



Electronic Sentinel (Multi-Light) EOS-DMS10 without gyro stabilization

Product introduction:

EOS-DMS10 electronic sentinel products are based on the latest sixth-generation uncooled infrared technology, high-definition visible light imaging technology, AI intelligent analysis technology, laser lighting/ranging technology, acousto-optic rejection technology, wireless transmission technology, and power consumption control technology. , according to the design principles of intelligence, high energy, light weight, modularization, and military productization, it is an intelligent surveillance camera that integrates day and night monitoring, intelligent analysis, and active defense. It has the characteristics of wide application, flexible deployment, unattended operation, high degree of intelligence and strong environmental adaptability.

The product replaces the human eye with infrared thermal imaging cameras and laser cameras, replaces the human brain with intelligent algorithms and deep learning, and uses sound and light to prevent real-time countermeasures. It integrates detection, analysis, and rejection, completely subverting the traditional air defense technology. Anti mode.

The infrared thermal imaging camera module adopts a high-sensitivity $640 \times 512 / 384 \times 288$ resolution $12\mu\text{m}$ ultra-fine resolution uncooled focal plane imaging detector and a miniaturized infrared lens, with advanced digital circuits and image processing algorithms, the image is delicate and smooth; The laser camera adopts full HD color black and white dual-mode low-light CMOS sensor, small high-definition day and night high-definition lens and high-efficiency miniaturized flood laser illuminator; the structure adopts an integrated quasi-spherical design, with continuous 360° horizontal rotation and $\pm 90^\circ$ tilt. Rotation, the volume and weight of the whole machine are greatly reduced, which greatly reduces the construction cost and improves the construction time. The product is embedded with AI intelligent video analysis block module, adopts advanced intelligent image processing algorithm, can well distinguish the behavior of monitoring objects in different environments; the built-in advanced intelligent tracking engine can continuously track moving or stationary objects, and automatically adapt to various complex detection environment. The product setting is simple, the setting of detection areas and alarm rules is convenient and quick, and the learning cost is low, which can greatly reduce human, financial and material resources.

The equipment shell is made of super-strong aluminum alloy with IP67 protection grade; spherical design, strong wind resistance; surface treatment uses PTA three-proof paint, strong corrosion resistance; to ensure long-term equipment in harsh field environments such as sand, strong wind, and salt spray Stable operation.



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Features:

- 1) Full-time, all-weather work: Multi-mode composite detection methods of intelligent thermal imaging, high-definition visible light, and laser night vision are adopted, and the advantages of various methods are complemented to achieve full-time, all-weather, large-scale target fast search and close-range detailed observation.
- 2) Multi-dimensional perception: support image ruler; support optional laser ranging; support access to a variety of sensors;
- 3) Highly intelligent: support hotspot, fireworks alarm, temperature detection; support regional intrusion detection; support vehicle, ship, person detection, classification, identification; support target tracking, screening and filtering; support AR intelligent information fusion linkage;
- 4) Active defense: support tweeter + strobe light to deter/reject illegal personnel;
- 5) Pitch: $-90^{\circ} \sim +90^{\circ}$, horizontal 360° continuous rotation, full coverage of 720° three-dimensional space;
- 6) Horizontal: $0.01^{\circ}/s \sim 100^{\circ}/s$; Pitch: $0.01^{\circ}/s \sim 80^{\circ}/s$, high-speed start and stop, adaptive focal length and speed, accurate target positioning;
- 7) Self-diagnosis and self-recovery: It supports full-life management, fault self-checking, front-end storage, resuming transmission after disconnection, memory after power failure, and remote restart/upgrade, which greatly improves the user experience and reduces the cost of use;
- 8) Lightweight IoT design: the weight of the whole machine is $\leq 10\text{kg}$, easy to install and maintain, and optional 4G/5G transmission and photovoltaic integrated station can greatly improve the construction time, reduce construction costs, and achieve rapid deployment;
- 9) Military-grade micro-turntable technology, the whole machine adopts super-strong aluminum alloy material, quasi-spherical turntable technology, strong wind resistance, IP67 protection, rain-proof, dust-proof, and can adapt to various harsh environments.



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I High level of intelligence: Supports the detection of intruders, motion detection and other abnormal behaviors; supports target detection and classification; supports alarms for sensitive areas; radar connectivity; 3D zoom positioning and other functions, thereby significantly improving the system’s level of systematization, automation and computerization;

I Self-diagnosis and self-repair: Supports full lifecycle management, fault self-diagnosis, front-end storage, resumption after network interruptions, storage during power failures, as well as remote restart and upgrades, significantly improving the user experience and reducing operating costs

I High environmental adaptability: high-strength aluminum alloy, dual ‘triple protection’ technology inside and out, IP67 rating, rain, dust and corrosion protection, protection against electromagnetic interference, long-term use in harsh maritime environments.

