

WHEN MISSION *ALMOST* ACCOMPLISHED IS NOT AN OPTION

Panasonic
BUSINESS

TOUGHBOOK

**Reliable Hardware with
low failure rates**



Border Security

Applications

- Communication & Surveillance
- Maintenance, repair
- In-vehicle, shipboard use

Pain points

- Data security & data handling
- Work in harsh conditions
- Longevity

Benefit of our solution

- ✓ Extreme ruggedness to complete the work in any harsh conditions
- ✓ Absolute ruggedness and modular design provide longevity
- ✓ High Resolution PTZ & Thermal Camera range with IP 67, IK 10





7 User-upgradeable areas

TOUGHBOOK 40 has 7 user-upgradeable areas and all can be purchased as accessories



7 Modular Areas



You can work effectively in the field without take off your glove or in the wet.

Input method

Multi-touch
(up to 10 finger)



Pen (Digitizer)



Glove



Multi-touch*
Under wet condition



Pen (Digitizer)
Under wet condition



Touch Screen Mode	Multi-touch (up to 10 finger)	Pen (Digitizer)	Glove
Touch mode	OK	OK	N/A
Glove mode	OK	OK	OK
Water mode	OK* under wet condition	OK under wet condition	N/A



IP55 digitizer pen
with 2 buttons is in the box











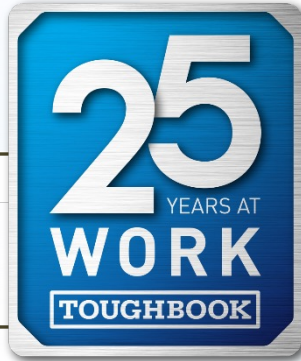












* Up to 2 finger touch in water mode.

Panasonic is using Ublox 8 GPS chip which is also SBAS & GAGAN Compliant

	Sirf Star 3	Sirf Star 4	Sirf Star 5	Gobi5000	Ublox 8
Accuracy	5m	5m	5m	5m	4.8m
Cold start	42Sec	30Sec	28Sec	32Sec	29Sec
Sensitivity	-159dBm	-163dBm	-164dBm	-161dBm	-163dBm
SBAS	Yes	Yes	Yes	No	Yes
GLONASS	No	No	Yes	Yes	Yes
Beidou	No	No	No	No	Yes

SBAS:Satelite-Based Augmentation System

TOUGHBOOK RANGE- MARKET LEADER IN RUGGED DEVICES

		Field Mobile		Business Mobile		
		Fully-Rugged		Semi-Rugged	Business-Rugged	
Tablet			FZ-G2  10.1" 	FZ-G2(Zone-2)  10.1" 		
		FZ-S1   7.0"	FZ-A3   10.1"			
Handheld/ Rugged Phone		FZ-N1   4.7"				
			FZ-G2  10.1" 	CF-33  12.0" 		CF-33(Zone-2)  12.0" 
2 in 1	Detachable					
Clamshell			FZ-40 	FZ-40(Zone -2) 		FZ-55  14.0" 
					CF-SV1*2  12.1" 	

Security Surveillance- Joining pieces together



Perimeter
Intrusion
Detection

Panasonic
CONNECT
 :::PRO

Access
Control
System

Longevity



All i-PRO cameras are designed to keep working for 7 years.

Tests for Long life design



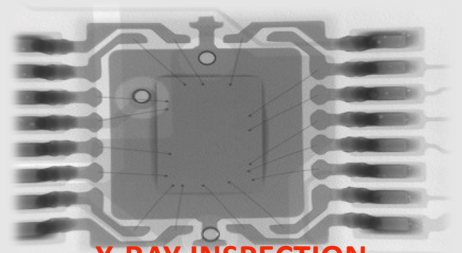
IMPACT TEST – IK10



VIBRATION TEST



WATERPROOF TEST – IP66



X-RAY INSPECTION



REVOLVING HEXAGONAL DRUM TEST

Failure rate in 5 years

Average (all i-PRO cameras)



0.7%

PTZ camera



1.3%

Outdoor dome camera



0.9%

*Data calculated by product return QTY divide by total QTY sold in market worldwide including out of warranty defect.

