portable



- Cost effective
- Highly portable and rugged
- Optional external powerbank for 10+ hours of runtime

X2 Portable MIL Grade



- MIL grade protection
- Powerful and reliable hardware
- Hot-swap batteries

X2 Stationary



- 24/7 remote outdoor usage
- Optional Monitoring App
- Extendable with radar, jammer or camera



	X2	X5	X7	X9
Typical range	Standard: max. 5 km Long range: max. 40 km	1 km - 2 km	2 km - 5 km	5 km - 14 km
Usage	Mobile & stationary	Mobile	Stationary	Stationary
Frequency coverage	2.4 GHz + 5.8 GHz	400 MHz (20 MHz) to 6 GHz		
Detection type	Drone protocol decoding	Drone protocol decoding & RF pattern detection		
Tracking type	GPS	GPS & RF signal direction	GPS & RF signal triangulation	GPS & RF signal triangulation
Target position accuracy (protocol decoding)	Typ. 2-3 m	Typ. 2-3 m	Typ. 2-3 m	Typ. 2-3 m
Typ. tracking accuracy (Pattern detection, line of sight)*	-	4° to 6°	2° to 4°	1° to 3°
Multi frequency swarm attack	Yes, but limited to 2.4 and 5.8 GHz	No	Limited	Yes
Scalable	No (Yes with stationary versions)	No	Yes	Yes
Automatic jamming option	No (Yes with stationary versions)	No	Yes	Yes

* Reference target at 2,4GHz (hovering drone), 1,5km distance (FCC)

AARTOS™ X2 Upgrades

Drone defense for your airspace

AARTOS X2 Long Range Drone Detection

While all X2 standard versions come with two omnidirectional antennas capable of a detection range up to 5 km we also offer portable and stationary long range antennas, which extend the detection range dramatically to up to 40 km (FCC) in adequate line-of-sight conditions.

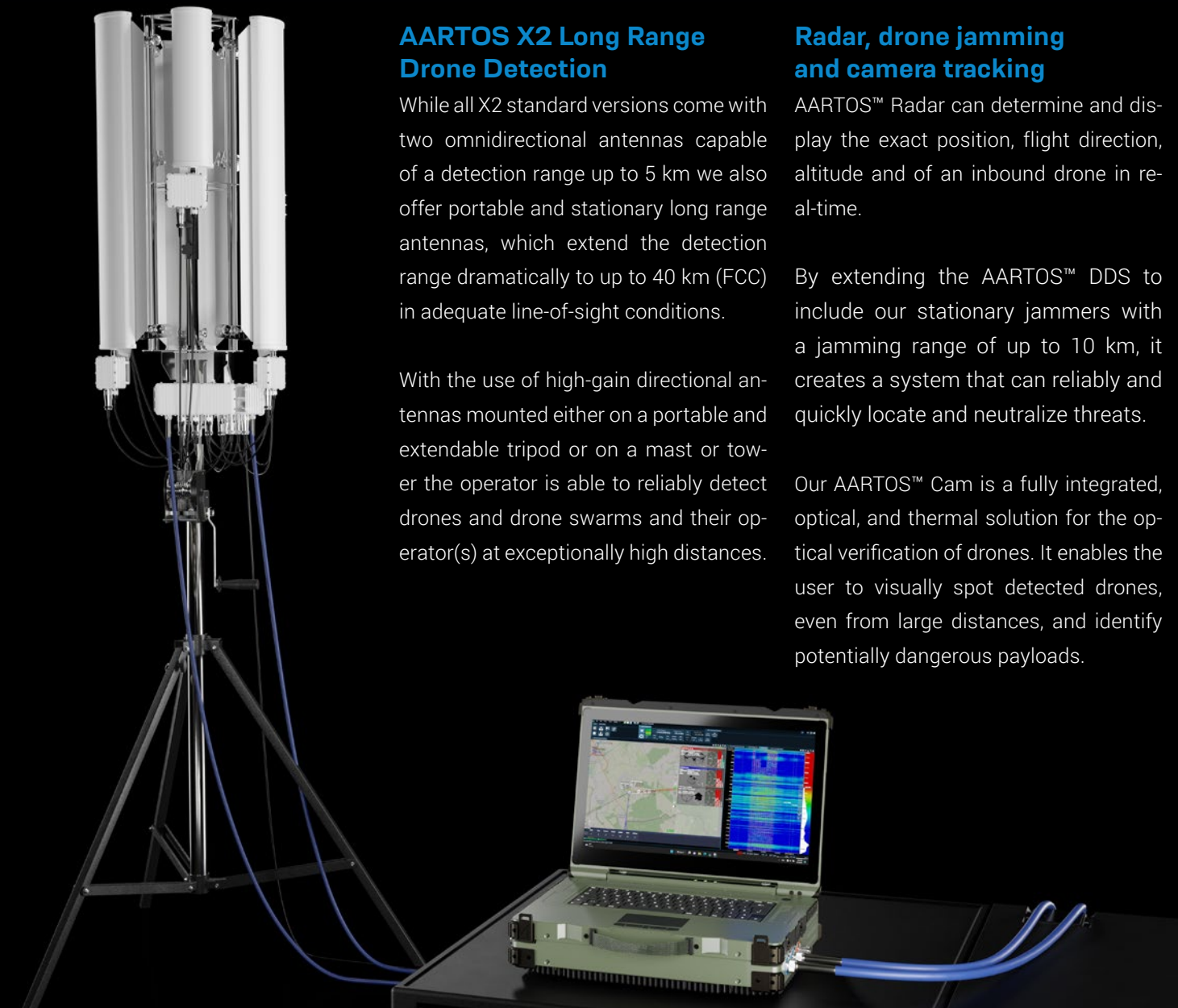
With the use of high-gain directional antennas mounted either on a portable and extendable tripod or on a mast or tower the operator is able to reliably detect drones and drone swarms and their operator(s) at exceptionally high distances.

