

## VTD-HOCR2812/V 2.0MP HD-SDI IP68 Vandal Resistant WDR Dome Camera



## **FEATURES:**

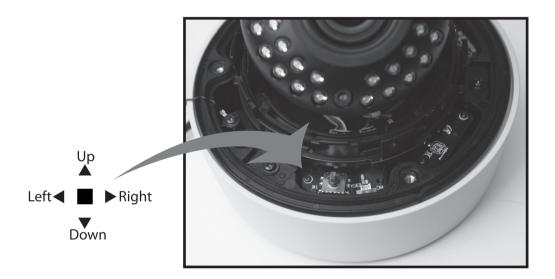
- 1/2.9" Sony® CMOS (IMX222)
- 2.0 MegaPixel With full 1080p/720p HD-SDI Output (SMPTE 292M)
- 40 850nm Dynamic Intensity IR LEDs with 150' Range
- 2MegaPixel IR Corrected 2.8-12mm Varifocal Lens Included
- Mechanical IR Cut Filter (True Day/Night)
- 16:9 Video format
- Advanced OSD Functions: WDR, 3D-DNR, Night Watch DSS Low Light Color Technology, ACE (Adaptive Color Enhancement), Motion Detection, Privacy, Digital Zoom, HLM, Flip, Mirror
- 100% Pure Digital Transmission of video data
- Up to 700' HD Transmission Range (Depending on cable characteristics and integrity)
- 12VDC / 24VAC Dual Voltage Operation
- Available in Ivory or Black





## **SETTINGS**

OSD controls are located inside the camera.



- 1. Depress the joystick to enter the setup menu.
  - The Setup menu is now displayed on the monitor

## **MENU**

## **SETUP MENU**

## **EXPOSURE**

SENS\_UP BRIGHTNESS LENS AE MODE SHUTTER AGC DOUT SCALE FREQ RETURN

## WHITE BAL

AWB CHROMA RETURN

## **IMAGE**

SHARPNESS DEFOG DZOOM MIRROR FLIP FREEZE PRIVACY SHADING HLM ACE RETURN

## WDR / BLC

OFF WDR BLC

#### **DAY&NIGHT**

MODE RETURN

## DNR

OFF LOW MIDDLE HIGH

## MOTION

OFF SET

## **SERIAL**

CAM ID ID DISPLAY BAUDRATE RETURN

## **SYSTEM**

DEFECT DET GAMMA **IMAGE FORMAT** CVBS FRAME FOCUS ADJ FACTORY SET RETURN

## **EXIT**

#### **MENU**

Select any function you wish to operate by pushing the joystick Up or Down.



Modes can be changed pushing the joystick Right or Left.

- 3. Please press the button Right or Left if you wish to change mode.
  - When the button is pressed Right or Left, available values and mode are displayed in order. Please keep **pressing** the button until you get the mode you wish.
- 4. Please select "EXIT" and then press the button to finish the setting.

#### **★ EXPOSURE**

- When the SETUP menu screen is displayed, select EXPOSURE by pushing the joystick up or down so that EXPOSURE is highlighted.
- Select a desired mode using the Right and Left buttons.





- SENS UP: OFF / x2 / x3 / x4 / x5 / x6 / x7 / x8
  - Brighter video can be obtained by increasing the exposure time at night with SENS-UP. SENS-UP is the maximum integrations of frame by DSS (Digital Slow Shutter) in low light.
  - Higher SENS-UP can get brighter video but slower frame rates with motion blur and more white pixels.
  - When "SENS\_UP" is on, shutter cannot be adjusted.
- BRIGHTNESS: Adjusts the brightness of video(0~20).
- LENS: When using BUILT -IN LENS, the type of the lens is able to fix, ( DC / MANUAL )
- AE MODE : Manual Lens mode : you can select NORMAL / DEBLUR
   DC Lens mode : you can select INDOOR / OUTDOOR / DEBLUR
- SHUTTER:
  - You can select either auto or manual shutter. (1/30, 1/60, 1/120, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000, 1/60000)
  - Shutter is set to "Manual" when DC Lens is selected
  - Shutter is set to "Auto" when Manual Lens is selected
- AGC (Auto Gain Control)
  - The higher the gain level, the brighter the screen but the higher the noise.
- IMAGE SCALE:
  - You Can Select FULL / COMP / USER
  - The available image to level is (0~20)
- FREQ (AC Power Frequency Set)
  - You can select either 50Hz or 60Hz

#### RG WHITE BAL

- Use the White Balance function to adjust the screen color.
- When the SETUP menu screen is displayed, select 'White Bal.' by using the Up and Down buttons so that WHITE BAL is highlighted and press enter.
- Select a desired mode using the Right and Left buttons.