AI Applications

✓ **AI Video Motion Detection**

Intrusion, Loitering, Direction, Crossline

✓ **AI Privacy Guard**

Protect privacy and portrait rights (mosaic the entire face and figure of a person)

✓ **AI People Detection**

Characteristics of the human face and clothing are extracted and classified into useful categories such as gender, age, and clothing color

✓ **AI Face Detection**

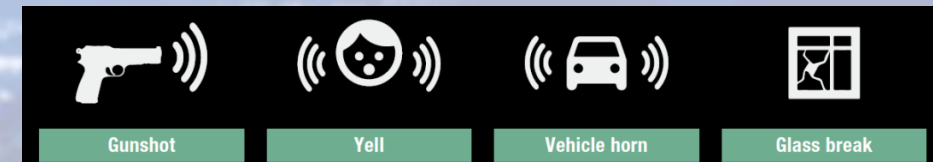
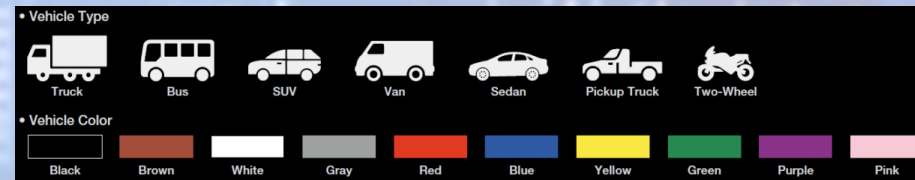
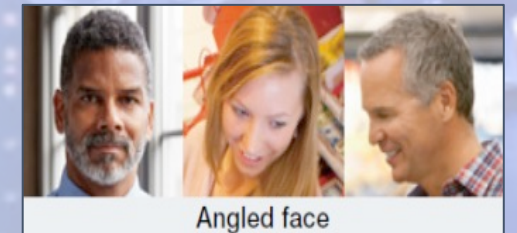
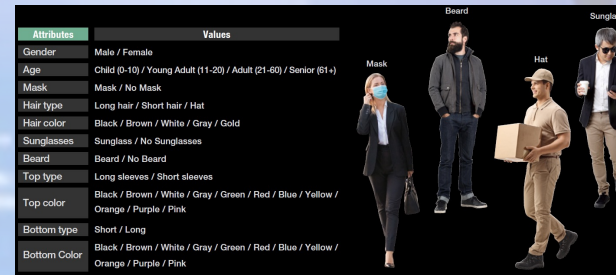
Highly accurate face detection

✓ **AI Vehicle Detection**

Vehicle characteristics are extracted and classified into useful categories such as type and color

✓ **AI Sound Classification**

AI detects and identifies (gunshot / yell / vehicle horn / glass break) sound



FIPS 140-2 Level 3 with Secure Element

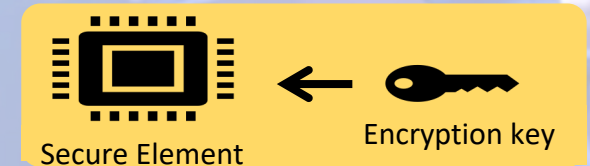
What is FIPS 140-2 Level 3?

Federal Information Processing Standards (FIPS) are standards and guidelines for federal computer systems that are developed by National Institute of Standards and Technology (NIST) of the United States.

FIPS 140-2 level 3 compliance means it offers tamper resistant technology, identity-based authentication, strong encryption and an extra layer of security that protects critical security parameters on the device.

✓ i-PRO is the first security camera manufacturer to deploy the **chip certified with FIPS 140-2 Level 3**

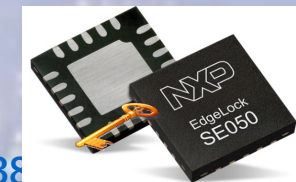
- i-PRO : FIPS 140-2 Level 3 (Secure Element)
- Brand A and H : FIPS 140-2 Level 2 (TPM) *TPM : Trusted Platform Module



i-PRO have deployed a **Secure Element** into products to protect encryption key which is more secured chip than TPM.

Certified document by NIST is available (NXP SE050)

<https://csrc.nist.gov/projects/cryptographic-module-validation-program/certificate/38>



Model Line-up Multi sensor Camera

4MP, 6MP & 4K Models Available!

