

A & E Specifications



PowerDomeII

- 2.0 Integrated pan / tilt / zoom (PTZ) dome receiver with camera, housing and bubble options.
- A. The PowerDome II camera module, housing and pan / tilt driver unit shall be as manufactured by Vista.
 - B. The high-speed pan / tilt drive unit shall meet or exceed the following design and performance specifications:
 - 1. The PowerDomeII shall use a menu-based system for programming the camera and pan / tilt unit.
 - a. Use a compatible keypad or other control device to navigate through the menus.
 - b. The menus shall have the following options:
 - 1) Setup
 - a) Passwords
 - b) Clear memory
 - c) Installation date
 - d) Camera Title
 - i) Each camera shall be able to display a 24-character title.
 - e) Current status
 - 2) Control options
 - a) Auto-pan speed
 - i) The user shall have a choice of slow, medium or fast speeds.
 - b) Preset speed
 - c) Proportional zoom
 - i) The proportional speed feature shall decrease the pan / tilt speed of the camera module to provide better tracking when zoomed in.
 - d) Quick spin
 - i) The quick spin feature shall allow the camera to rotate automatically by 180 degrees when the camera module reaches the bottom tilt limit.
 - e) Max tilt/pan speed.
 - f) Home Position
 - i) The home position feature shall send the camera to a set position, preset, tour, learn tour or auto-pan mode after a period of inactivity.
 - ii) The minimum return time shall be 15 seconds.
 - iii) The maximum return time shall be 60 minutes.
 - g) Power on action
 - i) The power on action shall allow the user to set a specific operation to occur on powering up of the PowerDomeII.
 - h) Azimuth (coordinate) display
 - i) The indicator shall when enabled display a directional icon on the screen.
 - 3) Camera options
 - a) Day / night switch
 - i) The switch shall be available on the day / night model cameras only.
 - ii) The switch shall have an option for the user to set the light level at which the camera's infrared cut filter will automatically switch out at dusk and in at dawn.
 - iii) The switch shall have an option to allow the camera's infrared cut filter to switch automatically on the AGC levels of the camera.
 - iv) The Vista keyboard shall have a manual override, allowing the operator to switch the camera's infrared cut filter on demand.

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- b) Iris control
 - c) Lift/gain
 - d) Electronic zoom
 - i) The electronic zoom shall expand the camera's ability to zoom, to a maximum of x 12 digital.
 - ii) The factory default setting for most camera modules is x 8.
 - e) Shutter control
 - i) The exposure control shall allow the user to set the method that the camera uses to adjust to different light levels.
 - ii) The Vista keyboard shall activated the frame integration feature of the camera to produce better images in dark situations.
 - f) Still shot
 - g) Synchronization
 - h) White balance
 - 4) Presets / Tours / Areas
 - a) Preset tours
 - i) A preset tour shall be a group of sequential preset positions.
 - ii) Up to four preset tours in each PowerDome II unit.
 - iii) Each preset tour shall have up to 64 steps.
 - b) Learn Tours
 - i) A learn tour shall be a continuous tour that the camera learns by recording the user's manual operation of the camera via a keypad or other control device.
 - ii) Each learn-tour shall last up to five minutes.
 - iii) Up to four learn tours in each PowerDomeII unit.
 - c) Privacy masks
 - d) Areas
 - i) 16 x Definable regions that had an associated, programmable screen title
 - e) Titles
 - i) Preset titles
 - Each preset shall be able to display a 24-character title.
 - ii) Area titles
 - Each area shall be able to display a 24-character title.
 - iii) Tour titles
 - Each preset tour and learn tour shall be able to display a 24-character title.
2. The PowerDomeII shall be compatible with the following protocols for twisted pair data transmission:
- a. Vista PowerDome RS485 9600 or 19200
 - b. Vista FSK
 - c. Digiplex RS422
 - d. Impac RS485
 - e. ASCII RS422
 - f. Pelco D
 - g. Pelco P
 - h. Ultrak
3. The unit shall allow password protection that prevents unauthorized personnel from changing programming settings while still allowing operator access.

