BENESTON ®

USER MANUAL

VCC-7400SDI-H

Features:

❈ 1/2.8" Mega Pixel Image Sensor

❈ Approximately 2 Mega Pixels

❈ Video Output: HD 1080P@60fps/50fps

❈ 3D-NR/Smart NR/Sense-up/Digital Zoom
   Functions etc.

❈ High-quality IR Cut Filter

CAUTIONS:

1. Please don't touch the sensor and lens with your hand.

2. Please don't install the camera in following unstable conditions shake, rain, too hot, too cold etc.

3. The recommended conditions of the installation are temperature from -10 to 50℃ and moisture under 85%.

4. Please kindly contact your sales person in case you have any questions on assembly or installation.

Attachment:

1. One User Manual

2. Tools & Installation Screws

Menu Function Introduction:

MAINMENU:

```
          MENU

IRIS          ELC
FOCUS ADJ     OFF
EXPOSURE      ↵
BACKLIGHT     OFF
DAY&NIGHT     EXTERN ↵
COLOR         ↵
DNR           MIDDLE
IMAGE         ↵
MOTION        OFF
SYSTEM        ↵
EXIT
```

MENU ADJUSTMENT:

Press Menu button to enter mainmenu, and then main menu options will display on the screen. Use the UP/DOWN Button to move cursor to different menu options, and use the LEFT/RIGHT Button to set or adjust the menu parameter. Please press Menu Button to EXIT after finishing adjustment.

SUB-MENU:

```
        EXPOSURE

BRIGHTNESS   Iiiiiiliiiiil 10
SHUTTER      AUTO ↵
SENS-UP      X2
AGC          Iiiiiiliiiiil 10

RETURN
```

SUBMENU OPTION:

Some menu options have its submenus, if the right side of menu option display., please press Menu button to enter submenu for parameter settings.

1. IRIS

   Select the lens type, ELC/ALC selectable. Default setting is "ELC".

   ELC: Eletronic Light Control, for Manual Iris lens. ALC: Automatic Light Control, for DC Iris lens

2. FOCUS ADJ

   This function is to help you make cameras focus well of all area. When it is activated

3. EXPOSURE

   1) BRIGHTNESS: Setting output brightness. Default setting is 10.

   2) SHUTTER: Selecting shutter mode: AUTO / Manual / FLIK and it is also adjustable from
      1/25-1/50000. It is adjustable from X2-X30 under Sense-up condition. Default setting is "AUTO".

   3) SENSE-UP: OFF/X2/X3/X4/X5/X6/X7/X8. It is only available under the AUTO shutter mode.
      Default setting is "X2".

   4) AGC: Setting from 0 to 10. Default setting is 10.

4. BACKLIGHT

   Backlight compensation: OFF / HLC / BLC / WDR

   ● SUBMENU OF HLC:

      LEVEL: Setting the sensitivity of compensation area. Default setting is "10".

      COLOR: Setting the color of high light compensation area, including BLK(black) / WHT(white) /
               YEL(yellow) / CYN(cyan) / GRN(Green) / MAG(magenta) / RED(red) / BLU(blue).

      Default setting is "BLK".

   ● SUBMENU OF BLC:

      BLC OSD:

      H-POS: setting the position of the range of backlight area to left and right. Default setting is "8".

      V-POS: setting the position of the range of backlight area in the ZONE NUM to up and down.
               Default setting is "7".

      H-SIZE: increase and decrease the size of the range of backlight area horizontally.
               Default setting is "3".

      V-SIZE: increase and decrease the size of the range of backlight area in the ZONE NUM vertically.
               Default setting is "3".

   ● SUBMENU OF WDR

      WEIGHT: Setting the effect, LOW / MIDDLE / HIGH selectable Default setting is "MIDDLE".

      RETURN: return to upper menu

5. DAY&NIGHT

   Setting day and night mode, EXTERN / AUTO / COLOR / B&W selectable.

   EXTERN: select this when the color is controlled by CDS sensor.

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

   COLOR: only displayed color image.

   B&W: only displayed black/white image.

   ● SUBMENU OF EXTERN DAY & NIGHT

```
           DAY & NIGHT
ANTI-SAT      Iiiiiiliiiiil 7
EXTERN S/N    LOW
AGC THRES     Iiiiiiliiiiil 11
AGC MARGIN    Iiiiiiliiiiil 8
DELAY         LOW
RETURN
```

6. COLOR

   1) AWB: Setting the white balance mode: AUTO / AUTOext / PRESET / MANUAL selectable.

   2) COLOR GAIN: Setting the thickness of color, from 0~20. Default setting is "10".

   ● SUBMENU OF MANUAL WHITE BALANCE:

      1) C-TEMP: Setting the color temperature of surveillance area, 3000K / 5000K / 8000K selectable.

      2) R-GAIN: Setting red gain from 0~20. Default setting is "10".

      3) B-GAIN: Setting blue gain from 0~20. Default setting is "10".

7. DNR

Digital noise reduction setting, LOW / MIDDLE / HIGH selectable. Default setting is "MIDDLE".

8. IMAGE

1) SHARPNESS: setting the sharpness, it is adjustment from 0-10. Default setting is 5.

2) GAMMA: setting the output GAMMA characteristic, 0.45/0.55/0.65/0.75 selectable.
Default setting is "0.55"

3) MIRROR: setting mirror function, ON / OFF selectable. Default setting is "OFF".

