

TTech-81-CCK

All In One



PIR Curtain Sensor & Camera Kit



The TTech-81-CCK (Curtin Camera Kit) has been designed as a quick deploy, integrated border security sensor system, with photo and video confirmation of detected targets. The advanced PIR detection sensor will accurately detect subjects and vehicles at ranges up to and beyond 500 feet. When mounted above ground level, the PIR sensor establishes an invisible detection curtain of coverage extending out from the sensor platform and down to the ground.

With an extremely narrow field of detection (1°) the PIR sensor eliminates false alerts generated by common wide-angle PIR sensors. A built-in automatic leveling circuit allows the PIR to actively adjust to environmental changes such as heat and wind without generating false alerts.



Once a target is detected, the user programmable camera system captures an image of what was detected by the PIR. The image or video is then sent via wireless network to a receive command and control location for analysis. Images may be automatically forwarded to smart phones or email accounts established by the end users.

Extremely low power components allow for this system to be powered via renewable solar energy. Working together, each unit can retransmit data from remotely located units eliminating the need for overarching repeater systems. This type of deployment may require a slightly larger solar panel and battery depending on deployment location and available sunlight.

Each sensor kit can be remotely controlled and configured via the wireless network. This type of two-way control allows users to change hours of sleep, image or video quality, sensor alerts and cameras triggered, as well as monitor the battery level and general operation.

All communications are protected using ASE 128 bit encryption and network specific authentication. Additional wireless cameras may be added at any location and activated by the nearest Curtain Camera Kit. This flexibility allows for several images from different viewpoints, if desired. Up to 254 TTech-81CCK kits or network devices may be added.

Typical Applications:

- Border Security
- Critical Infrastructure
- Prisons & Correctional Facilities
- Gas & Oil Production
- Restricted Areas Or Exclusion Zones



System Specifications

PIR Trigger

Mechanical

Weight	3.0 lbs (1.4 kg)
Size	3.50" (8.89 cm) dia x 12.93" (32.84 cm) long
Enclosure	Painted PVC
Colors	Green, White, Tan, Grey

Optical

Nominal Range	500 ft (152 m)
Horizontal Field of View	1.1 °
864, 864M3	8 to 14 microns
Spectral Response	Pyroelectric POD (Parallel Opposed Dual)
Detectors	Lithium Tantalate integrated sensors

Environmental

Operating Temperature Range	-40 °C to +70 °C
Storage Temperature Range	-40 °C to +70 °C
Atmospheric Pressure	1 atmosphere (15 PSI) positive or negative (vacuum)

Camera & Network

Picture Format	User Selectable. 5 Megapixel (Mp), 3 Mp HD, 3Mp 1080 HD, 1 Mp, 720 HD, 0.3 Mp
Video Format	640 x 360 pixels
Video Frame Rate	Up to 15 frames per second.
Video Length	5 to 60 seconds.
Motion Detector Type	Passive Infrared (PIR)
Motion Detector Range ²	User adjustable. Up to 100 feet
Motion Detector Detection Angle ³	Approximately 10 degrees
Reaction Time ⁴	0.2 Seconds
Delay Between Pictures	User selectable. 1 second to 2 hours.
Stamps on Picture	User selectable. Date, Time, Temperature, Moon Phase, and 2 custom text fields.
Additional Optional Settings ⁵	Custom camera schedules. Time lapse photography. Pictures or video emailed or uploaded to secure LiveCam Web-site.
RF Transmission Range ⁶	2 miles (standard antennas) Distance may be increased with high gain antennas and / or repeaters.
Transmission Speed ⁶	Up to 8 kilo bytes per second (Approx. 6 sec for 0.3Mp picture)
Maximum allowable antenna gain	15.1 dBi (including cable losses)
Number of Cameras Assigned to One Base	Up to 254
Operating Temperature	-40 to 140 F
Battery Type	12V SLA UB1270 sold separately
Solar Panel	Optional solar panels sold separately
Communication Frequency Band	902 to 928 MHz, software selectable channel mask for interference immunity
Transmitter Output Power	Up to 250 mW
Spread Spectrum	FHSS
Regulatory Approvals	
FCC (USA)	MCQ-XB900HP
IC (Canada)	1846A-XB900HP
C-Tick (Australia)	Yes
Anatel (Brazil)	Pending



Subject
On Foot