

OPTICOM™ | Emergency Vehicle Preemption solutions

Change the way your city movesSM



GLOBAL TRAFFIC TECHNOLOGIES



OPTICOM™ HELPS TO SAVE LIVES AND PRESERVE RESOURCES

Emergency responders are the lifeline of their communities. Delays in arriving to the scene can put property and lives at risk. Even their own. That's why fire, EMS and police agencies choose Opticom Emergency Vehicle Preemption (EVP) solutions. GTT's reliable, scalable systems help to ensure safer, faster on-scene arrival—while maximizing resources and the investment.

Although capital budgets are sometimes scarce, there's a cost for doing nothing. Opticom helps make sure responders get to emergencies quickly and safely. With signal preemption, the likelihood of crashes can be reduced and responses can take less time. This all leads to better outcomes and savings.

REDUCE
INTERSECTION
CRASH
RATES



IMPROVE
RESPONSE TIMES

by up to
25 % *



OPTICOM™ BENEFITS

PREVENT
INJURIES

AND
RELATED
COSTS



OFFER **QUICK
PAYBACK**
ON YOUR
INVESTMENT



DECREASE
LIABILITY

FOR CRASHES
WITH OTHER
MOTORISTS



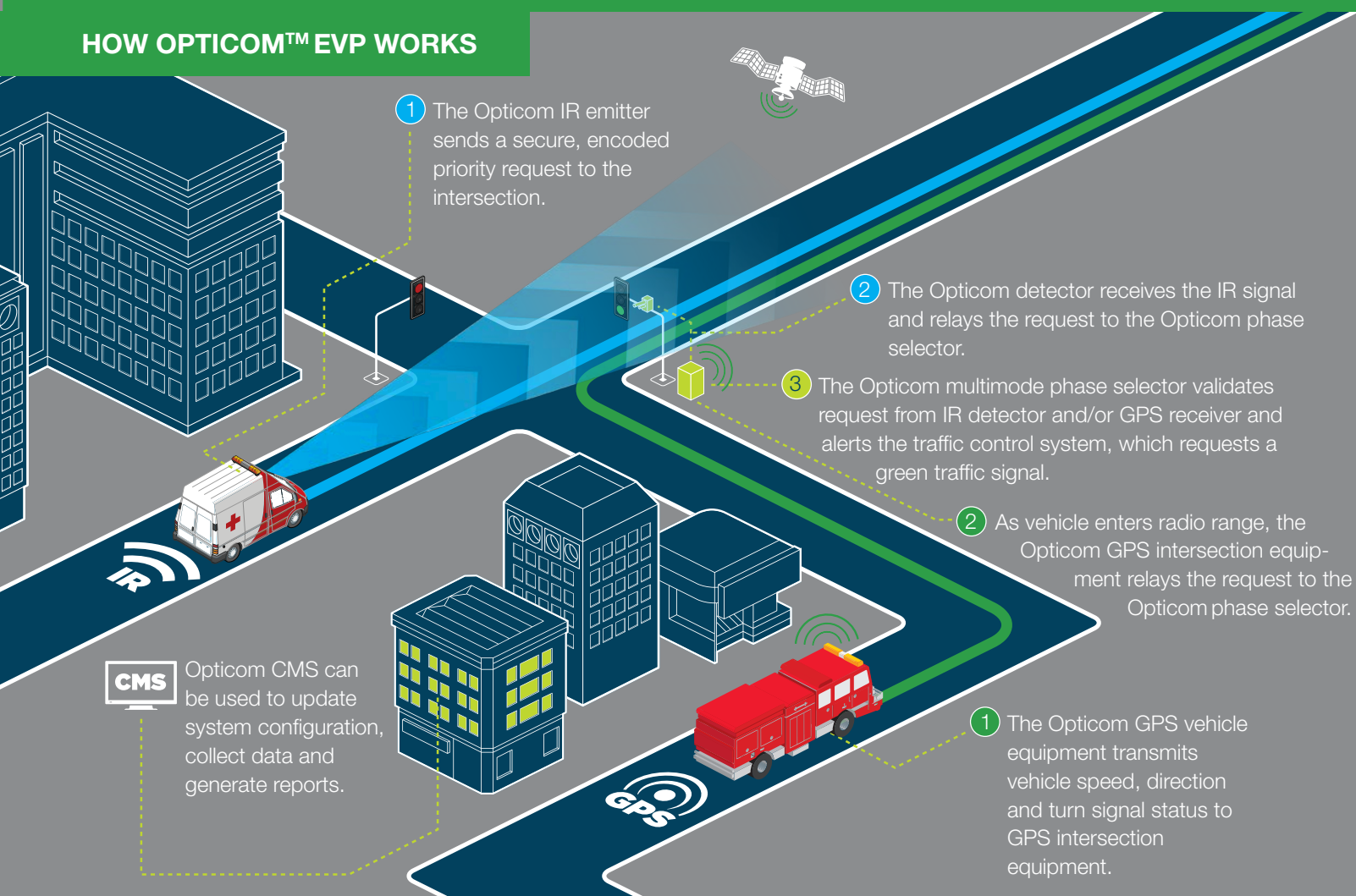
*Independent studies available upon request