Leading Company in Edge AI cameras

- USP like world thinnest design
- Multiple **Design Award** recognition



3 Sensors Model

WV-S8543

With IR LED

WV-S8543L

WV-S8563L

WV-S5873L

4 Sensors Model

WV-S8544

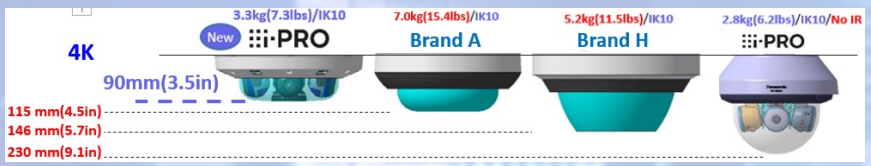
With IR LED

WV-S8544L

WV-S8564L

WV-S5874L

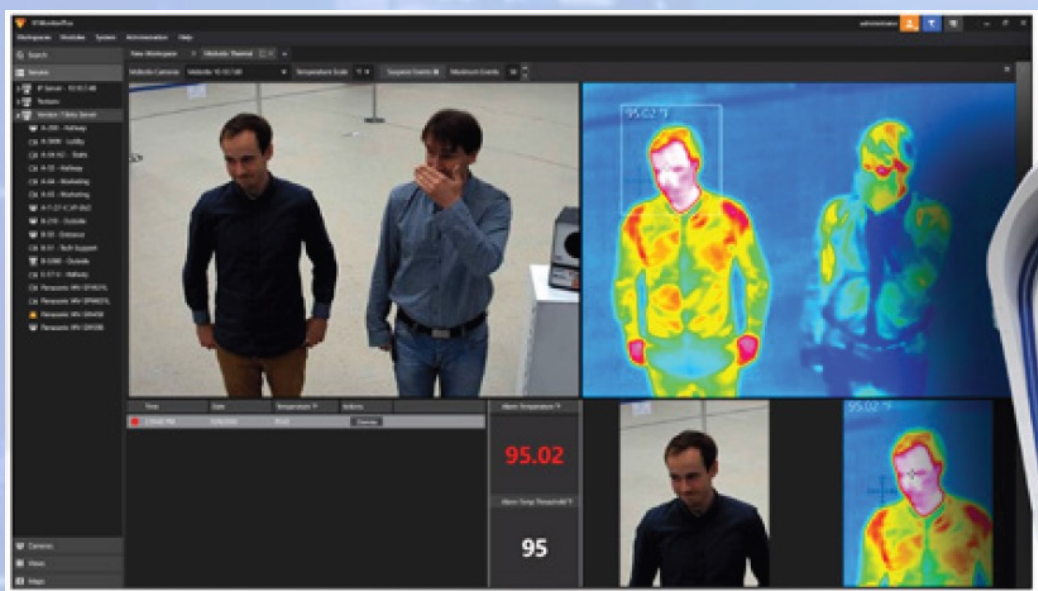
*Smoke dome is also available with G models:
 WV-S8543G/WV-S8543LG/WV-S8563LG/WV-S8573-LG
 WV-S8544G/WV-S8544LG/WV-S8564LG/WV-S8574LG



Multi-directional + PTZ and Thermal Camera

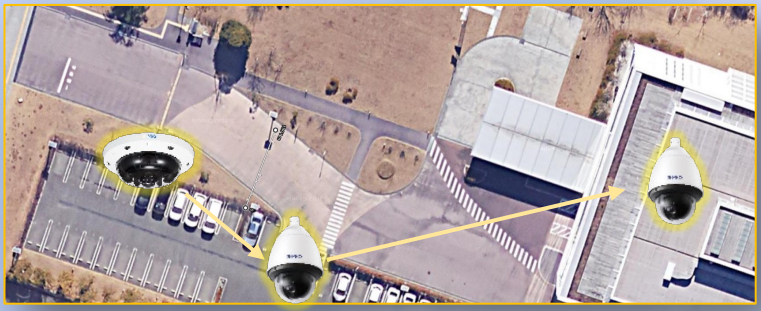


- 1. Discreet Design**
 - Smallest and lightest **outdoor** Multi directional + PTZ camera in the industry
- 2. Edge AI Capability**
 - AI auto tracking
 - Up to **6** different AI analytic apps can be installed at once



- ### KEY FEATURES
- Ability to **pre-set temperature threshold**
 - **Live and thermal views**
 - Celsius or Fahrenheit temperature settings
 - **Event alarm is triggered when threshold is detected**
 - Define up to 40 regions of interest for temperature readings
 - Ability to review detailed thermal readings

AI Auto-tracking (Handover)



Case: Detect and automatically track suspicious person through **multiple PTZ** cameras.


