

Caiet de sarcini sisteme portabile de termoviziune

1 Item number	2 Quantity	3 Required specifications / Item description	4 Proposed specifications (including notes, comments, documentation ref.(s) if any)
Title Item: Portable observation systems			
1	2 sets	The Portable Surveillance System (hereinafter – System) has to provide remote monitoring of protected boundaries (sections, objects) and transmit signals about the fact and location of the boundary being crossed by an intruder in remote areas of the terrain.	
		I. Positioner platform for camera	
		Parameter	Requirement
		Load capacity / Torque	Not less than > 6 kg
		System Weight (PT+Camera)	Less than < 11 kg
		Pan axis range / angle	n x 360°
		Pan axis speed	0. 1°/s - 120 °/s
		Tilt axis range / angle	-90° to +90°
		Tilt axis speed	0. 1°/s - 90 °/s
		Accuracy	Not less than > ±0.1°
		Backlash	None
		Operating voltage	24 VDC
		Maximum power	Not more than < 50 W
		Communication to the unit	RS-485
		Control protocol	PT protocol
		Protection / IP rating	Not less than < IP 66
		Operating temperature	-32°C to +55°C
		II. Camera	
		Parameter	Requirement
		Thermal and VIS channel:	
		Thermal Detector	VOx LWIR FPA
		Thermal Resolution	640 x 512
		Thermal Detector pitch	17 μm
		Thermal Spectral range	8 to 14 μm
		Thermal NETD	≤ 50mK
		Thermal Focal length	Zoom: 26mm – 105mm

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		Thermal Field of View	Zoom: 25.3°(H)X18°(V)- 5.9°(H)x4.5°(V)	
		VIS resolution	FHD	
		VIS Focal length	4.3 – 129mm	
		VIS Field of View	63.7° (H) – 2.3° (H)	
		Focus	Motorised	
		Video capabilities:		
		Frame rate	25 / 30Hz	
		Display	12.1" Class XGA Touchscreen Portable monitor	
		Image processing	<u>Thermal camera:</u> Digital Detail Enhancement Digital zoom Non uniformity correction White Hot / Black Hot DRC Auto Focus Digital Noise Reduction <u>VIS camera:</u> Digital zoom Image stabilizer Defog IR cut Auto Focus Backlight on/off Wiper on/off	

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		Digital Zoom	4x	
		Storage, Interfaces, power and other requirements:		
		Internal Recording Format	MP4	
		Capacity	> 5 days continuous recording	
		Power input	1. 12V from car lighter 2. Battery pack	
		Video output	H264	
		Communication	USB (Video and Photo download)	
		Battery	Rechargeable Li-ion battery pack suitable for 2 hours of operation *Autonomous operation from a vehicle	
		Charging	Via supplied 12Vdc charger	
		Battery autonomy	≥2h (room temperature)	
		Operating temperature range	-32°C to +55°C	
		Storage temperature range	-50°C to +70°C	
		Humidity	≤90%	
		IP rating	IP66, built according to MIL-810	
		Camera Dimensions	424mm (l), 264mm (h), 265mm (d)	
		Camera Weight	≤11 kg	
		Detection, recognition and identification (thermal channel):		
		DRI – NATO (VEHICLE) TARGET (2.3m x 2.3m):		
		Detection	Min. 7.16 km	
		Recognition	Min. 2.36 km	
		Identification	Min. 1.18 km	
		DRI – HUMAN TARGET (1.8m x 0.5m):		
		Detection	Min. 3.20 km	

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		Recognition	Min. 1.07 km	
		Identification	Min. 0.54 km	
		III. JUNCTION BOX		
		Parameter	Requirement	Compliance
		Weight	Not more than > 7 kg	
		Dimensions (H x W x L)	Not more than > 560x350x170mm (with connectors and cooling fins)	
		Operating voltage	24 VDC	
		Protection / IP rating	Not less than < IP 66	
		Operating temperature	-32°C to +55°C	
		IV. CONTROL DEVICE:		
		Joystick functions	Pan, tilt, zoom, camera switch, recording, snapshot, PT speed	
		V. SYSTEM COMPUTER & DISPLAY:		
		Parameter	Requirement	Compliance
		Operating system	At least Windows 11 Pro	
		Processor	At least 12th Generation Intel® Core™ i3	
		Display resolution	XGA (1024 x 768) Native Resolution	
		Display	Capacitive multi-touch screen	
		Display	Portable, easy car front window installation	
		Display weight	1.5 kg	
		Memory	At least 8 GB DDR4	
		Storage	At least 256 GB	
		VI. BATTERY		
		Parameter	Requirement	Compliance
		Weight	Not more than < 6 kg	

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		Dimensions	Not more than < 230x200x90 mm	
		Nominal voltage	48-50V	
		Capacity	Not less than > 23.1 Ah	
		Protection / IP rating	Not less than < IP 66	
		Operating temperature	-32°C to +55°C	
		VII. TRIPOD – Carbon fiber tripod with quick lock system		
		Compliance	Parameter	Requirement
		Weight	Not more than < 2,5 kg	
		Nested / Extended Height	0,71 m / 2,02 m	
		Quick lock system for positioner		
		Load capacity	25 kg	
		Leg sections	4 sections	
		Leg lock type	Twist Lock	
		Operating temperature	-32°C to +70°C	
		Material	Carbon fibre/ Aluminum alloy	
		CABLES		
		Connectors	Military standard connectors on cables	
		VIII. Magnetic holder		
		Compliance	Parameter	Requirement
		Magnetic holder requirements	<ul style="list-style-type: none"> • Payload capacity at least 15 kg • Quick lock mounting system for positioners and handheld camera • Magnet holder for vehicle roof 	
		IX. Other requirements		
		System components	Manufacturers will not use any Chinese components	
		MAF authorization from the manufacturer for this tender;	MAF authorization from the manufacturer for this tender, including Maintenance and Support authorization for the warranty period requested;	

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		ISO 9001 certificate of the manufacturer	ISO 9001 certificate of the manufacturer	
		ISO 9001 certificate of the offeror	ISO 9001 certificate of the offeror	
		Warranty period:	≥ 24 months	
		Operator training:	min.16 persons	
		Maintenance and Support:	at least 24 months	