GET TO THE SCENE QUICKLY AND SAFELY.

Emergency vehicles using Opticom EVP request preemption from the traffic signal when responding to an emergency. Traffic is able to move out of the way for the emergency vehicle while cross traffic is stopped from entering the responders' path. The result is fewer crashes and faster arrivals. For a complete priority control system, Opticom EVP components are designed to coexist with Opticom Transit Signal Priority solutions.

HOW OPTICOM™ EVP WORKS



POWERFUL PLATFORMS ENABLE FASTER ARRIVALS

Whether you choose the legacy IR-based systems or the most technologically-advanced GPS-enabled platform, GTT's Opticom™ EVP solutions are built to meet the needs of departments of all sizes.



SINCE 1968

Legacy solution that uses coded infrared transmitters and receivers to enable EVP via line-of-sight.



SINCE 2002

Using powerful, precise algorithms and a purpose-built radio, the Opticom GPS-enabled system allows EVP over hills and around corners, even in poor weather conditions.

HOW THEY COMPARE

	IR	GPS
Reduces intersection crash rates by up to 70%	●	●
Improves response times by up to 25%	●	●
Managed services available to keep system running optimally	●	●
Multimode operation for staggered upgrades and interoperability	●	●
Coded IR communications between vehicles and intersections	●	
Secure GPS and radio-enabled communications system		●
Ability to transmit and receive around corners and over hills		●
Minimal maintenance cost for vehicle and intersection equipment		●
Activate signal preemption based on estimated time of arrival or distance		●
Vehicle and intersection analytics for smarter operations		●
IntelliGreen system for a green light when leaving the station		●



POWERFUL TOOLS TO MAKE THE JOB EASIER

Monitor, manage and maintain your department's Opticom™ system with Opticom Central Management Software (CMS).

Opticom CMS provides real-time data, so traffic engineers can retrieve activity logs, diagnose maintenance issues, upgrade firmware and troubleshoot equipment. Beyond the numbers, Opticom provides analytics for decision-making, which improves services and increase savings. Opticom CMS reduces operating costs, improves workflow and results in fewer technician trips to the field.

Ensure a green light every time your vehicles leave the station for an emergency with Opticom IntelliGreen.

Emergency personnel can preempt signals for one or more directions of traffic when leaving the station with the Opticom IntelliGreen unit. The always-ready system uses precise, secure radio/GPS signal reliability that delivers faster performance. Intersections to the left, right or both directions can be controlled from the three-button base station unit.

SMARTER WAYS TO SAVE

GTT empowers cities and helps them solve their most critical transit problems. With innovative options for purchasing Opticom, your agency can quickly realize savings. All options can include up-front and/or ongoing managed services.



PURCHASE

Pay for the system using funds from the capital budget.



LEASE

Traditional financing, including principal and interest, just like buying a car.



SUBSCRIPTION

A long-term rental agreement, similar to leasing a car, computer or building.



BETTER INFORMED. BETTER EQUIPPED. MORE CONTROL.

When you partner with GTT, you can create a smarter transportation infrastructure and keep everyone moving more quickly and safely.

GTT works collaboratively with transit, emergency response, traffic engineering, IT teams and other key leaders to create a seamless, adaptable traffic ecosystem specifically for your community.

GTT begins by understanding your agency's particular challenges. Collaborating with your team to define the current and desired state, GTT then tailors a solution. When possible, GTT leverages your existing infrastructure to provide the desired results at the lowest possible lifetime cost of ownership. GTT's solutions provide the data you need to automate everyday tasks — and make more informed decisions that reduce emergency response times, improve public transit on-time performance and keep your city moving.

GTT solves the most pressing traffic challenges for cities of all sizes; from towns of thousands to megacities of millions, in countries around the world. GTT is ready to help your city, too.

