



PIRANHA-TECH



PRODUCTS CATALOGUE





LLC «Piranha Tech» offers you its developments and hopes for fruitful cooperation

Our company exists since 2014 and is engaged in the development and production of electronic warfare systems, radio suppression, anti-drone and UAV systems. Piranha-Tech's systems and solutions are used in more than 20 countries. We have a thorough understanding of electronic warfare. Our products are successfully used to protect the top officials of the UAE and Qatar, as well as police agencies in South America, Canada, Italy, Vietnam and other countries.

The systems are also used by corporate security organisations around the world to ensure the protection of objects of various sizes and activities.

We develop and manufacture systems that can solve the following relevant military tasks:

- Detect and suppress drones of various modifications
- Detect and suppress UAVs of various models and modifications (including Orlan, Lancet, etc.)
- Provide radio security during convoys (columns) moving, protecting the perimeter or creating a 'security cap' over the territory or object.

In accordance with the task, we supply the optimal set of equipment to solve it.

In light of recent events related to Russia's attack on Ukraine, our country has faced with new threats. One of these threats is the use of various types of UAVs for military and terrorist attacks on military, civilian and industrial targets. The design and technical capabilities of UAVs allow them to be used not only in the frontline area, but also in the rear.

In view of the above threats and feeling increased responsibility, the specialists of our company has launched mass production of electronic warfare systems, radio jamming, anti-drone and anti-UAV systems and UAVs of various types.

Today, Piranha Tech equipment is actively used by various units of the Defence Forces of Ukraine in the Russian-Ukrainian war, proving its effectiveness.

Our products are also supplied to more than 20 countries.

We suggest you to consider using our products to protect the following objects:

- critical infrastructure
- industrial and manufacturing facilities
- structures involved in drilling operations
- oilfield services and facilities
- facilities used for gas transportation and supply
- petrol stations, etc.

Depending on the threats and dangers associated with the use of UAVs, we can offer both portable and compact solutions in the form of anti-drone guns and more complex solutions for the construction of stationary dome protection systems for objects of varying complexity. Our company is open to new developments and solutions to various security challenges.

For more information, please contact us in any way convenient for you.



TWO CHANNEL STATIONARY ANTI-DRONE COMPLEX OF DIRECTED-ACTION PIRANHA 2T

The system is designed to counteract unauthorised UAV flights. The principle of operation is to set up directional wide-angle radio jamming on selected frequency bands. The effect of countermeasures:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

FEATURES

- Output power up to 50W per channel
- The generator is installed separately from the amplifier
- Digital control
- Amplifier temperature control
- Control of the CODES
- Active controlled cooling 140mm fans: low noise, efficient cooling
- High degree of protection IP55
- High-quality antennas mounted in a radio-transparent housing
- Possibility to choose the necessary frequency bands on request
- Remote control panel
- Mounting on a tripod.
- Can be mounted on a mechanised stand: lifting to a height of up to 3 m.
- Autonomous power supply
- Possibility of power supply from the 220V 50Hz (can be powered from a conventional 'powerbank')



TECHNICAL CHARACTERISTICS

Maximum output power	50/100 W to choose from
Maximum number of simultaneously operating channels	2
Antenna polarization	Vertical, horizontal
Weight	14 kg
Operating time from the rechargeable battery	not less than 1 hour* of operation
Degree of protection	IP55

*for 5 channels with 30W output power per channel

EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
400-450	Vertical/horizontal	up to 50/100
450-550	Vertical/horizontal	up to 50/100

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements



INSTALLATION OPTIONS

- Stand with manually adjustable height
- Tripod with electric drive adjustable height with

COMPLETION

- RF unit with AFC
- Tripod
- Rechargeable battery
- Power cable
- Wired remote control (10m)
- Battery charger