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4. Compatible units shall have built-in day/night control through both the camera module and through a light sensor, which has multiple thresholds.
5. The unit shall have variable speed pan/tilt with up to 32 speeds.
6. The unit shall operate between 0.5 and 120 degrees in manual pan.
7. The unit shall operate between 0.5 and 120 degrees per second in manual tilt.
8. The maximum pan/tilt speed shall be 400 degrees / second.
- C. The available cameras shall meet or exceed the following specifications:
 1. The signal system shall be available in PAL video signal format.
 2. The camera shall provide a composite video output of 1.0 V p-p.
 3. The image-capturing device shall be a 1/4-inch CCD image sensor.
 4. The camera shall provide a horizontal resolution of 470 TV lines, PAL
 5. The camera scanning system shall be 2:1 interlacing.
 6. The camera shall have digital signal processing.
 7. The camera shall have automatic white balance.
 8. The camera shall also be capable of manual setup for white balance via the menu system.
 9. The camera shall have automatic iris control and manual override.
 10. The camera shall provide backlight compensation while in automatic iris control mode.
 11. The following camera options shall be available with the PowerDome II dome:
 - a. 22x colour
 - 1) Image Zoom: Optical 22x
 - 2) Lens: F=4 mm (wide) to 64 mm (tele); F1.6
 - 3) Angle of view (H): 47.3° (wide) to 2.2° (tele)
 - 4) Sensitivity: 3 Lux
 - 5) Electronic shutter speed: 1/3 to 1/10,000 sec, 8 steps PAL
 - b. 18x day / night
 - 1) Zoom: Optical 18x, digital 12x
 - 2) Lens: F=4.1 mm (wide) to 73.8 mm (tele); F1.4 to F3.0
 - 3) Angle of view (H): 48° (wide) to 2.8° (tele)
 - 4) Sensitivity: 0.7 Lux at 1/50 sec PAL; 0.05 Lux at 1/3 sec PAL
 - 5) Electronic shutter speed: 1/3 to 1/10,000 sec, 8 steps, PAL
 - c. 23x day/night w/ WDR
 - 1) Zoom: Optical 23x, digital 10x
 - 2) Lens: F=3.6 mm (wide) to 82.8 mm (tele); F1.6 to F3.7
 - 3) Angle of view (H): 54° (wide) to 2.5° (tele)
 - 4) Sensitivity: 0.2 Lux at 1/3 sec PAL
 - 5) Sensitivity, ICR-on: 3 Lux at 1/50 sec PAL; 0.2 Lux at 1/3 sec PAL
 - 6) Electronic shutter speed: 1/50 to 1/4000 sec, PAL
 - d. 26x day/night
 - 1) Zoom: Optical 26x, digital 12x
 - 2) Lens: F=3.5 mm (wide) to 91 mm (tele); F1.6 to F3.8
 - 3) Angle of view (H): 54.2° (wide) to 2.2° (tele)
 - 4) Sensitivity: 1.0 Lux at 1/50 sec PAL; 0.07 Lux at 1/3 sec PAL
 - 5) Sensitivity, ICR-on: 0.15 Lux at 1/50 sec PAL; 0.01 Lux at 1/3 sec PAL
 - 6) Electronic shutter speed: 1/3 to 1/10,000 sec, 8 steps, PAL