GTT has a proven track record of solving complex and essential traffic-related challenges:

- More than 3,100 global customers
- Utilized by 41 of the 50 largest U.S. cities
- Installed in over 70,000 intersections and 70,000 vehicles
- Innovative technology leader with over 100 U.S. and international patents

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OPTICOM™ 770 Card Rack for Gate Opener Applications

DESCRIPTION

The Opticom 770 Card Rack is designed for gate opener applications where a relay is needed.

Two additional components are required to complete a gate opener application: an Opticom Phase Selector (either model 452 or model 752) and an Opticom Optical Detector (model 721).

The Opticom model 770 consists of a metal enclosure with a dedicated card slot for one Opticom phase selector or Opticom Discriminator.

The front panel of the Opticom 770 includes a terminal strip for connecting the Opticom optical detectors and outputs to a gate operator, as well as a 9-pin circular connector and harness to connect to 120 VAC.

FEATURES

- Conveniently located connections and harnessing (in the front)
- Rugged construction
- Stable “on-shelf” mounting
- Easy-to-read terminal designations
- Easy installation
- Includes 100 feet of Opticom Model 138 Detector Cable

TB1 TERMINAL BLOCK CONNECTIONS

The terminal block on the front of the Opticom 770 Card Rack, TB1, is intended for primary optical detector connections for channels A, B, C and D. It is located on the left side of the Opticom model 770.

Pin Function

- 1: Channel A detector signal input
- 2: Channel B detector signal input
- 3: Detector power (DC+)
- 4: Earth ground (DC-)
- 5: Earth ground
- 6: Normally open contact (relay)
- 7: Common contact (relay)
- 8: Normally closed contact (relay)



J1 CONNECTOR

The J1 connector is intended to connect the gate opener system to AC power. It is located next to TB1.

Pin Function

- 1: 115 VAC (AC+)
 - 2: AC return (AC-)
 - 3: Chassis ground
- Pins 4-9 are not used.

PHYSICAL DIMENSIONS

- Length: 8.5 in. (21.6 cm)
Width: 5.25 in. (13.3 cm)
Height: 5.25 in. (13.3 cm)
Weight: 1.37 lbs. (620 g)

RELAY SPECIFICATIONS

- Designed to actuate gate opener circuit
- Designed to switch AC or DC
- Includes normally open and closed contacts
- Contact ratings:

Resistive

- 10A 240 VAC
- 10A 30 VDC

General Use

- 7.5A 120 VAC
- 7.5A 240 VAC
- 7A 30 VDC
- 1/6 hp 120 VAC
- 1/3 hp 240 VAC



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 711/721/722 Detectors

DESCRIPTION

The Opticom 700 Series Detectors transform the optical energy detected from an approaching, vehicle-mounted Opticom Emitter to an electrical signal. The electrical signal is transmitted along a cable to the Opticom Phase Selector or Opticom Discriminator for processing.

Opticom 700 series detectors are mounted at or near the intersection that permits a direct, unobstructed line-of-sight to vehicle approaches. Opticom detectors may be mounted on span wire, mast arm or other appropriate structures.

Opticom 711, 721 and 722 Detectors offer significant advances and flexibility for specific intersection applications.

The Opticom detectors are designed for common applications in three configurations: one direction—the single channel Opticom 711; the single channel, dual detection Opticom 721; and two direction, two output detection—the dual channel Opticom 722.

All Opticom 700 series detectors greatly reduce installation and life cycle costs through their modular design, adjustable tubes, and compatibility with existing Opticom Infrared System intersection and vehicle equipment.

FEATURES

- Advanced electrical transient immunity
- Modular design
- Adjustable turret configuration: accommodates skewed approaches
- Lightweight, durable, high-impact polycarbonate enclosure
- Simplified installation: span wire or mast arm
- Gray door identification of Opticom 722 detector

ACCESSORIES

- Opticom Span Wire Clamp
- Opticom 138 Detector Cable



OPERATING PARAMETERS

- Reception Range: 200 ft. (60 m) adjustable up to 2,500 ft. (760 m)
- Electrical: 24 to 28 VDC, 50 MA minimum
- Temperature Range: -30° F (-34° C) to 165° F (74° C)
- Humidity: 5% to 95% relative

PHYSICAL DIMENSIONS

Opticom 711 Detector

Length: 12.0 in. (30.5 cm)
Width: 4.75 in. (12.1 cm)
Height: 5.63 in. (14.3 cm)
Weight: 0.88 lbs. (400 g)

Opticom 721 and 722 Detectors

Length: 12.0 in. (30.5 cm)
Width: 4.75 in. (12.1 cm)
Height: 7.13 in. (18.1 cm)
Weight: 1.12 lbs. (508 g)



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 795H Low-profile LED Emitter



DESCRIPTION

The Opticom 795H Low-Profile LED Emitter is a compact, lightweight, encoded signal device intended for use inside emergency vehicle light bars. The Opticom 795H is intended for installation by Original Equipment Manufacturers (OEMs) and authorized OEM installers only.

