



**ITB #18-015**  
**PORT & MARINE SERVICES**  
**CCTV SURVEILLANCE SYSTEM**  
**MALLORY SQUARE & OUTER MOLE**  
**1300 White Street, Key West, FL**

1970 Dana Dr. Ft. Myers,  
Fl 33907

Voice: (239) 415-4374

Fax: (239) 415-4378

EC-0001085

# BID DOCUMENTS FOR:



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**ITB #18-015**

**PORT & MARINE SERVICES  
CCTV SURVEILLANCE SYSTEM  
MALLORY SQUARE & OUTER MOLE**

**JANUARY 2018**

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## **CITY OF KEY WEST**

**MAYOR: CITY CRAIG CATES**

**COMMISSIONERS:**

**JIMMY WEEKLEY**

**BILLY WARDLOW**

**MARGARET ROMERO**

**SAMUEL KAUFMAN**

**RICHARD G. PAYNE**

**CLAYTON LOPEZ**

**PREPARED BY:  
Port & Marine Services**

**ITB DOCUMENTS**

CITY OF KEY WEST  
KEY WEST, FLORIDA  
BID DOCUMENTS

for

**CCTV SURVEILLANCE SYSTEM  
MALLORY SQUARE & OUTER MOLE**

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CONSISTING OF:

BIDDING REQUIREMENTS  
SUPPLEMENTAL INFORMATION  
DRAWINGS

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**PORT & MARINE SERVICES**

JANUARY 2018

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**PART 1**

**BIDDING REQUIREMENTS**

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## **INVITATION TO BID**

Sealed Bids for City of Key West (CITY) Port & Marine Services **“CCTV SURVEILLANCE SYSTEM – MALLORY SQUARE & OUTER MOLE,”** addressed to the City of Key West, will be received at the office of the City Clerk, 1300 White Street, Key West, Florida until **3:00 p.m.**, local time, on the **13<sup>th</sup> day of February 2018**, and then will be publicly opened and read. Any bids received after the time and date specified will not be considered.

**Please submit one (1) original bid package and two (2) electronic copies on USB drives with a single PDF file of the entire bid package.** Bid package shall be enclosed in a sealed envelope, clearly marked on the outside **“ITB #18-015 PORT & MARINE SERVICES - CCTV SURVEILLANCE SYSTEM – MALLORY SQUARE & OUTER MOLE”** addressed and delivered to the City Clerk at the address noted above.

The project contemplated consists of providing design, equipment, labor and materials necessary to accomplish the following:

- Design and Installation of a CCTV Surveillance System at Mallory Square and Outer Mole check points for Port & Marine Services.

The full Invitation to Bid may be obtained from Demand Star by Onvia and The City of Key West website. Please contact Demand Star at [www.demandstar.com](http://www.demandstar.com) or call 1-800-711-1712 or [www.cityofkeywest-fl.gov](http://www.cityofkeywest-fl.gov)

A **Mandatory pre-bid meeting** will be held in the conference room at the Key West Historic Seaport Port and Marine Services Offices, 201 William Street, Key West, Florida on **February 7, 2018 at 2:30 p.m.**

**EACH BID MUST BE SUBMITTED ON THE PRESCRIBED FORM AND ACCOMPANIED BY BID SECURITY AS PRESCRIBED IN THE INSTRUCTIONS TO BIDDERS, PAYABLE TO THE CITY OF KEY WEST, FLORIDA, IN AN AMOUNT NOT LESS THAN FIVE (5) PERCENT OF THE AMOUNT BID.**

For information please contact Karen Olson, Deputy Director Port and Marine Services by email at [kolson@cityofkeywest-fl.gov](mailto:kolson@cityofkeywest-fl.gov). Verbal communications, per the City’s “Cone of Silence” ordinance is not allowed.

The Bidder shall furnish documentation showing that he is in compliance with the licensing requirements of County, and City licenses as would be required within ten days of the award. The successful Bidder must also be able to satisfy the City Attorney as to such insurance coverage and legal requirements as may be demanded by the Proposal in question. The CITY may reject BID for any and/or all of the following reasons: (1) for budgetary reasons, (2) if the proposer misstates or conceals a material fact in its bid, (3) if the proposal does not strictly conform to the law or is non-responsive to the bid requirements, (4) if the proposal is conditional, or (5) if a change of circumstances occurs making the purpose of the proposal unnecessary to the CITY. (6) if such rejection is in the best interest of the CITY. The CITY may also waive any minor formalities or irregularities in any proposal.

The CITY retains the right to award bid to the bidder or bidders that best meet the needs of the City.

## INSTRUCTIONS TO BIDDERS

### 1. CONTRACT DOCUMENTS

#### A. FORMAT

The Bid Documents are divided into parts, divisions, and sections for convenient organization and reference.

#### B. DOCUMENT INTERPRETATION

Should there be any doubt as to the meaning or intent of said Bid Documents, the Bidder should request of the Deputy Director Port and Marine Services, in writing (at least 4 calendar days prior to Bid opening) an interpretation thereof. Any interpretation or change in said Bid Documents will be made only in writing in the form of Addenda to the Documents, which will be furnished to all registered holders of Bid Documents. Bidders shall submit with their Bids, or indicate receipt of all Addenda. The Owner will not be responsible for any other explanation or interpretations of said Documents.

### 2. SCOPE OF SERVICES

Vendor shall provide necessary wiring, cabling, install, configure and test equipment and materials necessary to add security cameras, to include internet services and licenses to system. Cameras shall be installed in two locations as identified in the SUMMARY OF WORK

### 4. REQUIRED QUALIFICATIONS

The prospective Bidder must meet the statutorily prescribed requirements before award of Contract by the CITY. Bidders must hold or obtain all licenses and/or certificates as required by the State and Local Statutes in order to bid and provide the product specified herein. Additionally, all Bidders must meet the minimum qualifications as described in Required Qualifications section.

### 4. TYPE OF BID

#### UNIT PRICE BID

Bid unit prices stated in this proposal include all costs and expenses for labor, equipment, materials, disposal and contractor's overhead and profit. Unit prices for the various work items are intended to establish a total price for completing the project in its entirety. All work and incidental costs shall be included for payment under the several scheduled items of the overall contract, and no separate payment will be made therefore.

### 5. PREPARATION OF BIDS

#### A. GENERAL

All blank spaces in the BID form must be filled in for all schedules and associated parts, as required, preferably in BLACK INK. All price information shall be clearly shown in both words and figures where required. No changes shall be made in the phraseology of the forms. Written amounts shall govern in case of discrepancy between the amounts *stated in*



writing and the amounts stated in figures. In case of discrepancy between unit prices and extended totals, unit prices shall prevail.

Any BID shall be deemed informal which contains omissions, erasures, alterations, or additions of any kind, or prices uncalled for, or in which any of the prices are obviously unbalanced, or which in any manner shall fail to conform to the conditions of the published Invitation to BID.

Only one BID from any individual, firm, partnership, or corporation, under the same or different names, will be considered. Should it appear to the Owner that any Bidder is interested in more than one BID for work contemplated; all Bids in which such Bidder is interested will be rejected.

B. SIGNATURE

The Bidder shall sign his BID in the blank space provided therefor. If Bidder is a corporation, the legal name of the corporation shall be set forth above together with the signature of the officer or officers authorized to sign Contracts on behalf of the corporation. If Bidder is a partnership, the true name of the firm shall be set forth above together with the signature of the partner or partners authorized to sign Contracts in behalf of the partnership. If signature is by an agent, other than an officer of a corporation or a member of a partnership, a notarized power-of-attorney must be on file with the Owner prior to opening of Bids or submitted with the Bid otherwise the Bid will be regarded as not properly authorized.

C. ATTACHMENTS

Bidder shall complete and submit the following forms with his bid:

- Anti-Kickback Affidavit
- Sworn Statement under section 287.133(3)(a) Florida Statutes, on public entity crimes
- Indemnification Form
- Local Vendors Form
- City of Key West Business License Tax Receipt
- Domestic Partnership Affidavit
- Cone of Silence Affidavit
- A complete description of the proposed Wireless Surveillance System including layout
- Cut sheets on all equipment
- Warranty information/ proposal (The City requires Bidder to warranty all materials and labor for two (2) years). Warranty to begin once the City determines the system is operating as specified in the specifications for a period of thirty (30) days. Bidder shall submit a warranty proposal to be included as part of a contract.
- All requirements listed in SUMMARY OF WORK

6. MODIFICATION OR WITHDRAWAL OF BID

Prior to the time and date designated for receipt of Bids, any Bid submitted may be withdrawn by notice to the party receiving Bids at the place designated for receipt of Bids. Such notice shall be in writing over the signature of the Bidder or by telegram. If by telegram, written confirmation over the signature of the Bidder shall be mailed and postmarked on or before the date and time set for receipt of Bids. No Bid may be

withdrawn after the time scheduled for opening of Bids unless the time specified in paragraph AWARD OF CONTRACT of these Instructions to Bidders shall have elapsed.

7. AWARD OF CONTRACT

Within SIXTY (60) calendar days after the opening of Bids, the CITY will accept one of the Bids or will act in accordance with the following paragraphs. The acceptance of the Bid will be by written notice of award, mailed to the office designated in the Bid, or delivered to the Bidder's representative. In the event of failure of the lowest responsive, responsible Bidder to sign the Contract and provide an acceptable insurance certificate(s) and evidence of holding required licenses and certificates, the Owner may award the Contract to the next lowest responsive, responsible Bidder. Such award, if made, will be made within ninety (90) days after the opening of Proposals.

The CITY reserves the right to accept or reject any or all Bids and to waive any formalities and irregularities in said Bids.

8. BASIS OF AWARD

The award will be made by the Owner on the basis of the BID from the lowest, responsive, responsible BIDDER(s) which, in the Owner's sole and absolute judgment will best serve the interest of the Owner. Low bid(s) selection to be based on an hourly rate comparison.

9. PUBLIC RECORDS REQUIREMENTS

In addition to other contract requirements provided by law, each public agency contract for services must include a provision that requires the Vendor to comply with public records laws, specifically to (a) keep and maintain public records that ordinarily and necessarily would be required by the public agency in order to perform the service; (b) provide the public with access to public records on the same terms and conditions that the public agency would provide the records and at a cost that does not exceed the cost provided in this chapter or as otherwise provided by law; (c) ensure that public records that are exempt or confidential and exempt from public records disclosure requirements are not disclosed except as authorized by law; and (d) meet all requirements for retaining public records and transfer, at no cost, to the public agency all public records in possession of the Vendor upon termination of the contract and destroy any duplicate public records that exempt or confidential and exempt from public records disclosure requirements. All records stored electronically must be provided to the public agency in a format that is compatible with the information technology systems of the public agency. If a Vendor does not comply with a public records request, the public agency shall enforce the contract provisions in accordance with the contract.

10. BIDDER'S DECLARATION AND UNDERSTANDING

The undersigned, hereinafter called the Bidder, declares that the only persons or parties interested in this Bid are those named herein, that this Bid is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Bid is made without any connection or collusion with any person submitting another Bid on this Contract.



The Bidder further declares that he has carefully examined the Contract Documents and that this Bid is made according to the provisions and under the terms of the Contract Documents, which Documents are hereby made a part of this Bid.

11. INDEMNITY LANGUAGE

To the fullest extent permitted by law, the VENDOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees \*(herein called the "indemnitees") from liabilities, damages, losses and costs, including but not limited to, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, to the extent caused by the negligence, recklessness, or intentional wrongful misconduct of the CONTRACTOR, its Subcontractors or persons employed or utilized by them in the performance of the Contract. Claims by indemnitees for indemnification shall be limited to the amount of CONTRACTOR's insurance or \$1 million per occurrence, whichever is greater. The parties acknowledge that the amount of the indemnity required hereunder bears a reasonable commercial relationship to the Contract and it is part of the project specifications or the bid documents, if any.

The indemnification obligations under the Contract shall not be restricted in any way by any limitation on the amount or type of damages, compensation, or benefits payable by or for the VENDOR under Workers' Compensation acts, disability benefits acts, or other employee benefits acts, and shall extend to and include any actions brought by or in the name of any employee of the VENDOR or of any third party to whom VENDOR may subcontract a part or all of the Work. This indemnification shall continue beyond the date of completion of the work.

12. CERTIFICATES OF INSURANCE

Bidder agrees to furnish the Owner, before commencing the work under this Contract, the certificates of insurance as specified below.

VENDOR is to secure, pay for, and file with the City of Key West, prior to commencing any work under the Contract, all certificates for workers' compensation, public liability, and property damage liability insurance, and such other insurance coverages as may be required by specifications and addenda thereto, in at least the following minimum amounts with specification amounts to prevail if greater than minimum amounts indicated. Notwithstanding any other provision of the Contract, the VENDOR shall provide the minimum limits of liability insurance coverage as follows:

Auto Liability	\$1,000,000	Combined Single Limit
General Liability	\$2,000,000	Aggregate (Per Project)
	\$2,000,000	Products Aggregate
	\$1,000,000	Any One Occurrence
	\$1,000,000	Personal Injury
	\$ 300,000	Fire Damage/Legal
Additional Umbrella Liability	\$1,000,000	Occurrence / Aggregate

VENDOR shall furnish an original Certificate of Insurance indicating, and such policy providing coverage to, City of Key West named as an additional insured on a PRIMARY



and NON-CONTRIBUTORY basis utilizing an ISO standard endorsement at least as broad as CG 2010 (11/85) or its equivalent, (combination of CG 20 10 07 04 and CG 20 37 07 04, providing coverage for completed operations, is acceptable) including a waiver of subrogation clause in favor of City of Key West on all policies. VENDOR will maintain the General Liability and Umbrella Liability insurance coverages summarized above with coverage continuing in full force including the additional insured endorsement until at least 3 years beyond completion and delivery of the work contracted herein.

Notwithstanding any other provision of the Contract, the VENDOR shall maintain complete workers' compensation coverage for each and every employee, principal, officer, representative, or agent of the VENDOR who is performing any labor, services, or material under the Contract. Further, VENDOR shall additionally maintain the following minimum limits of coverage:

Bodily Injury Each Accident	\$1,000,000
Bodily Injury by Disease Each Employee	\$1,000,000
Bodily Injury by Disease Policy Limit	\$1,000,000

VENDOR shall provide the City of Key West with a Certificate of Insurance verifying compliance with the workman's compensation coverage as set forth herein and shall provide as often as required by the City of Key West such certification which shall also show the insurance company, policy number, effective and expiration date, and the limits of workman's compensation coverage under each policy.

CONTRACTOR's insurance policies shall be endorsed to give 30 days written notice to the City of Key West in the event of cancellation or material change, using form CG 02 24, or its equivalent.

Certificates of Insurance submitted to the City of Key West will not be accepted without copies of the endorsements being requested. This includes additional insured endorsements, cancellation/material change notice endorsements, and waivers of subrogation. Copies of USL&H Act and Jones Act endorsements will also be required if necessary. PLEASE ADVISE YOUR INSURANCE AGENT ACCORDINGLY.

VENDOR will comply with any and all safety regulations required by any agency or regulatory body including but not limited to OSHA. VENDOR will notify City of Key West immediately by telephone at (305) 809-3811 any accident or injury to anyone that occurs on the jobsite and is related to any of the work being performed by the CONTRACTOR.

#### SURETY AND INSURER QUALIFICATIONS

All bonds, insurance contracts, and certificates of insurance shall be either executed by or countersigned by a licensed resident agent of the Surety or insurance company, having his place of business in the State of Florida, and in all ways complying with the insurance laws of the State of Florida. Further, the said Surety or insurance company shall be duly licensed and qualified to do business in the State of Florida.

13. TIME OF COMPLETION

The time of completion of the work to be performed under this Contract is the essence of the Contract. When the Contractor receives a Notice to Proceed, he shall commence work as soon as possible and shall complete all work within the number of calendar days stipulated in this Proposal.

The term of this contract will be **30** days.

14. ADDENDA

The Bidder hereby acknowledges that he has received Addenda No's. 1, 2, \_\_\_\_\_, and agrees that all addenda issued are hereby made part of the Contract Documents, and the Bidder further agrees that his Bid(s) includes all impacts resulting from said addenda.

15. TRANSPORTATION WORKERS IDENTIFICATION CREDENTIAL (TWIC) CARD

The Vendor, vendor's installer and vendor's subcontractor(s) must have or obtain TWIC cards or follow strict guidelines for escorting non-vetted personal.

\* \* \* \* \*



**PORT & MARINE SERVICES**

201 William Street  
Key West, FL 33040

**ADDENDUM NO. 1**

**CCTV SURVEILLANCE SYSTEM BIGHT  
MALLORY SQUARE & OUTER MOLE  
ITB #18-015**

The information contained in this Addendum adds information to be included in the Bid and is hereby made a part of the Contract Documents. The referenced bid package is hereby addended in accordance with the following items:

**QUESTIONS and CLARIFICATIONS**

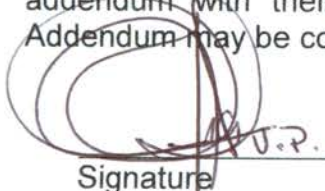
1. The bid opening date has changed to Tuesday February 20, 2018 at 3:00pm.
2. All requests for additional information or clarification must be received no later than Tuesday February 13, 2018 at 5:00pm.
3. The Coast Guard range marker tower, located on Navy property, may be used to mount equipment. See attached photo.
4. Mandatory Pre-Bid Sign-In sheet attached.

**PROCUREMENT REQUIREMENTS**

1. Non-Collusion Affidavit attached.

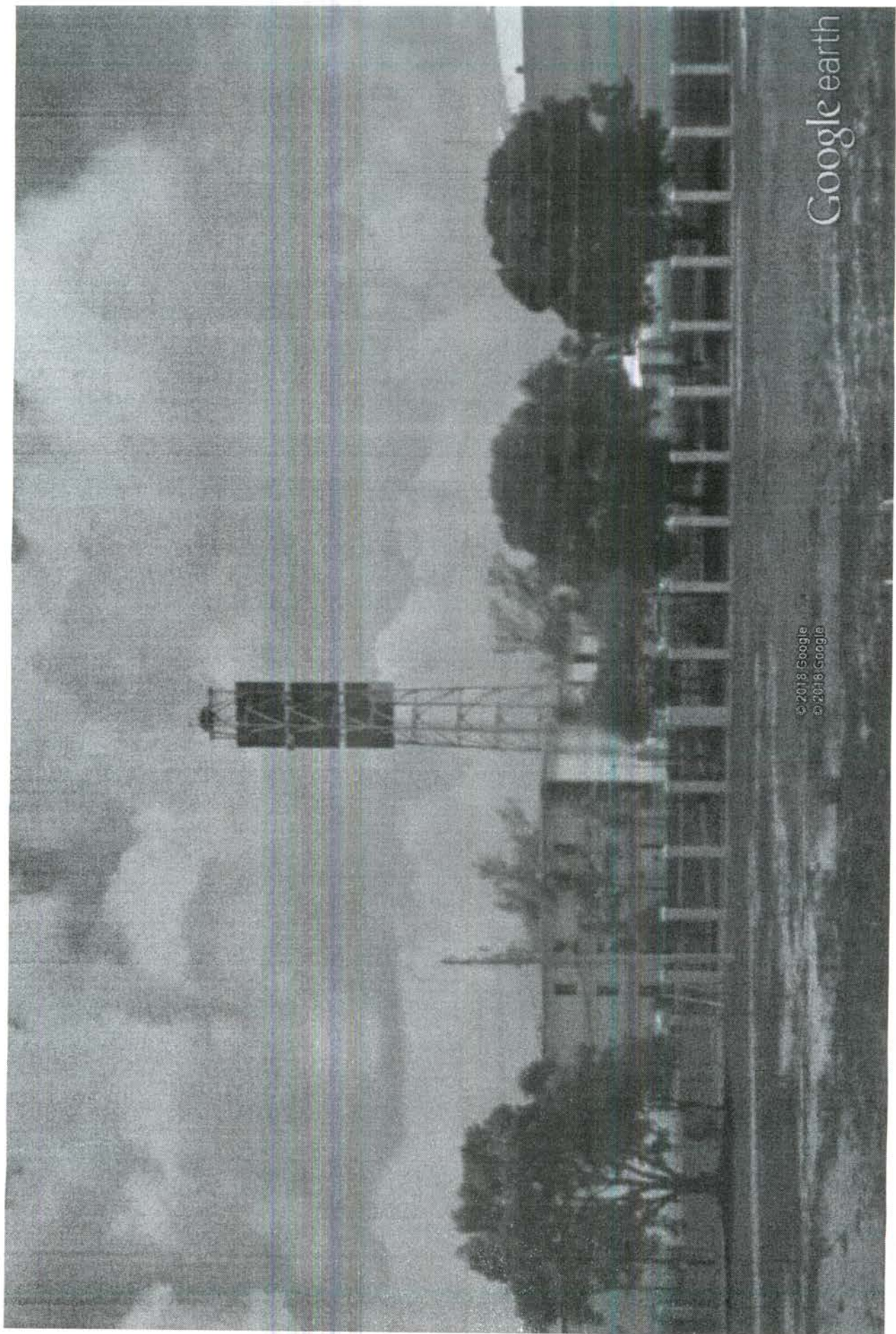
All other elements of the Contract and Bid documents, shall remain unchanged.

All Bidders shall acknowledge receipt and acceptance of this **Addendum No. 1** by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

  
Signature

Integrated Fire & Security Solutions Inc  
Name of Business





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Google earth



PORT & MARINE SERVICES  
CCTV SURVEILLANCE SYSTEM  
MALLORY SQUARE & OUTER MOLE  
ITB #18-015

Mandatory Pre-Bid Meeting SIGN-IN Sheet

February 7, 2018

2:30 PM

NAME / COMPANY

CONTACT #

EMAIL

KAREN OLSON <sup>ekw</sup> 305-809-3803 KOLSON@CITYOFKAYWEST-FL.GOV

DAVE BRADSHAW <sup>db</sup> 305-809-3792 DBRADSHAW@ " " " "

JILL KRAVITZ / AISC 561.313.9325 JKRAVITZ@AISGONLINE.COM

MIKE QUOLAS 210-607-1799 MIKEQUOLAS@OUTLOOK.COM

JODY DICZEL 305-393-7184 JDICZEL@HY-TECH.COM

SCOTT SLOUGH 305-296-5111 SSLOUGH@HY-TECHSOLUTIONS.COM

KEVIN DEE (SCJ) 305.484.6291 KEVIN@KEVINDEE.CA

JESUS CARIAS (954) 625-5920 JCARIAS@IFSSI.COM

JONATHAN PHELPS (305) 340-9243 JPHelps@IFSSI.COM

J. MARTINO 561 616 9567 JMARTINO@AISG-ONLINE.COM

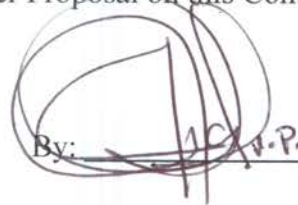
**NON-COLLUSION AFFIDAVIT**

STATE OF FLORIDA )

:

SS COUNTY OF MONROE )

I, the undersigned hereby declares that the only persons or parties interested in this Proposal are those named herein, that this Proposal is, in all respects, fair and without fraud, that it is made without collusion with any official of the Owner, and that the Proposal is made without any connection or collusion with any person submitting another Proposal on this Contract.

By:  J.C. v.P.

Sworn and subscribed before me this

16th day of February, 2018.

  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires: July 6, 2021







## **PORT & MARINE SERVICES**

201 William Street  
Key West, FL 33040

### **ADDENDUM NO. 2**

#### **CCTV SURVEILLANCE SYSTEM BIGHT MALLORY SQUARE & OUTER MOLE ITB #18-015**

The information contained in this Addendum adds information to be included in the Bid and is hereby made a part of the Contract Documents. The referenced bid package is hereby addended in accordance with the following items:

#### **QUESTIONS and CLARIFICATIONS**

1. The bid requires the system to have a battery back-up of 8 hr. Batteries are typically used for less than 30 minutes to maintain a system from power disruption during short outages, until a generator engages, or sufficient time to properly power off equipment. Is 8 hour absolutely necessary? If so can a generator be used in combination with a ups to meet this requirement? Note: batteries are typically replaced every 3-5 years based on use the long term expense would be greater vs a generator.

**Vendor to provide 1-hour minimum battery back-up.**

2. Page 29 under d. general: "System shall be capable of withstanding extreme heat." What temp defines extreme? Both antenna and camera specified are only rated to 131F.

**It is the vendors responsibility to assure all equipment withstands the conditions found in the City's subtropical climate.**

3. Page 28 under d. general: "Vendor shall also provide, install, configure, and test a recording server adequately sized to provide thirty (30) days of recording." The summary does not give adequate information to determine hard drive sizing to meet this requirement. Please provide in addition the required frames per second and resolution.

**Revised Bid Form, Summary of Work and new location map attached.**

4. Page 29 under d. general: "System shall have viewing in color." Does this requirement apply to recording at night? Most cameras will switch to B/W in low light environments. Is color during the day acceptable with B/W at night?

**Yes**

5. Based on the information provided in the summary of work it is unclear to the amount of cameras and/or the area of coverage requested at each location. Can a map with color coordination be provided to identify the coverage areas that are required?

**Revised Bid Form, Summary of Work and new location maps attached.**

6. Item 20 of the bid form "Wi-Fi Service (30/30MBPS bandwidth) and 24hr System Monitoring". There is no detail given to this item in the summary. Can you provide additional information to the expectation for this item? (example: Wifi within XXXft of the equipment location? Internet service provided? System monitoring for failures? System monitoring of camera feeds for identified actions?)

**There is no internet service at either location. Vendor shall supply service to meet the viewing/ monitoring capabilities as required by the ITB.**

7. The pricing guide items 1 & 11 address permits at a fixed amount. Is this amount agreed upon with the permits office or do standard permit fees apply?