Multi-sensor camera





1. AI-VMD alarm occur on Multi-sensor camera.




PTZ camera No.1



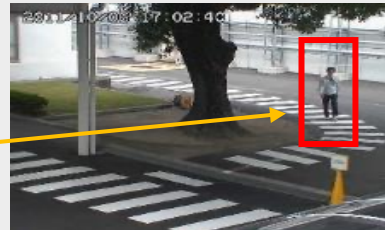
2. Automatically zoom in and start tracking

PTZ camera No.2



3. Handover
Keep tracking in collaboration with other PTZ cameras




Product Line-Up



Vehicle Capture



Aero PTZ



40x outdoor IR-PTZ



Vehicle camera



Multi Directional + PTZ



Multi-sensor 4MP/6MP/4K With 3 or 4 eyes



12MP/5MP 360 fisheye



2MP/5MP 40x 21x zoom in/outdoor PTZ



2MP Mini



5MP/6MP/4K Indoor and outdoor Box



5MP/6MP/4K Indoor and outdoor Dome



Indoor and outdoor Compact Dome



22x IR Outdoor PTZ



2MP Box camera



Dual Sensor

2MP/4MP indoor and outdoor Dome & Bullet



21x, 10x, 3.1x Zoom in/outdoor PTZ



Dual Sensor



Accessories

Controller



Coaxial-LAN converter



Poe Injector



SD cards



Mounting Brackets



i-PRO Recording Platforms

Embedded Recorders (8/16/32/64/128 channels)



4/8 x PoE

16 x PoE



ASM300



i-PRO Mobile App

CMS

Video Insight VMS



Easy maintenance & operability

Open platform Support major CCTV brands with over 5000 Models

Plugin Architecture Third party systems, Analytics (Active Guard, Ipsotek), LPR, etc..

Enterprise Solutions Failover, Transportation, AD/LDAP etc..

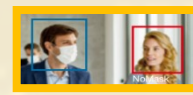
Edge Analytics



AI People



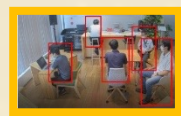
AI Vehicle



AI Mask



AI Face



AI Occupancy



AI Sound



AI-VMD

(Intruder, Loitering, direction, crossline, counting)



