

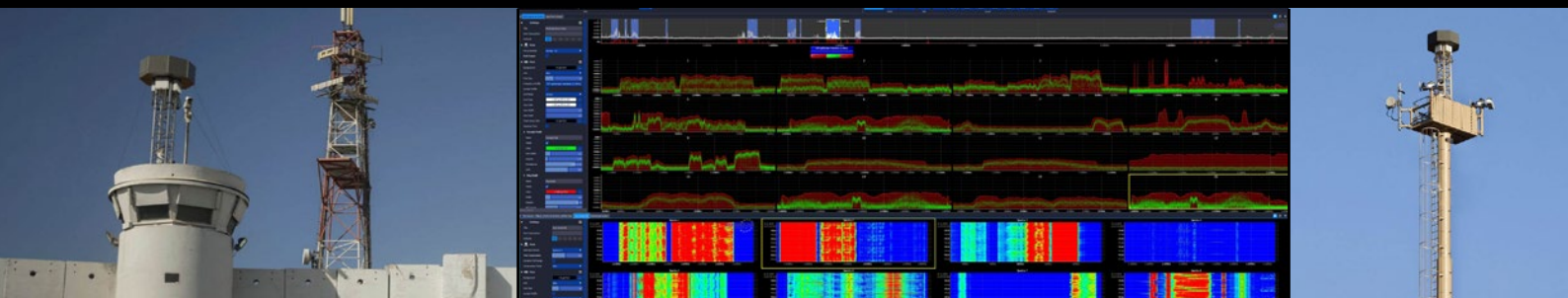


# SMART JAMMER PSJ360

A programmable jammer with an 800W CW output power and a 10 km range



- ✓ 360° coverage
- ✓ Up to 5000 W EIRP (800W CW) output power
- ✓ 4 or 8 sector versions available
- ✓ Range of 10 km
- ✓ Programmable, multi band
- ✓ Gapless 400 MHz to 6 GHz coverage



MADE IN GERMANY

[drone-detection-system.com](http://drone-detection-system.com)

**AARONIA AG**  
WWW.AARONIA.DE

# An Inescapable Countermeasure

The Smart Jammer PSJ360

AARTOS™ DDS is, at its foundation, a Drone Detection System. A system built to identify and monitor drones that present potential threats while operating at military grade capabilities. In addition to this already one-of-a-kind functionality, the system can also be outfitted to support countermeasure capabilities with the addition of Aaronia's Programmable Sector Jammer.

By extending the AARTOS™ DDS to include this jammer, it creates a system that can reliably and quickly locate and neutralize threats. A system this reliable is unheard of and truly makes it one-of-a-kind.



## A Jammer by Definition

A jammer is a device, by definition, that sends out signals in order to interfere with and eventually block a receiver from getting transmitted signals from its source. In most drones and other UAVs, the aircraft is controlled by an operator with a remote controller. The controller transmits the input from the user to the aircraft, giving the user control.

However, if this signal is interrupted, the drone will enter an emergency mode that will either begin a landing maneuver or return to its point of origin. Interrupting this signal and activating this mode is exactly what Aaronia's jammers are built to accomplish.



## Safe and Focused


As with all of our jammers, the interference created is extremely selective, in order to make sure other RF channels are not impaired. In addition, the jammer is directional, and will only jam signals in the direction of the incoming UAV.

This prevents any complications in accidentally creating unwanted internal or external interference. Built in precautions like these are vital when deploying a jammer, especially in situations where interference could cause disastrous consequences (i.e. airports, military, law enforcement).



# Specifications

## of the Smart Jammer PSJ360

- ✓ **Programmable Jammer:**
  - Unlimited no. of channels/bands programmable across the entire frequency range
- ✓ Gapless **400 MHz to 6 GHz** coverage (< 400 MHz on demand)
- ✓ Range of **10 km**
- ✓ Smart jamming (in development)
- ✓ Covers all drones up to 6 GHz (commercial and military)
- ✓ 360° coverage with directional antennas
- ✓ Omnidirectional or vehicle-integrated versions on request!
- ✓ Standalone operation or integrated operation (with detection system)
- ✓ Available in different output power versions (30 W or 100 W per sector)
- ✓ Adjustable output power
- ✓ 4 or 8 Sector versions (customizable on demand)
- ✓ No moving parts
- ✓ Includes a high gain antenna dome
- ✓ Adjustable output power
- ✓ IP 65 rated
- ✓ Weight of 10 kg (antenna array)
- ✓ Operating temperature -20° C to + 60° C
- ✓  Made in Germany





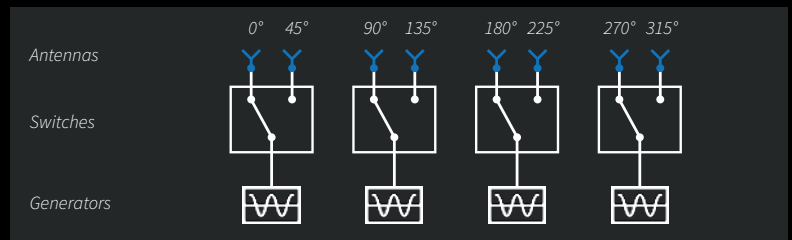
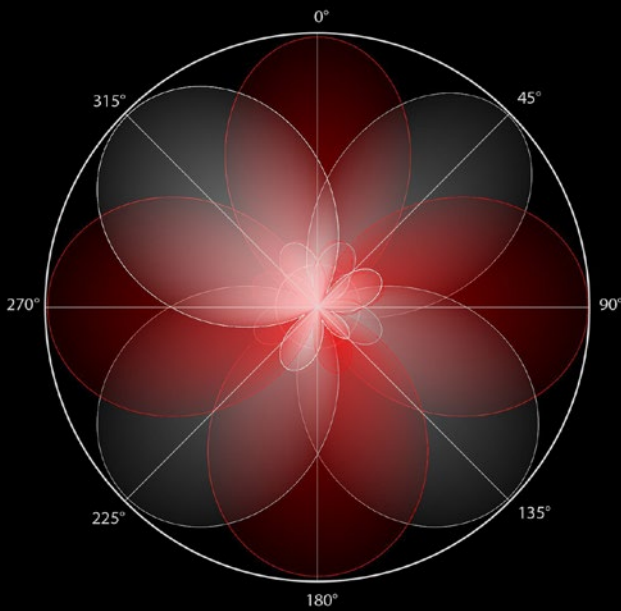
# Jammer Functionality

(Version comparison)

All jammers are able to cover 360° and consist of 8 directional broadband antennas. The differences, as mentioned, lie in the number of active sectors that can jam at the same time to the given output power.

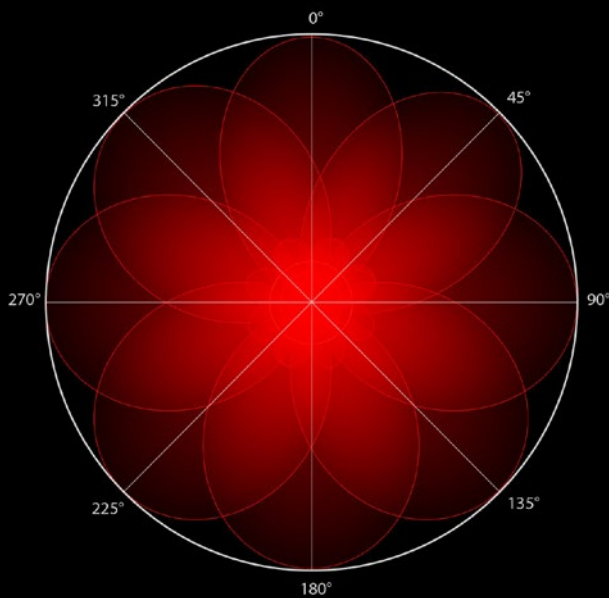
## 360° with 4 active sensors

The 4-sector jammer has the ability to jam in 4 directions simultaneously. The sectors are connected in pairs, and one sector of each pair can be switched on. For example, it would be possible to jam 45° in all 4 directions at the same time or, by adjusting the configuration/routing switch, block 0° to 180° (sector 1-4) simultaneously.



## 360° with ALL sensors active

With the 8-sector jammer, it is possible to jam the full 360° simultaneously. This is the most effective solution for securing critical infrastructures where multiple threats may enter an area at the same time (i.e. nuclear power plants, airports, borders etc.).



# Jammer Versions

## (Version comparison)

Our PSJ365 Jammers are available in two main versions, each with two different models with varying power outputs and jamming sectors.

Both of the **Standard Range Jammer Models** operate with an output power of 30 W per antenna and have a range of up to **4 km**. The difference comes in the number of active jamming sectors; the PSJ360-4-30W has 4 active sectors while the PSJ360-8-30W has 8 active sectors. A larger quantity of sectors allows for a higher total output power and overall performance increase.

Standard range		
Jammer model	PSJ360-4-30W	PSJ360-8-30W
Range up to	4km	4km
Antenna sectors	8 (each with 45°)	8 (each with 45°)
Simult. active/jamming sectors	4	8
Max. output power per antenna/sector	30W	30W
Max. total output power	120W (30W per sector)	240W (30W per sector)
Frequency range	400MHz - 6GHz	400MHz - 6GHz

The **High Range Jammer Models** operate with an output power of 100 W per antenna and have a range of up to **10 km**. The PSJ360-4-100W has 4 active sectors while the PSJ360-8-100W has 8 active sectors. Having 100W power output and 8 active sectors, the PSJ360-8-100W is our high-end solution giving incredibly powerful results.

High range		High-end solution
Jammer model	PSJ360-4-100W	PSJ360-8-100W
Range up to	10km	10km
Antenna sectors	8 (each with 45°)	8 (each with 45°)
Simultaneous active/jamming sectors	4	8
Max. output power per antenna/sector	100W	100W
Max. total output power	400W (100W per sector)	800W (100W per sector)
Frequency range	400MHz - 6GHz	400MHz - 6GHz

## Jammer Disclaimer

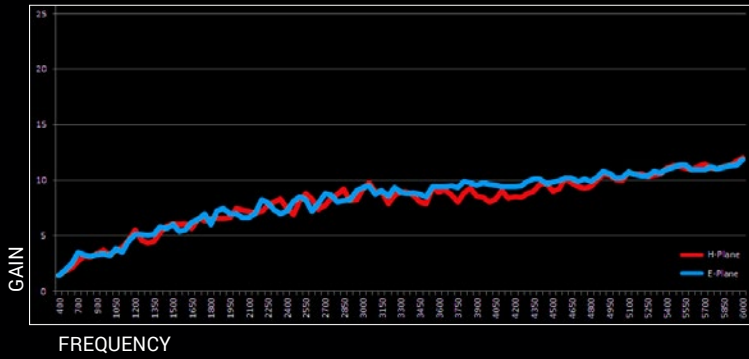
The AARTOS™ CMS (Countermeasure solutions) can only be sold to entities with proper government approval for the deployment of jammers. Contact us for more information at [mail@aaronia.de](mailto:mail@aaronia.de).

# Antenna Pattern, Gain and Factor

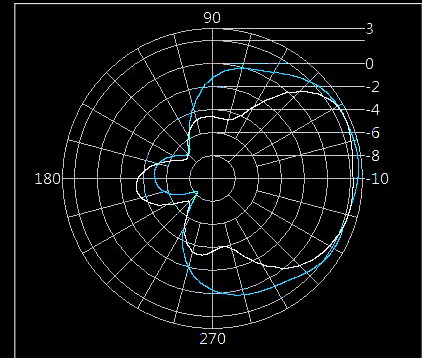
of the Smart Jammer PSJ360

All jammers are supplied with an 8 sector wideband antenna array. This data refers to one of the internal antennas.

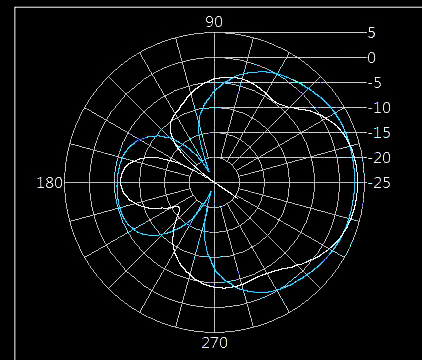
## Antenna Gain



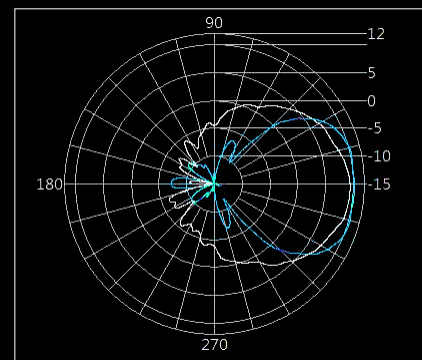
## Antenna Pattern



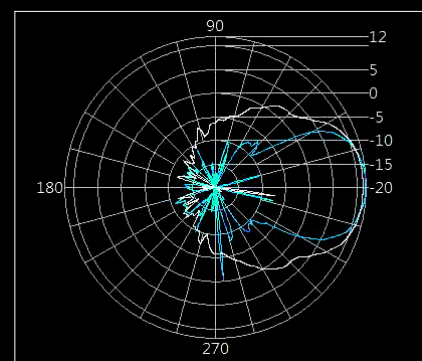
700 MHz



1 GHz

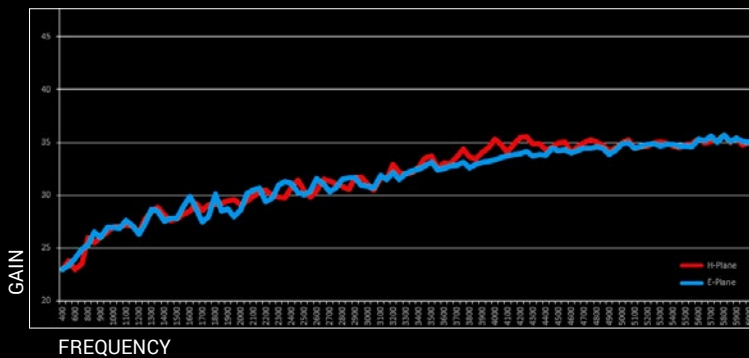


3 GHz



6 GHz

## Antenna Factor



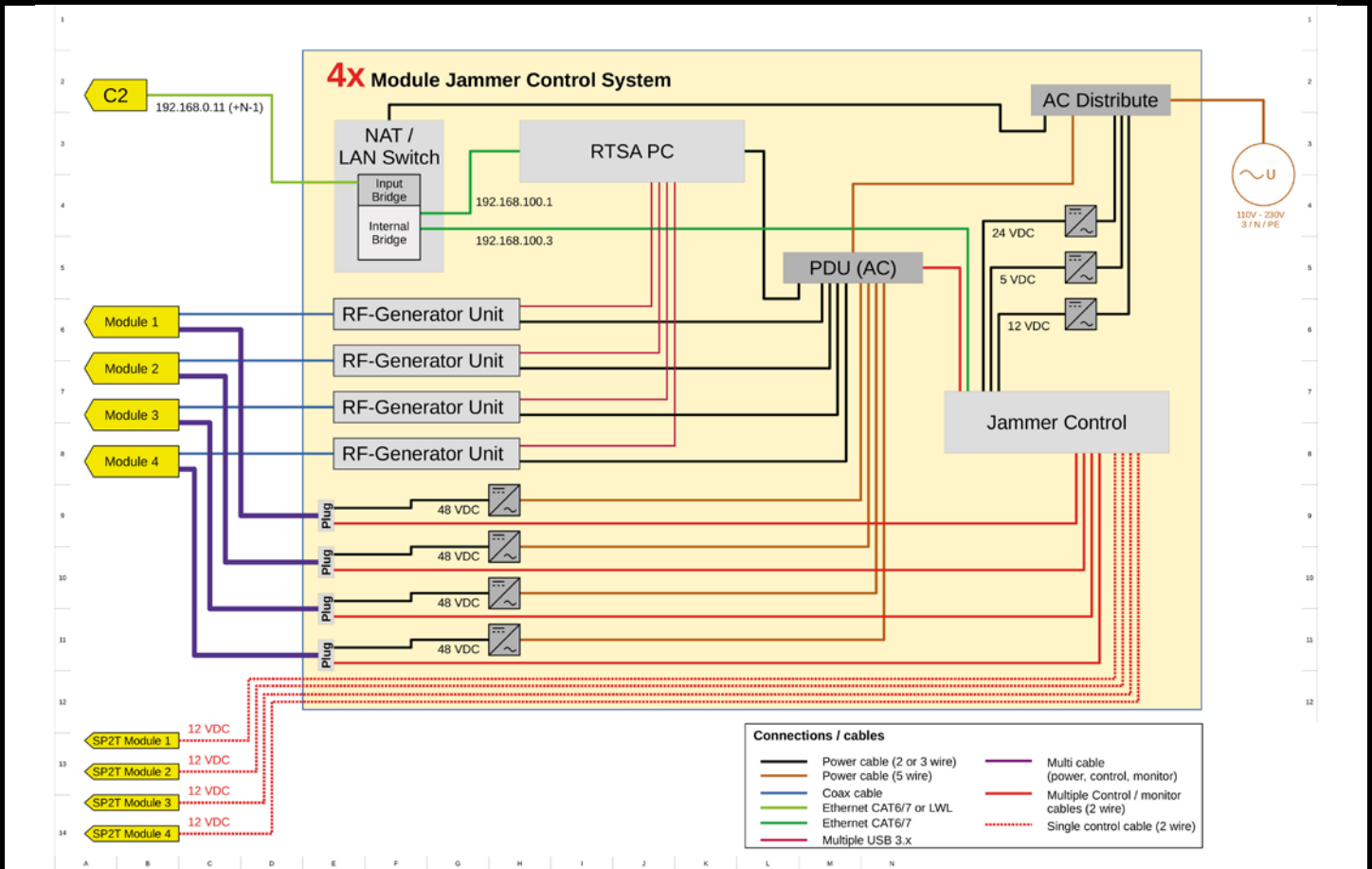
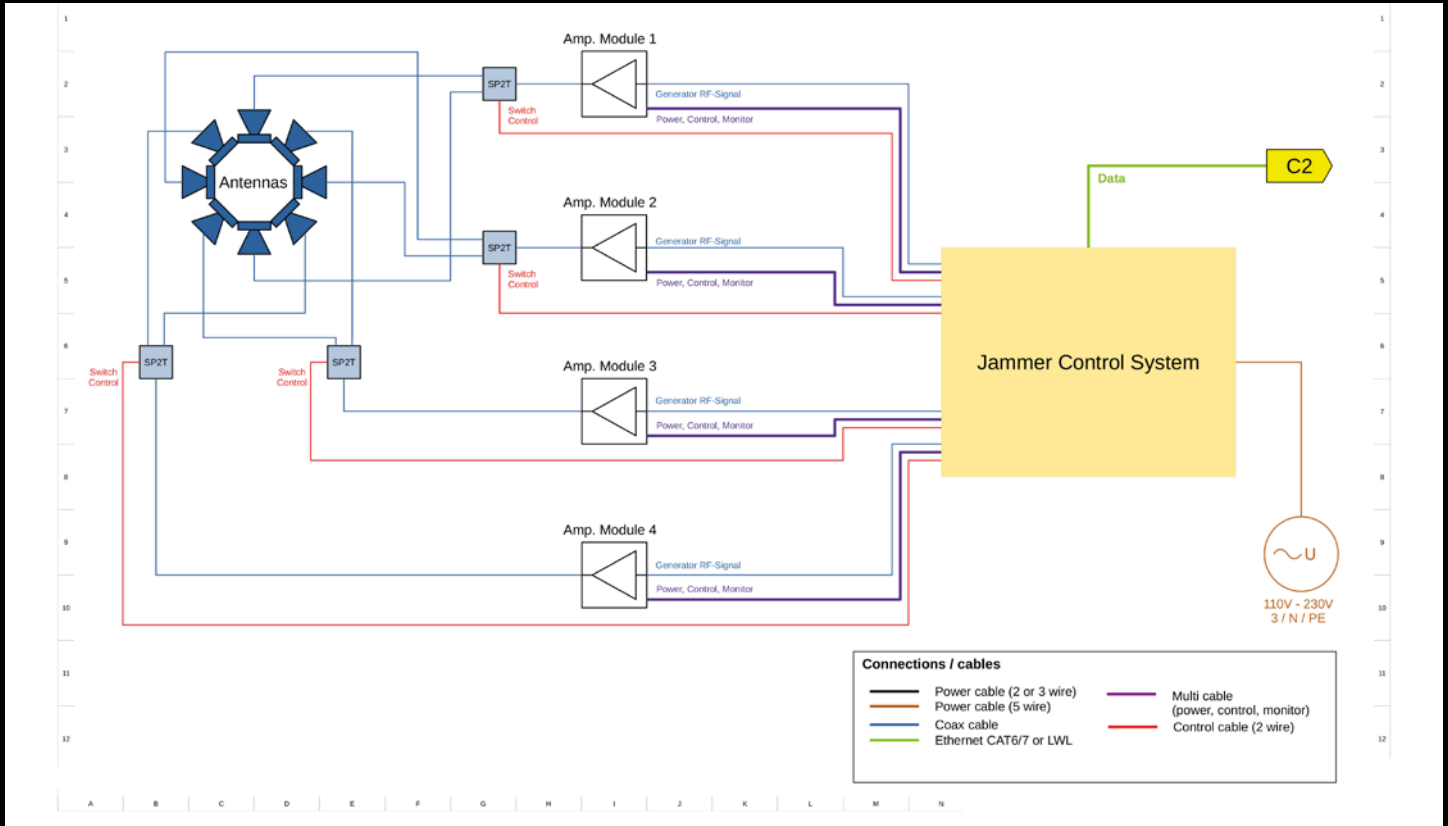
## Internal RF Relay

Frequency	DC - 3	3 - 6
VSWR Max	1.20	1.30
Insertion loss max	0.20 dB	0.30 dB
Isolation min	80 dB	70 dB
Average power	240 W	150 W

# Block Diagram

## of the Smart Jammer PSJ360

This is an example for the version **PSJ360-4-100W**:



# HUNDREDS OF INSTALLATIONS WORLDWIDE



## CUSTOMER GROUPS

- Military & police forces (ground & air)
- Convoys
- Airports
- Power plants
- VIP security services
- Border patrols
- Government buildings (e.g. embassies, correctional facilities)
- Events (concerts, political events, sports etc.)
- Seaports / marinas
- Private properties

# REFERENCES

AARTOSTM DDS