**Permit fees listed on the Bid Form are an allowance. Actual standard permit fees will be reimbursed to the vendor at cost.**

8. Please confirm there would be adequate required space for 100volt UPS at each location required.

**See answer to question #1 above. UPS shall be stored in the weatherproof/vandal proof enclosure provided at Mallory Square. There is adequate room for the UPS in the Security Trailer at the Outer Mole.**

9. Please confirm days and hours allowed to work on this project.

**Construction noise allowed 8:00 a.m. to 7:00 p.m., Monday through Friday, and 9:00 a.m. to 5:00 p.m. on Saturday.**

All other elements of the Contract and Bid documents, including the bid date shall remain unchanged.

All Bidders shall acknowledge receipt and acceptance of this **Addendum No. 2** by submitting the addendum with their proposal. Proposals submitted without acknowledgement or without this Addendum may be considered non-responsive.

  
Signature

Integrated Fire & Security Solutions Inc.

Name of Business



## BID FORM

Project Title: **CCTV SURVEILLANCE SYSTEM  
MALLORY SQUARE & OUTER MOLE**  
Project No.: **ITB #18-015**

### UNIT PRICE BID

Bid unit prices stated in this proposal include all costs and expenses for labor, equipment, materials, disposal and contractor's overhead and profit. Unit prices for the various work items are intended to establish a total price for completing the project in its entirety. All work and incidental costs shall be included for payment under the several scheduled items of the overall contract, and no separate payment will be made therefore.

### MALLORY SQUARE

1. Permit Fees (to be paid at cost)

1	LS			\$	<u>1,000.00</u>
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2. 180 Degree 4K Camera (includes all material, equipment and labor)

2	EA	Unit Price \$	<u>5,033.85</u>	TOTAL	\$	<u>10,067.70</u>
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3. PZT 1080p Camera (includes all material, equipment and labor)

1	EA	Unit Price \$	<u>5,921.61</u>	TOTAL	\$	<u>5,921.61</u>
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4. Antenna / Radio (includes all material, equipment and labor)

QTY.	<u>3</u>	Unit Price \$	<u>2,833.30</u>	TOTAL	\$	<u>8,499.89</u>
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5. Base Station Antenna / Radio (includes all material, equipment and labor)

QTY.	<u>3</u>	Unit Price \$	<u>2,833.30</u>	TOTAL	\$	<u>8,499.89</u>
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6. POE Switch (includes all material, equipment and labor)

QTY.	<u>2</u>	Unit Price \$	<u>2,127.65</u>	TOTAL	\$	<u>4,255.30</u>
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7. Network Video Recorder (includes all material, equipment and labor)

1	LS			\$	<u>27,307.53</u>
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8. 4K Monitor (includes all material, equipment and labor)

1	LS			\$	<u>2,383.42</u>
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9. Battery Back-up (includes all material, equipment and labor)

1	LS			\$	<u>2,642.48</u>
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10. Surge Protection (includes all material, equipment and labor)

1 LS \$ 995.00

11. Weather/Vandal Proof Enclosure (includes all material, equipment and labor)

1 LS \$ 14,986.62

SUB-TOTAL OF ALL EXTENDED LINE ITEMS LISTED ABOVE:

Total of **Mallory Square** line items 1 - 11 \$ 86,559.44

**OUTER MOLE**

12. Permit Fees (to be paid at cost)

1 LS \$ 1,000.00

13. 180 Degree 4K Camera (includes all material, equipment and labor)

2 EA Unit Price \$ 5,033.85 TOTAL \$ 10,067.70

14. PZT 1080p Camera (includes all material, equipment and labor)

1 EA Unit Price \$ 5,921.61 TOTAL \$ 5,921.61

15. Antenna / Radio (includes all material, equipment and labor)

QTY. 2 Unit Price \$ 2,833.30 TOTAL \$ 5,666.60

16. Base Station Antenna / Radio (includes all material, equipment and labor)

QTY. 2 Unit Price \$ 2,833.30 TOTAL \$ 5,666.60

17. POE Switch (includes all material, equipment and labor)

QTY. 2 Unit Price \$ 2,127.65 TOTAL \$ 4,255.30

18. Network Video Recorder (includes all material, equipment and labor)

1 LS \$ 27,307.53

19. 4K Monitor (includes all material, equipment and labor)

1 LS \$ 975.00

120. Battery Back-up (includes all material, equipment and labor)

1 LS \$ 2,642.48

21. Surge Protection (includes all material, equipment and labor)

1 LS \$ 1,125.00

SUB-TOTAL OF ALL EXTENDED LINE ITEMS LISTED ABOVE:

Total of **Outer Mole** line items 12 - 21 \$ 64,627.82

22. Wi-Fi Service (30/30MBPS bandwidth) and 24hr System Monitoring

24 MO Unit Price/Mo. \$ 337.26 TOTAL \$ 8,094.24

23. General Allowance (only to be used with Owner's written approval)

1 LS \$ 5,000.00

**TOTAL OF ALL EXTENDED LINE ITEMS LISTED ABOVE:**

Total of line items 1 - 23 \$ 164,281.50

One Hundred Sixty four Thousand Two Hundred Eighty One Dollars & 50 Cents  
(amount written in words)

Cost of work to be all inclusive for a complete job including equipment, material, labor, permits, insurance, overhead and profit.

**Alternate Bid #1**

1. Security staff monitoring stations for both Mallory Square and Outer Mole to be shared and located at the Outer Mole checkpoint ((1) Monitor, (1) NVR).

**Total of lump sum BID ALTERNATE #1** ADD ☒ DEDUCT (circle one) \$ 36,276.30

Thirty Six Thousand Two Hundred Seventy Six Dollars & 30 Cents  
(amount written in words)

**Additional Pricing**

1. Monthly system maintenance cost after warranty expiration. Costs to include all material, equipment and labor.

1 MO Unit Price/Mo. \$ 1,034.64



## SUMMARY OF WORK

### WORK INCLUDED

1. The Contractor will design and furnish all CCTV Surveillance System material, equipment, machinery, and labor to accomplish the following minimum requirements for each site:

- a. **Mallory Square Security Checkpoint:**

- Axis Q3709-PVE 180 degree 4K camera and required mounts or Equal
- Axis Q6115-E PZT 1080p camera and required mounts or Equal
- Ignitenet: MetroLinq 2.5G 60-19 PTP/Client antenna/radio and required mounts or Equal
- Ignitenet: MetroLinq 2.5G 60-30-18 Sector base station antenna/radio and required mounts or Equal
- Netonix WS-12-250-AC POE switch or equal
- NVR with 8 channels, 30 days storage @ 30fps with ability to expand storage
- 19" Full-HD 4K Monitor
- Wall mount weatherproof/vandal proof enclosure for NVR and monitor

- b. **Outer Mole Security Checkpoint:**

- Axis Q3709-PVE 180 degree 4K camera and required mounts or Equal
- Axis Q6115-E PZT 1080p camera and required mounts or Equal
- Ignitenet: MetroLinq 2.5G 60-19 PTP/Client antenna/radio and required mounts or Equal
- Ignitenet: MetroLinq 2.5G 60-30-18 Sector base station antenna/radio and required mounts or Equal
- Netonix WS-12-250-AC POE switch or equal
- NVR with 8 channels, 30 days storage @ 30fps with ability to expand storage
- 32" Full-HD 4K Monitor

- c. **Alternate Bid:**

- Security staff monitoring stations for both Mallory Square and Outer Mole to be located at the Outer Mole checkpoint. This alternate eliminates the NVR and monitor from the Mallory square location and reduces the size of the enclosure.

- d. **General:**

- System must have remote viewing capabilities and must be fully functional for employee's computers and iPhones and other hand-held devices
- If a camera or lighting test is necessary to determine the operating parameters of the proposed camera(s), test shall be performed at the expense of the vendor.
- Vendor responsible to provide necessary electrical wiring from City's existing infrastructure to all new equipment. This wiring shall be encased in conduit.
- Vendor shall also provide, install, configure, and test a recording server adequately sized to provide thirty (30) days of recording.
- System shall include all necessary software and licenses.
- There shall not be re-occurring licensing fees.



- System shall have constant coverage of areas.
  - Entire system to have battery Back-up: 1-hr minimum battery life.
  - Entire system to have surge protection: 600 joules minimum.
  - System shall have viewing in color.
  - System shall be capable of withstanding harsh environment including corrosive conditions caused by saltwater and hurricane winds and/or be in protective housing.
  - System shall be capable of withstanding extreme heat
  - Cables/ wiring shall be protected from vandalism by the use of conduit or other means.
  - Cameras shall be vandal resistant.
  - Vendor to remove, and dispose of, any existing abandoned CCTV equipment.
2. Vendor will be responsible for identifying and verifying availability of locations for mounting cameras or equipment. If mounting locations are not available, Contractor will be responsible for installing mounting locations. Installation shall be included with Proposal.
  3. Vendor to provide a complete written description including system capabilities, type of cameras including brand, capability of cameras, recording ability in quality and quantity and upgrade/ expansion capabilities.
  4. Vendor to provide a complete written description including type of system and brand of stand-alone monitoring / retrieval system. Description shall include playback capability, copying to DVD, print screen ability, etc...
  5. Vendor to provide a complete system layout showing camera locations, wiring, antennas, etc.
  6. Contractor to provide cut sheets on all equipment including cameras, computers, recording devices, wiring, etc.
  7. The City is requiring the Bidder to warranty all materials and labor for two (2) years. Warranty will begin once the City determines the system is operating as specified in the technical specifications for a period of 30-days. Provide complete written description of warranty and what it covers.

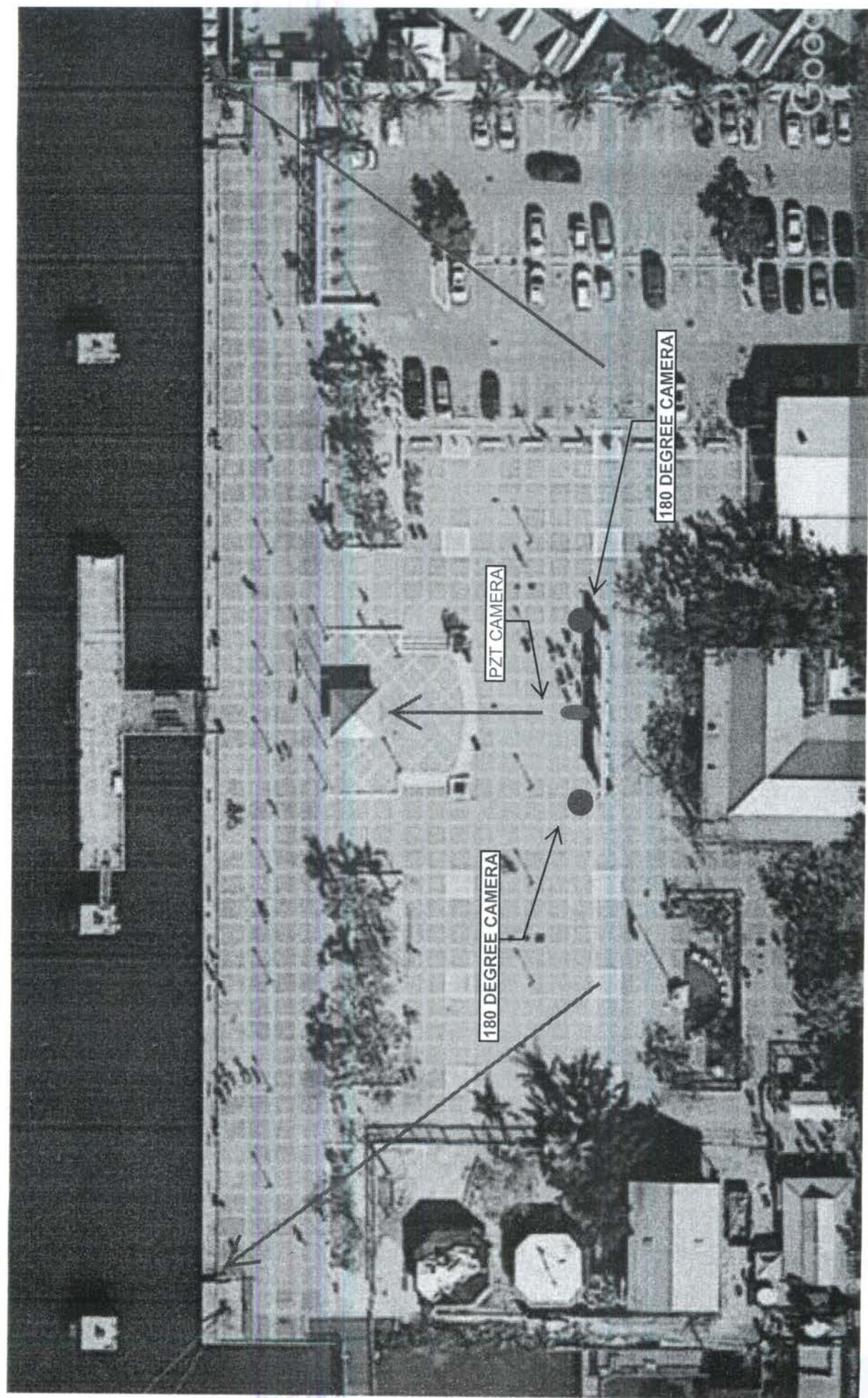
During warranty period vendor shall identify and diagnose system/ equipment failures within 24 hours. All system repairs must be made within 72 hours.

If repairs are not completed within the required 72 hours a fine of \$100/day will be imposed until repairs are made

8. Vendor to describe how the cameras, antennas, etc. will be protected in the harsh coastal environment including type of housing units.
9. Vendor to describe how the cameras, antennas, monitoring / recording equipment etc. will be protected against power surge.
10. Vendor to describe the type of training, if any, provided with the proposed system.
11. Vendor shall secure permits as necessary for proper execution and completion of the work and shall ensure that all Federal, State, and Local codes are followed.
12. Vendor shall take the necessary steps to secure the site including fencing, barricades, and/or security to prevent entry by unauthorized persons. The Port & Marine Services Director or designee shall approve security measures.
13. It shall be the Vendor's responsibility to request approval for entrance to certain areas of worksite for work on Saturdays, Sundays, holiday, and weekday hours other than 7:00 am until 5:00 pm.

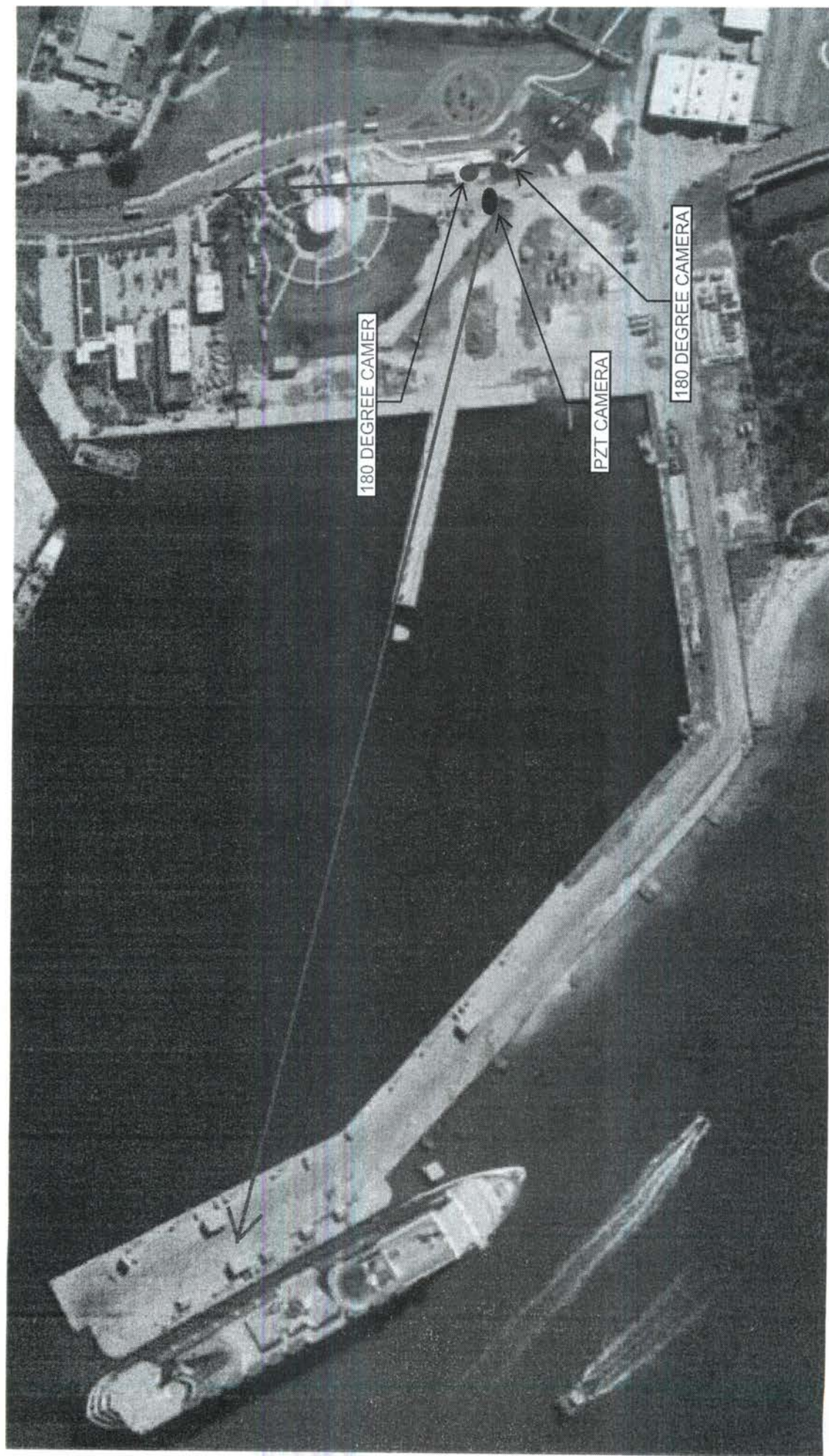
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MALLORY SQUARE  
(CAMERA LOCATION MAP)





**OUTER MOLE**  
(CAMERA LOCATION MAP)

# CITY OF KEY WEST, FLORIDA

## Business Tax Receipt

This Document is a business tax receipt  
Holder must meet all City zoning and use provisions.  
P.O. Box 1409, Key West, Florida 33040 (305) 809-3955

Business Name INTEGRATED FIRE & SECURITY SOL CtlNbr:0020321  
Location Addr 7857 DREW CIR 15  
Lic NBR/Class 18-00025030 CONTRACTOR - CERT ELECTRICAL  
Issue Date: August 04, 2017 Expiration Date: September 30, 2018  
License Fee \$325.00  
Add. Charges \$0.00  
Penalty \$0.00  
Total \$325.00  
Comments:

This document must be prominently displayed.

PETERSON, JOHN

INTEGRATED FIRE & SECURITY SOL  
1970 DANA DR

FT MYERS FL 33907

Oper: KEYWAYB Type: OC Drawer: J  
Date: 8/04/17 63 Receipt no: 24768  
2018 25030  
LIC OCCUPATIONAL RENEWAL  
Trans number: 1.00 \$325.00  
DA CHECK 15597 3111687 \$325.00  
Trans date: 8/04/17 Time: 8:13:25





# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

01/31/2018

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME: ANITA GLICK
SUPERIOR INSURANCE, LLC	PHONE (A/C, No, Ext): (954) 862-1411 FAX (A/C, No): (954) 862-1769
1351 SAWGRASS CORPORATE PKWY, SUITE 102	E-MAIL ADDRESS: CERTIFICATES@SICFL.COM
SUNRISE, FL 33323	INSURER(S) AFFORDING COVERAGE
	INSURER A: Crum & Forster Specialty Ins. Co.
INSURED	INSURER B: Travlers Companies, Inc.
INTEGRATED FIRE AND SECURITY SOLUTIONS, INC.	INSURER C:
1970 Dana Dr.	INSURER D:
FORT MYERS, FL 33907	INSURER E:
	INSURER F:

## COVERAGES

## CERTIFICATE NUMBER:

## REVISION NUMBER:

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSD	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
A	<input checked="" type="checkbox"/> COMMERCIAL GENERAL LIABILITY <input type="checkbox"/> CLAIMS-MADE <input checked="" type="checkbox"/> OCCUR <input checked="" type="checkbox"/> CONTRACTUAL <input checked="" type="checkbox"/> INCLUDES X, C, U GEN'L AGGREGATE LIMIT APPLIES PER: <input type="checkbox"/> POLICY <input checked="" type="checkbox"/> PRO-JECT <input type="checkbox"/> LOC OTHER:	X	X	GLO-331724	05/16/2017	05/16/2018	EACH OCCURRENCE \$ 1,000,000.00 DAMAGE TO RENTED PREMISES (Ea occurrence) \$ 100,000.00 MED EXP (Any one person) \$ 5,000.00 PERSONAL & ADV INJURY \$ 1,000,000.00 GENERAL AGGREGATE \$ 2,000,000.00 PRODUCTS - COMP/OP AGG \$ 2,000,000.00 \$
B	AUTOMOBILE LIABILITY <input type="checkbox"/> ANY AUTO <input type="checkbox"/> ALL OWNED AUTOS <input checked="" type="checkbox"/> SCHEDULED AUTOS <input checked="" type="checkbox"/> HIRED AUTOS <input type="checkbox"/> NON-OWNED AUTOS	X	X	BA-7J922614	08/01/2017	08/01/2018	COMBINED SINGLE LIMIT (Ea accident) \$ 1,000,000.00 BODILY INJURY (Per person) \$ BODILY INJURY (Per accident) \$ PROPERTY DAMAGE (Per accident) \$ P.I.P. \$ 10,000.00
A	<input checked="" type="checkbox"/> UMBRELLA LIAB <input checked="" type="checkbox"/> OCCUR <input type="checkbox"/> EXCESS LIAB <input type="checkbox"/> CLAIMS-MADE DED <input type="checkbox"/> RETENTION \$	X	X	XBS0045358	05/16/2017	05/16/2018	EACH OCCURRENCE \$ 5,000,000.00 AGGREGATE \$ 5,000,000.00 \$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below	Y/N	N/A				PER STATUTE <input type="checkbox"/> OTH-ER <input type="checkbox"/> E.L. EACH ACCIDENT \$ E.L. DISEASE - EA EMPLOYEE \$ E.L. DISEASE - POLICY LIMIT \$
A	ERRORS AND OMISSIONS			GLO-331724	05/16/2017	05/16/2018	GENERAL AGGREGATE \$ 1,000,000.00 PER OCCURRENCE \$ 1,000,000.00

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)

Certificate Holder is listed as Additional Insured.

## CERTIFICATE HOLDER

## CANCELLATION

City of Key West, FL

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

ANITA GLICK

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# CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

01/31/18

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

**IMPORTANT:** If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must have ADDITIONAL INSURED provisions or be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

**PRODUCER**  
Aon Risk Services, Inc of Florida  
1001 Brickell Bay Drive, Suite #1100  
Miami, FL 33131-4937

**CONTACT NAME:** Aon Risk Services, Inc of Florida

**PHONE**  
(A/C, No, Ext): 800-743-8130

**FAX**  
(A/C, No): 800-522-7514

**EMAIL ADDRESS:** ADP.COI.Center@Aon.com

**INSURER(S) AFFORDING COVERAGE**

**NAIC #**

**INSURER A :** Illinois National Insurance Co

23817

**INSURER B :**

**INSURER C :**

**INSURER D :**

**INSURER E :**

**INSURER F :**

**INSURED**  
ADP TotalSource CO XXI, Inc.  
10200 Sunset Drive  
Miami, FL 33173  
**ALTERNATE EMPLOYER**  
Integrated Fire & Security Solutions Inc. DBA IFSS  
1970 Dana Drive  
Fort Myers, FL 33907

## COVERAGES

**CERTIFICATE NUMBER:** 1850503

**REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS. LIMITS SHOWN ARE AS REQUESTED.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS
	<b>COMMERCIAL GENERAL LIABILITY</b>						
	<input type="checkbox"/> CLAIMS-MADE <input type="checkbox"/> OCCUR						EACH OCCURRENCE \$
							DAMAGE TO RENTED PREMISES (Ea occurrence) \$
							MED EXP (Any one person) \$
							PERSONAL & ADV INJURY \$
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE \$
	<input type="checkbox"/> POLICY <input type="checkbox"/> PROJECT <input type="checkbox"/> LOC						PRODUCTS - COMP/OP AGG \$
	<input type="checkbox"/> OTHER						\$
	<b>AUTOMOBILE LIABILITY</b>						COMBINED SINGLE LIMIT (Ea accident) \$
	<input type="checkbox"/> ANY AUTO OWNED AUTOS ONLY <input type="checkbox"/> SCHEDULED AUTOS <input type="checkbox"/> HIRED AUTOS ONLY <input type="checkbox"/> NON-OWNED AUTOS ONLY						BODILY INJURY (Per person) \$
							BODILY INJURY (Per accident) \$
							PROPERTY DAMAGE (Per accident) \$
							\$
	<b>UMBRELLA LIAB</b> <input type="checkbox"/> OCCUR						EACH OCCURRENCE \$
	<b>EXCESS LIAB</b> <input type="checkbox"/> CLAIMS-MADE						AGGREGATE \$
	<input type="checkbox"/> DEC <input type="checkbox"/> RETENTION \$						
A	<b>WORKERS COMPENSATION AND EMPLOYERS' LIABILITY</b> <input type="checkbox"/> Y <input type="checkbox"/> N ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICER/MEMBER EXCLUDED? <input type="checkbox"/> N/A (Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below			WC 026160313 FL	09/24/17	07/01/18	<input checked="" type="checkbox"/> PER STATUTE <input type="checkbox"/> OTH-ER
							E.L. EACH ACCIDENT \$ 2,000,000
							E.L. DISEASE - EA EMPLOYEE \$ 2,000,000
							E.L. DISEASE - POLICY LIMIT \$ 2,000,000

**DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (ACORD 101, Additional Remarks Schedule, may be attached if more space is required)**

All worksite employees working for INTEGRATED FIRE & SECURITY SOLUTIONS INC. DBA IFSS, paid under ADP TOTALSOURCE, INC.'s payroll, are covered under the above stated policy. INTEGRATED FIRE & SECURITY SOLUTIONS INC. DBA IFSS is an alternate employer under this policy.

