



DEVELOPING & MANUFACTURING
INTELLIGENT VIDEO MONITORING SOLUTIONS

SAFE AND SMART
CITY SOLUTIONS

SECURITY BEYOND LIMITS

In the few years since 2000, SensorTec has grown into an international company that it is today. We are among the most innovative technological companies in the world, developing and manufacturing intelligent security and monitoring solutions specifically for largescale projects for military, law enforcement, public authorities and private sectors.

SensorTec believes, serving the needs of customers efficiently can only be successful if they receive complete solutions. In order to achieve this, we design and manufacture all the critical components of our systems, including hardware, software and embedded computer vision. Our entire product range is developed and manufactured in accordance with the highest quality requirements.

KEY FIGURES

300+

Technical Support Engineer and Technician.

3

Branche offices.

HQ and Manufacturing Facilities:

Cambridge, UK.

Budapest, Hungary.

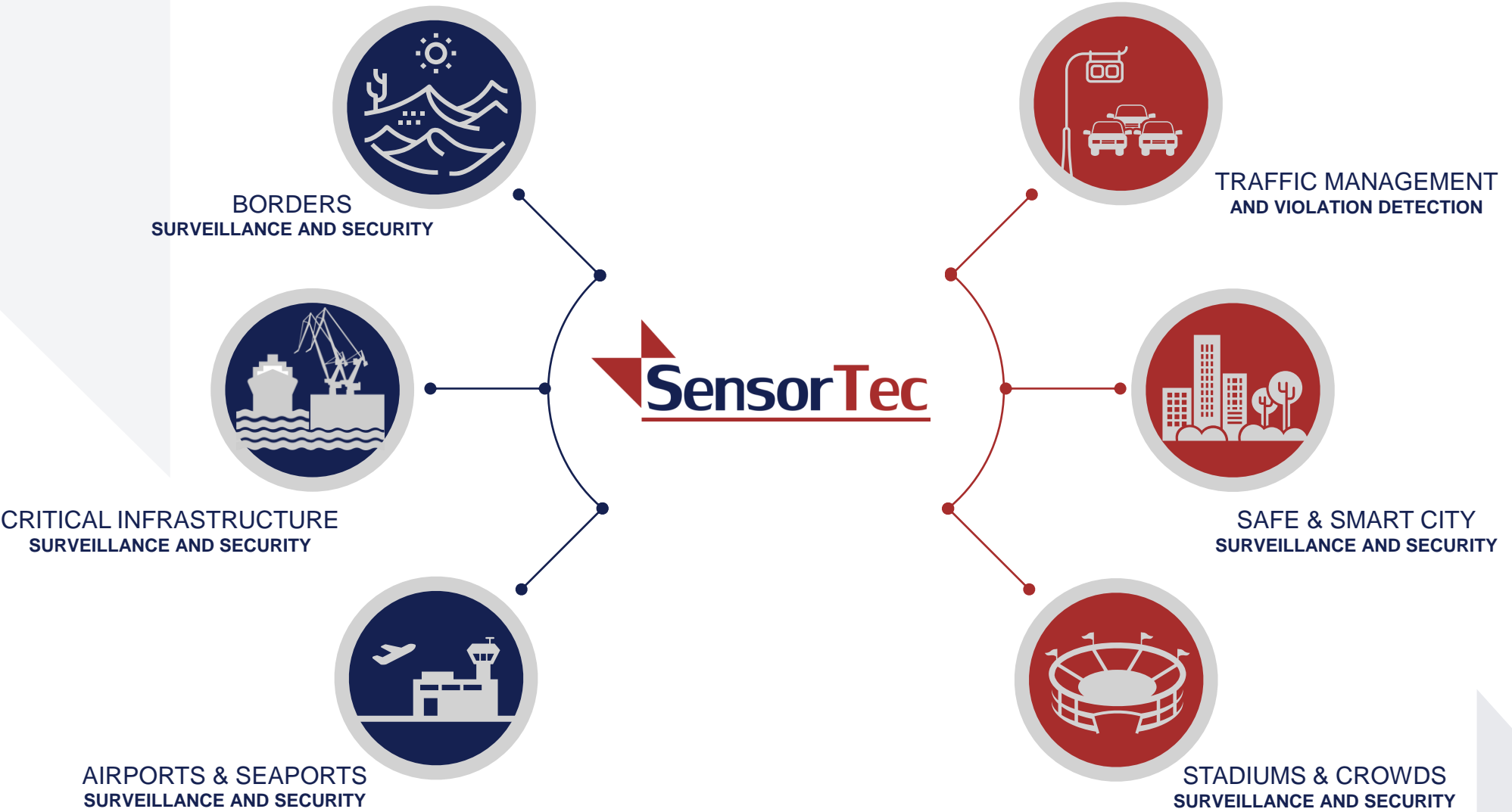
Sales and Technical Support Office:

Dubai, UAE.

SensorTec provides integrated solutions, which combine a wide range of devices, sensors, and software, such as surveillance radars, surveillance cameras, video analytic software and C3. All of our solutions are designed to work in harmony and provide a comprehensive multi-layer approach to deliver situation awareness and interactive intelligence.



SYSTEMS AND SOLUTIONS



SELECTED INTERNATIONAL REFERENCES

BORDERS SURVEILLANCE AND SECURITY

Egyptian Land Borders - Sinai, Egypt.
Kuwaiti Sea And Land Borders - Kuwait.

AIRPORTS SURVEILLANCE AND SECURITY

LaGuardia Airport - New York.
Hungarian Airport - Hungary.
Mumbai Airport - India.
Turkish Airport - Turkey.
Alexandria Airport - Egypt.

CITY SURVEILLANCE AND SECURITY

Mumbai City - India.
Luxor City Surveillance - Egypt.
Sharm El Sheikh City Surveillance - Egypt.
Cairo Monitoring System - Egypt.
Port Saeed City Surveillance - Egypt.

TRAFFIC LAW ENFORCEMENT

Traffic Management And Violation Detection - Cairo.
Traffic Management - Armenia.
Traffic Management - Hungary.

CRITICAL INFRASTRUCTURE SECURITY

Presidential Palace - Kuwait.
Ministry of Defense - Egypt.
Sea Ports - Kuwait.
Egyptian Monument Authorities - Egypt.
Saudi Arabia Embassy - Geneva.

STADIUMS AND CROWDS PROTECTION

Manchester City Stadium - UK.
Beşiktaş Stadium - Turkey.
Türk Telekom Arena - Turkey.
Atatürk Olympic Stadium - Turkey.
Fenerbahçe Şükrü Saracoğlu Stadium - Turkey.
Several Stadiums - Russia.
Dubai Festival Plaza - UAE.
Manarat Al Saadiat Cultural Museum - UAE.
Pyramids Touristic Area - Egypt.

SAFE & SMART CITY SOLUTIONS



SensorTec technologies help cities achieve a more sustainable and livable environment. The solution provides automatic traffic violation detection functions and also surveys large public areas, streets and roads. With the smart solution of SensorTec, cities can progress and ensure the safety of their traffic and the security of people even in the densest urban environments.

[Learn more about
SensorTec Safe & Smart City Solution](#)

KEY ELEMENTS

Crime Deterrence/Prevention

The primary goal of the smart city surveillance solution is to enhance public safety through an adequate collection of events which might have otherwise been missed because of limited law enforcement workforce.

Collect Evidence

Video surveillance becomes the primary method of gathering proof of crimes, and ascertaining which parties were involved.

