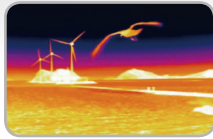


ULTIMATE SURVEILLANCE SOLUTION



Thermal Imaging Camera



30x Full HD Camera



IP68 All Weatherproof

TPV-IHD is installed on a precision pan/tilt mechanism. It allows the user to rotate & tilt the camera 360° continuously to increase situational awareness on ultimate weatherproof condition.

The Pan/Tilt has 165 preset positions.

All versions are equipped with a long range daylight/low light camera. The video output of the thermal imaging and daylight/low light camera are simultaneously available. The daylight camera offers an 30x Full HD.

NETWORK FEATURES

- Compression type : MULTIPLE CODEC (H.264, MJPEG)
- Dual video output
(Thermal Imaging Camera , General Video camera)
- Various video output on each camera and streaming
- Fully Compliant with the ONVIF standard.

WORLD FIRST 360° PAN/TILT & DIGITAL AUTOMATIC FLIP



TBT TPV-IHD move with 360°endless PAN & TILT operations which eliminating all the blind zone with fast maneuvering.

When the ordinary camera tilts over certain degrees, image will be upside down. TBT tilting operation designed to make digital auto flip to deliver normal video image.

IP68 ALL WEATHERPROOF HOUSING



IP rate, the most important value of the ultimate weatherproof video surveillance solution. Achieving IP68 rate TPV-IHD Series proves its superb technical advantage achieving the high performance on the ultimate weather conditions.

(Test STD : IEC 60529 : 2001)

DETAIL



1. Thermal Imaging Camera
2. Daylight Camera
3. Main Body, Pan/Tilt Mechanism
4. Base Body
5. Sun Visor
6. Wing Sun Visor, Vent Holes
7. Bracket

NETWORK SPECIFICATIONS

Network	
Video compression	H.264, MJPEG
Security Management	User ID & password Protection, IP Filtering
Application Programming Interface	Fully Compliant with the ONVIF standard
Network	
Interface	RJ-45, 10/100 Mbps
Access Network	Static, DHCP, ADSL
Protocol	IPv4 , DHCP, FTP, HTTP, RTP/RTSP, SMTP, UPnP, NTP, DDNS
I/O	
RS-485	For controller
Frame Rate	
Color	Max 30fps(NTSC), 25fps(PAL)
Thermal	Max 30fps(NTSC), 25fps(PAL)
Video Streaming	
Color	Streaming at Different Rates and Resolutions
Thermal	Streaming at Different Rates and Resolutions
Record	
Color	One channel Record
Thermal	One channel Record
Bit Rate control	
H.264	CBR, VBR
MJPEG	4Level
LEVEL	Super Fine, Fine, Normal, Low
Motion Detection	
Max 144 block	Sensitivity 3level
LEVEL	High, Middle, Low
Upgrade	
Remote	Remote Upgrade via IP Network
FTP	Upgrade from FTP server
Client / Viewer	
Web viewer	Simple Access via Internet Explorer
CMS Software	NxMS
Dynamic IP	
DDNS support	dvr-ddns.com / dyndns.org / etc
Time Configuration Management	
Manual	Manual Configuration
NTP	Sync to Time Server
DST	Automatically adjust clock for Daylight Saving Time
External Storage	
Micro SD (SDHC)	Max 32GB

TPV-IHD SERIES

HD THERMAL IMAGING IP PTZ CAMERA



Full HD
1920x1080

HD
1280x720



IP Network

FEATURES

Thermal Imaging Camera

- 1280x720p HD Video Resolution
- Lowest NETD : <70mk
- Temperature measurement model available (Optional)

