

KUM-2410H-IP25G

24 INCH 4K HDR

ST2110 IP MONITOR



INTRODUCTION

KUM-2410H-IP25G is an 24" 4K HDR IP monitor that supports uncompressed signals based on ST2110 and converts 4K UHD 12G-SDI signals from IP in a number of format signals, built-in ST2110 IP SFP28 optical fiber cage. It gives user the freedom to work with a range of IP systems and 4K UHD media for a seamless end-to-end production and signal transformation workflow.

HIGHLIGHTS

- 178°(H/V) full viewing angle IPS LCD panel with 3840×2160 4K resolution
- 12-bit video processing with zero-latency display
- Full SMPTE ST 2110 compliance including NMOS discovery/register system
- Genlock synchronization with BB or Tri-level reference signals
- 2×SFP28 fiber interfaces for ST2110 IP stream input
- 1×ST2110 IP to 12G-SDI conversion output (SDI1)
- 2×12G-SDI & dual 3G-SDI input/loop-out, supporting 4K single/quad-link
- 4×3G-SDI quad-link (SQD/2SI) up to 4K60p
- 1×HDMI 2.0 input/loop-out with SDI/SFP28 conversion output
- 3D LUT calibration compatible with ColourSpace&Calman
- Color spaces: Rec.709/EBU/DCI-P3/DCI-P3 D65/Rec.2020
- Gamma options: 2.0/2.2/2.4/2.6
- HDR support: HLG (1.03/1.11/1.16/1.20/1.27/1.33), ST2084 PQ/(softroll)
- VPID reading & Payload ID recognition for auto color space/EOTF matching
- Multiple camera color space/EOTF conversions to standard color space
- USB/Ethernet for custom 3D LUT loading and firmware updates
- Quad-view mode for mixed SDI/HDMI/SFP28 signals with variable resolutions/-frame rates
- Independent color space/EOTF settings per window in quad-view mode
- Instant single-view switch from any window in quad-view mode
- 4K HDR to 2K SDR down-conversion with custom 3D LUT output
- HDR percentage analysis and pixel measurement
- Mirror/rotation/zoom/freeze/full scan/overscan/H/V delay
- Waveform/vectorscope/histogram/audio meter/audio phase
- False color/zebra/focus assist/Blue Mode/Mono Mode
- Darkeness check/Highlight Check
- Aspect ratio/center marker/safe area, markers with BOX control
- Each SDI support 16ch Embedded Audio Meters & 2-channel outputs
- Supports 4.1-channel audio
- VITC1/2, LTC timecode; static/dynamic UMD/IMD; tri-color Tally
- 10 scene presets, 5 customizable shortcut keys
- GPI remote control for Tally/assist functions/scene preset
- Aluminum Alloy Casing, dual power inputs with speakers/headphone jack

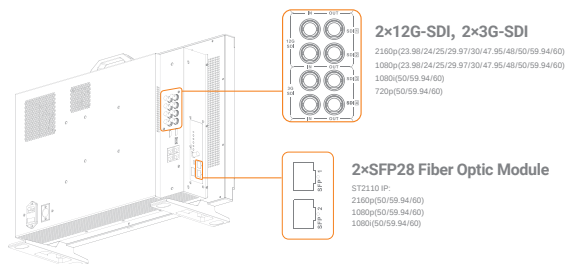
SPECIFICATION

Panel	
Model No.	KUM-2410H-IP25G
Backlight	LED
Size	24"
Resolution	3840×2160
Aspect Ratio	16:9
Viewing Angle	178°(H) / 178°(V)
Brightness	1200cd/m ²
Contrast Ratio	1000:1
Color Depth	10bit
Input	
2×SFP28	ST2110 IP data stream input interfaces
4×BNC	12G/6G/3G/HD/SD-SDI (×2, SDI1/SDI2) 3G/HD/SD-SDI (×2, SDI3/SDI4)
1×BNC	Gen lockable with BB or Tri-level external
1×HDMI	HDMI 2.0
Output	
4×BNC	12G/6G/3G/HD/SD-SDI (×2, SDI1/SDI2) 3G/HD/SD-SDI (×2, SDI3/SDI4) ST2110 IP to 12G-SDI SDI1 signal outputs
1×HDMI	HDMI 2.0
Remote Interface	
1×RJ45	10/100M Ethernet Input Interface
1×RJ45	10/1000M Ethernet Input Interface
1×RJ45	GPI Input Interface
2×RJ45	RS422 Input and Loop Out Interface
Audio In & Out	
Audio In	16-Channels SDI & 2-Channel outputs
Audio Out	3.5mm Headset Jack, 2×3.0W Speakers Support 4.1-Channel Audio
Audio Meter Display	Vertical/horizontal, transparent/opaque display
General	
Input Voltage	DC 12V & AC 100-240V 50/60Hz
Power	≤110W
Installation	VESA MIS-D (100×100mm)
Net Weight	9.1kg
Accessory	Power Cord /Desktop Stand

*Specifications may be changed without prior notice.

