GRUPA WB

EyeQ Land

AI system for detection, classification and identification of military objects

Possible impleme
remotely controlle
turret systems, e.g.

02

ntation in vehicles equipped with
d weapon modules, e.g. ZMU-03, and
ZSSW-30

EyeQ Land

Speeding up and supporting operational decisions

EyeQ Land represents the most advanced tools in the field of artificial intelligence (AI), dedicated to military applications.

EyeQ Land not only provides essential, expanded situational awareness, but also serves as a key element of support for soldiers in multi-domain operational activities.

The improved algorithm ensures precise tracking, identification and guidance to targets in an automated manner.

EyeQ Land is a synergy of advanced technology and engineering precision, aimed at ensuring maximum flow of combat information and optimizing the ability to respond to dynamically changing operational conditions.

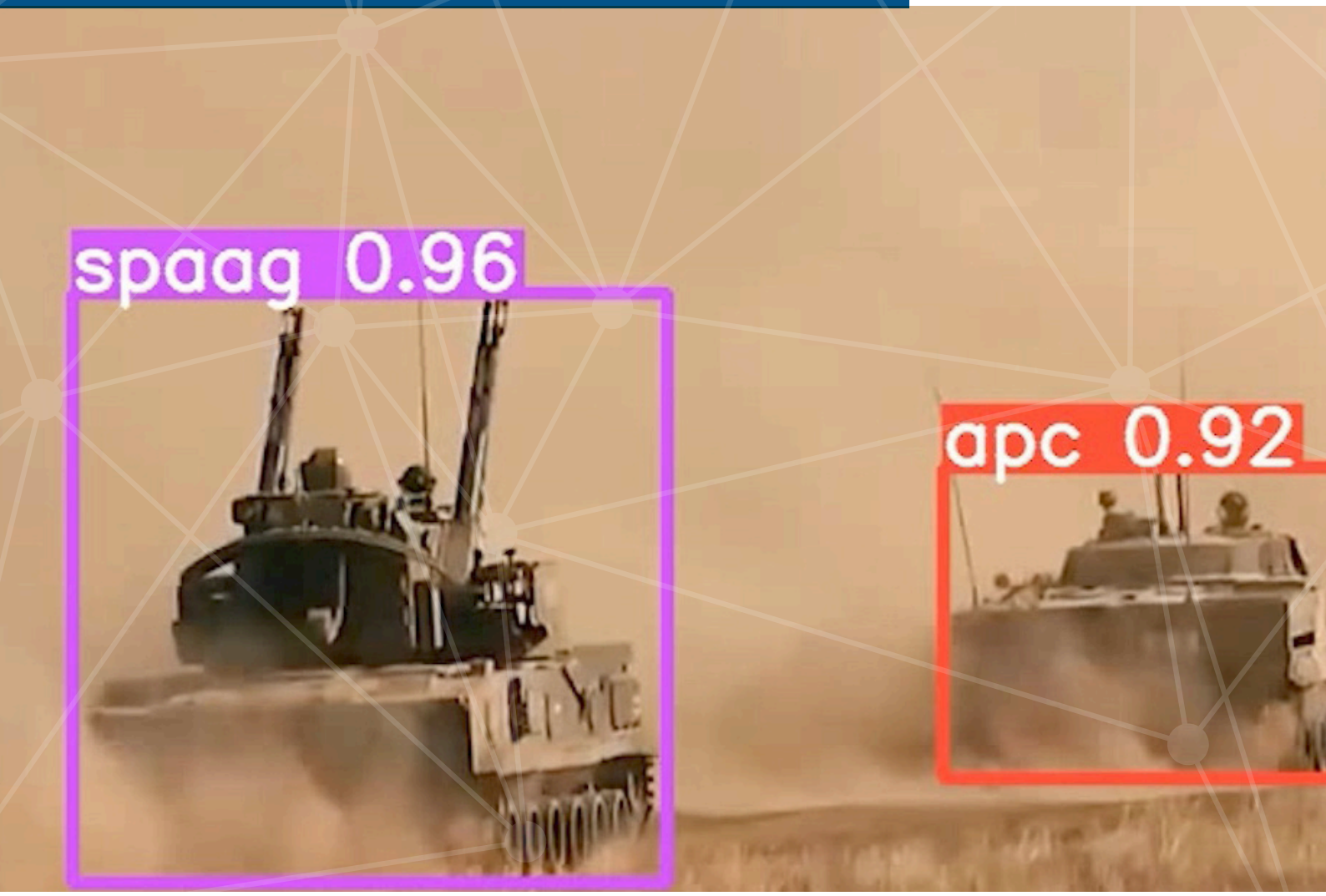
Integrating advanced artificial intelligence features, the EyeQ Land system significantly improves the effectiveness of combat operations by supporting the crew. AI also assists in critical moments, allowing soldiers to focus on the most pressing, highest priority threats.