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12. All available PowerDomeII dome housings shall meet or exceed the following specifications:
 - a. Standard housings shall include a coaxial connection.
 - 1) The connectors for the housing shall be as follows:
 - a) Coaxial
 - i) Video: BNC
 - ii) Data control: Removable terminal strip
 - iii) Power input: Two-position removable terminal strip
 - b. The housing shall have back box memory, removing cameras yokes or switching yokes between housings ensure the settings for a specific location shall remain the same.
 - c. The housings shall have the following control protocols:
 - 1) Input signal
 - a) Vista PowerDome RS485 9600 or 19200
 - b) Vista FSK
 - c) Digiplex RS422, 4800 baud
 - d) Impac RS485, 9600 baud
 - e) GE ASCII RS422, 9600 baud
 - f) Pelco "P" RS422, 2400, 4800 or 9600 baud
 - g) Pelco "D" RS422, 2400, 4800 or 9600 baud
 - h) Honeywell Ultrak RS422, 9600 baud
 - d. The housings shall provide DIP-switches for setting the camera's site address and communication protocol.
 13. The following housing options shall be available:
 - a. Flush-mount housing
 - 1) The housing is for indoor use only.
 - 2) The housing is for in-ceiling applications.
 - 3) The housing shall include a T-bar support kit.
 - 4) The housing shall have an environmental rating of IP50.
 - 5) The housing shall operate at temperatures between 0 to 50°C.
 - 6) The housings are of ABS plastic construction.
 - 7) The electrical specifications for the housing shall be as follows:
 - a) Operating voltage: 24VAC \pm 4VAC
 - b) Power, start-up: 25VA (less than 0.5 sec)
 - c) Power, running: 20VA
 - 8) The physical specifications for the housing shall be as follows:
 - a) Dimensions; of 243mm high by 241mm diameter at its widest point by.
 - b) Weight (including housing, bubble and pan/tilt unit) 2.96Kg.
 - b. Pendant / Wall-mount housing
 - 1) The housing shall be weatherproof for indoor and outdoor applications.
 - 2) The housing is supplied with a wall bracket.
 - 3) The housing shall be available with a heater unit external unit only.
 - 4) The housing shall have an environmental rating of IP66.
 - 5) The housing shall operate at temperatures between 0 to 50°C without a heater/fan unit or between -40 and 50°C with a heater unit.
 - 6) The housing shall have a gray finish RAL 7035.
 - c. The electrical specifications for the housing shall be as follows:

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- 1) Operating voltage: 24VAC \pm 4VAC
- 2) Power, start-up: 25VA (less than 0.5 sec)
- 3) Power, running: 20VA
- 4) Power, start-up, with heater and fan unit: 93VA
- 5) Power, running, with heater and fan unit: 45VA
- d. The physical specifications for the housing shall be as follows:
 - 1) Dimensions of 303mm high by 241mm diameter at its widest point.
 - 2) Weight (including housing, heater/fan unit, bubble and pan/tilt unit) 3.87Kg.
14. Rugged Vandal Resistant pendant-mount housing
 - a. The housing shall be weatherproof and designed for outdoor applications that require tamper resistance.
 - b. The housing shall be available with a heater unit.
 - c. The housing shall have an environmental rating of IP66.
 - d. The housing shall operate best at temperatures between 0 to 50°C without a heater unit or between -40 and 50°C with a heater unit.
 - e. The housing is of cast Aluminium construction.
 - f. The housing shall have a gray finish RAL 7035.
 - g. The electrical specifications for the housing shall be as follows:
 - 1) Operating voltage: 24VAC \pm 4VAC
 - 2) Power, start-up: 25VA (less than 0.5 sec)
 - 3) Power, running: 20VA
 - 4) Power, start-up, with heater unit: 153VA (less than 0.5 sec)
 - 5) Power, running, with heater unit: 66VA
 - h. The physical specifications for the housing shall be as follows:
 - 1) Dimensions of 283mm high by 241mm in diameter at its widest point by.
 - 2) Weight (including housing, heater/fan unit, bubble and pan/tilt unit) 5.68Kg.
15. The PowerDome II dome bubbles shall meet or exceed the following specifications:
 - a. The bubble shall be available in the following:
 - 1) Clear acrylic (no light loss)
 - 2) Smoke acrylic (approximately 1/2 f-stop light loss)
 - 3) Chrome mirrored acrylic (approximately 2 f-stop light loss)
 - 4) Gold mirrored acrylic (approximately 2 f-stop light loss)
 - 5) Polycarbonate clear (no light loss)
 - a) The polycarbonate clear bubble shall be available for heavy duty and vandal resistant housings only.
 - 6) Polycarbonate smoke (approximately 1/2 f-stop light loss)
 - a) The polycarbonate smoke bubble shall be available for heavy duty and vandal resistant housings only.
 - b) Each bubble shall include interlocking clips and safety cables, which vary depending on bubble and housing.
16. The PowerDome II dome shall have a variety of optional mounting accessories available.
 - a. The cast-Aluminium wall-mount bracket will mount a dome to a vertical surface.
 - 1) The wall-mount bracket shall be for indoor or outdoor use.
 - 2) The wall-mount bracket shall be usable with both the cast Aluminium outdoor rugged pendant housing and the plastic indoor and outdoor pendant housing.
 - 3) The bracket shall require a minimum load of 45Kgs when used with the rugged pendant housing.
 - 4) The bracket shall require a minimum load of 22.7Kgs when used with the plastic pendant housing.
 - 5) The wall-mount bracket shall be capable of direct attachment to a vertical surface or mated with a corner-mount, pole-mount or roof-mount bracket.

