

TRK Units

TotalTrack®

Always Watching, Always Vigilant, Unrelenting Security

Imagine the power and savings of having the video monitor hold the watch – automatically!

What was once only a dream is now reality! You can convert your current passive security surveillance into a strategic smart surveillance video that automatically detects, notifies, and takes action.

A revolutionary technology with a proven record of achievement, the VTD™ technology of ioIMAGE TRK Units automatically identifies and detects various security and safety threats and scenarios while maintaining a dramatically low false alarm rate.

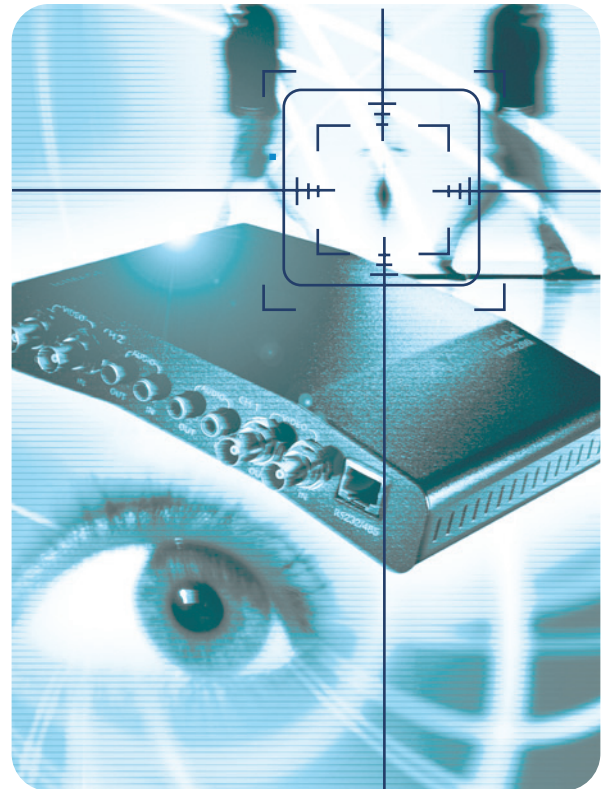
Units can be easily added to existing indoor or outdoor analog security surveillance systems for capturing incoming scenarios and detecting threats every second of every minute for every inch of your monitored site.

Three in One, TRK Unit:

- Converts analog cameras into IP cameras
- Transforms inanimate cameras into smart proficient cameras
- Provides Network Video Recording (NVR) capabilities

Benefits:

- Easy to install, sets up in minutes – setup software included
- Cost-effective, integrates with existing security infrastructures retrofitting stationary and PTZ (Pan/Tilt/Zoom) cameras
- Units can operate as stand alone or as part of an integrated network configuration
- Superior non-flat detection, sees intruders in 3D-scape and at great distances
- User-defined detection zones and allowed/disallowed directional movements
- Detects threats under inclement weather conditions, low visibility, poor lighting
- Detects camouflaged intruders, extremely slow progression (as slow as 1 ft/5 min), and burst movements
- Ignores false alarms generated by small animals, swaying branches, cloud shadows, light changes, rain, snow and trivial movements in the scenery



Key System Information

Video Formats:	NTSC or PAL
Processing:	TI DM642 DSP
Max. Viewing Speed:	30 frames per sec.
Max. Recording Speed:	30 frames per sec.
Analog Inputs:	Audio & video
Analog Outputs:	Audio & video w/ overlay
Digital Outputs:	MPEG-4 audio & video
False Alarms:	Less than 1% at 99% probability of detection
Network:	LAN & WAN – dynamic & static IP support
Auxiliary I/O:	Dry Contacts & RS-485/232
Package Includes:	TRK Unit hardware, TRK-Setup software



