## 4MP 37x 300m IR AI Network Speed Dome

TD-8843IM (PE/WP/37M/AR30)
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- 1/1.8" 4MP CMOS
- 120dB WDR, 3D DNR , HLC , smart supplementary light
- Min.Illumination：Color: 0.005 lux (F1.5, AGC ON)

  B/W：0.001 lux(F1.5, AGC ON); 0 lux with IR
- Powerful 37 x optical zoom; 16x digital zoom
- Max.2560×1440@60fps, H.265 coding
- 300m IR distance
- 2.0 Tops CNN, IVE and video DSP
- People/vehicles recognition and tracking
- Four scenario modes: Perimeter, FR, LPR, mixture lanes
- Smart wiper
- AC24V; Hi-PoE (optional)
- IK10， IP67， -50℃~+65℃

VCA	Smart Tracking	STARVIS	WDR	3D DNR	H.265	IP 67	IK 10

CE FC PoE ONVIF
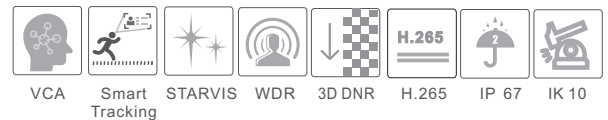
System Overview

TVT 8843IM adpots 1/1.8" progressive scan CMOS chip. With the powerful 37x optical zoom lens and accurate pan/tilt/zoom performance, the camera provides a wide monitoring range and more details. The camera delivers 4MP ultra high definition resolution at 50/60fps. With the smooth control, high quality image and good protection, it targets high-end video surveillance applications, such as rivers, forests, roads, railways, airports, squares, parks, scenic spots, stations and large venues, etc.

Features

- **Artificial Intelligent**

  Integrated with 2.0 Tops CNN deep-learning Engine and powerful CV and video DSP, this products can switch among four modes-face recognition(FR) mode, license plate recognition (LPR) mode, (human and vehicle) mixture lanes mode. Up to 30 targets can be detected simultaneously. Additionally, the PTZ support human/car recognition and real-time auto zoom tracking.

- **Superior Image Quality**

  The product adopts high MTF 37x zoom lens and 1/1.8" back-illuminated Near-IR enhanced image sensor, and 3rd generation of image signal processor, so the better image quality could be achieved. In most night scenarios, a vivid color image is output without switching to W/B mode. Most street lamp and car's lamp smear could be suppressed for its high dynamic range.

- **IR LED Arrays with an Integrated IR Lens**

  The product adopts 3 groups of 12x IR LED arrays, with an integrated IR LED lens shade. It also supports high priority human face recognition or high priority LPR. In short distance, the human face will not be over-exposed. In the middle or far distance, the light field will become even. The camera could recognize human face far away from 300m (984 f.t.), even on a moonless night.

- **Optical Defogging Lens**

  Generally, visible light could pass through raindrops, haze and fog in the air only in a short range. Within the built-in defogging lens filter, the camera can switch to 900nm-1150nm mid-wave infrared imaging on a foggy/rainy day. As MWIR light from the target has more chance to pass through the raindrops, fog and haze in the air, the visibility of the camera is twice as far as normal cameras.

- **H.265 Encoding**

  The H.265 (ITU-T VCEG) video compression standard offers double the data compression ratio at the same level of video quality, and substantially improves video quality at the same bit rate, compared to older video compression technologies.

- **Smart Thermal Management 1.0**

  The camera has built-in temperature sensor, high-efficient turbofan, as well as high power heater. The real-time temperature detection and control algorithm make the camera work well in a wide temperature range from -50°C to 65°C (-58°F~149°F) . It also supports cold start temperature above -40°C(-40°F), so it is suitable for extremely cold areas like Russia, Canada, Sweden, etc.

- **Working Environment and Interoperability**

  Subjected to rigorous dust and water immersion tests and certified to the IP67 Ingress Protection rating and Ik10 impact test. This product allows for 6KV lightning rating, which provides effective protection against lightning. Therefore, this product could work well in high concentration of salt and alkali corrosive atmosphere, such as Inland-sea countries, desert areas and so on.
  The camera conforms to the ONVIF specifications and Chinese GB/T28181, ensuring interoperability between network video products regardless of manufacturer.

