Intense IR HD-TVI 1080p 2MP Indoor IR Dome Camera
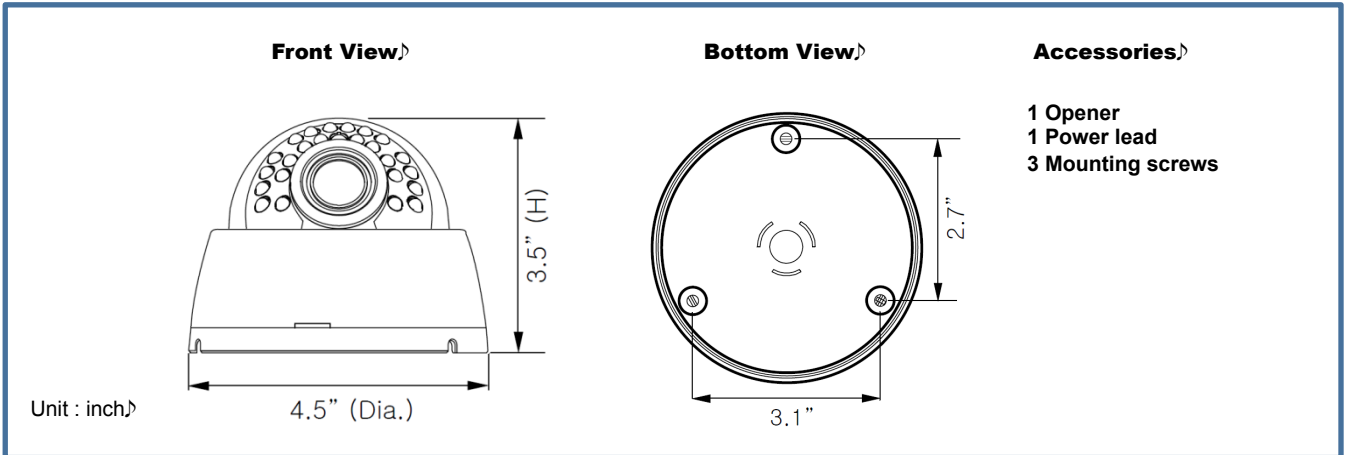## Wall/Ceiling Mount, UTC, 2BNC out for TVI & CVBS, Dual voltage
HLED33DTW – 2.8~12mm varifocal lens, white housing
HLED33DTB – 2.8~12mm varifocal lens, black housing

speco technologies

DIMENSIONS

Front View♪

3.5" (H)

4.5" (Dia.)

Unit : inch♪

Bottom View♪

2.7"

3.1"

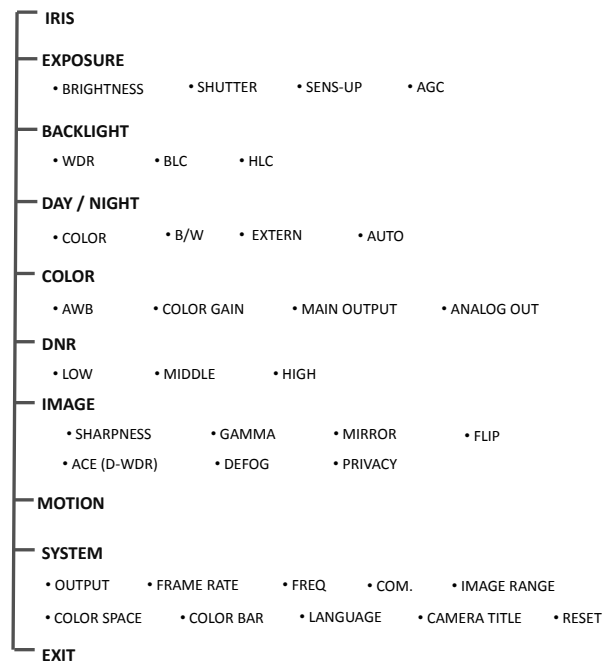**Accessories♪**

1 Opener
1 Power lead
3 Mounting screws

FEATURES

• Full HD resolution over coax (HD-TVI)