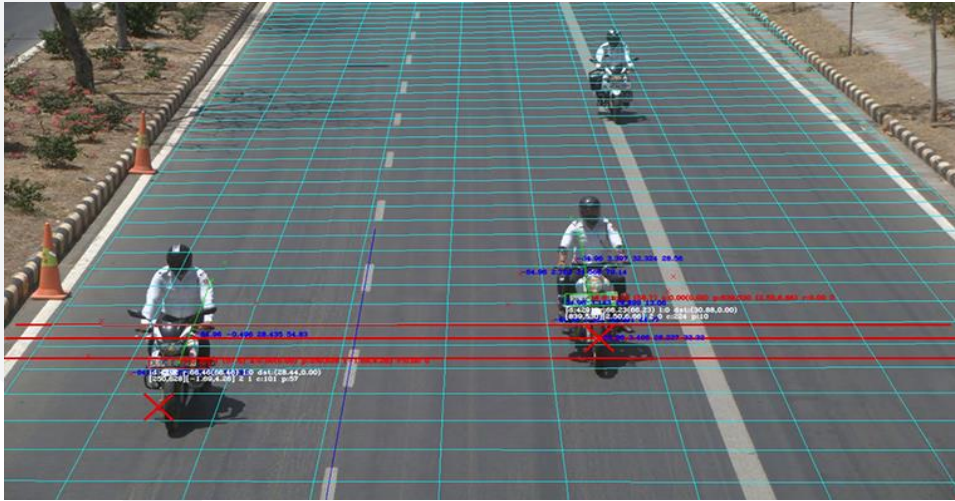
Intelligent Traffic Surveillance

Detects real-time changes in traffic flow and adjusts timing parameters continually to match changing traffic patterns and achieve optimised operation.

Complete Violation Management Workflow

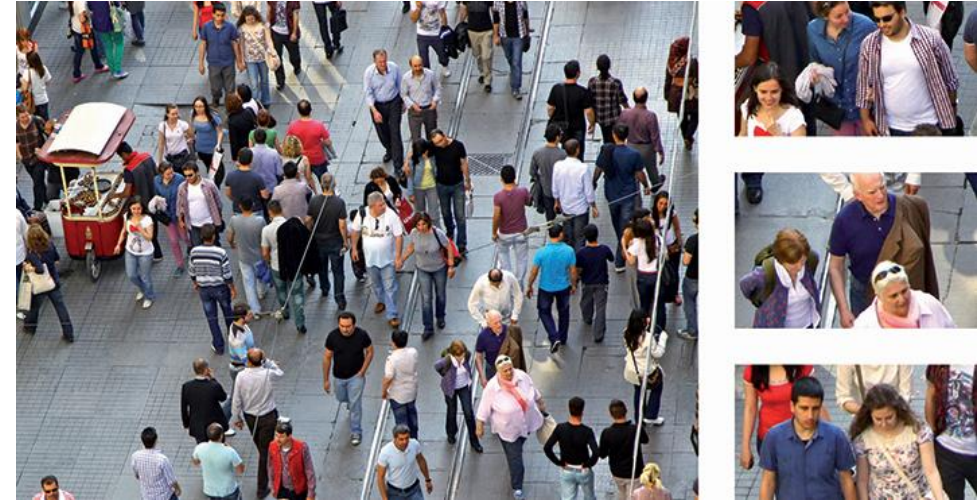
Parking rule violation, Video content analysis, Stop sign violation, Red light violation, Bus lane violation, Speed Detection.

SAFE & SMART CITY SOLUTIONS



TRAFFIC ENFORCEMENT

One goal of the SensorTec solution is to help maintain security in everyday traffic by accurately detecting and recording several types of traffic violations and providing irrefutable evidences for local authorities. As drivers know that all their violating actions could be captured, they are more likely to comply with traffic rules. This eventually results in smoother traffic flow. As less violations appear, the number of potential accidents and traffic jams can be excessively reduced.



SMART CITY SECURITY

The other goal of SensorTec Safe and Smart City Solution is to provide intelligent city video surveillance. The system is able to efficiently surveil large-scale areas 24/7 and help cities maintain security on their streets. Thanks to real-time information sharing, operators can react quickly on any suspicious activity and proper authorities can take efficient security measures. All violent and criminal activities are captured on high-resolution security footage, wherein face recognition is possible even at far distances. These recordings can be used as irrefutable visual evidences on demand.

ADVANCED VIDEO CONTENT ANALYSIS



AUTOMATIC TRAFFIC VIOLATION DETECTION

- A single camera monitors three lanes at the same time.
- Detect various types of traffic violations with unmatched accuracy.
- Image-based traffic counting.
- Capturing Traffic Light States.
- Onsite Recording.
- Wireless communication between sites and server (3G, 4G, 5G, WiFi).



INTELLIGENT CITY VIDEO SURVEILLANCE

- Panoramic view and 20 fps video stream.
- Abandoned object detection and vandalism.
- Interface for face recognition systems.
- Graffiti detection.

