



ITOPP

ALCEN

ITOPP, Leader in High Power Microwave Systems

High-Power Microwave Defense Solutions for Electronic Warfare

With nearly 30 years of applied expertise, ITOPP leads in High-Power Microwave (HPM) technologies, specializing in electromagnetic hardening and defense systems. ITOPP has mastered the core components of HPM platforms—including pulse power systems, microwave source integration, and system-level control architectures—to deliver advanced directed energy weapons (DEWs).

High-Power Microwave Defense Solutions for Electronic Warfare

NON KINETIC NEUTRALIZATION



SCALABLE EFFECTS



LOWER COST PER ENGAGEMENT



WIDE AREA COVERAGE

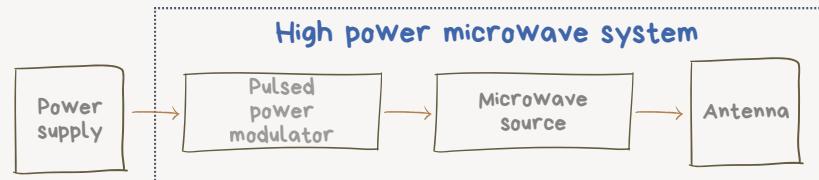


INSTANTANEOUS EFFECT



SKYPULSE: High power Microwave System for Neutralization of Autonomous Drones

SKYPULSE is a high-power microwave (HPM) weapon system engineered for aerial threat neutralization. It integrates a pulsed-power Marx generator (~400 kV) with a Backward Wave Oscillator (BWO) to generate directional electromagnetic pulses capable of disabling drone electronics in real time.



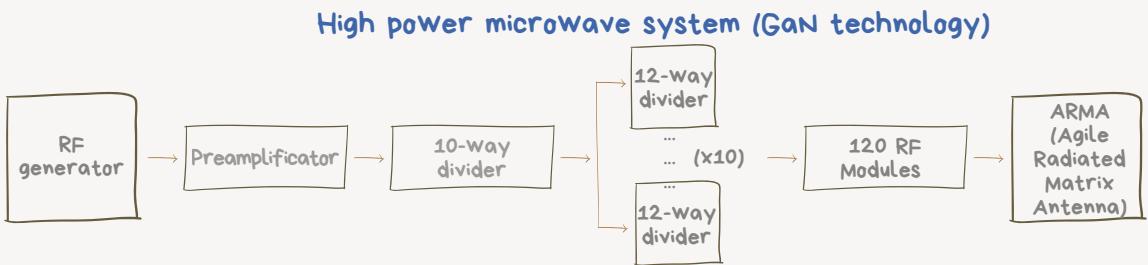
Non-contractual photo

Effect of microwave radiation on electronic of drones diminishes with increasing distance.

- Destruction up to about 100 m
- Neutralization \approx 500 m
- Disturbance \approx 1,500m

DRAME: Short-Range Vehicle Neutralization System

DRAME and its lighter version 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.



Main Features:

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

Main features:

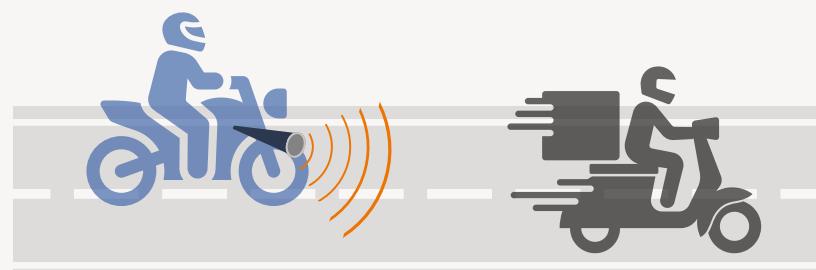
- Compatible with current and future threats
Piloted or autonomous drones
Single or swarming drones
- Mobile
Installation on a carrier
System can be used with batteries and generator for greater autonomy
- Installation on various platforms

Overall Performance:

- Frequency: L-band
- Amplifier Technology: GaN-type semiconductors
- Antenna: Planar and wideband
- Antenna Gain: Between 24 and 27 dB
- Radiated Power: Several tens of megawatts

Agile HPM Solution for Motorcycle Neutralization

System derived from the DRAME platform, specifically designed to stop uncooperative motorcycles and scooters.





With over 25 years of expertise, ITOPP has become the French leader in pulsed power and high-power microwave technologies. Based on customer specifications, ITOPP designs and manufactures highly innovative systems tailored to scientific research as well as civilian and military applications.



ALCEN

6 rue Paul Baudry
75008 Paris - France
Tel. +33 (0)1 40 72 55 00
alcen@alcen.com
www.alcen.com

ITOPP

1160 route de Miers
46500 Thégra - France
Tel. +33 (0)5 65 33 43 30
contact@itopp-alcen.com
www.itopp-alcen.com