30X Zoom Full HD Camera

- 2 Megapixel 30x Zoom Full HD Camera

Mechanism

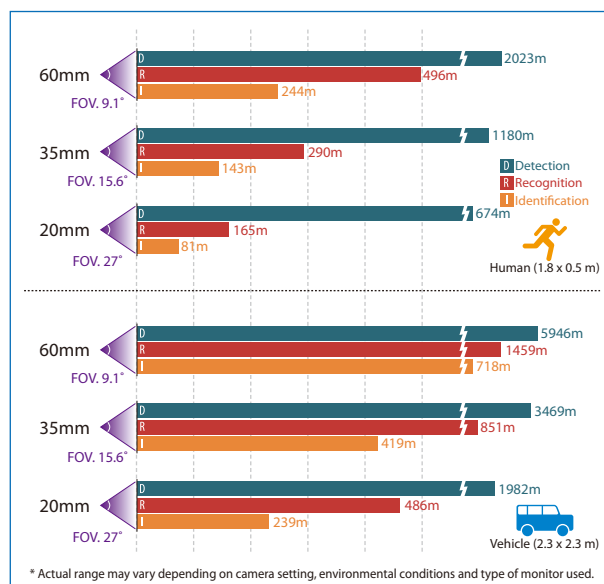
- IP68 All Weatherproof
- 1,000 Hours Salt Spraying Test Passed (Optional)
- 3G Vibration Test Passed
- 360° Endless Panning / Tilting

SPECIFICATIONS

* Specifications are subject to change without notice.

THERMAL MODULE	
SENSOR	
Thermal Sensor	Uncooled aSi Micro Bolometer
Pixel Pitch	17μm
Wave Length	8 ~ 14μm
NETD	<70mk (@f/1.0)
Output Frequency	NTSC : 59.94Hz (30fps), PAL : 50Hz (25fps)
Array Format	640 x 480
Resolution	1280 x 720
Lens	20mm (FOV 27° x 20.4°)[Basic], 35mm (FOV 15.6° x 11.7°) / 60mm (FOV 9.1° x 6.9°)[Option]
FUNCTION	
Calibration	AUTO / MANUAL / INTERVAL(sec) Mode Selectable
Image Flip	Vertical ON / OFF
Inverse Mode	ON / OFF
Freeze Mode	ON / OFF
AGC Mode	OFF / AGC / WAGC
AGC Limit Level	x1 / x1.5 / x2 / x2.5 / x3 / x5 / x8 / x15 / x30 Selectable
ROI	Full / Center / Under / Upper / Left / Right
MIDE Level	Selectable [OFF, 1..15] (when, Sharpness OFF)
Image Mode	Gray, Rainbow, Iron, Glowbow, 2Color
D-Zoom	x4 (15step)
CAMERA MODULE	
Image Sensor	1/2.8 Type "Exmor" CMOS Sensor
Total Image Pixels	1920 x 1080
Lens	30x F=1.6~4.7, f=4.3~129mm (Digital : 12x / Total : 360x with optical zoom)
Min. Illumination	ICR OFF : 0.05 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode On) 0.19 lx (1/4 sec, 1/3 sec, 50%, High Sensitivity mode Off) ICR ON : 0.05 lx (1/30 sec, 50%, High Sensitivity mode Off) 0.002 lx (1/4 sec, 1/3 sec, 30%, High Sensitivity mode On)
Luminance S/N ratio	More than 50dB
MECHANISM	
PAN/TILT	
Pan Rotation Angle	0° ~ 360° Endless
Pan Speed	Manual : 0.1° ~ 90°/sec (64step), Preset : MAX 100°/sec
Tilt Rotation Angle	0° ~ 360° Endless
Tilt Speed	Manual : 0.1° ~ 90°/sec (64step), Preset : MAX 100°/sec
System Accuracy	0.0225°
FUNCTION	
Preset	255 positions
Group Tour	Max. 8 Programmable Group Tours (each one consisting of up to 20 preset steps with different steps)
Auto Scan	Programmable Auto Scan
Pattern	8 Programmable Patterns
Video Output	CVBS : 1.0Vp-p / 75Ω, Analog CVBS Out 2Channel (Thermal, Day Night)
Alarm Input	2 Alarms (With various programmable states)
Alarm Actions	Preset
Aux Output	2 Relay
Auto Flip	Digital Auto Flip (Angle Auto Sensing)
Defog	On / Off
OTHERS	
Dimensions	439.3mm(W) x 219mm(H) x 230.9mm(D)
Weight	12.3Kg
Construction	Aluminum die casting
Storage Temperature	-40°C ~ 60°C
Operating Temperature	-40°C ~ 55°C (When the power in at -40°C operation start within 1 hour.)
Option	1,000 hours Saltproof
Certifications	CE, FCC, IP68
POWER	
Power Consumption	Camera Power : AC24V 3A 72W (Max) / DC24V 2A 48W (Max) Heater Power : AC/DC 24V 3.8A 91.2W (Max)
Power Supply	AC24V 50/60Hz 5A / DC24V 5A

RANGE PERFORMANCE (LENS OPTIONS)



DIMENSIONS