The Opticom 795H consists of an LED emitter array with an integral power supply.

Accessory switch devices are also available. The operation of the device may be customized through its interface software.

The encoded signal pattern (composed of the individual vehicle class code and vehicle identification number) generated by the Opticom 795H is determined after installation through the use of interface software.

The Opticom 795H separates precisely timed pulses of infrared light at the base flash rate of approximately 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class and ID number information. These additional pulses are sensed and processed by other Opticom Infrared System components to activate the system.

FEATURES

- Non-visible, penetrating infrared communication
 - Directional
 - Consistent, day and night transmission
- Compact, single-source system
- Encoded signal transmission
- 10,000 discrete vehicle IDs
- Compliant with European Commission Directive EN 2004/104/EC Annex 1, Electromagnetic Compatibility for Vehicles and Trailers
- RS485, J1708 serial interface
- Low power consumption
- Mounts directly into most low profile lightbars
- Emitter disable capability, indicated by slow flashing of the emitter switch's indicator light and/or visible LEDs on the emitter
- Self-diagnostic with visual feedback through the switch's indicator light and visible red LEDs on the front of the emitter
- Cumulative flash counts available through the interface software

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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 795H Low-profile LED Emitter

OPERATING PARAMETERS

- High priority
- 10,000 vehicle codes available
- Isolated power supply and emitter for positive or negative ground vehicle power system
- Less than 300mA peak current draw
- Self-diagnostic
- Precisely controlled high-priority flash rate of 14 Hz
- Transmission range up to 2,500 feet (762 m)
- Electrical
 - Input voltage: 10 to 32 VDC
 - Current: less than 300mA
- Environmental
 - Temperature: -30° F to +165° F (-34° C to +74° C)
 - Relative Humidity: 5% to 95%
- Vibration: SAE J575, June 2007 Section 4.2.2
- Shock: SAE J1455, 2006 Section 4.11.3.4
- Humidity: SAE J575, June 2007 Section 4.4
- Electromagnetic Emissions & Susceptibility: EN 2004/104/EC Annex 1 EMC Directive

PHYSICAL DIMENSIONS

Depth: 1.6 in. (4 cm)

Width: 5.7 in. (14.5 cm)

Height: 1.2 in. (3 cm)

Weight: 0.5 lb. (.22 kg)

ACCESSORIES

- Opticom Configuration Software Model 790CS
- Switches
 - Rocker-type switch for knockout/panel mounting (with simple mounting bracket – model 793B)
 - Fully enclosed pushbutton switches (with dashboard mounting bracket)
- On/Off (model 793S)
- Interface software
 - Download at www.gtt.com
 - Available programming cable (Part #79-1000-0157-0)
- Model 793S Switch, Model 793B Switch, Customer-supplied Switch



OPTICOM™ 792M Multimode Strobe Emitter



DESCRIPTION

The Opticom 792M Multimode Strobe Emitter is a compact, lightweight, weather-resistant encoded signal device intended for use on priority vehicles. When used in vehicles equipped with both Opticom Infrared (IR) and Opticom GPS, the Opticom 792M Multimode Strobe Emitter eliminates the need to have a separate IR emitter and radio/GPS antenna modules on the roof of the vehicle. The Opticom GPS vehicle equipment is still required for Opticom GPS operation.

The Opticom 792M Multimode Strobe Emitters consist of an strobe assembly with an integral power supply, integrated radio and GPS antennas for use with Opticom GPS vehicle equipment and the required cables. Accessory switch devices are also available for controlling the IR emitter. The operation of the IR emitter may be customized through its interface software.

The IR encoded signal pattern (composed of the individual vehicle class code and vehicle identification number) generated by the Opticom 792M Multimode Strobe Emitter is programmed through the use of interface software.

The Opticom 792M IR emitter emits precisely-timed pulses of infrared light at the base flash rate of approximately 10 or 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class and ID number information. These infrared pulses are sensed and processed by other Opticom IR system components to activate the system.

