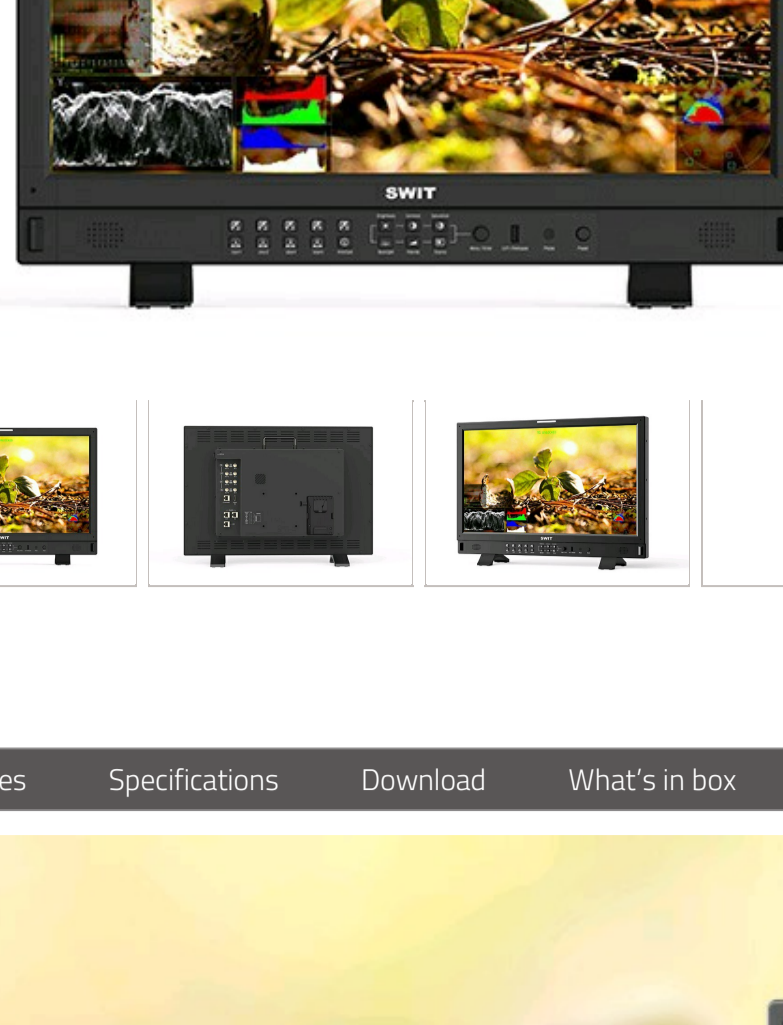


BM-U245HDR | 23.8-inch 4K/8K 12GSDI HDR Studio Monitor



- > 23.8-inch LCD Panel, 3840x2160 resolution
- > 1000nits high bright LED backlight
- > HLG/PQ/S-Log3 HDR
- > 12GSDI 4-in 4-out, 8K input ready, HDMI2.0 input
- > 12GSDI via SFP Fiber input (Optional)
- > ST2110 IP via SFP Fiber input (Optional)
- > SFP Fiber 12G input converted to 12GSDI out
- > 3DLUT Auto Self-calibration without PC
- > Audio/Video 0 latency for lip-sync
- > Built-in Multi camera Delog LUTs
- > User 3DLUTs upload via USB
- > Waveform / Vector / Histogram
- > Focus assist / False color / Zebra
- > 16-ch audio meters / Lissajous
- > IP webserver remote control
- > TSL UMD and text TALLY display
- > USB firmware upgrade



MSRP Ex TAX / Shipping

Features Specifications Download What's in box Optional accessory Related

23.8-inch 1000nits 4K UHD panel, 89% REC.2020

BM-U245HDR adopts a 23.8-inch 10-bit LCD panel, UHD 3840x2160 resolution, 1000nits LED backlight, 1000:1 contrast, 91.9% DCI-P3 and 89% Rec.2020 color gamut. The viewing angle is H178° / V178°.



