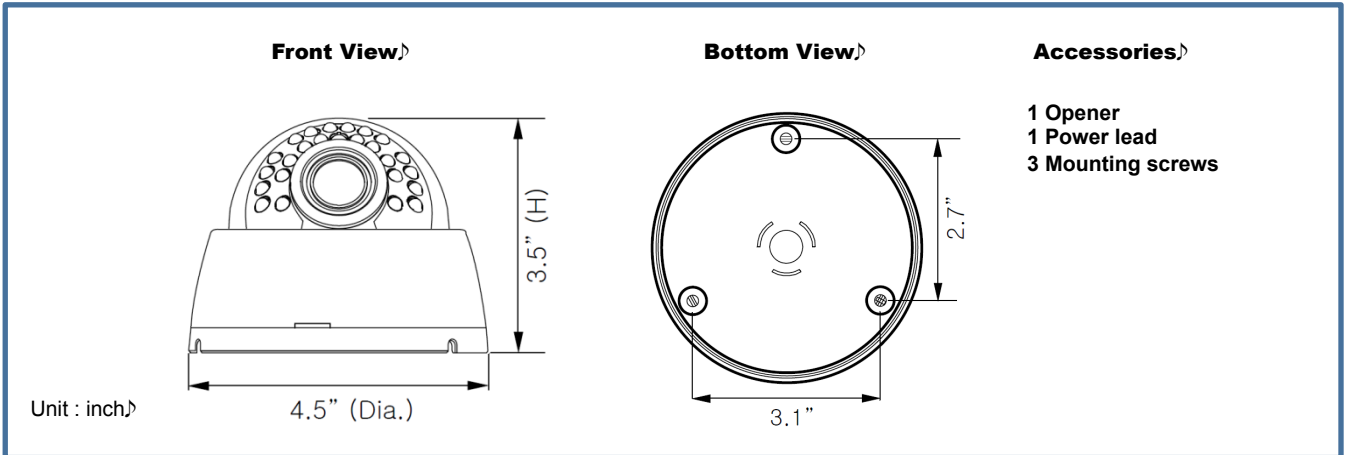


**Intense IR HD-TVI 1080p 2MP Indoor IR Dome Camera**  
**Wall/Ceiling Mount, UTC, 2BNC out for TVI & CVBS, Dual voltage**  
**HLED33DTW – 2.8~12mm varifocal lens, white housing**  
**HLED33DTB – 2.8~12mm varifocal lens, black housing**



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

**DIMENSIONS**



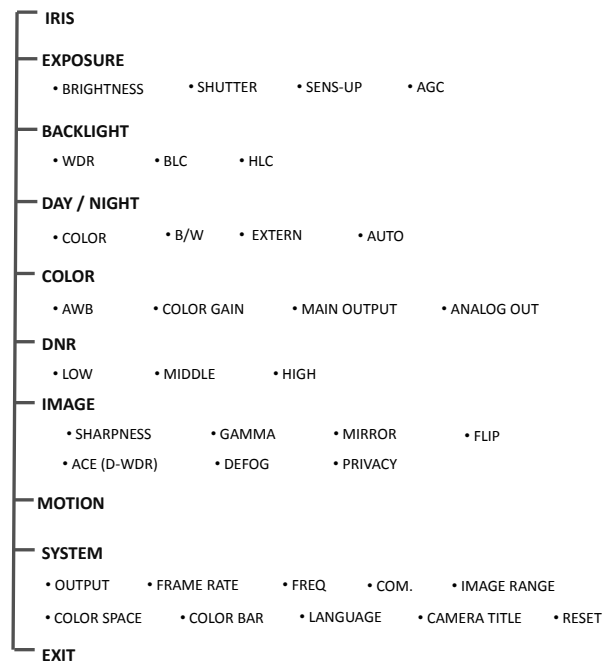
**FEATURES**

- 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<br>(depending on coax quality)* |

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



**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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**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)

\* CVBS out cannot adjust this function.

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.