## CERTIFICATE HOLDER

City of Key West

## CANCELLATION

SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.

AUTHORIZED REPRESENTATIVE

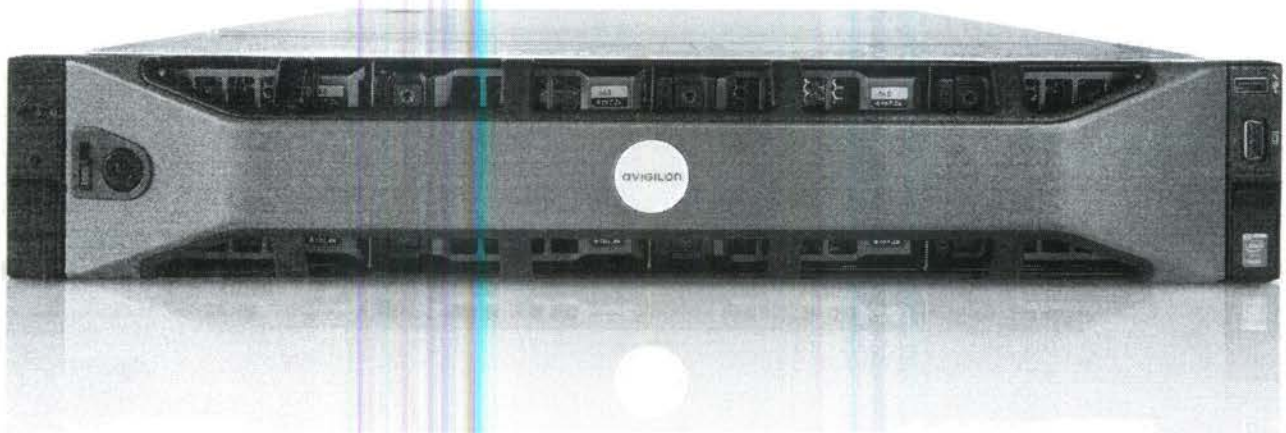
*Aon Risk Services, Inc of Florida*

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# HD NVR Standard

Avigilon HD Network Video Recorders (NVRs) provide secure, reliable and scalable platforms for high performance end-to-end security solutions. Our network security recorders have Avigilon Control Center (ACC) software preloaded and configured for plug-and-play network video recording and management of multi-megapixel IP cameras, up to our industry-leading 7K (30 megapixel) HD Pro.



The Avigilon HD NVR Standard is a 2U rack mountable recorder specifically manufactured for the Avigilon ecosystem. It leverages the full power of Avigilon Control Center (ACC) software to deliver high throughput and retention without sacrificing availability. The NVR Standard meets the requirements of IP video and video analytics metadata storage. It's backed by the Avigilon three-year warranty, which provides businesses with support and onsite parts delivery for continuous recording and retention of video while minimizing disruptions to security operations.

The HD NVR Standard is an out-of-the-box, ready-to-deploy video recording platform for single site surveillance or to be distributed across multiple remote sites.

## KEY FEATURES

Preloaded and configured with ACC<sup>™</sup> video management software

High performance of up to 900 Mbps of total throughput — simultaneous recording, playback, and live streaming

Highly scalable capacity options — up to 36TB of recording for long-term video retention

Hot-swappable components maintain video recording and playback operations even in the event of multiple component failures

Separation of operating system and video storage volumes to enable independent, non-disruptive maintenance

An easy to access and maintain 2U rack mount chassis — includes a sliding rail kit and cable management system

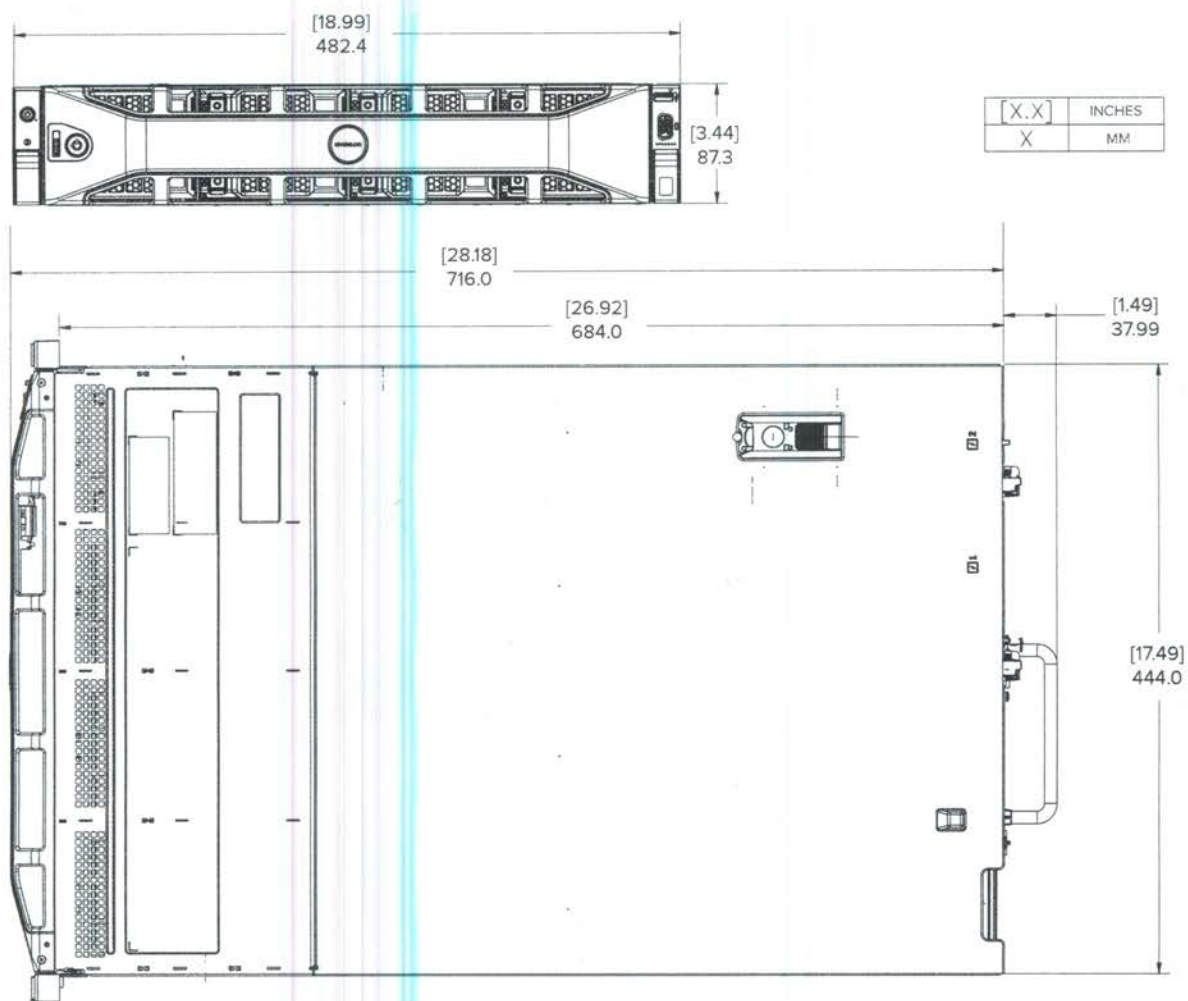
A three-year warranty with on-site parts delivery service



# Specifications

SYSTEM	Video Management Software		Avigilon Control Center™ – compatible with Enterprise, Standard and Core editions	
	Network Video Streaming Performance*	Network Connection	1 GbE - with multiple network connections	
		Recording Data Rate	Up to 450 Mbps	
		Playback and Live Streaming	Up to 450 Mbps (while simultaneously recording video)	
		Number of Cameras	Up to 128	
	Recording Storage Capacity		Up to 48 TB raw, 36 TB effective (RAID 6)	
	Hard Disk Drive Configuration		Video data — up to 8 x large form factor near-line SAS hard disk drives, hot-swappable, RAID 6 Operating system — 2 x small form factor SATA hard disk drives, hot-swappable, RAID 1	
	Network Interface		4 x 1 GbE RJ-45 ports (1000Base-T) (Optional) 2 x 10 GbE SFP+ ports (transceivers not included)	
	Memory		16GB DDR4	
	Operating System		Microsoft Windows 10 Enterprise	
	Processor		Intel® Xeon® Processor E5-2609 v3, 1.9GHz, 15M Cache	
	Video Outputs		2 x VGA	
	Local Viewing		No	
	Remote Access		iDRAC8 Express	
* These performance figures are based on validation testing by Avigilon, using Avigilon Control Center software. For more information, contact Avigilon Sales.				
MECHANICAL	Form Factor		2U rack mount chassis	
	Dimensions (LxWxH)	with bezel	716 mm x 482.4 mm x 87.3 mm; 28.19" x 18.99" x 3.44"	
		without bezel	684 mm x 444 mm x 87.3 mm; 27.64" x 17.49" x 3.44"	
	Weight		22.3 kg (49.2 lb)	
ELECTRICAL	Power Input		100 to 240 VAC, 50/60 Hz, auto-switching	
	Power Supply		750 W single - optional secondary power supply	
	Power Consumption		Average: 270 W (921.3 BTU/h) Maximum: 750 W (2560.8 BTU/h)	
ENVIRONMENTAL	Operating Temperature		10° C to 35° C (50° F to 95° F)	
	Storage Temperature		-40° C to 65° C (-40° F to 149° F)	
	Humidity		5% to 95% relative humidity with 33° C (91° F) maximum dew point (non-condensing)	
	Operating Vibration		0.26 Grms at 5 Hz to 350 Hz	
	Storage Vibration		1.88 Grms at 10 Hz to 500 Hz for 15 min	
	Operating Shock		Six consecutively executed shock pulses in the positive and negative x, y, and z axes of 40 G for up to 2.3 ms	
	Storage Shock		Six consecutively executed shock pulses in the positive and negative x, y, and z axes (one pulse on each side of the system) of 71 G for up to 2 ms	
	Operating Altitude		3,048 m (10,000 ft)	
	Storage Altitude		12,000 m (39,370 ft)	
SUPPLIED ACCESSORIES	Rack Rail System		Sliding rail system with cable management arm. Supports: <ul style="list-style-type: none"><li>• Tool-less mounting in 19"-wide EIA-310-E compliant square hole and unthreaded round-hole 4-post racks</li><li>• Tooled mounting in threaded hole 4-post racks</li></ul>	
	Bezel		1, front	
	Power Cords		1	
CERTIFICATIONS	Safety		EN 60950-1:2006 / A11:2009 / A1:2010 / A12:2011 / A2:2013 EN 62311:2008	UL/CSA/IEC 60950-1, 2 Ed + Am 1: 2009 + Am 2: 2013
	Power Efficiency		80 PLUS Titanium	ENERGY STAR 2.0
	Electromagnetic Emissions		US CFR Title 47, FCC Part 2, 15 Canadian ICES-003(A) Issue 5 EN 55022:2010/CISPR 22:2010	EN 61000-3-2:2006 +A1:2009 +A2:2009/IEC 61000-3-2:2005 +A1:2008 +A2:2009 (Class D) EN 61000-3-3:2008/ IEC 61000-3-3:2008
	Electromagnetic Immunity		EN 55024:2010/CISPR 24:2010	
	Directives		RoHS, Reach (SVHC), WEEE	

# Outline Dimensions



## Ordering Information

HD-NVR3-STD-24TB	24 TB HD NVR Standard with Microsoft Windows 10 Enterprise Embedded and Avigilon Control Center
HD-NVR3-STD-36TB	36 TB HD NVR Standard with Microsoft Windows 10 Enterprise Embedded and Avigilon Control Center
Avigilon Control Center licenses must be purchased separately	

HD-NVR3-ANK1-1	Analytics Kit for Avigilon Appearance Search™ software
HD-NVR3-STD-2NDCPU	2nd CPU kit
HD-NVR3-STD-2NDPS-AU	Redundant, hot-swappable power supply, for AU
HD-NVR3-STD-2NDPS-EU	Redundant, hot-swappable power supply, for EU
HD-NVR3-STD-2NDPS-NA	Redundant, hot-swappable power supply, for NA
HD-NVR3-STD-2NDPS-UK	Redundant, hot-swappable power supply, for UK
HD-NVR3-STD-10GBE	Dual-port 10G-SFP+ Adapter
HD-NVR3-SFPPLUS-DA	SFP+ 10GbE Twinax Direct Attach Cable 3m
HD-NVR3-SFPPLUS-SR	SFP+ 10GBASE-SR Transceiver

HD-NVR3-STD-xxTB-NA =		HD-NVR3-STD-xxTB-UK =		HD-NVR3-STD-xxTB-EU =		HD-NVR3-STD-xxTB-AU =		HD-NVR3-STD-xxTB-DK =		HD-NVR3-STD-xxTB-CH =	
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## AXIS Q61 PTZ Dome Network Camera Series

High-end PTZ camera with Sharpdome technology and Lightfinder



- > Sharpdome technology
- > Speed Dry function
- > Lightfinder technology
- > HDTV 1080p at 50/60 fps
- > Pan performance 700° per second

The new Sharpdome technology included in AXIS Q61 Series provides full scene fidelity and sharp images in all directions- above as well as below the horizon. These compact PTZ cameras are suitable for indoor and outdoor installations, in low light and challenging conditions, making them ideal for a range of applications such as shopping malls, open parking areas and stadiums as well as city and perimeter surveillance.

Axis' Sharpdome technology with its innovative mechanics and unique dome design provides sharp images in all directions. It offers the unique possibility to identify objects as much as 20° above the camera horizon making these cameras suitable for uneven terrain. The Sharpdome technology includes Axis' unique Speed Dry function that will easily remove water drips from the dome glass and provide sharp images in rainy weather.

AXIS Q61 Series includes AXIS Q6115-E that provides resolution up to HDTV 1080p and AXIS Q6114-E with HDTV 720p. Both models feature 30x optical zoom with autofocus. The HDTV resolution provides wide area coverage as well as detailed zoomed-in views.

The cameras deliver smooth video with great detail at 50/60 frames per second that helps to identify incidents in scenes with fast moving objects.

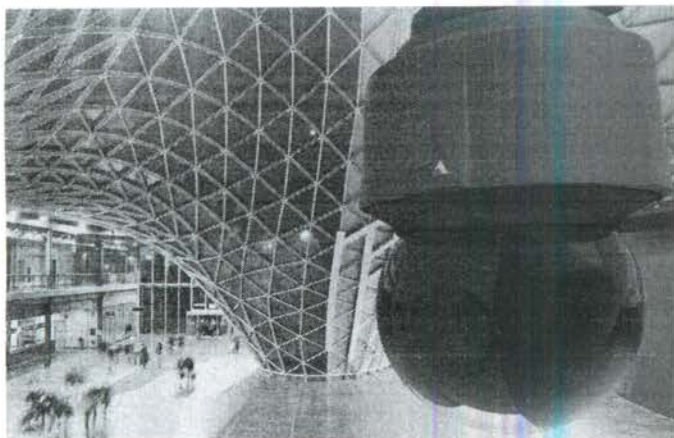
AXIS Q6114-E incorporates Lightfinder technology, allowing for extreme light sensitivity in low light conditions. The cameras offer Wide Dynamic Range - dynamic capture (130 dB) for challenging conditions where backlight or intense contrasts are an issue.

AXIS Q61 cameras are among the market's fastest PTZ dome cameras. The quick and precise pan performance of over 700° per second makes it easy to quickly change viewing position and follow fast moving objects.

**HDTV**  
NETWORK VIDEO

**ONVIF** | S

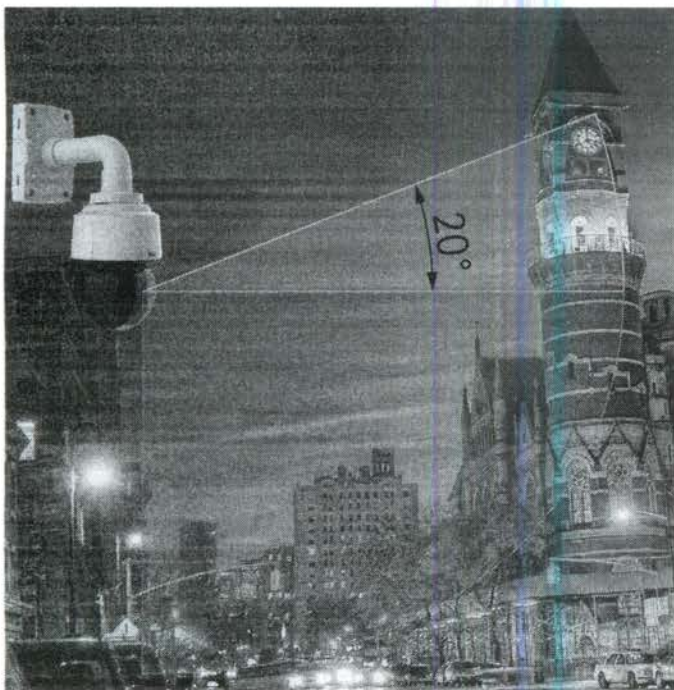
## Highly innovative design



AXIS Q61 cameras offer an innovative design that blends into any indoor or outdoor environment and can easily be repainted to match the buildings facade.

## Axis' Sharpdome Technology

Axis' Sharpdome offers innovative mechanics that make the entire dome rotate, in contrast to a conventional dome where the camera rotates inside the dome. The mechanics together with the unique design of the outdoor dome enable the same optimal image sharpness and full scene fidelity in all pan and tilt positions. This enables clear identification of objects as much as 20° above the camera horizon making these cameras suitable for uneven terrain.



## Axis' Speed Dry function



The Sharpdome technology includes Axis' unique Speed Dry function that helps to provide sharp images in rainy weather. It also simplify dome cleaning, allowing for more efficient methods such as high pressure cleaning. With the Speed Dry function activated, the dome vibrates at high speed. It breaks the surface tension of the water and removes the drips.

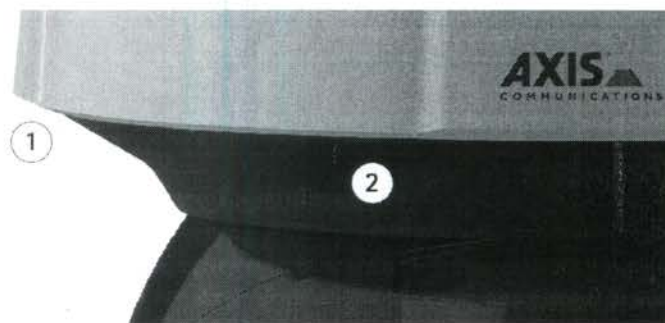
## Dynamic Capture Capabilities

AXIS Q61 cameras support WDR (up to 130 dB) with 'dynamic capture' which is ideal for surveillance in areas with strong variations in light. It enables easy and clear identification of people and objects in both bright and dark areas, for instance, in scenes such as large windows and entrances with strong backlight.

## Lightfinder technology

AXIS Q6114-E also incorporates Axis' unique Lightfinder technology which provides exceptional performance, excellent image quality and amazing details in low light scenes. Lightfinder technology is a combination of Axis' expertise in image processing, in-house system-on-chip development and a selection of the best optical components.

## Designed for reliable operation



The innovative camera design includes a set of smart features that allows the camera to operate reliably.

1. Slanting camera design that deflects water drops.
2. Non-stick heated silicon ring prevents ice formation to ensure reliable operation in extreme conditions.



## Electronic Image Stabilization

AXIS Q61 cameras support Electronic Image Stabilization (EIS), which reduces the effects of camera vibration. In windy conditions, EIS provides clearer, more useful video and helps reduce the size of video files, which leads to lower bandwidth and storage use.

## Weather and impact protection

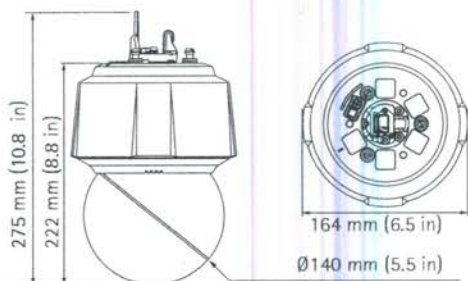
The outdoor-ready AXIS Q61 cameras are designed for reliable, weatherproof installation. The cameras are impact-resistant (IK08) and have protection against dust, rain, snow and sunlight (IP66- and NEMA 4X). In addition they offer shock detection that makes the camera send an alarm in case of attempted vandalism.

## Quick and reliable installation

To save cost and installation time, AXIS Q61 cameras are out-of-the-box-ready for mounting outdoors. However, a wide range of indoor and outdoor mounting options, such as wall, pole or corner mounts are also available.



### Dimensions



### Included accessories

1. Axis High PoE minspan 1-port

1



### Optional accessories

1. AXIS T91A Mounting Accessories

2. Axis High PoE minspans  
RJ45 IP66-rated cables with premounted  
connector (CAT6)

3. AXIS T8310 Video Surveillance Control  
Board

1



2



3



## AXIS Q3709-PVE Network Camera

Multi-sensor, multi-megapixel – 180° overview. One camera.

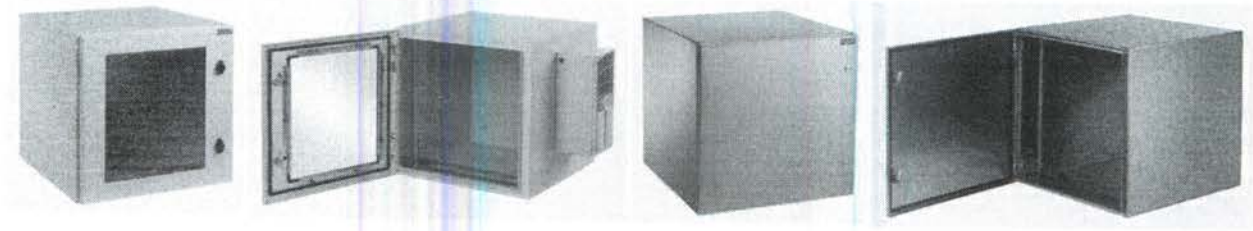
AXIS Q3709-PVE Network Camera is a fixed dome with multiple sensors that provides a broad overview with great detail. The camera's three sensors together give a 180° panoramic view with smooth capture of movements at up to 30 fps in 3 x 4K or 20 fps in 33 MP resolution. The factory-focused lenses eliminate the need for manual focusing. The camera is effectively installed indoors or outdoors with a wide operating temperature range powered by standard PoE+. AXIS Q3709-PVE is delivered with a repaintable weather shield that protects against sun, rain or snow. The camera is equipped with video motion detection as well as active tampering alarm.

- > 180° panoramic overview provided by three sensors
- > Efficient one-camera installation
- > Factory-focused lenses
- > 3 x 4K at 30 fps or up to 33 MP resolution at 20 fps
- > Outdoor-ready with wide operating temperature range





PROTEK™ SINGLE-DOOR, UL AND NEMA TYPE 4, 12



**INDUSTRY STANDARDS**

UL 508A Listed; File Number E61997  
cUL Listed per CSA C22.2 No. 94; File Number E61997  
Solid Door: Type 4 and 12  
Window Door: Type 12  
Solid Door, Stainless Steel: Type 4, 4X and 12

NEMA / EEMAC: Type 4, 4X or 12  
IEC 60529, IP66 or IP55

**APPLICATION**

PROTEK Single-Door cabinets are an excellent, off-the-shelf choice for mounting 19-in. rack, panel-mounted devices or other electronic equipment. The cabinets are designed to provide both front and rear access to 19-in. rack-mounted equipment. They provide protection against water, dirt, corrosive agents and other contaminants. PROTEK is an excellent choice for applications where space is at a premium and the only option is wall mounting. PROTEK comes in a broad range of sizes, materials and configurations to meet many demanding applications.

