

# IN-DTC256FL

Thermal & Optical Bi-spectrum Network Bullet Camera



## Key Features

- Uncooled VOx Micro bolometer with 256×192 resolution
- Thermal: 3.5mm/7mm fixed lens, Visible: 4mm/8mm fixed lens
- Support human and vehicle detection
- Support smoker detection, smoke & fire detection and fire point detection
- Intelligent analysis: intrusion, single line crossing, double line crossing, loitering, wrong-way, people counting, enter area, leave area and smart motion detection
- Support 3 temperature measurement rule types (spot, line, area)
- Image processing technology: DVE, 3D DNR, WDR
- Built-in microphone and speaker, support sound-light alarm
- Smart IR distance up to 35m or 50m
- Support I/O alarm, RS485, built-in SD card slot
- DC12V/DC24V, PoE power supply

## Specification

Thermal Camera		
Image Sensor	Vanadium Oxide Uncooled Focal Plane Arrays	
Resolution	256×192, Image can be scaled up to 704×576	
Pixel Pitch	12um	
Spectral Range	8 to 14um	
Thermal Sensitivity (NETD)	≤ 50mK	
Lens Type	Fixed, F1.0	
Focus Control	Free focus	
Focal Length	3.5mm	7mm
Angle of View	H: 48°, V: 36°	H: 24°, V: 18°
Detection Distance (Humans: 1.8×0.5m)	146m (479.0ft)	291m (954.7ft)
Detection Distance (Vehicles: 4×1.5m)	447m (1,466.5ft)	894m (2933.1ft)
Recognition Distance (Human: 1.8×0.5m)	36m (118.1ft)	73m (239.5ft)
Recognition Distance (Vehicle: 4×1.5m)	112m (367.5ft)	224m (734.9ft)
Identification Distance (Human: 1.8×0.5m)	18m (59ft)	36m (118.1ft)
Identification Distance (Vehicle: 4×1.5m)	56m (183.7ft)	112m (367.5ft)
<p>* The table is only for reference and the performance may vary according to different environment.</p> <p>* The optimal detection, recognition, and identification distances are calculated according to Johnson's Criteria.</p> <p>Detection Range: In order to distinguish an object from the background, the object must be covered by 1.5 or more pixels.</p> <p>Recognition Range: In order to classify the object (animal, human, vehicle, etc.), the object must be covered by 6 or more pixels.</p> <p>Identification Range: In order to identify the object and describe it in details, the object must be covered by 12 or more pixels.</p>		
Detection Range Table		
VCA Detection Distance (Human: 1.8×0.5m)	30m (98.4ft)	65m (213.3ft)
VCA Detection Distance (Vehicle: 4×1.5m)	90m (295.3ft)	144m (472.4ft)
Temperature Measurement (Object: 1 × 1m)	58.3m (191.3ft)	116.7m (382.9ft)
Temperature Measurement (Object: 0.2 × 0.2m)	11.7m (38.4ft)	23.3m (76.4ft)
Fire Detection (Object: 0.2×0.2m)	41.7m (136.8ft)	83.3m (273.3ft)
Smoking Detection	13m (42.7ft)	25m (82ft)
<p>Note: The table is for reference only. The distances within it are subject to actual conditions including atmospheric conditions, target size, the installation site, and more.</p>		
Visible Camera		
Image Sensor	1/2.7" CMOS	
Effective Resolution	2560(H)×1440(V)	

Shutter Speed	1/5 to 1/20,000s	
Wide Dynamic Range	True WDR 120dB	
Min. Illumination	Color: 0.05Lux @(F1.6, AGC ON), B/W: 0.005Lux @(F1.6, AGC ON), 0Lux with IR	
S/N Ratio	More than 55dB	
White Balance	Auto/Manual	
Day & Night Mode	IR Cut Filter with Auto Switch	
Focal Length	4mm, F1.6	8mm, F2.0
Angle of View	H: 92°, V: 46°	H: 40°, V: 20°
<b>Illuminator</b>		
IR Distance	Up to 35m (114.83 ft.)	Up to 50m (164.04 ft.)
White Light	Strobe light	
<b>Video and Audio</b>		
Main Stream	Thermal: D1 (704×576) @25/30fps Optical: 2560×1440, 2304×1296, 1920×1080, 1280×720 @25/30fps	
Sub Stream	Thermal: D1, CIF, 256×192 @25/30fps Optical: D1, VGA @25/30fps	
Bit Rate Control	CBR/VBR	
Bit Rate	Main Stream: Thermal: 100Kbps to 3Mbps, Optical: 100Kbps to 12Mbps Sub Stream: Thermal: 100Kbps to 3Mbps, Optical: 100Kbps to 6Mbps	
Region of Interest	Off/On (8 Zone, Rectangle)	
Smart Encode	Support	
Audio Compression	G.711: 64Kbps, RAW_PCM: 128Kbps	
<b>Image</b>		
Image Setting	Brightness, Sharpness, Contrast, Saturation	
Mirror	Support	
Pseudo-color Setting	White-hot/Black-hot/Rainbow/Ironbow etc. up to 17 modes (Thermal)	
DVE Image Enhance	Support (Thermal)	
Noise Reduction	2D/3D DNR	
Privacy Masking	Support	
Bi-Spectrum Image Fusion	Support	
<b>Smart Function</b>		
Smart Function	Temperature measurement, human detection and vehicle detection	
Advanced Intelligence Analysis	Smoker detection, Smoke and Flame detection, fire point detection	
Intelligent Analysis	Intrusion, Single line crossing, Double line crossing, Loitering, Wrong-way, Enter area, Leave area, smart motion detection (these function support accurate detection of human or vehicles) , People counting	
Sound-light Alarm	Support white light flashing and horn warning	
Temperature Measurement	3 temperature measurement rule types, 20 rules in total, 1 full screen, 19 others (spot, areas, line).	

Temperature Alarm	Over temperature alarm, Temperature difference alarm
Accuracy	±2°C / ±2%
Response Time	≤ 30ms
Temperature Range	-20°C to 150°C (-4°F to 302°F)
<b>Network</b>	
Protocols	IPv4/IPv6 ,HTTP,RTSP/RTP/RTCP, TCP/UDP, DHCP, DNS, PPPOE, SMTP, 802.1x
Interoperability	ONVIF
Max. User Access	10 Users
Web Viewer	<IE11, Chrome, Firefox, Microsoft Edge
Web Language	English, Chinese, Polish, Italian, Portuguese, Spanish, Russian, French, Czech, Hungarian. Default: English
<b>Interface</b>	
Network Interface	1 Ethernet (10/100 Base-T) RJ-45 Connector
Audio Interface	1ch input, 1ch output
Built-in Microphone	Support
Built-in Speaker	Support
Alarm Interface	1ch input, 1ch output
RS-485	Support
Reset Button	Support
SD Card Slot	Support, up to 256GB
<b>Electrical</b>	
Power Supply	12DCV/24VDC/PoE (IEEE 802.3af)
Power Consumption	Max. 10W
Working Temperature	-40°C to 60°C (-40°F to 140°F)
Storage Conditions	Less than 90% RH
Certifications	CE /FCC
Ingress Protection	IP66
Casing	Metal
Dimensions	φ140 mm × 117.8 mm (5.51 " × 4.64 ")
Net Weight	1.03Kg (2.27lb)
<b>Ordering Information</b>	
Model	Description
IN-DTC256FL3.5	Thermal Focal Length: 3.5mm, Optical Focal Length: 4mm
IN-DTC256FL7	Thermal Focal Length: 7mm, Optical Focal Length: 8mm

