SensorTec

ST-ONE-20

Speed Detection Radar Camera

Product description

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 Kmh.

- One module can cover up to 3 lanes.

- Detection distance 68 meter.

- Up to 7 simultaneous detections.

- Violation Management SW to process, analyze and archive violation incidents.

- single or 4 channel Outdoor NVR, IP68, Heat-pipe cooling system

- IR flash is synchronized with the camera and it flashes the monitored object once it violates the rule

- Multi-megapixel lenses (14-50mm) consist of only metal and glass elements and no plastic components are used.

- Violation Management for confirming the automatically detected traffic violations.

- High speed wireless transmission technology (WiMAX).for transferring several thousands of modules to be managed in a single system.

TECHNICAL SPECIFICATION

Multi-megapixel Auto Back Focus IP camera with 1" sensor and 3 optical filters for automatic Day/Night/VE switching

Description	Multi-megapixel Auto Back Focus IP camera with 1" sensor and 3 optical filters for automatic Day/Night/ VE switching
Function	Day: IR band suppressed Night: IR bandenabled IR
Sensor Resolution	5504 (H) x 3648 (V)
Frame rate	20 fps @ 20 MP
Video compression	JPEG2000 - Wavelet MPX24 Signal Processor
Image sensor	1" color 20 Megapixel CMOS
Auto focus	Motorized back focus adjustment
Scanning system	Progressive, no interlaced scanning
Shutter type	Electronic rolling shutter (ERS)
Shutter mode	1/10 - 1/20 000 s, 1/1 s low shutter mode
Sensitivity	0.02 lux F1.4 Day mode or 0.002 lux F1.4 Night mode
Gain control	Fix, auto, blur or noise priority
Backlight compensation	Whole picture or any area selectable
Lens	Standard C mount DC auto/manual IRIS, P-IRIS lens
Inputs/Outputs	4 programmable IO connections NO, NC / OC 0.5A/30V
Sound	Built-in microphone, 1 ch external 24 kHz/16bit, sound in/output
Intelligence	Integrated motion detection
Ethernet connection	1 Gbit / Low Voltage Power over Ethetnet (LPoE)

TECHNICAL SPECIFICATION

Part number	ST-L450C
Description	SensorTec Multi-megapixel lens
Image format	1 inch
Focal length	14-50 mm
Aperture	F2.6. P-IRIS
MOD (Minimum Object Distance)	1.2 m
Angle of view (on 1 inch sensor)	
14 mm	Horizontal: 50.5° / Vertical: 34.0°
50 mm	Horizontal: 15.1° / Vertical: 10.0°
Feature	IR-Correction Day/Night

MECHANICAL SPECIFICATION

Dimension	Ø 60.0 mm x 90.0 mm
Weight	390 g

ELECTRICAL SPECIFICATION

Operating temperature	-10°C - 65°C
Mount	C

Technical Specification

Part number	ST-RS900W
Description	SensorTec monopulse, Fast FMCW, multilane 4D radar
Application	SensorTec Traffic System
Transmit frequency	76-77 GHz 26
Maximum transmit power	dBm (EIRP)
FCC and ETSI	300 / 440 compliant
Antenna beam horizontal	70° (+/- 35°) (typical)
Antenna beam vertical	11° (+/- 5.5°) (typical)
Readout period	50 ms
Modulation	FMCW
Length accuracy	+/- 0.25 m
Speed accuracy	3 km/h up to 100 km/h; 3% above 100 km/h
Velocity range	- 41 to + 41 m/s
Minimum absolute radial speed (Dop-pler radial motion detection limit)	0.1 m/s
Sensor fusion	Yes

MECHANICAL SPECIFICATION

Mounting	4x M4 holes at the back side
	82 x 82 mm in square
Dimension (lwh)	105 x 105 x 42 mm

ELECTRICAL AND ENVIRONMENTAL SPECIFICATION

Supply voltage	5 V powered from SensorTec camera USB
Power Consumption	2 W
	5 V USB 2.0
Operating temperature	- 20 °C to + 65 °C
Storage temperature	- 30 °C to + 100 °C
Degree of protection	- IP67

Technical Specification

Description	SensorTec Varifocal IR Flash for ST_IP20MP_R
Field of beam	6° - 38°
Nominal wavelength	808 nm
Light output power	500W
Syncronization	2-wire SensorTec

ELECTRICAL SPECIFICATION

Power supply	24 V DC / min. 5A
Power consumption	15W
Ambient air temperature	-25 ℃ to + 65 ℃
Degree of protection	IP65

ELECTRICAL SPECIFICATION

Weight	950 g
Dimensions (W × D × H)	98 × 115 × 144 mm (mounting bracket: upper vertical position)
Package gross weight	1000 g
Package dimensions (W × D × H)	120 × 150 × 140 mm

TECHNICAL SPECIFICATION

Part number	ST-NVR100W
Description	SensorTec Network Video Recorder Outdoor
Application	SensorTec Traffic System
Number of Cameras	1
Number of HDDs	1
CPU board	Linux Operating System
	2.7 GHZ CPU
	Diskless operation
Network	2 port / 1000 Mbit
Power Backup	Built-in UPS without batteries
Storage	1 SATA HDDS
	VRM™M Failsafe Filesystem
	Built-in RAID function
Cooling system	Active cooling system
	heat pipes, peltier, fan and sunshield
Violation licenses	Included for all cameras
Optional	STNVR-I0 extension for traffic controller interfacing / 8 in - 8 out opto isolated

MECHANICAL SPECIFICATION

Weight	700×500x360mm
Dimension	30 kg

ELECTRICAL SPECIFICATION

Operating temperature	10°C - 65°C
Supply voltage	230 VAC
Current consumption	max. 2.5 A
Power consumption	500 W
Degree of protection	IP65

ALL PICTURES SHOWN ARE FOR ILLUSTRATION PURPOSE ONLY. ACTUAL PRODUCT MAY VARY DUE TO PRODUCT ENHANCEMENT

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