**FEATURES**

- Solid-door cabinet provides complete physical and visual protection
- Window door, made of scratch-resistant safety glass, provides visual monitoring of internal equipment while maintaining equipment protection
- All seams are fully welded and ground smooth
- Doors are provided with ground studs to facilitate proper bonding and grounding of the cabinet
- Premium seamless, foam-in-place gasket prevents contaminants from entering the cabinet
- Keylocking wing knob is included on painted steel offering, providing access control to the cabinet; two keys are included with each cabinet
- Stainless steel cabinet is provided with a quarter-turn slotted latch
- One set of plated, self-grounding, tapped 10-32 rack angles per EIA universal spacing standards, which can be adjusted front-to-back, is provided with each center section of the cabinet; additional tapped- or square-hole rack angles can be added to the cabinet to provide additional mounting
- Wall section welded panel studs which accommodate standard panels (steel and wood available), can be ordered separately

**SPECIFICATIONS**

- Doors and body made of 14 gauge steel
- Stainless steel enclosures made from Type 304 stainless steel
- Window made of .25-in. thick, scratch- and impact-resistant safety glass
- Rack angles made of plated 12 gauge steel
- M6 ground studs on the door and body are masked from paint
- Twenty 10-32 screws included with cabinet
- Foam-in-place gasket made of durable polyurethane

**FINISH**

- Pretreated steel coated with RAL 7035 light-gray, low-gloss, lightly textured polyester powder paint
- Stainless steel is provided with a smooth-grain finish

**LOAD RATING**

Height	Maximum Load Rating
24 in.	200 lb./90.7 kg
36 in.	300 lb./136.1 kg
48 in.	400 lb./181.4 kg

**ACCESSORIES**

Locks and handles  
Panels (steel and wood)  
Grounding kits  
Power Distribution Units (PDUs)  
Rack angles

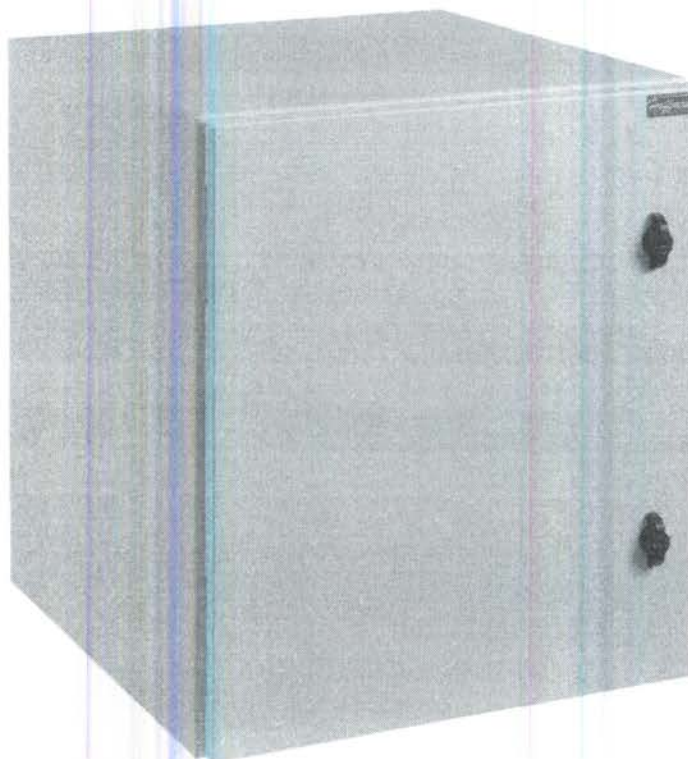
**BULLETIN: DWS12**

Technical Operating Information AC Unit (T150116G100) Replacement Filter No. 10100091

Hz	Voltage VAC	Phase	BTU/Hr @ Max. Ambient Temp. (watts)	Full Load Amp	Max. Ambient Temp. (°F)	Max. Ambient Temp. (°C)	Cord and Plug
60 (50)	115	1	860 (325 watts)	3.6 (3.8)	131 (126)	52 (52)	25-in. cord length 5-15 plug

## Standard Product Solid Door, NEMA Type 4, 12

Catalog Number	In./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel	Optional Wood Panel	Additional Rack Angles <sup>†</sup>
PTRS242412G4	24.09 x 23.62 x 11.81 612 x 600 x 300	12	9.51 242	---	---	1.11 28	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS242424G4	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.72 552	---	---	1.11 28	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS362412G4	36.30 x 23.62 x 11.81 922 x 600 x 300	19	9.51 242	---	---	1.11 28	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS362424G4	36.30 x 23.62 x 24.02 922 x 600 x 610	19	21.72 552	---	---	1.11 28	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS482412G4	48.54 x 23.62 x 11.81 1233 x 600 x 300	26	9.51 242	---	---	1.11 28	CP4420	CP4420W	PTRA48T or PTRA48S
PTRS482424G4	48.54 x 23.62 x 24.02 1233 x 600 x 610	26	21.72 552	---	---	1.11 28	CP4420	CP4420W	PTRA48T or PTRA48S

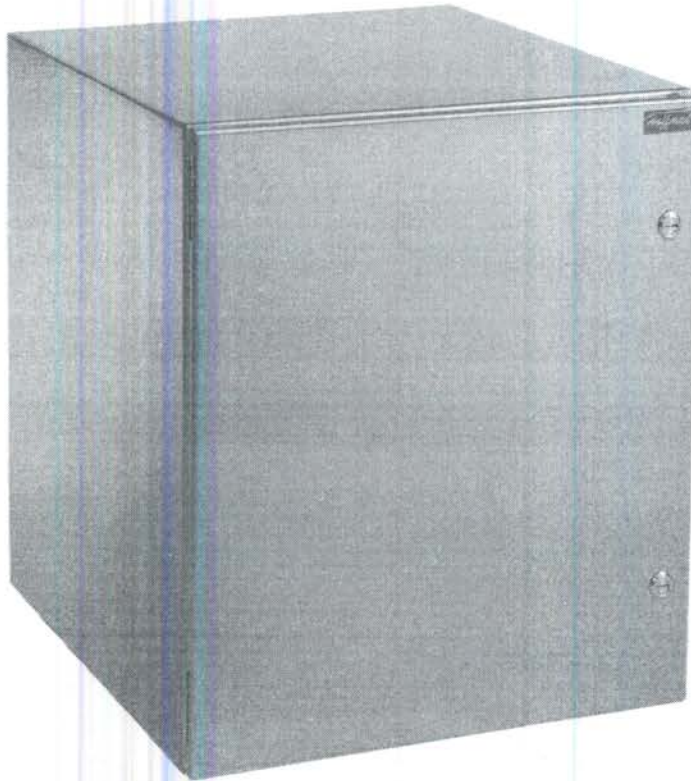
<sup>†</sup>T = tapped 10-32, S = square hole (.375 in. x .375 in.)



## Standard Product Solid Stainless Steel Door, NEMA Type 4, 4X, 12

Catalog Number	AxBxC in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Q mm/ig.	Optional Steel Panel	Optional Wood Panel	Additional Rack Angles <sup>®</sup>
PTRS242412X	24.09 x 23.62 x 11.81 612 x 600 x 300	12	9.51 242	---	---	.80 20	---	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS242424X	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.72 552	---	---	.80 20	---	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS362412X	36.30 x 23.62 x 11.81 922 x 600 x 300	19	9.51 242	---	---	.80 20	---	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS362424X	36.30 x 23.62 x 24.02 922 x 600 x 610	19	21.72 552	---	---	.80 20	---	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS482412X	48.62 x 23.62 x 11.81 1235 x 600 x 300	26	9.51 242	---	---	.80 20	---	CP4420	CP4420W	PTRA48T or PTRA48S
PTRS482424X	48.62 x 23.62 x 24.02 1235 x 600 x 610	26	21.72 552	---	---	.80 20	---	CP4420	CP4420W	PTRA48T or PTRA48S

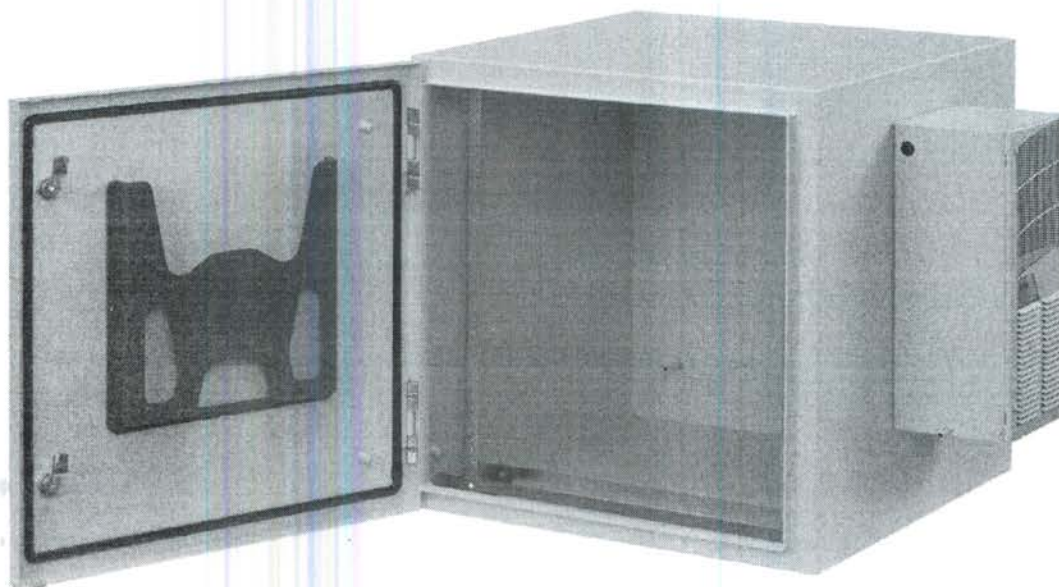
<sup>®</sup>T = tapped 10-32, S = square hole (.375 in. x .375 in.)



Standard Product **Solid Door AC, NEMA Type 4, 12**

Catalog Number	AxBxC in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel	Optional Wood Panel	Additional Rack Angles <sup>2</sup>
PTRS242424G4A	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.72 552	---	---	1.11 28	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS362424G4A	48.54 x 23.62 x 24.02 1233 x 600 x 610	19	21.72 552	---	---	1.11 28	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS482424G4A	48.62 x 23.62 x 24.02 1235 x 600 x 610	26	21.72 552	---	---	1.11 28	CP4420	CP4420W	PTRA48T or PTRA48S

<sup>2</sup>T = tapped 10-32, S = square hole (.375 in. x .375 in.)

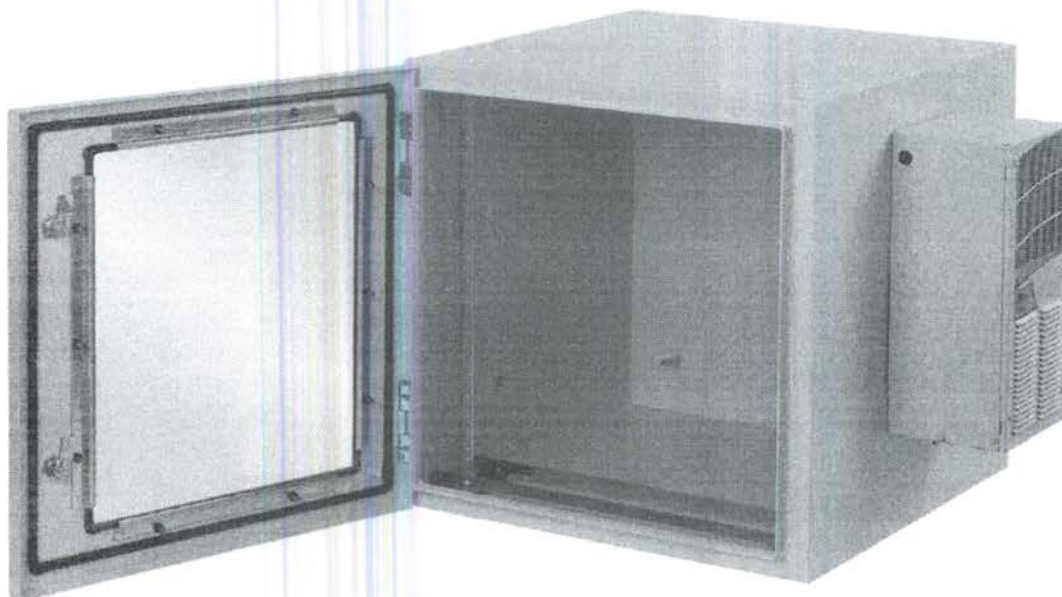




## Standard Product Window Door AC, NEMA Type 12

Catalog Number	AxBxC in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel	Optional Wood Panel	Additional Rack Angles <sup>2</sup>
PTRW242424G2A	24.09 x 23.62 x 2.40 612 x 600 x 61	12	21.72 552	18.25 464	15.38 391	1.11 28	CP2020	CP2020W	PTRA241 or PTRA24S
PTRW362424G2A	36.30 x 23.62 x 2.40 922 x 600 x 61	19	21.72 552	30.75 781	15.38 391	1.11 28	CP3220	CP3220W	PTRA361 or PTRA36S
PTRW482424G2A	48.54 x 23.62 x 2.40 1233 x 600 x 61	26	21.72 552	42.70 1085	15.38 391	1.11 28	CP4420	CP4420W	PTRA481 or PTRA48S

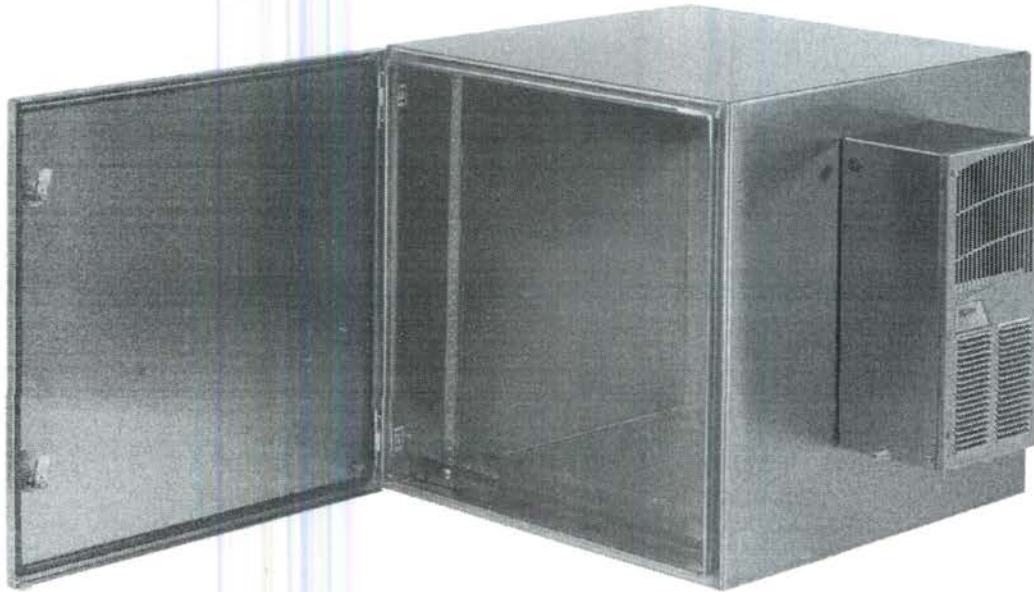
<sup>2</sup>T = tapped 10-32, S = square hole (.375 in. x .375 in.)



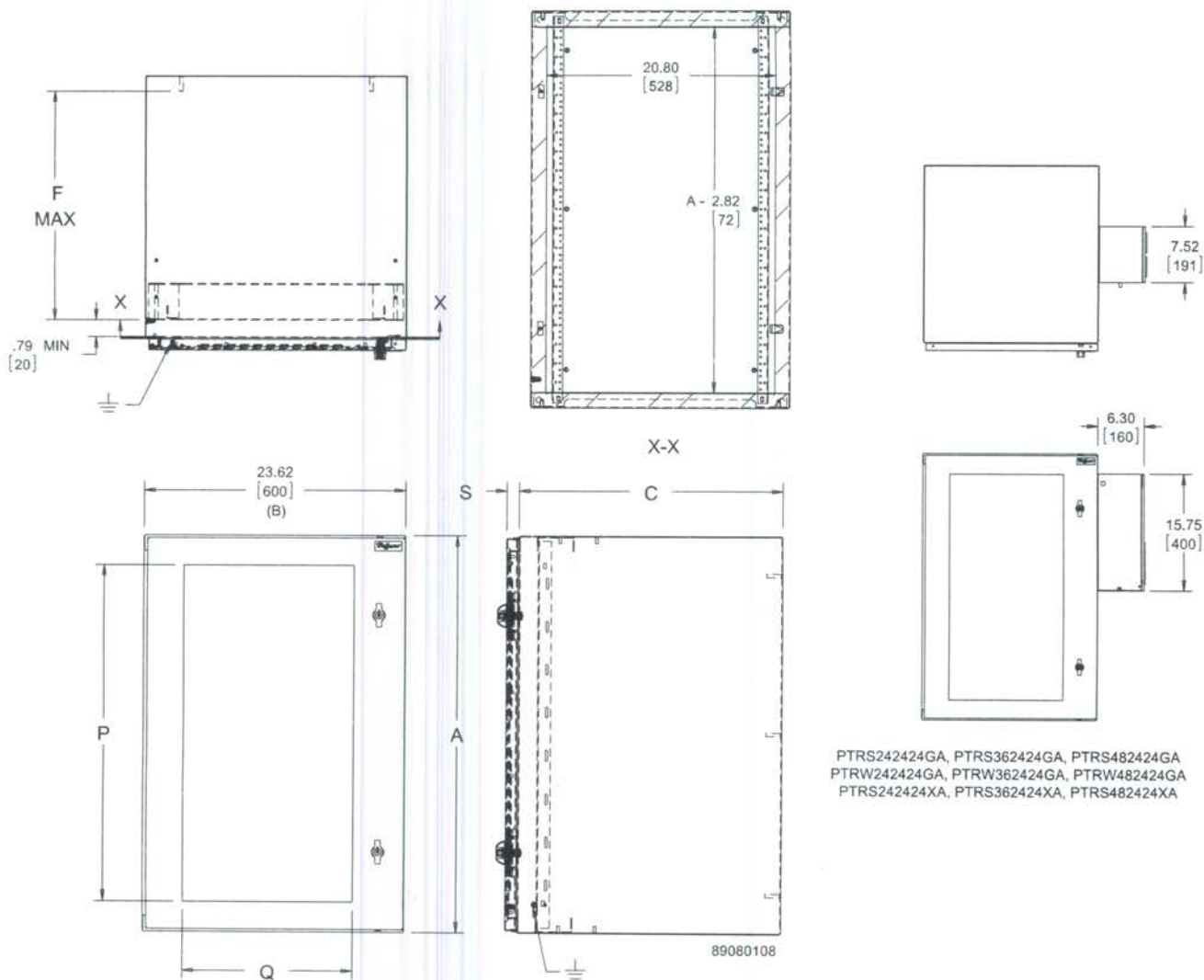
Standard Product **Solid Door Stainless Steel AC, NEMA Type 4, 4X, 12**

Catalog Number	AxBxC in./mm	Rack Units	F in./mm	P in./mm	Q in./mm	S in./mm	Optional Steel Panel	Optional Wood Panel	Additional Rack Angles <sup>a</sup>
PTRS242424XA	24.09 x 23.62 x 24.02 612 x 600 x 610	12	21.32 541	---	---	.80 20	CP2020	CP2020W	PTRA24T or PTRA24S
PTRS362424XA	36.30 x 23.62 x 24.02 922 x 600 x 610	19	21.32 541	---	---	.80 20	CP3220	CP3220W	PTRA36T or PTRA36S
PTRS482424XA	48.62 x 23.62 x 24.02 1235 x 600 x 610	26	21.32 541	---	---	.80 20	CP4420	CP4420W	PTRA48T or PTRA48S

<sup>a</sup>T = tapped 10-32, S = square hole (.375 in. x .375 in.)







### COOLING PERFORMANCE FOR AIR CONDITIONER PACKAGES

**PROTEK Air Conditioner calculated cooling performance**

**AC Performance:** 800 BTU/hour or 235 watts

**Voltage / Hertz:** 115 VAC/60 Hz

**Max. Ambient Temperature:** 131 F

**Min. Ambient Temperature:** -40 F

**Max. Internal Temperature:** 100 F (Allowable)

### Cooling Performance PROTEK™ Air Conditioner Packages

Ambient Temperature (°F)	Watts (Heat) Dissipated Cabinet Height: 24 in.	Watts (Heat) Dissipated Cabinet Height: 36 in.	Watts (Heat) Dissipated Cabinet Height: 48 in.
130	15	N/A	N/A
120	88	73	59
110	161	154	146
100	234	234	234
90	308	315	322
80	381	396	410
70	454	476	498
60	527	557	586
50	601	637	674
40	674	718	762

N/A = Not applicable and not recommended in these applications

1 BTU = 3.413 watts

## PROTEK™ WALL-MOUNT CABINET ACCESSORY PANELS

Where equipment mounting space is limited, Accessory Panels increase cabinet capacity by providing a mounting surface for 19-in. equipment and accessories at the back of the cabinet. The panels mount on collar studs provided in the cabinet. Available in painted mild steel or wood.

BULLETIN: CWP, DWDH2



## PROTEK™ RACK ANGLES

Square- and tapped-hole rack angles fit into PROTEK™ single- and double-hinged cabinets.

BULLETIN: DWDH2



### Standard Product

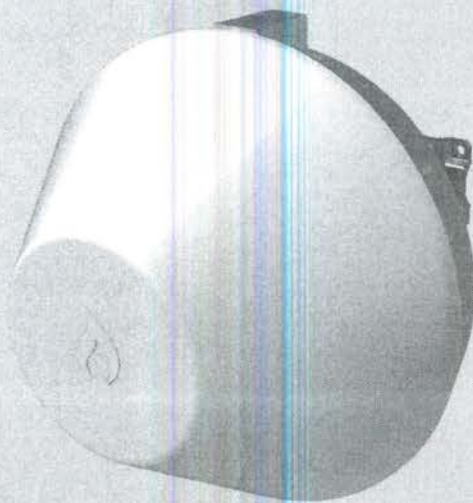
Catalog Number	Panel Type	Panel Size D x E in./mm	Gauge
CP2014	Painted Steel	18.20 x 12.20 462 x 310	14
CP2020	Painted Steel	18.20 x 18.20 462 x 462	12
CP2442	Painted Steel	22.20 x 40.20 564 x 1021	12
CP3220	Painted Steel	30.20 x 18.20 762 x 462	12
CP4420	Painted Steel	42.20 x 18.20 1072 x 462	12
CP5620	Painted Steel	53.20 x 18.20 1351 x 462	12

### Standard Product

Catalog Number	A in./mm	L in./mm	Hole Type	Fits Cabinet Height in./mm	Rack Units
PTRA16T	0.00	16.12 409	Tapped	16.00	8
PTRA16S	0.00	16.12 409	Square	16.00	8
PTRA24T	0.00	23.12 587	Tapped	24.00	12
PTRA24S	0.00	23.12 587	Square	24.00	12
PTRA36T	0.00	35.32 897	Tapped	36.00	19
PTRA36S	0.00	35.32 897	Square	36.00	19
PTRA48T	0.00	45.57 1157	Tapped	48.00	26
PTRA48S	0.00	45.57 1157	Square	48.00	26
PTRA60T	0.00	59.07 1500	Tapped	60.00	32
PTRA60S	0.00	59.07 1500	Square	60.00	32



## Notes



35cm size w/ 60GHz + 5GHz



19cm size w/ 60GHz + 5GHz

## MetroLinq™ 2.5G 60

Cloud-Enabled Outdoor  
60GHz PTP + 5GHz

IgniteNet™'s MetroLinq™ 2.5 - 60 is the world's first cost-effective high capacity 60GHz PTP radio enabling high performance, interference-free connections worldwide. The MetroLinq™ 2.5 - 60 has an added advantage of being license-free in most markets globally, allowing ultra fast deployment and without the hassle of other frequency bands requiring a license. The MetroLinq™ also includes a second 5GHz radio which can be configured as PtP (backup) to provide integrated redundancy without and additional hardware or complexity.

### Interference-Free & Unlicensed Band

The IgniteNet™ MetroLinq™ 2.5 - 60 offers unprecedented performance - combining both the benefits of unlicensed band operation with no interference!

### Dual Band 60GHz & 5GHz Operation

The MetroLinq™ 2.5 - 60 includes a second 5GHz radio which can be configured as a backup to the 60GHz to provide automatic failover during adverse conditions. This allows links to be extended further without effecting link availability

### Powerful, Flexible Configuration

The MetroLinq™ Base Station can operate either as a stand-alone device or as a coordinated, cloud-managed device, easily meeting the requirements of any installation.

### Robust Weather-Resistant Design

The MetroLinq™ Base Station features a hybrid metal/plastic design built to withstand the harshest environments including precipitation, hot/cold weather and high/low humidities.



## Product Variants

- › 35cm size w/ 60GHz + 5GHz
- › 19cm size w/ 60GHz + 5GHz

## Features

### HARDWARE FEATURES

- › 1x 2.5 Gigabit Ethernet Port (PoE IN 24-48v)
- › 1x SFP Port
- › 1x Screw Terminal Block (DC Power IN 24-48v)
- › 1x USB 3.0 Port
- › Dual flash image support

### LEDs

- › Power, Ethernet, Wireless, Health/Status

### DIMENSIONS (L x W x H)

- › 350 x 350 x 200 mm/ 13.78 x 13.78 x 7.87 inch (ML-60-35)
- › 190 x 190 x 120 mm/ 7.48 x 7.48 x 4.72 inch (ML-60-19)

### WEIGHT

- › 2.8 kg/ 6.17 lb without mount (ML-60-35)
- › 1.25 kg/ 2.76 lb without mount (ML-60-19)

### POWER

- › 24-48V/1.5A passive Gigabit PoE or DC

### OPERATING ENVIRONMENT

- › Operating Temperature: -30C. to +55C.
- › Store Temperature: -30C. to 55C.
- › Operating Humidity: 10 to 90% non-condensing (RH)

### REGULATORY / STANDARDS COMPLIANCE

- › FCC/IC
- › CE

### RF PERFORMANCE (TX)

- › 60GHz:  
14dBm @ 2.5Gbps
- › 5GHz:  
27dBm @ 6Mbps, 23dBm @ 866 Mbps

### RF PERFORMANCE (RX)

- › 60GHz:  
-74dBm @MCS1; -60dBm @ MCS9
- › 5GHz:  
-94dBm @MCS0; -72dBm @ MCS15

### KEY FEATURES

- › 2.5+ Gbps Aggregate throughput; dynamically allocated (60GHz)
- › Management VLAN support and VLAN pass-through
- › Supports Service Provider and Enterprise type networks
- › Stand-alone or Cloud-controlled operating modes
- › Link failover/backup (60GHz + 5GHz) Per Client
- › 128bit AES Encryption (standard; 5GHz, and 60GHz)
- › SNMP Monitoring with Private MIB

### APPLICATIONS

- › Fixed Wireless Access (broadband)
- › 3G/4G Backhaul
- › Metro WiFi
- › Campus Interconnection
- › Hybrid Fiber/Wireless Networks

## Ordering Information

Part Number	Description
ML2.5-60-35-XX	60GHz Outdoor + 5GHz w/ Int 42dBi (60GHz) & 22dBi (5GHz) antenna, 2500Mbps + SFP
ML2.5-60-35-1-XX	60GHz Outdoor + 5GHz w/ Int 42dBi (60GHz) & External 5Ghz, 2500Mbps + SFP
ML2.5-60-19-XX	60GHz Outdoor + 5GHz w/ Int 36dBi (60GHz) & 16dBi (5GHz) antenna, 2500Mbps + SFP
ML2.5-60-19-1-XX	60GHz Outdoor + 5GHz w/ Int 36dBi (60GHz) & External 5GHz, 2500Mbps + SFP

**\*\*XX is used to denote localization (US, EU, AU, CN)**

#### Features

##### RF PERFORMANCE

- ✓ Frequency Range
  - 5.1 - 5.9GHz
  - 2.4 - 2.5GHz
- ✓ Antenna Gain
  - 17dBi (5GHz)
  - 14dBi (2.4GHz)
- ✓ Polarization
  - Dual Polarity H/V (both bands)
- ✓ 3dB Beamwidth
  - 90 degrees
- ✓ VSWR
  - 1.5:1 Typical
- ✓ Port to Port Isolation
  - 25dB min.
- ✓ Front to Back Ratio
  - >25dB
- ✓ Cross Polarization
  - >30dB
- ✓ Impedance
  - 50 ohm

##### DIMENSIONS (L x W x H)

- ✓ 700 x 150 mm

##### WEIGHT

- ✓ TBD

##### WIND SURVIVABILITY

- ✓ 201 kph

##### WIND LOADING

- ✓ 80 kg (53 kg with radome)

##### POLE MOUNT RANGE

- ✓ 5.0 - 7.5 cm (2 - 3 in.)