INTELLIGENT CITY VIDEO SURVEILLANCE

PANORAMA TECHNOLOGY

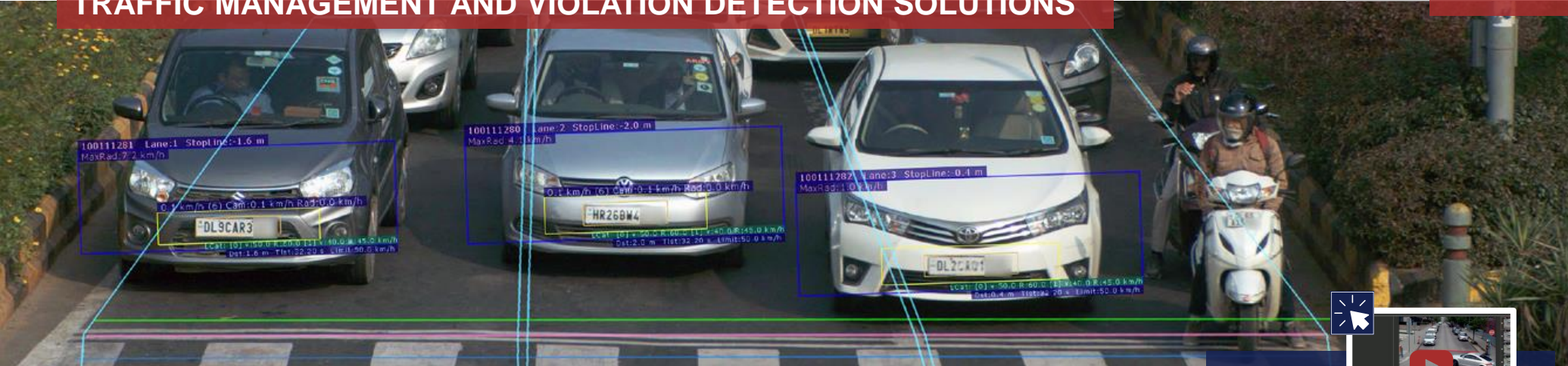
4K or even higher resolution video technology has become common in video surveillance nowadays. But when it comes to monitoring large scale areas their coverage capabilities are nothing compared to the efficiency of high-end panorama cameras. SensorTec developed a leading-edge, multi-sensor panoramic technology, providing 200-320MP image resolutions with 20 FPS video stream and the display technology that makes it possible to seamlessly utilize the full resolution during monitoring. We developed a unique stitching technology that geometrically merges images at the image borders resulting in a contiguous panoramic image just as if it were taken by a single sensor camera. All the grouped sensors take their images synchronized, which ensures a glitch free display throughout the whole panoramic image. Thanks to the special stitching technology zooming and panning are seamless at the stitching borders as too.



Learn more about
SensorTec Panorama Solution



TRAFFIC MANAGEMENT AND VIOLATION DETECTION SOLUTIONS



The primary goal of SensorTec Traffic Violation solution is to help manage the traffic flow and to maintain the security of daily traffic by automatically detecting and recording various types of traffic violations around the clock. The solution provides full violation management workflow from automatic detection till creating a compiled violation package that can be used by proper authorities.

Learn more about
SensorTec Traffic Management Solution



AUTOMATIC VIOLATION DETECTION

SensorTec developed a complete system that automatically detects traffic violations. The detection methods rely on Video Content Analysis, multi-megapixel camera images and high-end 3D radars. Traffic violations are detected with unmatched accuracy both day and night, as advanced IR Laser Flashes works synchronized with the cameras.

Detectable traffic violation types:

Overspeed | Stop sign | Red light | Bus lane | Wrong-way | No left turn | Parking

AUTOMATIC TRAFFIC FUNCTIONS



[Learn more about SensorTec Traffic Management Solution](#)



Red Light Violation Detection.



V-Shape Violation Detection.



U-Turn Violation Detection.



Stop Line Violation Detection.



No Parking Violation Detection.



Speeding Violation Detection.



Wrong-Way Violation Detection.



Bus Lane Violation Detection.



One-Way Violation Detection.



Traffic Counting.

