



Vitek Industrial Video Products, Inc.  
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## **VITEK XPRESS SERIES PAN TILT & ZOOM DOME CAMERA**

### **DIVISION 28 – ELECTRONIC SAFETY AND SECURITY**

#### **28 20 00 ELECTRONIC SURVEILLANCE**

#### **28 23 00 VIDEO SURVEILLANCE**

#### **28 23 29 VIDEO SURVEILLANCE REMOTE DEVICES AND SENSORS**

*This specification is intended for use by the design/constructing professional and any user of Vitek security products to assist in developing project specifications for security and video surveillance systems.*

*This specification can and should be modified as necessary to accommodate individual project conditions.*

#### **PART 1 GENERAL**

##### **1.01 SUMMARY** **1.02 WARRANTY**

- A. Provide manufacturer's standard warranty

#### **PART 2 PRODUCTS**

##### **2.01 MANUFACTURERS**

- A. Vitek Industrial Video Products, Inc.
- B. Provide Video Surveillance Camera from single source manufacturer.

##### **2.02 TEN TIMES ZOOM PAN TILT AND ZOOM DOME CAMERA**

###### **A. General**

- (1) Product specifically designed for closed circuit television viewing.
- (2) The unitized camera assembly shall be a self-contained unit that incorporates an integral ICR based day & night camera, pan and tilt motor, zoom lens, communication interface and alarm interface.
- (3) The zoom assembly shall consist of a ten (10) times optical and ten (10) times digital zoom lens.
- (4) The unitized camera shall consist of a polycarbonate bubble, cast aluminum body and use vandal-proof housing.
- (5) The housing shall consist of built-in heater and blower.
- (6) The housing shall be waterproof with an IP rating of 68.



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## B. Camera Module

- (1) The Image Sensor shall be a quarter inch (1/4") Sony Interline Transfer CCD.
- (2) The resolution shall be seven-hundred-sixty-eight (768) by four-hundred-ninety-four (494) pixels.
- (3) The horizontal resolution shall be five-hundred (500) TV lines.
- (4) The lens shall include Infrared Cut-Filter Removable feature.
- (5) The lens shall be F Stop one-point-eight (F1.8) three-point-eight millimeters to thirty-eight millimeters (3.8mm ~ 38mm) with ten (10) times digital zoom.
- (6) The Digital Zoom shall have selectable value of Off, two times (2X), four times (4X) and Maximum digital zoom.
- (7) The Synchronization System shall be selectable internal or external.
- (8) The Synchronization System shall include an adjustable Phase value of zero (0) to three hundred fifty-nine (359) for the external Sync mode.
- (9) The Scanning System shall be two-to-one ratio (2:1) Interlaced.
- (10) The Minimum Illumination shall be zero-point-seven (0.7) Lux at F stop one point eight (F1.8) with Slow Shutter, zero-point-zero-two (0.02) Lux at F stop one point eight (F1.8) with the IR Cut Filter Removed, or zero-point-zero-zero-five (0.005) Lux at F stop one point eight (F1.8) with Digital Slow Shutter activated and IR Cut Filter removed.
- (11) The Signal-to-Noise Ratio shall be more than fifty (50) decibels (dB).
- (12) The video output shall consist of one (1) volt peak-to-peak composite signal at seventy-five (75) Ohms.
- (13) The Focus Control shall include Automatic, One-Push or Manual modes
- (14) The White Balance shall include Manual, Outdoor, Indoor or Automatic White Control (AWC) modes.
- (15) The White Balance Manual mode shall customize the Red and Blue gain from zero (0) to one hundred (100).
- (16) The Automatic Exposure control shall include adjustable Brightness value of zero (0) to one hundred (100).
- (17) The Automatic Exposure control shall include selectable Iris Mode between Automatic and Manual modes.
- (18) The Automatic Exposure control shall include adjustable Iris Value of zero (0) to one hundred).
- (19) The Automatic Exposure control shall include selectable Shutter Modes of Electronic Shutter Control (ESC), Manual and Automatic Flicker modes.
- (20) The Automatic Exposure Control shall include adjustable Shutter Shutter Speeds of two (2) to one one-hundred twenty thousandth of a second (1/120,000).
- (21) The Automatic Exposure Control shall include selectable Automatic Gain Control (AGC) modes between Normal, High and Off.
- (22) The Automatic Exposure control shall have selectable Digital Noise Reduction (DNR) modes of Off, Low, Medium and High.
- (23) The Automatic Exposure control shall have selectable Digital Slow Shutter (DSS) modes of Automatic or Off.
- (24) The Sharpness Control shall have adjustable value of zero (0) to thirty-one (31).
- (25) The Night Shot shall have selectable Manual and Automatic modes.
- (26) The Night Shot shall provide Local Control enabling the user to force the camera to be in Color or Black and White modes.



