Belarusian State University
of Informatics and Radioelectronics
R&D Department
BSUIR, 6, P. Brovki Str., Minsk 220013, Republic of Belarus

Announcement
I International Security Industry Exhibition "National Security. Belarus-2022"

June 22 – 25, 2022
Minsk, Belarus

About the exhibition

"National Security. Belarus-2022" is organized to allow broad demonstration of high-tech, innovative developments, and ready solutions in the sphere of security.

Scientific and business program includes the conference, seminars, and round tables with the goal of expert opinion exchange, as well as question discussion regarding improvement mechanisms for creating favorable conditions needed for industrial, scientific, and technological development.

Thematic sections of the exhibition

- Special technical means of law enforcement authorities and other military and security bodies
- Information and digital security technologies of the country
- System of anti-terrorist protection of facilities vulnerable to terrorism
- Technical means of border protection
- Technical means and systems to prevent accidents, disasters and elimination of their consequences
- Special fire safety equipment
- Equipment and components used in disaster medicine
- Means for industrial and environmental safety
- Systems and facilities for monitoring public safety, crime prevention, and citizen protection

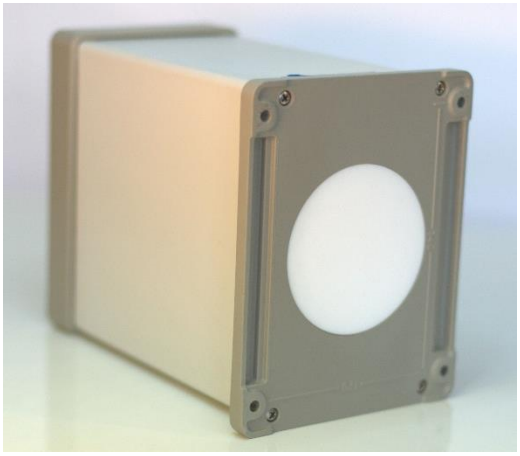
At the exhibition, BSUIR will demonstrate high-tech developments in the sphere of communication, navigation, EMC compatibility, and information security.

Communications and navigation equipment

- **Radio altimeter** is designed to ensure the takeoff and landing of large unmanned aerial vehicles. The main advantages are: millimeter wavelength range, rapid information update, all-weather, small dimensions and weight.

- **Mobile radar** is designed to solve aerial and terrestrial security tasks, air traffic control, and to ensure the landing of large unmanned aerial vehicles. The main advantages are: detection of objects with different effective scattering surface, small dimensions and weight.
- **Broadband receiver** is designed to measure radio signal parameters: carrier frequency, signal spectrum width, energy component, applied modulation type of the received radio signal, and to detect the direction to the radio signal source.

Equipment for non-contact measurements



Non-contact vibration sensor is designed to ensure non-contact and continuous remote control, monitoring, and diagnostics of object parameters, that perform linear mechanical vibrations, movement and/or rotation, characterized by a wide variety of shapes and surface materials.

About the developer

Technologies and hardware-software complexes for ensuring electromagnetic compatibility (EMC) in on-board and local ground groups of radio-electronic means (ADFTS, EMC-Analyzer, DNA EMC, GIS-RF, VTA)

Designed to analyze and provide EMC in local on-board and ground-based radio-electronic groups, generate specifications for on-board and ground-based radio-electronic systems taking into consideration the EMC requirements, as well as to simulate radio reception in a complex electromagnetic environment.

Distinctive features and advantages:

- products significantly outperform analogues in terms of modeling of non-linear effects in radio receivers when operating in a complex electromagnetic environment;
- the possibility of simultaneous joint analysis of a huge number of parasitic electromagnetic couplings of various nature has been implemented;
- analysis of EMC based on a system criterion that takes into account the combined influence of parasitic electromagnetic couplings of all types in the onboard radioelectronic grouping;
- high speed performance and practical efficiency, a significant increase in quality, and cost reduction for the design of complex objects (aircraft, ships, etc.).

About the developer

Technologies and equipment in the field of information security

"Priboi"

Designed to protect speech information from leakage through acoustic and vibration channels from the premises outside the security zone.

Types of masking signals:

- "white noise",
- "speech-like signals",
- "white noise" + "speech-like signals".

Advantages:

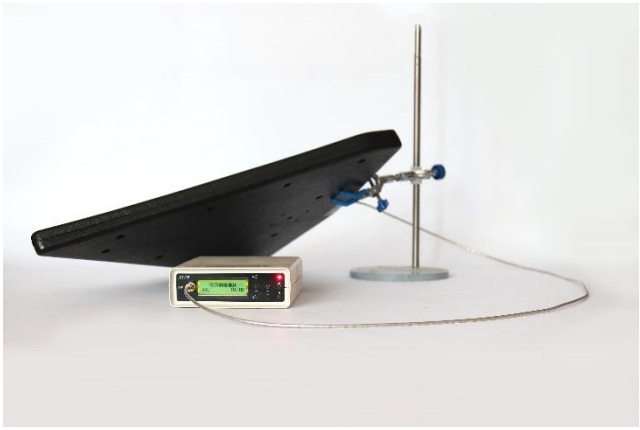
- ensures the closure of channels of speech information leakage;
- the possibility to develop an allophone base in various languages has been implemented.

"Locator"

Designed to detect devices of unauthorized information capture by resonant phenomena in their antenna systems and associated filter elements.

Advantages: allows to detect shielded bugs in the set frequency range in real time.

Device "Priboi"



Device "Locator"

Display film manufacturing technology for PC information protection

The film is designed to protect the confidentiality of information displayed on monitors, displays, and indicator panels. They provide protection of information from unauthorized copy by unauthorized people who are outside the viewing angle of 10 or more degrees.

It is a double-sided optically transparent film developed using the innovative micro-louvre technology. It has an anti-glare effect and reduces light reflection.

Advantages:

– reduces the strain on the user's eyes by creating contrast between small text and images;
– does not alter the information displayed;
– easy to install and remove;
– protects the display from external damages and dust.

About the developer