INTELLIO



ILO-611-SD-25

Bi-Spectrum
Speed Dome camera

NEO ThermalDuo

Made in Japan / NDAA certified

Camera

	Thermal	Visible
Max Resolution	Sensor is 384×288. Image can be scaled up to 1280×720	2688(H) × 1520(V)
Min Illumination	N/A	Color: 0.001 Lux @(F1.5, AGC ON),
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	1/1.8" CMOS
Pixel Pitch	12 μm	N/A
Spectral Range	8 to 14 μm	N/A
NETD	≤ 40mK	N/A
Shutter Speed	N/A	1/5 to 1/20,000s
Day & Night	N/A	Auto (ICR)

Illuminator

Type	IR
IR wavelength	850 nm
Distance	Up to 300 m (984.25 ft)
Control	Auto / Manual

Lens

	Thermal	Visible
Lens Type	Fixed lens	Motorized zoom lens
Focal Length	25 mm	6.27 to 251 mm, 40x optical zoom
Max. Aperture	F1.0	F1.5 to F4.8
Field of View (FOV)	H: 10.1°, V: 7.4°	H: 60.6° to 2.2°, V: 36.6° to 1.25°
Focus Control	Motorized focus	Auto / Manual

PTZ

Pan/Tilt Range	Pan: 0° to 360° endless, Tilt: -10° to 90° (auto-flip)
Pan Speed	Pan: 0.01° to 300°/s, preset speed: 300°/s
Tilt Speed	Tilt: 0.01° to 240°/s, preset speed: 240°/s
Preset Accuracy	≤ 0.2°
Preset	400
Track	6 tracks
Scan	12 scans
Tour	12 tours, up to 32 presets per tour
Intelligent Tracking	Supported (Cold/hot spot tracking, human/vehicle tracking)
Power-Off Memory	Supported
3D Positioning	Supported
PTZ Status Display	Supported
Idle Motion	The time can be set (1-240 minutes), and functions such as preset positions, patrols,

DORI Distance

Detect	95.1 to 3,514 m (312.01 to 11,528.87 ft)
Observe	38.1 to 1,405.9 m (125.00 to 4,612.53 ft)
Recognize	19.1 to 702.9 m (62.66 to 2,306.10 ft)
Identify	9.6 to 351.4 m (31.50 to 1,152.89 ft)

Thermal DRI Distance

Thermal Lens	25 mm
Detection (Human: 1.8×0.5 m)	1,041 m (3,415.35 ft)
Detection (Vehicle: 4×1.5 m)	3,193 m (10,475.72 ft)
Recognition (Human: 1.8×0.5 m)	259.9 m (852.69 ft)
Recognition (Vehicle: 4×1.5 m)	798 m (2,618.11 ft)
Identification (Human: 1.8×0.5 m)	129.9 m (426.18 ft)
Identification (Vehicle: 4×1.5 m)	398 m (1,305.77 ft)
Note:	
Distances are calculated based on Johnson's Criteria.	
Detection: Object must be covered by ≥1.5 pixels.	
Recognition: Object must be covered by ≥6 pixels.	
Identification: Object must be covered by ≥12 pixels.	

Thermal Function

Temperature Range	-20°C to 150°C (-4°F to 302°F) or 0°C to 550°C (32°F to 1022°F)
Accuracy	±2°C / ±2%
Temperature Detection	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot,
Temperature Alarm	Temperature difference alarm, Threshold alarm, Temperature rise alarm
Temperature Display	Display in the lower left corner; follow the cursor display of the highest temperature,
Image Fusion	Fusion view of thermal view and overlaid details of the optical channel

Thermal Smart Detection

VCA Detection (Human: 1.8×0.5 m)	169.9 m (557.41 ft)
VCA Detection (Front/Rear of Vehicle: 4×1.5 m)	249.9 m (819.88 ft)
Temperature Measurement (1 ×1 m)	416.9 m (1,367.78 ft)
Temperature Measurement (0.2×0.2 m)	82.9 m (271.98 ft)
Fire Detection (1×1 m)	1,041 m (3,415.35 ft)
Fire Detection (0.2×0.2 m)	207.9 m (682.09 ft)
Note:	
Values are for reference only. Actual detection range may vary with atmospheric conditions, target size, and installation	

