

Thermal & Optical Bi-spectrum Bullet Camera

GLDTB-A4010/400 4MP/1080P dual camera (Optisk **6mm**/Therm **10mm**) (vare nr. 22660)

GLDTB-A4025/400 4MP/1080P dual camera (Optisk **12mm**/Therm **25mm**) (vare nr. 22661)

GLDTB-A4035/400 4MP/1080P dual camera (Optisk **12mm**/Therm **35mm**) (vare nr. 22662)

Performance series 400x300 Pixel



GUARDEON

THERMAL CAMERA SERIES

3 LEVELS OF PERFORMANCE. ONE CLEAR CHOICE.

ULTIMATE SERIES

640 x 512

HIGHEST RESOLUTION. MAXIMUM DETECTION.

PERFORMANCE SERIES

400 x 300

OPTIMAL BALANCE. RELIABLE PERFORMANCE.

ESSENTIAL SERIES

256 x 196

ESSENTIAL PROTECTION. EXCELLENT VALUE.

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NDA A COMPLIANT

MEETS U.S. GOVERNMENT REQUIREMENTS

Features Performance series

- ✓ **Thermal & optical dual** spectrum image, dual video with single IP address, adaptable to more various scenes
- ✓ CMOS 1/2.7" target surface, high sensitivity sensor, satisfy the need of **Luna** image.
- ✓ Max **4.0MP** 2688x1520@30fps optical
- ✓ Max. **1080P 400x300@30fps** thermal
- ✓ **NDAA & NIS2** compliant
- ✓ Thermal support fire detection, smoking detection and fire shield area
- ✓ Thermal module supports temperature detection and cold & hot spot tracking which highlights the abnormal temperature, and links to alarm
- ✓ Thermal & optical dual smart AI edge intrusion prevention: cross line, enter area, leave area, intrusion each camera lens
- ✓ Optical module supports smog recognition, which can help with fire alarm reconfirm
- ✓ Support picture in picture mode, real time contrast live, more convenient and clearer
- ✓ Support audio and light alarm, with red and blue warning lights built in
- ✓ Ultra 265, H.265, H.264, MJPEG
- ✓ **ONVIF**: S, G, T, M
- ✓ API, SDK
- ✓ Alarm: 3 in and 2 out, Audio: 2 in and 1 out
- ✓ MicroSD, up to 512 GB
- ✓ 5 streams
- ✓ 35 simultaneous streams (multi stream)
- ✓ IP67 Weatherproof
- ✓ **Nema 4X** coating for use in harsh environments (offshore, harbor, extreme weather, chemical, food areas)



Specifications

Channel	Optical	Thermal
Camera		
Sensor	1/2.7" CMOS LUNA	Vanadium oxide uncooled focal plane arrays
Max Resolution	4 MP	1080P
Original Resolution	N/A	400 × 300 pixel
Min. Illumination	Color: 0.005 lux (F1.6, AGC ON) B/W: 0.003 lux (F1.6, AGC ON) 0 lux with IR light	N/A
Day/Night	IR-cut filter with auto switch (ICR)	N/A
Original Resolution-Thermal	N/A	400x300 pixel
Pixel Size	N/A	12 μm
NETD	N/A	< 30 mk @ F1.0 @ 25 °C
Shutter	Auto/Manual, 1 to 1/100000 s	
WDR	120 dB	
S/N	>56 dB	
Case Type	Bullet	

Optical Lens	Thermal lens					
Focal Length	6 mm	12 mm	12 mm	10 mm	25 mm	35mm
Iris	F1.6	F1.6	F1.6	F1.0	F1.0	F1.0
Field of View (H)	49.4°	24.5°	24.5°	30.0°	10.9°	7.7°
Field of View (V)	27.2°	13.9°	13.9°	22.9°	8.3°	5.8°
Field of View (D)	60.5°	30.1°	30.1°	36.9°	13.4°	9.1°
DORI OPTICAL						
DORI Distance (Detect)	135 m	270 m	270 m	See: DRI Description for Thermal		
DORI Distance (Observe)	54 m	108 m	108 m	N/A		
DORI Distance (Recognize)	27 m	54 m	54 m	See: DRI Description for Thermal		
DORI Distance (Identify)	13.5 m	27 m	27 m	See: DRI Description for Thermal		

DORI Description for optical

Detection, Observation Recognition, and Identification distances.

WHAT IS DORI & HOW TO USE IT IN CCTV

In the world of CCTV, **DORI** stands for **D**etection, **O**bservation, **R**ecognition and **I**dentification.



DETECTION -
The detection level allows for reliable and easy determination of whether a person or vehicle is present.



OBSERVATION -
The observation level gives characteristic details of an individual, such as distinctive clothing, while allowing a view of activity surrounding an incident.



RECOGNITION -
The recognition level determines with a high degree of certainty whether an individual shown is the same as someone that has been seen before.



IDENTIFICATION -
The identification level enables the identity of an individual beyond a reasonable doubt.



DETECTION | Person detected
Presence confirmed



OBSERVATION | Details visible
Clothing, activity, surroundings



RECOGNITION | Individual recognizable
Can be matched to a known person



IDENTIFICATION | Identity confirmed
Beyond reasonable doubt


DRI Description for Thermal

Detection, Recognition, and Identification distances according to Johnson's Criteria.

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DRI WITH THERMAL CAMERA

BASED ON JOHNSONS DRI METHOD



JOHNSONS DRI EXPLAINED

Johnsons DRI is a widely accepted methodology for defining performance levels for thermal imaging systems.

D – DETECTION

The ability to detect the presence of a target (person or object).


R – RECOGNITION

The ability to determine the class of the target.

I – IDENTIFICATION

The ability to identify the target with a high degree of certainty.


D DETECTION
1.5 pixels / meter



400 x 300 PIXEL

- Detects the presence of a person or vehicle.
- No details, only a heat signature.
- Used for wide area surveillance.


R RECOGNITION
6 pixels / meter



400 x 300 PIXEL

- Determines the type of object.
- Person, vehicle, animal, etc.
- Allows assessment of behavior and activity.

I IDENTIFICATION
12 pixels / meter



400 x 300 PIXEL

- Identifies the individual with high certainty.
- Facial features and unique characteristics visible.
- Used for evidence and forensic purposes.

EXAMPLE WITH
400 x 300 PIXEL
THERMAL CAMERA
(25mm LENS)

DETECTION DISTANCE (D)

1,000 m
1.5 pixels / meter

RECOGNITION DISTANCE (R)

250 m
6 pixels / meter

IDENTIFICATION DISTANCE (I)

120 m
12 pixels / meter

DRI Range Table Thermal Performance series (400x300 pixel)

Thermal Lens	Detection Vehicles: 4.0 x 1.4 m	Detection Humans: 1.8 x 0.5 m	Recognition Vehicles: 4.0 x 1.4 m	Recognition Humans: 1.8 x 0.5 m	Identification Vehicles: 1.4 x 4.0 m	Identification Humans: 1.8 x 0.5 m
10 mm	750 m	370 m	200 m	100 m	130 m	60 m
25 mm	1900 m	950 m	490 m	240 m	330 m	160 m
35 mm	2500 m	1250 m	690 m	340 m	460 m	230 m

Smart Function Table (Thermal) Smart AI

Thermal Lens	SIP Detection Vehicles: 4.0 x 1.4 m	SIP Detection Humans: 1.8 x 0.5 m	Fire Detection target: 0.1x 0.1 m	Smoking target: (cigarette butt)	Temperature target: 0.1m x 0.1m
10 mm	42 meters	21 meters	9 meters	1 meter	3.5 meters
25 mm	60 meters	30 meters	13 meters	2 meters	8 meters
35 mm	140 meters	70 meters	29 meters	5 meters	20 meters

Illuminator		
Wavelength IR	750 nm	N/A
Illumination Distance (IR)	50 meters - 6 and 10mm version 100 meters - 12 mm models	N/A
Light On/Off Control	Auto/Manual	N/A
Video		
Frame Rate	4.0 MP (2688 x 1520), Max 30fps	1080P (400x300), Max 30fps
Video Compression	Ultra 265, H.265, H.264, MJPEG	
Video Bit Rate	128 Kbps to 16 Mbps	
U-code	Support	
ROI	Support	
Video Stream	5 streams	
Simultaneous streams	35	
OSD	Up to 10 OSDs	
Privacy Mask	Up to 8 areas (8 blacks/ 8 mosaics)	N/A
Image		
White Balance	Auto, Outdoor, Fine Tune, Sodium Lamp, Locked, Auto2	N/A
Digital Noise Reduction	2D/3D DNR	
Flip	Normal, Flip Vertical, Flip Horizontal, 180°	
HLC	Support	N/A
BLC	Support	N/A
Defog	Digital Defog	N/A
Palette-Thermal	N/A	white hot, lava, iron oxide red, hot iron, medical, arctic, rainbow 1, rainbow 2, rainbow 3, depict hot, ice hot, black hot, mazarine, fusion, red hot, green hot, color 1, color 2, rain, puce
Low Illumination Characteristics	LUNA	

Intelligent AI edge		
AI Smart Intrusion prevention	Cross line detection, intrusion detection, enter area detection, leave area detection (support false alarm filtering and the classification of human, non-motor vehicle and vehicle)	Cross line detection, intrusion detection, enter area detection, leave area detection (support false alarm filtering and the classification of human and vehicle)
Temperature Range		-20 °C to 150 °C
Temperature Detection-Thermal	N/A	Thermal channel supports rule-based temperature measurements. Supports real-time display of the highest, lowest, and average temperatures in the rule defined area on the screen
Smoking Detection-Thermal	N/A	Thermal channel supports the detection of smoking behavior in the environment
Events		
Fire Detection	N/A	Support
Basic Detection	Motion Detection, Tampering Alarm, Audio Detection	N/A
General Function	Watermark, IP Address Filtering, Access Policy, ARP Protection, RTSP Authentication, User Authentication, HTTP Authentication, Alarm Input, Alarm Output	
Audio		
Audio Compression	G.711U, G.711A	
Audio Bitrate	128 Kbps	
Two-way Audio	Support	
Suppression	Support	
Sampling Rate	16KHZ	
Storage		
Edge Storage	MicroSD, up to 512 GB	
Network Storage	ANR	
Network		
Protocols	IGMP, RTP, SMTP, IPv4, IPv6, ICMP, ARP, TCP, UDP, DHCP, PPPoE, RTSP, RTCP, RTMP, DNS, DDNS, NTP, FTP, UPnP, HTTP, HTTPS, 802.1x, SNMP, QoS, SSL/TLS, SSH	
Compatible Integration	ONVIF (Profile S , Profile G , Profile T , Profile M), API, SDK	
User/Host	Up to 32 users. 3 user levels: administrator, common user and operator	
Web. Client & App & software	APP: GuardEye, GuardTool Software: Guardeon VMS lite, Guardeon IP tool & Guardeon Player	
Web Browser	Plug-in required live view: IE 10+, Chrome 45+, Firefox 52+, Edge 79+	

Interface	
Built-in Mic	Support
Built-in Speaker	Support
Audio I/O	2 inputs: impedance 1 k Ω , amplitude 2.5 V [p-p], 1 output: impedance 600 Ω , amplitude 2 V [p-p]
Alarm I/O	3/2
Serial Port	1 x RS485 interface
Network	1 x RJ45 10 M/100 M Base-TX Ethernet
Video Output	N/A 1 BNC (For debugging)
Certification	
EMC	CE-EMC (EN 55032: 2015+A1:2020, EN 61000-3-3: 2013+A1: 2019, EN IEC 61000-3-2: 2019+A1: 2021, EN 50130-4:2011+A1:2014) FCC (FCC CFR 47 part15 B, ANSI C63.4-2014)
Safety	CE LVD (EN IEC 62368-1:2020+A11:2020) UL (UL 62368-1, 2nd Ed., Issue Date: 2014-12-01)
Environment	CE-RoHS (2011/65/EU;(EU)2015/863); WEEE (2012/19/EU); Reach (Regulation (EC) No 1907/2006)
Protection	IP67 (IEC 60529:1989+AMD1:1999+AMD2:2013) NEMA 4X
General	
Power	DC12V (\pm 25%), PoE (IEEE802.3at)
Power Consumption	Max 22,4 watt
Power Interface	\varnothing 5.5 mm coaxial power plug
Dimensions	406.0 x 130.0 x 130.0 mm (L x W x H)
Weight	2.14 / 2.18 / 2.23 kg
Working Environment	-40 °C to 70 °C, Humidity: \leq 95% RH (non-condensing)
Storage Environment	-40 °C to 70 °C, Humidity: \leq 95% RH (non-condensing)
Surge Protection	6 KV
Reset Button	Support
RTC	Support
Web Client Language	22 Languages: Traditional Chinese, English, Simplified Chinese, Polish, German, Russian, French, Korean, Dutch, Czech, Portuguese (Europe), Portuguese (Brazil), Japanese, Thai, Turkish, Spanish (Latin America), Spanish (Europe), Hungarian, Italian, Vietnamese, Arabic, Slovak

