TELEDYNE FLIR

HIGH-PERFORMANCE PAN/TILT MULTI-SENSOR CAMERA

FLIR SAROS™

DM-Series

The FLIR Saros DM-Series introduces eight new VGA and QVGA resolution options to FLIR's multi-sensor security lineup. Capable of capturing video in complete darkness, bright sunlight, and through smoke, dust, or light fog, the Saros DM-Series provides superior perimeter protection in the toughest lighting and environmental conditions. A built-in 4K visible light camera operates alongside the thermal sensor to capture minute details in low light conditions. The Saros DM-Series also integrates with the FLIR United Video Management System (UVMS), as well as other ONVIF-compliant video management systems. This gives users complete control over the all new dual-sensor viewing mode, alarm functions, and fully programmable preset tour.

INDUSTRY-LEADING THERMAL

Superior thermal image quality and a built-in 4K visible camera offer versatile, multi-spectral surveillance

- Delivers market-leading images in tough conditions, including darkness, glaring light, and through obscurants
- Onboard 4K visible light camera with e-zoom and low light capability
- Available 640 × 512 and 320 × 256 thermal resolutions

MULTIPLE LENS OPTIONS

Choose from a wide range of lenses, along with VGA and QVGA sensors, for optimal detection ranges in challenging conditions

- Choose from eight high-performance lenses, ranging from 95° × 72° to 12° × 9° FOV
- Athermalized, focus-free lenses

DESIGNED FOR CYBERSECURITY

Engineered to reduce exposure to remote security attacks

- End-to-end encryption for setup, web, and video streams
- Eliminates the need for port-forwarding
- Configuration lockdown after initial setup for increased tamper prevention

SPECIFICATIONS

Thermal Sensor & Optics

Array Format (NTSC)	320 × 256, 640 × 512
Thermal Sensitivitiy	< 50 mK@ 25°C, F/1.0
Detector Type	Long-life, uncooled VOx microbolometer
Pixel Pitch	12 µm
Thermal Frame Rate	NTSC: 30 Hz PAL: 25 Hz / 8.3 Hz

Optical Characteristics

Model	FOV (H × W)	Focal Length	F#
DM-392	92° × 69°	2.3 mm	F/1.0
DM-350	50° × 38°	4.3 mm	F/1.0
DM-324	24° × 18°	9.1 mm	F/1.0
DM-312	12° × 9°	18 mm	F/1.0
DM-695	95° × 72°	4.9 mm	F/1.0
DM-650	50° × 38°	8.7 mm	F/1.0
DM-624	24° × 18°	18 mm	F/1.0
DM-612	12° × 9°	36 mm	F/1.0

E-Zoom	Continuous E-Zoom to 4x
Spectral Range	7.5 µm to 13.5 µm
Focus Range	Athermalized, Focus-Free

Video

Video Compression	Thermal: One channel of H.264 & M-JPEG Visible: Two independent channels of H.264 & M-JPEG
Streaming Resolution	Thermal: QVGA to VGA Visible: VGA to 4K
Thermal Image Settings	Auto AGC, Dynamic Detail Enhancement (DDE), Brightness, Sharpness, Contrast
Thermal AGC Region of Interest (ROI)	Default, Presets and User definable to insure optimal image quality on subjects of interest
Image Uniformity Optimization	Automatic Flat Field Correction (FFC) - Thermal and Temporal Triggers

System Integration

Ethernet	Yes
Network APIs	FLIR SDK, FLIR CGI, ONVIF Profile S
Digital I/O	Input: Four sets / 5V 10 kΩ pull up Output: Two sets / relay output, 120 mA max at 24 VDC / 24VAC
Audio I/O	Bi-Directional Audio - connection - Terminal block

Network

Supported Protocols	IPV4, HTTP, UPnP, DNS, NTP, RTSP, RTCP, RTP, TCP, UDP, ICMP, IGMP, DHCP, ARP

Pan/Tilt Performance

Pan Angle	Continuous 360°
Tilt Angle	-10° – 190°
Programmable Presets	256

General

Dimensions	Diameter: 207 mm (8.15 in) Height: 300 mm (11.8 in)
Weight	3.8 Kg (8.38 lbs.)
Input Voltage	24VAC, Universal PoE Injector
Power Consumption	24 VAC, 2.36 A, 57 VA 55 VDC (PoE), 0.62 A, 34 W

Environmental

IP Rating (Dust & Water Ingress)	IP66
Operating Temperature Range	-40°C to 55°C (-40°F to 131°F)
Storage Temperature Range	-40°C to 85°C (-40°F to 185°F)
Humidity	10 – 90%
Shock	IEC 60068-2-27
Vibe	IEC 60068-2-64

Compliance & Certifications

FCC Part 15 (Subpart B, Class A)
CE Marked
RoHS
IP66
ONVIF Profile S
WEEE (Waste Electrical and Electronic Equipment Directive)
IEC 62368

Visible Light 4K Camera

Sensor Type	Full HD 4K 1/1.8"-type Exmor R CMOS
E-Zoom	Continuous E-Zoom to 8x

			Sensitivity
Visible lens 1	Lens FOV	HFOV = 110° VFOV = 59°	Color: 0.25 Lux (@ (f1.6 AGC On, 30 FPS) B/W: 0.10 Lux (@ (f1.6 AGC On, 30 FPS)
	Focal Length	2.8 mm	
	F/#	F 1.6	
	Corresponding Models	DM-392, DM-695, DM-350, DM-650	
Visible lens 2	Lens FOV	HFOV = 55° VFOV = 30°	Color: 0.25 Lux (@ (f1.6 AGC On, 30 FPS) B/W: 0.10 Lux (@ (f1.6 AGC On, 30 FPS)
	Focal Length	6 mm	
	F/#	F 1.6	
	Corresponding Models	DM-324, DM-624	
Visible lens 3	Lens FOV	HFOV = 36° VFOV = 20°	Color: 0.40 Lux (@ (f2.0 AGC On, 30 FPS) B/W: 0.16 Lux (@ (f2.0 AGC On, 30 FPS)
	Focal Length	12 mm	
	F/#	F 2.0	
	Corresponding Models	DM-312, DM-612	

Cyber Security

802.1x
TLS/HTTPS
User authentication
Access control via firewall
User credentials with policy enforcement
Digest authentication

20-0883-SEC-THM-A4

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