SAFE AND SMART CITY

SensorTec



KEY PRODUCTS

PANORAMA CAMERA



300MP 180°
Panorama Camera



320MP 40°
Panorama Camera



200MP 180°
Panorama Camera

PANORAMA VISION TECHNOLOGY

The SensorTec Panorama camera effectively monitors vast areas from a single viewpoint. The device delivers 200-320 MP resolution video stream with 20 fps frame rate, which forms a revolutionary quality improvement in video surveillance. The precisely stitched panoramic images are produced by 10-16 pieces of high-end 1" sensors. They ensure high sensitivity, extra wide dynamic range, and improved low-light performance.



Learn more about
SensorTec Panorama Solution

20MP CAMERA

SensorTec 20MP camera brings a new quality in video surveillance. Thanks to its 1" sensor and specially developed Image Processing Unit, the camera provides excellent low-light performance, high sensitivity and a resolution that one finds in professional cameras.

The SensorTec 20 MP camera delivers a 20 fps video stream at full resolution, therefore any motion in the footage seems continuous. The device uses the visually lossless JPEG2000 wavelet-based compression method, compressing each frame separately.

20MP CAMERA FEATURES

- A single camera covers large areas with high resolution.
- Multiple zoom windows at the same time.
- Picture enhancement algorithms for foggy, rainy weather conditions.
- Real-time camera image stitching to create panoramic view and zoom as if it were a single image.
- High Dynamic Range (HDR) technology.
- Optional external synchronized IR Flash.
- Optional radar for speed measurement.



20MP
Day/Night/IR modes Camera.



INTELLIGENT MULTI-SENSOR CAMERA

MULTISENSOR TECHNOLOGIES

SensorTec multisensor systems is based on the latest sixth-generation uncooled infrared technology, It is designed for day and night monitoring, intelligent analysis, and active defense. It is composed of thermal imaging module, high-definition visible light module, intelligent analysis module, laser lighting/ranging module, PTZ precision transmission device and control mechanism, etc. Small in size and easy to install.

MULTI-SENSOR CAMERA FEATURES

- All-Weather Resistant: IP67 protection, rainproof and dustproof, adapt to harsh environments.
- Intelligent System: Support hotspots, smoke and fire alarms, temperature detection; support area intrusion detection; support vehicle, boat and human detection, classification and identification; support target tracking, screening and filtering; support AR intelligent information fusion linkage.
- Active Defence: support for loud speaker plus flashing lights to deter or deny criminals.
- Self-Diagnosis and Self-Recovery: supports full life management, fault self-test, network disconnection renewal, power failure memory.
- Detection Range: vehicles: 6,500m and human: 2,500m.
- Identification Range: vehicles: 1,800m and human: 1,000m.



MEDIUM RANGE PTZ CAMERAS

UP TO 5KM DAY AND 2KM NIGHT LASER IR CAMERA SYSTEM

Day/Night LASER camera consists of HD visible light cameras, laser illuminator, laser ranging, dynamic pan/tilt unit, precision gears, digital decoder, high-performance image processing unit and controller. All-reinforced structural design, super-strength stainless steel center bearing, multi-round reinforcement design, to ensure the equipment run properly under harsh environments.

LASER PTZ CAMERA FEATURES

- IR Laser illuminator with automatic cooperating focus system.
- Up to 48x optical zoom.
- Integrated cleaning system (Wiper and Washer).
- Precise positioning with simple mouse click.
- PTZ positioning on map.
- GPS based positioning.
- Interactive PTZ control on the panoramic image.



5Km/3Km/1Km/800m/400m
Day/Night Laser Camera



[Learn more about
SensorTec LASER PTZ Cameras](#)



2MP/5MP/6MP PTZ CAMERAS

The SensorTec 2MP/5MP/6MP PTZ ensures a high resolution and a 25 FPS speed. The camera provides effective manual target tracking thanks to its fast positioning and high accuracy within a 360° horizontal and 100° vertical range. Its image sensor delivers wide dynamic range images. The picture quality and the 36x optical zoom of the camera makes it possible to provide close-ups of the areas of interest and target objects. As the PTZ has a unique integrated Laser illuminator with an automatic cooperating focus system, it is able to provide quality images of monitored targets even in low lighting conditions. Specially developed PTZ control functions in the SensorTec Control Center, such as mouse controlled joystick emulation or PTZ position bookmarks make monitoring convenient and easy.