Can be equipped with a power supply unit power supply from the 220V 50Hz network



NATO NOMENCLATURE CODE
5865-61-017-9089

FIVE CHANNEL STATIONARY ANTI-DRONE COMPLEX OF DIRECTED-ACTION PIRANHA 5T

The system is designed to counteract unauthorised UAV flights. The principle of operation is to set up directional wide-angle radio jamming on selected frequency bands. The effect of countermeasures:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

FEATURES

- Output power up to 50W per channel
- The generator is installed separately from the amplifier
- Digital control
- Amplifier temperature control
- Control of the CODES
- Active controlled cooling 140mm fans: low noise, efficient cooling
- High degree of protection IP55
- High-quality antennas mounted in a radio-transparent housing
- Possibility to choose the necessary frequency bands on request
- Remote control panel
- Mounting on a tripod.
- Can be mounted on a mechanised stand: lifting to a height of up to 3 m.
- Autonomous power supply
- Possibility of power supply from the 220V 50Hz (can be powered from a conventional 'powerbank')



TECHNICAL CHARACTERISTICS

Maximum output power	30/50W per channel
Maximum number of simultaneously operating channels	5
Antenna polarization	Vertical, horizontal
Weight	14 kg
Operating time from the rechargeable battery	not less than 1 hour* of operation
Degree of protection	IP55

*for 5 channels with 30W output power per channel

EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
710-760	Vertical/horizontal	up to 50
860-960	Vertical/horizontal	up to 50
2400-2500	Vertical	up to 50
5150-5850	Vertical	up to 50

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements



INSTALLATION OPTIONS

- Stand with manually adjustable height
- Tripod with electric drive adjustable height with

COMPLETION

- RF unit with AFC
- Tripod
- Rechargeable battery
- Power cable
- Wired remote control (10m)
- Battery charger

Can be equipped with a power supply unit power supply from the 220V 50Hz network



SIX CHANNEL STATIONARY ANTI-DRONE COMPLEX OF DIRECTED-ACTION **PIRANHA 6T**

The system is designed to counteract unauthorised UAV flights. The principle of operation is to set up directional wide-angle radio jamming on selected frequency bands. The effect of countermeasures:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

FEATURES

- Output power up to 50W per channel
- The generator is installed separately from the amplifier
- Digital control
- Amplifier temperature control
- Control of the CODES
- Active controlled cooling 140mm fans: low noise, efficient cooling
- High degree of protection IP55
- High-quality antennas mounted in a radio-transparent housing
- Possibility to choose the necessary frequency bands on request
- Remote control panel
- Mounting on a tripod.
- Can be mounted on a mechanised stand: lifting to a height of up to 3 m.
- Autonomous power supply
- Possibility of power supply from the 220V 50Hz (can be powered from a conventional 'powerbank')



TECHNICAL CHARACTERISTICS

Maximum output power	30/50W per channel
Maximum number of simultaneously operating channels	6
Antenna polarization	Vertical, horizontal
Weight	14 kg
Operating time from the rechargeable battery	not less than 1hour* of operation
Degree of protection	IP55

*for 5 channels with 30W output power per channel

EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
710-760	Vertical/horizontal	30
860-960	Vertical/horizontal	30
2400-2500	Vertical	30
5150-5850	Vertical	30

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements



INSTALLATION OPTIONS

- Stand with manually adjustable height
- Tripod with electric drive adjustable height with

COMPLETION

- RF unit with AFC
- Tripod
- Rechargeable battery
- Power cable
- Wired remote control (10m)
- Battery charger

Can be equipped with a power supply unit power supply from the 220V 50Hz network



NATO NOMENCLATURE CODE
5865-61-017-9093

ELECTRONIC WARFARE (EW) COMPLEX OMNIDIRECTIONAL ACTION DOME PROTECTION DF-1

The system is designed to counteract unauthorised UAV flights. The principle of operation is to create an omnidirectional radio jamming on one or more frequency bands. The effect of countermeasure:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