ioIMAGE Video Threat Detection

Highlights

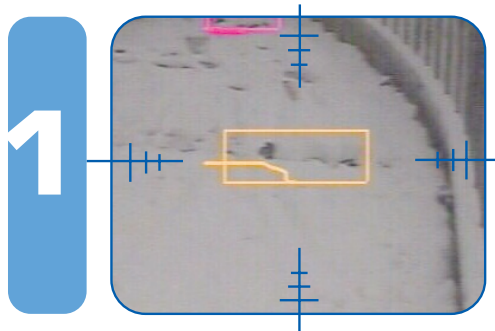
- Provides 24/7 unmanned surveillance that alerts only when a threat is detected
- Reduces resource and variable costs for dedicated video surveillance
- Decreases response time and provides a probability of detection that excels past human factors
- Transforms existing analog devices to IP
- Performs predefined actions on the event of detected threats
- Features several built-in recording options: continuous, event driven, and scheduled recording
- Supports up to 10 min. pre-alarm recording for capturing the moments before an alert
- High Resolution – low latency–MPEG-4 audio & video streaming
- Supports unicast and multicast routing
- Maintains QOS: automatically optimizes quality of service for one or more units adjusting audio & video streams to bandwidth, traffic characteristics and priority
- Supports external devices, such as PIR, magnetic switches, fire sensors, etc. providing status control, device query, and on-event macro execution
- Unit supports future firmware upgrades
- Remote field-deployment allows local or remote configuration



TotalTrack powered by VTD™ 5 solutions up and running in 5 min

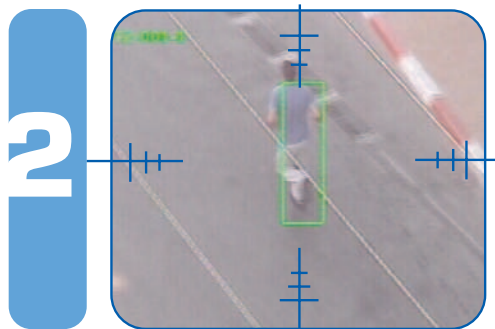
Detect Intrusion

IntrusionTrack™ is an intelligent module that watches with unblinking vigilance for intruders in surveillance video; IntrusionTrack™ doesn't give intruders a chance. Built-in VTD™ technology detects intruders while ignoring distractions that cause false alarms, like small animals, swaying branches, cloud shadows, rain, snow, etc.



Auto-Track with PTZ

PTZTrack™ is an innovative module that transforms manually controlled Pan/Tilt/Zoom cameras to automated intruder-tracking systems that keep the intruder in focus and centered in the video frame. It is a fully independent (autonomous–no helper camera needed) spot-and-track system that can be coupled with IntrusionTrack™ to seek out intruders in different areas by looping through preset location sequence. It follows where stationary cameras would lose the intruder once out of the camera's field of view.



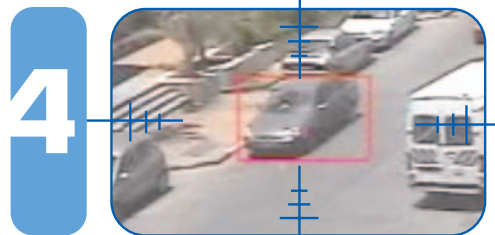
Locate Abandoned Objects

UBTrack™ (Unattended Baggage) is ideal for anti-terror crowd surveillance and homeland security protocols. This module, which works both indoor and outdoor, automatically detects unattended objects and unaccompanied baggage to alert and provide information for handling possible baggage bomb threats or discarded contraband. UBTrack™ is suited for real-world crowded places, such as airport terminals, bus and train stations.



Display Parking Violators

NPTrack™ (No Parking) automatically spots violations in parking and stopped vehicle rules. Detects stopped/standing vehicles, parked vehicles in no-parking zones, broken-down vehicles in traffic lanes, exceeded time limit parking (short/long-term), etc.



Detect Object Removal

ORTrack™ (Object Removal) is a target-specific feature that automatically detects if an object of interest is moved from its location. This can be ideal for tasks such as running sting operations, detecting vandalism, identifying theft (whether customer or employee), or assuring objects are in place for site safety.



