

GCU-OSD10

Camera optics detector



GCU-OSD10 is designed for search and visualization the place of portable systems of secret observation (SOS - Secret Observation System), camouflaged in the various items, clothing, working or disconnected compact cameras under different lighting conditions at distances up to maximum **750 m.** (depending on weather condition).

Basic operation principle is "cat's eye" effect (light-reflecting effect) lying in ability of optical objects to reflect probing radiation in opposite direction with angle close to its incidence angle. Semi-conducting laser IR diode (transmitting channel) serves as the source of probing radiation. The reflected signal is registered by sensitive video camera on the basis of interleave transfer sensor (reception channel). The Device is developed on non-parallax optical scheme, i.e. with optical alignment of reception and transmitting channels.



Transmitting channel generates laser beam in the form of vertically located rectangular raster. Ability of illuminating raster can be changed if necessary, depending on distance to surveillance object, for reception of the best image contrast. Image focusing on sharpness is carried out by adjustment of video camera objective.

Visualization of surveillance objects is carried out through built in pseudo-binocular. In order to receive better images, the body of the Device is equipped with fastening and connection for external 5"LCD-monitor (delivered on request of the Customer), and with external CCIR standard video signal socket for connection with external monitor, video recorder or computer (with video capture card).

GCU-OSD10

Camera optics detector

GCU-OSD10 Delivery set includes:

1. GCU-OSD10 device;
2. Video cable;
3. Optionally LCD-monitor (with attachment bracket);
4. Charging unit;
5. AC/DC converter;
6. Rechargeable battery;
7. Protective packing. Plastic case with foam-rubber pad.

Technical Characteristics:

Characteristics of radiation receiver

Type of receiver	1/2", CCD
Size of receiver	752x582 pixel

Lens of detector

Focal distance	75 mm
Angle of the field of vision (FOV)	5° x 3.8°
Focusing range	2 m ... ∞

Action range

Detection range of watching and detection facilities Actual effective detection range depends on weather conditions.	from 2 meters up to 750 m
---	------------------------------

Ocular and built-in display

Turning range of ocular	±4 dioptries
Display: - type and display resolution	AMLCD 0,44", 640x480 pixel

Illumination

Type of built-in light source	laser
Wavelength	808 nm
Angle of highlight area	1°x3°

Functional capabilities

- pulse laser illumination;
- laser beam power adjustment;
- battery level indicator;
- device switch-off automatically when battery discharges;

GCU-OSD10

Camera optics detector

Interface

Video PAL, LEMO connector

Self-contained power supply:

- Type of power supply
- Voltage of power supply 4 x Li-Ion 18650

Power supply:
- mains adapter 12 V

Operating continuous time under the normal climatic conditions. no less than 3 hours

Physical characteristics

Weight, with power sources 1,5 kg

Overall sizes 217x144x75 mm

Degree of protection IP65 (on request)

Operating conditions

Operating temperature range -10°C ... +40°C