Model name	DMS10-6300	DMS10-4300
Detection distance	6500m for cars, 2500m for people Fire Detection 3000m (@2 × 2m)	
Identify the distance	1800m for cars and 800m for people	
Thermal imaging	<ol style="list-style-type: none"> 1. Detector: the sixth-generation uncooled focal plane array VOX detector 2. Wavelength: 8-14 μm 3. NETD: 40MK (@25 ° C F1.0) 4. Lens: 75mm 5. Image Enhancement: SDE Digital Image Enhancement Technology, enhance image details, support 255 levels of thermal image enhancement adjustment 6. Pseudo-colour polarity: 16 pseudo-colour images, hot black/white two polarity 7. Image parameters: AGC automatic gain control, brightness, contrast 8. Electronic scaling: 1.0-8.0 × continuous scaling (step size 0.1) , support global hawk-eye map 9. Range ruler: Support Range ruler 10. Bad Spot Correction: support bad spot correction function 11. Image Correction: supports manual correction, background correction, automatic correction interval, adjustable Gamma correction parameters 12. Strong Light Protection: supports protection against Sun Damage 	



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Thermal imaging	13. Non-uniformity correction: automatic/manual	
	14. Temperature measurement function: support the highest temperature, lowest temperature measurement and cross mark of the whole thermal image	
	15. Resolution: 640 × 512	17. Resolution: 384 × 288
	16. Field of view: 5.9 ° × 4.7 °	18. Field of view: 5.0 ° × 3.7 °
Visible Light	<p>1. Sensor type: back-lit ultra-low-illumination star-level CMOS</p> <p>2. Minimum illumination: colour: 0.0005 lux; black and white: 0.0001 lux; 0lux (IRON)</p> <p>3. Lens: 7mm-330mm 47X Optical, 16X Digital</p> <p>4. Image Processing: support white balance, electronic shutter, frame accumulation, backlight compensation, strong light suppression, 2D/3D digital noise reduction, electronic anti-shake, wide dynamic, heat wave drift suppression</p> <p>5. Diurnal light: 0.4-0.75 μm visible spectrum window and 0.8-0.95 um near-infrared spectrum window day and night independent double light window, improve the signal-to-noise ratio of imaging light and stray light</p> <p>6. Support electronic fog transmission, optical fog transmission</p>	
Laser lighting	<p>1. Laser type: new infrared GHT-III high-definition floodlight source, no speckle particles</p> <p>2. Lighting Angle: 2.1 ° ~ 70 °, DSS digital stepping lighting angle control technology, 0.1 ° precision servo control</p> <p>3. Range: 500-3000 meters</p>	
Video and audio	<p>1. Thermal image resolution: 1920 × 1080; 1280 × 1024; 1280 × 960; 1024 × 768; 1280 × 720; 704 × 576; 640 × 512; 640 × 480; 400 × 300; 384 × 288; 352 × 288; 352 × 240</p> <p>2. Visible light resolution: 1920 × 1080; 1280 × 1024; 1280 × 960; 1024 × 768; 1280 × 720; 704 × 576; 640 × 512; 640 × 480; 400 × 300; 384 × 288; 352 × 288; 352 × 240; 2592 × 1520; 2560 × 1440;</p> <p>3. Video Coding: H. 265/h. 264/MJPEG, supports multiple streams</p> <p>4. Video rate: 32kbps ~ 16Mbps</p> <p>5. Audio Coding: G. 711A/G. 711U/G726</p> <p>6. Image Flip: left/right/up/down/diagonal</p>	



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	<p>7. OSD settings: Support Channel name, time, cloud position, field of view angle, focal length OSD display settings, support preset bit name settings</p>
<p>Intelligent function</p>	<p>1. Fire Detection Alarm: Threshold Level 255, target size, target number 1 -16 can be set, automatically select the most prominent target display, hot spot tracking</p> <p>2. Intelligent Analysis: support for intrusion detection, cross-border detection, entry/exit zone detection, movement detection, loitering detection, people gathering, rapid movement, target tracking, item legacy, item retrieval; Human/vehicle target detection, face detection, Ship and boat detection, support for 16 regions; support for intrusion detection, vehicle filtering function, support for target temperature filtering function</p> <p>3. Automatic tracking: support single scene tracking/support multi-scene tracking/support panoramic tracking/support alarm linkage tracking</p> <p>4. Intelligent Information Fusion: support for 512 AR intelligent information fusion, Fire Point, intelligent analysis video identification information fusion, support azimuth angle, field of view, focus, multiple information fusion</p> <p>5. Image Fusion: support 18 dual-light fusion mode, support picture-in-picture function</p> <p>6. Roi (region of interest coding) : support, a maximum of 8 ROI region, image quality adjustable</p> <p>7. Privacy Occlude: Support Mosaic Privacy occlude and solid colour privacy occlude, can set 16 presets plus 1 default scene, each preset can set up to 8 occlude area</p>
<p>Intelligent function</p>	<p>8. Alarm management: Support Alarm capture upload</p> <p>9. Advanced intelligence: hotspot detection, fire detection, temperature monitoring; intrusion detection; recognition of vehicles, boats and people; target tracking and filtering; intelligent AR information fusion.</p> <p>Active defence: loudspeaker + flashing lights to deter intruders.</p>
<p>Enhancements</p>	<p>1. Ranging: support passive ranging; support optional laser ranging</p> <p>2. Front-end storage: support optional SD card</p> <p>3. Support Sound and Light Alarm: device internal integration Tweeter + Flash, support alarm voice custom</p> <p>4. Support alarm linkage firefighting device and ship recognition</p> <p>5. Camera diagnosis function: support network alarm, support IP conflict alarm, support illegal access alarm (illegal access times, lock time can be set), support SD</p>



