## BIG DATA, MORE INSIGHTS, LESS HARDWARE.

# Harness the power of intersection data with an open, extensible hardware platform – Signal Core.

Signal Core is a hardware platform that provides powerful processing capability at the intersection. Agencies can use Signal Core data to inform decision-making, improving operations and the lives of all road users. The device's open nature allows for easy upgrade to services such as priority control (EVP and TSP) through Opticom Cloud, and intersection detection and actuation. Signal Core is the premier catalyst for big data when teamed with additional applications.

#### **FEATURES**

- · Cabinet alerts & monitoring (email and text notifications)
- Corridor travel time for all WiFi-enabled vehicles
- Live telemetry views
- Preemption and priority requests (discrete or NTCIP)
- Priority reports including preemption counts
- Regular remote software updates



Extensible

Add new features and capabilities easily.



Open

Stack technologies to meet your needs and own your data.



OPTICOM

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Compact

Traffic cabinet space is in high-demand. Perform multiple functions with one device.

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### **OPTICOM**<sup>®</sup> SIGNAL CORE

Part Number: 76-1000-1432-0



Opticom Signal Core intersection equipment is intended for use with advanced Opticom priority control.

### SPECIFICATIONS

#### **Dimensions:**

Opticom Signal Core: 10.5 x 3 x 10 in (266 x 75 x 254 mm)

Power Adapter: 10.5 x 3 x 10 in (266 x 75 x 254 mm)

Antenna Enclosure: 8.5 x 3.6 x 1.1 in (216 x 93 x 30 mm)

#### Power:

Power Adapter:

- Input 89 to 240 VAC, 47 to 63 Hz uninterrupted (non GFCI required).
  Standard NEMA 5-15R or terminal block wiring supported.
- Output: 48 VDC at 135W
- UL and cUL certified

Power Consumption:

- Max: 83W (includes 3 cameras)
- Typical: 68W (includes 2 cameras)

#### Hold Up:

· 5 second hold up for power loss events

#### **Operating Conditions:**

Temperature: 34°C to +74°C (-29°F to +165°F) Humidity: 5% to 95% relative

#### **Certifications:**

Compliant with NEMA TS-2 Environmental Requirements

FCC Part 15, Subpart B, Class A

#### PTCRB compliant

#### Material:

Core Base & Lid: Aluminum

Core Center Structure: PC/ABS Polycarbonate - ABS)

#### Processor:

**NVIDIA** Processor

- · CPU: Quad-core ARM A57 @ 1.43 GHz
- GPU: 128-core Maxwel

Security Trusted Platform Module

- RSA Key Generation 2048 Bits
- $\cdot~$  RSA Signature and Encryption
- ・ ECC 256
- AES 128
- ・ SHA 256

#### Memory:

Built-in 240GB solid-state

#### Wireless Connectivity:

Cellular: LTE CAT4 bands B2, B4, B5, B12, B13, B14, B66, B71

Location Services: GPS, GLONASS

Wi-Fi:

- 802.11 a/b/g/n
- Wi-Fi functionality restricted to travel time data capture only

#### I/O:

#### Ethernet Ports:

- 1 x 10/100/1000 Ethernet WAN port
- 2 x 10/100/1000 Ethernet LAN ports
- 3 x 10/100/1000 Ethernet LAN ports with PoE (support for 802.3af PoE and 802.3
- at PoE + to a maximum of 50 @ across all three ports)

SDLC Port: 1x SDLC port (proprietary connector, DB15 adapter included)

Serial Ports: 2xEIA RS-232 over RJ45 interface (cable included)

USB Port: 1x USB 2.0 port

General Purpose I/O: 4x +5V open drain I/Os

Priority Control I/O: 8x NEMA compliant I/Os

#### 5-in-1 Antenna:

Antenna:

- · 2x MIMO LTE
- 2x MIMO Wi-Fi
- 1x GPS-GLNASS-Beidou
- Enclosure:
- Permanent Screw Mount
- IP67 rated

#### Contents:

1x Opticom Signal Core 1x Cable Kit 1x Power Supply 1x Antenna