#### - AWB

- AUTO
  - : Default This function continuously adjusts the white balance automatically to adapt to changes in lighting conditions.
- AUTOext
  - : When Halogen or other specialty lighting is used.
- PRESET
  - : This function adjusts the white balance regardless of the subject conditions.
- MANUAL

KELVIN: LOW / MIDDLE / HIGH

R-GAIN: Left Key (Level DECREMENT), Right Key (Level INCREMENT) B-GAIN: Left Key (Level DECREMENT), Right Key (Level INCREMENT)

**RETURN** 

- CHROMA

: Left Key (Level DECREMENT), Right Key (Level INCREMENT)

- RETURN

#### NOTE

- Under the following conditions the WHITE BALANCE function may not operate properly. In such cases, please select the AWB mode.
- When the object's surroundings have a very high color temperature (ex, a clear sky and sunset)
- When the object's surroundings are dark
- If the camera directly faces a fluorescent light or is installed in a place where there are considerable changes in illumination, the WHITEBALANCE function may become unstable.

#### **IMAGE**





- -SHARPNESS: Set from 0-10 (set too high and color will fade)
- DEFOG: MODE (you can select AUTO / MANUAL)
  LEVEL (you can select LOW / MIDDLE / HIGH)



- -DZOOM: Adjustable zoom from 0~127, 127= 8 X
- MIRROR / FLIP: You can select function by using LEFT or RIGHT button.







OFF

MIRROR (ON)

FLIP (ON)

- -FREEZE: The video can be stopped.
- PRIVACY: This modes conceals the areas you do not wish to appear on the screen.
- SHADING : When using wide angle lens, you can compensate darkness of corner on the screen.
- HLM (High Light Mask): HLM function is to mask temporary bright lights from washing out the picture, i.e. Headlights



- LEVEL : Increase or decrease the level of HLM
- COLOR: WHT / YEL / CYN / GRN / MAG / RED / BLU / BLK
- RETURN
- ACE (Adaptive Color & Contrast Enhancement): OFF, LOW, MIDDLE, HIGH ACE black performs an image Enhancement processing to enhance visibility of an image by changing the brightness values to the level that people can recognize the change. This processing technique is equivalent to the dynamic range reduction technique. Which converts the HDR ( High Dynamic Range ) into the restricted LDR ( Low Dynamic Range )
- RETURN

### WDR / BLC

• OFF: function does not operate.







WDR (ON)



WDR (OFF)

- WDR (Wide Dynamic Range)
  - The Wide Dynamic Range feature improves the overall picture balance beyond the Backlight Compensation feature. It creates an optimal balance of brightness and color by combining images from a bright area (high shutter speed) and images from a dark area (low shutter speed).
- WDR WGT : The available range of level is  $0\sim4$
- RETURN
- BLC (Backlight Compensation)
   Improves the visibility of bright backlight. Outside area of BLC window can over saturate. BLC has a target window for compensation and its size and position can be set.





- BLC WINDOW: You can choice ON or OFF
- BLC POS-X: The available range of level is  $0\sim20$
- BLC POS-Y: The available range of level is  $0\sim20$
- BLC SIZ–X : The available range of level is  $0\sim20$
- BLC SIZ-Y: The available range of level is  $0\sim20$
- RETURN

#### **DAY&NIGHT**



• AUTO: The camera will automatically show color image in high lux and black / white image in low lux.