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- 6) The wall-mount bracket shall have the following additional specifications:
 - a) Weight: 0.91Kg
 - b) Construction: Aluminium
 - c) Finish: Gray RAL 7035
- b. The parapet swing-bracket mount will mount a dome to a roof parapet.
 - 1) The parapet swing-bracket mount shall be able to swing the dome out from a building and in above a roof for a broad range of surveillance coverage and easier servicing.
 - 2) The parapet swing-bracket mount shall require a minimum load of 45Kgs when used with any PowerDome II housing.
 - 3) The parapet swing-bracket mount shall have the following additional specifications:
 - a) Weight: 3.52Kg
 - b) Construction: Aluminium
 - c) Finish: Gray powder coat RAL 7035
- c. The corner-mount adapter will mount a dome to the corner of a building.
 - 1) The corner-mount adapter shall be usable with a wall-mount bracket.
 - 2) The adapter shall also be able to mount a power supply.
 - 3) The adapter shall require a minimum load of 45Kgs when used with the rugged housings and a minimum load of 22.7Kgs when used with all other housings.
 - 4) The adapter shall have the following additional specifications:
 - a) Weight: 0.86Kg
 - b) Construction: Aluminium
 - c) Finish: Gray powder coat RAL 7035
- d. The pole-mount adapter will mount a dome to a pole.
 - 1) The pole-mount adapter attaches to the pole using bolts or three adjustable stainless-steel bands, not included with the adapter.
 - 2) The adapter shall be use with a wall-mount bracket or gooseneck wall-mount bracket to suspend the dome.
 - 3) The adapter can mount the VPD-PSU2e power supply.
 - 4) The adapter shall require a minimum load of 45Kgs when used with the rugged housings and a minimum load of 22.7Kgs s when used with all other housings.
 - 5) The adapter shall have the following additional specifications:
 - a) Weight: 0.408Kg
 - b) Construction: Aluminium
 - c) Finish: Gray powder coat RAL 7035
- e. The roof-mount adapter will hinge a dome back over a roof for safe servicing.
 - 1) The roof-mount adapter shall be usable with a wall-mount arm to suspend the dome.
 - 2) The adapter shall require a minimum load of 45Kgs when used with the rugged housings and a minimum load of 22.7Kg when used with all other housings.
 - 3) The adapter shall have the following additional specifications:
 - a) Weight: 0.54Kg
 - b) Construction: Aluminium
 - c) Finish: Gray powder coat RAL 7035

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- f. The T-bar ceiling panel will assist in the installation of the flush-mount housings into panelled T-bar type ceilings, which consist of a grid of metal T-bars supporting removable panels.
 - 1) Each T-bar ceiling panel shall measure 600 x 600mm in. to replace one 24 x 24 in. removable ceiling panel or half of one 600 x 1200mm in. removable ceiling panel.
 - 2) The panel shall require a minimum load of 22.7Kg when used with the flush-mount housing.
 - 3) The panel shall have the following additional specifications:
 - a) Weight: 0.09Kg
 - b) Construction: Steel
 - c) Finish: White enamel
- g. The T-bar support kit will assist in the installation of the flush-mount housings into panelled T-bar type ceilings, which consist of a grid of metal T-bars supporting removable panels.
 - 1) The T-bar support kit shall include one ceiling ring, two angle brackets and mounting hardware.
 - 2) The kit shall distribute the weight of the dome between the T-bars of the ceiling for greater stability.
 - 3) The kit shall require a minimum load of 22.7Kg when used with the flush-mount housing.
 - 4) The kit shall have the following additional specifications:
 - a) Weight: 0.181Kg
 - b) Construction: Steel
 - c) Finish: Galvanized
- D. The camera and pan/tilt unit shall conform to these internationally recognized compliance standards:
 - 1. FCC
 - 2. CE
 - 3. C-Tick
 - 4. UL
 - 5. RoHS

The dome shall be a **PowerDomeII**