



Model Number:

PT20X-NDI-GY (gray)

PT20X-NDI-WH (white)

<http://ptzoptics.com/ndi/>

PTZOPTICS Broadcast & Conference Camera

The PTZOptics 20X-NDI is a 1080p camera with 20X optical zoom for capturing HD images at long distances. With support for NDI|HX, 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

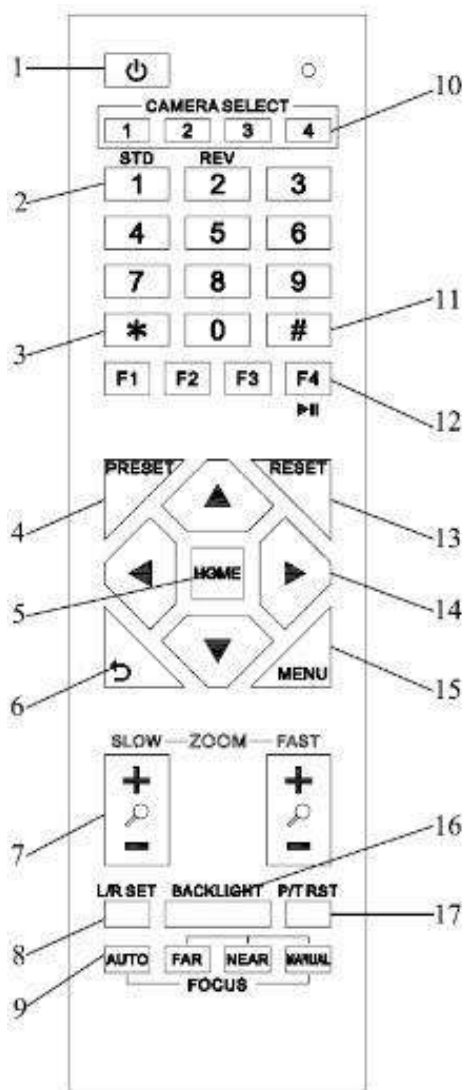
- 60.7 degree wide-angle lens.
- High performance in low light scenarios with Wide Dynamic Range.
- Full 1920x1080p HD Resolutions up to 60 frames per second.
- 2D and 3D noise reduction with our latest “low noise CMOS sensor”.
- NDI, RS232 & RS485 (Serial), and IP (LAN/WAN) control
- H.264, H.265, &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

WHAT'S IN THE BOX

20X Zoom NDI|HX 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	
Video Output	NDI HX, HDMI, 3G-SDI, IP, CVBS
Network Interface	RJ45
Audio Interface	Line In, 3.5mm (NDI, HDMI & IP Stream)
Communication	RS-232, RS485, PELCO-D/P, NDI
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	
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"x9"x10" 229mmx254mmx229mm
Camera Weight	3.10 lbs. (1.41 kg)
Boxed Weight	5.4 lbs. (2.45 kg)



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).

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)

Product Line

	PT12X-SDI-GY-G2		PT12X-SDI-WH-G2	1080p PTZ camera, 12X optical zoom, 3G-SDI, HDMI, IP Streaming
	PT12X-USB-GY-G2		PT12X-USB-WH-G2	1080p PTZ camera, 12X optical zoom, USB3.0, HDMI, IP Streaming
	PT20X-SDI-GY-G2		PT20X-SDI-WH-G2	1080p PTZ camera, 20X optical zoom, 3G-SDI, HDMI, IP Streaming
	PT20X-USB-GY-G2		PT20X-USB-WH-G2	1080p PTZ camera, 20X optical zoom, USB3.0, HDMI, IP Streaming
	PT20X-ZCAM-G2			1080p Box Camera, 20X optical zoom, 3G-SDI, IP Streaming
	PTVL-ZCAM-G2			1080p Box Camera, Variable Lenses (4X included), 3G-SDI, IP Streaming

Control Accessories

	PT-BRDCSTR-(L,E,P)	Remote PTZ Head for handheld-broadcast cameras (3 models)
	DB9M-F-xx	Extension Cable, DB9M-F, Plenum, 4 lengths shown in ft. (xx=25, 50, 75, 100)
	VISCA-xx	Daisy Chain Cable, miniDIN8-MM, 4 lengths shown in ft. (xx=25, 50, 75, 100)
	HDSDI-xx	3G SDI Cable, BNC-MM, Plenum, 4 lengths shown in ft. (xx=25, 50, 75, 100)
	HC-JOY-G2	RS232, RS485, RS422, 3D Joystick and Keyboard, VISCA, Pelco-P, Pelco-D
	PT-JOY	IP control, 4D Joystick and Keyboard, Durable Metal Case

Mounting Accessories

	HCM-1-BK		HCM-1-WH	Small Wall Mount, mounts directly to wall or box with supplied hardware
	HCM-2-BK		HCM-2-WH	Large Wall Mount, mounts directly to wall or box with supplied hardware
	HCM-1C-WH			Small Open Ceiling Mount, mounts to 1"NPT pipe
	HCM-2C-WH			Large Open Base Ceiling Mount, mounts to 1"NPT pipe
	PT-CM-1-BK			Surface Ceiling Mount, mounts directly to ceiling or box w/ suppl. hardware