\* Do not use with cameras that have built in IR's





EXTERN: Select this when the Day/Night is controlled by CDS sersor.
 \* Use with cameras that have built in IR's





- ANTI-SAT. This function is effective with built-in LED models in NIGHT mode only. If subjects which can cause overexposure are located near the monitored area, you can adjust IR level 0~20
- CDS D>>N This is the threshold for the camera switching from Day to Night (light level) 0~255
- CDS D<<N This is the threshold for the camera switching from Night to Day (light level) 0~255
- DELAY Time delay before camera switches from Day to Night or Night to Day

#### D DNR

DNR (Digital Noise Reduction)

 DNR is a technique of removing image noise from a video signal by applying a digital comb filter. It makes images clearer and reduces video file size.



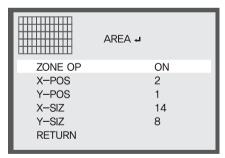
- OFF: DNR function does not operate.
- LOW / MIDDLE / HIGH: You can select 'LOW', 'MIDDLE' or 'HIGH' menu as DNR condition.

#### **MOTION**

This product has a feature that allows you to observe movement of objects in 3 different areas on the screen, and the words 'MOTION' appear on the screen when movement is detected.







- OFF: Motion detection is OFF
- SET: Select to configure motion detection areas
- 1. Motion Zoom: Adjust the Zoom level incrementally from 0~127 (Effectively up to 8x Digital Zoom)
- 2. Sensitivity: Adjust the sensitivity based on contrast change incrementally from 0~20
- 3. Target Size: Adjust the sensitivity based on mass incrementally from 0~255
- 4. Area: Adjust the Motion Detection area using up to 16 'blocks'

## RG SERIAL



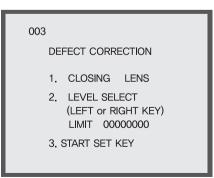


- CAM ID: You can select camera ID from 0 to 254 when using remote control.
- ID DISPLAY: You can select ID ON or OFF
- BAUDRATE: You can select 2400 / 4800 / 9600 / 19200/ 38400 / 57600 / 115200 bps. Support "Pel-D protocol"

#### **※ SYSTEM**







#### - DEFECT DET

- OFF: DEFECT DET Mode is off.
- ON: Close the lens to block the light.
- · Adjust left & right buttons and press "SET" button to automatically start the mode.
- GAMMA SET: You Can Select 0/1/2/3/4
- IMAGE FORMAT: You can select (1080P / 720P)
- CVBS: you can select ( NTSC / PAL )
- FRAME: 1080P: Set output frame to 30 or 25, (NTSC or PAL mode)

720P: Set output frame to 60 or 50, (NTSC or PAL mode)



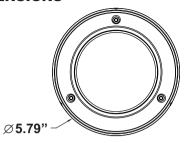
- FOCUS ADJ: - Menu > Focus Assist > On

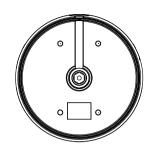
After entering FOCUS ADJ a box with 3 different boxes within will appear on screen. Each box is to aid in focusing of different scene contrasts, LEFT box for low contrast MIDDLE box for medium contrast and RIGHT box for high contrast. Adjust focus so no green will be in box of selected contrast.

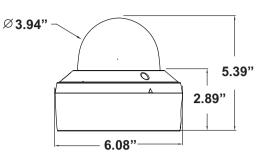
- FACTORY SET: Factory initialize

- RETURN

## **DIMENSIONS**

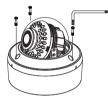






#### **INSTALLATION**

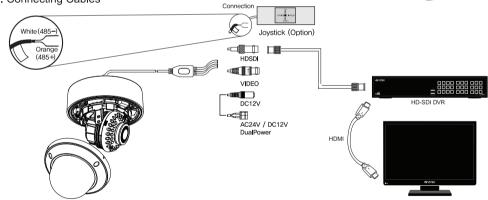
1. Opening Use the allen wrench to open the cover. 2. Place the camera in the desired location and install using the screws supplied.