AVAILABLE MODELS

- Opticom 792HM Multimode Strobe Emitter: High-priority emitter
- Opticom 792TM Multimode Strobe Emitter: Low-priority emitter

FEATURES

- Integrated GPS and 2.4GHz antennas for use with Opticom GPS vehicle equipment
- Discrete, penetrating infrared communication
 - Directional
 - Consistent, day and night transmission
 - All-weather performance
- Compact, single source system
- High- and low-priority IR operation as well as probe-frequency capability
- IR encoded signal transmission
 - High priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
 - Low priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
- Remote range-setting capability
- J1708 serial interface
- 2004/104/EC vehicle Directive compliance
- SAE J575 Section 4.2 Vibration compliance
- Installation flexibility
 - Mounts directly on roof of vehicle

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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 792M Multimode Strobe Emitter

- Automatic IR emitter disable, indicated by slow flashing of the emitter switch's indicator light
- Self-diagnostic with visual feedback through the IR emitter switch's indicator light
- Cumulative IR emitter flash counts available through the interface software
- 25' cables included
- Mounting bracket and hardware included
- Antennas assembly and IR emitter assembly individually replaceable

OPERATING PARAMETERS

- Integrated Opticom GPS system 2.4GHz RF antenna
- Integrated Opticom GPS system GPS antenna
- 10,000 vehicle codes available in high priority
- 10,000 vehicle codes available in low priority
- Automated range-setting feature
- Less than 5 amp peak current draw
- Self-diagnostics
- Precisely controlled high-priority flash rate of 14 Hz
- Precisely controlled low-priority flash rate of 10 Hz
- Transmission range up to 2,500 feet (762 m)
- Electrical
 - Input Voltage: 10 to 16VDC
 - Current: < 5 amp
- Environmental
 - Operating Temperature: -34°C to +74°C (-30°F to +165°F)
 - Relative Humidity: 5% to 95%

PHYSICAL DIMENSIONS

Opticom 792M Multimode Strobe Emitter

Depth: 6.2 in. (16 cm)
Width: 5.8 in. (14 cm)
Height: 3.7 in. (9 cm)
Weight: 3.1 lb. (1.4 kg)
Cables length: 25' (7.6m)



OPTICOM™ 794M Multimode LED Emitter



DESCRIPTION

The Opticom 794M Multimode LED Emitter is a compact, lightweight, weather-resistant encoded signal device intended for use on priority vehicles. When used in vehicles equipped with both Opticom infrared (IR) and Opticom GPS, the 794M Multimode LED Emitter eliminates the need to have a separate IR emitter and radio/GPS antenna modules on the roof of the vehicle. The Opticom GPS radio/GPS unit and vehicle control unit are still required for Opticom GPS operation.

The Opticom 794M consists of an IR LED array with an integral power supply, integrated radio and GPS antennas for use with Opticom GPS vehicle equipment and the required cables. Accessory switch devices are also available for controlling the IR emitter. The operation of the IR emitter may be customized through its interface software or remote coding unit.

The IR encoded signal pattern (composed of the individual vehicle class code and vehicle identification number) generated by the Opticom 794M is programmed through the use of interface software or remote coding unit.

The Opticom 794M IR emitter emits precisely-timed pulses of infrared light at the base flash rate of approximately 10 or 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class and ID number information. These infrared pulses are sensed and processed by other Opticom IR system components to activate the system.

The Opticom 794M is capable of being programmed via the RC790 remote coding unit,

eliminating any dependency on a computer. By simply pointing the RC790 at the Opticom 794M, the user can set vehicle class and ID, visible LED, disable mode, restore factory default settings and initiate diagnostics with just a few pushes of a button.

AVAILABLE MODELS

- Opticom 794HM Multimode LED Emitter: High-priority emitter
- Opticom 794TM Multimode LED Emitter: Low-priority emitter with reduced output for transit signal priority applications

FEATURES

- Integrated GPS and 2.4 GHz antennas for use with Opticom GPS vehicle equipment
- Discrete, penetrating infrared communication
 - Directional
 - Consistent, day and night transmission
 - All-weather performance
- Compact, single source system
- High- and low-priority IR operation as well as probe-frequency capability
- IR Encoded signal transmission
 - High priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
 - Low priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
- Remote range-setting capability