MINI TRK Units

TRK-MINI-100 TRK-MINI-140

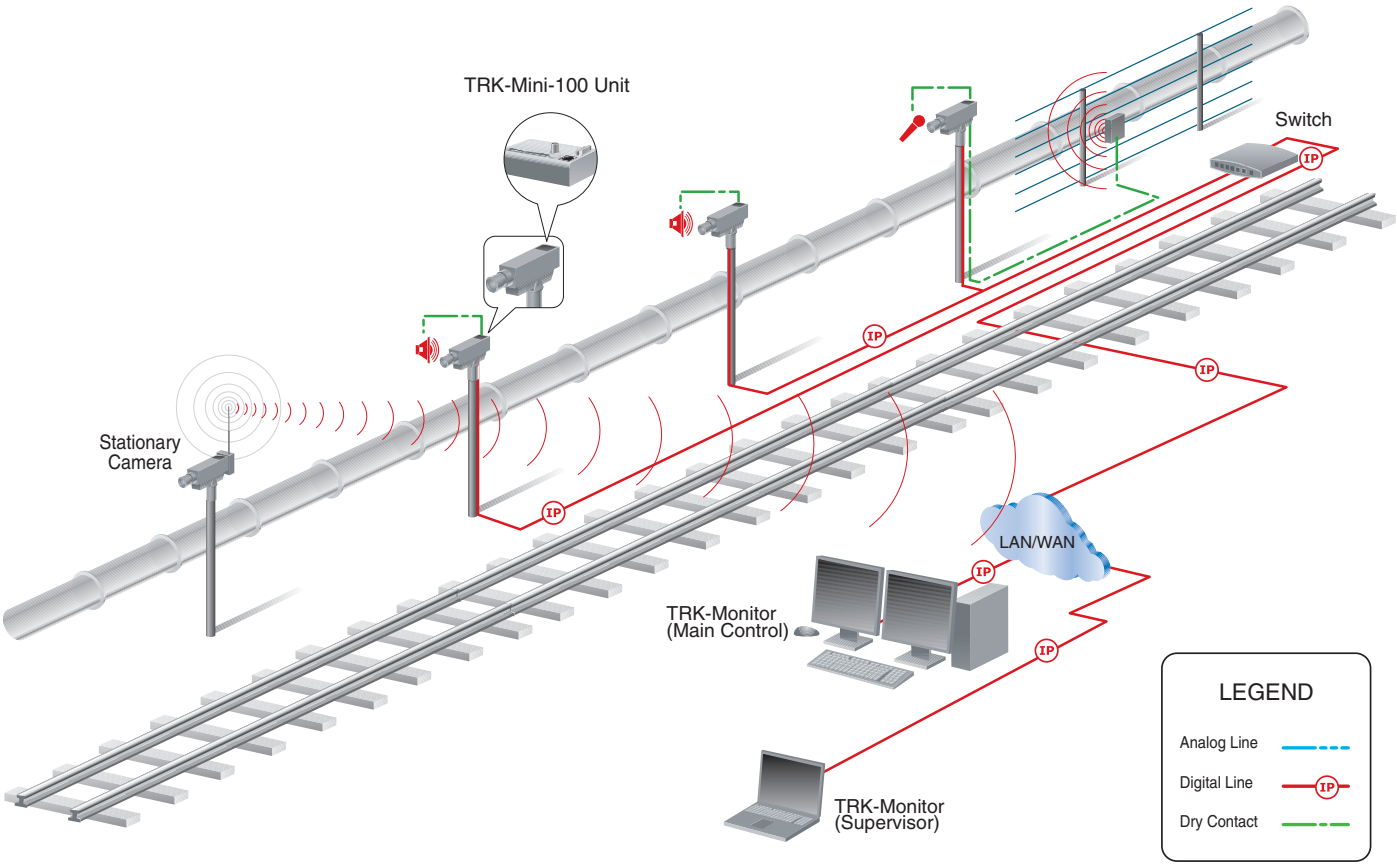
The Mini TRK Units are miniature units that can be used for indoor and outdoor applications. The units, about the size of a deck of cards, are small enough that they can be installed inside camera enclosures and casings of some models.

By plugging the unit inline, you can upgrade common cameras with IntrusionTrack™, PTZTrack™, UBTrack™, NPTrack™ and ORTrack™ capabilities and convert their output into a MPEG-4 streaming multimedia over IP. Their size makes them ideal for adding functionality to OEM products, inconspicuous, or confined-space installations.

The built-in network switch allows the interconnecting of multiple TRK Units in daisy-chain configuration rather than parallel wiring, providing a significant savings on cable deployment, thus making it suitable for extended and remote location installations.

TRK-MINI-100		
Channels	1 x Audio 1 x Video	
MPEG-4 Max. Streaming Resolution	CIF	
Network	dual-port built-in network switch	

TRK-MINI-140		
Channels	1 x Audio 1 x Video	
MPEG-4 Max. Streaming Resolution	4CIF	
Network	dual-port built-in network switch	



COMPACT TRK Units

TRK-100 TRK-140 TRK-200

The Compact TRK Units are small shelf units that can be used for indoor and outdoor applications.