Image Settings

	Thermal	Visible
Image Adjustment	Brightness, Contrast, Sharpness	Brightness, Saturation, Contrast, Sharpness
Scene Mode	Mirror	Indoor, Outdoor, Mirror
Pseudo-color Setting	Up to 17 colors (White-hot / Black-hot / Rainbow / Iron red / HSV /Bone / Cool / Copper / Fire-hot / Pink / Spring / Summer / Autumn / Winter / Jet / Flame / Rose -Bengal)	N/A
FFC Control	Auto / Manual	N/A
Exposure Mode	N/A	Auto / Manual
White Balance	N/A	Auto / Tungsten / Fluorescent / Daylight / Shadow / Manual
Day/Night Setting	N/A	Auto / Day / Night / Timer
Noise Reduction	2D/3D DNR	2D/3D DNR
Image Enhancement	N/A	HLC, BLC, Defog, WDR
Wide Dynamic Range	N/A	True WDR 120dB
OSD	Up to 8 OSD	Up to 8 OSD
Privacy Masking	Up to 4 areas	Up to 4 areas

Video & Audio Streams

	Thermal	Visible
Main Stream	1280×720, 704×576, 384×288	2688×1520, 2560×1440, 2304×1296, 1920×1080, 1280×720
Sub Stream	D1, 384×288, 352×240	D1, CIF
Frame Rate	Up to 25fps	Up to 25/30fps
Bit Rate Control	CBR/VBR	CBR/VBR
Bit Rate	Main stream: 100 Kbps to 8 Mbps Sub stream: 100 Kbps to 6 Mbps	Main Stream: 100 Kbps to 16 Mbps Sub Stream: 100 Kbps to 6 Mbps
Smart Encoding	Supported	Supported
Audio Compression	G.711 A-law, G.711 μ-law, RAW_PCM	G.711 A-law, G.711 μ-law, RAW_PCM
Audio Bit Rate	64 Kbps (G.711), 128 Kbps (RAW_PCM)	64 Kbps (G.711), 128 Kbps (RAW_PCM)

Events & Alarms

Alarm Triggers	IVS, Motion detection, Alarm input, Network alarm, Disk alarm, Abnormal sound
Event Actions	Alarm record, Alarm output, FTP upload, SMTP upload, Audible alarm output

Intelligent Analytics

	Thermal	Visible
AI Multi-Target	Supports fullbody and vehicle detection	
Smart Detectors	Intrusion, Smart Motion, Single-Line Crossing, Double-Line Crossing, Loitering, Wrong-Way, Enter Area and Leave Area Supports accurate target classification (fullbody/vehicle)	
Statistical Detectors	People Counting	
Thermal Detectors	Smoking and Fire Spot Detection	Smoke and Flame Detection

Security

OS / Firmware Protect	Encrypted firmware, Signed firmware
User Authentication	Digest authentication, Prevent brute-force attack
Network Authentication	IEEE 802.1X (EAP-TLS)
Secure Communication	HTTPS, WSS (WebSocket Secure), SRTP
Access Control	IP-based access control, Auto logout
Data Protect	Encryption credentials
Audit	Access / System / Event Log management
Secure Storage	SDcard partition encrypt(AES-256), Secure element
Supply Chain Security	SBOM

Network

Protocols	IPv4/IPv6, TCP/UDP, DNS, DHCP, HTTP/HTTPS, DDNS, PPPoE, RTSP/ RTCP/RTP, NTP, ARP, UPnP, FTP, SMTP, QoS, ICMP, IGMP, SMTP, 802.1x, SNMP, Multicast
Application Programming Interface	ONVIF (Profile G/S/T/M), SDK, CGI
Max Concurrent Streams	10 channels
User/Host Level	32+ users, 3 levels: Administrator, Operator, Media user
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge

Interfaces	
Network Interface	1 × Ethernet (10/100 Base-T), RJ-45 connector
Audio Interface	1ch Audio In, 1ch Audio Out
Alarm Interface	7ch Alarm In, 2ch Alarm Out
Control Interface	1ch RS-485
CVBS Output	Supported
SD Card Slot	Built-in MicroSD slot, supports up to 1 TB
General Specifications	
Language	English (default), Hungarian, Japanese, Polish, Italian, Portuguese, Spanish, Russian, Chinese, Traditional Chinese, Korean, French, Czech
Power Supply	24 VAC / 36 VDC / PoE++ (802.3bt), Standard Equipped: 36VDC
Power Consumption	Max 45 W
Operating Temperature	-40°C to 60°C (-40°F to 140°F)
Operating Humidity	0 to 95% RH (non-condensing)
Ingress Protection	IP66
Wiper	Supported
Certifications	CE-EMC - EN 55032, EN IEC 61000-6-4, EN IEC 61000-3-2, EN 61000-3-3, EN 55035, EN 50130-4 CE-LVD - EN IEC 62368-1 FCC 47 CFR Part 15 Subpart B
Material	Metal
Dimensions	φ226.1 × 363.1 mm (φ8.9 × 14.29 inch)
Net Weight	Approx. 6 kg (13.2 lb)
Accessories (optional)	
Junction box	 ILA-107
Pole mount	 ILA-303
Corner mount	 ILA-204
Wall mount	 ILA-201

Dimensions (mm)

