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# POLISH DEFENCE INDUSTRY

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AFIT – FLYING LABORATORY



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TEL DAT / VIS JASMINE

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THE FAMILY OF SEMITRAILERS  
FOR THE TRANSPORT OF MILITARY  
VEHICLES



**VEHICLE INTERCOM SYSTEM JASMINE (CALLED VIS JASMINE OR VIS) IS THE COMPONENT OF ON-BOARD VERSION OF THE JASMINE SYSTEM AND MAKES AN ON-BOARD DATA COMMUNICATION NODE. THIS SOLUTION IS A NETWORK CENTRIC MULTISERVICE HARDWARE AND SOFTWARE PLATFORM PROVIDING RELIABLE COMMUNICATION AND NECESSARY SERVICES WHICH IMPROVES THE WORKS OF THE CREW IN A SIGNIFICANT WAY. THE SYSTEM CAN BE USED IN ALL TYPES OF VEHICLES (INCLUDING MILITARY), VESSELS (SUBMARINES) AS WELL AS IN AIRCRAFTS.**

**VIS** combined with a suitable software module of **C3IS JASMINE** makes a **C4ISR** class system. It is an innovative solution, friendly in using, more mobile and has many more functionalities than other similar currently used systems. It has an optimal construction with smaller dimensions and lower power consumption. **VIS** devices are made in the latest technology according to military standards of mechanical and climatic resistance. Its design and implementation is the new quality in a development of on-board communication systems.

#### MAIN FEATURES:

- modern superINTERCOM in IPv6 technology, provides digital processing of speech, guarantees high quality and intelligibility of information on the battlefield for all crew members;

- high mobility, smaller dimensions, low weight, low price, less power consumption with high system performance in comparison to existing, similar devices;
- high quality of communication with other battle vehicles via optimal wireless communication (e.g. radio and satellite), possibility to work in remote location;
- easy and intuitive to use, similar to the smartphone type devices;
- different operating systems can be deployed;
- cooperation with **C3IS JASMINE** system or other C4ISR systems;
- **VIS Terminals** simultaneously provide: voice, data, alarms, use of **C3IS JASMINE (DSS C3IS JASMINE)** dedicated for soldier) or navigation software;
- up to 6 on-board radios;
- possibility to use **VIS Terminals** outside of a vehicle through wireless communication;
- **VIS Terminals** provides: GPS, magnetometer, accelerometer, light and temperature sensor, video camera, built-in battery, interface for external sensors, auto-selection of available network connection (wired or wireless);
- signals and responses to threats (alarms, sensors and effectors) are displayed and reproduced on the **VIS Terminals** and transferred e.g. to **BMS (Battlefield Management System)**;
- creating and synthesizing of alarm messages integrated with any number of sensors;
- possibility to use geographic position data sources (e.g. vehicle GPS);



- dissemination of information from different sources inside vehicle, also through loud-speakers;
- simultaneous usage of many channels controlled by **VIS Terminal** and PTT buttons (Push-To-Talk);
- call recording in **VIS** system (all calls to the central unit **WAN Access Box** and individually for each **VIS Terminal**);
- operational reliability through, i.a. automatic diagnostics of **VIS** system and monitoring of all its devices, including warning messages display and visualization of faults;
- possibility to deploy **VIS** software on smartphone devices and connecting via wireless network;
- advanced energy management depending on power supply and used functions;
- friendly usage, possibility to customize according to user needs;
- visualization of the status of internal and external communications;
- communication by selected radio or multiple radios simultaneously;
- active noise reduction in the system;
- scalable number of users connected to system;
- dedicated interfaces providing reliable operation of the system in combat vehicles, e.g. for connections between a tower and a chassis, through sliding connector;
- full compliance with Polish specifications and military standards of mechanical and climatic resistance as well as electromagnetic compatibility requirements:
  - the **VIS** system devices meet Polish military standard NO-06-A101 and NO-06-A103 (groups of devices: N.11-0-II-