Radar, drone jamming and camera tracking

AARTOS™ Radar can determine and display the exact position, flight direction, altitude and of an inbound drone in real-time.

By extending the AARTOS™ DDS to include our stationary jammers with a jamming range of up to 10 km, it creates a system that can reliably and quickly locate and neutralize threats.

Our AARTOS™ Cam is a fully integrated, optical, and thermal solution for the optical verification of drones. It enables the user to visually spot detected drones, even from large distances, and identify potentially dangerous payloads.



AARTOS™ GIS: Unique real-time 3D topographic view shows drones flying around an international airport

Versions and Accessories

of the AARTOS™ X2

AARTOS™ X2 Versions

Contact us for your specific quote.

AARTOS™ X2

Portable



Art. no. 801/009

AARTOS™ X2

MIL-STD



Art. no. 801/014

AARTOS™ X2

Stationary



Art. no. 801/010

AARTOS™ X2 Long Range

Portable



Art. no. 801/011

AARTOS™ X2 Long Range

MIL-STD



Art. no. 801/012

AARTOS™ X2 Long Range

Stationary



Art. no. 801/013

AARTOS™ X2 Upgrades and Accessories

Medium-Range Camera



Art. no. 803/001

Ultra Long-Range Camera

with thermal optics



Art. no. 803/003

AARTOS UAV 4D Radar

Bundle with 4 panels



Art. no. 804/005

Handheld Drone Jammer

battery powered



Art. no. 802/001

AARTOS X2 Powerbank



Art. no. 805/031

AARTOS DDS App

incl. Tablet PC



Art. no. 805/002

3D Topographic View

for RTSA Suite PRO



Art. no. 806/003

Training Course

for AARTOS X2,
Jammer, Radar
& Camera



Art. no. 807/002

Local Training Course

for AARTOS X2,
Jammer, Radar
& Camera



Art. no. 807/005

Specifications

of the AARTOS™ X2



Specifications of AARTOS™ X2 Devices

Device type	X2 Portable	X2 Portable MIL-Grade	X2 Stationary
CPU	Intel i7-1360P	Intel® Xeon® E-2176M	Intel i7-1360P
RAM	64 GB	64 GB	64 GB
Data storage	1 TB	4 TB	1 TB
Display	18,5" Full HD, 2000nits	15,6" Full HD	15,6" (on separate PC)
Graphics card	Intel® Iris® Xe Graphics	Dedicated NVIDIA® GTX 1050 with 4 GB	Intel® Iris® Xe Graphics
Connectors	1x RJ-45 (2.5-Gbit), 3x USB-A 3.2 (5 Gbit/s)	1x RJ-45 (GLAN), 2x USB 3.1 Gen. 2, Audio-In / Out, VGA, DP, 2x Serial DB9	RJ-45 (2.5-Gbit)
Battery runtime	Up to 120 min., up to 10h with optional battery pack	Up to 90 min., up to 15h with optional battery pack	No internal battery
Weight	Approx. 15 kg	9,5 kg	Approx. 25 kg
Dimensions (L x W x H)	52 x 17 x 42 cm	39 x 30 x 9 cm	54 x 37 x 21 cm
Temperature (operation)	-10°C to +45°C	-10°C to +50°C (optional -20 °C to +60 °C)	-20°C to +60°C
Temperature (storage)	-20° to +60°C	-20 to +60°C	-30°C to +70°C
Relative humidity	95% relative humidity, non-condensing	95% relative humidity, non-condensing	95% relative humidity, non-condensing
Power input	AC input: 100-240V, 50-60Hz	AC input: 100-240V, 50-60Hz	AC input: 100-240V, 50-60Hz
Power consumption	Typ. <150W	Typ. <100W	Typ. <70W
MIL & IP Standard	IP54	MIL-STD810G, MIL-STD-461F, IP65	IP67