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 794M Multimode LED Emitter

- J1708 serial interface
- Low power consumption
- FCC part 15 Class A specifications compliance
- Installation flexibility
 - Mounts directly on roof of vehicle
- Automatic IR emitter disable, indicated by slow flashing of the emitter switch's indicator light or the emitter's visible LEDs
- Self-diagnostic with visual feedback through the IR emitter switch's indicator light and visible LED indicator lights
- Cumulative IR emitter flash counts available through the interface software or RC790 diagnostic mode
- Included 25' cables
- Included mounting bracket and hardware
- Antennas assembly and IR emitter assembly individually replaceable
- Integrated Opticom GPS system GPS antenna
- High- or low-priority and probe-frequency operation selected by model and switch combination
- 10,000 vehicle codes available in high priority
- 10,000 vehicle codes available in low priority
- Automated range-setting feature
- Less than 1 amp peak current draw
- Self-diagnostics
- Precisely controlled high-priority flash rate of 14 Hz
- Precisely controlled low-priority flash rate of 10 Hz
- Transmission range up to 2,500 feet (762 m)
- Electrical
 - Input Voltage: 10 to 32 VDC
 - Current: < 1 amp
- Environmental
 - Operating Temperature: -34°C to +74°C (-30°F to +165°F)
 - Relative Humidity: 5% to 95%

ACCESSORIES

- Opticom RC790 Remote Coding Unit Operating Parameters
- Integrated Opticom GPS system 2.4 GHz RF antenna

PHYSICAL DIMENSIONS

794M LED Multimode Emitter

Depth: 5.0 in. (12.8 cm)

Width: 5.8 in. (14 cm)

Height: 3.7 in. (9 cm)

Weight: 3.0 lb. (1.36 kg)

Cables length 25' (7.6m)

RC790 Remote Coding Unit

- LCD display and a keypad
- Operates on four AAA batteries

Length: 6.3 in. (16 cm)

Width: 3.7 in. (9.4 cm)

Thickness: 1.0 in. (2.5 cm)

Weight: 0.5 lb. (.2 kg)



OPTICOM™ 138 IR Detector Cable

DESCRIPTION

Opticom 138 Detector Cable is designed and manufactured explicitly for use with Opticom Detectors. Opticom 138 cable has three color-coded conductors, a conductive shield and drain, and a black PVC jacket.

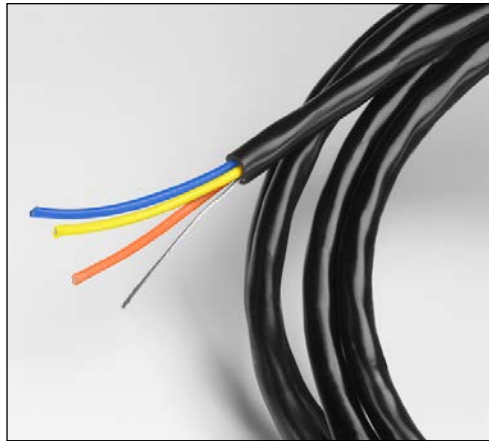
This durable, high-quality cable carries the appropriate power to the detector from the Opticom Phase Selector and delivers the necessary quality signal to the phase selector discriminator circuitry up to 1,000 feet (305 m).

FEATURES AND BENEFITS

- Optimized to interface Opticom detectors to Opticom phase selectors or Opticom Discriminators
- Ensures effective range of 2,500 feet (760 m) with Opticom Infrared System components
- Durable construction
 - Suitable for direct burial
 - Suitable for conduit and mast arm pull
 - Suitable for exposed overhead installation*

OPERATING PARAMETERS

- 600 volt rating
- 75° C (167° F) temperature range
- Three-conductor AWG #20 (7x28) stranded, individually tinned copper: yellow, blue and orange
- Aluminized polyester shield with 20% overlap
- Drain AWG #20 (7x28) stranded, individually tinned copper
- Controlled electrical characteristics



PHYSICAL DIMENSIONS

- Outside diameter: 0.3 in. (7.62 mm)
- Weight: 0.04 lbs./ft. (65.5 g/m)
- Available in: 500 ft., 1,000 ft., 2,500 ft. and 5,000 ft. (152 m, 305 m, 760 m and 15,200 m) spools

*Separate messenger wire required



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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 792 Emitter



DESCRIPTION

The Opticom 792 Emitter is a compact, lightweight, weather-resistant encoded signal device intended for use on priority and probe frequency vehicles.

The Opticom 792 Emitter consists of a flashtube/reflector and housing assembly with an integral power supply and the required cables. The Opticom 792 Emitter converts 12 VDC vehicle battery power to the high voltage required for operation of the unit.