4K monitoring, IP decoding output

2-CH SFP28 fiber optic module interface ST2110 IP data stream input, and support ST2110 IP data stream to 12G-SDI output, while featuring 2-CH 12G-SDI, 2-CH 3G-SDI, 1-CH HDMI input and loop-out, 4×3G-SDI quad-link input supports SQD and ZSI formats.



Uncompressed SMPTE-2110 Transmission

Compliance with the SMPTE-2110 standard (ST2110-10/20/30/40) realizes IP-based 4K UHD SDI conversion and processing, PTP clock synchronization, and uncompressed audio and video transmission to ensure data integrity and synchronization.

NMOS Protocol, Efficient Connection

Supports the NMOS IS-04 discovery and registration mechanism, as well as the NMOS IS-05 device connection and remotecontrol mechanism. Implement signal source reception and assignment functions in the IP network matrix for efficient collaboration.

Simultaneously supporting ST2022-7, providing seamless protection switching to ensure safe broadcasting.

Multiple HDR/Color Spaces Available

Supports high dynamic range (HDR) monitoring, providing standard HDR EOTF (Electro-Optical Transfer Function) with built-in various standard color spaces and Gamma. It also supports VPID reading display and Payload ID recognition, automatically matching color space and EOTF.

- Color Spaces: Rec.709/EBU/DCI-P3/DCI-P3 D65/Rec.2020
- HDR EOTF: HLG (1.03/1.11/1.16/1.20/1.27/1.33) · ST2084 PQ/(softroll)
- Gamma: 2.0/2.2/2.4/2.6

Camera Log Color Pipeline

Built-in various mainstream Camera Log Color Pipeline enable the conversion of camera color space and EOTF to standard color space and EOTF.

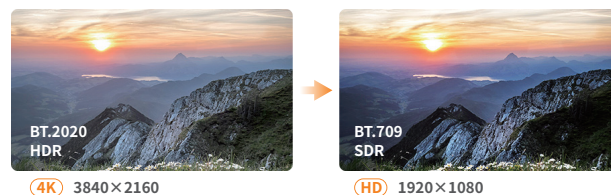


Camera Log:

- Arri Wide Gamut 3/LogC3
- Arri Wide Gamut 4/LogC4
- Canon Cinema Gamut/Canon Log2/3
- DJI D-Gamut/D-Log
- Panasonic V-Gamut/V-Log
- Sony S-Gamut/S-Log2
- Sony S-Gamut3/S-Gamut3.Cine/S-Log3

4K HDR-HD SDR Down-Conversion

Single-link SDI can realize 4K-HD down-conversion and HDR-SDR conversion. Support NBCU LUTs, CMG LUTs production standards, to meet the 4K HDR and HD SDR high-quality production needs.

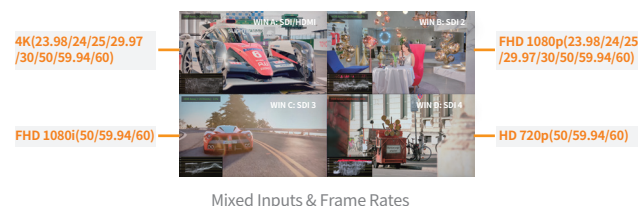


Customizable 3D LUT Import & Output

Users can load and save 8 custom 3D LUTs via USB port/network port. Custom LUTs can also be set to output with the video display, effectively simplifying the color grading process for DIT and post-production work.

Quad-View: Mixed Inputs & Frame Rates

The Quad view mode supports the simultaneous input of four different signal sources, allowing for mixed resolution and frame rate signals to be displayed together via SDI/HDMI/SFP+. Each split window can independently set Color Space and EOTF, as well as display HDR waveforms separately. This enables centralized monitoring of the entire system in a limited space, with the ability to quickly switch to a single view from any window.



HDR Area Display

Calculate and displays the percentage of HDR reference white (>203 nits) and HDR-mapped white (>260 nits) in the overall image. If exceeding the reference values, a warning will be issued.

Professional Image Analysis Tools