AI Privacy



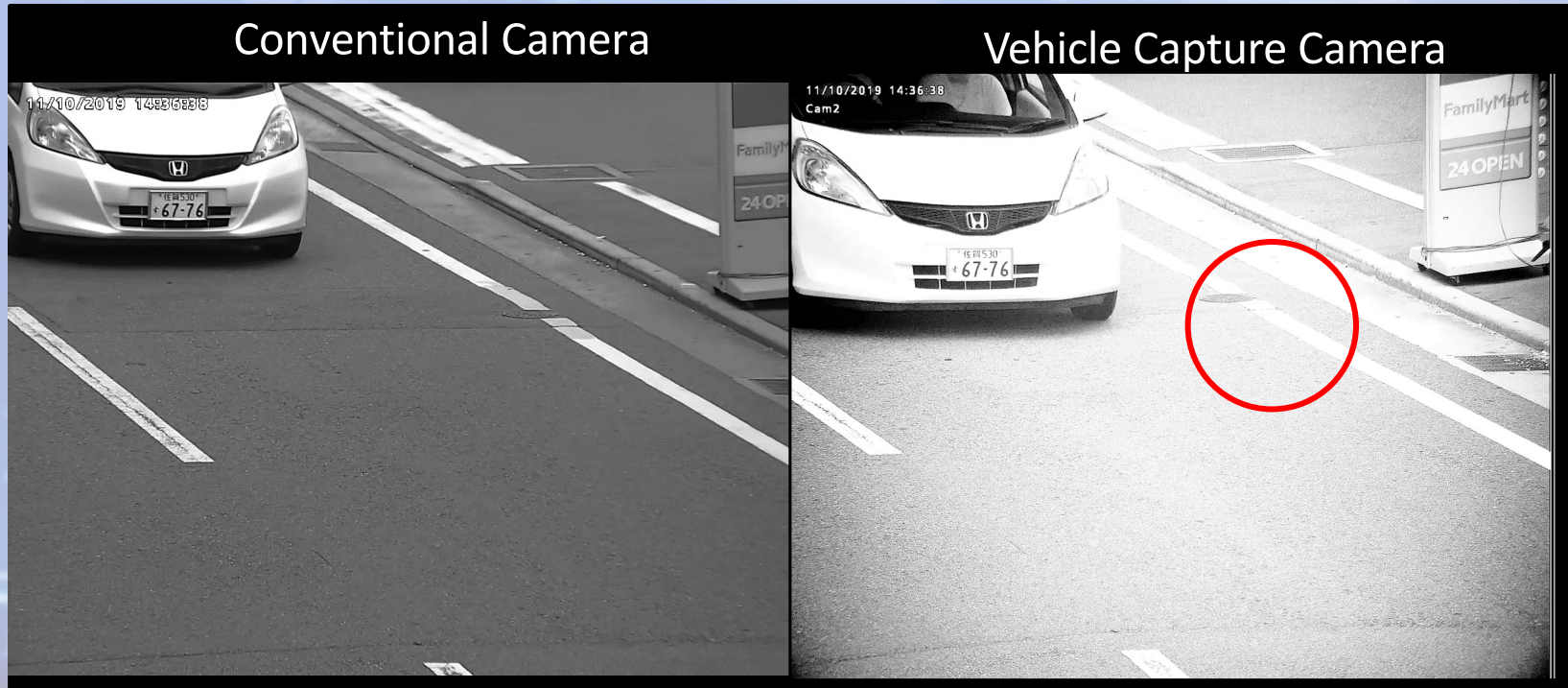
AI Scene Change

Standard AI Model Enhanced Line-up

Vehicle Capture Camera

Clear Image of Occupant and License Plate

- Capture **both face and license plate** at challenging environment.
- Powerful IR illuminator Despite being a high-power IR floodlight with 78 LED light arrays, it complies with **eye safety standards**.