Compact TRK Units are ideal for small to medium sized security operation with one or more camera or for scalable installations where the units are dispersed in multiple locations of one and two camera cells.

The built-in network switch allows the interconnecting of multiple TRK Units in daisy-chain configuration rather than parallel wiring, providing a significant savings on cable deployment, thus making it suitable for extended and remote location installations.

TRK-100

Channels	1 x Audio 1 x Video
MPEG-4 Max. Streaming Resolution	CIF
Network	dual-port built-in network switch



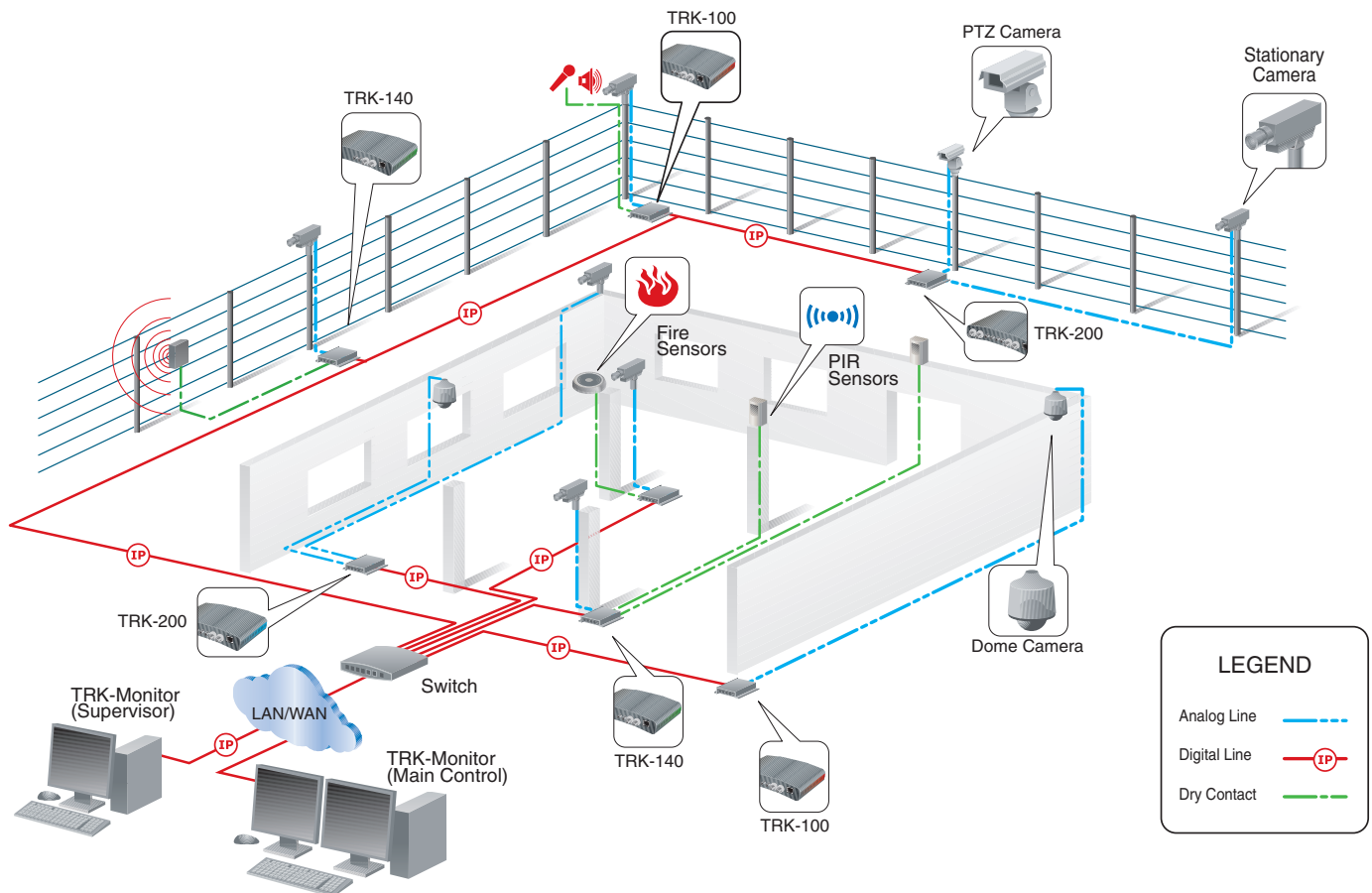
TRK-200

Channels	2 x Audio 2 x Video
MPEG-4 Max. Streaming Resolution	CIF (per channel)
Network	dual-port built-in network switch



