West Virginia Purchasing Division
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Charleston, WV 25305
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The following documentation is an electronically-submitted vendor response to an advertised solicitation from the *West Virginia Purchasing Bulletin* within the Vendor Self-Service portal at *wvOASIS.gov*. As part of the State of West Virginia's procurement process, and to maintain the transparency of the bid-opening process, this documentation submitted online is publicly posted by the West Virginia Purchasing Division at *WVPurchasing.gov* with any other vendor responses to this solicitation submitted to the Purchasing Division in hard copy format.

Welcome, Christopher W Sertman

Procurement | Budgeting | Accounts Receivable | Accounts Payable

Solicitation Response(SR) Dept: 0803 ID: ESR0402500000005803 Ver.: 1 Function: New Phase: Final   Modified by lotch - 04/03/2025

Header # 1

List View

General Information | Contact | Default Values | Discount | Document Information | Clarification Request

Procurement Folder: 1835471	SO Doc Code: CRFQ
Procurement Type: Central Master Agreement	SO Dept: 0803
Vendor ID: 000000163399	SO Doc ID: DOT2500000046
Legal Name: IRON ARMOUR LLC	Published Date: 3/25/25
Alias/DBA:	Close Date: 4/9/25
Total Bid: $190,275.00	Close Time: 13:30
Response Date: 04/03/2025	Status: Closed
Response Time: 9:14	Solicitation Description: Traffic Signal Radar Parts for Inventory Maintenance
Responded By User ID: IronArmour	Total of Header Attachments: 3
First Name: Laren	Total of All Attachments: 3
Last Name: Bayer	
Email: Laren@ironarmour.com	
Phone: 330-800-5002	

Department of Administration **Purchasing Division** **2019 Washington Street East** **Post Office Box 50130** **Charleston, WV 25305-0130**	**State of West Virginia** **Solicitation Response**	

Proc Folder:	1636471
Solicitation Description:	Traffic Signal Radar Parts for Inventory Maintenance
Proc Type:	Central Master Agreement

Solicitation Closes	Solicitation Response	Version
2025-04-09 13:30	SR 0803 ESR04022500000005893	1

VENDOR
000000163399 IRON ARMOUR LLC

Solicitation Number:	CRFQ 0803 DOT2500000046				
Total Bid:	196275	**Response Date:**	2025-04-02	**Response Time:**	09:14:01
Comments:					

FOR INFORMATION CONTACT THE BUYER
John W Estep
304-558-2566
john.w.estep@wv.gov

Vendor **Signature X**	**FEIN#**	**DATE**

All offers subject to all terms and conditions contained in this solicitation

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
1	Traffic signals	15.00000	EA	7250.000000	108750.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments:

Extended Description:

Wavetronix Smart Sensor (Model SS225) Rapid Presence Detection

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
2	Traffic signals	10.00000	EA	7550.000000	75500.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments:

Extended Description:

Wavetronix Smart Sensor Advance Model SS200E Vehicle Detection

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
3	Traffic signals	10.00000	EA	415.000000	4150.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments:

Extended Description:

Wavetronix Smart 2 Channel Click 112 Series Dectection Card

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
4	Traffic signals	10.00000	EA	450.000000	4500.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments:

Extended Description:

Wavetronix 4-Channel Click 114 Series Vehicle Detection Card

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
5	Traffic signals	5.00000	EA	300.000000	1500.00

Comm Code	Manufacturer	Specification	Model #
46161504			

Commodity Line Comments:

Extended Description:

Wavetronix Radar Click 202 Power Converter

Line	Comm Ln Desc	Qty	Unit Issue	Unit Price	Ln Total Or Contract Amount
6	Traffic signals	5.00000	EA	375.000000	1875.00

Comm Code	Manufacturer	Specification	Model #
46161504			

**Commodity Line Comments:**

Extended Description:

Wavetronix Radar Click 204 Power Converter

Forward–fire long–distance intersection sensor

SmartSensor Advance Extended Range is the first traffic device to use advance detection to provide enhanced dilemma zone protection for trucks and other high profile vehicles. The sensor boosts detection of these vehicles out to 900 feet, and protects both cars and trucks with innovative SafeArrival technology.