##### REGULATORY / STANDARDS COMPLIANCE

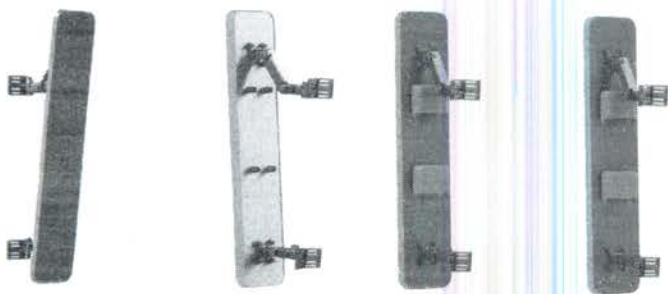
- ✓ FCC/IC
- ✓ CE

##### OPERATING ENVIRONMENT

- ✓ Operating Temperature: -45C° to +70C°
- ✓ Store Temperature: -45C° to +70C°
- ✓ Operating Humidity: 10 to 90% non-condensing (RH)
- ✓ Meets IP65 Weather Rating

##### ANTENNA PATTERNS

- ✓ TBD



All Models    FSD-1417N-90    FSD-1417R-90    FSD-1417F-90

#### Ordering Information

Part Number	Description
FSD-1417N-90	2.4GHz 14dBi + 5GHz 17dBi, 90°, 4x Type-N Connectors
FSD-1417R-90	2.4GHz 14dBi + 5GHz 17dBi, 90°, 4x RPSMA Pigtailed w/ Dual Weather Hoods
FSD-1417F-90	2.4GHz 14dBi + 5GHz 17dBi, 90°, EZ-Fusion™ Type Mating

#### Contact



#### Features

##### RF PERFORMANCE

- ✓ Frequency Range  
5.1 - 5.9GHz
- ✓ Antenna Gain  
20dBi (90°)  
19dBi (120°)
- ✓ Polarization  
Dual Polarity H/V (both bands)
- ✓ 3dB Beamwidth  
90 and 120 degrees
- ✓ VSWR  
1.5:1 Typical
- ✓ Port to Port Isolation  
25dB min.
- ✓ Front to Back Ratio  
>25dB
- ✓ Cross Polarization  
>30dB
- ✓ Impedance  
50 ohm

##### DIMENSIONS (L x W x H)

- ✓ 700 x 150 mm

##### WEIGHT

- ✓ TBD

##### WIND SURVIVABILITY

- ✓ 201 kph

##### WIND LOADING

- ✓ 80 kg (53 kg with radome)

##### POLE MOUNT RANGE

- ✓ 5.0 - 7.5 cm (2 - 3 in.)

##### REGULATORY / STANDARDS COMPLIANCE

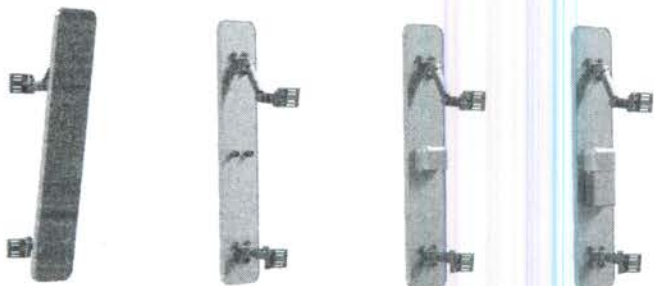
- ✓ FCC/IC
- ✓ CE

##### OPERATING ENVIRONMENT

- ✓ Operating Temperature: -45C° to +70C°
- ✓ Store Temperature: -45C° to +70C°
- ✓ Operating Humidity: 10 to 90% non-condensing (RH)
- ✓ Meets IP65 Weather Rating

##### ANTENNA PATTERNS

- ✓ TBD



All Models

FS5-20N-90  
FS5-19N-120

FS5-20R-90  
FS5-19R-120

FS5-20F-90  
FS5-19F-120

#### Ordering Information

Part Number	Description
FS5-20N-90	5GHz, 90 deg., 20dBi, Dual Type-N Connectors
FS5-20R-90	5GHz, 90 deg., 20dBi, Dual RPSMA Pigtailed with Weather Hood
FS5-20F-90	5GHz, 90 deg., 20dBi, EZ Fusion™ Type Mating
FS5-19N-120	5GHz, 120 deg., 19dBi, Dual Type-N Connectors
FS5-19R-120	5GHz, 120 deg., 19dBi, Dual RPSMA Pigtailed with Weather Hood
FS5-19F-120	5GHz, 120 deg., 19dBi, EZ Fusion™ Type Mating

#### Features

##### RF PERFORMANCE

- ✓ Frequency Range  
5.1 - 5.9GHz
- ✓ Antenna Gain  
17dBi (90°)  
16dBi (120°)
- ✓ Polarization  
Dual Polarity H/V (both bands)
- ✓ 3dB Beamwidth  
90 and 120 degrees
- ✓ VSWR  
1.5:1 Typical
- ✓ Port to Port Isolation  
20dB min.
- ✓ Front to Back Ratio  
>25dB
- ✓ Cross Polarization  
>30dB
- ✓ Impedance  
50 ohm

##### DIMENSIONS (L x W x H)

- ✓ 300 x 120 mm

##### WEIGHT

- ✓ TBD

##### WIND SURVIVABILITY

- ✓ 201 kph

##### WIND LOADING

- ✓ 80 kg (53 kg with radome)

##### POLE MOUNT RANGE

- ✓ 5.0 - 7.5 cm (2 - 3 in.)

##### REGULATORY / STANDARDS COMPLIANCE

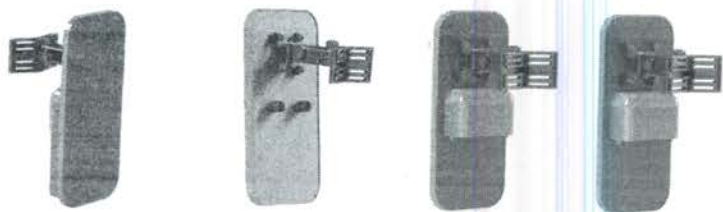
- ✓ FCC/IC
- ✓ CE

##### OPERATING ENVIRONMENT

- ✓ Operating Temperature: -45C° to +70C°
- ✓ Store Temperature: -45C° to +70C°
- ✓ Operating Humidity: 10 to 90% non-condensing (RH)
- ✓ Meets IP65 Weather Rating

##### ANTENNA PATTERNS

- ✓ TBD



All Models

FS5-17N-90  
FS5-16N-120

FS5-17R-90  
FS5-16R-120

FS5-17F-90  
FS5-16F-120

#### Ordering Information

Part Number	Description
FS5-17N-90	5GHz, 90 deg., 17dBi, Dual Type-N Connectors
FS5-17R-90	5GHz, 90 deg., 17dBi, Dual RPSMA Pigtailed with Weather Hood
FS5-17F-90	5GHz, 90 deg., 17dBi, EZ Fusion™ Type Mating
FS5-16N-120	5GHz, 120 deg., 16dBi, Dual Type-N Connectors
FS5-16R-120	5GHz, 120 deg., 16dBi, Dual RPSMA Pigtailed with Weather Hood
FS5-16F-120	5GHz, 120 deg., 16dBi, EZ Fusion™ Type Mating

#### Contact



#### Features

##### RF PERFORMANCE

- ✓ Frequency Range  
2.4 - 2.5GHz
- ✓ Antenna Gain  
17dBi (90°)  
16dBi (120°)
- ✓ Polarization  
Dual Polarity H/V (both bands)
- ✓ 3dB Beamwidth  
90 and 120 degrees
- ✓ VSWR  
1.5:1 Typical
- ✓ Port to Port Isolation  
20dB min.
- ✓ Front to Back Ratio  
>25dB
- ✓ Cross Polarization  
>30dB
- ✓ Impedance  
50 ohm

##### DIMENSIONS (L x W x H)

- ✓ 700 x 150 mm

##### WEIGHT

- ✓ TBD

##### WIND SURVIVABILITY

- ✓ 201 kph

##### WIND LOADING

- ✓ 80 kg (53 kg with radome)

##### POLE MOUNT RANGE

- ✓ 5.0 - 7.5 cm (2 - 3 in.)

##### REGULATORY / STANDARDS COMPLIANCE

- ✓ FCC/IC
- ✓ CE

##### OPERATING ENVIRONMENT

- ✓ Operating Temperature: -45C° to +70C°
- ✓ Store Temperature: -45C° to +70C°
- ✓ Operating Humidity: 10 to 90% non-condensing (RH)
- ✓ Meets IP65 Weather Rating

##### ANTENNA PATTERNS

- ✓ TBD



All Models

FS2-17N-90  
FS2-16N-120

FS2-17R-90  
FS2-16R-120

FS2-17F-90  
FS2-16F-120

#### Ordering Information

Part Number	Description
FS2-17N-90	2.4GHz, 90 deg., 17dBi, Dual Type-N Connectors
FS2-17R-90	2.4GHz, 90 deg., 17dBi, Dual RPSMA Pigtails with Weather Hood
FS2-17F-90	2.4GHz, 90 deg., 17dBi, EZ Fusion™ Type Mating
FS2-16N-120	2.4GHz, 120 deg., 16dBi, Dual Type-N Connectors
FS2-16R-120	2.4GHz, 120 deg., 16dBi, Dual RPSMA Pigtails with Weather Hood
FS2-16F-120	2.4GHz, 120 deg., 16dBi, EZ Fusion™ Type Mating

#### Contact

##### Worldwide

20 Mason  
Irvine, CA 92618  
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[sales@ignitenet.com](mailto:sales@ignitenet.com)

##### Asia

No. 1 Creation Road III,  
Hsinchu Science Park,  
30077, Taiwan, R.O.C.  
[sales@ignitenet.com](mailto:sales@ignitenet.com)

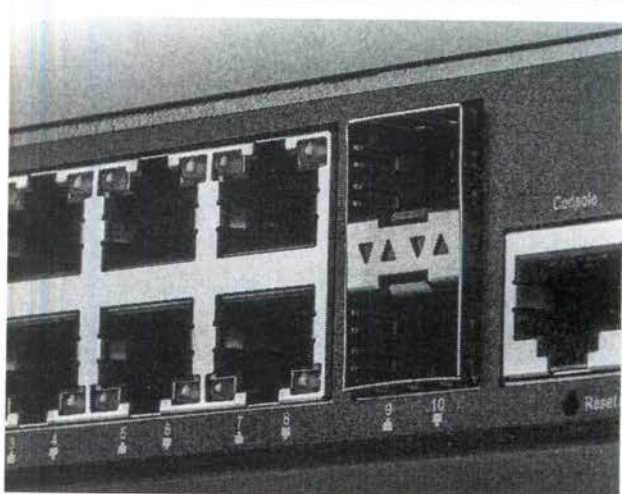
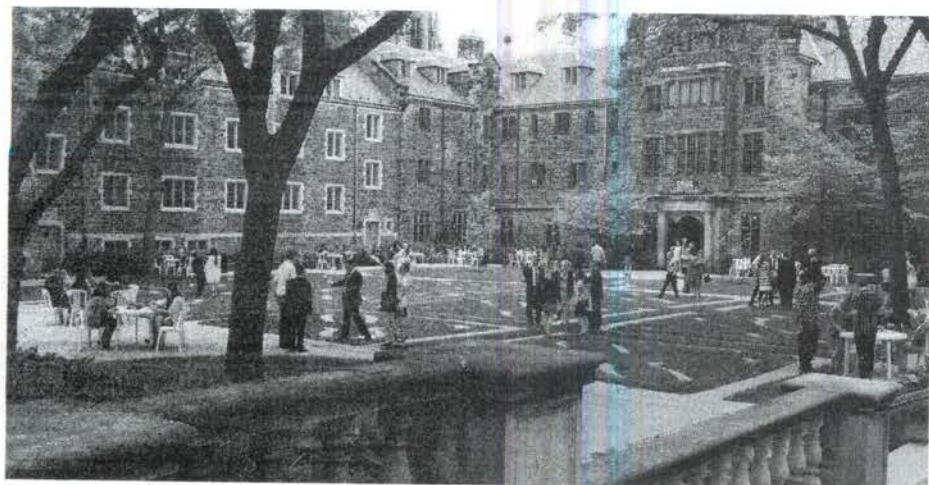
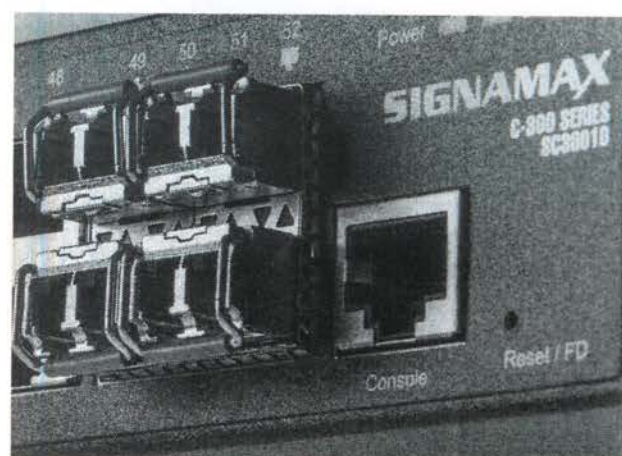
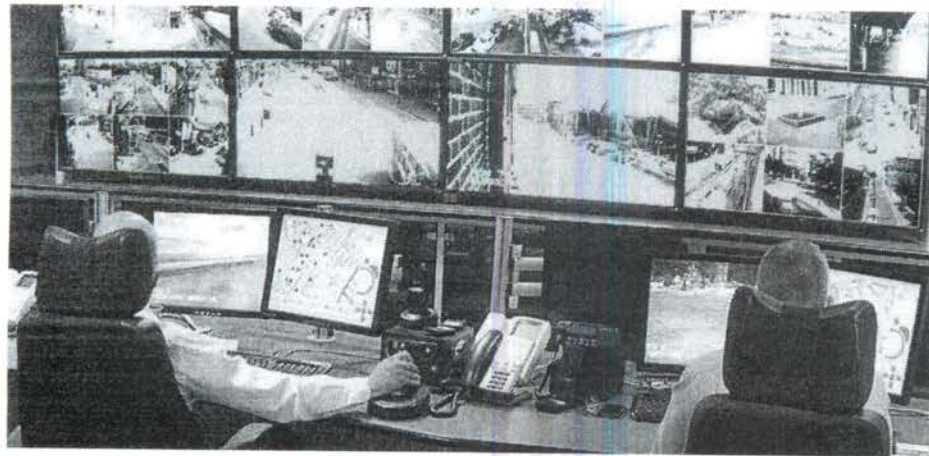
## Specifications - WS-10-250-AC

Manufactured and Assembled	North America
Standard 19" rack mount / Desktop / Wall mount	YES
Dimensions	223mm x 181mm x 44mm
Weight	2 kg
Power Input	210-230 & 110-120 VAC
Chassis Earth Ground Lug	YES
Max. Power Consumption	250 Watts
Intelligent Forced Air Cooling With Fan RPM Monitoring	YES
Switch Core and PHYs	Vitesse
Processor	MIPS 24K 416 MHz
System Memory	128 MB
Flash Storage	16 MB
Total Non-Blocking Line Rate	10 Gbps
Certifications	CE, FCC, IC
Operating Temperature	-25 to 55°C (-13 to 131° F)
Operating Humidity	5 to 95 % Non-Condensing
Console Port	RS-232
Ethernet Ports	(8) 10/100/1000 Ethernet Ports (2) SFP Ports
Passive PoE Configured Per Port via UI	24V .75A pins 4,5(+) 7,8(-) 48V .75A pins 4,5(+) 7,8(-) 24VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-) 48VH 1.5A pins 1,2,4,5(+) 3,6,7,8(-)
PoE Out Voltage Range	48-50 VDC / 22-24 VDC
Passive PoE Current Sensors Per Port	YES
ESD Rating	24 kV Air / 24 kV Contact

24V PoE Ports	48V PoE Ports	24VH PoE Ports	48VH PoE Ports
Pins 4,5 (+)	Pins 4,5 (+)	Pins 1,2,4,5 (+)	Pins 1,2,4,5 (+)
Pins 7,8 (-)	Pins 7,8 (-)	Pins 3,6,7,8 (-)	Pins 3,6,7,8 (-)
.75A	.75A	1.5A	1.5A
Ports 01-08	Ports 01-08	Ports 01-02	Ports 01-02







**C-300 SERIES**  
Managed Ethernet Switches

**SIGNAMAX**

**NETWORK  
SOLUTIONS**

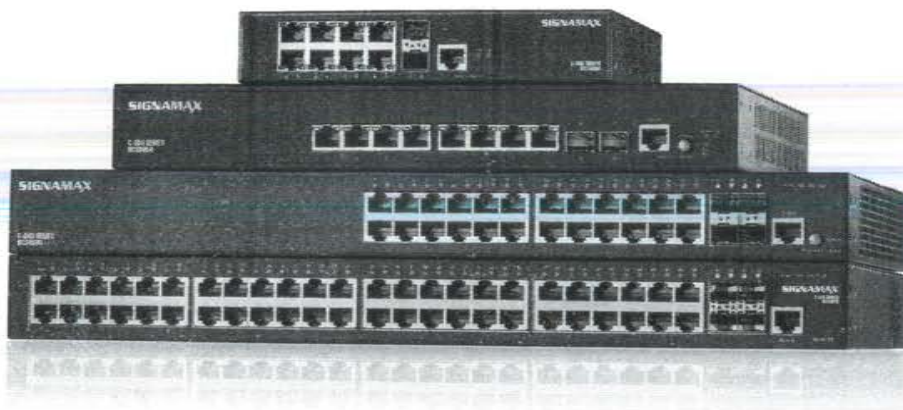


# C-300 SERIES

## Managed Ethernet Switches

The Signamax C-300 series of fully managed switches delivers full Layer 2 capabilities with enhanced access security, ACLs, traffic prioritization, and IPv6 support. The security & reliability provided by this series is ideal for branch and campus implementations.

The C-300 Series switches are built from the ground up for easy deployment and management without compromising any of the power and flexibility traditionally found in enterprise-class switches.

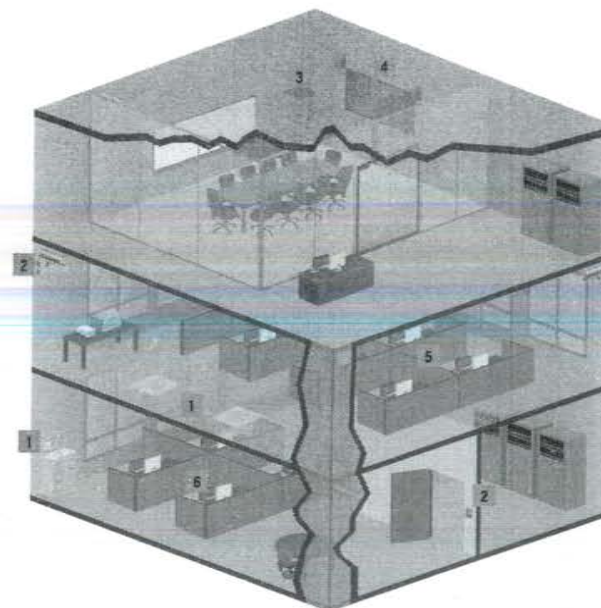


- Cost-effective, reliable, and secure Layer 2 switches
- Non-blocking switches with up to 104 Gbps bandwidth support
- Fanless design on selected models for silent operation
- Up to 740 watts PoE budget with PoE+ support and dynamic power allocation for powering APs, phones, cameras, and other PoE-enabled devices
- 8 dedicated QoS queues for converged voice, video, and data applications
- Integrated mounting brackets for rack installation
- SFP uplink interfaces on all models
- Static IP routing & RIP support
- Low power consumption, quiet acoustic design, and shallow rack depth options, enabling flexible deployment in wiring closets as well as offices and classrooms
- 5 year hardware warranty & support at no additional cost

## The C-300 Series Capabilities

The C-300's reliable architecture and simplified management is ideal for use in critical networks such as Physical Security and Building Automation like shown below in the illustration of a typical enterprise in a multi-level building. Powerful packet handling with the comprehensive suite of security and Quality of Service functionality is optimal for any enterprise data network.

The security and QoS segmentation capabilities enable a network convergence of data, VoIP, physical security, and building automation. When the solution leads to separate networks, those networks can be easily deployed and managed through the simplified management system.



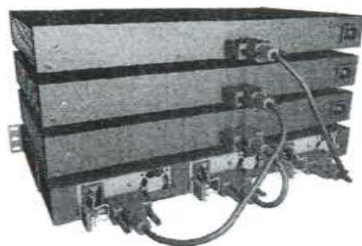
1. Next generation building automation systems include multiple sensors, controllers, and output devices such as variable air volume units (VAV) that are all connected to the network and need a reliable and secure infrastructure that's easy to install and monitor.
2. Security cameras and access control systems require flexible PoE options and unlike traditional enterprise network devices, they often are placed in unsecured locations which is why the C-300 Series includes enhanced security features such as Port Security, MAC Authentication, ACLs, and 802.1X port-based access control.
3. The C-300 PoE+ models supply connectivity and power to wireless APs with 30 watts of PoE+ per port and non-blocking, high performance packet forwarding.
4. Audio/video is the latest industry to migrate to standard LAN for connectivity, but it's extremely sensitive to bandwidth and latency which is why the C-300 Series supports a comprehensive suite of Quality of Service features as well as powerful packet forwarding capabilities.
5. Enterprise networks are being used for more and more devices, but traditional data is still business-critical and requires security, resiliency, and flexibility in the network.
6. Deploying VoIP networks with the C-300 Series is simplified by using Auto Voice VLANs for security and Quality of Service.



## Features for deployment in any solution.

### INTELLIGENT POE:

The C-300 series includes several PoE options, all of which support PoE+ up to 30W on all ports. The SC30050 is a full-PoE fanless design which can provide a total of 125W while the SC30020 delivers a default 370W but can be extended up to 740W using a AP50010 power chassis. The innovative PoE scheduling allows the administrator complete control and flexibility regarding the power provided. The C-300 series supports dynamic power allocation and PoE ports can be individually configured for prioritization, scheduling, and consumption.



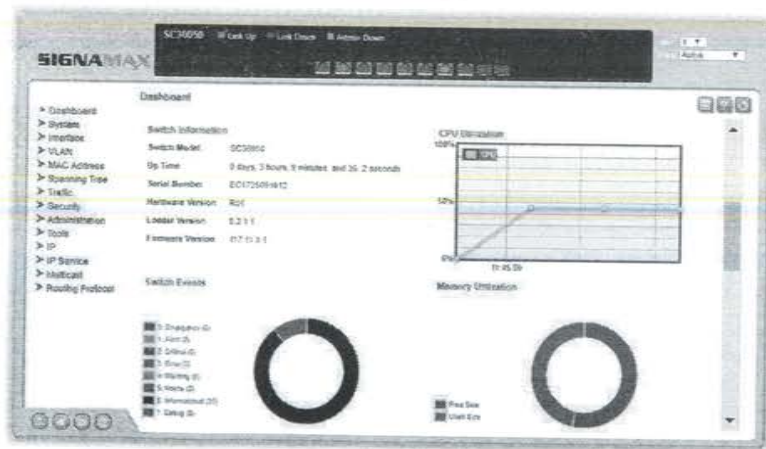
### ENTERPRISE GRADE:

The C-300 Series runs a sophisticated operating system that provides a variety of advanced features including:

- Static Routing and RIP
- Dynamic VLAN assignment and Auto Voice VLAN
- Link Aggregation (LACP)
- IGMP and MLD snooping
- 802.3az and Green-Ethernet

### SIMPLIFIED MANAGEMENT:

The easy to use C-300 Graphical User Interface includes an intuitive dashboard that provides a unified view of event logs, traffic statistics, and monitoring which simplifies managing and growing network deployments. The C-300 Series switches can be fully deployed in minutes, and there is no need for a console cable or any command line configuration to get started or even recover from misconfiguration. The auto firmware upgrade feature ensures the network is kept up-to-date with bug fixes, security updates, and new features without overburdening the network administrator.



