

vMSIS3-CSD-C330-T



vMSIS3-CSD-C330-T Vlatacom Multisensor Electro-Optical System

Product Description

The vMSIS3-CSD-C330-T is a multisensor electro-optical system designed for surveillance and reconnaissance applications. vMSIS3-CSD-C330-T comprises several different and complementary sensors that simultaneously observe interest zone and perform acquisition of objects during day, night and adverse weather conditions. The task of vMSIS3-CSD-C330-T is to collect data and perform detection, recognition, identification and optional geolocation and tracking of objects of interest.

The vMSIS3-CSD-C330-T comprises color low light camera, MWIR thermal imager, laser rangefinder, GPS receiver, digital magnetic compass, and high performance pan tilt positioner.

The vMSIS3-CSD-C330-T is installed either on telescopic mast that enables sensor positioning on required height above the vehicle, or at fixed tower.

For command and control of vMSIS3-CSD-C330-T system operator console is used with implemented software, which enables control from the vehicle or remote location.

Key Features

- Surveillance with several different and complementary sensors
- Modular multisensor electro-optical system
- High resolution and high sensitivity color low light camera
- High resolution and high sensitivity MWIR thermal imager camera
- Laser rangefinder
- GPS receiver
- Digital magnetic compass
- High performance sensor positioner with continuous rotation in azimuth plane
- Gyro-stabilization
- Pass-through for signals and power in sensor positioner
- Remote control and command software
- Observed object geolocation
- Optional features: video stabilization, video tracking, motion detection and mapping toolkit

Control and Monitoring

- Remotely/locally controlled and monitored
- Video streams from each imager can be easily monitored

Specifications:

MWIR thermal imager		Color low light imager	
Type:	InSb	Type:	CMOS
Resolution:	640 x 512 pixels	Resolution:	1974 x 1100 pixels
Pixel pitch:	15µm	Pixel pitch:	5µm
Spectral Range:	3.0µm to 5.0µm	Spectral Range:	Visible range
NETD:	<25mK	Minimal illumination:	0.005lx (F1.4, 30 fps, 50IRE, +7dB, color) (Night level 2 - half moon or cloudy full moon equivalent)
Frame rate:	30Hz	Frame rate:	30Hz
Lens zoom:	22x	Lens zoom:	10x
Focal length:	15mm – 330mm	Focal length:	16 mm - 160mm
Field of view:	35.4° - 1.67°		
Pan tilt platform		Laser rangefinder	
Azimuth:	N × 360°	Eye-safe:	Class 1
Elevation:	-25° to +60°	Wavelength:	1.54µm
Azimuth plane motion speed:	0.0057°/sec to 100°/sec	Ranges up to:	10km (for 2.3 x 2.3m target, 30% reflectivity and 23.5km visibility)
Elevation plane motion speed:	0.0057°/sec to 100°/sec	Accuracy:	±5m
Gyrostabilization:	Yes		
Operating Console (optional)		General	
Displays:	1 - 3 depending on choice (ruggedized tablet is default)	Mass:	41kg
Resolution:	Up to full HD (1920 x 1080)	Dimensions:	698mm x 473mm x 481mm
Communication:	Ethernet 100/1000BaseT	Power supply:	24 VDC or 230VAC
		Power consumption:	100W @ 24VDC
		Operating temperature:	-25°C to 55°C
GNSS Receiver		Digital Magnetic Compass	
Supported both GPS and GLONASS GNSS signals		North direction	

Detection, Recognition, and Identification Ranges		
Human		
	Geometrical calculation*	<div style="display: flex; align-items: center;"> <div style="width: 100%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Detection 13.9km </div> <div style="display: flex; align-items: center;"> <div style="width: 80%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Recognition 3.5km </div> <div style="display: flex; align-items: center;"> <div style="width: 40%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Identification 1.8km </div>
	Real world**	<div style="display: flex; align-items: center;"> <div style="width: 80%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Detection 9.1km </div> <div style="display: flex; align-items: center;"> <div style="width: 60%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Recognition 2.5km </div> <div style="display: flex; align-items: center;"> <div style="width: 40%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Identification 1.7km </div>
Vehicle		
	Geometrical calculation*	<div style="display: flex; align-items: center;"> <div style="width: 100%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Detection 33.7km </div> <div style="display: flex; align-items: center;"> <div style="width: 80%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Recognition 8.4km </div> <div style="display: flex; align-items: center;"> <div style="width: 40%; height: 10px; background-color: #0056b3; margin-bottom: 2px;"></div> Identification 4.3km </div>
	Real world**	<div style="display: flex; align-items: center;"> <div style="width: 80%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Detection 13.9km </div> <div style="display: flex; align-items: center;"> <div style="width: 60%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Recognition 5.3km </div> <div style="display: flex; align-items: center;"> <div style="width: 40%; height: 10px; background-color: #008000; margin-bottom: 2px;"></div> Identification 4.2km </div>



(*) Geometrical calculation for system IFOV (pixel size / maximum focal length).
 (**) Calculated with NVThermIP model, according to STANAG 4347: 50% probability at 0.2/km atmospheric attenuation factor and 2K temperature difference.
 Actual range may vary depending on environmental conditions, camera set-up, type of display and user experience.



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