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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 THIRTY-SIX 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 thirty-six (36) times optical and twelve (12) times digital zoom lens.
- (4) The unitized camera shall consist of aluminum and plastic body.



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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 four hundred eighty (480) TV lines.
- (4) The lens shall include Infrared Cut-Filter Removable feature.
- (5) The lens shall be F Stop one-point-four (F1.4) three-point-four millimeters to one hundred twenty-two-point-four millimeters (3.4mm ~ 122.4mm) with twelve (12) 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-one (0.1) Lux at F stop one point eight (F1.4) with ICR activated.
- (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 selectable Automatic or Manual modes.
- (14) The Automatic Focus Sensitivity shall include selectable Low or High modes.
- (15) The White Balance shall include Manual, Outdoor, Indoor, Automatic Tracking White (ATW) modes.
- (16) The White Balance Manual mode shall customize the Red and Blue gain from zero (0) to one hundred (100).
- (17) The Automatic Exposure control shall include adjustable Brightness value of zero (0) to one hundred (100).
- (18) The Automatic Exposure control shall include selectable Iris Mode between Full Automatic, Manual, Iris Priority, Shutter Priority and Brightness modes.
- (19)
- (20) The Digital Slow Shutter control shall include selectable shutter speeds of one-half (1/2), one-quarter (1/4), one-eighth (1/8), one-fifteenth (1/15), one-thirtieth (1/30), one-sixtieth (1/60) of a second and a Full Automatic mode.
- (21) The Iris value shall include selectable F stop value of Close, F stop twenty-eight (F28), F stop twenty-two (F22), F stop nineteen (F19), F stop sixteen (F16), F stop 14 (F14), F stop eleven (F11), F stop nine-point-six (F9.6), F stop eight (F8.0), F stop six-point-eight (F6.8), F stop five-point-six (F5.6), F stop four-point-eight (F4.8), F stop four (F4.0), F stop three-point-four (F3.4), F stop two-point-eight (F2.8), F stop two-point-four (F2.4), F stop two (F2.0), F stop one-point-six (F1.6) and F stop one-point-four (F1.4).
- (22) The Gain Control shall be adjustable from zero (0) decibels (dB) to thirty (30) decibels (dB).
- (23) The Brightness shall be adjustable from zero (0) to thirty-one (31).
- (24) The Shutter speed shall be adjustable from one (1) through one-thirty-thousandth of a second (1/30,000).
- (25) The Sharpness Control shall have adjustable value of zero (0) to sixty-three (63).
- (26) The Night Shot shall have selectable Manual and Automatic modes.
- (27) 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 two hundred and forty-eight (248) Presets with programmable focus, iris, backlight compensation, speed and dwell time.
- (2) The camera shall have sixteen (16) Scans with Vector Scan.
- (3) The camera shall have four (4) Patterns totaling up to two hundred forty (240) seconds.
- (4) The camera shall have four (4) Tours programmable up to sixty-four (64) subfunctions including Presets, Scans and Patterns.
- (5) A tour shall be programmable with a preexisting tour as a sub function.
- (6) The camera shall have eight (8) alarm inputs and two (2) auxiliary alarm output programmable in Normally Open or Normally Closed circuit.
- (7) The camera 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 negative five (-5) degrees to one hundred eighty-five (185) degrees.
- (3) The Tilt Angle shall be equipped with programmable settings for without bubble, over-the-limit angle and with bubble.
- (4) The Pan and Tilt shall have a variable movement speed of zero-point-one (0.1) degrees per second to ninety (90) degrees per second, reverse proportional to zoom ratio.
- (5) The Pan and Tilt movement speed shall be three hundred sixty (360) 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 and RS-422 port.
- (2) The camera shall communicate in selectable speeds of two thousand four hundred (2400) bauds baud per second (bps) to two hundred thirty thousand (230,000) 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.



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- (5) The camera shall have up to nine hundred ninety-nine (999) physical addresses and up to three thousand nine hundred ninety-nine (3999) programmable logical addresses.

G. Environmental

- (1) The operating temperature shall be between fourteen (14) degrees to one hundred twenty-two (122) degrees in Fahrenheit with Outdoor Housing.
- (2) The operating temperature shall be between negative twenty-two (-22) degrees to one hundred twenty-two (122) degrees in Fahrenheit with the optional Vitek Outdoor Housing and Outdoor Kit.
- (3) The operating temperature shall be between negative sixty (-60) degrees to one hundred twenty-two (122) degrees in Fahrenheit with the optional Vitek Outdoor Housing and Extreme Cold Outdoor Kit.
- (4) The storage temperature shall be between four (4) degrees and one hundred forty (140) degrees in Fahrenheit.
- (5) The operating humidity of the camera shall be zero (0) to ninety (90) percent non-condensing humidity.

H. Electrical

- (1) The power consumption shall be up to three (3) amperes.
- (2) The operating voltage shall be twenty-four (24) volts alternating current (AC) or direct current (DC).

I. Dimensions and weight

- (1) The dimensions shall be four-point-nine-six (4.96) inches in diameter and seven-point-one-three (7.13) inches in height.
- (2) The weight shall be approximately two-point-nine-five (2.95) pounds (lbs).

J. Optional Accessories

- |  |             |
|--|-------------|
| (1) Flush Mount Kit                    | VT-PTFMK    |
| (2) Outdoor Housing                    | VT-PTHSG    |
| (3) Outdoor Kit                        | VT-PTODKIT  |
| (4) Extreme Cold Outdoor Kit           | VT-PTODKITE |
| (5) I-Beam Mount                       | VT-PTIBMT   |
| (6) Wall Mount                         | VT-PTWMT    |
| (7) Pedestal Mount                     | VT-PTPDMT   |
| (8) Corner Mount Adaptor               | VT-PTCNMT   |
| (9) Pole Mount Adaptor                 | VT-PTPLMT   |
| (10) Parapet Mount                     | VT-PTPMT    |
| (11) Multifunction Keyboard Controller | VT-KBD1     |

**2.03 SUGGESTED PRODUCT**

- A. The camera shall be a Vitek XPRESS DOME Series model VT-PTZ36.

**PART 3 EXECUTION**

- 3.01 ACCEPTABLE INTEGRATORS**
- 3.02 INSTALLATION**