**SIGNAMAX** NETWORK SOLUTIONS

### DIAGNOSTICS:

The C-300 includes several powerful diagnostic capabilities including real-time cable testing, automatic Power On Self Test, a diagnostics LED, dual firmware and configuration files, and Digital Diagnostic Monitoring (DDM). Port Mirroring and sFlow can be used for gaining visibility into network activity from the edge to the core. The C-300 also includes network utilities for connectivity testing.



### ENHANCED SECURITY:

The C-300 series includes sophisticated security features such as DDOS protection, Port Security, MAC authentication, ACLs and 802.1X port-based access control. SSH and SSL/HTTPS encryption provide secure network management.



### FIBER CONNECTIVITY:

All C-300 Series switches include fiber connectivity options for your growing networks. The 24 and 48 port models include four SFP ports while the 8 port models include two SFP ports, each providing up to 1 Gbps uplinks.

### QUALITY OF SERVICE (QoS):

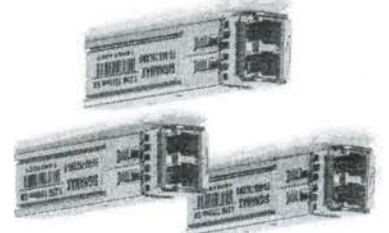
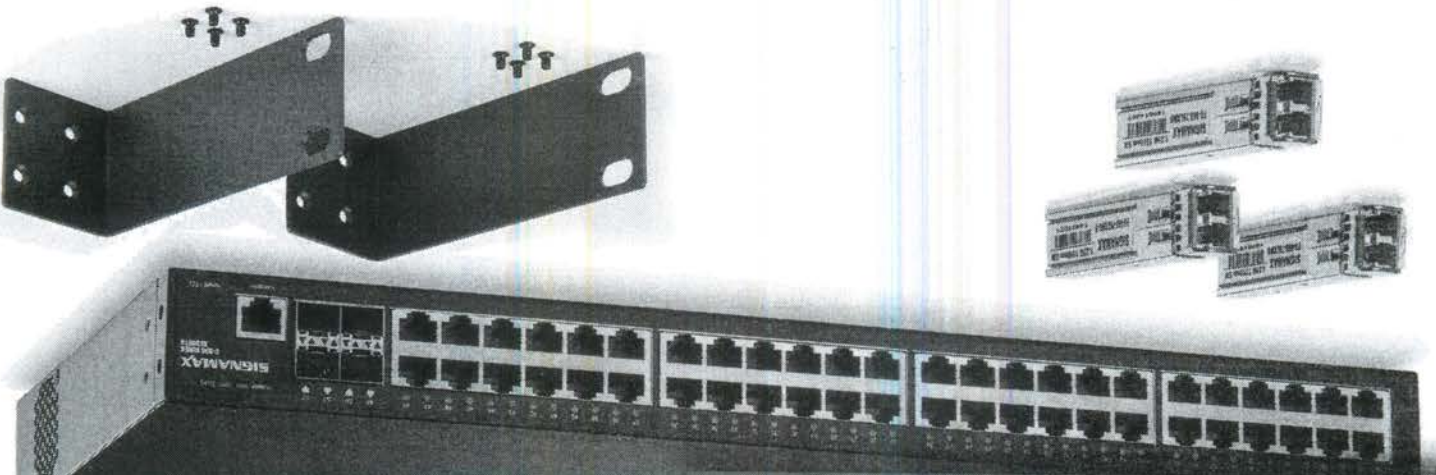
Traffic prioritization (IEEE 802.1p) allows real-time traffic classification with eight egress queues and uses weighted round robin (WRR), strict priority or Hybrid QoS. The C-300 Series simplifies QoS configuration by allowing prioritization by port or VLAN. Class of Service (CoS) sets the IEEE 802.1p priority tag based on IP address, IP Type of Service (ToS), Layer 3 protocol, TCP/UDP port number, source port, and DiffServ. Rate limiting establishes per-port ingress/egress maximums for all traffic or for broadcast, multicast, or unknown destination traffic, and flow control helps deliver reliable communication during full-duplex operation.



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## Ordering Information & Accessories



ETHERNET SWITCHES	
PART NO.	DESCRIPTION
SC30010	48 Port Gigabit Managed Switch
SC30020	24 Port Gigabit PoE+ Full Power Managed Switch
SC30030	24 Port Gigabit PoE+ Managed Switch
SC30040	24 Port Gigabit Managed Switch
SC30050	8 Port Gigabit PoE+ Managed Switch
SC30060	8 Port Gigabit Managed Switch
ACCESSORIES	
Power Chassis (SC30020 only)	
AP50010	C-300 Power Chassis
AP50020	460W Extended Power Supply (for use in AP50010 Power Chassis)
Cables	
AC30010	C-300 Series Console Cable
Replacement Mounting Kits	
AM30010	C-300 24 and 48 Port Switches Rack Mount Kit
AM30020	SC30050 Rack Mount Kit
AM30030	SC30060 Rack Mount Kit

SFP MODULES	
PART NO.	DESCRIPTION
065-79SXMG	1000SX Multi-Mode SFP Module 850nm up to 550m
065-79LXMG	1000LX Single-Mode SFP module 1310nm up to 10km
065-79ZXMG	1000ZX Single-Mode SFP Module 1550nm up to 80km
065-73FXMM5MG	100FX / OC-3 / STM-1 Multi-Mode SFP Module 1300nm up to 5km
065-73FXSM20MG	100FX / OC-3 / STM-1 Single-Mode SFP Module 1300nm up to 20km
065-79100TTXMG	10/100/1000TX SFP Module 100m span

For a complete list of SFP Modules visit [www.signamax.com](http://www.signamax.com).

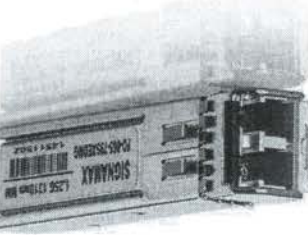
# SIGNAMAX

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CONNECT WITH US

[www.signamax.com](http://www.signamax.com)

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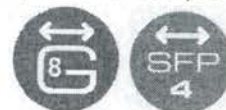






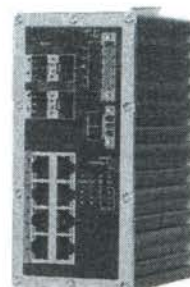
## ESMGS8-P4-B Series

Industrial Managed Gigabit Ethernet Switch with PoE+  
12 ports: 8 PoE+ ports and 4 SFP ports



### Product Description

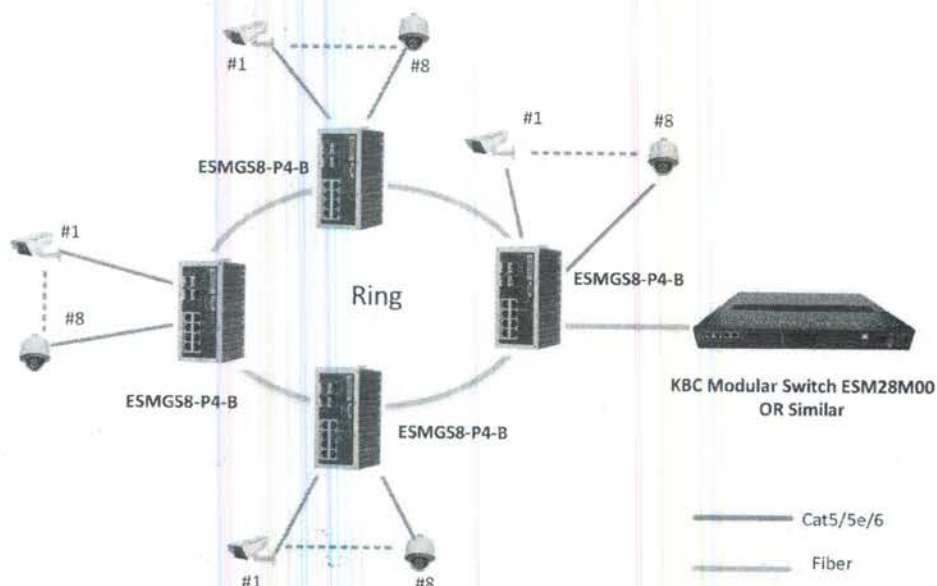
The KBC ESMGS8-P4-B Series is a high performance, 12 port, industrial, managed Gigabit switch with eight 10/100/1000M PoE ports and four gigabit SFP ports. The eight PoE ports support IEEE802.3af/at standard. The switch supports Ethernet Ring Protection Switching (ERPS) as well as STP/RSTP/MSTP. It also supports Web-based network management, VLAN, QoS, SNMP, IGMP snooping and other network functions. LED indicators provide the connection status when using SFP option. Rugged design with IP40 enclosure and industrial level 3 ESD protection makes it suitable for applications such as Intelligent Transportation Systems, IP surveillance and industrial networks. The product is available in either DIN rail or wall-mount configurations.



### Product Features

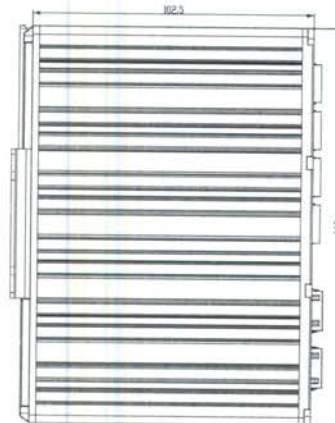
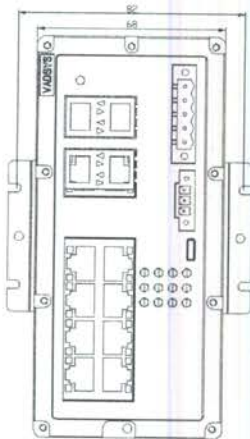
- 8\* 10/100/1000Base-T Ethernet ports (PoE)
- 4\* 1000BASE-X SFP ports
- EPRS (typical recovery time < 30ms over 250 units of connection)
- Different redundancy protocols and standards STP/RSTP/MSTP
- SNMPv1/v2c/v3 & RMON & Port base/802.1Q VLAN network management
- WEB, Telnet, SSH, Console(CLI)
- Open and close port, binding MAC and port
- 802.1x network access control
- 802.1Q protocol, Isolate network flow
- Radius Centralized password management
- IGMP Snooping multicast function
- IEEE802.3af/at standard
- Overload current protection and reverse polarity protection
- LED displays connection status when using SFP
- IP40 enclosure protection
- Unique DIN mount design makes mounting and removal simple
- Both PoE and Non-PoE models are available

### Typical System Configuration



## Specifications

Standards		PoE Management	Total Power Consumption Control; PoE ON/OFF; Port Output Priority
IEEE Ethernet Standards	IEEE802.3, IEEE802.3u, IEEE 802.1ab, IEEE802.3z, IEEE 802.3x, IEEE 802.3ad IEEE 802.1d, IEEE 802.1p, IEEE 802.1q, IEEE 802.1w, IEEE 802.1s, IEEE 802.1x IEEE 802.1ab	Security Feature	Enable/disable ports MAC based port security Port based network access control (802.1x) VLAN (802.1Q) Radius centralized password management SNMP v1/v2c/v3 encrypted authentication and access security
Ports		Protocols	ERPS/STP/RSTP/MSTP, SNTP, 1588 PTP Client DHCP Server/Client, MVR, IGMP v1/v2 GMRP, GVRP, SNMP v1/v2c/v3, TFTP, SMTP RMON, RARP, HTTP, HTTPS, Telnet, SSH, Syslog, LLDP, IPv6, NTP Server/Client
10/100/1000MBase-T	8	Warning & Monitoring	Relay output for fault event alarming Syslog to record and view events Event warning notification via email Event selection support
1000MBase-X SFP <sup>(1)</sup>	4	Relay Output	1A@24VDC NC or NO
Switch Performance		Power <sup>(3)</sup>	
Architecture	Store-and-forward	Redundant Power Input	46 ~ 57Vdc
Bandwidth	24Gbps	Power Consumption	< 10W (without PoE output)
Buffer	4M	POE budget	240W
Mac Address Table	8192	Overload Current Protection	Yes
PoE		Reverse polarity protection	Yes
Standard	IEEE802.3af/at	Environmental	
PSE Type	End-span	Operating Temperature	-40° ~ +75°C
Power Pin Assignment	1/2 (+), 3/6 (-)	Storage Temperature	-40° ~ +85°C
Power Output <sup>(2)</sup>	Each port up to 30W	Operating Humidity	5% to 95% non-condensing
Management			
Port configuration	Port enable/disable; Port rate settings; Full-duplex mode; Flow control		
VLAN	4K VLAN; Port-based VLAN; 802.1Q VLAN protocol		
Multicasting	SNMP V1/V2/V3 protocols; IGMP Snooping; IGMP multicast group:1024		
Console Port	USB(115200-8-N-1)		
Mechanical			
Enclosure	IP40		
Dimension (W×D×H)	68mm × 102.5mm × 146mm		
Weight	0.9kg		



## Order Information

**ESMGS8 – P4 – B:** Managed, 8\*10/100/1000 Base-T POE/POE+, 4 Gigabit SFP

**ESMGN8 – P4 – B:** Managed, 8\*10/100/1000 Base-T, 4 Gigabit SFP

1. SFP module sold separately.
2. Each port supports maximum 30W output. Output can be managed via Web software.
3. Power supply sold separately.

*Due to ongoing technological improvements, product specifications are subject to change without notice. KBC is not liable for any errors, omissions or changes of any description of the goods contained herein. This information is for the sole purpose of identifying the products and KBC makes no warranty that the products conform to any description contained herein. Do not rely solely on any representations, statements, or assertions concerning these Products contained herein.*



# DRP-240-48 & SDR-240-48 Series

240W, 48Vdc Single Output Industrial DIN Rail Power Supply

## Product Description

The DRP-240-48 & SDR-240-48 series are power supply units for use with the KBC PoE series industrial Ethernet edge switches. They are designed for use in a wide range of operating temperatures in non-environmentally conditioned, industrial applications. Both the DRP-240-48 and SDR-240-48 units provide 240W at 48Vdc.

The series is available in DIN rail configurations.

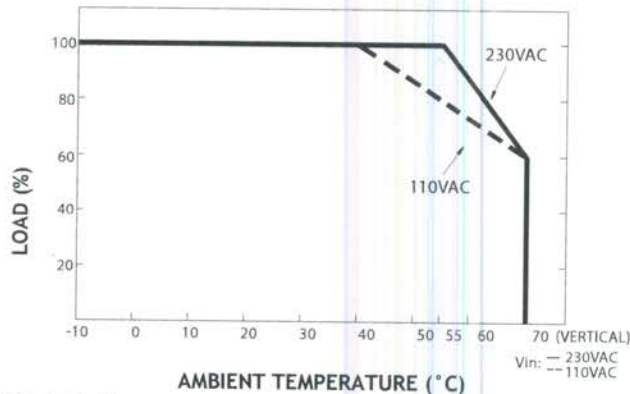
## Product Features

- Protections: short circuit, overload, overvoltage & over temperature
- Cooling by free air convection
- Can be installed on DIN rail TS-35/7.5 or 15
- UL 508 (industrial control equipment) approved
- 100% full load burn-in test
- 3 year warranty

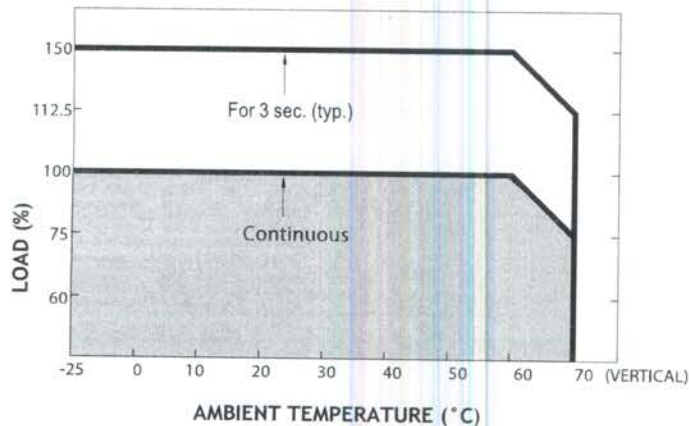


## De-rating Curve

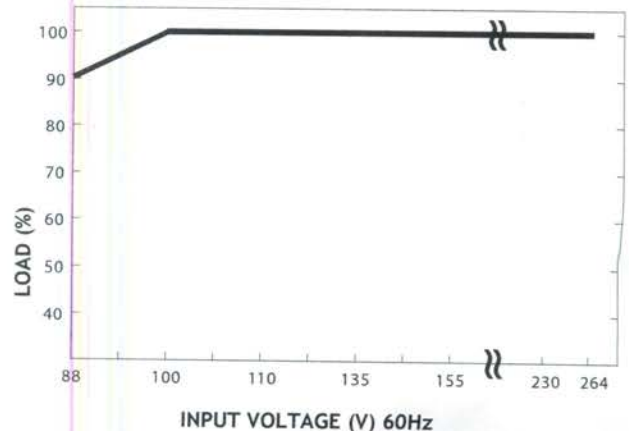
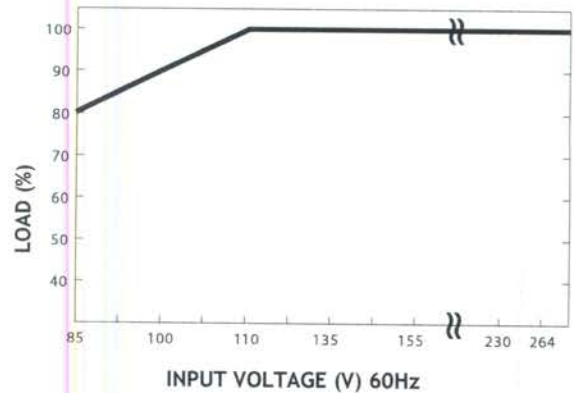
DRP-240-48



SDR-240-48



## Output De-rating vs Input Voltage



## Specifications

	DRP-240-48	SDR-240-48
<b>Output</b>		
DC Voltage	48Vdc	48Vdc
Rated Current	5A	5A
Current Range	0-5A	0-5A
Rated Power	240W	240W
Peak Current		7.5A
Peak Power		360W (3 secs max)
Ripple & Noise (max) <sup>(1)</sup>	150mVp-p	120mVp-p
Voltage Adj. Range	48-53Vdc	48-55Vdc
Voltage Tolerance <sup>(2)</sup>	±1.0%	±1.0%
Line Regulation	±0.5%	±0.5%
Load Regulation	±1.0%	±1.0%
Setup, Rise Time	800ms, 40ms/230Vac 800ms, 40ms/115Vac at full load	1500ms, 60ms/230Vac 3000ms, 60ms/115Vac at full load
Hold Up Time	24ms/230Vac 24ms/115Vac at full load	20ms/230Vac 20ms/115Vac at full load
<b>Input</b>		
Voltage Range <sup>(3)</sup>	88 - 264Vac 120 - 370Vdc	88 - 264Vac 124 - 370Vdc
Frequency Range	47 - 63Hz	47 - 63 Hz
Efficiency (typ) <sup>(4)</sup>	85%	94%
AC Current (typ)	2.8A/115Vac 1.4A/230Vac	2.6A/115Vac 1.3A/230Vac
Inrush Current (typ)	cold start 27A/115Vac 45A/230Vac	33A/115Vac 65A/230Vac
Leakage Current	<3.5mA/240Vac	<1mA/240Vac
<b>Protection</b>		
Overload	105 - 150% rated output power Protection type: constant current limiting, auto-recovery after fault condition removed	Normally works within 110 - 150% rated output power for more than 3 secs & then shut down output voltage with auto-recovery. >150% rated power, constant current limiting with auto-recovery within 2 secs & may shut down after 2 secs.
Over Voltage	54 - 60V Protection type: shut down output voltage, repower on to recover	56 - 65V Protection type: shut down output voltage, with auto-recovery
Over Temperature	100°C ±5°C (TSW1) detect on power transistor heat-sink. Protection type: shut down output voltage, auto-recovery after temp goes down.	95°C ±5°C (TSW) detect on power switch heatsink). Protection type: shut down output voltage, auto-recovery after temp goes down.
<b>Mechanical</b>		
Dimensions	126mm x 126mm x 100mm (4.96" x 4.96" x 3.94")	63mm x 126mm x 114mm 2.48" x 4.96" x 4.49"
Weight	1.2kg (2lb 11oz)	1.03kg (2lb 5oz)
<b>Environmental</b>		
Operating Temperature <sup>(5)</sup>	-10° - +70°C / 14° - 158°F	-25° - +70°C / -13° - 158°F
Operating Humidity	20 to 90% RH non-condensing	20 to 95% RH non-condensing
Storage Temperature	-20° - +85°C / 4° - 185°F	-40° - +85°C / -40° - 185°F
Temp Coefficient	±0.03%/°C(0 - 50°C) 10 - 500Hz, 2G 10 min/1 cycle 60 min each along X, Y, Z axis Mounting: IEC60068-2-6	±0.03%/°C(0 - 50°C) Component: 10 - 500Hz, 2G 10min/1cycle 60 min each along X, Y Z axes Mounting: IEC60068-2-6
Mean Time Between Failure (MTBF)	289.9khrs min MIL-HDBK-217F (25°C)	169.3khrs min MIL-HDBK-217F (25°C)
<b>Approvals</b>	UL508 UL60950-1 TUV EN60950-1 EN55011 EN55022 (CISPR22) Class B EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11 EN55024 EN61000-6-2	UL508 TUV EN60950-1 EN55022 (CISPR22) Class B EN61000-3-2,3 EN61000-4-2,3,4,5,6,8,11 EN55024 EN61000-6-2 EN61204-3 SEMI F47, GL

## Part Numbers

DRP-240-48  
SDR-240-48

Standard power supply unit

Extended temperature range power supply unit

For use with the ESUL8P-PC2, ESML8P-PC2 & ESUG4P-PG2 PoE switches - see separate specification sheets for further information

All parameters not specifically mentioned are measured at 230Vac input rated load and 25°C ambient temperature.  
The power supply is considered a component which will be installed with the final equipment. The final equipment must be re-confirmed so that it still meets the EMC directives.

1. Ripple & noise are measured at 20MHz of bandwidth by using 12" twisted pair wire terminated with a 0.1µf & 47µf parallel capacitor

2. Tolerance: Includes set up tolerance, line regulation and load regulation

3. De-rating may be needed under low input voltages. Please check the de-rating curve for more details

4. SDR-240-48: after 30 mins of burn-in

5. SDR-240-48: installation clearances: 40mm above, 20mm below, 5mm either side are recommended when loaded permanently with full power. If the adjacent device is a heat source then 15mm clearance is recommended.

Due to ongoing technology improvements, products specifications are subject to change without notice. K&C is not liable for any errors, omissions or changes of any description of the goods contained herein. This information is for the sole purpose of identifying the products, and K&C makes no warranty that the products conform to any description contained herein. Do not rely solely on any representation, statement, or statement concerning these Products contained herein.





# CyberPower



## OR2200LCDRTL2U Smart App LCD UPS

Cost-effective feature-rich power protection for networking, servers and telecommunications equipment.

The CyberPower Smart App Intelligent LCD OR2200LCDRTL2U uninterruptible power supply (UPS) is designed to protect office servers, corporate and departmental networks, and network-based appliances such as internetworking hardware, telecom equipment and high-end workstations.

Its automatic voltage regulation (AVR) technology delivers a consistent and clean AC power, protecting connected equipment and preventing costly business interruptions.

This UPS system is ENERGY STAR® qualified with patented GreenPower UPS™ Bypass circuitry to save on energy costs by reducing energy consumption and heat buildup.

A Three-Year Warranty ensures that this UPS has passed our highest quality standards in design, assembly, material or workmanship and further protection is offered by a \$300,000 Connected Equipment Guarantee.

### Typical Applications

- Servers
- Workstations
- Network Devices
- Telecom Equipment

### Features

- 2190VA / 1650W
- Line Interactive Topology
- Full AVR Buck/Boost
- GreenPower UPS™
- 2U Rack Mount/Tower Convertible
- Multifunction Rotatable LCD
- SNMP/HTTP Remote Management
- 8 Outlets / USB, Serial, and EPO Ports
- EMI/RFI Filters
- PowerPanel® Business Software
- 3-Year Warranty

# OR2200LCDRTXL2U Smart App LCD UPS

Cost-effective feature-rich power protection for networking, servers and telecommunications equipment.

