



**Model Number:**

PT20X-SDI-GY-G2 (gray)  
 PT20X-SDI-WH-G2 (white)  
<http://ptzoptics.com/sdi/>

## PTZOPTICS Broadcast & Conference Camera

The PTZOptics 20X-SDI is a 1080p camera with 20X optical zoom for capturing HD images at long distances. With support for 3G-SDI, HDMI, and IP streaming (H.264, H.265, & MJPEG), this camera is ideal for broadcasting high definition video signals for broadcast, recording, or video conferencing applications.

### KEY FEATURES

- 60.7 degree wide-angle lens.
- High performance in low light scenarios with Wide Dynamic Range.
- Full 1920x1080p HD Resolutions up to 60 frames per second.
- 2D and 3D noise reduction with our latest “low noise CMOS sensor”.
- RS232 & RS485 (Serial), and IP (LAN/WAN) control
- H.264, H.265, & MJPEG streaming over RJ-45 LAN port
- HDMI, 3G-SDI, & IP streaming (all 3 simultaneously)
- PoE (Power over Ethernet) or 12VDC
- RTMP & RTSP IP streaming

### WHAT'S IN THE BOX

- 20X Zoom 3G-SDI Camera
- Power Adapter + Cord
- IR Remote Control
- RS-232C Cable
- User Manual

| Camera & Lens            |  |
|--------------------------|--|
| Video Sensor             | 1/2.7" CMOS, 2.12 Mega Pixels                    |
| Frame Rates              | 1080p-60/50/30/25, 1080i-60/50, 720p-60/50/30/25 |
| Frame Rates (CVBS)       | 576i-30, 480i-30                                 |
| Focal Length             | 20x, F4.42mm-88.5mm, F1.8-F2.8                   |
| Lens Zoom                | 20x  |
| Field of View            | 60.7°  |
| Min Lux                  | 0.5 Lux at F1.8, AGC ON                          |
| Shutter Speed            | 1/30s - 1/10000s                                 |
| SNR                      | ≥55dB  |
| Vertical Flip & Mirror   | Supported  |
| Horizontal Angle of View | 3.36° (tele) to 60.7° (wide)                     |
| Vertical Angle of View   | 1.89° (tele) to 34.1°(wide)                      |
| Working Environment      | Indoor   |

| Pan & Tilt Movement |                                  |
|---------------------|----------------------------------|
| Pan Movement        | ±170°                            |
| Tilt Rotation       | Up: 90°, Down: 30°               |
| Presets             | 10 via IR (255 via Serial or IP) |

| Rear Board Connectors |  |
|-----------------------|--|
| Video Output          | HDMI, 3G-SDI, IP Streaming, CVBS       |
| Network Interface     | RJ45                                   |
| Audio Interface       | Line In, 3.5mm (HDMI & IP Stream Only) |
| Communication         | RS-232, RS485, PELCO-D/P               |
| Baud Rate             | 2400/4800/9600 bits                    |
| Power Supply          | JEITA type Power Adapter (DC IN 12V)   |
| 3G-SDI Interface      | BNC – 75 Ohm, Female                   |
| USB 2.0 Interface     | Future Use                             |

| Electrical Index |   |
|------------------|---|
| Power Supply     | 12W (Max)                               |
| Input Voltage    | 12V DC (10.8 - 13.0V DC) or PoE 802.3af |

| Physical Specifications |                                       |
|-------------------------|---------------------------------------|
| Dimension (in.)         | 5.6W x 6.5H x 6.7D (7.8H max w/ Tilt) |
| Dimensions (mm)         | 142W x 164H x 169D (198H max w/ Tilt) |
| Box Dimensions          | 9" x 9" x 10"   229mm x 254mm x 229mm |
| Camera Weight           | 3.10 lbs. (1.41 kg)                   |
| Boxed Weight            | 5.4 lbs. (2.45 kg)                    |



**10. Camera Address Select Buttons**

Press the button corresponding to the camera which you want to operate with the IR remote controller.

**11. # Button**

For use with multiple function buttons (see 12)

**12. Multiple Function Buttons**

Function 1. Set camera IR address function: Press 3 keys consecutively to set the camera's IR address as follow:

[\*] + [#] + [F1]: IR Address 1

[\*] + [#] + [F2]: IR Address 2

[\*] + [#] + [F3]: IR Address 3

[\*] + [#] + [F4]: IR Address 4

Function 2. Image freezing function: Press [F4] to start the freeze function. The word "Freeze" displays on the upper left corner. After five seconds, the display disappears automatically (though the freeze feature continues). To cancel the freeze, press the [F4] key the word "Unfreeze" displays on the upper left corner. After five seconds, the display disappears automatically.

**15. Menu Button**

OSD Menu Settings: Press this button to enter or exit the OSD (on screen display) menu.

**16. Backlight Button**

Backlight (aka BLC) button: Press this button to enable backlight compensation. Press it again to disable backlight compensation.

NOTE: Effective only in auto exposure mode.

NOTE: If there is a light behind the subject, the subject will appear dark (i.e. silhouetted). In this case, press the backlight button to turn BLC On. To cancel this function, press the backlight button to turn BLC Off.

**17. P/T RST Button**

Press the button to self-calibrate the pan and tilt positions and limits.

**Special Shortcut Functions**

[\*] + [#] + [1]: Display OSD menu in English

[\*] + [#] + [3]: Display OSD menu in Chinese

[\*] + [#] + [4]: Show IP address

[\*] + [#] + [6]: Quickly restore default settings

[\*] + [#] + [8]: Show the camera FW version

[\*] + [#] + [9]: Quickly set mounting mode (vertical flip / normal)

[\*] + [#] + [MANUAL]: Resets IP information

[#] + [\*] + [4]: Toggles DHCP or Static IP configuration

**1. Standby Button**

Press this button to enter standby mode.

Press it again to enter normal mode.

NOTE: Power consumption in standby mode is approximately half of the normal mode.

**2. Position Buttons (0-9)**

To set preset or call presets and for Special Shortcut Functions.

**3. \* (asterisk) Button**

For use with multiple function buttons (see 12)

**4&13. Set/Clear Preset Buttons**

Set preset: Store a preset position [PRESET] + Numeric button (0-9): Setting a corresponding numeric key preset position.

Clear preset: Erase a preset position

[RESET] + Numeric button (0-9)

Note: [\*] + [#] + [RESET]: Erase all presets.

**5&14. Pan/Tilt & Home Control Buttons**

Press the arrow buttons to perform panning and tilting. Press the [HOME] button to face the camera back to its Home position.

**6. Return Button**

Press button to return to previous menu.

**7. Zoom Buttons (Slow & Fast)**

Zoom+: Zoom In (Slow and fast speeds)

Zoom-: Zoom Out (Slow and fast speeds)

**8. L/R Set Button**

Set the left & right direction of panning control.

Hold [L/R Set] + Press [1]: Normal panning direction.

Hold [L/R Set] + Press [2]: Left and right panning direction will be reversed.

**9. Focus Buttons**

Used for focus adjustment. Press [AUTO] to adjust the focus on the center of the object automatically.

To adjust the focus manually, press the [MANUAL] button, and then adjust focus with [Far] (focus on far object)

and [Near] focus on near object).

