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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 EIGHTEEN 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 day & night camera, pan and tilt motor, zoom lens, communication interface and alarm interface.
- (3) The zoom assembly shall consist of an eighteen (18) 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 module shall include filter based day & night mode (software Day & Night).
- (5) The lens shall be F Stop one-point-four (F1.4) four-point-one millimeters to seventy-three-point-eight millimeters (4.1mm ~ 73.8mm) 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-seven (0.7) Lux at F stop one point eight (F1.4) with Slow Shutter, zero-point-zero-five (0.05) Lux at F stop one point eight (F1.4) with Digital Slow Shutter 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

- | | |
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| (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-PTZ18.

PART 3 EXECUTION

- 3.01 ACCEPTABLE INTEGRATORS**
- 3.02 INSTALLATION**