Thermal (256x192) 3.6 mm & Optical IP-Camera

GD-TI-AP4503T

Type: Bullet - Thermal Imaging - Camera
Item Code: GD-TI-AP4503T
EAN CODE: 4260573064816

VERSA

The VERSA product line offers comprehensive, advanced solutions with a wide and complete range of features.

Highlights

Object Classification

This technology employs a highly advanced deep learning algorithm that can discern whether the alarm was triggered by a human, a vehicle or some other object.

Deep Learning

Deep Learning is inspired by the complex structure of the human brain. This innovative method allows processing of information and performing corresponding actions based on analysis.

Features

- Reduction of unwanted alarms (false alarms) by classifying target objects using deep learning algorithms. This significantly reduces false alarms generated by objects other than people or vehicles. This makes finding events easier and saves hard drive capacity
- Audio Communication & Alarm Input / Output
- Picture in Picture - Partial image of infrared channel on the full image of optical channel
- Dual Streaming with 1 infrared channel and 1 optical channel
- 0 Lux: Integrated LED IR Illuminator viewable distance up to 30m
- White light flash and audible alarm deterrent function

Bi-Spectral Cameras – Thermal Imaging and Optical in a Single Device

Bi-spectral cameras combine a thermal sensor with an optical IP camera in a single housing. The thermal channel reliably detects persons and objects in complete darkness, smoke, fog or strong backlight – entirely independent of ambient lighting conditions. The optical channel simultaneously delivers high-resolution imagery for visual identification purposes.
Compared to standalone thermal cameras, bi-spectral devices offer a decisive advantage: whilst the thermal sensor ensures reliable detection and reduces false alarms through classification of persons and vehicles, the optical channel enables unambiguous identification – including facial recognition and licence plate capture.
Typical applications include perimeter protection, critical infrastructure, industrial facilities and any outdoor deployment where changing light conditions or adverse environments push purely optical solutions beyond their limits.

Specifications GD-TI-AP4503T

Camera	
Image Sensor:	1/2.7” progressive Scan CMOS
Video Resolution:	2688 × 1520
Sensitivity Colour:	0.0089Lux @ F1.6 (AGC ON)
Shutter Speed:	1 ~ 1/100,000 s
Thermal module	
Thermal Sensor:	Vanadium Oxide Uncooled Focal Plane Array
Resolution (Thermal):	256 x 192
IFOV:	3.33 mrad
NETD:	< 40 mk (@25° C, F=1.0)
Response Waveband:	8 µm to 14 µm
Detector Pitch:	12 µm
Focal Length (IR):	3.6 mm
Viewing Angle (IR):	50° x 37.2° (HxV)
MOD (Min. Object Distance):	0.5 m
Lens	
Lens Focal Length:	4.3 mm
Iris F-Number:	F1.6
Field of View:	84° ~ 44,8° (H x V)
Illuminator	
Max. IR Distance:	Up to 30 m
White Light Distance:	Up to 30 m
White LED:	Alarm/ Off
Video	
Wide Dynamic Range:	120 dB
Day/Night Switch:	Color, BW, Auto
Audio	
Audio Compression:	G722.1/G711ulaw/G711alaw/G726/MP2L2/PCM
General	
Measurement option:	Support 3 temperature measurement rule types, 21 rules (10 points, 10 regions and 1 line)
Object Temperature Range:	- 20°C to 150°C
Accuracy:	± 8°C