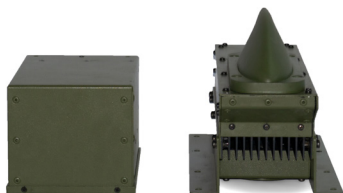
FEATURES

- High output power
- Generator with frequency stabilisation
- Digital control
- Amplifier temperature control
- Control of the COD control
- Active controlled cooling
- High degree of protection IP55
- High-quality, highly efficient antennas
- Scalability up to 8 channels in one system (DF-M system)
- Remote control panel



TECHNICAL CHARACTERISTICS

Operating frequencies in the range of 400-5900 mHz	
Maximum output power	100 W
Maximum number of simultaneously operating channels	1
Antenna polarization	Vertical/ circular
Consumption (W/1 channel)	No more than 350
Weight	the RF unit (1 channel): < 6kg Power supply < 10 kg
Degree of protection	IP55



Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements

INSTALLATION OPTIONS

- Transport equipment for civilian and military vehicles
- Car trailer
- Roofs of buildings and other structures
- Tripods

COMPLETION

- Radio jamming units with antennas
- AC/DC power supply unit
- Control panel
- Cable kit
- Mounting kit

Additionally, the system can be equipped with a battery source power supply



NATO NOMENCLATURE CODE
5865-61-017-9093

ELECTRONIC WARFARE (EW) COMPLEX OMNIDIRECTIONAL ACTION DOME PROTECTION DF-M

The system is designed to counteract unauthorised UAV flights. The principle of operation is to create an omnidirectional radio jamming on one or more frequency bands.

The effect of countermeasure:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

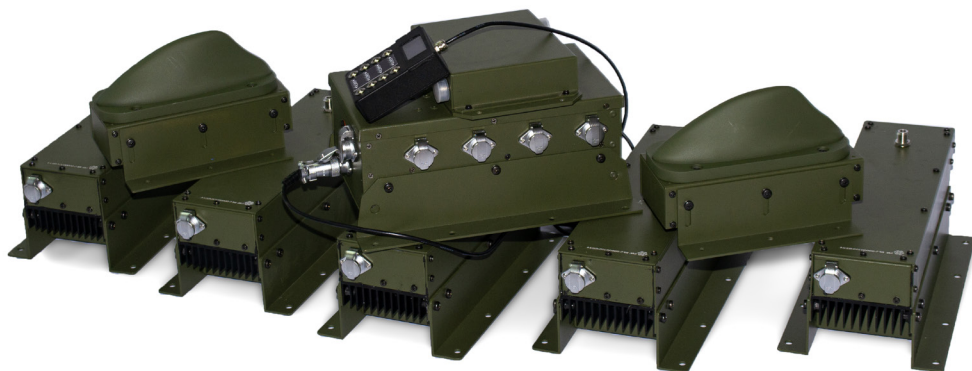
This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

FEATURES

- High output power
- Generator with frequency stabilisation
- Digital control
- Amplifier temperature control
- Control of the COD control
- Active controlled cooling
- High degree of protection IP55
- High-quality, highly efficient antennas
- Scalability (up to 8channels in one system)
- Remote control panel



TECHNICAL CHARACTERISTICS

Operating frequencies in the range of 400-5900 mHz	
Maximum output power	100 W
Maximum number of simultaneously operating channels	Up to 8
Antenna polarization	Vertical/ circular
Consumption (W/1 channel)	No more than 350
Weight	the RF unit (1 channel): < 6kg Power supply < 10 kg
Degree of protection	IP55



Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements

INSTALLATION OPTIONS

- Transport equipment for civilian and military vehicles
- Car trailer
- Roofs of buildings and other structures
- Tripods

COMPLETION

- Radio jamming units with antennas
- AC/DC power supply unit
- Control panel
- Cable kit
- Mounting kit

Additionally, the system can be equipped with a battery source power supply



PORTABLE PROFESSIONAL SIGNAL SUPPRESSOR PIRANHA HAD-5 (ANTI FPV)

The device is designed to counteract unauthorised UAV flights. The principle of operation is to create directional radio jamming with a narrow angle of action in selected frequency bands.

