



Main Features

● Full Function USB Interface

Full function USB interface, support compressed and original video output, support UVC v1.1 protocol.

● Good compatibility

Compatible with most of video conferencing applications on the market.

● 1080P Full HD

1/2.8", 2.07 million effective pixels high quality HD CMOS sensor, can reach maximum 1920 x 1080 high resolution and achieve quality image.

● Low-light

High SNR of CMOS sensor combined with 2D and 3D noise reduction algorithm, effectively reduce the noise, even under low illumination conditions, picture can still keep clean and clear.

● Remote Control

Using RS232 and USB, the camera can be remotely controlled by the high-speed communications.



Main Features

✓ **Full Function USB Interface**

Full function USB interface, compatibility USB3.0 and USB2.0, support audio, support compressed video output, support UVC V1.1~V1.5 protocol.

✓ **1080P Full HD**

Apply Panasonic's 1/2.8 inch, 2.07 million effective pixels high quality HD CMOS sensor, can reach maximum 1920 x 1080 high resolution and achieve quality image.

✓ **Ultra-high Frame Rate**

The output frame rate up to 60fps in 1080P.

✓ **72.5° Wide-angle Lens + 16x Digital Zoom**

Use 72.5° wide-angle high quality lens, support 12x optical zoom, and 16x digital zoom.

✓ **Low-light**

High SNR of CMOS sensor combined with 2D and 3D noise reduction algorithm, effectively reduce the noise, even under low illumination conditions, picture can still keep clean and clear. The image signal-to-noise ratio is up to 55dB or more.

✓ **PoE support**

The wired network supports PoE power supply, control. Video and audio only need one network cable.

✓ **Remote Control**

Multiple controlling method, RS232, RS485, network and USB interface support for remote controlling.

✓ **H.264 Slice/ H.264 SVC Support**

Support Slice and SVC encoding mode, adapts to video conference of advance USB application.

✓ **Dual stream (optional)**



Support two stream output (YUY2, MJPEG, H.264 each of both), reduce the host codec pressure

✓ **Multiple interfaces**

Support HDMI, USB3.0 and LAN interface can output HD video at the same time.

✓ **Three power supply methods**

Supports USB 5V power supply, 12V power adapter power supply and PoE power supply.

Camera	TZ410	TZ412
Image		
Sensor	1/2.8-inch, CMOS	
Effective Pixel	2.07M	
Scanning Mode	Progressive	
Lens	10x, f=4.7mm ~ 46.3mm, F2.8	12x, f3.5mm ~ 42.3mm, F1.8 ~ F2.8
Digital Zoom	16x	
Minimum Illumination	0.5 Lux @ (F2.3, AGC ON)	0.5 Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s	
White Balance	Auto, Indoor, Outdoor, One Push, Manual, VAR	Auto, 3000K/Indoor, 4000K, 5000K/Outdoor, 6500K_1, 6500K_2, 6500K_3, One Push, Manual
Backlight Compensation	Support	
Digital Noise Reduction	2D&3D Digital Noise Reduction	
SNR	≥55dB	
Horizontal FOV	58.5° ~ 6.5°	72.5° ~ 6.9°
Vertical FOV	35.1° ~ 3.6°	44.8° ~ 3.9°
Pan Angle	±170°	
Tilt Angle	-30° ~ +90°	
Pan Speed	2.7° ~ 47°/s	2.7° ~ 35.7°/s
Tilt Speed	2.7° ~ 30°/s	2.7° ~ 31.5°/s
Image Flip	Support	
Image Freeze	Support	
Preset Position	255	
Preset Accuracy	0.1°	
USB Features		
Operate System	Windows 7, Windows 8, Windows 10, Mac OS X, Linux, Android	
Color System / Compression	MJPEG/YUY2/H.264	
Video Format	H.264 AVC: 1080@30fps (max.) MJPEG: 1080@30fps (max.) YUV: 1080@5fps (max.)	YUY2 (ISOC): max to 1080P@60fps H.264 AVC: max to 1080P@60fps H.264 SVC(optional): max to 1080P@60fps MJPEG: max to 1080P@60fps
USB Audio	Support	
USB Video Protocol	UVC 1.1	UVC 1.1~1.5
UVC PTZ Control	Support	

Interfaces		
USB Interface	1 x USB2.0: Type-B	1xUSB 3.0, Type-C jack
LINE IN Interface		1xLine In, 3.5mm Audio Interface
LINE OUT Interface		
Communication Interface	1 x RS232: 8pin Min DIN; Max. Distance: 30m	
Protocol:	VISCA/Pelco-D/Pelco-P	
		1xRS485: 2pin Phoenix Port, Max Distance: 1200m,
Network Interface		1xRJ45 : 10M/100M Ethernet
HDMI Interface		1xHDMI1.4b
3G-SDI Interface		
Power Jack	JEITA type (DC IN 12V)	JEITA type (DC IN 12V) /USB B type (DC IN 5V) /PoE
General Specifications		
Input Voltage	DC 12V	DC 12V/DC 5V/PoE(802.3af)
Input Current	1.0A (max.)	12V 1.0A(MAX)/5V 1.5A(MAX)
Operating Temperature	-10°C ~ 40°C	
Storage Temperature	-40°C ~ 60°C	
Power Consumption	12W (MAX)	
Dimension	141.5 x 151.1 x 170.2	144mm x 144mm x 167.9mm
Net Weight	1.2Kg	1.28KG
Network Features		
Video Compression		H.264/MJPEG
Video Stream		Main Stream, Sub Stream
MainStream		1920x1080,1280x720,1024x576,960x540,640x480,640x360
Sub Stream		1280x720,1024x576,720x480,720x408,640x360,320x240, 320x180
Video Bit Rate		32Kbps ~ 102400Kbps
Bit Rate Control		Variable Rate, Fixed Rate
Frame Rate		50Hz: 1fps ~ 50fps, 60Hz: 1fps ~ 60fps
Audio Compression		AAC
Audio Bit Rate		96Kbps, 128Kbps, 256Kbps
Protocols		TCP/IP, HTTP, RTSP, RTMP, Onvif, DHCP, Multicast, etc.