TRK-140

Channels	1 x Audio 1 x Video
MPEG-4 Max. Streaming Resolution	4CIF
Network	dual-port built-in network switch



ENTERPRISE TRK Units

TRK-400 TRK-440 TRK-800

The Enterprise TRK Units are 19" rack units for installations that are centralized, such as a security control room. Ideal for medium to enterprise security operation with a large number of cameras, the Enterprise TRK Units help optimize rack space by consolidated support for multiple analog cameras in each unit.

TRK-400

Channels	4 x Audio 4 x Video
MPEG-4 Max. Streaming Resolution	CIF (per channel)
Network	single-port direct connect



TRK-440

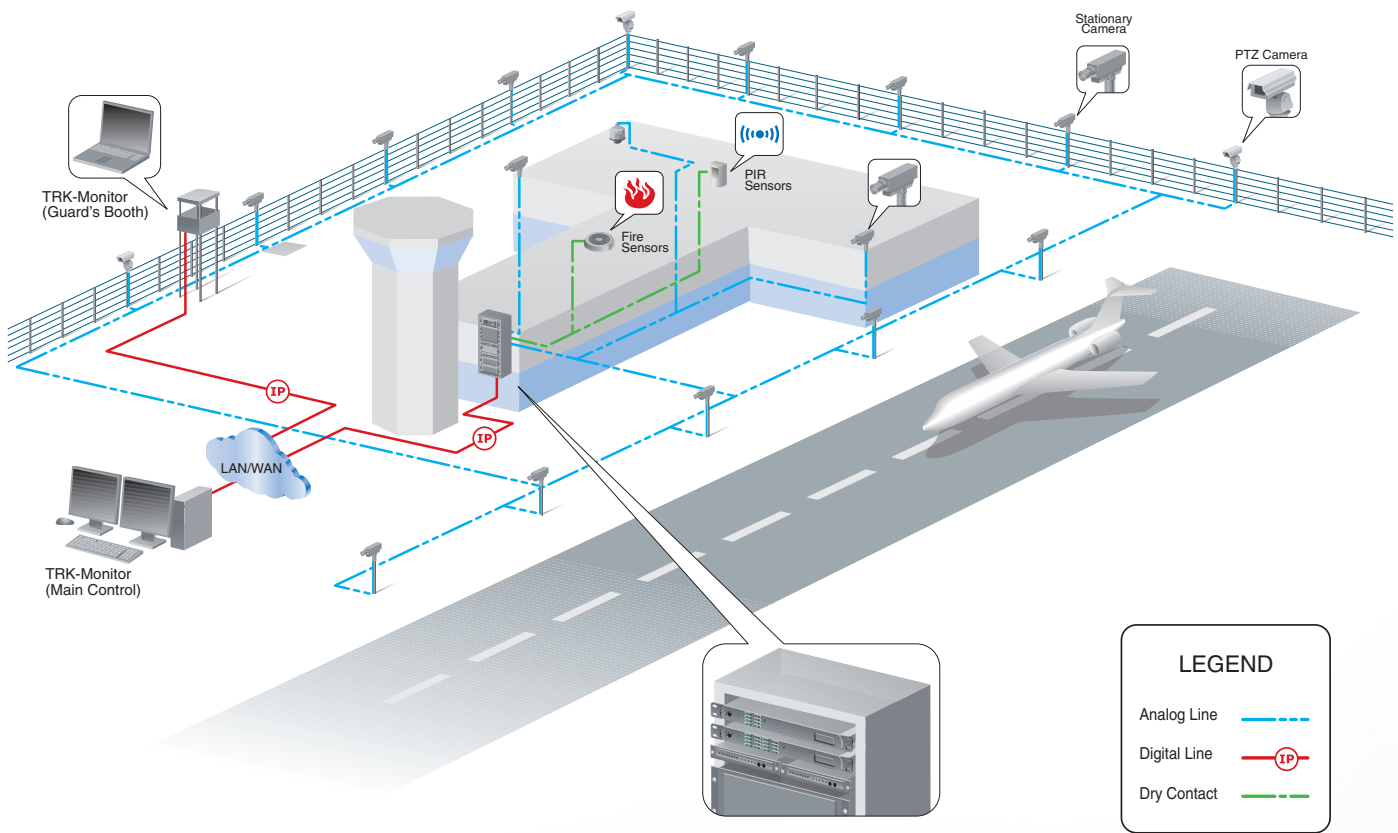
Channels	4 x Audio 4 x Video
MPEG-4 Max. Streaming Resolution	4CIF (per channel)
Network	single-port direct connect