SPECIFICATION

Camera Module

Image Sensor	1 / 1.8 "progressive scan CMOS
Min. Illumination	Color: 0.005 lux @F1.5, AGC ON B/W: 0.001 lux @F1.5, AGC ON 0 lux with IR
Shutter Time	50Hz: 1 / 1 s ~ 1 / 25, 000 s; 60Hz: 1 / 1 s ~ 1 / 30, 000 s
White Balance	Auto/Manual/ATW(Auto-tracking White Balance)/Indoor/Outdoor/ Fluorescent Lamp/Sodium Lamp
Gain	Auto/Manual
Day&Night	ICR cut filter
Digital Zoom	16x
Privacy Mask	24 programmable privacy masks
Focus Mode	Auto/Manual
3D DNR	Auto/Manual
BLC	Yes
HLC	Yes
WDR	120dB
Optical Defog	Yes
EIS	Yes
Regional Exposure	Yes
Regional Focus	Yes

Lens

Focal Length	f=5.6-208mm, 37x optical zoom
Zoom Speed	Approx. 4.4s (optical lens, Wide-TELE)
Field of View	Horizontal field of view: 59.8° ~ 2.0° (Wide-TELE) Vertical field of view: 33.6° ~ 1.1° (Wide-TELE) Diagonal field of view: 68.6° ~ 2.3° (Wide-TELE)
Working Distance	Wide:1.0m~INF Tele: 1.5m~INF
Aperture Range	F1.55 (Wide) to F4.5 (TELE)

PTZ

Pan Range	360° endless
Pan Speed	Configurable, from 0.1°/s ~ 180°/s; Preset speed: 180°/s
Tilt Range	From -20° to 90° (auto-flip)
Tilt Speed	Configurable, from 0.1°/s to 150°/s; Preset speed: 150°/s
Proportional Zoom	Yes
Preset	360
Cruise	8 cruises, up to 32 presets for each cruises
Trace	4 traces, record time over 10 minutes for each trace
Power-off Memory	Yes
Action Mode	Preset/Cruise/Trace/Auto Scan/Random Scan
PTZ PositionDisplay	Yes
Preset Freezing	Yes
Scheduled Task	Preset/Cruise/Trace/Random Scan/Boundary Scanning

Smart Features

Perimeter Protection	Intrusion, Line crossing, Region Entrance, Region Exiting, Support alarm triggering by specified target types(human and vehicle) Filtering out mistaken alarm caused by target types, such as leaf, light, animal,flag, etc.
Event Detection	Face Capturing, Region Intrusion, Line Crossing, Region Entrance, Region Exiting, Lingering Detection, Crowd Density, Fast Moving Detection, Parking Detection, Object Removal Detection, Unattended Baggage Detection, Audio Exception Detection, Motion Detection, Video Tampering Detection
Smart Tracking	Manual Tracking, Auto Tracking (support tracking specified target types such as human and vehicle), Event Tracking
Smart Record	ANR (Automatic Network Replenishment), smart search
ROI	Eight fixed region for each stream

IR

IR Distance	300m
Smart IR	Yes

Network

Max. Resolution	2560×1440
Main Stream	50Hz:25fps(2560×1440,2048×1536,1920×1080,1280×720) 　　50fps(2560×1440,2048×1536,1920×1080,1280×720) 60Hz:30fps(2560×1440,2048×1536,1920×1080,1280×720) 　　60fps(2560×1440,2048×1536,1920×1080,1280×720)
Sub Stream	50Hz:25fps(704×576,640×480,352×288) 60Hz:30fps(704×576,640×480,352×288)
Third Stream	50Hz:25fps(640×480,480×240,352×288) 60Hz:30fps(640×480,480×240,352×288)
SVC	Yes
Video Compression	H.265 / H.264 / MJPEG
Audio Compression	G.711A/U
Protocols	HTTP, HTTPS, IPv4/IPv6, 802.1x, QoS, FTP, SMTP, UPnP, SNMP, DNS, DDNS, NTP, RTSP, RTCP, RTP, TCP/IP, UDP, IGMP, ICMP, DHCP, PPPoE
Simultaneous Live View	Up to 6 channels
User/Host	Up to 16 users, 3 levels: Administrator, Advanced User and Normal User
Security Measures	User authentication (ID and PW), Host authentication (MAC address); HTTPS encryption, IEEE802.1x port-based network access control; IP address filtering

System Integration

Alarm Interface	7CH alarm input; 2CH alarm output
Audio Interface	1CH audio input, 2 to 2.4v[p-p] 1kΩ±10%; 1CH audio output (line out), impedance: 600Ω
Network Interface	1 RJ45 10M/100M Ethernet; (Hi-PoE optional)
CVBS	Optional
RS 485	Pelco-D / P protocol, custom protocols available
Storage	Built-in memory card slot, support microSD/SDHC/SDXC, up to 256G , ANR
API	ONVIF, support TVT SDK and third-party management platform
Client	VMS-90000 and the third-party client
Web Browser	IE8-11, Chrome 31.0 to 44, Firefox 30.0 to 51