4) FLIP: setting flip function, ON / OFF selectable. Default setting is "OFF".

5) D-ZOOM: setting digital zooming function, it is selectable from 1X~16X. Default setting is "1X".

6) ACE: setting adaptive contrast enhancement in outputting analog signal. OFF / LOW / MIDDLE / HIGH selectable. Default setting is "OFF".

7) DEFOG: setting fog penetrating function, OFF / LOW / MIDDLE / HIGH selectable.
Default setting is "OFF".

8) SHADING: setting shading compensation when using wide angle lens. OFF / ON selectable.
Default setting is "OFF".

9) PRIVACY: setting private protection area, OFF / ON selectable. If turn the PRIVACY function ON, then could enter the submenu to set. Press ZONE NUM to set the privacy protection areas, 0-15 areas are selectable in "BOX" mode, 0-7 areas are selectable in "POLYGON" mode..

ZONE DISP: turn the ZONE DISP function ON, then privacy protection area will display in screen.

H-POS(POS-X): setting the position of the range that you selected in the ZONE NUM to left and right.Selectable range from 0~60.

V-POS(POS-Y): setting the position of the range that you selected in the ZONE NUM to up and down.Selectable range from 0~40.

H-SIZE: increase and decrease the size of the range that you selected in the ZONE NUM horizontally.Selectable range from 0~60.

V-SIZE: increase and decrease the size of the range that you selected in the ZONE NUM vertically.Selectable range from 0~40.

Y-LEVEL: setting the luminance level of privacy area. It's selectable from 0~20, default setting is "10".

CB LEVEL: setting the blue thickness in privacy area. It's selectable from 0~20, default setting is "10".

CR LEVEL: setting the red thickness in privacy area. It's selectable from 0~20, default setting is "10".

TRANS: setting the transparency of privacy area. 0 / 1 / 2 / 3 selectable, default setting is "3".

RETURN: return to upper menu.

10) RETURN: return to upper menu

9. MOTION

Motion detection setting, OFF / ON selectable

1) DET WINDOW: setting the area of motion detection.

WINDOW USE: choosing motion detection area, 0 / 1 / 2 / 3 selectable.

WINDOW ZONE: Press right of left button to active this function when display "ON". Then motion detection will work in this area you choose in "WINDOW USE".

DET H-POS: setting the position of the range in the motion detection area to left and right.

DET V-POS: setting the position of the range of motion detection area to up and down.

DET H-SIZE: increase and decrease the size of the range of motion detection horizontally.

DET V-SIZE: increase and decrease the size of the range of motion detection horizontally.

2) SENSITIVITY: setting the sensitivity of motion detection, it is selectable from 0-10.
Default setting is "5".

3) MOTION OSD: Press right or left button to active this function when display "ON".
Then you can see red box in the screen to remind of motion objects.

4) TEXT ALARM: Press right or left button to active this function when display "ON".
Then you can see "MOTION" in the screen to remind of motion objects.

5) SIGNAL OUTPUT: Press right or left button to active this function when display "ON".

6) RETURN: return to upper menu

10. SYSTEM

1) COM.: Selecting setting camera ID display.
   - SUBMENU OF COM.
   COM.:
   BAUDRATE: setting the baud rate of this camera.
   RETURN: return to upper menu.

2) IMAGE RANGE: setting image range, FULL / CROP / USER selectable

3) COLOR SPACE: HD-CbCr / YUV / SD-CbCr

4) FRAME RATE: setting output SDI signal resolutions, 1080-60p / 1080-50p

5) FREQ: Press right and left to choose signal system, 50HZ / 60HZ selectable. 50HZ for PAL,60HZ
for NTSC.

6) COLOR BAR.: setting "ON" to active this function, then you will see many bar of different colours
in the screen. If set "OFF", COLOR BAR will be closed.

7) CVBS: setting the output signal system, PAL / NTSC selectable.

8) LANGUAGE: setting the language of OSD menu, ENG / CHN / JPN / KOR / RUS / ITA / DUT / DEU /
FRE selectable.

9) CAM TITLE: setting the ID of this camera, it is 8-bit ID made of A-Z or 0~9. Default setting is
"00000000". Press up and down to choose character, left and right to choose the
position of character, Press enter to return to the upper menu.

10) RESET: continuously press OSD button to let all settings back to factory default, except
"FRAME RATE" "FREQ" "LANGUAGE".

11) RETURN: return to upper menu.

11. EXIT
Exit the OSD menu.

SPECIFICATIONS:

Solution	1/2.8" Mega Pixel Sensor Signal
System	PAL / NTSC
Sync System	Internal Sync
Effective Pixels	2.0 Mega Pixels
Horizontal Resolution	PAL: 1920X1080P 50FPS NTSC: 1920X1080P 60FPS
OSD Menu	Support (WDR / 3D DNR / Sense-up / Digtial Zoom …etc functions)
Video Output	HD-SDI (SMTPE 292M) / CVBS: 1.0Vp-p 72ohm
S/N Ratio	More than 50dB
White Balance	Auto Tracking White Balance
Shutter Speed	1/25-1/50000
Minimum Illumination	0.5 Lux
Working Temperature	-10°C~50°C
Storage Temperature	-20°C~60°C
Power Requirement	DC 12V Max Power Consumption Less than 5W(When Leds ON)