Specifications of inbuilt Real-Time Spectrum Analyzer

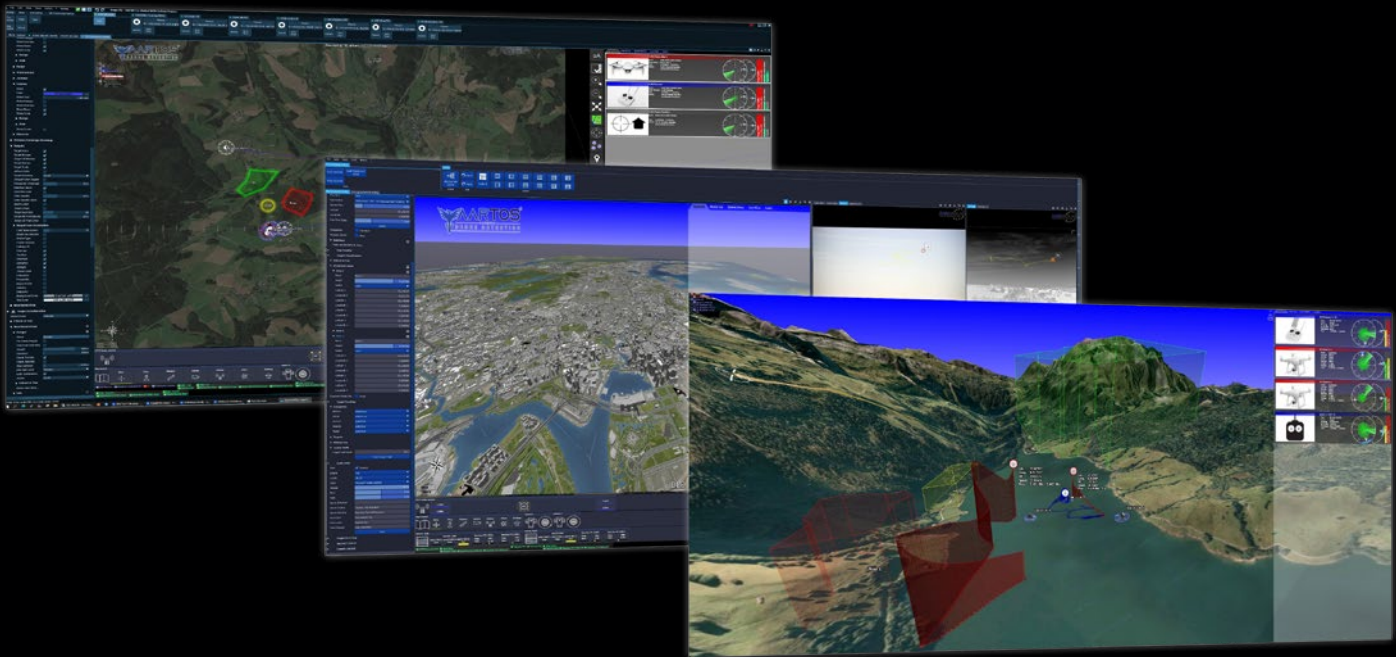
Decoding	DJI OcuSync 1-3, DJI WiFi, Mavlink protocols (Lightbridge and Autel in preparation)
Frequency range	10 MHz to 6 GHz
Real-time bandwidth	160 MHz
Event duration	<1µS
DANL	Typ. -172dBm/Hz
RF inputs	2x 50 Ohm (N-female)

Specifications of AARTOS™ X2 Antenna Versions

Antenna variant	Standard Omni Antennas		Long Range Antennas	
	2.4 - 2.5 GHz	5.1 - 5.9 GHz	2.4 - 2.5 GHz	5.1 - 5.9 GHz
Quantity included	1	1	3	3
Gain	6 ± 0.5 dBi	8 ± 0.5 dBi	20 dBi	14 dBi
VSWR (Max.)	1.5:1	1.5:1	<1.3:1 avg.	<1.5:1 avg
Horizontal Beam Width	360°	360°	120°	120°
Polarisation	Linear, vertical		Vertical	
Max. power input	100 Watt		250 W	100 W
Impedance	50 Ohm		50 Ohm	
Radiation pattern	Omni directional		Directional	
Connector	N(f)		N(f)	
Temperature range	-40 to +80° C		-20°C - +60°C	
Humidity	95% non condensation		95% non condensation	
IP rating	IP65		IP65	
Dimensions	Ø 25x660 mm	Ø 25x660 mm	990x230x65 mm	455x115x60 mm
Weight approx.	0.5 kg		30 kg (6 Antennas with amps & tripod mount)	

RTSA-Suite PRO Software

World's most powerful RTSA software with endless possibilities!



Aaronia's RTSA-Suite PRO is an extremely powerful and flexible tool with an intuitive and highly customizable user interface. The software enables users to identify, demodulate and track drone signals, and offers a multitude of ways to graphically display detections, e.g. in 2D or 3D. An amazing block solution offers a convenient configuration to match any requirement!



Included Software RTSA-Suite PRO

Including interface for integration in third-party software	Yes
3D Histogram, Waterfall & Spectrum of RF raw data	Yes
Offers the possibility to save entire raw data without time limitation	Yes
Alarm function	Yes
Different languages	Yes
Software works offline	Yes
Software runs on Windows, Linux	Yes

