Dear Customers,
Dear Partners,

Opticoelectron Group JSCo has more than 45 years long experience in production of optomechanical and optoelectronic devices and systems for military purposes.

Our focus has always been on providing you with high-quality products and solutions, and we work hard to ensure that our products and services have the features and functionality that best contribute to your success.

As always, customer service is our top priority. We appreciate your loyalty and look forward to serving you even better in the years to come.

Sincerely,

dipl.eng. Ivan Garchev

dipl.eng. Nikodim Kazandzhiev

Executive Managers of Opticoelectron Group JSCo
Opticoelectron Group JSCo is one of the most advanced companies specialized in optomechanical, optoelectronic and laser devices and systems for defence and security, medicine, device-building, machine-building. The company has more than 45 years old history and traditions, and it is considered as a leader of optical devices production in Bulgaria, as well as an international market leader.

It has a closed cycle of production starting from research and development going through production process to marketing, promoting and trading finished products. The company head office and its premises are in the town of Panagyurishte which is 90 km. south-east of capital city Sofia and 80 km. north-west of Plovdiv (the second largest city in Bulgaria). It is located in an Industrial Park of 260 000 sq.m. where 106 000 sq.m. of the total area are production plots.

Over 97% of total production goes on export to EU countries, North America and the Middle East. Opticoelectron Group JSC is ISO 9001, ISO 14001, ISO 18001 and ISO 27001 certified. Our NATO Commercial and Governmental Entity code (NCAGE) is 000DU. Opticoelectron Group JSC has obtained a Certificate for Registry in the field of international relations “NATO-SECRET” and a Certificate for access to operate with state classified information. The company also has a statute of supplier for US Government - DUNS Registration.

Key defence products in our portfolio are as follows: anti-aircraft and ground artillery sights for firing in daytime and in nighttime; day, night and thermal optical sights, SWIR lenses, laser range finders, laser target designators, optical systems for armoured vehicles, video observation and surveillance systems.
Optoelectron Group JSCo has a material and production base for production or integration of stationary surveillance and observation border or field posts.

**STATIONARY POSTS**

- Cooled thermal imaging cameras with an identification range of the human body up to 25 km.

- Non-cooled thermal imaging cameras with a range identification of the human body from 4 to 7 km.

- Daytime color HD/Full HD cameras with 32x magnification
Optoelectron Group JSCo has a material and production base for production or integration of semi-stationary surveillance and observation border or field posts.

SEMI-STATIONARY POSTS

Cooled thermal imaging cameras with an identification range of the human body up to 25 km.

- Uncoated thermal imaging cameras with range of human body identification from 4 to 7 km.

- Daytime color HD/Full HD cameras with 32x increase.
SURVEILLANCE AND OBSERVATION MOBILE SYSTEM

MUSON 12

HIGH EFFECTIVE BORDER PATROL | MILITARY OR STANDARD OFF-ROAD VEHICLE | COMFORT SPACE AND CLIMATE CONTROL | SENSORS FOR 24 HOURS SURVEILLANCE | SECURE COMMUNICATION AND REAL TIME VIDEO TRANSMISSION
SURVEILLANCE AND OBSERVATION MOBILE SYSTEM

MUSON 17

HIGH EFFECTIVE BORDER PATROL | MILITARY OR STANDARD OFF-ROAD VEHICLE | COMFORT SPACE AND CLIMATE CONTROL | SENSORS FOR 24 HOURS SURVEILLANCE | SECURE COMMUNICATION AND REAL TIME VIDEO TRANSMISSION
M-27; PC-1; PO-1

Periscopes

Technical characteristics:
- M-27: 224 x 207 x 70 mm
- PC-1: 160 x 207 x 70 mm
- PO-1: 130 x 230 x 70 mm
- Magnification: 1x
- Periscopcy: 192.5 ± 2 mm
- Angular field of view, horizontal: 114°
- Angular field of view, vertical: 36°
- Clear aperture: 152 x 58 mm
- Eye relief: 40 mm
- Laser protection: Yes
- Operational temperature range: -70°C to +60°C

Description:
Designed for observation of the battlefield, enabling drivers or tank commanders to inspect their situation without leaving the safety of the tank. Various types of periscopes available in different overall sizes with different periscopcy, field of view and aperture. Aluminum casting body and laser safety protection of the optical components.