The effect of countermeasure:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash

FEATURES

- Output power up to 50W per channel
- Oscillator installed separately from the amplifier
- Digital control
- Amplifier temperature control
- VSWR control
- Active controlled cooling 140mm fans: low noise, efficient cooling
- High IP55 protection
- High-quality directional antennas with an angle of coverage up to 35°. The antenna feeder is made in the form of a shotgun.
- Possibility to select the required channels before ordering
- Possibility to connect a remote control
- Mounting on a tripod.
- Autonomous power supply
- Backpack and carrying bag. Pouches for carrying accessories.



TECHNICAL CHARACTERISTICS

Maximum output power	30/50W per channel
Maximum number of simultaneously operating channels	5
Antenna polarization	Vertical, horizontal
Weight	Backpack with battery: up to 12kg Shotgun: up to 5kg
Operating time from the rechargeable battery	not less than 30 minutes of operation
Degree of protection	IP55

**for 5 channels with 30W output power per channel*

ПРИКЛАД СТАНДАРТНОЇ КОМПЛЕКТАЦІЇ ПО ЧАСТОТНИМ ДІАПАЗОНАМ

Bands, MHz	Antenna polarisation	Output power, W ± 1dBm
700-760	Vertical/horizontal	Up to 50
860-960	Vertical/horizontal	Up to 50
960-1000	Vertical/horizontal	Up to 50
1160-1300	Vertical	Up to 50
2400-2500	Vertical	Up to 50
5150-5850	Vertical	Up to 50

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements

COMPONENT

- Backpack with electronics
- Antenna-feeder device (ADF) in the form of a rifle
- Weapon belt
- Carrying bag
- Remote control
- Tripod
- A set of omnidirectional antennas
- -Charger





NATO NOMENCLATURE CODE
5865-61-017-9088

PORTABLE PROFESSIONAL SIGNAL SUPPRESSOR PIRANHA HAD-5

The device is designed to counteract unauthorised UAV flights. The principle of operation is to create directional radio jamming with a narrow angle of action in selected frequency bands.

The effect of countermeasure:

- Loss of operator control of the Drone or significant difficulties in controlling it
- Loss of video signal from the Drone
- Makes it impossible for drones to use systems for geopositioning systems
- Loss of telemetry readings from the Drone

This can lead to the Drone falling, loss of orientation, interruption of the mission and premature return to the take-off point.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geopositioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash

FEATURES

- Output power up to 50W per channel
- Oscillator installed separately from the amplifier
- Digital control
- Amplifier temperature control
- VSWR control
- Active controlled cooling 140mm fans: low noise, efficient cooling
- High IP55 protection
- High-quality directional antennas with an angle of coverage up to 35°. The antenna feeder is made in the form of a shotgun.
- Possibility to select the required channels before ordering
- Possibility to connect a remote control
- Mounting on a tripod.
- Autonomous power supply
- Backpack and carrying bag. Pouches for carrying accessories.



TECHNICAL CHARACTERISTICS

Maximum output power	30/50W per channel
Maximum number of simultaneously operating channels	5
Antenna polarization	Vertical, horizontal
Weight	Backpack with battery: up to 12kg Shotgun: up to 5kg
Operating time from the rechargeable battery	not less than 30 minutes of operation
Degree of protection	IP55

**for 5 channels with 30W output power per channel*

COMPONENT

- Backpack with electronics
- Antenna-feeder device (ADF) in the form of a rifle
- Weapon belt
- Carrying bag
- Remote control
- Tripod
- A set of omnidirectional antennas
- -Charger

ПРИКЛАД СТАНДАРТНОЇ КОМПЛЕКТАЦІЇ ПО ЧАСТОТНИМ ДІАПАЗОНАМ

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
860-930	Horizontal	50
1160-1300	Vertical	30
1550-1630	Vertical	30
2400-2500	Vertical	50
5700-5850	Vertical	50

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements





PORTABLE PROFESSIONAL SIGNAL SUPPRESSOR PIRANHA HAD-2 (OMNI)

Designed to protect against unauthorised flights of civilian drones (DJI, Autel, Parrot, etc.).