Accessory switch devices are also available. The operation of the device may be customized through its interface software.

The encoded signal pattern (composed of the individual vehicle class code and vehicle identification number) generated by the Opticom 792 Emitter is determined after installation through the use of interface software.

The Opticom 792 Emitter, when installed on authorized service and maintenance vehicles, may also be configured to utilize the automated range-setting feature of Opticom 700 Series Phase Selectors and Opticom 450 Series Discriminators. This feature refines and simplifies individual intersection setup and maintenance techniques.

The Opticom 792 Emitter separates precisely timed pulses of high-intensity light in the infrared and visible wavelengths at the base flash rate of approximately 10, 12 or 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class and ID number information. These energy pulses are sensed and processed by other Opticom Infrared System components to cause activation of the system.

DESCRIPTION OF MODELS

- Opticom 792H Emitter: a high priority emitter
- Opticom 792L Emitter: a low priority emitter
- Opticom 792T Emitter: a low-priority emitter, equipped with a visible light filter
- Opticom 792R Emitter: a range-setting emitter for high priority, low priority or probe frequency
- Opticom 792HF Emitter: a high priority emitter with filter

FEATURES

- Discrete, penetrating infrared communication
 - Directional
 - Consistent, day and night transmission
 - All-weather performance
- Compact, single source system
- High- and low-priority operation as well as probe-frequency capability
- Encoded signal transmission
 - High priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
 - Low priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
 - Probe frequency: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
- Remote range-setting capability
- Compliance with FCC part 15, subpart J, Class A regulations for electromagnetic interference

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OPTICOM™ 792 Emitter

- RS485, J1708 serial interface
- Low power consumption
- Improved installation flexibility
 - Mounts directly on vehicle
 - Incorporates into many lightbars
- Automatic emitter disable, indicated by slow flashing of the emitter switch's indicator light
- Self-diagnostic with visual feedback through the switch's indicator light
- Cumulative flash counts available through the interface software
- Grating for precise directionality control
- Optional light-blocking filter

ACCESSORIES

- Switches
 - Rocker-type switch for knockout/panel mounting (with simple mounting bracket) (model 793B)
 - Three versions of fully enclosed pushbutton switches (with dashboard mounting bracket)
- On/Off only (model 793S)
- On/Off for high-priority, low-priority and probe frequency with range setting
- Automated range-setting control
- Interface software kit
 - Cables
 - Interface software CD

OPERATING PARAMETERS

High- or low-priority and probe-frequency operation selected by model and switch combination

- 10,000 vehicle codes available in high priority
- 10,000 vehicle codes available in low priority
- 10,000 vehicle codes available in probe frequency
- Automated range-setting feature selected by model
- Isolated power supply and emitter for positive or negative ground vehicle power system
- Less than 5 amps peak current draw
- Self-diagnostic
- Precisely controlled high-priority flash rate of 14 Hz
- Precisely controlled low-priority flash rate of 10 Hz
- Precisely controlled probe-frequency flash rate of 11 Hz
- Transmission range up to 2,500 feet (762 m) with clear lens and up to 1,800 feet (549 m) with visible light filter
- Electrical
 - Input voltage: 10 to 16 VDC
 - Current: less than 5 amps
- Environmental
 - Temperature: -30° F (-34° C) to +165° F (+74° C)
 - Relative Humidity: 5% to 95%

PHYSICAL DIMENSIONS

Depth: 3.5 in. (8 cm)

Width: 5.8 in. (14 cm)

Height: 3.7 in. (9 cm)

Weight: 1.9 lb. (.8 kg)

	793S Switch	793B Switch	793R Switch	Customer-supplied switch
Opticom 792H Emitter	High Priority/Off	High Priority/Off	Not available	High Priority/Off
Opticom 792L Emitter	Low Priority/Off	Low Priority/Off	Not available	Low Priority/Off
Opticom 792T Emitter	Low Priority/Off	Low Priority/Off	Not available	Low Priority/Off
Opticom 792R Emitter	Not available	Not available	High and Low Priority/Off/Probe Frequency and Range Setting	Not available



OPTICOM™ 794 LED Emitter



DESCRIPTION

The Opticom 794 LED Emitter is a compact, lightweight, weather-resistant encoded signal device intended for use on priority vehicles. The Opticom 794 emitter consists of an LED array with an integral power supply and the required cables. Accessory switch devices are also available. The operation of the device may be customized through its interface software or remote coding unit.