BRAN

Gunner Passive Night Vision Periscope

Technical characteristics:
- Magnification: 6x
- Field of view: 8°
- Operational distance range:
  - at moonlight: 2700 m
  - at starlight: 1300 m
- Periscopcy: 250 mm

Description:
Provides passive night vision for the Gunner in "T" series tanks (T-55, T-62 etc). BRAN replaces the standard active infrared device without any other required modifications in the vehicle. The upgrading can be accomplished at the maintenance level.

BDIN

Commander Night Vision Device

Technical characteristics:
- Magnification: 5x
- Field of view: 12°
- Operational distance range:
  - at moonlight: 2000 m
  - at starlight: 1000 m
- Periscopcy: 200 mm

Description:
Provides passive night vision for the Commander in "T" series tanks like T-54, T-55, T-62, Infantry Battle Vehicles (BM-1, BM-2) etc. Field observation in daytime, dusk and night at lowlight conditions; Land targets seeking and reconnaissance; Targets and objects distances measuring day and night time; Target designating and fire correction.

TVN-M2

Driver Passive Night Vision Device

Technical characteristics:
- Magnification: 1 ± 0.1
- Field of view: ≥30°
- Resolution: ≥40 lpm
- Periscopcy: 236 mm
- Exit pupil distance: 35 - 250 mm
- Operational distance: ≥200 m
- Power supply: 27 V
- Weight: 6.6 kg
- Laser protection: 1364 nm
- Operational temperature range: -70°C to +60°C

Description:
Provides passive night vision for the Driver in "T" series tanks like T-54, T-55, T-62 etc. Field observation in daytime, dusk and night at low light conditions - 6 x 10^6 Lux.
Technical characteristics:

Type: Quadcopter
Frame: Foldable
Materials: Carbon fiber, Aluminium, ABS plastic

Motors (per piece):
Type: Brushless Outrunner
Thrust: > 2 kg
Propeller size: 38.1 cm
Battery: LiPo 8S - 8000mAh or 10000mAh
Flight time: 30 - 40 min. (depending of battery pack, tested in lab conditions)
Onboard FPV camera: PAL

Main:
Video: 1080p 30fps, 720p 60fps
Pictures: 2304 x 1596, 1920 x 1080, 1280 x 720

Parallel FPV and recording
2 axis stabilization gimbal (standard)
3 axis stabilization gimbal (brushless motors) (optional)

Thermal camera: 9 mm, 13 mm or 25 mm

Payload:
Payload weight 1+ kg
Flight Controller:
- 3 axis Gyroscope
- 3 axis Accelerometer
- 3 axis Magnetometer
- GPS
- Battery monitor
- Manual and Automatic missions control
- Lights (optional):
  - front LED projectors
  - front direction light - green
  - back direction light - red

Velocity:
~ 50 km/h (up to 100 km/h peak values)
Altitude:
max 300 m, according civil regulation
Flying up to 2 500 m above sea level
Weight:
~ 5 kg
Weather conditions:
rain
snow
wind - 10 m/s stable (36 km/h)

Ranges:
- Manual control - 15 km (up to ~ 30 km)
- Ground station control - 7 km (up to ~ 15 km)
- Video transmission ~ 3 - 10 km (with direct line transmitter and emitter)

OPTICOELECTRON`S SECURITY SYSTEMS

Opticoelectron Group JSC offers a broad range of security systems, developed according to your specific needs, requirements and allocated budget. Our company not only provides you with complex services and optimal solutions, but we also let our clients to purchase the desired equipment and to perform installation themselves. In this case you can rely on our consulting team help and support.

Opticoelectron Group JSC offers:
- Video observation, video guard and video surveillance systems;
- Video Intercom systems;
- Access control systems enabling the working hours to be marked;
- Integrated systems for hotel applications;
- Satellite and cable TV systems;
- Structure cable systems;
- Active net equipment and telephone stations;
- Hand held and frame metal detectors;
- GPS systems;
- Complete service by advanced technologies and complete solutions;
- Solutions that optimize the ratio between expenses and benefits, and bringing the maximum investments return for our clients;
- Control of working process as whole and as individual production operations in order to be eliminated defects, irregularities and shortages;
- Video surveillance from your office, home and every place around the world.