- Dilemma zone protection for high-profile vehicles based on vehicle discovery range
- Advanced techniques boost truck detections out to 900 feet; car detections are boosted out to 600 feet or more
- Patented SafeArrival technology provides protection to individual cars and trucks
- Dynamic ETA Tracking over the entire detection area
- Non-intrusive, above ground position makes the sensor easy to install
- The additional 300-foot range (compared to SmartSensor Advance) makes overhead/straightforward mast arm installation more effective on high-speed approaches
- Easily integrates with SmartSensor Matrix at intersections
- Benefits include reduced risk of hazardous load spills; reduced truck crash and fatalities rates; reduced emissions; fewer truck start-up delays; and improved corridor delivery times
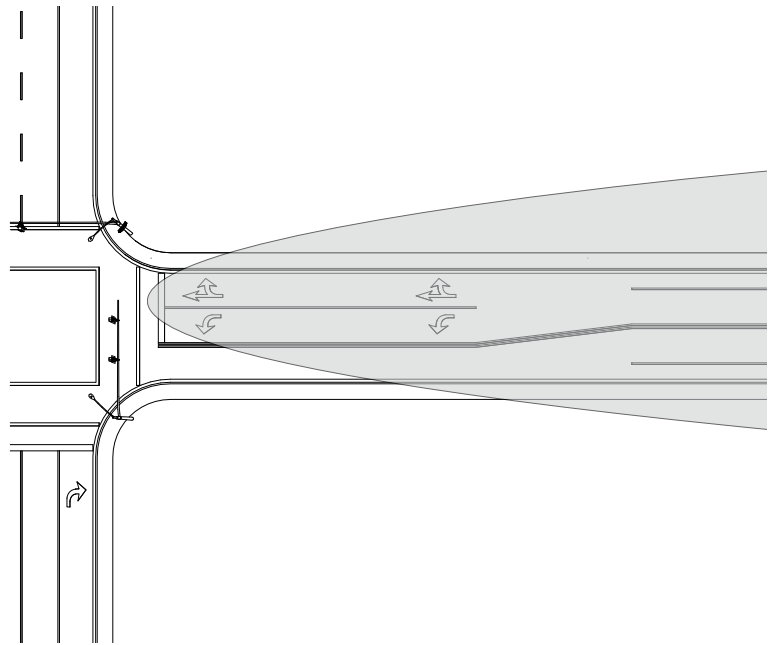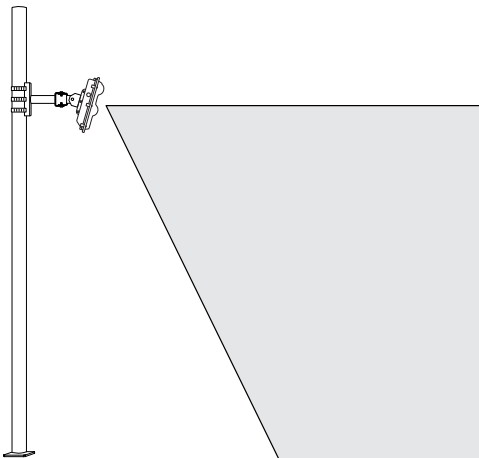
16–beam stop bar sensor

The SmartSensor Matrix is a first-of-its-kind stop bar presence detector designed for use at signalized intersections to detect vehicles with the reliability of radar and with all the advantages of non-intrusive detection.

- Matrix of 16 radars for two-dimensional coverage
- Tracks vehicles through a 90 degree field of view that extends out 140 ft. (42.7 m)
- Includes Radar Vision technology to detect and track in two dimensions
- Reports real-time presence of both moving and stopped vehicles
- Standard detector-rack contact-closure interface
- Easy to install and operate
- Supports curved and angled lanes
- Compatible with Click 65x all-in-one cabinet interface device
- Automated manufacturing process

- Patented auto-configuration process
- Patented Digital Wave Radar II technology
- Remote accessible for traffic monitoring and sensor management
- Flash upgradable
- Robust to changing temperature, light and weather conditions
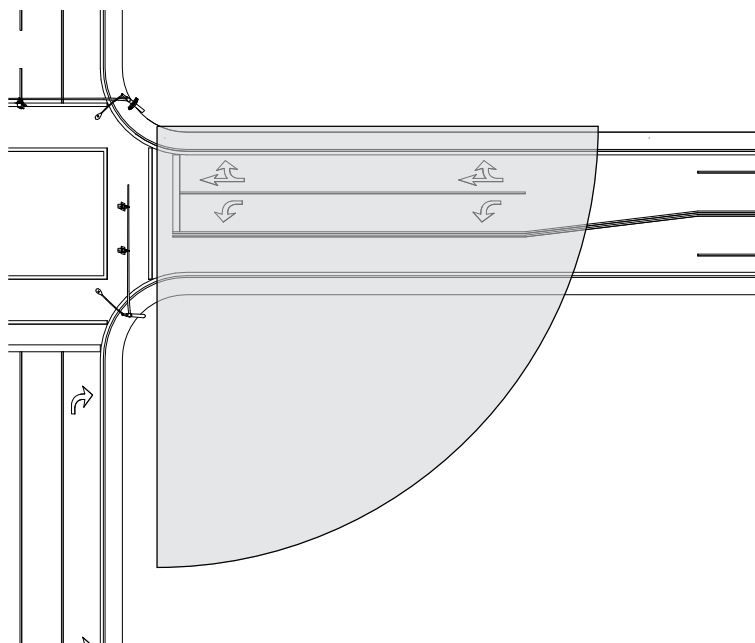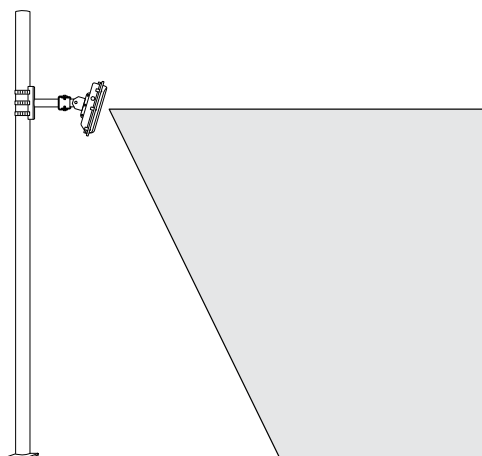
Detector Rack Cards