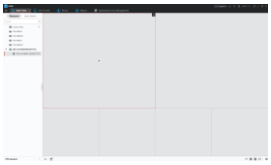
General	
DRI Range:	Detection Range, Vehicles 1.4 m x 4.0 m: 460 m Detection Range, Humans 1.8 m x 0.5 m: 150 m Recognition Range, Vehilces 1.4 m x 4.0 m: 112 m Recognition Range, Humans 1.8 m x 0.5 m: 38 m Identification Range, Vehicles 1.4 m x 4.0 m: 56 m Identification Range, Humans 1.8 m x 0.5 m: 19 m
Smart Function Range:	VCA Range, Vehicles 1.4 m x 4.0 m: 76 m VCA Range, Hu mans 1.8 m x 0.5 m: 29 m Temperature Measurement, Object 1 x 1 m: 58 m Temperature Measurement, Object 0.2 x 0.2 m: 12 m
Accessories included:	Junction box
Frame Rate	
Main Stream:	Thermal: 25 fps (1280 × 720, 704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (2688 × 1520, 1920 × 1080, 1280 × 720) 60 Hz: 30 fps (2688 × 1520, 1920 × 1080, 1280 × 720)
Sub- Stream:	Thermal: 25 fps (704 × 576, 640 × 512, 320 × 240) Optical: 50 Hz: 25 fps (704 × 576, 352 × 288) 60 Hz: 30 fps (704 × 480, 352 × 240)
Network	
Users:	3 Levels: Administrator, Operator and User
Number of Clients:	Up to 20 simultaneously
Video Compression:	H.264, H.265, MJPEG
SD Memory:	Micro SD/SDHC/SDXC card slot with ANR (up to 256G), NAS (Support NFS, SMB/CIFS)
Client software:	C-WERK Viewer, SCMS, IOS App, Android App (SCMS)
Web Browser:	Plug-in required live view: Internet Explorer 11 Non Plug-in live view and service: Chrome 57.0+, Mozilla Firefox 52+
Network Protocol:	TCP/IP, ICMP, HTTP, HTTPS, FTP, DHCP, DNS, DDNS, RTP, RTSP, RTCP, NTP, UPnP, SNMP, SMTP, IGMP, 802.1X, QoS, IPv4/IPv6, UDP, PPPoE
Cyber Security:	3 levels of user management: admin, operator, user, AES Encryption for Password Protection, Complicated Password, HTTPS (SSL) Login Authentication, Basic and digest authentication for HTTP/HTTPS, 802.1X authentication (EAP-TLS), 802.1X authentication (EAP-MD5), Watermark, IP Adress Filter, WSSE and digest authentication for ONVIF, RTP/RTSP over HTTPS, Control timeout settings, Security audit log, SNMP V2 , SNMP V3, TLS 1.1, TLS 1.2, TLS 1.2 with updated cipher suites including AES 256 encryption. Brute Force Delay Protection, Signed Firmware, Secure Boot by software check
I/O Interface	
Video Outputs:	1x CVBS (1 Vcc) BNC
Audio Input/Output:	1-ch audio input and 1-ch audio output
Alarm Input/Output:	2 alarm-inputs, 2 alarm-outputs
Network Interface:	1x 10, 100 Base T, TX PoE+ (RJ-45)
Serial Interface(s):	1x RS-485
Intelligent Functions	
Fire Detection:	Supported
Object Classification:	Detects people, non-motorized vehicles and/or vehicles in full screen or a defined image section
Intrusion Detection:	Enter and loiter in a pre-defined virtual region
Line Crossing:	Cross a pre-defined virtual line
Motion Detection:	Adjustable whether people or motorized vehicles or only movements should be detected. The detection area and sensitivity can also be adjusted.

Intelligent Functions	
Region Entrance:	Enter a pre-defined virtual region from the outside place
Region Exiting:	Exit from a pre-defined virtual region
Sound Alarm:	2 types of audible alarm (VCA and Temperature) 2 preset voice alerts (one for each) 6 importable user-defined voice alerts (6 options shared in the two types)
Sound Alarm:	A siren or freely configurable voice output can be triggered upon an event.
Tamper Protection:	Scene change
Visual Alarm:	White light alarm with adjustable flashing frequencies
Event Source:	Video tampering, network disconnected, IP address conflicted, HDD full, HDD error, illegal login, motion detection
Event Action:	Recording: Pre-event, post-event memory card and/or network storage. Picture upload: FTP, HTTP and NAS. Trigger E-mail notification: HTTP, ISAPI. Audio alarm, white light alarm, alarm output and notification to C-WERK VMS. Events are depending on schedule settings.
Approvals	
Protection Rating:	IP67 (IEC 60529-2013)
Standard:	ONVIF (Profile S, Profile G), SDK/API
Environmental	
Operating Temperature:	-40 °C ~ 65 °C (-40 °F ~ 149 °F)
Humidity:	Less than 95%, non condensing
Electrical	
Surge Protection:	TVS 4000V Lightning Protection, Surge Protection and Voltage Transient Protection
Supply Voltage:	12 VDC, 24 VAC, PoE (IEEE 802.3af)
Power Consumption:	Max. 8.2 W
Mechanical	
Dimensions:	321 × 106 × 107 (12.65 × 4.18 × 4.21 inch)
Weight:	1550 g (3.41 lb)
Packaging	
Package Dimensions:	395 x 195 x 158 mm (15.6 x 7.7 x 6.2 inch)
Package Weight:	1900 g (4.2 lbs)

Accessories

GD-CW-VIEWER

GD-CW-FINDER



GD-SW-SCMS

GD-HW-SD-128GB

GD-HW-SD-256GB

GD-BR-AMC03

GD-BR-AML01

Guarantee

All cameras in the “SMART”, “PRO” and “PREMIUM” product lines have an extended warranty period of 5 years on electronic parts, mechanical wear and tear on moving parts is not included. Please note our general delivery terms and conditions.