GC-WWVDS SERIES

Wrong Way Vehicle Detection System (WWVDS)

GovComm detection systems are engineered for exit ramp topography. Our systems use high-definition optical and thermal camera sensors with site-specific lenses covering detection and confirmation zones. WWVDS prevent high-risk, high-impact crashes by identifying wrong-way entries, alerting drivers in real time, and notifying agencies to respond quickly.

govcomm
A SynapseITS™ company

Features

- Artificial intelligence & machine learning technologies
- High-definition images with alert notifications sent to ATMS
- Equipment is housed in a small aluminum enclosure or on a recessed plate for rack mounting
- Thermal & optical sensors for detection in difficult lighting and weather conditions
- Proprietary Detection Optimizer™ with Point Cloud Technology
  - GovComm's proprietary algorithm and hardware combination that detects wrong-way vehicles while eliminating false positives
- With GovComm's Compass software interface you get
  - Central management for multiple systems
  - User management, system health, and incident reporting with Compass software interface
  - Local & remote graphical user interface for configuration and monitoring
- Hardened for environmental elements
- Wired and wireless communication options
- Detection zones editable and configurable
- Highlighted signs alert drivers in real-time

Key Components

- GovComm AI computer module
- High-definition cameras
- Network switch
- Highlighted signs
- Controller for highlighted signs
- PoE injectors
- Web-based UI and Compass central server management platform

GOVCOMM AI COMPUTER MODULE (EDGE DEVICE)

Resources: Multiple CPU & GPU processors w/NVIDIA® CUDA core for high detection accuracy

System programming	Retained in nonvolatile memory
Communications interface	1 × RJ45 1Gbps Ethernet port with wireless technology options available
NTP	Synchronizes to network time server defined by user configurable IP address
Storage	SSD hard drive & memory card

BI-SPECTRUM CAMERA

Resolution	640x512 thermal resolution
Infrared	220-foot light field
Optics	4MP optical resolution
Thermal overlay	Dual spectrum fusion
Angle of view	Site specific
Ingress rating	IP66
Protocol	ONVIF
Power	Power over Ethernet
Video Codecs	H.264 & H.265

HIGH-DEFINITION CAMERA

Resolution	2048x1080 optical resolution
Infrared	300-foot light field
Optics	2MP optical resolution
Zoom	10x Optical Zoom (5-50mm)
Angle of view	4.11°-55.87° (H), 2.65°-33.21° (V), 5.56°-68.72° (O)
Ingress rating	IP67
Protocol	ONVIF
Power	Power over Ethernet
Video Codecs	H.264 & H.265

BUILD AMERICA BUY AMERICA

WARRANTY 3 YEARS WARRANTY

400+ WRONG WAY INSTALLATIONS

meets MUTCD standards

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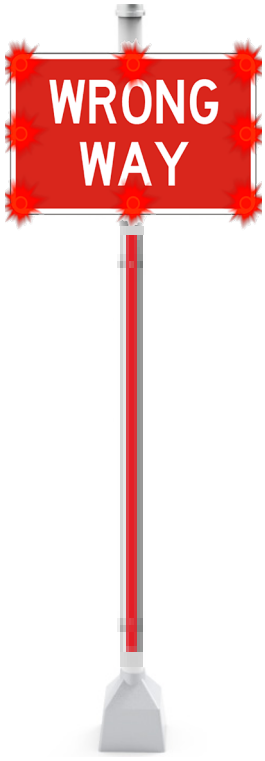
GENERAL

Network switch	Ethernet (optional cell or fiber media converter)
Network cables and connectors	TIA-568 compliant
API	Provided for integration
Regulatory	FCC & UL
Materials	Corrosion resistant
Fasteners	Type 304 or 316 passivated stainless steel
Environmental	-40°F to 167°F operating & storage temperature, 95% humidity (non-condensing)
Power	120VAC standard w/ DC Converters
On-Board Battery Back-Up	Yes
Solar Power Option	Solar panels, battery cabinet, solar charger/inverter – 10 day autonomy w/o sunlight
Size & Weight	**Small Aluminum Enclosure:** w/ WWVDS equipment: 23.75" (H) × 15.75" (W) × 11.75" (D), 14.1 lbs. **Recessed Aluminum Plate:** w/ WWVDS equipment: 10" (H) × 19" (W)× 7" (D), 2.9 lbs.