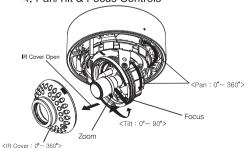




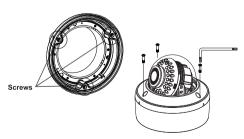
3. Connecting Cables



4. Pan/Tilt & Focus Controls



5. Use the allen wrench to close the cover.



Detailed Specifications	
Sensor	1/2.9" Sony® CMOS (IMX222)
Resolution	2.1 MegaPixel (1080p / 720p)
S/N	More than 52 dB (AGC Off)
Video Output	1x HD-SDI (BNC) / 1x SD CVBS (BNC)
IR Illuminators	40 IR LEDs
IR Color Temp.	850nm
IR Range	150'
Dynamic Intensity IR LEDs	YES
Lens	MegaPixel IR Corrected 2.8-12mm Varifocal
Digital Zoom	0 ~ x127
Minimum Illumination	1 Lux at F1.2 / O.1 Lux (B/W) / O Lux with IR On
Day/Night	Mechanical IR Cut Filter (True Day/Night)
Electronic shutter speed	Auto / Manual (1/30sec ~ 1/30,000sec)
White Balance	ATW / One Push / Manual
Brightness	Adjustable (0 ~ 20 Steps)
DSS (Sens-Up)	YES
DNR	3D-DNR
WDR	YES
Privacy	YES (32 Zones)
Motion Detection	YES
ACE (Adaptive Color Enhancement)	YES
Advanced OSD Functions	HLM, Flip, Freeze, Sharpness, Mirror
Communication	RS-485 (Pelco® D)
HD Transmission Range	Up to 700' (Depending on cable characteristics and integrity)
Weather Resistance Rating	IP-68
Operating Conditions	14°-122°F (-10°-50°C) < 80% RH
Input Voltage	12VDC / 24VAC (Dual Voltage)
Power Consumption (12VDC)	300mA / 700mA (IR OFF/ON)
Power Consumption (24VAC)	125mA / 300mA (IR OFF/ON)
Dimensions	5.85" x 4.75" (Dia. x H)



## OTHER PRODUCTS FROM VITEK On Cue HD-SDI Video Recorders



# VT-HDOC Series On Cue Series 4, 8, & 16 Channel HD-SDI Video Recorders

- 4, 8, or 16 Channel HD-SDI Inputs (Universal) with Full1080p, 720P, 960H & D1 Camera Support
- · Simple plug and play, point-to-point connection from camera to DVR
- Pentaplex Operation (Multi-Channel Live-View, Playback, Recording, Backup, Network)
- VT-HDOC16: 480fps Live Display, Recording & Playback at 720p/1080p
- VT-HDOC8: 240fps Live Display, Recording & Playback at 720p/1080p
- VT-HDOC4: 120fps Live Display, Recording & Playback at 720p/1080p
- HDMI, VGA, and BNC Spot Output / Alarm In & Out / 4 Channel Audio In
- VT-HDOC 4 & 8 offer 2 Internal SATA2/SATA3 HDD Slots supporting up to 8TB (2 x 4TB HDD) using Advanced HDD Format (VT-HDOC16 Offers 5x SATA Slots for up to 20TB Internal Storage)
- External SATA Port (eSATA) supporting up to 5x External HDDs
- Remote Viewing via CVS Software, Web Browser, and Mobile Phones (iOS/Android)
- Viewing multiple Recorders with included CVS Software
- Adjustable Motion Detection Grid
- Thumbnail / Panorama Search

## LIMITED LIABILITY WARRANTY

VITEK products carry a three (3) year limited warranty. VITEK warrants to the purchaser that products manufactured by VITEK are free of any rightful claim of infringement or the like, and when used in the manner intended, will be free of defects in materials and workmanship for a period of three (3) years, or as otherwise stated above, from the date of purchase by the end user. This warranty is nontransferable and extends only to the original buyer or end user customer of a VITEK Authorized Reseller.

The product must have been used only for its intended purpose, and not been subjected to damage by misuse, willful or accidental damage, caused by excessive voltage or lightning.

The product must not have been tampered with in any way or the guarantee will be considered null and void.

This guarantee does not affect your statutory rights.

Contact your local VITEK Reseller should servicing become necessary.

VITEK makes no warranty or guarantee whatsoever with respect to products sold or purchased through unauthorized sales channels. Warranty support is available only if product is purchased through a VITEK Authorized Reseller.



28492 CONSTELLATION ROAD VALENCIA, CA 91355 WWW.VITEKCCTV.COM