

Aldis™ Solutions for Smart Cities of All Sizes

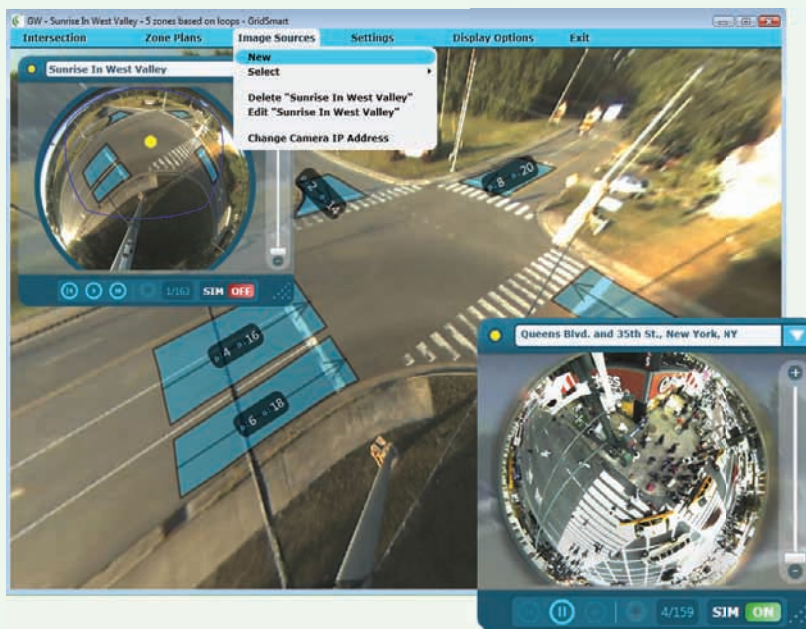
GridSmart™

Description

GridSmart is an all new concept in video traffic management delivering a best-in-class solution with the lowest cost of ownership on the market today. GridSmart combines a single ultra wide angle lens camera with a ruggedized cabinet mounted processor, creating a non-intrusive video tracking solution that empowers traffic professionals to actuate and maintain any intersection, large or small. GridSmart is a practical, cost-effective alternative, even when compared to simply replacing failing inductive loops.

Platform and Design

GridSmart is designed on an advanced platform architecture combining stop-bar functionality with advanced feature including vehicle counts and intent, classification, emergency vehicle identification, pedestrian handling, dilemma zone control and adaptive traffic management. GridSmart is rapidly scalable and easily interfaced to other 3rd party products and peripherals. The configuration management software is designed to be user friendly and allow access both local and remotely through a secure VPN connection. The software provides access to all of the GridSmart features and can grow with the needs of the intersection.



Software Features

- Digital flattening of image
- Digital pan-tilt-zoom
- Easy set-up and management
- Point and click zone drawing
- Zone design simulation
- Expandable features including heuristic algorithms



Camera Features

- Color imager
- 2000 lines resolution
- 2 lux capable
- 2560 x 1920 effective pixels
- Automatic white balance
- Single CAT5 connection
- >50dB S/N ratio
- 360° FOV

Advanced Video Tracking

GridSmart is a single camera video tracking solution for use in isolated or coordinated intersection management systems. All GridSmart products are engineered for rapid installation through a single wire with an intuitive GUI configuration. GridSmart can track:

- Vehicles
- Pedestrians
- Bicycles
- Speed
- Classification
- Emergency vehicles
- Incident Identification
- Trains
- Golf Carts
- Turn counts

GridSmart is the only video tracking system that comes with an intersection simulator allowing traffic professionals to model various scenarios based on actual vehicle counts.

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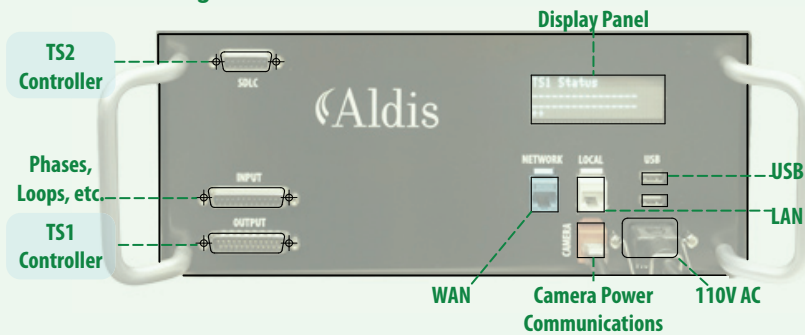
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Features

- Always in Focus Color Camera** with electronic shutter speed control
- Proprietary Occlusion Mitigation** provides improved performance as objects that enter the area of interest are tracked until exit.
- Vehicle Tracking** monitors vehicle presence, stopped vehicles and direction.
- Vehicle Classification** monitors turn and vehicle speed data, vehicle count data by lane, class data with 32 or 64 user-defined bins.
- Traffic Safety Solutions** include emergency vehicle identification, passive pedestrian detection, automated pedestrian clearance time.
- Fail-safe controller outputs** with self diagnostic keeps the system always up and running



Control Unit Diagram



Installation and Configuration

GridSmart was designed to reduce install and configuration time while providing engineers with an easy-to-use customized solution. Aldis' single ultra wide angle lens camera is mounted in the intersection with a single encrypted IP connection to a video processor card located in the traffic control cabinet. The video processor card is an embedded PC-104 compliant and the processor is installed in a standard NEMA TS-1, TS-2 & 170/2070 traffic control cabinet. The system plugs into any rack that provides standard 120 or 240 VAC connectivity, no modification to the cabinet is necessary.

Technical Specifications

	Control Unit	Camera
Dimensions	12.25" x 11.25" x 5" (w x d x h)	10" diameter x 9"
Weight	12 lbs.	9 lbs.
Operating Temp	-4F to +140F (-20C to +60C)	-31F to +140F (-35C to +60C)
Humidity	0 - 95% non-condensing	0 - 95%
Power	120-240VAC, 30Watts	48VDC
Connection	LAN interface, Camera interface WAN interface	
Display	Indicates inputs and outputs and active zones	

Benefits

- Cost Effective** – Single camera solution competes in cost with inductive loops.
- Fast Install** – Single wire run with remote set-up and configuration gets the crew out of the intersection fast.
- Full Field of View** – GridSmart monitors the middle of intersection providing far more information over standard machine vision solutions.
- Easy Configuration** – GUI-based software with adaptable user-defined detection zones make set-up fast.
- Easy to Use** – User interface reduces training time while improving overall productivity level.
- Low Maintenance** – Camera has no moving parts and a sealed housing with built-in heating system making it virtually maintenance free in all conditions.
- Proven Technology** – Fully tested in all climates and conditions.

Control Unit Features

- Onboard display indicates input and output status and active zones
- Interface to TS1 and TS2 Controllers
- 24 Optically isolated inputs for TS1 installation
- Monitor phases and loops
- 24 Optically isolated outputs
- Generate calls to controller
- SDLC interface for TS2 installation
- Responds to addresses 8-11
- 64 inputs

Aldis reserves the right to update or change specification at any time without prior notice. Some features and functionality are forward looking, please contact Aldis for availability. GridSmart is a registered trademark of Aldis, Corp. All other trademarks or registered trademarks are property of their respective owners.