The system recognizes vehicles and other military objects, automatically classifying them according to a defined hierarchy of military classes. This allows soldiers to easily identify the type of object, leading to shortened reaction times.

The system can automatically suggest which targets should be neutralized first and what type of weaponry should be used. By continuously analyzing the battlefield, the AI prioritizes threats and makes recommendations to the soldiers in real-time.

The crew has access to a holistic view of the combat situation through integrated cameras. Observation of the surroundings is highly automated and subject only to human oversight. This helps improve situational awareness, reduces mental workload, and allows for more rapid and judicious actions even in complex, high-stress combat scenarios. Operations in urban terrain become much easier. Consequently, the the number of crew members can be reduced to two people. The system can also be integrated with unmanned vehicles.

The system also provides precise tactical data



for commanders and operators, enabling image analysis from single or multiple video sources. All of this leads to increased situational awareness, both at the individual vehicle level and the entire theater of operations.

EyeQ Land can be integrated with fire control and battlefield management systems, further enhancing its effectiveness in combat operations.

EyeQ Land supports automatic optical distance measurements based on the recognized object class.

As a result, EyeQ Land offers not only advanced combat capabilities, but also flexibility and scalability, allowing it to be used effectively in a wide variety of operational scenarios.

EyeQ Vx-M hardware module

The EyeQ Vx-M is a computing module designed for military ground vehicle applications. It supports multiple video sources, both digital and analog.

The module can be used to process real-time video from optical sighting devices, or be integrated into the vehicle's surround view camera solutions.

Parameter	Value
Dimensions [mm]	210 x 296 x 92
Weight [g]	4750
Supply voltage	18-32 VDC (nominal voltage - 28 VDC)
Input/Output	
	4x GBEE, UART Serial, 2x CAN, 1x USB 3.1, 2x USB 2.0, Optional: composite input PAL/[NTSC] 8 channels, input SDI:SD/HD, output HDMI
Housing	IP67 class
Environmental standards	MIL-STD-1275/704, MIL-STD-810, MIL-STD-461
Cooling	Passive

07

User-facing application

Complementing the EyeQ Land system is a user-facing application.

- Possible integration with the Fire Control System (FCS): Ability to send detected target data, including identification and location, to the FCS.
- Integration with battlefield management systems, e.g. TOPAZ. Ability to send data, including locations, to other systems.
- Image Visualization: Displaying video streams with overlaid real-time detections.
- Multistreaming: The capability to display more than one video stream simultaneously.
- Map with detections: Automatic plotting of detections on the map view in accordance with NATO APP-6A standard.
- List of Objects: Register of identified objects with time of detection and location.
- Time Control: Scrolling through video streams and maps in real-time, with the option to rewind to a specific moment.
- Advanced Filtering: Browsing and sorting the list of detected objects by detection threshold, object class, type, or group.
- Detections Customization.

08

User-facing application, visible detections: spg - self-propelled howitzer, armored vehicle, human, truck

Types of recognized objects

The EyeQ Land system offers a hierarchy of classes, ranging from general categories to more specialized ones, distributed across multiple levels. Thus, the functionality of the system can be tailored to specific operational requirements.

Recognized classes of objects: armored vehicle, mbt – main battle tank, apc - armored personnel carrier, ballistic missile launcher, radar, truck, car, human and many others.

WB ELECTRONICS S.A. – WB Group Headquarters
ul. Poznańska 129/133
05-850 Ożarów Mazowiecki

t: +48 22 731 25 00
f: +48 22 731 25 01

e: info@wb.com.pl

Artificial Intelligence Department
t: +48 22 731 51 65
e: info_ai@wb.com.pl