Concept of Layer Protection for Video Surveillance

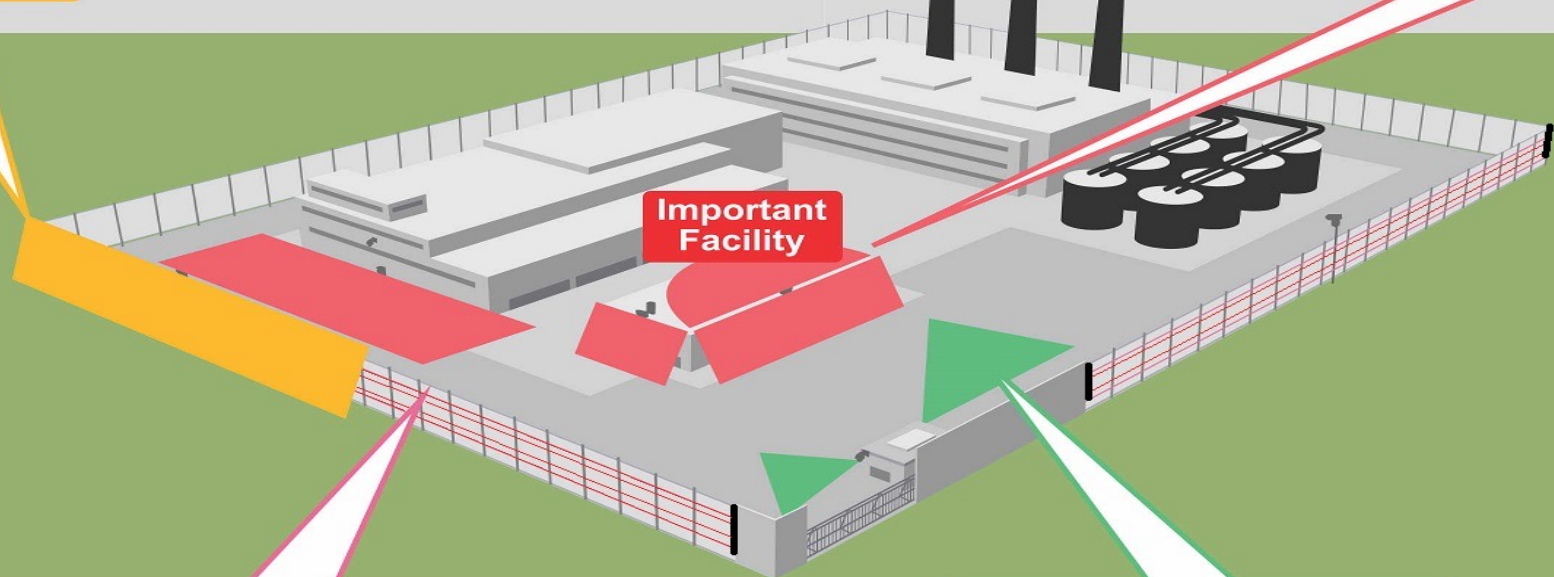
Panasonic CONNECT



Layer 0
Outside
Perimeter
REDSCAN



Layer 3
Facility
Protection
REDSCAN



Layer 1
Perimeter Line



Fiber SenSys



Smart Line Series

Layer 2
Outdoor Field Zone




REDWALL-V




REDSCAN

Layer 0 **Layer 1**
Layer 2 **Layer 3**



Video Management Software



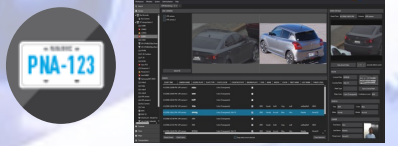
Camera

Video Insight

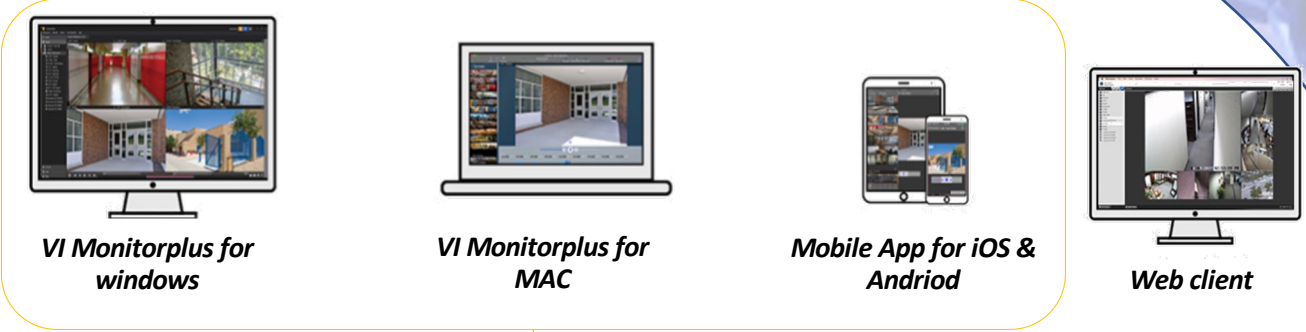
Transportation
Solutions



LPR



Total Solution



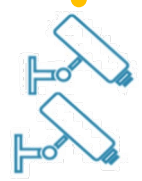
VI Video WallPlus with Joystick

Access Control System

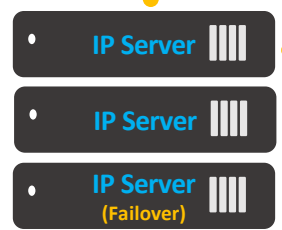
Health MonitorPlus



Flexible storage design allows to record in DAS, NAS & SAN.



H.264, H.265, ONVIF, MPEG4 & MJPEG over RTP, RTSP, HTTP/S with Unicast or Multi-cast



SQL can be on local server or dedicated server.

**Let us innovate
together!**