Multi 4K/8K Interfaces

12GSDI 4-in 4-out, supports:
 Single link 4K; Quad link 4K and Quad link 8K
 HDMI 2.0 (4K60P)
 12GSDI via SFP Fiber (Optional)
 ST2110 IP via SFP Fiber (Optional)

* The Quadlink 4K/8K supports both Quad mode and 2SI interleave mode;
 * The SFP optical fiber adaptor is optional purchased.

Display Modes

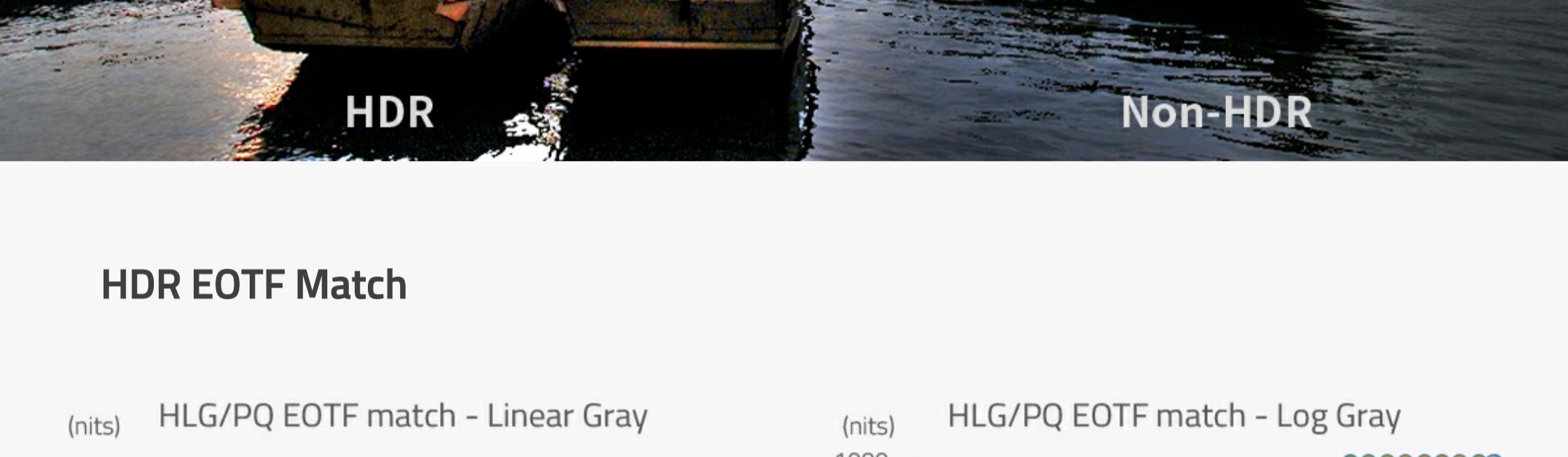
Supports Single link 4K input including 12GSDI, HDMI2.0 or 12GSDI via SFP, and Quad link 4x 3GSDI 4K or Quad link 4x 12GSDI 8K inputs. You can also input 4x independent 4K videos to multiview, supports 12G/6G/3G/HD-SDI and HDMI 2.0/1.4/1.3 mixed formats input, and waveform, vector, audio meters, EOTF, color gamut selection for each input.



