



Thermal:

- Resolution: 384×288
- $17\mu\text{m}$, NETD: $\leq 40\text{mK}$ (@ 25°C , $F\#=1.0$)
- Temperature range: $-20^\circ\text{C} \sim 150^\circ\text{C}$
- Dual image fusion (thermal image and optical image)
- Multi-palette: white hot, black hot, iron oxide red, rainbow, etc.
- Sound and light warning, temperature exception alarm, fire detection
- Intelligent analytics: region intrusion/entrance/exiting (human/motor vehicle classification), line crossing detection (human/motor vehicle classification)

Optical:

- 5MP (2592×1944) @30 fps
- ICR auto switch, true day/night vision
- Up to 100m IR night view distance
- 3D DNR, true WDR(120dB), HLC, BLC, Smart IR, distortion image correction, ROI etc.
- Intelligent analytics: region intrusion/entrance/exiting detection (human/motor vehicle/non-motor vehicle classification), line crossing detection (human/motor vehicle/non-motor vehicle classification), target counting by line/area (human/vehicle/non-motor vehicle classification), face detection, face capture, illegal parking detection, loitering detection, abandoned/missing object detection

Thermal Network Bullet Camera

SPECIFICATIONS

Specifications			
Thermal Module			
Detector Type	17μm 384×288 α-Si uncooled focal plane detector		
Response Waveband	8μm-14μm		
NETD	≤40mK(@25°C, F#=1.0)		
IRIS Type	Fixed Iris		
Lens	25mm@F1.0		
Field of View(H×V)	15°×11.2°		
Min. Focusing Distance	2 m		
DRI Distance Human (0.75m)	D: 735m(2411ft) R: 184m(604ft) I:92m(302ft)		
DRI Distance Vehicle (2.3m)	D:2255m(7398ft) R: 564m(1850ft) I:282m(925ft)		
Color Palettes	Black hot, White hot, iron oxide red, rainbow, etc.		
Visible Light Module			
Image Sensor	1/ 2.7" CMOS		
Image Size	2592 × 1944		
Electronic Shutter	1/3 s ~ 1 / 100000 s		
Iris Type	Fixed Iris		
Min. Illumination	0.0125 lux@F2.0,AGC ON; 0 lux with IR		
Lens	16mm@F2.0		
Field of View(H×V)	19.8°×14.3°		
Wide Dynamic Range	120dB		
BLC	Yes		
HLC	Yes		
Defog	Yes		
Digital NR	2D/3D DNR		
Image			
Video Compression	H.265 / H.264 / MJPEG		
H.264 Compression Standard	Baseline Profile / Main Profile / High Profile		
Bit Rate Type	VBR/CBR		
Bit Rate	128Kbps~ 8Mbps		
Resolution	Thermal : 384×288 (the resolution of output image is 720P/DI/CIF/480×240) Optical: 5MP (2592×1944), 4MP (2592×1520), 2K (2560×1440), 3MP (2304×1296),1080P (1920×1080), 720P (1280×720), D1, CIF, 480×240		
Main Stream	Optical: 5MP/4MP/2K/3MP/1080P/720P (60Hz: 1~30fps; 50Hz: 1~25fps) Thermal : 720P/DI/CIF/ 480×240 (1~25fps)		
Sub Stream	Optical: 720P/D1/CIF(60Hz: 1~30fps; 50Hz: 1~25fps)		
Third Stream	Optical: D1/CIF/480×240(60Hz: 1~30fps; 50Hz: 1~25fps)		
Dual Image Fusion	Yes		
Temperature Overlay	Temperature can be overlaid on video stream		
Image Settings	ROI, Saturation, Brightness, Hue, Contrast, Wide Dynamic, Sharpness, NR, etc. adjustable through client software or web browser		
Audio Compression	G711A/U		
ROI	8 regions; each ROI to be configured separately		