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	<p>card abnormal alarm (SD space is insufficient, SD card error, no SD card), video occlusion alarm, anti-sun damage (support threshold, occlusion time can be set)</p> <p>6. Life-cycle management: Health Index record function, support working time, shutter times, working temperature, limit temperature, zoom lens and head motor working time, etc.</p> <p>7. Support for continuous transmission off-line</p> <p>8. Power-off memory: support can restore the position before power-off, pre-position state, cruise state, line scan state</p> <p>9. Remote Maintenance: with fault query, self-check, remote restart function; online upgrade, remote upgrade</p> <p>10. Keyframe settings: support for 100-level keyframe interval adjustable</p> <p>11. Configuration File: Support Configuration File Import, export function</p> <p>12. Web Access: support WEB full-featured configuration, remote online upgrades</p>
Security control	<p>1. Support illegal access alarm: illegal access times, lock time can be set</p> <p>2. Support three levels of user rights management, administrators, operators, ordinary users</p> <p>3. Security mode: authorized user name and password, support IP whitelist and blacklist, Mac whitelist and blacklist</p> <p>4. User error logon lock</p>
Head structure	<p>1. Rotation Speed: Horizontal: 0.01 °/s -100 °/s; pitch: 0.01 °/s -80 °/s, support focal speed adaptation</p> <p>2. Rotation angle: Horizontal: 360 ° continuous rotation; pitch: -90 ° — + 90 °</p> <p>3. Structural materials: micro-turtable quasi-spherical design, integrated 5-window multi-channel, precision casting high-strength aluminium alloy materials</p> <p>4. Window Glass: infrared/visible light high-efficiency optical glass, clean film coating</p> <p>5. Surface spraying: PTA three anti-corrosion coating, anti-corrosion</p> <p>6. Wiper: Intelligent automatic wiper support</p> <p>7. Defrost: visible light window defrosts</p> <p>8. Preset position cruising: Preset Position 3000, support 16 cruising routes, each can support 256 preset positions</p>

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	<p>9. Watch function: preset position/pattern scan/cruise scan/vertical scan/frame scan/panoramic scan/apple peel scan/horizontal fan scan</p> <p>10. Support for 3D box selection and scaling</p> <p>11. Azimuth information: support Angle Query/real-time return and location; support camera field of view return and location</p> <p>12. Zero-point correction: support north-to-zero remote correction function</p>
Electrical interface	<p>1. Communication and Control: 1 RJ45 Ethernet port; 2 alarm input, 1 alarm output; 1 audio input, 1 RS485 interface</p> <p>2. Protocol: support HTTP, HTTPS, FTP, SMTP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, DHCP network protocols; support ONVIF and GB28181 protocols</p> <p>3. Development Interface: support HP-SDK secondary development</p>
Power consumption	<p>1. Operating Voltage: DC12-36V, with AC220V or battery power adapter</p> <p>2. Rated power consumption: $\leq 40W$</p> <p>3. Peak power: $\leq 60W$</p>
Environmental adaptation	<p>1. Operating Temperature: $-40^{\circ}C \sim 60^{\circ}C$</p> <p>2. Working humidity: $\leq 95\%$</p> <p>3. Protection level: IP67</p> <p>4. Anti-salt spray: at PH 6.5-7.2, continuous spray 96 hours, no change in the surface</p> <p>5. Electromagnetic compatibility: anti-surge 6KV, anti-static 8KV contact/15KV air</p>
Volume weight	<p>1. Weight: $\leq 10kg$</p> <p>2. Size: 312mm \times 200mm \times 296mm (length \times width \times height)</p> <p>3. Installation mode: forward/side/wall/lifting/vehicle/boat/ship/tripod type</p>

