



3-Track Detection System

3-Track Detection System integrates 3 Detection and Tracking technologies: Laser Radar, 21 GHz Scanning Doppler Radar and Pan – Zoom High performance Day Night Camera, accompanied by a IR Illuminators. This is a unique system capable of detecting and autonomously tracking intruders at any visibility condition. As default the system scan the area with the Laser Radar in the same manner as the ALS when the signal process unit detects any degradation in the laser detection, as may occur during heavy fog, it automatically forward the command to the Scanning Doppler. When an intruder is detected by the Laser Radar or by the Doppler, the camera automatically takes the pictures and track the intruder. The system detects low illumination condition and automatically switch on the IR. The Camera can provide a fully 360 degree, panoramic view of the secured area. 3-Track is a sophisticated autonomous detection system which can automatically detect the intruder, however all of the automatic modes can be overtaken by the operator.

Parameter	Value
Maximal detection range (Wide & reflective object)	Up to 200m
Maximum Detection Range for a low (10%) reflective object	Max. 165m
Maximal detection distance of crawling intruder ~ 0.7m object with reflectivity >30%.	150 m
Angular resolution	1 miliRadians (0.063°)
Maximal scanning angle	360° continuously
Required Detection Time	2 second
(Algorithm at Maximum Performance for low false alarm rate)	
Number of Tracked Objects	16 simultaneously
Adaptivity to periodically movement objects (trees, bushes, etc)	Yes
Laser Scanner	
Number of Beams	2
Beam Inclination Angle	0° + 5° Factory Preset
Scan Rate	0.75 + 1.1 Hz
Pulse Repetition Frequency (PRF)	4.5 + 6.6 kHz
Laser protection class	Class 1 (eye safe)
Wavelength	905nm
MW Doppler Detector	
Mode of Operation	CW Doppler
Frequency	23.8 to 24.5 GHz
Output Power	15mW
Maximal Aperture Power Density	< 5mW/cm ²

CCTV Day / Night Camera	
Picture element	795 (H) x 596 (V): All picture elements 752 H x 582 V Effective picture elements
Resolution	Horizontal: 520 TV lines Vertical: 400 TV lines
Video S/N ratio	More than 48dB
Image size	1/4" (Approx. 3.6mm x 2.7mm)
Video output level	1.0Vp-p (75 W , composite)
Minimum Illumination	Color Mode: 1.2 lx (F1.6) at max. AGC gain, 0.04lx (F1.6) at x32 electronic sensitivity boost [50 IRE] B/ W Mode: 0.06 lx (F1.6) at max. AGC gain, 0.002lx (F1.6) at x32 electronic sensitivity boost [50 IRE]
Zoom	Electronic:x16, Optical:x22
Lens Functions	Focus length: f=3.6 to 79.2 (mm) (x22 zoom) Aperture ratio: F=1:1.6(wide angle) to 1:3.8(telephoto)

IR Illuminator	
Wavelength	850nm
Spectral bandwidth at 50% of I _{max}	35nm
Beam angle	~ 6 – 8 °
Output interface	RS485 Half duplex / Dry contact
Mounting Height	0-8m
Installation position	Horizontal ± 17°
Enclosure rating	IP 67
Operating Ambient Temperature	- 30°C + + 50°C
Storage Temperature	- 50°C + + 70°C
Supply voltage	10-15 VDC @ 2.6 A (31 Watt)
Heater Supply voltage	10-15 VDC @ 3.5 A (48 Watt)
Enclosure rating	IP 67
Weight	15.5 Kg
Dimensions (W x D x H)	280 x 280 x 483 (ø 280 x 480)



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