The Click 112/114 are 2-/4-channel contact output rack cards that plug into any standard detector rack card slot in any cabinet type.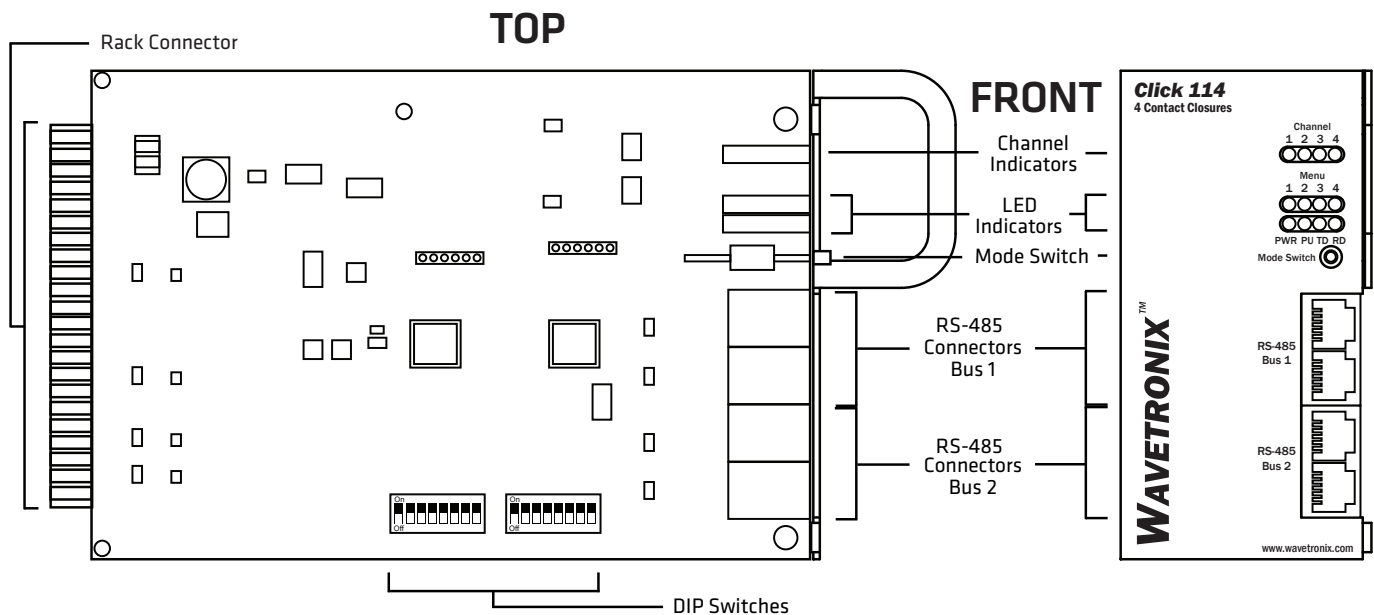 Each output is electrically isolated and is normally open. When the cards receive the appropriate serial message from SmartSensor™ sensors, they will close the contact outputs.