General

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Power	AC24V5A (Max.75W, including max.18w for laser and max.12w for heater) Hi-PoE(Max.60W, including max.18w for laser and max.12w for heater)
Working Temperature	Outdoor: -50°C~65°C (-58°F~149°F)
Cold-Start Temperature	≥ -40°C(-40°F)
Working Humidity	≤ 90%
Protection Level	IP 67, IK 10, 6000V Lightning Protection, Surge Protection and Voltage Transient Protection
Material	ADC12 , PC, PC+GF
Dimensions	Φ 278mm × 435mm (Φ 1094" ×17.12")
Weight(net)	Approx. 8.5KG(18.74lb)

DORI

DORI (detect, observe, recognize, identify) distance gives the general idea of the camera ability to distinguish persons or objects within its filed of view. It is calculated based on sensor specification and the criteria given by EN 62676-4: 2015.

DORI	Detect	Observe	Recognize	Identify
Definition	25 px/m	63 px/m	125 px/m	250 px/m
Distance(Tele)	2155m (7070ft)	855.0m(2805ft)	431m (1414ft)	215.5m(707ft)

ORDERING INFORMATION

Type	Model	Description
Camera	TD-8843IM (PE/WP/37M/AR30)	4MP 37x 300m IR AI Network Speed Dome (AC24V, Hi-PoE, Wiper)
	TD-8843IM (PE/37M/AR30)	4MP 37x 300m IR AI Network Speed Dome (AC24V, Wiper)
Accessories	TD-YZJ0807	Ceiling Mount
	TD-YL113	Mount Adapter
	TD-YZJ0304	Wall Mount
	TD-YZJ0501	Pole Mount
	TD-YZJ0601	Corner Mount
	Power Supply	AC24V/5A
	/	60W Hi-PoE Midspan
	/	60W Hi-PoE Switch(802.3BT)

DIMENSIONS

38.5mm(1.5")

397mm (15.6")

343.5mm (13.5")

Ø238mm(9.4")

Ø278mm(10.9")
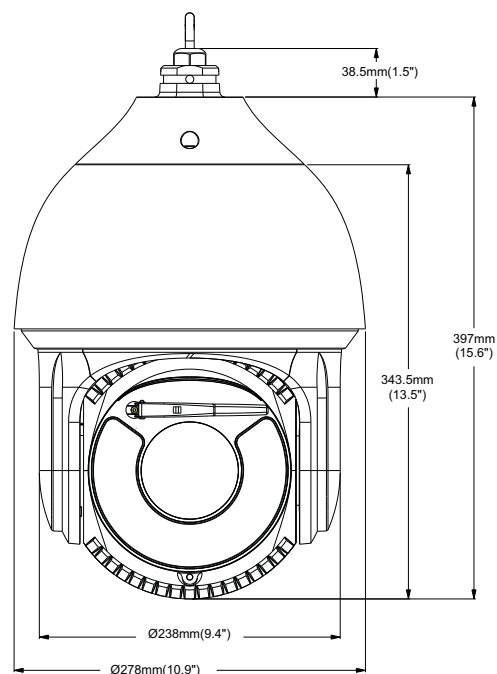
ACCESSORIES

Optional:

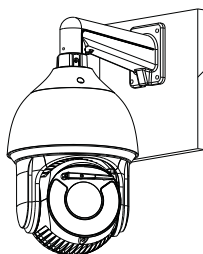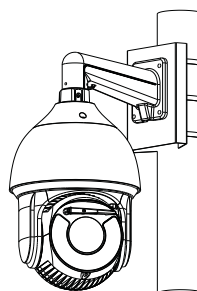| TD-YZJ0304 Wall Mount	TD-YZJ0807 Ceiling Mount	TD-YL113 Mount Adapter	TD-YZJ0601 Corner Mount	TD-YZJ0501 Pole Mount	AC24V5A	60W Hi-PoE Midspan	60W Hi-PoE Switch

TD-YZJ0807+ TD-YL113 Ceiling Mount	TD-YZJ0304 Wall Mount	TD-YZJ0304+TD-YZJ0501 Pole Mount	TD-YZJ0304+TD-YZJ0601 Corner Mount
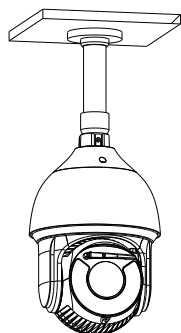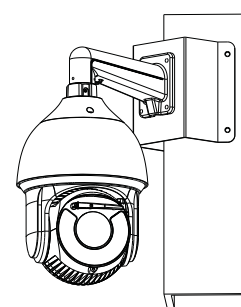
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