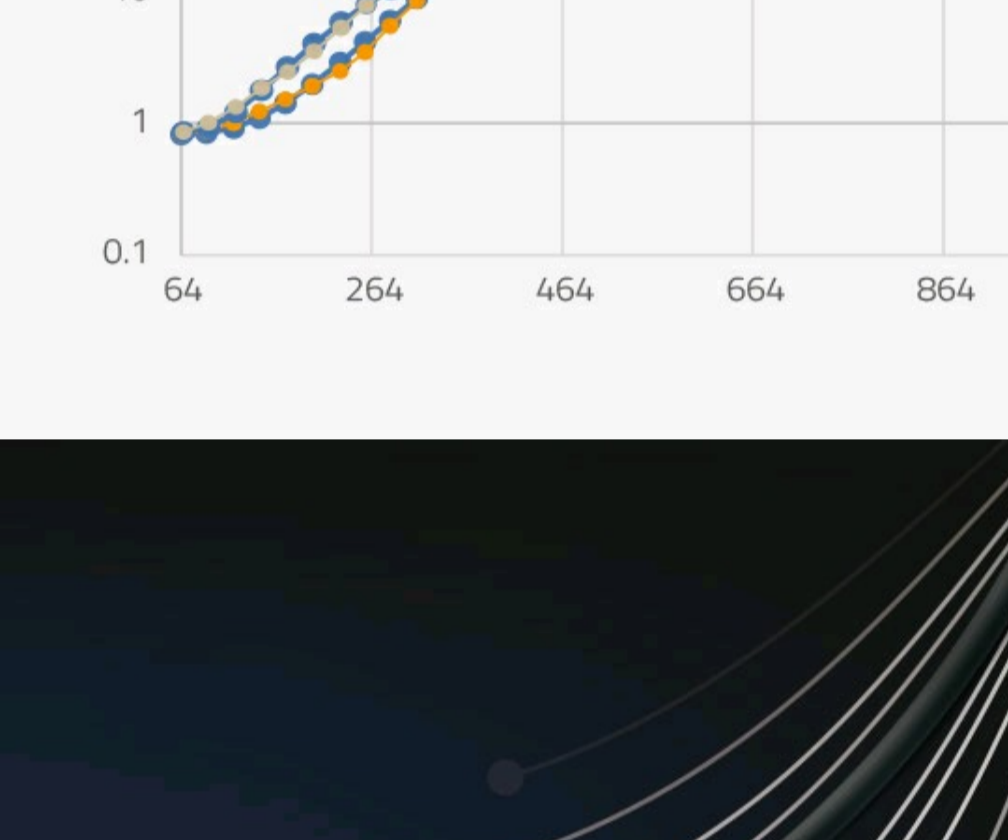
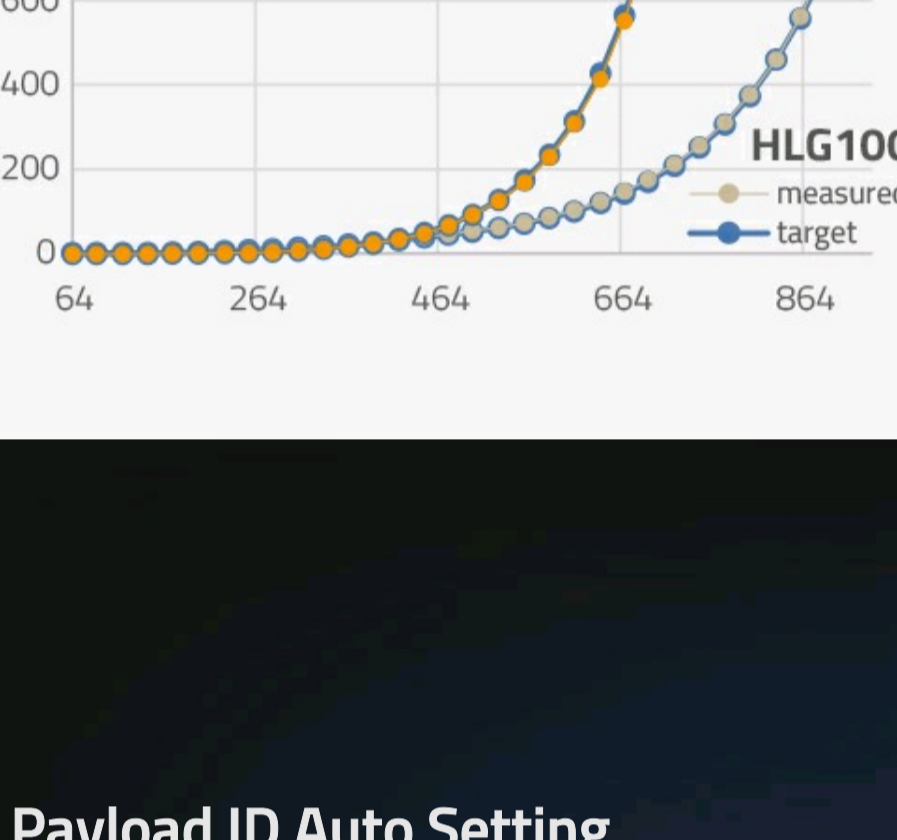
Single link 4K inputs - 12GSDI, HDMI2.0, SFP
Quad link 4K inputs - 4x 3GSDI (SQD or 2SI)
Quad link 8K inputs - 4x 12GSDI (SQD or 2SI)
Mixed inputs Multiview - 4 independent video inputs of 12G/6G/3G/HD-SDI or HDMI mixed