Features

- Compatible with NEMA TS1 and TS2, 170, and 2070 traffic controllers
- Plugs into any standard input file rack card slot
- Fail-safe mode in case of interruption of data flow
- Dual communications ports for separate data and configuration communication
- Uses industry-standard RS-485 communications
- Displays detection via LEDs on faceplate

- Automatically sets baud rate
- Solid state outputs
- Configurable via hardware (DIP switches) or software (front panel interface or Click Supervisor)
- Software configuration is read-only when in Hardware Configuration mode
- Conformal coated

TOP

Rack Connector

FRONT

Click 114
4 Contact Closures

Channel Indicators

LED Indicators

Mode Switch

RS-485 Connectors Bus 1

RS-485 Connectors Bus 2

DIP Switches

Channel
1 2 3 4

Menu
1 2 3 4

PWR PU TD RD

Mode Switch

RS-485 Bus 1

RS-485 Bus 2

WAVETRONIX™

www.wavetronix.com

Technical Specifications

Physical

- Weight: 0.25 lbs. (0.11 kg) / 0.29 lbs. (0.13 kg)
- Physical dimensions: 8.3 in. x 4.5 in. x 1.2 in. (21.1 cm x 11.4 cm x 3 cm) / 8.3 in. x 4.5 in. x 2.4 in. (21.1 cm x 11.4 cm x 6.1 cm)
- Ambient operating temp: -29°F to 165°F (-34°C to 74°C)
- Humidity: up to 95% RH

Mounting

- Inserts into an input file rack

Power

- Power supply voltage: 9–30 VDC
- Power consumption: 1 W

Connections

- Detection and power: 44 terminal card edge connector
- Four RJ-11 jacks: two for RS-485 bus 1 and two for RS-485 bus 2

Communication

- Has two independent RS-485 buses, so that the device can be configured without interrupting data flow
- Vehicle information to traffic controller via contact closures

Baud Rates

- Supports the following baud rates:
  - 9600 bps
  - 19200 bps
  - 38400 bps
  - 57600 bps

DIP Switch Configuration Features

- Separate DIP switches for baud rate and channel mapping selection
- DIP switch settings disable faceplate or software configurability

Faceplate Configuration Features

- Mode Switch controls menu operation
- Detection LEDs (red) display the current detection state
- Menu LEDs (Level 2) (red) lets you view and set menu options
- Menu LEDs (Level 1) displays menu item selected, as well as the following status indications:
  - Red LED (PWR) indicates the device has power
  - Blue LED (PU) is reserved for future use
  - Green LED (TD) indicates device is transmitting data
  - Yellow LED (RD) indicates device is receiving data
- Supports configuration of baud rate and channel mapping settings

Ordering Information

Click 112 2-channel detector rack card
CLK-112

Click 114 4-channel detector rack card
CLK-114

Wavetronix

78 East 1700 South
Provo, UT 84606
801.734.7200
sales@wavetronix.com
www.wavetronix.com

Software Configuration Features

- Comes with Click Supervisor, configuration software with the following features:
  - Runs on Pocket PC or Windows desktop or laptop PC (Windows XP and newer)
  - Configures serial communication settings including serial baud rates
  - Configures channel mapping settings
  - Can remotely and directly upgrade the device firmware to add new features to the device
  - Can save/open a configuration to/from a file, allowing a common configuration to be easily programmed into many devices
  - Has customizable drivers that are stored in an XML file that describes the settings for a device as well the graphical user interface for that driver in the configuration software

Data Conversion

- Outputs traffic data as contact closures specified by a Wavetronix SmartSensor

Fail-safe Mode

- Enters a fail-safe mode if it has lost communications with a sensor for more than 10 seconds
- In fail-safe mode, all channel outputs are asserted
- Fail-safe mode will be exited when communication with sensor is restored

Class 4 Compliance

- Complies with the EN 61000-4-5 Class 4 lightning surge protection on the DC input

Contact Closure Outputs

- Dissipates up to a 600 W power surge received on any contact closure output terminal
- Contact closure output terminals can withstand 50 V continuously
- Contact closure outputs are less than 8 ohms in conduction state
- Contact closure outputs in non-conducting state leak less than 1uA
- Contact closure outputs can switch up to 150 mA

Pocket PC & PC Configuration Software

- Comes with Click Supervisor, configuration software with the following features:
  - □ Runs on Pocket PC or Windows desktop or laptop PC (Windows 2000 and newer)
  - □ Configures serial communication settings including serial baud rates
  - □ Can remotely and directly upgrade the device firmware to add new features to the device
  - □ Can save/open a configuration to/from a file, allowing a common configuration to be easily programmed into many devices
  - □ Has customizable drivers that are stored in an XML file that describes the settings for a device as well the graphical user interface for that driver in the configuration software

Remote Upgradeability

- Flash memory can be remotely upgraded to add functionality to the firmware when new features have been developed to improve the performance of the installation

Testing

- Passes manufacturer's test before shipping
- Tested under NEMA TS2-2003

Extended Support

- Extended support options are available from Wavetronix; contact a Wavetronix representative for more information

Warranty

- One-year warranty against material and workmanship defect (see Click Warranty datasheet for complete details)