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#### C. Programmable Functions

- (1) The camera shall have one hundred and twenty-eight (128) Presets with programmable focus, iris, backlight compensation, speed and dwell time.
- (2) The Preset shall have selectable Freeze On / Off.
- (3) The camera shall have eight (8) Scans with Vector Scan.
- (4) The camera shall have four (4) Patterns totaling up to one hundred twenty (120) seconds.
- (5) The camera shall have four (4) Tours programmable up to thirty-two (32) subfunctions including Presets, Scans and Patterns.
- (6) The camera shall have four (4) alarm inputs and one (1) auxiliary alarm output programmable in Normally Open or Normally Closed circuit.
- (7) The shall shall have the ability to prioritize alarm triggers.

#### D. Screen

- (1) The camera shall have eight (8) Privacy Zones.
- (2) The camera shall have twenty-four (24) Zone Titles up to sixteen (16) alphanumeric characters with programmable range of positions.
- (3) The camera shall have a Title programmable up to sixteen (16) alphanumeric characters.
- (4) The camera shall have programmable On-Screen-Display with selective on / off feature for Function Display, Camera Title, Zone Title, North Direction, Dome Positions, Dome ID and Zoom Magnification.

#### E. Movement

- (1) The Pan Angle shall be a continuous rotation of three hundred and sixty (360) degrees.
- (2) The Tilt Angle shall be from zero (0) degrees to one hundred eighty (180) degrees.
- (3) The Tilt Angle shall be equipped with a limit override.
- (4) The Pan and Tilt shall have a variable movement speed of zero-point-four (0.4) degrees per second to ninety (90) degrees per second, reverse proportional to zoom ratio.
- (5) The Pan and Tilt movement speed shall be one hundred ninety (190) degrees per second with the turbo enabled.
- (6) The Preset movement speed shall be three hundred eighty (380) degrees per second.
- (7) The camera shall have automatic digital flip at ninety (90) degree angle during tilt travel.
- (8) The accuracy of any functions shall have a margin of error of zero-point-two (0.2) degrees.
- (9) The Preset shall have maximum zero-point-seven-five (0.75) access time.
- (10) The minimum adjustable angle shall be zero-point-zero-three-seven-five (0.0375) degrees with Single Step move function.
- (11) The default movement speed shall be selectable between Slow, Medium and Fast.
- (12) The camera shall have a customizable panning range to limit the pan movement.
- (13) The camera shall be equipped with a built-in Calibration feature.
- (14) The Calibration feature shall automatically track the point of origin and correct position errors.

#### F. Communication

- (1) The camera shall have a built-in RS-485 port.
- (2) The camera shall communicate in selectable speeds of two thousand four hundred (2400) bauds baud per second (bps) to thirty eight thousand four hundred (38400) baud per second (bps).
- (3) The default communication speed of the camera shall be nine thousand six hundred (9600) baud per second (bps).
- (4) The camera shall automatically detect major communication protocols.
- (5) The camera shall have up to ninety-nine (99) physical addresses and up to three thousand nine hundred ninety-nine (3999) programmable logical addresses.



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- (6) The camera shall have the option of saving and retrieving all settings onto a Vitek Multifunction Keyboard Controller, VT-KBD1.

G. Environmental

- (1) The operating temperature shall be between negative twenty-two (-22) to one hundred twenty-two (122) degrees in Fahrenheit.
- (2) The storage temperature shall be between four (4) degrees and one hundred forty (140) degrees in Fahrenheit.
- (3) The operating humidity of the camera shall be zero (0) to ninety (90) percent non-condensing humidity.
- (4) The camera shall be equipped with a thirty (30) watts heater and a blower kit.

H. Electrical

- (1) The power consumption shall be up to thirty (30) watts.
- (2) The operating voltage shall be twenty-four (24) volts alternating current (AC).

I. Dimensions and weight

- (1) The dimensions shall be five-point-six-five (5.65) inches in diameter and five-point-five-one (5.51) inches in height.
- (2) The weight shall be approximately two-point-four (2.4) pounds (lbs).

J. Optional Accessories

- |                                       |             |
|---------------------------------------|-------------|
| (1) Wall Mount Housing                | VT-MD/WMT   |
| (2) Ceiling Mount Housing             | VT-PT10/CMT |
| (3) Corner Mount Adaptor              | VT-MD/CNMT  |
| (4) Pole Mount Adaptor                | VT-MD/PLMT  |
| (5) Extender Mounting Plate           | VT-MD/EMP   |
| (6) Multifunction Keyboard Controller | VT-KBD1     |

**2.03 SUGGESTED PRODUCT**

- A. The camera shall be a Vitek XPRESS DOME Series model VT-PTZ10.

**PART 3 EXECUTION**

**3.01 ACCEPTABLE INTEGRATORS**

**3.02 INSTALLATION**