**LIMITED WARRANTY - VIDEO PRODUCTS**

THIS WARRANTY IS VALID ONLY ON PRODUCTS PURCHASED AND USED IN THE UNITED STATES OF AMERICA AND CANADA. THIS WARRANTY APPLIES ONLY TO THE ORIGINAL USER.

SUBJECT TO CONDITIONS AND EXCLUSIONS FOUND BELOW, THIS PRODUCT IS WARRANTED AGAINST MANUFACTURING DEFECTS IN MATERIAL AND WORKMANSHIP FOR THE FOLLOWING PERIOD FOR PARTS AND LABOR:

|                                    |         |                              |         |
|------------------------------------|---------|------------------------------|---------|
| SPECO TECHNOLOGIES CAMERAS.....    | 5 YEARS | DVRS.....                    | 3 YEARS |
| SPECO TECHNOLOGIES IP CAMERAS..... | 2 YEARS | NVRS.....                    | 3 YEARS |
| SPECO PTZ AND VL CAMERAS.....      | 1 YEAR  | BALANCE OF                   |         |
| SPECO TECHNOLOGIES MONITORS.....   | 1 YEAR  | SPECO TECHNOLOGIES LINE..... | 1 YEAR  |
| IR LEDS.....                       | 90 DAYS |                              |         |

SPECO TECHNOLOGIES WILL REPAIR OR REPLACE (AT OUR DISCRETION) ANY PARTS FOUND TO BE DEFECTIVE FOR THE WARRANTY PERIOD SPECIFIED. WE WILL PROVIDE A REPLACEMENT FOR ANY DEFECTIVE PART.

**CONDITIONS**

1. YOU MUST OBTAIN A RETURN AUTHORIZATION (RA) NUMBER FOR ANY MERCHANDISE BEING RETURNED TO SPECO TECHNOLOGIES, WHETHER FOR RETURN/EXCHANGE OR REPAIR, WHETHER IN OR OUT OF WARRANTY.
2. THIS WARRANTY WILL BE HONORED ONLY UPON PRESENTATION OF THE ORIGINAL DATED BILL OF SALE OR SALES SLIP.
3. TRANSPORTATION OF THE PRODUCT TO OUR SERVICE DEPARTMENT IS THE RESPONSIBILITY OF THE USER. REPAIRED OR REPLACED PRODUCT WILL BE RETURNED PREPAID DURING THE WARRANTY PERIOD.
4. SPECO TECHNOLOGIES DOES NOT AUTHORIZE ANY INTERNET OR MAIL ORDER PRODUCT SALES. IF A SPECO TECHNOLOGIES PRODUCT IS PURCHASED FROM AN UNAUTHORIZED DISTRIBUTOR OR OTHER SOURCE, INCLUDING RETAILERS, MAIL ORDER SELLERS AND ONLINE SELLERS, IT WILL NOT BE HONORED OR SERVICED UNDER THE EXISTING SPECO TECHNOLOGIES WARRANTY POLICY. ANY SPECO TECHNOLOGIES PRODUCT PURCHASED FROM THESE ONLINE MERCHANTS WILL VOID THE APPLICABLE WARRANTY AND IS INELIGIBLE FOR TECHNICAL SUPPORT. IF YOU HAVE QUESTIONS ABOUT A RESSELLER, PLEASE CONTACT SPECO TECHNOLOGIES AT 1-800-645-5516 FOR A LIST OF UNAUTHORIZED DEALERS. VISIT: [www.specotech.com/unauthorized](http://www.specotech.com/unauthorized).