• Supports up to Full HD 1080p @ 30fps

• Superior low-light performance

• True day/night operation – mechanical IR cut filter

• 24 IR LEDs (IR range 70')

• 3-axis for wall and ceiling mounting

• Full OSD operation thru on-board control and UTC (up the coax)

• Additional 960H analog output (**BNC out in Yellow**)

• Signal distance up to 1600 feet*

• **12VDC/24VAC** dual voltage operation

• 5 year warranty

SPECIFICATIONS

Image Sensor.................. 1/3" Progressive Scan CMOS, 2MP
Minimum Illumination....... 0.00 lux (IR LED on)
IR LED Wavelength......... 850nm
Effective Pixels............... 1984 (H) x 1105 (V)
Total Pixels...................... 2000 (H) x 1121 (V)
Scanning System............ Progressive
S/N Ratio......................... More than 50dB
Output Resolution............ 1920x1080 @ 30fps
Video Output.................... 1.0Vp-p / 75 Ohms
Electronic Shutter........... Auto / Manual (1/30 – 1/30,000 sec.)
Day / Night...................... Auto / Color / BW / External
Test Monitor Output......... CVBS (BNC out in Yellow)
Communication............... UTC (up the coax) or built-in joystick
Power............................. 12VDC / 24VAC
Power Consumption........ 12VDC, 350mA max.
Operating Temperature.... -4° F – 122° F
Unit Dimensions.............. 3.5" (H) x 4.5" (Dia.)
Unit Weight..................... 8 oz.
Certifications.................. FCC, RoHS
Signal Distance.............. Up to 1600 feet
(depending on coax quality)*

OSD MENU TREE (through UTC or On-board Joystick)

- **IRIS**
- **EXPOSURE**
  - • BRIGHTNESS   • SHUTTER   • SENS-UP   • AGC
- **BACKLIGHT**
  - • WDR   • BLC   • HLC
- **DAY / NIGHT**
  - • COLOR   • B/W   • EXTERN   • AUTO
- **COLOR**
  - • AWB   • COLOR GAIN   • MAIN OUTPUT   • ANALOG OUT
- **DNR**
  - • LOW   • MIDDLE   • HIGH
- **IMAGE**
  - • SHARPNESS   • GAMMA   • MIRROR   • FLIP
  - • ACE (D-WDR)   • DEFOG   • PRIVACY
- **MOTION**
- **SYSTEM**
  - • OUTPUT   • FRAME RATE   • FREQ   • COM.   • IMAGE RANGE
  - • COLOR SPACE   • COLOR BAR   • LANGUAGE   • CAMERA TITLE   • RESET
- **EXIT**

OSD MENU Details

IRIS : Controls various settings related to the lens.
   ELC (Electronic Light Control) : Used with manual lens only, stay with this mode for this item.

EXPOSURE : Adjusts exposure settings.
   BRIGHTNESS : Adjusts image brightness. (0~ 20)
   SHUTTER : Auto / Manual Shutter can be selectable
   - AUTO : Shutter can be selectable automatically.
   - FLICKER(Flicker Less) : Selects this when picture flickering. The picture flickering can be caused by a clash with the frequency of the installed lighting.
   - Manual : Controls the shutter speed manually from 1/30 ~1/30000
   SENS-UP : Sets the desired multiple of the digital exposure length.
         (OFF/x2 ~ x32)
   AGC(Auto Gain Control): Adjusts the AGC level. (0~10)

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200 New Highway, Amityville, NY 11701
800-645-5516 / www.specotech.com

OSD MENU Details

BACKLIGHT : Adjusts backlight options.
WDR : WDR illuminates darker areas of an image while retaining the
    same light level for brighter areas to even out the overall brightness
    of images with high contrast between bright and dark area
      - Adjusts the WDR Weight (LOW/MIDDLE/HIGH)
      <u>* CVBS out cannot adjust this function.</u>
BLC : Produces a clearer image of an object darkened by strong backlighting.
  - H-POS : Adjusts the horizontal position(0~20)
  - V-POS : Adjusts the Vertical position(0~20)
  - H-SIZE : Adjusts the horizontal block size (0~20)
  - V-SIZE : Adjusts the vertical block size (0~20)
HLC : Uses to contain extremely bright areas such as from car headlight,
    the light can be masked out much of the on-screen details.