2MP/5MP/6MP
PTZ Cameras.

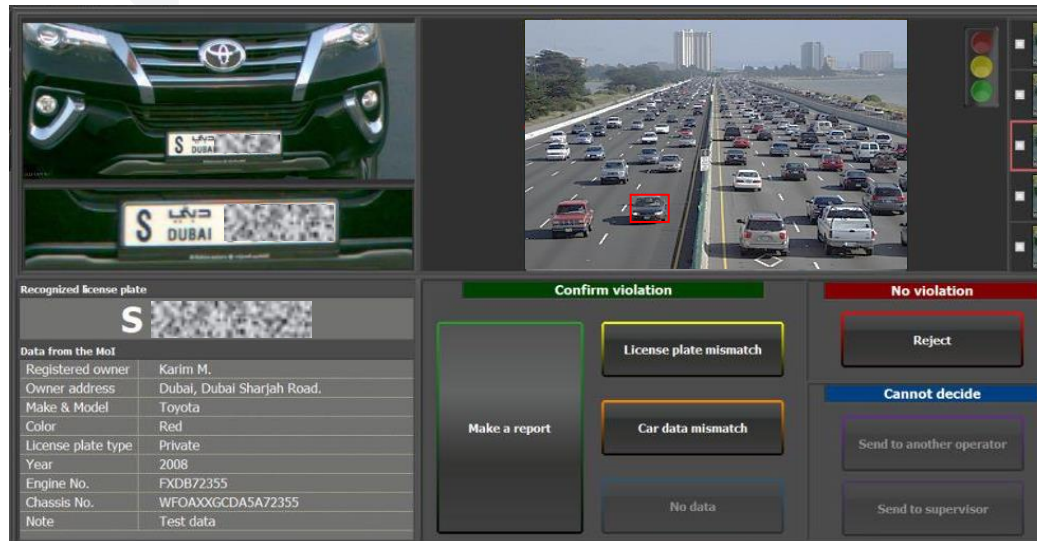


SPEED DETECTION RADAR CAMERA

The SensorTec Speed Detection Radar Camera system is used to detect multiple over speeding vehicles using the radar module, then sends the metadata to camera's VCA software which recognizes the over speeding vehicles and their number plates and sends it to violation management server. The Video Content Analysis module also can measure the presence and the speed of the vehicles within a designated area and detects speeding violation automatically. Besides the security footage, the system saves the vehicle's maximum speed in the zone. Single 20 MP camera provides an overview necessary for the VCA and high quality images required for an undoubted evidence for the local authority.

SYSTEM FEATURES

- Maximum detection speed is 309 Km/h.
- One module can cover up to 3 lanes with up to 7 simultaneous detections.
- Detection distance 68 meter.



| Recognized license plate | |
|--------------------------|-------|
| S | DUBAI |

| Data from the MoI | |
|--------------------|----------------------------|
| Registered owner | Karim M. |
| Owner address | Dubai, Dubai Sharjah Road. |
| Make & Model | Toyota |
| Color | Red |
| License plate type | Private |
| Year | 2008 |
| Engine No. | FXDB72355 |
| Chassis No. | WFOAXGCDASA72355 |
| Note | Test data |

| Confirm violation | No violation | Cannot decide |
|-------------------|--|--|
| Make a report | License plate mismatch Car data mismatch No data | Reject Send to another operator Send to supervisor |



Speed Detection Camera
With Multi-lane 3D Radar.

Learn more about
SensorTec Traffic Management Solution



HIGH MEGAPIXEL CAMERAS

IP Indoor, Outdoor, Submersible and Ex-Proof Cameras.

Type: Dome, Fisheye Dome, Mini Dome, Bullet, Mini Bullet and Box with Lens.

Resolution: 2/3/4/5/8/12 MP.

Lens: Fixed, VF and Motorized VF.