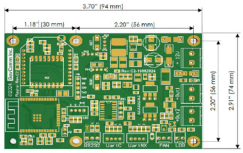
MUTCD COMPLIANT HIGHLIGHTED SIGN W/ TRANSFORMER BASE

Embedded LEDs	8 red ultra-bright LEDs w/ day/night LED dimmer
Adjustable flash rates	50/50 to 90/10 duty cycle
LEDs	500,000 mcd (peak) per LED, applied voltage 12VDC, LED 1W each
Reflective sheeting	3M™ Diamond Grade Prismatic Reflective Sheeting w/Anti-Graffiti Overlay
Material	5052 Aluminum, Type XI DG3 3M Sheet w/ Anti-Graffiti Overlay
Base	Transformer base or engineered
Optional:	Solar panel, enclosure w/ mounting bracket, & DC solar pack
Regulatory	NEMA TS-4-2016 certified by Independent laboratory
Communication	Wired or wireless
Controller	Programmable
Activation	On detection
Power	Utility or solar
Hardened	Yes, against environmental elements
Size	42" (W) × 30" (H) or as specified
Mounting	Z-bar brackets



HIGHLIGHTED LED SIGN CONTROLLER

The controller's bidirectional current/power monitor enables remote diagnostics of sign health, including the number of functioning LEDs, thereby minimizing maintenance costs and site visits.

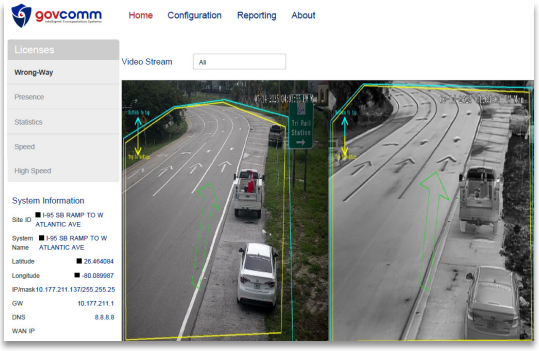


Power input	12VDC
Outputs	Two separate independently programmable PWM controlled channels
Communication interfaces	RS232, 2x RS485, and dedicated light sensor input
Optional wireless	Supports 900MHz/2.4GHz wireless activation and two-way communication with the main unit
Current/Power monitor	Zero-Drift, bi-directional current/power monitor with I²C interface. Reports current, voltage, and power readings
Environmental monitoring	Low-power, high-accuracy digital humidity sensor with an integrated temperature sensor

SINGLE-PORT POE INJECTOR

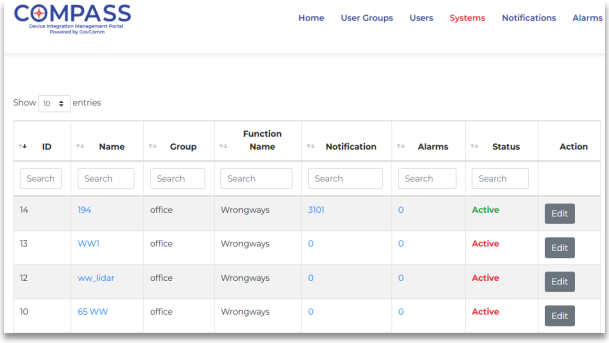
Processing type	Forward half-duplex, full-duplex
Forward filter rate	1000 Mbps
Interfaces	Two 10/100/1000Base-T ports (RJ45, Cat 5 or 6)
Max power per port	60W
Input power	12~48VDC (Terminal Block)
Surge protection	RJ45: 1KV; Power 500V, ESD: 4KV/8KV
PoE standard	IEEE802.3af/at
LED indicators	Power status and PoE status
Case	Aluminum case w/DIN-Rail Mount
Regulatory	FCC part 15, Class A
MTBF	>200,000 hours
Relative humidity	5% to 95% (non-condensing)
Operating temperature	-40°F to +176°F
Storage temperature	–40°F to +185°F
Size and weight	3.74" (W) × 2.76" (D) × 1.18" (H), 0.55 lbs.

WEB-BASED USER INTERFACE



Configuration	Local and remote, monitoring & AI training
Detection zones	Configure, edit & display
Viewing	Real-time and historical
System settings	Import/export
Communication (IP) addresses	User programmable
Reporting	View detection / activation history
System health monitoring	Yes
NTP server integration	Sync over network, user configurable w/ flexible polling intervals

COMPASS CENTRAL SERVER MANAGEMENT PLATFORM



Host	Amazon Web Services or local server
Notifications	Push, SMS/MMS, email & intermediary ATMS
Security	SSL certificates
Device / User management	User management, system health, and incident reporting with Compass Central Server Management Platform
User management	Permission based
Reporting	Permission defined