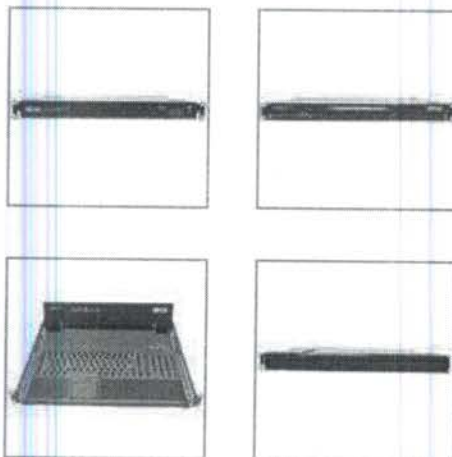
GENERAL	
UPS Topology	Line Interactive
Energy Saving	GreenPower UPS™ Bypass
ENERGY STAR® Qualified	Yes
INPUT	
Voltage	90 – 140 VAC
Frequency Range	47 – 63 Hz
Plug Type	NEMA 5-20P
Plug Style	Straight
Cord Length	10 ft
OUTPUT	
VA	2,190 VA
Watts	1,650 W
Automatic Voltage Regulation	Yes
On Battery Voltage	120 VAC ± 5%
On Battery Frequency	60 Hz ± 1%
On Battery Waveform	Simulated Sine Wave
Outlet Type	NEMA 5-20R
Outlets – Battery & Surge Protected	8
Overload Protection	Internal circuitry limiting / circuit breaker
Transfer Time	4 ms
BATTERY	
Runtime at Half Load (min)	15
Runtime at Full Load (min)	6
Battery Type	Sealed Lead-Acid
Battery Size	12V/9Ah
Battery Quantity	4
Hot-Swappable	Yes
User Replaceable	Yes
Replacement Battery Cartridge	RB1290X4B
Replacement Battery Cartridge Quantity	1
Typical Recharge Time	8 hours
Extended Battery Option	BP48V75ART2U
SURGE PROTECTION & FILTERING	
Surge Suppression	2,060 J
Phone RJ11 / Ethernet RJ45	1-In, 1-Out (Combo)
Coax Protection RG6	1-In, 1-Out

MANAGEMENT & COMMUNICATIONS	
Multifunction LCD Panel	Displays: Load/Current Level, Runtime, Battery Level, Temperature (F & C), Battery In Use, Input Voltage, Output Voltage, Output Frequency, Overload, Wiring Fault, Battery Shutdown Voltage, Static Frequency Tolerance, Slew Rate, Silent Mode, Normal Mode
HID Compliant USB Port	Yes
Serial Port	Yes (2x)
Management Cable	USB Cable, Serial Cable (2)
LED Indicators	Power On, Wiring Fault
Audible Alarms	On Battery, Low Battery, Overload
Software	PowerPanel® Business Edition
SNMP / HTTP Remote Monitoring	Yes, with optional RMCARD205
PHYSICAL	
Rack Size	2U
Form Factor	Rack/Tower
Dimensions – W×H×D (in)	17 × 3.5 × 18.8 inches
Weight (lbs)	66.1 lbs
ENVIRONMENTAL	
Operating Temperature	32 – 104 °F (0 – 40 °C)
Operating Humidity	0 – 90% (non-condensing)
CERTIFICATIONS	
Safety	UL1778, cUL 107.3, FCC DOC Class B
Environmental	RoHS Compliant
WARRANTY	
Product Warranty	3 Years Limited
Connected Equipment Guarantee	Lifetime
CEG Amount	\$300,000



## 1U Rack-Mount Console with 19-in. LCD, Short-Depth

MODEL NUMBER: **B021-000-19-SH**



### Description

Tripp Lite's B021-000-19-SH 1U Rackmount Console is the ideal solution for specialized vehicle projects, including rescue services and military specific applications. It can be mounted in as little as a 19" deep rack and features an integrated 19" LCD display, ( max native resolution of 1366 x 768), full 104-key keyboard and touch pad, all in a 1U rackmountable housing. It also features a USB 2.0 pass-through port for connection of a USB peripheral, such as a flash drive, CAC card reader, etc.. Your peripheral device connects to the USB type A port on the front of the unit, and your computer connects to the USB type A port on the back of the unit using a Tripp Lite UR020-Series type A M/M cable. This console is designed for use with a server or a KVM switch with PS/2 or USB console connectors. Constructed of heavy-duty steel housing.

### Features

- Mounts in 19" to 30" deep cabinets
- Full 19" LCD display screen, 104-key keyboard, touchpad
- Max native resolution of 1366 x 768
- Auto Sensing External AC Adapter, 6-ft. (Input: 100-240V, 50/60Hz, 1.5A)
- Includes 6-ft. PS/2 cable kit for use with PS/2 KVMs or Servers
- PS/2 to USB adapter included for use with USB KVMs or servers
- Features a USB 2.0 pass-through port for connection of a USB peripheral, such as a flash drive, CAC card reader, etc.
- Single rail, ball bearing slides
- Constructed of heavy-duty steel housing

## Specifications

### Highlights

- Short-depth console mounts in cabinets with a minimum depth of 19"
- Designed for use with KVMs or Servers that have PS/2 or USB connectors
- 19" LCD Screen with max native 1366 x 768 resolution
- Auto Sensing External Power Supply (Input: 100-240V, 50/60Hz, 1.5A)

### Package Includes

- 1U 19" KVM Console Short-Body
- External AC Power Adapter with C14 Socket (Input: 100-240V, 50/60Hz, 1.5A)
- C13 to 5-15P Power Cord - 6-ft.
- PS/2 Cable Kit - 6-ft.
- PS/2 to USB Adapter
- Owner's Manual





**Tripp Lite**  
1111 W. 35th Street  
Chicago, IL 60609 USA  
Telephone: 773.869.1234  
www.triplite.com

## OVERVIEW

Users	1
AC Adapter	Input: 100-240V, 50/60Hz, 1.5A

## PRODUCT OVERVIEW

Product Overview	1U 19" KVM Console Short-Body
------------------	-------------------------------

## INPUT

Voltage Compatibility (VAC)	100; 110; 120; 127; 200; 208; 220; 230; 240
External Power Supply Input Specs (V / Hz / A)	100-240V / 50/60Hz / 1.5A
External Power Supply Output Specs (V / A)	12V / 2.5 A
External Power Supply Cord Length (ft.)	5
External Power Supply DC Barrel Connector Specs	OD: 5.5 x 2.5 x 16.5mm, Positive Pin, Negative Sleeve
External Power Supply Plug(s)	IEC-320-C14
External Power Supply Certifications	CE; FCC; UL; cUL; TUV; CCC; GS; BSMI; RoHS

## USER INTERFACE, ALERTS & CONTROLS

LED Indicators	Green (CAPS LOCK, SCROLL LOCK, NUM LOCK)
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## PHYSICAL

Shipping Dimensions (hwd / in.)	5.900 x 23.100 x 24.170
Shipping Dimensions (hwd / cm)	14.99 x 58.67 x 61.39
Shipping Weight (lbs.)	34.3000
Shipping Weight (kg)	15.56
Unit Packaging Type	Box
Unit Dimensions (hwd / in.)	1.73 x 18.8 x 27.2
Unit Weight (lbs.)	27.00
Unit Weight (kg)	12.25
Material of Construction	SECC (Steel, Electrogalvanized, Cold Rolled, Coil)
Color	Black
Rackmountable	Yes

## ENVIRONMENTAL

Operating Temperature Range	32 to 104 F (0 to 40 C)
Storage Temperature Range	-4 to 140 F (-20 to 60 C)





**Tripp Lite**  
1111 W. 35th Street  
Chicago, IL 60609 USA  
Telephone: 773.869.1234  
[www.tripplite.com](http://www.tripplite.com)

Relative Humidity	0% to 80% RH, Non-Condensing
BTUs	(Line Mode) 102 BTU/Hr / (Standby Mode) 17.1 BTU/Hr
Power Consumption (Watts)	(Line Mode) 30W / (Standby Mode) 5W
<b>COMMUNICATIONS</b>	
IP Remote Access	No
<b>CONNECTIONS</b>	
Ports	1
PC/Server Connections	PS/2; USB; VGA
Side A - Connector 1	HD15 (FEMALE)
Side A - Connector 2	USB A (FEMALE)
Side B - Connector 1	USB A (FEMALE)
Computer Keyboard and Mouse Interface	PS/2; USB
Computer Monitor Interface	VGA
<b>SPECIAL FEATURES</b>	
Cat5 KVM Switch	No
<b>FEATURES &amp; SPECIFICATIONS</b>	
Max Supported Video Resolution	1366 x 768 @ 60Hz
USB Specification	USB 2.0 (up to 480 Mbps)
Driver Required	No
<b>CERTIFICATIONS</b>	
Certifications	FCC Part 15 Class A, CE, EN 60950-1, RoHS, REACH
<b>WARRANTY</b>	
Product Warranty Period (Worldwide)	1-year limited warranty
<b>(ENG) Built-in Console</b>	
Console Screen Size (inches)	19
Console Screen Aspect Ratio	16:9

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**COMCAST  
BUSINESS****BUSINESS SERVICE ORDER AGREEMENT**Account Name: Integrated Fire & Security SolutionsID#: 18881093**CUSTOMER INFORMATION (Service Location)**Address 1 19 QUAY RDCity KEY WESTAddress 2 UNIT GUARD SHACKState FLPrimary Contact Name Jonathan PhelpsZIP Code 33040Business Phone (305) 340-9243

County \_\_\_\_\_

Cell Phone \_\_\_\_\_

Email Address jphelps@ifssi.com

Pager Number \_\_\_\_\_

Primary Fax Number \_\_\_\_\_

Technical Contact Name \_\_\_\_\_

Tech Contact On-Site? No

Technical Contact Business Phone \_\_\_\_\_

Technical Contact Email \_\_\_\_\_

Property Manager Contact Name \_\_\_\_\_

Property Mgr. Phone \_\_\_\_\_

**COMCAST BUSINESS SERVICES**

Selection (X)

Business Voice	
Business Internet	X
Business TV	

Service Term (Months)

36

**COMCAST BUSINESS SERVICES DETAILS****Business Voice\***

VOICE SELECTIONS	Quantity	Unit Cost	Total Cost
Full Feature Voice Lines	0		
4+ Lines			
Basic Lines	0		
Toll Free Numbers			
Fax Lines			
Equipment Fee			
VOICE OPTIONS	Selection(X)	Total Cost	
Voicemail	0		
Enhanced Listings			
Auto-Attendant			

\* Voice offers &amp; options not available in all markets.

**Comcast Business Packages**Package Name: CEN\_SP\_\$139.95D150\_3yr**PACKAGE DESCRIPTION**

\$110 MRC Discount off Deluxe 150 Business Internet for discounted rate of \$139.95. MRC Discount rolls to rate card in month 37. 3 year term required. Taxes, Usage, Fees, and Equipment are extra.

**VoiceEdge Select Selections\***

Voice Selections	Quantity	Unit Price(MRC)	Total Price(MRC)	Unit Price(NRC)	Total Price(NRC)
VoiceEdge Select Seats	0	\$0.00	\$0.00	\$0.00	\$0.00
Cordless Handset	0	\$0.00	\$0.00	\$0.00	\$0.00
Cordless Deskphone	0	\$0.00	\$0.00	\$0.00	\$0.00

\*Bundle include : Auto attendant, Hunt Group and Base station.

**Business Internet\***

INTERNET SELECTIONS	Selection(X)	Total Cost
Speed - Deluxe 150	X	\$249.95
Equipment Fee	X	\$14.95

\*Business Internet speed tier selections not available in all markets.

\*Internet selections &amp; options not available in all markets.

INTERNET OPTIONS	Selection(X)	Total Cost
Static IP V4/V6 - 1	X	\$19.95
Wi-Fi - Business Wifi Standard	X	\$0.00

CONNECTION PRO	Selection(X)	Total Cost
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**Business TV\*\*\***

TV SELECTIONS	Selection	Total Cost
Basic		
Select		
Information & Entertainment		
Variety		
Standard		
Preferred		

TV OPTIONS	Selection	Total Cost
Sports Pack**		
Canales Selecto		
Music Choice W/Comcast Business TV		
Other		



**COMCAST  
BUSINESS****BUSINESS SERVICE ORDER AGREEMENT**Account Name: Integrated Fire & Security SolutionsID#: 18881093**COMCAST BUSINESS TOTAL SERVICE CHARGES****Comcast Business**

Selection(X) Quantity Unit Cost Total Cost

Business Internet/TV/Voice Installation Fee	X		\$199.00	\$199.00
Connection Pro Activation Fee	X			\$99.95
Voice Activation Fee*				
Auto-Attendant Setup Fee				
Toll Free Activation Fee				
Directory Listing Suppression Fee				
VoiceEdge Select Seat Activation Fee**				

\* Per line activation fee, up to four (4) line maximum charge.

\*\* Bundle includes: Auto attendant, Hunt Group and Base Station.

Total Monthly Service Charge

\$324.80

Promotional Code  
(if applicable)Discount On Internet  
(if applicable)Discount On Video  
(if applicable)Discount On Voice  
(if applicable)Discount On VoiceEdge  
Select Seats  
(if applicable)

Total Discount

**Total Recurring Monthly Bill:\*** \$ 324.80**Total Installation Charges:\***

\$298.95

\* Does not include Custom Installation Fees.

\* Applicable federal, state, and local taxes and fees may apply.

**GENERAL SPECIAL INSTRUCTIONS**

**COMCAST  
BUSINESS****BUSINESS SERVICE ORDER AGREEMENT**Account Name: Integrated Fire & Security SolutionsID#: 18881093**COMCAST BUSINESS INTERNET CONFIGURATION DETAILS**

Transfer Existing Comcast.net Email	No	Equipment Selection	Business Wireless
Number of Static IPs*	1	Business Web Hosting	No

**COMCAST BUSINESS TV CONFIGURATION DETAILS**

Outlet Details	Location	Outlet Type
Outlet 1 - Primary		
Outlet 2 - Additional		
Outlet 3 - Additional		
Outlet 4 - Additional		
Outlet 5 - Additional		
Outlet 6 - Additional		
Outlet 7 - Additional		
Outlet 8 - Additional		

Additional Comments:

--

**OUTLETS 9 & UP QUANTITY**

Digital	
HDTV	
DTA	
HD-DTA	

**COMCAST BUSINESS VOICEEDGE SELECT CONFIGURATION DETAILS**

Phone #	Type

**COMCAST BUSINESS VOICE CONFIGURATION DETAILS**

Phone #	Type	Voicemail	Customer Equipment
			Phone System Type ( Key System, PBX, Other)
			Phone System Manufacturer
			Fax Machine Manufacturer
			Alarm System Vendor
			Point of Sale Device
			Telco Closet Location
			<b>Hunt Group Configuration Details</b>
			Hunt Group Features Requested (Yes/No)
			Hunt Group Configuration Type
			Hunt Group Pilot Number



**COMCAST  
BUSINESS****BUSINESS SERVICE ORDER AGREEMENT**Account Name: Integrated Fire & Security SolutionsID#: 18881093

Toll Free #	Calling Origination Area	Associated TN

**Directory Listing Details**

Directory Listing (Published, Non-Published, Unlisted)	
Directory Listing Phone Number	
Directory Listing Display Name	
DA/DL Header Text Information	
DA/DL Header Code Information	
Standard Industry Code Information	

**Additional Voice Details**

Caller ID (Yes/No)	
Caller ID Display Name (max 15 char.)	
International Dialing (Yes/No)	No
Call Blocking (Yes/No)	
Auto-Attendant (Yes/No)	No

**COMCAST BUSINESS VOICE EDGE CONFIGURATION DETAILS****Voice Edge Directory Listing Details**

Directory Listing (Published, Non-Published, Unlisted)	
Directory Listing Phone Number	
Directory Listing Display Name	
DA/DL Header Text Information	
DA/DL Header Code Information	

**Voice Edge Additional Voice Details**

Caller ID (Yes/No)	
International Dialing (Yes/No)	
Caller ID Display Name (max 15 characters)	
Call Blocking (Yes/No)	
Enterprise Extension Dialing?	

**COMCAST  
BUSINESS****BUSINESS SERVICE ORDER AGREEMENT****Account Name:** Integrated Fire & Security Solutions**ID#:** 18881093**CUSTOMER BILLING INFORMATION**Billing Account Name Integrated Fire & Security SolutionsCity KEY WEST

Billing Name (3rd Party Accounts) \_\_\_\_\_

State FLAddress 1 19 QUAY RDUNIT GUARD SHACKZIP Code 33040

Address 2 \_\_\_\_\_

Billing Contact Email jphelps@ifssi.comBilling Contact Name Jonathan PhelpsBilling Contact Phone (305) 340-9243Tax Exempt?\* No

Billing Fax Number \_\_\_\_\_

\* If yes, please provide and attach tax exemption certificate.

**AGREEMENT**

1. This Comcast Business Service Order Agreement sets forth the terms and conditions under which Comcast Cable Communications Management, LLC and its operating affiliates ("Comcast") will provide the Services to Customer. This Comcast Business Service Order Agreement consists of this document ("SOA"), the standard Comcast Business Terms and Conditions ("Terms and Conditions"), and any jointly executed amendments ("Amendments") entered under the Agreement. In the event of inconsistency among these documents, precedence will be as follows: (1) Amendments, (2) Terms and Conditions, and (3) this SOA. This Agreement shall commence and become a legally binding agreement upon Customer's execution of the SOA. The Agreement shall terminate as set forth in the Terms and Conditions (<http://business.comcast.com/terms-conditions/index.aspx>). All capitalized terms not defined in this SOA shall reflect the definitions given to them in the Terms and Conditions. Use of the Services is also subject to the then current High-Speed Internet for Business Acceptable Use Policy located at <http://business.comcast.com/terms-conditions/index.aspx> (or any successor URL), and the then current High-Speed Internet for Business Privacy Policy located at <http://business.comcast.com/terms-conditions/index.aspx> (or any successor URL), both of which Comcast may update from time to time.

2. Comcast Business Voice, Internet, TV, and Comcast Business SmartOffice™ Services ("Service") carry a 30 day\* money back guarantee\*\*. If, within the first 30 days following Service installation, Customer is not completely satisfied, Customer may cancel Service and Comcast will issue a refund for the monthly recurring fee paid for the first 30 days of service, excluding installation charges, fees, taxes and voice usage charges, however, Customer will be charged any remaining payments owed for non-refundable fees (including installation) and other charges. In order to be eligible for the refund, Customer must cancel Service within 30 days after installation and return any Comcast-provided equipment in good working order. In no event shall the refund exceed \$500.00.

\*Comcast Business Trunks and Comcast Business VoiceEdge™ carry a 60 day money back guarantee, subject to the above terms.

\*\*The money back guarantee does not apply to Hospitality Video or Ethernet Services.

3. To complete a Voice order, Customer must execute a Comcast Letter or Authorization ("LOA") and submit it to Comcast, or Comcast's third party order entry integrator, as directed by Comcast.

4. New telephone numbers are subject to change prior to the install. Customers should not print their new number on stationery or cards until after the install is complete.

5. Modifications: All modifications to the Agreement, if any, must be captured in a written Amendment, executed by an authorized Comcast Senior Vice President and the Customer. All other attempts to modify the Agreement shall be void and non-binding on Comcast. Customer by signing below, agrees and accepts the Terms and Conditions of this Agreement.

**6. IF CUSTOMER IS SUBSCRIBING TO COMCAST'S BUSINESS DIGITAL VOICE SERVICE, CUSTOMER, BY SIGNING BELOW, ACKNOWLEDGES RECEIPT AND UNDERSTANDING OF THE FOLLOWING 911 NOTICE:**

**911 NOTICE**

Comcast Business Digital Voice service ("Voice Service") may have the 911 limitations specified below:

- In order for 911 calls to be properly directed to emergency services using Voice Service, Comcast must have the correct service address for the telephone number used by the Company. If the Voice Service or any Voice Service device is moved to a different location without Company providing an updated service address, 911 calls may be directed to the wrong emergency authority, may transmit the wrong address, and/or Voice Service (including 911) may fail altogether. Customer's use of a telephone number not associated with its geographic location may also increase these risks.
- The Voice Service uses electrical power in the Company's premises. If there is an electrical power outage, 911 calling may be interrupted if a battery back-up is not installed in the voice modem, fails, or is exhausted.
- Calls using the Voice Service, including calls to 911, may not be completed if there is a problem with network facilities, including network congestion, network/equipment/power failure, a broadband connection failure, or another technical problem.
- Customer should call Comcast at 1-888-824-8104 if it has any questions or needs to update a service address in the 911 system. Delays in updating the service address may also impact 911.
- **BY SIGNING BELOW, CUSTOMER ACKNOWLEDGES THAT IT HAS READ AND UNDERSTANDS THE FOREGOING 911 NOTICE AND THE 911 LIMITATIONS OF THE VOICE SERVICE.**



NOTE: THE TOTAL BID WILL BE THE BASIS OF EVALUATING LOW BIDDER AND BASIS OF AWARD

**BIDDER'S INFORMATION**

Company Name: Integrated Fire & Security Solutions Inc

Address: 5680 1st Avenue, Suite #3

Key West, FL 33040

Contact Name: Jesus Carias

Email: jcarias@ifssi.com

Telephone: 1-888-955-0007

Fax: 239-415-4378

Signature:  J.C. Date: 2/16/18

**SUBCONTRACTORS**

The Bidder further proposes that the following subcontracting firms or businesses will be awarded subcontracts for the following portions of the work in the event that the Bidder is awarded the Contract:

**Portion of Work**

Name

Street, City, State, Zip

**Portion of Work**

Name

Street, City, State, Zip

## SURETY

Westchester Fire Insurance Company whose address is

436 Walnut Street P.O. Box 1000, Philadelphia,, PA, 19106  
Street City State Zip

(813) 281-2095 c/o Willis of Florida Inc. Brandy L Baich  
Phone Resident Agent

## BIDDER

The name of the Bidder submitting this Bid is Integrated Fire & Security Solutions Inc  
doing business  
at

5680 1st Avenue, Suite #3, Key West, FL, 33040  
Street City State Zip

jcarias@ifssi.com  
email address

which is the address to which all communications concerned with this Bid and with the Contract shall be sent.

The names of the principal officers of the corporation submitting this Bid, or of the partnership, or of all persons interested in this Bid as principals are as follows:

Name	Title
<u>John Peterson</u>	<u>COO (Chief Operating Officer)</u>
<u>Justin Peterson</u>	<u>President</u>
<u>Jesus Carias</u>	<u>Vice President</u>
<u></u>	<u></u>



**FLORIDA BID BOND**

BOND NO. N/A - Bid Bond

AMOUNT: \$ 5% of total bid amount

KNOW ALL MEN BY THESE PRESENTS, that Integrated Fire & Security Solutions, Inc.

hereinafter called the PRINCIPAL, and Westchester Fire Insurance Company

a corporation duly organized under the laws of the State of PA

having its principal place of business at 436 Walnut Street, P.O.Box 1000, Philadelphia, PA 19106

in the State of PA,  
and authorized to do business in the State of Florida, as SURETY, are held and firmly bound unto

City of Key West

hereinafter CITY OF KEY WEST called the OBLIGEE, in the sum of Five Percent of Total Bid  
Amount DOLLARS (\$ 5%) for

the payment for which we bind ourselves, our heirs, executors, administrators, successors, and  
assigns, jointly and severally, firmly by these present.

THE CONDITION OF THIS BOND IS SUCH THAT:

WHEREAS, the PRINCIPAL is herewith submitting his or its Bid Proposal for **PORT &  
MARINE SERVICES - CCTV SURVEILLANCE SYSTEM – MALLORY SQUARE &  
OUTER MOLE**, said Bid Proposal, by reference thereto, being hereby made a part hereof.

WHEREAS, the PRINCIPAL contemplates submitting or has submitted a bid to the OBLIGEE for the furnishing of all labor, materials (except those to be specifically furnished by the CITY), equipment, machinery, tools, apparatus, means of transportation for, and the performance of the work covered in the Proposal and the detailed Specifications, entitled:

**ITB #18-015**

**PORT & MARINE SERVICES  
CCTV SURVEILLANCE SYSTEM  
MALLORY SQUARE & OUTER MOLE**

WHEREAS, it was a condition precedent to the submission of said bid that a cashier's check, certified check, or bid bond in the amount of 5 percent of the base bid be submitted with said bid as a guarantee that the Bidder would, if awarded the Contract, enter into a written Contract with the CITY for the performance of said Contract, within 10 working days after written notice having been given of the award of the Contract.

NOW, THEREFORE, the conditions of this obligation are such that if the PRINCIPAL within 10 consecutive calendar days after written notice of such acceptance, enters into a written Contract with the OBLIGEE and furnishes the Performance and Payment Bonds, each in an amount equal to 100 percent of the base bid, satisfactory to the CITY, then this obligation shall be void; otherwise the sum herein stated shall be due and payable to the OBLIGEE and the Surety herein agrees to pay said sum immediately upon demand of the OBLIGEE in good and lawful money of the United States of America, as liquidated damages for failure thereof of said PRINCIPAL.

Signed and sealed this 9th day of February, 20 18.

Integrated Fire & Security Solutions, Inc.

By [Signature]  
PRINCIPAL

Westchester Fire Insurance Company  
SURETY

By [Signature]  
Brandy L. Baich, Attorney-In-Fact  
& FL Licensed Resident Agent

c/o Willis of Florida, Inc.  
4211 W. Boy Scout Blvd., Ste. 1000  
Tampa, FL 33607  
Inquiries: (813) 281-2095



# Power of Attorney

## WESTCHESTER FIRE INSURANCE COMPANY

Know all men by these presents: That WESTCHESTER FIRE INSURANCE COMPANY, a corporation of the Commonwealth of Pennsylvania pursuant to the following Resolution, adopted by the Board of Directors of the said Company on December 11, 2006, to wit:

"RESOLVED, that the following authorizations relate to the execution, for and on behalf of the Company, of bonds, undertakings, recognizances, contracts and other written commitments of the Company entered into the ordinary course of business (each a "Written Commitment"):

- (1) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise.
- (2) Each duly appointed attorney-in-fact of the Company is hereby authorized to execute any Written Commitment for and on behalf of the Company, under the seal of the Company or otherwise, to the extent that such action is authorized by the grant of powers provided for in such persons written appointment as such attorney-in-fact.
- (3) Each of the Chairman, the President and the Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to appoint in writing any person the attorney-in-fact of the Company with full power and authority to execute, for and on behalf of the Company, under the seal of the Company or otherwise, such Written Commitments of the Company as may be specified in such written appointment, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (4) Each of the Chairman, the President and Vice Presidents of the Company is hereby authorized, for and on behalf of the Company, to delegate in writing any other officer of the Company the authority to execute, for and on behalf of the Company, under the Company's seal or otherwise, such Written Commitments of the Company as are specified in such written delegation, which specification may be by general type or class of Written Commitments or by specification of one or more particular Written Commitments.
- (5) The signature of any officer or other person executing any Written Commitment or appointment or delegation pursuant to this Resolution, and the seal of the Company, may be affixed by facsimile on such Written Commitment or written appointment or delegation.

