

UniTrak™

VIDEO DETECTION SOLUTION

DETECTION

UniTrak joins Peek Traffic's family of video detection solutions as a cost-effective and accurate single-camera detection device designed as a replacement for traditional in-road inductive loop detectors. The UniTrak design is optimized to allow rapid installation as a form, fit and functional replacement to existing detector cards.

The UniTrak solution displays on site traffic scenes with visual verification of proper zone placement and proper vehicle detection. This also provides a flexible, easily modified configuration of as many as 26 detection zones. The card reduces high maintenance costs and inefficient intersection operations caused by the failure of traditional detection loops, which are buried in the road surface.

FEATURES

- ▶ Accurate vehicle detection optimizes traffic flow in multi-weather conditions.
- ▶ Cost-effective replacement solution for conventional loop detectors.
- ▶ Rapid installation and video display configuration without traffic interruption.
- ▶ Only mouse and monitor are needed for full configuration.



STANDARDS BASED ARCHITECTURE

- ▶ Video processing module supports EIA standard (NTSC monochrome) CCD cameras.
- ▶ Detection features are compatible with NEMA TS-1/TS-2, Type 170/179, Type 2070, and ATC controllers.
- ▶ NEMA and FCC compliant.

RAPID INSTALLATION

- ▶ Provides drop-in replacement for inductive loop detector card.
- ▶ Displays on site traffic scene with visual verification of vehicle detection.
- ▶ Flexible configuration of up to 26 detection zones logically mapped to as many as 8 outputs.

HOW IT WORKS

Each UniTrak video camera is mounted in accordance with a Peek site survey. Typically, cameras are mounted on traffic signal mast arms or luminaire arms for unobstructed views of multiple lanes. Power and video are the only required connections to the camera housing.

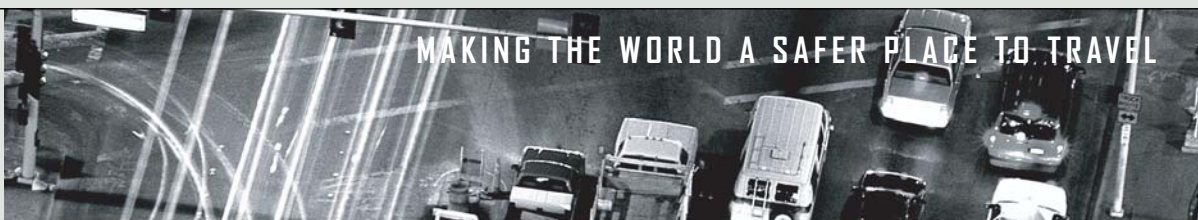
The UniTrak Video Detector Card is inserted into a traffic controller detector rack. A technician connects a video monitor and mouse to view the video and defines as many as 26 configurable areas of detection or zones. These zones can then be logically mapped to the four card-edge outputs, and/or extender card outputs. This is done using an easy-to-operate graphical user interface (GUI). Additionally, four more logical outputs can be mapped to one or more optional IC222/224 Extender Cards.

Each detector zone has an output that becomes active when a vehicle is detected inside the zone. The output is programmed to have an "on" or "off" state during fail safe (bad video or any other fail safe conditions).

The configuration information is stored in memory and remains valid regardless of long power outages.



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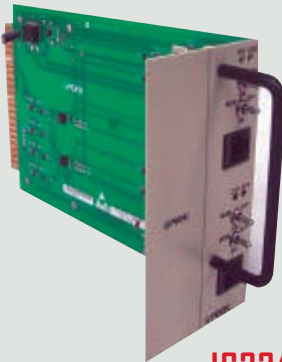


PROPER DETECTION IN ALL CONDITIONS

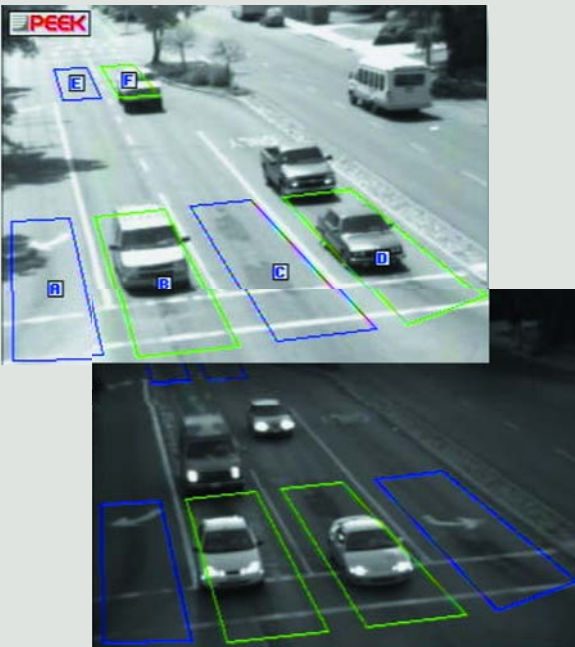
The state-of-the-art image processing algorithm used by UniTrak detects vehicles in widely varying weather and lighting conditions: bright sunlight, cloudy daylight, light rain, heavy rain, light and heavy snowfall, sleet, fog, dawn and dusk lighting, and full darkness.

IC222/224 DETECTOR EXTENDER CARDS

The extender card can be used to route detections from UniTrak zones to several different slots in a detect or rack. This avoids the need for rewiring a rack, when UniTrak provides detection for the multiple phases visible in a camera image. UniTrak can export up to four additional detection channels through these extender cards. The extender cards are available in 2 or 4 channel versions, and each provide front panel switches to force a call, disable a channel, or provide normal "passthrough" operation.

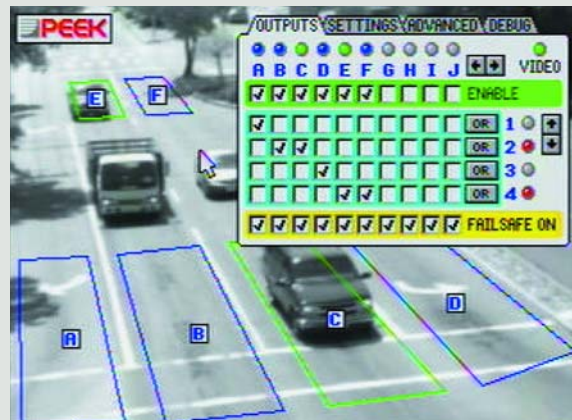


**IC224
Extender Card**



UNITRAK CARD SPECIFICATION

Characteristic	Description
Height	4.5" (114.3mm)
Width	2.34" (59.4mm)
Depth	6.875" (174.6mm)
Handle	1.09" (27.8mm)
Bus interface	44-pin standard detector card edge connector.
Voltage	From card edge: 10.8V to 30V.
Temperature	-29°F to +165°F (-34°C to +74°C)
Humidity	0% to 95% non-condensing.
LED display	LEDs indicate: <ul style="list-style-type: none"> ▶ Good video. ▶ No video. ▶ Fail safe modes. ▶ Detect output states.
Connectors	<ul style="list-style-type: none"> ▶ RJ-45 for serial port PC connection. ▶ BNC for video in. ▶ RCA for video out.



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