

vMSIS3-CHD-C1200-U



vMSIS3-CHD-C1200-U - Vlatacom Multi Sensor Imaging System 3 - Cooled High Definition

Product Description

The vMSIS3-CHD-C1200-U is a state-of-the-art monitoring and surveillance system that integrates various high definition imaging sensors and provides ultra-long range target detection, recognition, and identification based on highly advanced sensors, optics, and image processing. The system consists of a cooled MWIR high definition thermal imager, a color low light day/night high definition imager, and an optional SWIR imager. Each of them employs ultra-long range optics and a real-time image stabilization system. The vMSIS3-CHD-C1200-U utilizes a pan/tilt platform with gyro-stabilization. The entire system operates in a large temperature range and various climatic conditions. The entire system can be controlled, monitored, and have its parameters adjusted from a remote/local control center or an optional control console.

The cooled thermal imager exposes targets even in total darkness and during atmospheric impairments caused by: rain, snowfall, fog, haze, dust, sandstorm and/or smoke. This makes the system suitable for both land and coastal applications.

The color low light imager provides additional details during day and low-light conditions. The optional SWIR imaging further improves target visualization and tracking in rough weather and atmospheric conditions (e.g. fog and smoke). Optional video stabilization, image enhancement, video-tracking, motion detection algorithms, and mapping toolkit are also available. Additionally, the system can include optional components like an: eye-safe laser rangefinder, a digital magnetic compass, and a GPS.

The system is ready for the installation of Vlatacom's unique remotely controlled optical surface washing system.

Key Features

- Modular multi-sensor high definition imaging system
- Superior cooled MWIR high definition thermal vision equipment
- Ultra-long range color low-light high definition imaging with atmospheric interference reduction
- Crisp high resolution image
- Excellent range performance
- High-performance U-shaped Nx360° gyro stabilized pan-tilt unit
- Unique pan tilt with fluid pass through slip ring
- Ready for installation of remotely controlled optical surfaces washing system (Nx360°)
- Optional SWIR imaging
- Remotely or locally controlled
- Optional control and monitoring console with one or three monitors
- Rugged enclosure
- 24/7/365 operation
- Optional features: video stabilization, image enhancement, video tracking, motion detection algorithms and mapping toolkit



Extreme fog conditions - Left: Visible, Right - SWIR

Specifications:

	MWIR thermal imager		Color low light imager
Array format: Detector type: Resolution: Pixel pitch: Spectral band: NETD: Cooler MTF: Optics: Focal length: F#:	1280 x 1024 pixels XBn (HOT) FPA 1.3 Megapixels 15µm 3.6µm to 4.2µm 20mK@50% well fill capacity (mean) 20,000 hours Motorized continuous zoom lens 55mm - 1200mm 4.7	Array format: Detector type: Resolution: Pixel size: Sensor sensitivity: Minimal subject illumination: Optics: Focal length:	1974 x 1110 pixels Single CMOS / RGB Bayer 2.2 Megapixels 5µm <0.0025lx 0.04 lx (F4, 30 fps, 50IRE, +72db, color) (Night level 2 - half moon or cloudy full moon equivalent) Motorized continuous zoom lens 12mm - 1680mm, with motorized 2.5x extender
	SWIR imager - optional		Laser rangefinder - optional
Array format: Detector type: Resolution: Pixel pitch: Spectral band: Noise (RMS): Optics: Focal length:	640 x 512 pixels InGaAs 2D array 640 x 512 15µm 0.9µm to 1.7µm <195 electrons Low Gain ; <50 electrons High Gain Motorized continuous zoom lens 20mm - 750mm	Range: Wavelength: Range of measurement: Fully Eye-safe:	10 km for target 2.3m x 2.3m 1.54µm 80m to 20,000m Class 1
	Pan tilt platform		General
Azimuth movement range: Elevation movement range: Azimuth speed range: Elevation speed range:	N x 360° +60° to -25° from 0.05°/sec to 100°/sec from 0.05°/sec to 100°/sec	Interface: Power supply/Consumption: Dimensions (WxDxH): Weight: Operational temperature:	Ethernet 100/1000BaseT 24VDC or 230V/900W @ 24VDC 808mm x 780mm x 1210mm Up to 220 kg depending on configuration -25°C to 55°C
	Operating console (optional)		Optical surfaces cleaning system (optional)
Displays: Resolution:	1 - 3 depending on choice Up to full HD (1920 x 1080)	Operation:	Remotely controlled (on demand or scheduled)

Detection, Recognition, and Identification Ranges		
Human		
	Geometrical calculation*	
	Real world**	
Vehicle		
	Geometrical calculation*	
	Real world**	

(*) 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.



Address:
Vlatacom institute d.o.o.
Milutina Milankovića 5
11070 Belgrade, Serbia

tel: +381 11 377 11 00
fax: +381 11 377 11 99
marketing@vlatacom.com
www.vlatacom.com