DAY / NIGHT : Adjust Day / Night options.
COLOR : Always Color mode.
B/W : Always B/W mode.
  - ANTI-SAT. : Adjusts the Anti Saturation level (0~20)
EXT : This mode allows you to apply a desired filter to external signals.
  - ANTI-SAT. : Adjusts the Anti Saturation level (0~20)
  - EXTERN S/W : Selected at manufacturer side
  - D → N LEVEL (0~20) : Selected at manufacturer side
  - N → D LEVEL (0~20) : Selected at manufacturer side
  - DELAY : Adjusts the changing delay time (LOW/MIDDLE/HIGH)
AUTO : please do not use this function.
  - ANTI-SAT. : Adjusts the Anti Saturation level (0~20)
  - AGC THRES : Adjusts AGC THRES (0~20)
  - AGC MARGIN : Adjusts AGC margin (0~20)
  - DELAY : Adjusts the changing delay time (LOW/MIDDLE/HIGH)

COLOR : Adjusts white balancing options.
AWB : it goes to optimized color level automatically.
COLOR GAIN : Sets the desired Color Gain value (0~20)
MAIN OUTPUT : ANALOG OUT (stay as it is)
ANALOG OUT : TVI (stay as it is)

DNR : Uses to reduce the background noise in a low luminance environment
    with 2D + 3D filtering system.
      - Adjusts the DNR level (LOW/MIDDLE/HIGH)

IMAGE : Adjusts various image options.
SHARPNESS: Adjusts sharpness level. Increasing this value, the picture
      outline becomes stronger and clear. (0~10)
GAMMA : Sets the desired Gamma value. (0.45 ~ 0.75)
MIRROR : Change the video direction horizontally.
FLIP: Change the video direction perpendicularly.
ACE (D-WDR) : Uses a digital wide dynamic range to balance dark and over
      saturated areas within the image.
DEFOG : Activated this mode when the video or the weather is foggy.
PRIVACY : Used to hide regions of the image.
  - ZONE NUM : Selects the zone number up 15.
  - ZONE DISP : Selects desired zone with ON or OFF
  - H-POS : Adjusts the horizontal position(0~60)
  - V-POS : Adjusts the vertical position(0~40)
  - H-SIZE : Adjusts the horizontal size(0~40)
  - V-SIZE : Adjusts the vertical size(0~40)
  - Y-LEVEL : Adjusts the yellow color level (0~20)
  - CR LEVEL : Adjusts the red color level (0~20)
  - CB LEVEL : Adjusts the blue color level (0~20)

MOTION : Adjust motion detection settings.
  - SENSITIVITY : Sets the desired of "Motion" (0~20)
  - WINDOW TONE : Adjusts the window tone value (0~60)
  - WINDOW USE : Adjusts the window setting size (0~3)
  - WINDOW ZONE : activate or deactivate motion window
  - DET H-POS :Adjusts the horizontal position(0~60)
  - DET V-POS : Adjusts the vertical position(0~40)
  - DET H-SIZE : Adjusts the horizontal size(0~60)
  - DET V-SIZE : Adjusts the vertical size(0~40)
  - ALARM : Select Alarm between ON of OFF

SYSTEM : Adjusts various camera system options.
OUTPUT
FRAME RATE: Select the frame rate 30fps/60fps according to the video
      output mode.
FREQ
COM.
 - CAM ID : Sets the camera ID for the RS-485 (0~255)
 - BAUD RATE : Sets the baud rate for the RS-485 (2400~115200).
IMAGE RANGE
COLOR SPACE
  COLOR BAR : Manufacturer's option
  LANGUAGE : Sets the desired OSD language
  CAMERA TITLE
  RESET: Press with long to reset all settings to factory defaults.

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