**EXCLUSIONS**

1. THIS WARRANTY SHALL NOT COVER ADJUSTMENT OF CUSTOMER OPERATED CONTROLS AS EXPAINED IN THE APPROPRIATE MODEL'S INSTRUCTION MANUAL OR PRODUCTS WHICH HAVE BEEN ALTERED, ABUSED, OR HAVE MISSING OR ALTERED SERIAL NUMBERS.
  2. THIS WARRANTY SHALL NOT APPLY TO UNCRATING, SETUP, INSTALLATION, OR THE REMOVAL AND REINSTALLATION OF PRODUCTS AFTER REPAIR.
  3. THIS WARRANTY SHALL NOT APPLY TO REPAIRS OR REPLACEMENTS NECESSITATED BY ANY CAUSE BEYOND THE RESULT OF MANUFACTURE INCLUDING, BUT NOT LIMITED TO, ANY MALFUNCTION, DEFECTS OR FAILURE CAUSED BY OR RESULTING FROM UNAUTHORIZED SERVICE OR PARTS, IMPROPER MAINTENANCE, MODIFICATION OR REPAIR BY THE USER, ABUSE, MISUSE, NEGLIGENCE, ACCIDENT, FIRE, FLOOD, OR OTHER ACTS OF NATURE, INCORRECT LINE VOLTAGE, DAMAGE OR IMAGE BURNS TO TELEVISION PICTURE TUBES CAUSED BY OR ATTRIBUTABLE TO THE USE OF ANY ACCESSORY, ELECTRONICS GAME OR DEVICE, OR DAMAGE CAUSED TO IMAGE PICKUP DEVICES BY EXCESSIVE LIGHT.
- THE FOREGOING IS IN LIEU OF ALL OTHER EXPRESSED WARRANTIES AND WE DO NOT AUTHORIZE ANY PARTY TO ASSUME FOR US ANY OTHER OBLIGATION OR LIABILITY. IN NO EVENT SHALL WE BE LIABLE FOR INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING FROM THE USE OF THIS PRODUCT, OR FOR ANY DELAY IN THE USE OF THIS PRODUCT DUE TO CAUSES BEYOND OUR CONTROL. SOME STATES DO NOT ALLOW LIMITATIONS OF HOW LONG AN IMPLIED WARRANTY LASTS AND/OR DO NOT ALLOW THE EXCLUSION OR LIMITATION OF CONSEQUENTIAL DAMAGES. THE ABOVE LIMITATIONS ON IMPLIED WARRANTY AND CONSEQUENTIAL DAMAGES MAY NOT APPLY TO YOU. THIS WARRANTY GIVES YOU SPECIFIC LEGAL RIGHTS. YOU MAY HAVE OTHER RIGHTS WHICH VARY FROM STATE TO STATE.
- NOTE: FOR YOUR PROTECTION IN THE EVENT OF THEFT OR LOSS OF THIS PRODUCT, PLEASE FILL IN THE INFORMATION REQUESTED BELOW AND RETAIN WITH YOUR SALES RECEIPT.**

MODEL NO. : \_\_\_\_\_ SERIAL NO. : \_\_\_\_\_  
 (LOCATED ON BACK OR BOTTOM OF UNIT)  
 DATE OF PURCHASE: \_\_\_\_\_  
 WHERE PURCHASED: \_\_\_\_\_ PURCHASE PRICE: \_\_\_\_\_

|  |  |
|--|--|
| Speco Technologies<br>200 New Highway<br>Amityville, NY 11701<br>www.specotech.com | FOR MORE INFORMATION REGARDING SERVICE OR RETURN,<br>CALL US TOLL FREE: 1-800-645-5516 IN METRO NY: 631-957-8700 |
|--|--|

ALWAYS USE DISCRETION WHEN INSTALLING VIDEO AND/OR AUDIO SURVEILLANCE EQUIPMENT ESPECIALLY WHEN THERE IS AN EXPECTATION OF PRIVACY. INQUIRE REGARDING FEDERAL, STATE AND/OR LOCAL REGULATIONS APPLICABLE TO THE LAWFUL INSTALLATION OF VIDEO AND/OR AUDIO RECORDING OR SURVEILLANCE EQUIPMENT. PARTY CONSENT MAY BE REQUIRED.

**Speco Technologies is constantly developing product improvements. We reserve the right to modify product design and specifications without notice and without incurring any obligation. Rev. 180405**