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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 Recorder 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 infrared cut filter (ICR) based day and night camera, pan and tilt motor, zoom lens, communication interface and alarm interface.
- (3) The zoom assembly shall consist of thirty-six (36) times optical and twelve (12) times digital zoom lens.
- (4) The unitized camera shall consist of aluminum and plastic body.
- (5) The unitized camera shall include a true wide dynamic range function.



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B. Camera Module

- (1) The image sensor shall be a quarter inch (1/4") Sony Interline Transfer CCD.
- (2) The total pixels shall be seven hundred sixty eight (768) by four-hundred-ninety-four (494) pixels.
- (3) The horizontal resolution shall be five hundred fifty (550) 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 (12x) digital zoom.
- (7) The Line Lock shall be selectable internal or external.
- (8) The Line Lock shall include an adjustable Phase value of zero (0) to two hundred fifty five (255) for the external mode.
- (9) The Scanning System shall be two-to-one ratio (2:1) interlaced.
- (10) The minimum illumination shall be zero-point-zero one (0.01) Lux at F stop one-point-four (F1.4) with slow shutter activated.
- (11) The signal-to-noise ratio shall be at least 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 low and normal.
- (15) The white balance shall include Auto, Automatic Tracking White (ATW), Indoor, Outdoor, one Push, Manual, Outdoor Auto, Sodium Auto and Sodium Fixed modes.
- (16) The white balance manual mode shall include adjustable red and blue gain from zero (0) to two hundred fifty five (255).
- (17) The automatic exposure control shall include Full Auto, Manual, Iris Priority, Shutter Priority and Brightness mode.
- (18) The automatic exposure full auto mode shall have adjustable slow shutter mode of auto or manual.
- (19) The automatic exposure shall have adjustable wide dynamic range (WDR) mode of off, on or auto modes.
- (20) The automatic exposure shall have adjustable digital noise reduction (DNR) mode of off and one (1) through five (5).
- (21) The automatic exposure manual mode shall have adjustable gain of negative three (-3) and zero (0) through (28) decibels (dB) in increments of two (2).
- (22) The automatic exposure manual mode shall have adjustable shutter speeds of one (1), one-half (1/2), one-quarter (1/4), one-eighth (1/8), one-fifteenth (1/15), one-thirtieth (1/30), one-sixtieth (1/60), one-ninetieth (1/90), one-one-hundredth (1/100), one-one-hundred-twenty-fifth (1/125), one-one-hundred-eightieth (1/180), one-two-hundred-fiftieth (1/250), one-three-hundred-fiftieth (1/350), one-five-hundredth (1/500), one-seven-hundred-twenty-fifth (1/725), one-one-thousandth (1/1000), one-one-thousand-five-hundredth (1/1500), one-two-thousandth (1/2000), one-three-thousandth (1/3000), one-four-thousandth (1/4000), one-six-thousandth (1/6000) and one-ten-thousandth (1/10,000) of a second.
- (23) The automatic exposure Iris Priority mode shall include selectable F stop value of Close, F stop twenty two (F22), F stop nineteen (F19), F stop sixteen (F16), F stop fourteen (F14), F stop eleven (F11), F stop nine-point-six (F9.6), F stop eight-point-zero (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-point-zero (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-point-zero (F2.0), F stop one-point-six (F1.6) and F stop



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one-point-four (F1.4).

- (24) The automatic exposure Shutter Priority mode shutter speed shall be identical to the manual exposure mode in section 2.02-B-(22).
- (25) The automatic exposure sharpness control shall have adjustable values of zero (0) through fifteen (15).
- (26) The automatic exposure Brightness mode shall have and adjustable brightness control value of zero (0) through thirty one (31).
- (27) The Night Shot shall have selectable Manual and Automatic modes.
- (28) The Night Shot shall provide local control enabling the user to force the camera to be in color or black and white modes.
- (29) The Stabilizer shall be selectable On or Off.

C. Programmable Functions

- (1) The camera shall have two hundred forty eight (248) presets with programmable focus, iris, back light 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 seconds.
- (4) The camera shall have four eight (8) tours programmable up to sixty four sub-functions including presets, scans and pattern.
- (5) A tour shall be programmable with a pre-existing tour as a sub-function.
- (6) The camera shall have eight (8) alarm inputs and two (2) auxiliary alarm outputs programmable in Normally Open (NO) or Normally Closed (NC) 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 and position.
- (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 or off feature for function display, camera title, zone title, north direction, dome positions, dome identification and zoom magnification.

E. Movement

- (1) The camera shall be a continuous rotation of three hundred sixty (360) degrees.
- (2) The tilt angle shall be from negative five (-5) 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 turbo enabled.
- (6) The preset movement speed shall be three hundred eighty degrees per second with the turbo enabled.
- (7) The preset movement speed shall be three hundred eighty (380) degrees per second.
- (8) The camera shall have automatic digital flip at ninety (90) degree angle during tilt travel.
- (9) The accuracy of any functions shall have a margin of error of zero-point-two (0.2) degrees.
- (10) The preset shall have a maximum access time of zero-point-seven-five (0.75) seconds.
- (11) The minimum adjustable angle shall be zero-point-zero-three-seven-five (0.0375) degrees



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with single step move function.

- (12) The default movement speed shall be selectable between slow, medium and fast.
- (13) The camera shall have a customizable panning range to limit the pan movement.
- (14) The camera shall be equipped with a built-in calibration feature.
- (15) The calibration feature shall automatically track the point of origin and correct position errors.

F. Communication

- (1) The camera shall have built-in RS-485 and RS-422 port.
- (2) The camera shall communicate in selectable speeds of two thousand four hundred (2400) 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.
- (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 optional outdoor housing.
- (2) The operating temperature shall be between negative twenty two (22) degrees to one hundred twenty two (122) degrees in Fahrenheit with optional 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 optional 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.

H. Electrical

- (1) The power consumption shall be up to three 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) 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-POTDKIT |
| (4) Extreme Cold Outdoor Kit | VT-POTDKITE |
| (5) I-Beam Mount | VT-PTIBMT |



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- (6) Wall Mount
- (7) Pedestal Mount
- (8) Corner Mount Adaptor
- (9) Pole Mount Adaptor
- (10) Parapet Mount
- (11) Multifunction Keyboard Controller

- VT-PTWMT
- VT-PTPDMT
- VT-PTCNMT
- VT-PTPLMT
- VT-PTPMT
- VT-KBD1

2.03 SUGGESTED PRODUCT

- A. The camera shall be a Vitek XPRESS DOME Series model VT-PTZ36W.

PART 3 EXECUTION

3.01 ACCEPTABLE INTEGRATORS

3.02 INSTALLATION