

# HTD2617-PA-3



## FEATURES

Thermal & Optical Network Bullet Camera

- Smart Function (Thermal Imaging)
- Image processing technology: adaptive AGC, DDE, 3D DNR, NETD  $\leq 40$  mk (@25 °C, F# = 1.1)
- Behavior analysis function, based on deep learning algorithm: line crossing, intrusion, region entrance & exit
- Temperature exception alarm
- Fire detection algorithm
- Bi-spectrum image fusion, picture in picture preview
- Strobe light and audio alarm

Thermal Module	
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays
Max Resolution	160x120 (the resolution of the output image is 320x240)
Pixel Interval	17µm
Response Waveband	8 µm to 14 µm
NETD (Noise Equivalent Temperature Distance)	$\leq 40$ mk (@25 °C, F# = 1.1)
Lens (Focal Length)	3.1 mm
IFOV	5.48 mrad
Field of View	50° × 37.2° (H × V)
Min. Focusing Distance	0.2 m
Aperture	F 1.1
Optical Module	

<b>Thermal Module</b>	
Max Image Resolution	2688 × 1520
Image Sensor	1/2.7" Progressive Scan CMOS
Min. Illumination	Color: 0.0089 Lux @(F1.6, AGC ON), B/W: 0.0018 Lux @(F1.6, AGC ON)
Shutter Speed	1 s to 1/100,000 s
Lens (Focal Length)	4 mm
Field of View	84° × 44.8° (H × V)
WDR	120 dB
Day & Night	IR Cut Filter with auto switch
<b>Image Function</b>	
Bi-Spectrum Image Fusion	Fusion view of thermal view and overlaid details of the optical channel
Picture in Picture	Combines details of thermal and optical image PIP, overlay thermal image on optical image
<b>Smart Function</b>	
VCA (Video Content Analysis)	4 VCA rule types (line crossing, intrusion, region entrance, and region exiting), up to 8 VCA rules in total.
Temperature Measurement	3 temperature measurement rule types, 21 rules in total (10 points, 10 areas, and 1 line).
Temperature Range	-20 °C to + 150 °C (-4 °F to + 302°F)
Temperature Accuracy	± 8 °C (± 14.4 °F)
Fire Detection	Dynamic fire point detection, up to 10 fire points detectable. Fire detection for objects (2mx2m) 180m, Fire detection for objects (1mx1m) 90m
<b>Infrared</b>	
IR Distance	Up to 40 m
IR Intensity and Angle	Automatically Adjusted
<b>Network</b>	
Main Stream	Visible Light: 50Hz: 25fps (2688 × 1520), 25fps (1920 × 1080), 25fps (1280 × 720) Visible Light: 60Hz: 30fps (2688 × 1520), 30fps (1920 × 1080), 30fps (1280 × 720) Thermal: 1280 × 720, 704 × 576, 640 × 480, 352 × 288, 320 × 240
Sub-Stream	Visible Light: 50Hz: 25fps (704 × 576), 25fps (352 × 288), 25fps (176 × 144) Visible Light: 60Hz: 30fps (704 × 480), 30fps (352 × 240), 30fps (176 × 120) Thermal: 704 × 576, 352 × 288, 320 × 240
Video Compression	H.265/H.264/MJPEG
Audio Compression	G.711u/G.711a/G.722.1/MP2L2/G.726/PCM
Protocols	IPv4/IPv6, HTTP, HTTPS, 802.1x, Qos, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP, UDP, IGMP, ICMP, DHCP, PPPoE
Simultaneous Live View	Up to 20
User/Host Level	Up to 32 users, 3 levels: Administrator, Operator, User
Security Measures	User authentication (ID and PW), MAC address binding, HTTPS encryption, IEEE 802.1x access control, IP address filtering

Thermal Module	
Integration	
Alarm Input	2-ch inputs (0-5 VDC)
Alarm Output	2-ch relay outputs, alarm response actions configurable
Alarm Action	SD recording/relay output/smart capture/FTP upload/email linkage/audio alarm/white light alarm
Audio Input	1, 3.5 mm Mic in/Line in interface. Line input: 2 to 2.4 V [p-p], output impedance: $1\text{ K}\Omega \pm 10\%$
Audio Output	Linear level, impedance: $600\ \Omega$
Reset	1x Reset Button
Communication Interface	1, RJ45 10M/100M self-adaptive Ethernet interface. 1, RS-485 interface
SD Memory Card	Built-in micro SD card slot, support Micro SD/SDHC/SDXC card (up to 128 GB) Supports manual/alarm recording
Analog Video Output	1.0 V [p-p]/ $75\ \Omega$ , PAL/NTSC
Web Browser	IE9+, Chrome 31-44, Firefox 30-51, Safari 5.02+ (mac)
General	
Power	12 VDC $\pm 20\%$ , two-core terminal block PoE (802.3af, class 3)
Power Consumption	12 VDC $\pm 20\%$ : 0.65 A, max. 7.5 W PoE (802.3af, class 3): 42.5 V to 57 V, 0.14 A to 0.22 A, max. 8 W
Working Temperature/Humidity	Temperature: -40 °C to 65 °C (-40 °F to 149 °F) Humidity: 95% or less
Protection Level	IP66 Standard TVS 6000V lightning protection, surge protection, voltage transient protection
Dimensions	358.3 mm × 113.5 mm × 115.2 mm (14.10" × 4.47" × 4.53")
Weight	Approx. 1.76 kg (3.88 lb)