The encoded signal pattern (composed of the individual vehicle class code and vehicle identification number) generated by the Opticom 794 emitter is determined after installation through the use of interface software or remote coding unit.

The Opticom 794 emitter, when installed on authorized service and maintenance vehicles, may also be configured to utilize the automated range-setting feature of Opticom 700 Series Phase Selectors and Opticom 400 Series Discriminators. This feature refines and simplifies individual intersection setup and maintenance techniques.

The Opticom 794 emitter separates precisely-timed pulses of infrared light at the base flash rate of approximately 10 or 14 Hz. It also interleaves programmed encoded pulses that carry the vehicle class and ID number information. These infrared pulses are sensed and processed by other Opticom Infrared system components to cause activation of the system.

The Opticom 794 emitter is capable of being programmed via the RC790 remote coding unit, eliminating any dependency on a computer. By simply pointing the RC790 at the Opticom 794

emitter, the user can communicate vehicle class and ID, visible LED, disable mode, diagnostics and default settings with just pushes of a button.

Description of Models

- Opticom 794H LED Emitter: High-priority emitter
- Opticom 794L LED Emitter: Low-priority emitter
- Opticom 794T LED Emitter: Low-priority emitter with reduced output for transit signal priority applications
- Opticom 794R Emitter: Range-setting emitter for high priority, low priority or probe frequency

FEATURES

- Discrete, penetrating infrared communication
 - Directional
 - Consistent, day and night transmission
 - All-weather performance
- Compact, single source system
- High- and low-priority operation as well as probe-frequency capability
- Encoded signal transmission
 - High priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
 - Low priority: 10,000 discrete vehicle IDs (10 classes of vehicles and 1,000 individual codes available within each class)
- Remote range-setting capability
- RS485, J1708 serial interface
- Low power consumption

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GLOBAL TRAFFIC TECHNOLOGIES

OPTICOM™ 794 LED Emitter

- CE certified
- SAE J575, SAE J1455 compliant
- Improved installation flexibility
 - Mounts directly on vehicle
- Automatic emitter disable, indicated by slow flashing of the emitter switch's indicator light or emitter's visible LEDs
- Self-diagnostic with visual feedback through the switch's indicator light and visible LED indicator lights
- Cumulative flash counts available through the interface software or RC790 diagnostic mode

ACCESSORIES

- Switches
 - Rocker-type switch for knockout/panel mounting (with simple mounting bracket) (model 793B)
 - Three versions of fully enclosed pushbutton switches (with dashboard mounting bracket)
- On/Off only (model 793S)
- On/Off for high-priority, low-priority and probe frequency with range setting

- Automated range-setting control
- Bezel mount kit
- Programmable via interface software and/or RC790 remote coding unit

OPERATING PARAMETERS

Opticom 794 LED Emitter

High- or low-priority and probe-frequency operation selected by model and switch combination

- 10,000 vehicle codes available in high priority
- 10,000 vehicle codes available in low priority
- Automated range-setting feature
- Isolated power supply and emitter for positive or negative ground vehicle power system
- Less than 1 amp peak current draw
- Self-diagnostic
- Precisely controlled high-priority flash rate of 14 Hz
- Precisely controlled low-priority flash rate of 10 Hz
- Transmission range up to 2,500 feet (762 m)

- Electrical
 - Input Voltage: 10 to 32 VDC
 - Current: < 1 amp
- Environmental
 - Temperature: -30° F (-34° C) to +165° F (+74° C)
 - Relative Humidity: 5% to 95%

PHYSICAL DIMENSIONS

Opticom 794 LED Emitter

Depth: 2.25 in. (5 cm)

Width: 5.8 in. (14 cm)

Height: 3.7 in. (9 cm)

Model RC790 Remote Coding Unit

- LCD display and a keypad
- Operates on four AAA batteries

Length: 6.3 in. (16 cm)

Width: 3.7 in. (9.4 cm)

Thickness: 1.0 in. (2.5 cm)

Weight: 0.5 lb. (.2 kg)

	793S Switch	793B Switch	793R Switch	Customer-supplied switch
Opticom 794H Emitter	High Priority/Off	High Priority/Off	Not available	High Priority/Off
Opticom 794L Emitter	Low Priority/Off	Low Priority/Off	Not available	Low Priority/Off
Opticom 794T Emitter	Low Priority/Off	Low Priority/Off	Not available	Low Priority/Off
Opticom 794R Emitter	Not available	Not available	High and Low Priority/Off/Probe Frequency and Range Setting	Not available