NETWORK VIDEO RECORDERS



Outdoor Network
Video Recorder



Rack-mount
Network Video Recorder



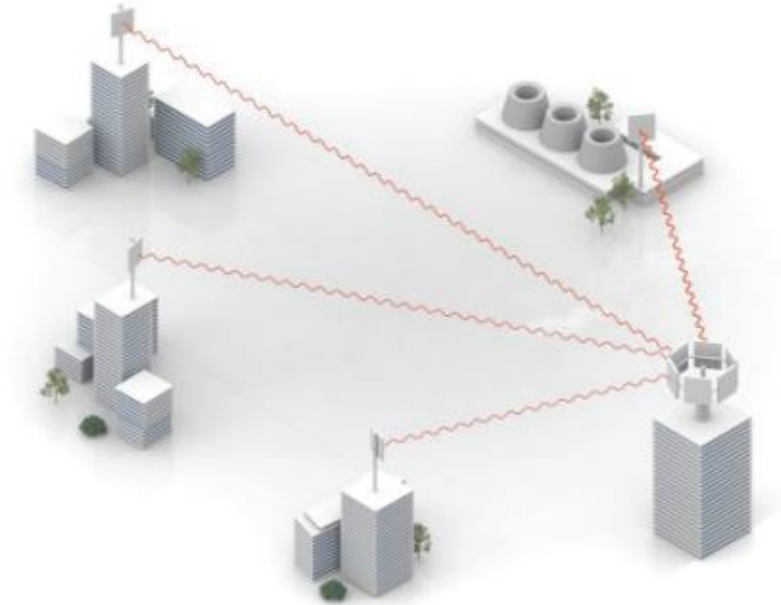
Smart Network
Video Recorder

WIMAX AND MICROWAVE SYSTEMS

A Complete Range of Wireless Solutions for Both PTP and PTMP Fixed Wireless Deployments.

SensorTec has a vast experience in the Wireless video surveillance market, SensorTec design , supply and implement a high reliable wireless security solutions for Border Security, traffic monitoring, ANPR, highway safety, city surveillance and many others.

SensorTec Wireless Solution boosting Easy installation and maintenance, Quick deployment, Flexibility and Scalability.



SENORTEC SOFTWARE

SENORTEC C2 COMMAND AND CONTROL CENTER

SensorTec Command and Control software package developed for land, navy and sea applications. With its simple and effective design, SensorTec C2 Software is an efficient and easy to use tool. Server functions as a connection point for all subsystems (Day/Night cameras, Thermal cameras, Radars Pan-Tilt etc.) and as a distribution point for data System parameters, diagnostics, imaging etc.) to all connected clients.

SENORTEC C3 COMMAND, CONTROL AND COMMUNICATION CENTER

With server functions SensorTec Command, Control and Communication Center acts as a connection point for all subsystems (Day/Night cameras, Thermal camera, Pan-Tilt etc.) and as a distribution point for data System parameters, diagnostics, imaging etc.) to all connected clients.

GIS Map Software Main Features

Map image streaming.

3-D Map navigation.

Map layer management.

Angle, distance area measurements.

Custom Icons, Static marks, Targets, presentations.

Compass layer.

Viewport calculation based on terrain model - line of sight calculations.

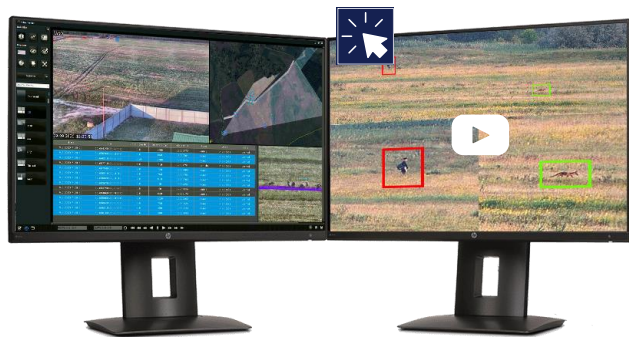
Map Presets.

Map navigation.

3D support and full 3 slew to cue functionality.

KML/KMZ importing and searching by name(area, line, point).

Onscreen compass.



SensorTec C2
Command and Control Center



SensorTec C3
Command, Control and
Communication Center



SensorTec VMS
Video Management Software

SAFE AND SMART CITY



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