New Broadcast Technology Captures Every Detail

VX90 4K UHD One Inch Large Sensor PTZ Camera

4/3-inch CMOS

4K UHD

20x Optical Zoom

Video Source Synchronization

Double Tally Light

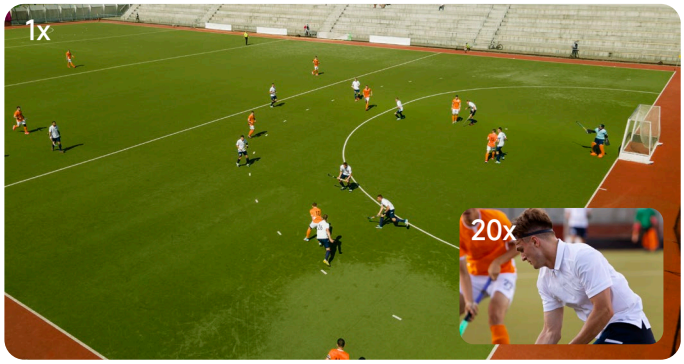
12G-SDI

The PTZ camera features Sony's sensitive 4/3-inch sensor for clear image capture. Its AI speaker tracking algorithm ensures stable tracking of subjects even at long distances. The interface includes 12G-SDI, capable of simultaneously outputting five signal streams, making it ideal for diverse settings like large conferences, studios, live events, and recordings.

Ultra-large CMOS

Using SONY's 4/3-inch UHD CMOS sensor, it has a larger photosensitive target surface than most 1/2.5-inch image sensors, enabling 4K (3840x2160) images with excellent sensitivity and rich natural colors.

20x Optical Zoom



With a 4K telephoto lens featuring a 71° horizontal FoV and 20x optical zoom, the camera effortlessly captures clear and vibrant images.

Video Source Synchronization

The Genlock interface synchronizes the camera with other video signals, enabling seamless switching between multiple sources for multi-angle, high-quality visual effects.

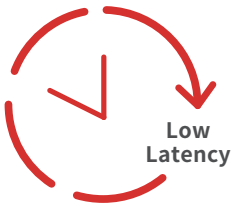
AI Presenter Tracking

The camera's ReID technology accurately identifies the presenter's figure, face, and attire, automatically tracking them to keep them centered in the frame. It continues tracking them upon re-entry, even if there's interference or they step out of the frame.

Virtual Studio Setup

The FreeD protocol sends precise camera positioning data for virtual studio creation. The built-in double tally display light offers real-time camera status and visual cues for staff coordination and program monitoring.

Full NDI/ Dante AV Ultra（Optional）



Customizable hardware supports either Full NDI or Dante AV Ultra, enabling real-timesignal transmission and reception over IP networks with low latency, ultra-high picturequality, and extended transmission distances.

Multiple Interfaces

Equipped with HDMI, 12G-SDI, 3G-SDI, USB, and LAN interfaces, it can output 5 digital signals at the same time. It also supports camera control using RS232, RS422, network and USB. The device has strong compatibility and can be widely used in various scenarios.

VX90 Specifications Parameter

Camera

Signal System	4K@60fps,4K@59.94fps, 4K@50fps,4K@30fps, 4K@29.97fps, 4K@25fps, 4K@24fps, 4K@23.98fps, 1080P@60fps, 1080P@59.94fps, 1080P@50fps, 1080P@30fps, 1080P@29.97fps, 1080P@25FPS, 1080P@24fps, 1080P@23.98fps,1080I@60fps, 1080I@50fp, 1080I@59.94fps, 720P@60fps, 720P@59.94fps.720P@50fps
Sensor	4/3 inches, CMOS, effective pixels: 20 million
Scanning Method	Progressive
Lens	20x, f9.79mm ~ 186.5mm, F2.8 ~ F4.5
Digital Zoom	16×
Minimum Illumination	0.5Lux @ (F1.8, AGC ON)
Shutter	1/30s ~ 1/10000s
ND Filter	Built-in(OFF、1/4、 1/16、1/64)
Focus Mode	TOF Hybrid Focus / Contrast Focus
Anti-Shake	EIS
White Balance	Automatic, Manual, indoor, outdoor,one-touch, specified color temperature
Backlight Compensation	Support
Digital Noise Reduction	3D Digital Noise Reduction
SNR	≥ 55dB
Horizontal FoV	71° ~4.05°
Vertical FoV	39.6° ~ 2.2°
Horizontal Rotation Range	-30° ~ +120°
Vertical Rotation Range	±172°
Horizontal Rotation Speed	0.1°~80°/S
Vertical Rotation Speed	0.1°~60°/S
Landscape and Portrait Mode	Support
Image Freeze	Support
PoE	Support
Preset Positions Number	255
Preset Position Accuracy	0.1°

