

TPC-CA461N-7

Thermal Camera Module



- Vanadium oxide uncooled focal plane detector.
- RJ-45 port (10/100 Base-T); RS-232/485 port, and alarm port (I/O).
- Image optimization algorithms such as FPNC and SFFC, and function settings such as brightness, sharpness, pseudo color, and gain.
- Lenses of multiple focal lengths.
- Heat map exporting.
- Save configuration to record the user's habits.

Scene

It is applicable to industry, agriculture and forestry, medical treatment, transportation, power, fire protection, construction, security and other fields, and realizes night vision observation, heat detection and other functions. This module is mainly applied in assemble scenario of various camera types.

Technical Specification

Thermal

Detector Type	Vanadium oxide uncooled focal plane detector
Effective Pixels	640 (H) × 512 (V)
Pixel Pitch	12 μm
Spectral Range	8 μm–14 μm
Sensitivity (NETD)	≤35 mK (@f/1.0)
Focus Control	7.5 mm
Field of View	H: 54.2°; V: 44.6°
Thermal Focus Control	Fixed-focal
Aperture	F1.0
Digital Detail Enhancement (DDE)	Yes
Thermal AGC	Auto/Manual
Thermal Noise Reduction	2D NR/3D NR
Image Flip	180°; Mirror
Color Palettes	18 (white hot/black hot/fusion/rainbow/golden autumn/midday/iron red/amber/jade/sunset/icefire/painting/pomegranate/emerald /spring/summer/autumn/winter)
Temperature Measurement Range	Low temperature mode: –20 °C (–4 °F) to +150 °C (+302 °F) High temperature mode: 0 °C (+32 °F) to +550 °C (+1022 °F) Auto mode

Temperature Measurement Distance (Max.)	1 m (3.28 ft) (target size 0.1 m × 0.1 m)
Temperature Measurement Distance (Max.)	5 m (16.40 ft) (target size 0.1 m × 0.1 m)
Temperature Measurement Accuracy	Max. (±2 °C, ±2%) Operating temperature: –20 °C (–4 °F) to +50 °C (+122 °F)

Audio and Video

Video Compression	Main stream: H.265; H.264; H.264H; H.264B; Sub stream: H.265; H.264; H.264H; H.264B; MJPEG
Resolution	Main stream: 1280 × 1024 (SXGA); 1280 × 720 (720p); 640 × 512 (640 × 512); 1280 × 1024 (SXGA) (default); Sub stream: 640 × 512 (640 × 512); 320 × 256 (320 × 256); 640 × 512 (640 × 512) (default)
Video Frame Rate	50 Hz: Main stream: 1 fps–25 fps, 25 fps by default; Sub stream: 1 fps–25 fps, 15 fps by default 60 Hz: Main stream: 1 fps–30 fps, 30 fps by default; Sub stream: 1 fps–30 fps, 15 fps by default
Image Encoding Format	JPEG

Function

Network Protocol	HTTP; TCP; ARP; RTSP; RTP; UDP; RTCP; SMTP; FTP; DHCP; DNS; DDNS; IPV4; NTP
Region of Interest (RoI)	Yes (customizable)
Interoperability	ONVIF (supports some basic functions); SDK
Browser	IE: IE8 and later (including the browsers with IE kernel, such as 360 Explorer, Sougou Explorer) Chrome: 42 and earlier Firefox: 42 and earlier
User/Host	Up to 6
Security	Authorized username and password; attached MAC address; encrypted HTTPS; IEEE 802.1x; controlled network access
User Management	Up to 20 users; supports multi-level user permissions (2 levels): management group and user group
Malfunction Detection	Network disconnection detection; IP conflict detection

Intelligence

Heat Detection Yes

Cold/Hot Spot Trace Yes

Port

Network Port 1 × RJ-45 (10/100 Base-T)

Alarm Input 1

Alarm Output 1

RS-485 1

RS-232 1

Power

Power Supply 5–12 VDC

Power Consumption <1.8 W

Environment

Operating Temperature -30 °C to +60 °C (-22 °F to +140 °F)

Operating Humidity ≤95%

Storage Temperature -40 °C to +70 °C (-40 °F to +158 °F)

Physical Characteristics

Protection IP5X

Product Dimensions 44.4 mm × 44.4 mm × 72.9 mm (1.75" × 1.75" × 2.87")
(L × W × H)

Net Weight 187.3 g (0.41 lb)

Dimensions (mm[inch])