Features:

- Microcontroller-based control system
- Voltage stabilisation
- Lightweight aluminium body
- Battery level indicator
- IP54
- Convenient connectors for connection
- 140*20 mm cooling system fans with low noise level (speed control rotation)
- Rechargeable lithium-ion battery with built-in BMS
- Wired remote control
- Complete set with omnidirectional antennas

TECHNICAL CHARACTERISTICS

- Can operate simultaneously on the specified bands
- Vertical polarisation omni-directional antennas
- Total output power: up to 250 W.
- No interference with neighbouring bands frequency ranges.
- Antenna open/short circuit protection.
- Overheating protection:
 - 65°C switching off the amplifiers.
 - 55°C to resume operation.
- Operating temperature: -20°C to +40°C.
- Humidity 5%-95%, non-condensing.
- Backpack size: 475*300*120 mm
- Weight: up to 12 kg with battery
- Battery life: up to 30 minutes with the possibility of replacement



CONTROL AND INDICATION

Protection	VSWR protection Protection against overheating: <ul style="list-style-type: none"> 65°C stop 55°C resume operation
Cooling	Forced air with speed control
Control	Buttons on the control panel: <ul style="list-style-type: none"> switch on the power range selection switching on the jamming LED indication of operating modes and operation protection Control panel cable length: 10 m

EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
400-450	Vertical	50/100 to choose from
450-550	Vertical	50/100 to choose from

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements

COMPONENT

- Backpack with electronics, 1 pc.
- Control panel, 1 pc.
- Omnidirectional antenna, 2 pcs.
- Rechargeable battery, 1 pc.
- Charger, 1 pc.
- Passport for the device, 1 pc.
- User manual, 1 pc.

WARRANTY CONDITIONS

The manufacturer guarantees the device operability during the entire warranty period, subject to the following requirements operation and storage requirements set out in the operating documentation.

The warranty period is calculated from the moment of start of operation, but not later than 6 months from the date of its acceptance.

Repairs during the warranty period are carried out by the manufacturer.

Warranty period of storage: 24 months from the moment of receipt

Warranty period of operation: 12 months.

Battery life: not less than 12 months. Service life of the device: not less 5 years



PORTABLE PROFESSIONAL SIGNAL SUPPRESSOR PIRANHA HAD-5 (OMNI)

Designed to protect against unauthorised flights of civilian drones (DJI, Autel, Parrot, etc.).

Features:

- Microcontroller-based control system
- Voltage stabilisation
- Lightweight aluminium body
- Battery level indicator
- IP54
- Convenient connectors for connection
- 140*20 mm cooling system fans with low noise level (speed control rotation)
- Rechargeable lithium-ion battery with built-in BMS
- Wired remote control
- Complete set with omnidirectional antennas

TECHNICAL CHARACTERISTICS

- Can operate simultaneously on the specified bands
- Vertical polarisation omni-directional antennas
- Total output power: up to 250 W.
- No interference with neighbouring bands frequency ranges.
- Antenna open/short circuit protection.
- Overheating protection:
 - 65°C switching off the amplifiers.
 - 55°C to resume operation.
- Operating temperature: -20°C to +40°C.
- Humidity 5%-95%, non-condensing.
- Backpack size: 475*300*120 mm
- Weight: up to 12 kg with battery
- Battery life: up to 30 minutes with the possibility of replacement



CONTROL AND INDICATION

Protection	VSWR protection Protection against overheating: <ul style="list-style-type: none"> • 65°C stop • 55°C resume operation
Cooling	Forced air with speed control
Control	Buttons on the control panel: <ul style="list-style-type: none"> • switch on the power • range selection • switching on the jamming LED indication of operating modes and operation protection Control panel cable length: 10 m

EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
700-760	Vertical	Up to 50
860-960	Vertical	Up to 50
960-1000	Vertical	Up to 50
1160-1300	Vertical	Up to 50
2400-2500	Vertical	Up to 50
5150-5850	Vertical	Up to 50

Frequency bands, output power and polarisation of the antenna can be changed according to customer requirements

COMPONENT

- Backpack with electronics, 1 pc.
- Control panel, 1 pc.
- Omnidirectional antenna, 5 pcs.
- Rechargeable battery, 1 pc.
- Charger, 1 pc.
- Passport for the device, 1 pc.
- User manual, 1 pc.

WARRANTY CONDITIONS

The manufacturer guarantees the device operability during the entire warranty period, subject to the following requirements operation and storage requirements set out in the operating documentation.

The warranty period is calculated from the moment of start of operation, but not later than 6 months from the date of its acceptance.

Repairs during the warranty period are carried out by the manufacturer.

Warranty period of storage: 24 months from the moment of receipt

Warranty period of operation: 12 months.

Battery life: not less than 12 months. Service life of the device: not less 5 years



NATO NOMENCLATURE CODE
5865-61-017-9094

PORTABLE DEVICE SF-3 COUNTERMEASURES

The device is designed to counteract unauthoriseem UAV flights. The principle of operation is to create a directional radio jammer with a narrow angle of action in the selected

frequency bands. Countermeasure effect:

- Loss of control by the drone operator or significant difficulties in control
- Loss of video signal from the drone
- Makes it impossible for drones to use geo-positioning systems (if such a range is installed)
- Loss of telemetry readings from the Drone

This can lead to the drone falling, loss of orientation, interruption of the mission and premature return to the point of of take-off.

Using the countermeasure system impairs the piloting of the Drone or makes it impossible.

Loss of communication between the Drone and geo-positioning systems makes it impossible for the autopilot to operate accurately enough Drone's autopilot or causes it to crash.

FEATURES

- Output power up to 30W per channel
- The generator is installed separately from the amplifier
- Amplifier temperature control
- Control of the CWR
- Passive air cooling
- High-quality directional antennas with an operating angle up to 35 degrees
- The most simple and reliable design
- Aluminium body
- Possibility to choose the necessary channels when ordering the required channels
- Can be mounted on a tripod.
- Battery power supply
- Storage and carrying bag.



TECHNICAL CHARACTERISTICS

Maximum output power	300W per channel
Maximum number of simultaneously operating channels	3
Antenna polarization	Vertical, horizontal
Weight	Up to 7kg
Operating time from the rechargeable battery	30 minutes of operation
Replaceable battery	Yes



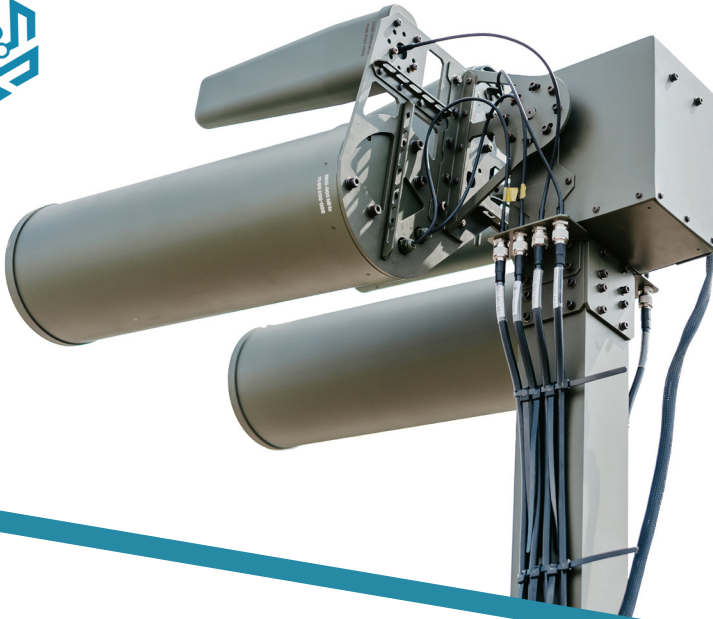
EXAMPLE OF STANDARD EQUIPMENT BY FREQUENCY BANDS