USB Features

Support Operating System	Windows 7, 8, 10, Mac OS X, Linux, Android
Color Space/Compression	YUY2 / H.264 / MJPEG /H.265
Video Format	YUY2: Max 1440P@30fps H.264 AVC: Max 2160P@60fps H.265 HEVC: Max 2160P@60fps MJPEG: Max 2160P@60fps
USB Audio	Support
USB Video Communication Protocol	UVC 1.1
UVC PTZ Control	Support

Network Characteristics

Video Encoding Standard	H.265 / H.264 / MJPEG
Video Stream	First stream, second stream
First Stream Resolution	3840×2160，1920×1080，1280×720，1024×576 etc.
Second Stream Resolution	720×576，720×480，320×240 etc.
Video Bit Rate	32kbps~81920kbps
Code Rate Control	Variable bit rate, fixed bit rate
Frequency	50Hz: 1fps~50fps, 60Hz:1fps~60fps
Audio Bit Rate	96Kbps，128Kbps
Support Protocols	NDI®|HX3, SRT,TCP/IP,HTTP,RTSP,Free-D, RTMP(s),Onvif,DHCP,multicast,GB/T28181 etc.
Audio Compression Standards	AAC、G711A

Input/Output Interface

HD Output	1x HDMI: 2.0; 1x 12G-SDI: BNC type, 800mVp-p, 75Ω, Comply with ST2082 standard; 1x 3G-SDI: BNC type, 800mVp-p, 75Ω, Comply with SMPTE 424M standard;
Genlock Interface	1x BNC type，1.0Vp-p，75Ω，input only
Timecode Interface	1x BNC type，75Ω，input only
Network Interface	1x RJ45: 10M/100M/1000M adaptive ethernet
Audio Interface	1x Line In, 3.5mm Audio Interface 2x Badaptive ethernet，XLR interface 2x Mic input
USB Interface	1x USB3.0, Type-C
Communication Interface	1x RS232 In: RJ45，VISCA/Pelco-D/Pelco-P protocol 1x RS485/422: RJ45，VISCA/Pelco-D/Pelco-Protocol 1x RS422 out: RJ45，VISCA/Pelco-D/Pelco-Protocol
SD Card	1 channel，MicroSD
RESTORE Button	Support
Power interface	JEITA type（DC IN 12V）
Optional interface	1x FULL NDI，RJ45 1x Dante ultra，RJ45 1x HDBaset，RJ45 1x ST2110，SFP+ 1x SDVOE，SFP+

General Specifications

Installation Direction	Standard; hanging
TALLY Light	2 (red and green)
Power Indicator	1（blue）
Status Indicator	1（green）
IR Remote Control Input	Support
Input Voltage	DC 12V / POE ++
Input Current	3A（maximum）

A-Share Listed Company

301318

VHD, listed on the Shenzhen Stock Exchange GEM in August 2022 with stock code 301318, is a major provider of AV communication solutions in China.

Complete Self-owned Supply Chain

Own Factory

VHD has its own factory, it can independently complete part of the mold design and manufacturing, CNC processing, plastic injection molding and other basic material production, It also has an internationally advanced high-speed double-sided PCB SMT line, precision equipment assembly and testing line, to ensure product quality and stable supply.

Localized Audio and Video Technology

16 Years R&D

For 16 years since its establishment, Rocware has adhered to independent research, development and innovation, continuously invested in improvement, and fully mastered the core algorithm technology in the field of audio and video.The entire product lineisindependently controllable, safe, reliable, and highly competitive.

Well-developed After-sales Support System

400-070-6067

VHD has set up five major marketing centers around the world, with more than 30 after-sales service outlets. It provides 7*12 hour customer service telephone support, as well as various online and offline technical support and after-sales services to comprehensively ensure the user experience.

ValueHD Corporation

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