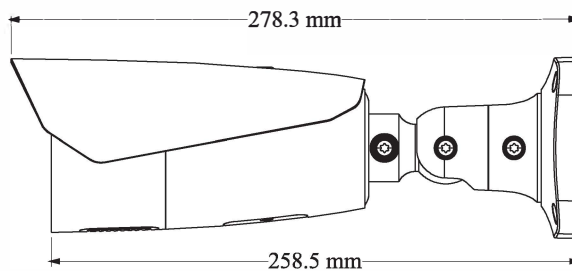
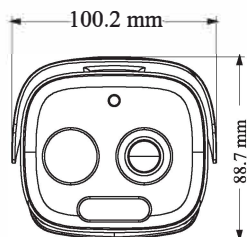
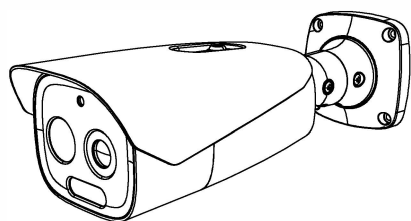
*The above-mentioned DRI distance is for reference only and the performance may vary according to different environment. The optimal human detection, recognition, and identification distances are calculated according to Johnson's Criteria.

Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels. Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels. Identification range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.

Interfaces	
Network	RJ45
Video Output	No
Audio	1CH 3.5mm LIN in audio input; 1CH built-in speaker
Storage	Built-in micro SD card slot; up to 256GB
Reset	Yes
RS 485	Yes
Alarm	4CH alarm input; 4CH alarm output
Functions	
Temperature Range	-20°C ~ 150°C (-4°F ~ 302°F)
Temperature Accuracy	±8°C
Temperature alarm	Over temperature alarm, low temperature alarm
Temperature Measurement	10 rules in total (Point: up to 10; Line: 2, recommended; Area: 2, recommended)
Fire Detection	Dynamic fire detection, up to 10 fire points detectable
Remote Monitoring	Web Browser/ NVMS2.0/NVR/mobile APP
Online Connection	Support simultaneous monitoring for up to 10 users; Support multi-stream real time transmission
Network Protocol	UDP, IPv4, IPv6, DHCP, NTP, RTSP, RTP, RTCP, PPPoE, DDNS, SMTP, FTP, SNMP, HTTP, 802.1x, UPnP, HTTPS, HTTP POST, QoS
Interface Protocol	ONVIF
Storage	Network remote storage; micro SD card storage
Smart Alarm	Motion detection, SD card error, SD card full, IP address conflict, Cable connection, video exception, audio exception
Intelligent Analytics	Optical: region intrusion/entrance/exiting detection/line crossing detection (human/motor vehicle/non-motor vehicle classification), target counting by line/area (human/motor vehicle/non-motor vehicle classification), face detection, illegal parking detection, loitering detection, abandoned/missing object detection Thermal: fire detection, temperature exception alarm, region intrusion/entrance/exiting detection/line crossing detection (human/motor vehicle classification) AI function can be enabled simultaneously on thermal and optical channels
General Function	Watermark, IP address filtering, video mask, heartbeat, password protection, image distortion correction
Sound&Light Warning	White light flashing alarm and sound alarm supported
PoE	Yes, IEEE802.3 af, class0
IR Distance	70 ~ 100 m
Protection Grade	IP66
Others	
Power Supply	DC12V / PoE
Power Consumption	<9W
Operating Environment	Humidity: less than 95 % (non-condensing) -30 °C ~ 60 °C (-22°F ~ 140°F)
Certificate	CE, FCC
Environment Protection	Complies with Directive EU RoHS, WEEE(2012/19/EU), directive 94/62/EC and REACH(EC1907/2006)
Dimensions (mm)	278.3 × 100.2 × 88.7
Weight (net)	Approx. 1.18KG
Installation	Ceiling mounting; Wall mounting

Thermal Network Bullet Camera

DIMENSIONS



AVAILABLE ACCESSORIES



JSW-302



JSW-302 & PEN-SB811