Bands, MHz	Antenna polarisation	Output power, W \pm 1dBm
860-960 or 1550-1630	Vertical/horizontal	30
2400-2500	Vertical	30
5150-5850	Vertical	30

COMPLETION

- A rifle with antennas
- Network charger
- Transport bag
- Weapon belt
- Charging device

Can be additionally equipped with a tripod



SPR BPL COUNTERMEASURE SYSTEM

The system is designed to counter unauthorised flights of UAVs and civilian drones. The principle of operation is to create directional radio jamming over several frequency bands. Countermeasure effect:

- Loss of control by the drone operator
- or significant difficulties in controlling the drone
- Loss of video signal from the drone
- Makes it impossible for drones to use geo-positioning systems
- Loss of telemetry readings from the Drone
- This may result to the drone falling, losing its orientation, aborting the mission, and returning to the to the take-off point.

The use of the countermeasure system significantly impairs or makes it impossible for the Drone operator to perform the mission.

Loss of communication between the drone and geo-positioning systems makes it impossible for the autopilot to operate accurately enough. Drone's autopilot or causes it to crash.

The system can work independently or in cooperation with the means of determining the direction to the target or the target's coordinates. The system can automatically direct the antennas and jam radio signals.

SYSTEM COMPOSITION

- Radio jamming system
- Control panel
- Base for installation of system elements
- Autonomous power supply unit
- Software package

SYSTEM OF RADIO JAMMING

Main features:

- Simultaneously or selectively operates on the frequency bands indicated below frequency bands.
- External directional antennas.
- Total radio output power: up to 400W.
- No interference with neighbouring frequency bands.
- VSWR - protection against damage to the antenna or RF cable.
- Overheating protection:
 - 75°C shutdown.
 - 60°C resumption of operation.
- Operating temperature from -20°C to +40°C.
- Humidity 5%-95%, non-condensing.

The system can work with external systems to determine the coordinates of the target or the direction to the target.

Interaction options:

- Receiving coordinates via API of direction finding systems
- Receiving commands - instructions via the system API jamming.

TECHNICAL CHARACTERISTICS

Frequency ranges	Choose from up to 8 suppression channels ranging from 400 mHz to 5900 mHz
Output power per channel	Up to 100 W
Number of suppression channels	Up to 8
Number and type of antennas	Up to 8 directional antennas
Antenna gain	Not less than 8dBi for low frequencies. Not less than 12 dBi for high frequencies
Type of generator	VCO+PLL/PLL
Protection	VSWR, overheating protection
Control	Control panel in a protected shockproof case. Built-in PC control with specialised software
Internal power supply	24/28 V DC
External power supply	220V 50Hz AC
Consumption	No more than 4 kW
Conditions of use	
Temperature	-20...+40°C
Humidity	5%...95%

CONTROL CAPABILITIES

- Setting the direction of the antennas:
 - Angle to the ground: 0°..90°
 - Azimuth: 350°
- System status telemetry
 - Temperature of amplifiers
 - VSWR fault indicator
 - Cooling system status on/off radio jamming channels

THE SOFTWARE ALLOWS YOU TO

- Mark the system location on the map in automatic (built-in PS sensor) or manual mode
- Mark the direction to the target relative to the RF direction finding system
- Control the direction of the antennas
- View the system's telemetry readings in real time
- Control the activation of radio jamming channels