A/B, N.12-0-II-A/B and N.14-0-II-A/B),

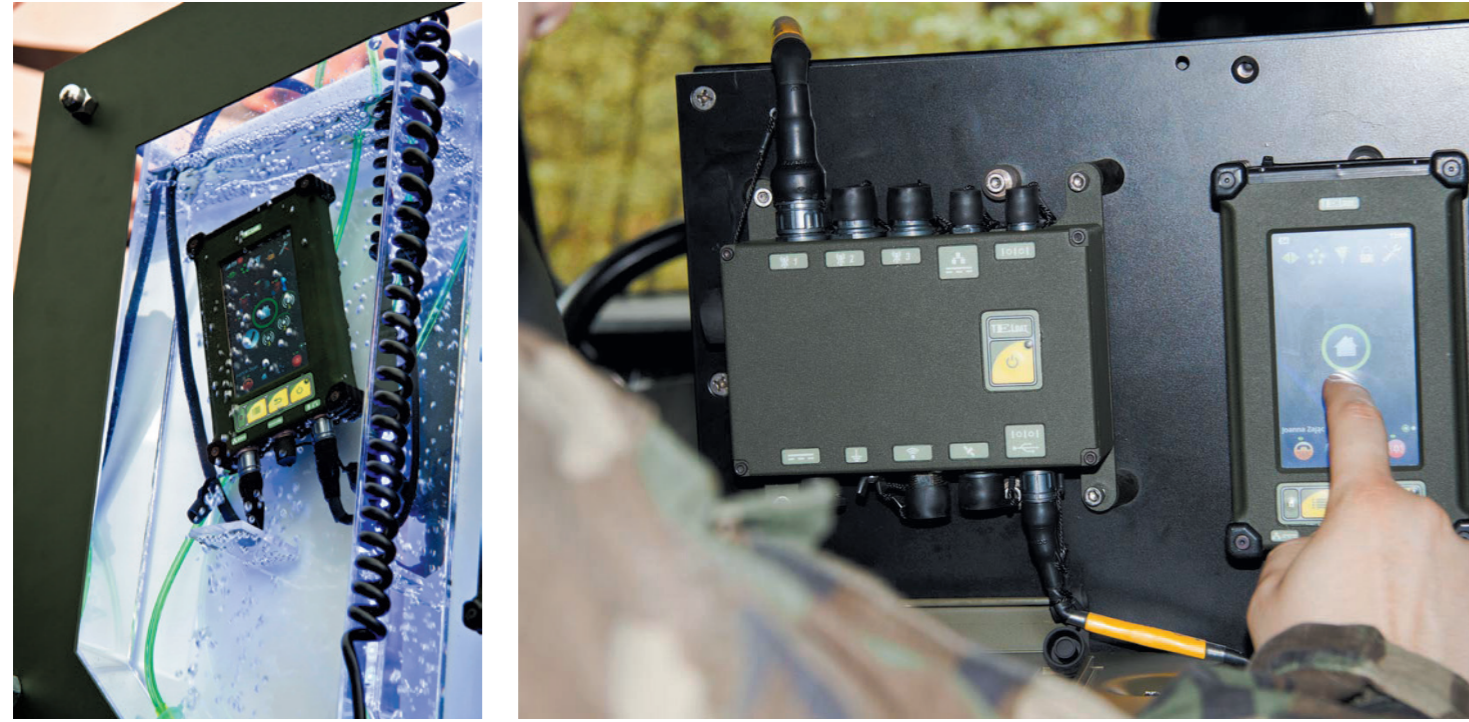
- permissible level of side emission and electromagnetic immunity are fulfilled in accordance with Polish military standard NO-06-A200;
- tempest standards available upon request of the Client.



Examples of use of **Vehicle Intercom System JASMINE**, including variants of implementation of this solution on different on-board platforms, are presented in the chart and pictures below.

**BASIC HARDWARE COMPONENTS OF THE VIS JASMINE:**

- **WAN Access Box (Master)** – it is a ICT integrator dedicated to internal on-board systems that provides an integration with wireless means of communication e.g.: HF and VHF radios, WLAN module / Bluetooth, GPS or inertial navigation;
- **WAN Access Box (Slave)** – it is a ICT integrator dedicated to internal on-board systems that provides on-board communication between all crew members, support and monitoring of vehicle sensors as well as integration of field and fixed telecommunication networks;



**WAN Access Box** devices in the **Master** and **Slave** versions can operate autonomously and independently from each other. The flexibility of implementation of a specific version may be dependent on the needs and requirements of the Customer.

- **VIS Terminal** – personal mobile computer that has advantages and features of PDAs and Smartphone devices and it is made in military standards. The device is light, has an optimal construction with smaller dimensions and less power consumption. Terminal is friendly in use and dedicated to software: **VIS JASMINE**, **C3IS JASMINE** (optional in **DSS** version) or navigation.



**Vehicle Intercom System JASMINE was awarded with three prizes:**

- DEFENDER prize (at the 21st International Defence Industry Exhibition in Kielce 2013) awarded for **Integrated Information System WTS** – the comprehensive, innovative, mutually consistent, unique in many areas and the reference solution, dedicated to the national defense and security. One of the major components of this system is **VIS JASMINE** and: JASMINE Web Portal, C3IS JASMINE, HMS JASMINE in shelter and a portable version, BMS JASMINE, DSS JASMINE and IEG JASMINE;
- DEFENDER prize (at the 21st International Defence Industry Exhibition in Kielce 2013) for vehicle for demining patrols ATENA II, which was equipped with a **BMS (Battlefield Management System) JASMINE**, including **Vehicle Intercom System JASMINE**;
- prize for the innovative **Vehicle Intercom System JASMINE** and tactical terminals with C3IS JASMINE software, obtained at the VII International Exhibition AIR FAIR 2013. ■