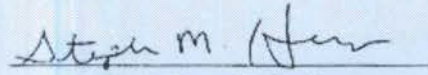
FURTHER RESOLVED, that the foregoing Resolution shall not be deemed to be an exclusive statement of the powers and authority of officers, employees and other persons to act for and on behalf of the Company, and such Resolution shall not limit or otherwise affect the exercise of any such power or authority otherwise validly granted or vested.

Does hereby nominate, constitute and appoint Anett Cardinale, Brandy L. Baich, David H Carr, Eileen C Heard, Margaret A Ginem, all of the City of TAMPA, Florida, each individually if there be more than one named, its true and lawful attorney-in-fact, to make, execute, seal and deliver on its behalf, and as its act and deed any and all bonds, undertakings, recognizances, contracts and other writings in the nature thereof in penalties not exceeding Twenty Five million dollars & zero cents (\$25,000,000.00) and the execution of such writings in pursuance of these presents shall be as binding upon said Company, as fully and amply as if they had been duly executed and acknowledged by the regularly elected officers of the Company at its principal office,

IN WITNESS WHEREOF, the said Stephen M. Haney, Vice-President, has hereunto subscribed his name and affixed the Corporate seal of the said WESTCHESTER FIRE INSURANCE COMPANY this 11 day of October 2016.

WESTCHESTER FIRE INSURANCE COMPANY

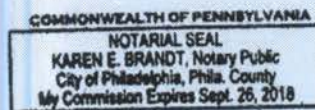


  
Stephen M. Haney, Vice President

COMMONWEALTH OF PENNSYLVANIA  
COUNTY OF PHILADELPHIA ss.

On this 11 day of October, AD. 2016 before me, a Notary Public of the Commonwealth of Pennsylvania in and for the County of Philadelphia came Stephen M. Haney, Vice-President of the WESTCHESTER FIRE INSURANCE COMPANY to me personally known to be the individual and officer who executed the preceding instrument, and he acknowledged that he executed the same, and that the seal affixed to the preceding instrument is the corporate seal of said Company; that the said corporate seal and his signature were duly affixed by the authority and direction of the said corporation, and that Resolution, adopted by the Board of Directors of said Company, referred to in the preceding instrument, is now in force.

IN TESTIMONY WHEREOF, I have hereunto set my hand and affixed my official seal at the City of Philadelphia the day and year first above written.

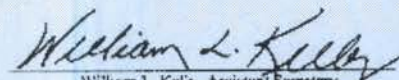


  
Notary Public

I, the undersigned Assistant Secretary of the WESTCHESTER FIRE INSURANCE COMPANY, do hereby certify that the original POWER OF ATTORNEY, of which the foregoing is a substantially true and correct copy, is in full force and effect.

In witness whereof, I have hereunto subscribed my name as Assistant Secretary, and affixed the corporate seal of the Corporation, this 9<sup>th</sup> day of February 2018



  
William L. Kelly, Assistant Secretary

THIS POWER OF ATTORNEY MAY NOT BE USED TO EXECUTE ANY BOND WITH AN INCEPTION DATE AFTER October 11, 2018.





**SWORN STATEMENT UNDER SECTION 287.133(3)(A)  
FLORIDA STATUTES, ON PUBLIC ENTITY CRIMES**

*THIS FORM MUST BE SIGNED IN THE PRESENCE OF A NOTARY PUBLIC OR OTHER OFFICER AUTHORIZED TO ADMINISTER OATHS.*

1. This sworn statement is submitted with Bid or Proposal for ITB #18-015 PORT & MARINE SERVICES  
CCTV SURVEILLANCE SYSTEM MALLORY SQUARE & OUTER MOLE

2. This sworn statement is submitted by Integrated Fire & Security Solutions Inc  
(name of entity submitting sworn statement)

whose business address is 1970 Dana Dr Ft. Myers, FL 33907

and (if applicable) its Federal Employer Identification Number (FEIN) is 75-3213855

(If the entity has no FEIN, include the Social Security Number of the individual  
signing this sworn statement \_\_\_\_\_)

3. My name is Jesus Carias  
(please print name of individual signing)

and my relationship to the entity named above is Vice President

4. I understand that a "public entity crime" as defined in Paragraph 287.133(1)(g), Florida Statutes, means a violation of any state or federal law by a person with respect to and directly related to the transaction of business with any public entity or with an agency or political subdivision of any other state or with the United States, including but not limited to, any bid or contract for goods or services to be provided to any public or an agency or political subdivision of any other state or of the United States and involving antitrust, fraud, theft, bribery, collusion, racketeering, conspiracy, material misrepresentation.

5. I understand that "convicted" or "conviction" as defined in Paragraph 287.133(1)(b), Florida Statutes, means a finding of guilt or a conviction of a public entity crime, with or without an adjudication of guilt, in any federal or state trial court of record relating to charges brought by indictment information after July 1, 1989, as a result of a jury verdict, nonjury trial, or entry of a plea of guilty or nolo contendere.

6. I understand that an "affiliate" as defined in Paragraph 287.133(1)(a), Florida Statutes, means

1. A predecessor or successor of a person convicted of a public entity crime; or
2. An entity under the control of any natural person who is active in the management of the entity and who has been convicted of a public entity crime. The term "affiliate" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in the management of an affiliate. The ownership by one person of shares constituting controlling interest in another person, or a pooling of equipment or income among persons when not for fair market value under an arm's length agreement, shall be a prima facie case that one person controls another person. A person who knowingly enters into a joint venture with a person who has been convicted of a public entity crime in Florida during the preceding 36 months shall be considered an affiliate.



ANTI-KICKBACK AFFIDAVIT

STATE OF Florida )

: SS

COUNTY OF Miami Dade )

I, the undersigned hereby duly sworn, depose and say that no portion of the sum herein bid will be paid to any employees of the City of Key West as a commission, kickback, reward or gift, directly or indirectly by me or any member of my firm or by an officer of the corporation.

By: Jesus Carias v.p.

Sworn and subscribed before me this 16th day of February 2018.

*Esperanza Trujillo*

NOTARY PUBLIC, State of Florida at Large



My Commission Expires: July 6, 2021

\* \* \* \* \*

7. I understand that a "person" as defined in Paragraph 287.133(1)(8), Florida Statutes, means any natural person or entity organized under the laws of any state or of the United States with the legal power to enter into a binding contract and which bids or applies to bid on contracts for the provision of goods or services let by a public entity, or which otherwise transacts or applies to transact business with public entity. The term "person" includes those officers, directors, executives, partners, shareholders, employees, members, and agents who are active in management of an entity.
8. Based on information and belief, the statement which I have marked below is true in relation to the entity submitting this sworn statement. (Please indicate which statement applies).

N/A Neither the entity submitting this sworn statement, nor any officers, directors, executives, partners, shareholders, employees, members, or agents who are active in management of the entity, nor any affiliate of the entity have been charged with and convicted of a public entity crime subsequent to July 1, 1989, AND (Please indicate which additional statement applies.)

N/A There has been a proceeding concerning the conviction before a hearing of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer did not place the person or affiliate on the convicted vendor list. (Please attach a copy of the final order.)

N/A The person or affiliate was placed on the convicted vendor list. There has been a subsequent proceeding before a hearing officer of the State of Florida, Division of Administrative Hearings. The final order entered by the hearing officer determined that it was in the public interest to remove the person or affiliate from the convicted vendor list. (Please attach a copy of the final order.)

N/A The person or affiliate has not been put on the convicted vendor list. (Please describe any action taken by or pending with the Department of General Services.)

(signature)

(date)

STATE OF FL

COUNTY OF Miami Dade

PERSONALLY APPEARED BEFORE ME, the undersigned authority,

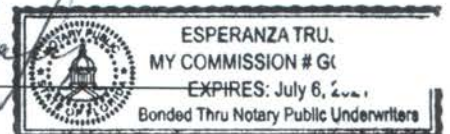
Jesus Carias Who, after first being sworn by me, affixed his/her  
(name of individual signing)

signature in the space provided above on this 16th day of February, 2018.

My commission expires:

July 6, 2021

NOTARY PUBLIC



\* \* \* \* \*



## CITY OF KEY WEST INDEMNIFICATION FORM

To the fullest extent permitted by law, the VENDOR expressly agrees to indemnify and hold harmless the City of Key West, their officers, directors, agents and employees (herein called the "indemnitees") from any and all liability for damages, including, if allowed by law, reasonable attorney's fees and court costs, such legal expenses to include costs incurred in establishing the indemnification and other rights agreed to in this Paragraph, to persons or property, caused in whole or in part by any act, omission, or default by VENDOR or its subcontractors, material men, or agents of any tier or their employees, arising out of this agreement or its performance, including any such damages caused in whole or in part by any act, omission or default of any indemnitee, but specifically excluding any claims of, or damages against an indemnitee resulting from such indemnitee's gross negligence, or the willful, wanton or intentional misconduct of such indemnitee or for statutory violation or punitive damages except and to the extent the statutory violation or punitive damages are caused by or result from the acts or omissions of the VENDOR or its subcontractors, material men or agents of any tier or their respective employees.

Indemnification by VENDOR for Professional Acts. VENDOR hereby agrees to indemnify the City of Key West and each of its parent and subsidiary companies and the directors, officers and employees of each of them (collectively, the "indemnitees"), and hold each of the indemnitees harmless, against all losses, liabilities, penalties (civil or criminal), fines and expenses (including reasonable attorneys' fees and expenses) (collectively, "Claims") to the extent resulting from the performance of VENDOR's negligent acts, errors or omissions or intentional acts in the performance of VENDOR's services, or any of their respective affiliates, under this Agreement. If claims, losses, damages, and judgments are found to be caused by the joint or concurrent negligence of the City of Key West and VENDOR, they shall be borne by each party in proportion to its negligence.

VENDOR:

Integrated Fire & Security Solutions Inc

SEAL:

1970 Dana Dr

Address

Ft. Myers, FL 33907

Signature

Print Name

Jesus Carias v.p.

Title

Vice President

DATE:

*Esperanza T. Infante*  
NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

July 6, 2021



\* \* \* \* \*

**EQUAL BENEFITS FOR DOMESTIC PARTNERS AFFIDAVIT**

STATE OF Florida )

: SS

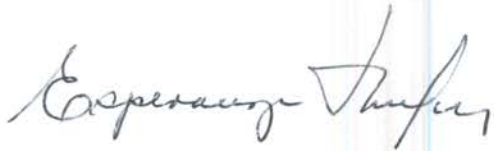
COUNTY OF Miami Dade )

I, the undersigned hereby duly sworn, depose and say that the firm of Integrated Fire & Security Solutions Inc.

provides benefits to domestic partners of its employees on the same basis as it provides benefits to employees' spouses, per City of Key West Code of Ordinances Sec. 2-799.

By: Jesus Carias  J.P.

Sworn and subscribed before me this 16th day of February 20 18.



NOTARY PUBLIC, State of Florida at Large

My Commission Expires:

July 6, 2021



\* \* \* \* \*



**CONE OF SILENCE AFFIDAVIT**

STATE OF Florida )

: SS

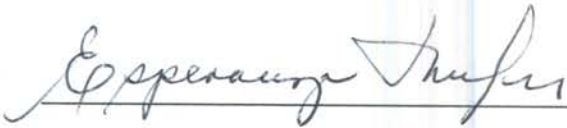
COUNTY OF Miami Dade )

I, the undersigned hereby duly sworn, depose and say that all owner(s), partners, officers, directors, employees and agents representing the firm of Integrated Fire & Security Solutions Inc have read and understand the limitations and procedures regarding communications concerning City of Key West Code of Ordinances Sec. 2-773 Cone of Silence.

By: Jesus Carlos 

Sworn and subscribed before me this

16th day of February 2018.



NOTARY PUBLIC, State of Florida at Large

My Commission Expires: July 06, 2021

**JESUS R CARIAS**  
COMMISSION # FF 974138  
EXPIRES April 15, 2020

\* \* \* \* \*

## BIDDER'S CHECKLIST

(Note: The purpose of this checklist is to serve as a reminder of major items to be addressed in submitting a bid and is not intended to be all inclusive. It does not alleviate the Bidder from the responsibility of becoming familiar with all aspects of the Contract Documents and Proper completion and submission of his bid.)

1. All Bid Documents thoroughly read and understood ☒
2. All blank spaces in Bid filled in black ink. ☒
3. Total and unit Prices added correctly. ☒
4. Addenda acknowledged. ☒
5. Bid signed by authorized officer. ☒
6. Bidder familiar with federal, state, and local laws, ordinances, rules and regulations affecting the proposed purchase. ☒
7. Bidder, if successful, able to obtain and/or demonstrate possession of required licenses and certificates within (10) ten days after receiving a Notice of Award. ☒
8. Bid submitted intact with the volume containing the Bidding Requirements, Contract Forms and Conditions of the Contract, one (1) original, two (2) USB drives. ☒
9. Bid Documents submitted in sealed envelope and addressed and labeled in conformance with the instructions in the Invitation to Bid. ☒
10. Anti-kickback Affidavit; Public Entity Crime Form; City of Key West Indemnification Equal Benefits for Domestic Partners Affidavit; Local Vendors Form. Cone of Silence, and Proof of Insurance ☒
11. Description of proposed work including layout; Equipment Cut Sheets; Warranty Information/Proposal; SUMMARY OF WORK Requirements ☒



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**PART 2**

**CONTRACT FORMS**

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## CONTRACT

This Contract, made and entered into this \_\_\_\_\_ day of \_\_\_\_\_ 2018,  
by and between the City of Key West, hereinafter called the "Owner", and \_\_\_\_\_

\_\_\_\_\_  
hereinafter called the "Vendor";

WITNESSETH:

The Vendor, in consideration of the sum to be paid him by the Owner and of the covenants and agreements herein contained, hereby agrees at his own proper cost and expense to do all the work and furnish all the materials, tools, labor, and all appliances, machinery, and appurtenances for **ITB #18-015 PORT & MARINE SERVICES - CCTV SURVEILLANCE SYSTEM – MALLORY SQUARE & OUTER MOLE**, Key West, Florida to the extent of the Bid made by the Vendor, dated the \_\_\_\_\_ day of \_\_\_\_\_ 2018, all in full compliance with the Contract Documents referred to herein.

The CONTRACT DOCUMENTS, including the signed copy of the BID, BIDDING REQUIREMENTS, SPECIFICATIONS and DRAWINGS are hereby referred to and by reference made a part of this Contract as fully and completely as if the same were fully set forth herein and are mutually cooperative therewith.

In consideration of the performance of the work as set forth in these Contract Documents, the Owner agrees to pay to the Vendor the amount BID as adjusted in accordance with the Contract Documents, or as otherwise herein provided, and to make such payments in the manner and at the times provided in the Contract Documents.

The Vendor agrees to complete the work within **thirty (30)** days and to accept as full payment hereunder the amounts computed as determined by the Contract Documents and based on the said BID.

The Vendor agrees to remedy all defects appearing in the work or developing in the materials furnished and the workmanship performed under this Contract during the warranty period after the date of final acceptance of the work by the Owner, and further agrees to indemnify and hold the Owner harmless from any costs encountered in remedying such defects.

It is agreed that the Contract, based upon the BID, shall be fully complete within the stated number of consecutive calendar days from the date the Notice to Proceed is issued.



In the event the Vendor fails to complete the work within the time limit or extended time limit agreed upon, as more particularly set forth in the Contract Documents, **liquidated damages** shall be paid at a rate of **\$250 per day**. Sundays and legal holidays shall be included in determining days in default.

This contract will automatically expire upon completion of the project. Vendor warranty obligations remain in effect.

IN WITNESS WHEREOF, we, the parties hereto, each herewith subscribe the same this

\_\_\_\_\_ Day of \_\_\_\_\_, 2018.

**CITY OF KEY WEST**

By \_\_\_\_\_  
James K. Scholl, City Manager

**VENDOR**

By \_\_\_\_\_

Printed \_\_\_\_\_

Title \_\_\_\_\_

APPROVED AS TO FORM

\_\_\_\_\_  
Attorney for Owner

\* \* \* \* \*

### **LICENSE REQUIREMENT AND COST**

License required for this Project. Vendor must have a general contractor license or registration.

Cost Not To Exceed \$410.00.

### **CITY OF KEY WEST BUSINESS LICENSE TAX RECEIPT**

A City of Key West Business License Tax Receipt is required for this project. Vendor must have a general contractor license or registration. Cost not to exceed \$410.00.

City of Key West Business License Tax Receipt may be found on the city website.

<http://www.keywestcity.com/egov/docs/1162843921181.htm>



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**PART 3**

**SPECIFICATIONS AND PHOTOGRAPHS**

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## SUMMARY OF WORK

### **WORK INCLUDED**

1. The Contractor will design and furnish all CCTV Surveillance System material, equipment, machinery, and labor to accomplish the following minimum requirements for each site:
  - a. **Mallory Square Security Checkpoint:**
    - Axis Q3709-PVE 180 degree 4K camera and required mounts or Equal
    - Ignitenet: MetroLinq 2.5G 60-19 PTP/Client antenna/radio and required mounts or Equal
    - Ignitenet: MetroLinq 2.5G 60-30-18 Sector base station antenna/radio and required mounts or Equal
    - Netonix WS-12-250-AC POE switch or equal
    - Aimetis AIM-R1016-32 rack mount NVR and required mounts or equal
    - 19” Full-HD 4K Monitor
    - Wall mount weatherproof/vandal proof enclosure for NVR and monitor
  - b. **Outer Mole Security Checkpoint:**
    - Axis Q3709-PVE 180 degree 4K camera and required mounts or Equal
    - Ignitenet: MetroLinq 2.5G 60-19 PTP/Client antenna/radio and required mounts or Equal
    - Ignitenet: MetroLinq 2.5G 60-30-18 Sector base station antenna/radio and required mounts or Equal
    - Netonix WS-12-250-AC POE switch or equal
    - Aimetis AIM-R1016-32 rack mount NVR and required mounts or equal
    - 32” Full-HD 4K Monitor
  - c. **Alternate Bid:**
    - Security staff monitoring stations for both Mallory Square and Outer Mole to be located at the Outer Mole checkpoint. This alternate eliminates the NVR and monitor from the Mallory square location and reduces the size of the enclosure.
  - d. **General:**
    - System must have remote viewing capabilities and must be fully functional for employee’s computers and iPhones and other hand-held devices
    - If a camera or lighting test is necessary to determine the operating parameters of the proposed camera(s), test shall be performed at the expense of the vendor.
    - Vendor responsible to provide necessary electrical wiring from City’s existing infrastructure to all new equipment. This wiring shall be encased in conduit.
    - Vendor shall also provide, install, configure, and test a recording server adequately sized to provide thirty (30) days of recording.
    - System shall include all necessary software and licenses.
    - There shall not be re-occurring licensing fees.
    - System shall have constant coverage of areas.



- Entire system to have battery Back-up: 8hr minimum battery life.
  - Entire system to have surge protection: 600 joules minimum.
  - System shall have viewing in color.
  - System shall be capable of withstanding harsh environment including corrosive conditions caused by saltwater and hurricane winds and/or be in protective housing.
  - System shall be capable of withstanding extreme heat
  - Cables/ wiring shall be protected from vandalism by the use of conduit or other means.
  - Cameras shall be vandal resistant.
  - Vendor to remove, and dispose of, any existing abandoned CCTV equipment.
2. Vendor will be responsible for identifying and verifying availability of locations for mounting cameras or equipment. If mounting locations are not available, Contractor will be responsible for installing mounting locations. Installation shall be included with Proposal.
  3. Vendor to provide a complete written description including system capabilities, type of cameras including brand, capability of cameras, recording ability in quality and quantity and upgrade/ expansion capabilities.
  4. Vendor to provide a complete written description including type of system and brand of stand-alone monitoring / retrieval system. Description shall include playback capability, copying to DVD, print screen ability, etc...
  5. Vendor to provide a complete system layout showing camera locations, wiring, antennas, etc.
  6. Contractor to provide cut sheets on all equipment including cameras, computers, recording devices, wiring, etc.
  7. The City is requiring the Bidder to warranty all materials and labor for two (2) years. Warranty will begin once the City determines the system is operating as specified in the technical specifications for a period of 30-days. Provide complete written description of warranty and what it covers.

During warranty period vendor shall identify and diagnose system/ equipment failures within 24 hours. All system repairs must be made within 72 hours.

If repairs are not completed within the required 72 hours a fine of \$100/day will be imposed until repairs are made

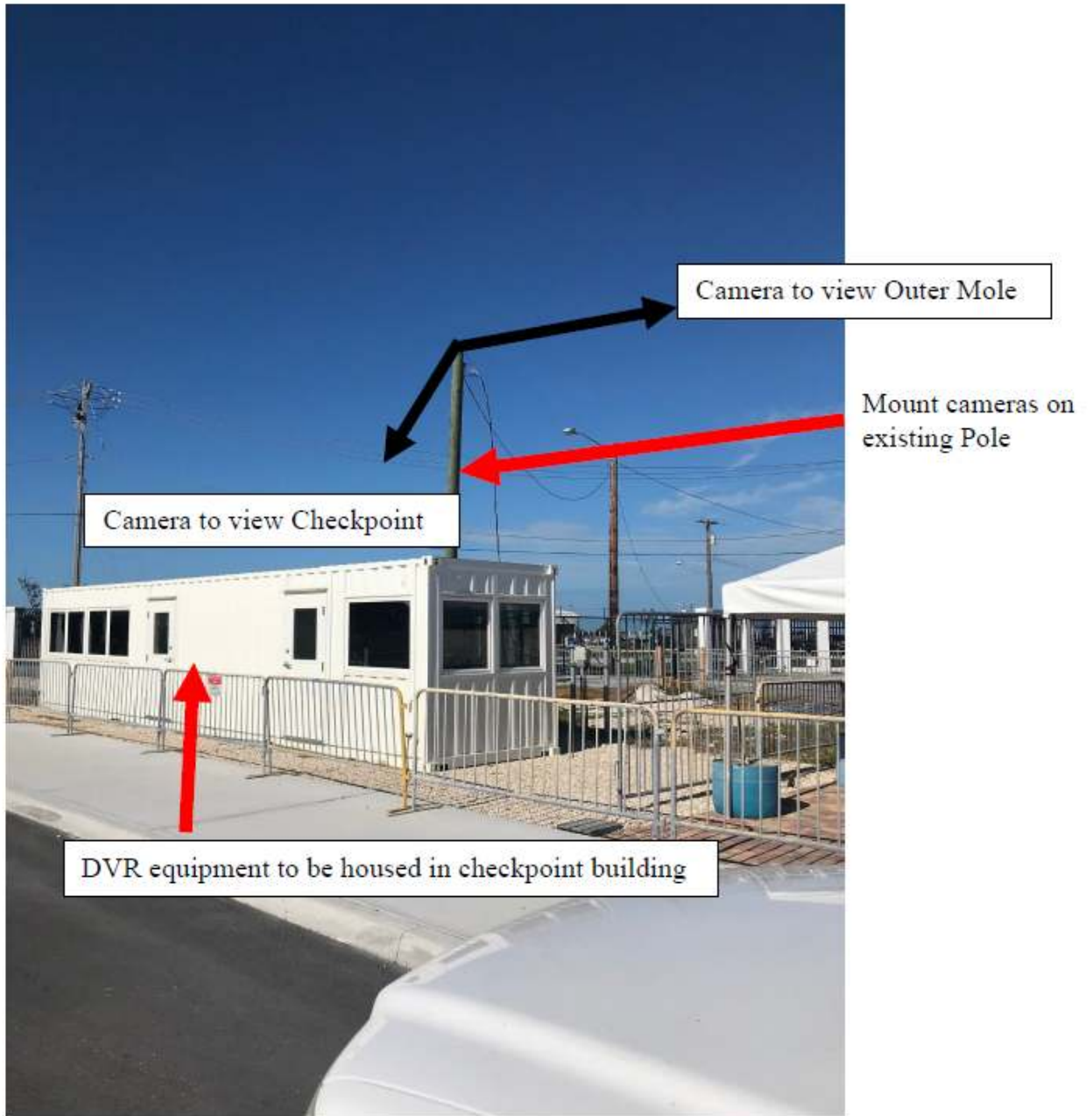
8. Vendor to describe how the cameras, antennas, etc. will be protected in the harsh coastal environment including type of housing units.

9. Vendor to describe how the cameras, antennas, monitoring / recording equipment etc. will be protected against power surge.
10. Vendor to describe the type of training, if any, provided with the proposed system.
11. Vendor shall secure permits as necessary for proper execution and completion of the work and shall ensure that all Federal, State, and Local codes are followed.
12. Vendor shall take the necessary steps to secure the site including fencing, barricades, and/or security to prevent entry by unauthorized persons. The Port & Marine Services Director or designee shall approve security measures.
13. It shall be the Vendor's responsibility to request approval for entrance to certain areas of worksite for work on Saturdays, Sundays, holiday, and weekday hours other than 7:00 am until 5:00 pm.

\*\*\*\*\*



## Mole Pier Security Checkpoint





Old cameras/antennas  
on arches at Mallory

Mallory security checkpoint- cameras need to cover this area as well as Cruise Ship





Ocean Key House-Old location of  
antenna that relayed video from  
Mallory to Outer Mole Security  
Checkpoint



## Mallory Square Arches





Location of mounting DVR Equipment at Mallory



If Sole Proprietor or Partnership

IN WITNESS hereto the undersigned has set his (its) hand this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_

Signature of Bidder

Title

If Corporation

IN WITNESS WHEREOF the undersigned corporation has caused this instrument to be executed and its seal affixed by its duly authorized officers this 16th day of February 20 18.

(SEAL)

Integrated Fire & Security Solutions Inc  
Name of Corporation

By Justin Peterson

Title President

Attest

Secretary

*[Signature]*

Sworn and subscribed before me this 19 day of February 20 18.

NOTARY PUBLIC, State of Florida, at Large

My Commission Expires:

