ITOPP

ALCEN

ITOPP, Leader in Pulsed Power
and High Power Microwave

Directed Energy Weapons

Based on High Power Microwave Technologies

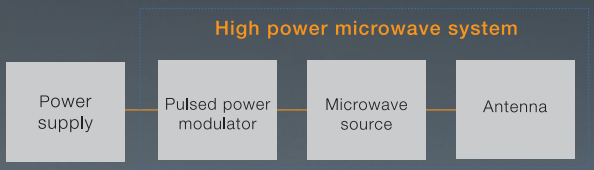


from **spark** to **lightning**

SKYPULSER

High Power Microwave System for Neutralization of Autonomous Drones

SKYPULSER is a high-power microwave (HPM) weapon system engineered for aerial threat neutralization. It integrates a pulsed-power Marx generator with a Backward Wave Oscillator (BWO) to generate directional electromagnetic pulses capable of disabling drone electronics in real time.



Targets

Drones

After several tests, ITOPP has demonstrated its efficiency in combating all types of drones, including autonomous drones and drone swarms.

Missiles

Our microwave effector provides a deterrent solution against any targets equipped with electronic or electrical systems.

The system emits microwave radiation that impacts electronics from destruction to disturbance. These effects gradually decrease with distance.

Main features

- **Compatible with current and future threaths**
  Piloted or autonomous drones
  Single or swarming drones
- **Mobile**
  Installation on a carrier
  System can be used with batteries and generator for greater autonomy
  Installation on various platforms
- **Safe**

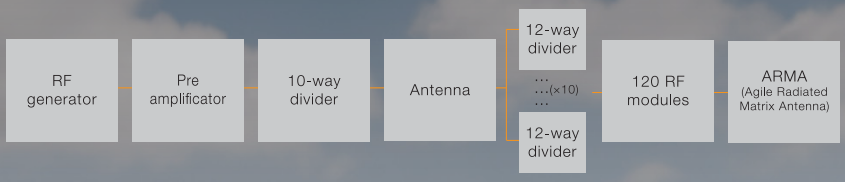


DRAME & SAMBA

Short Range Vehicle Stopping System

DRAME and its lighter version SAMBA are systems based on modular gallium nitride (GaN) amplifier technology, combined with planar antenna offering a safe, effective, and non-lethal solution for short-range vehicle neutralization. These devices emit electromagnetic waves that disable a running engine.

High power microwave system (solid state technology)



Overall Performance

- Frequency: L-band
- Amplifier technology: GaN type semiconductors
- Antenna: planar and wideband
- Antenna gain: between 24 and 27 dB

Main Features

- Transportable system
- Deployable and orientable antenna
- Main Power Supply: 400 V
- Battery Power Supply
- Operational autonomy: 1 hour



SAMBA

Specific Solution for Two-Wheeled Vehicles

In this configuration the system is integrated directly into law enforcement motorcycles. It consists of battery cases and an electronic control unit installed at the rear of the vehicle.

- Reduced mass and colume: easy boarding on an agile vector
- Facilitated deployment
- Compliant with the European Recommendation (199/519/EC) on the limitation of exposure of the general public to electromagetic fields (0 Hz to 300 GHz).





With more than 25 years of expertise, ITOPP has become the French leader in pulsed power and high-power microwave technologies. On the basis of customer specifications, ITOPP designs and manufactures highly innovative systems adapted to scientific research and also to civilian and military applications.

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