TRK-800

Channels	8 x Audio 8 x Video
MPEG-4 Max. Streaming Resolution	CIF (per channel)
Network	single-port direct connect





VTD™ Channels	TRK-100	TRK-140	TRK-200	TRK-400	TRK-440	TRK-800	TRK-Mini-100	TRK-Mini-140
Number of Intelligent Audio & Video Threat Analysis Channels	1	1	2	4	4	8	1	1
Analog Video Inputs								
Standard - NTSC/PAL	✓	✓	✓	✓	✓	✓	✓	✓
Physical Connector - BNC 75Ω	1	1	2	4	4	8	1	1
Analog Audio Inputs								
Unbalanced Mini Jack- Audio impedance 10kΩ	1	1	2	4	4	8	1	1
Analog Video Outputs								
Standard - NTSC/PAL	✓	✓	✓	✓	✓	✓	N/A	N/A
Physical Connector - BNC 75Ω	1	1	2	4	4	8	N/A	N/A
Graphical Overlay	✓	✓	✓	✓	✓	✓	N/A	N/A
Analog Audio Outputs								
Unbalanced Mini Jack Connector - Audio Impedance 10kΩ	1	1	2	4	4	8	1	1
Standard Compliance								
ISO/IEC 14496 (MPEG-4)	✓	✓	✓	✓	✓	✓	✓	✓
Digital Video Output								
Max Resolution per Channel	CIF	4CIF	CIF	CIF	4CIF	CIF	CIF	4CIF
128Kbps - 4Mbps	✓	✓	✓	✓	✓	✓	✓	✓
Frame Rate	Full	Full	Full	Full	Full	Full	Full	Full
CBR/VBR	✓	✓	✓	✓	✓	✓	✓	✓
Digital Audio Output								
Standard - ADPCM (G.729)	✓	✓	✓	✓	✓	✓	✓	✓
8-96 Kbps	✓	✓	✓	✓	✓	✓	✓	✓
Frequency Response, 20 Hz - 20 kHz, +/- 0.25 dB	✓	✓	✓	✓	✓	✓	✓	✓
Sampling Frequency 32, 44.1, 48@20 bits/sample	✓	✓	✓	✓	✓	✓	✓	✓
Audio Gain Control: -90 dB - 30dB with 8dB level steps	✓	✓	✓	✓	✓	✓	✓	✓
Network								
Ethernet RJ-45 Interface	2x10/100	2x10/100	2x10/100	1x10/100	1x10/100	1x10/100	2x10/100	2x10/100
Audio & Video - RTP/IP Multicast	✓	✓	✓	✓	✓	✓	✓	✓
Alarms /Commands - TCP/IP	✓	✓	✓	✓	✓	✓	✓	✓
Serial I/O								
RS-232/RS-485	2/1	2/1	2/1	4/2	8/4	8/4	1	1
Discrete I/O Interface								
IN - Dry Contacts (max. 12VDC 50mA)	4	4	4	4	4	8	4	4
OUT - Relay Dry Contacts (max. 24VDC 1A, 125VAC 0.5A)	2	2	2	4	4	8	1	1
Power Source								
Voltage	12V DC	12V DC	12V DC	120V-240V AC	120V-240V AC	120V-240V AC	12V DC/24V AC	12V DC/24V AC
Power Consumption								
Wattage (max.)	3.5W	5W	6W	12W	20W	24W	2.7W	4.5W
Physical								
Dimensions (W/H/D) mm.	200/60/161	200/60/161	200/60/161	222/44/305	483/44/325	483/44/325	103/36/68	103/36/68
inch	7.9/2.4/6.3	7.9/2.4/6.3	7.9/2.4/6.3	8.8/1.7/12	19/1.7/12	19/1.7/12	4/1.4/2.7	4/1.4/2.7
Mounting	Shelf	Shelf	Shelf	19" Rack	19" Rack	19" Rack	Camera Housing	Camera Housing

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