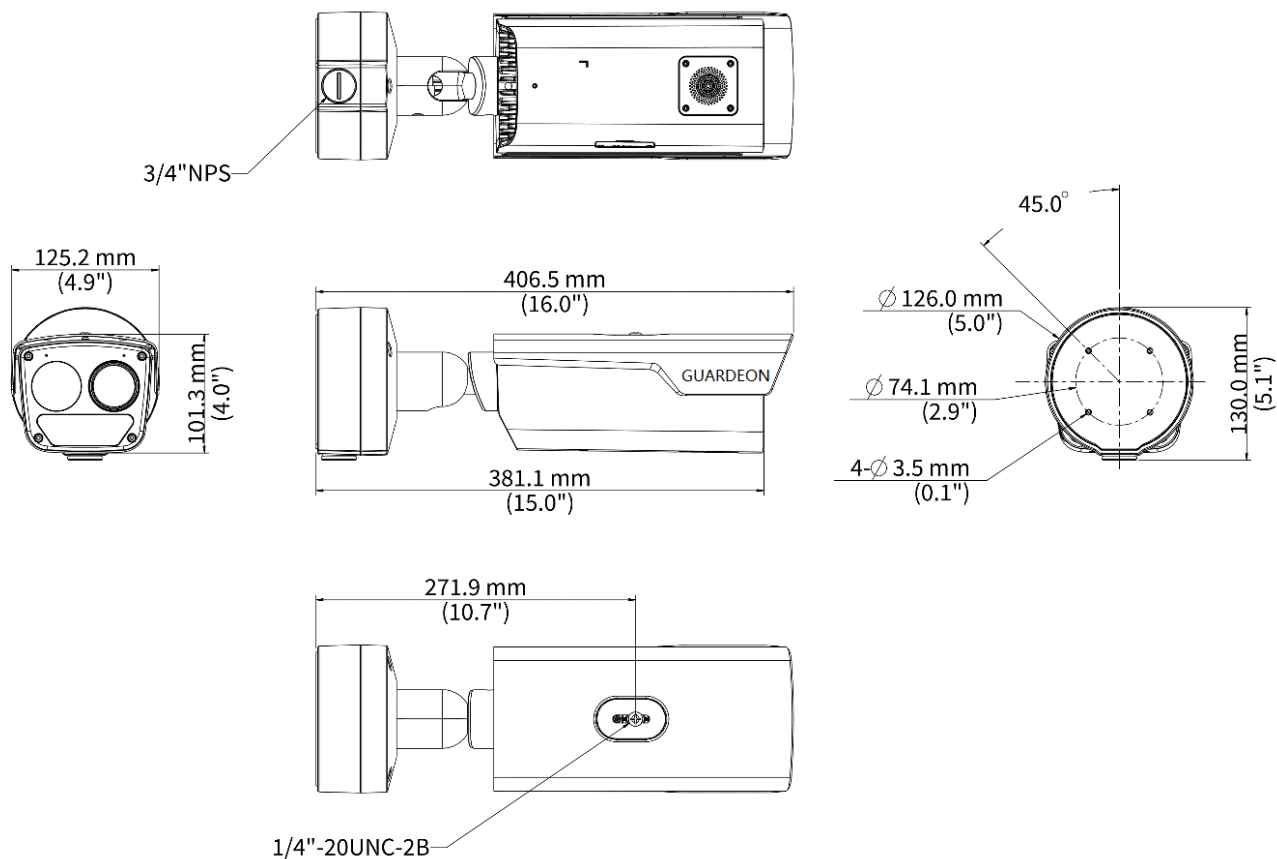
Live View

Maximum Bitstream	35
Maximum Bandwidth	50 Mbps
Plugin Free	Support
OSD Font	Vector
OSD Color	Support
OSD Character Number	40
3D Privacy Mask	N/A



Other

Corridor Mode	Support
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Dimensions



Accessories

GB-137MB polemount	GBD-137HB wall/corner bracket
White alu	White alu
	
Varenr. 22928	Varenr. 22921

* Product specifications and availability are subject to change without notice.

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