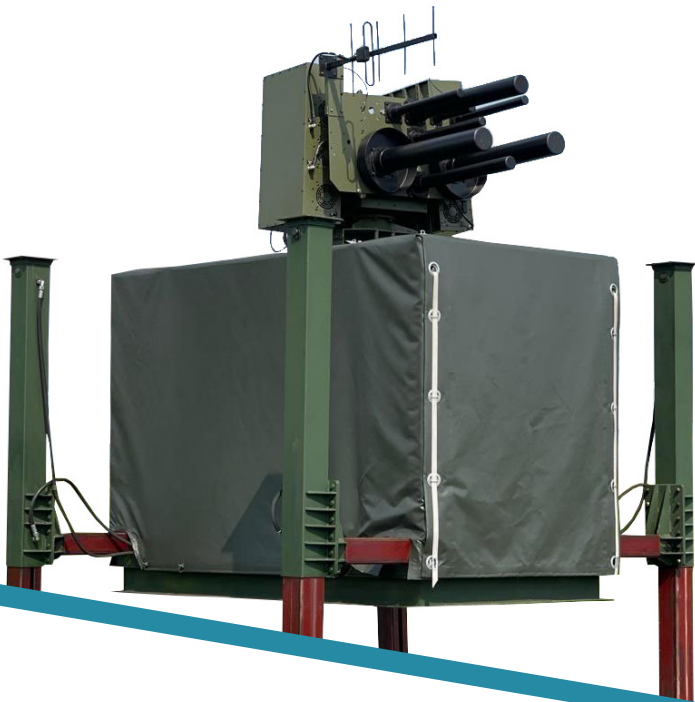
Additional information

The system can be additionally equipped with units to provide autonomous power supply, an inverter, etc.

The means of placement and installation of the system elements can be agreed with the customer to adapt to the application conditions.

These images are provided for reference only and the appearance of the system may differ from them (colour, location of antennas/connectors, etc.)





MOBILE SYSTEM COUNTERING ISPBPL-12

The system is designed to counter UAVs and civilian drones. The principle of operation is to create radio jamming over several frequency bands. Countermeasure effect:

- Loss of control by the UAV/drone operator or significant difficulties in control
- Loss of video signal from the UAV
- Makes it impossible to use geo-positioning systems
- Loss of telemetry data from the UAV

This can lead to a UAV crash, loss of orientation, interruption of the mission and premature return to the take-off point.

The use of the countermeasure system significantly impairs or makes it impossible for the UAV operator to perform the mission. Loss of UAV communication with geo-positioning systems makes it impossible for the UAV's autopilot to operate accurately enough or causes the UAV to crash.

Advantages:

- Increased power and resulting efficiency and range
- Mobility
- Easy to use
- Universality due to the number of bands
- Autonomy- use of battery power or generator

APPLICATION POSSIBILITIES

- Military missions
- Conducting special operations
- Countering kamikaze drone attacks
- Protection of important objects
- Mobile system for countering drones in areas of airports, oil storage facilities, oil and gas industry etc.

SYSTEM COMPOSITION

- Lifting mechanism
- Antenna directional mechanism
- Electronic jamming units
- Directional antennas
- Power supply unit
- Control panel
- Autonomous power supply system

Version with or without protective container



TECHNICAL CHARACTERISTICS

Frequency ranges	Choose from up to 8 suppression channels ranging from 400 mHz to 5900 mHz
Output power per channel	Up to 250 W
Number of suppression channels	Up to 12
Number and type of antennas	12 directional antennas
Antenna gain	Not less than 8dBi
Operating distance	Up to 10 km
Type of generator	VCO+PLL
Protection	VSWR, overheating protection
Weight	No more than 500 kg (without autonomous power supply system and container)
Control	Control panel/software for control from a PC
Internal power supply	24/28 V DC
Consumption	No more than 6 kW
Conditions of use Temperature Humidity	-20...+40°C 5%...95%

COMPLETION (BASIC)

- Lifting mechanism
- Antenna directional mechanism
- Electronic jamming units
- Directional antennas
- Power supply unit
- Control panel



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