INTELLIO



ILO-611-SD-05/07/15

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), B/W: 0.0005 Lux @(F1.5, AGC ON), 0 Lux with IR 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	5 mm, 7 mm, 15 mm optional	6.27 to 251 mm, 40x optical zoom
Max. Aperture	F1.0	F1.5 to F4.8
Field of View (FOV)	5 mm, H: 55.9°, V: 39.9° 7 mm, H: 44.1°, V: 32.9° 15 mm, H: 21.1°, V: 15.9°	H: 60.8° to 2.23°, V: 36.9° to 1.27°
Focus Control	Free-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, scans, and tracks can be run	

DORI Distance			
Detect	94.9 to 3,513 m (311.35 to 11,525.59 ft)		
Observe	37.9 to 1,405 m (124.34 to 4,609.58 ft)		
Recognize	18.9 to 702 m (62.01 to 2,303.15 ft)		
Identify	9.4 to 351.4 m (30.84 to 1,152.89 ft)		
Thermal DRI Distance			
Thermal Lens	5 mm	7 mm	15 mm
Detection (Human: 1.8×0.5 m)	207.9 m (682.09 ft)	291.9 m (957.68 ft)	624 m (2,047.24 ft)
Detection (Vehicle: 4×1.5 m)	638 m (2,093.18 ft)	893.9 m (2,932.74 ft)	1,916 m (6,286.09 ft)
Recognition (Human: 1.8×0.5 m)	51.9 m (170.28 ft)	72.9 m (239.17 ft)	155.9 m (511.48 ft)
Recognition (Vehicle: 4×1.5 m)	159.9 m (524.61 ft)	223.9 m (734.58 ft)	478 m (1,568.24 ft)
Identification (Human: 1.8×0.5 m)	25.9 m (84.97 ft)	35.9 m (117.78 ft)	77.9 m (255.58 ft)
Identification (Vehicle: 4×1.5 m)	79.9 m (262.14 ft)	111.9 m (367.13 ft)	239.9 m (787.07 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, areas, line)		
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, lowest temperature or average 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)	44.9 m (147.31 ft)	64.9 m (212.93 ft)	109.9 m (360.56 ft)
VCA Detection (Front/Rear of Vehicle: 4×1.5 m)	49.9 m (163.71 ft)	79.9 m (262.14 ft)	139.9 m (458.99 ft)
Temperature Measurement (1 ×1 m)	82.9 m (271.98 ft)	116.9 m (383.53 ft)	249.9 m (819.88 ft)
Temperature Measurement (0.2×0.2 m)	16.9 m (55.45 ft)	22.9 m (75.13 ft)	49.9 m (163.71 ft)
Fire Detection (1×1 m)	207.9 m (682.09 ft)	291.9 m (957.68 ft)	624 m (2,047.24 ft)
Fire Detection (0.2×0.2 m)	41.9 m (137.47 ft)	57.9 m (189.96 ft)	124.9 m (409.78 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 detection
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)