HLG/PQ/S-Log3 HDR

BM-U245HDR has a native 1000nits high bright backlight LCD panel, and supports HLG (Hybrid Log Gamma), Dolby Vision PQ and SONY S-Log3 HDR monitoring.

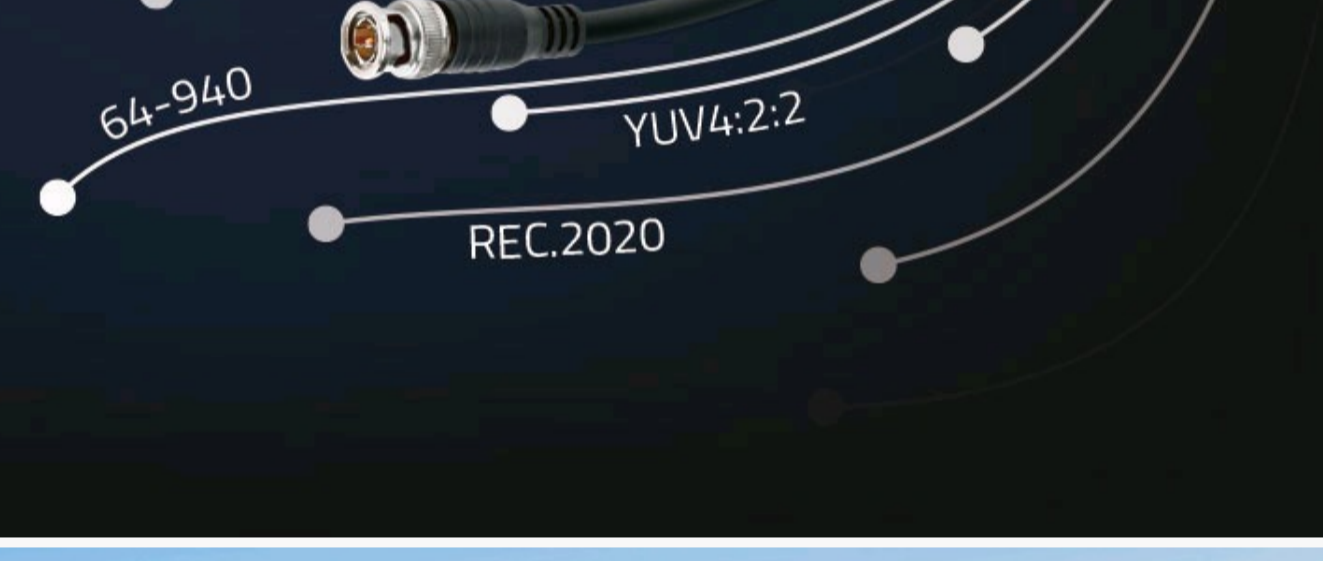


HDR EOTF Match



Payload ID Auto Setting

Support input video Payload ID identify and the monitor will automatically set HDR/SDR EOTFs, Color Gamut, Input range, Color space and Color depth according to the Payload ID info.



Multi CG & EOTF Viewing

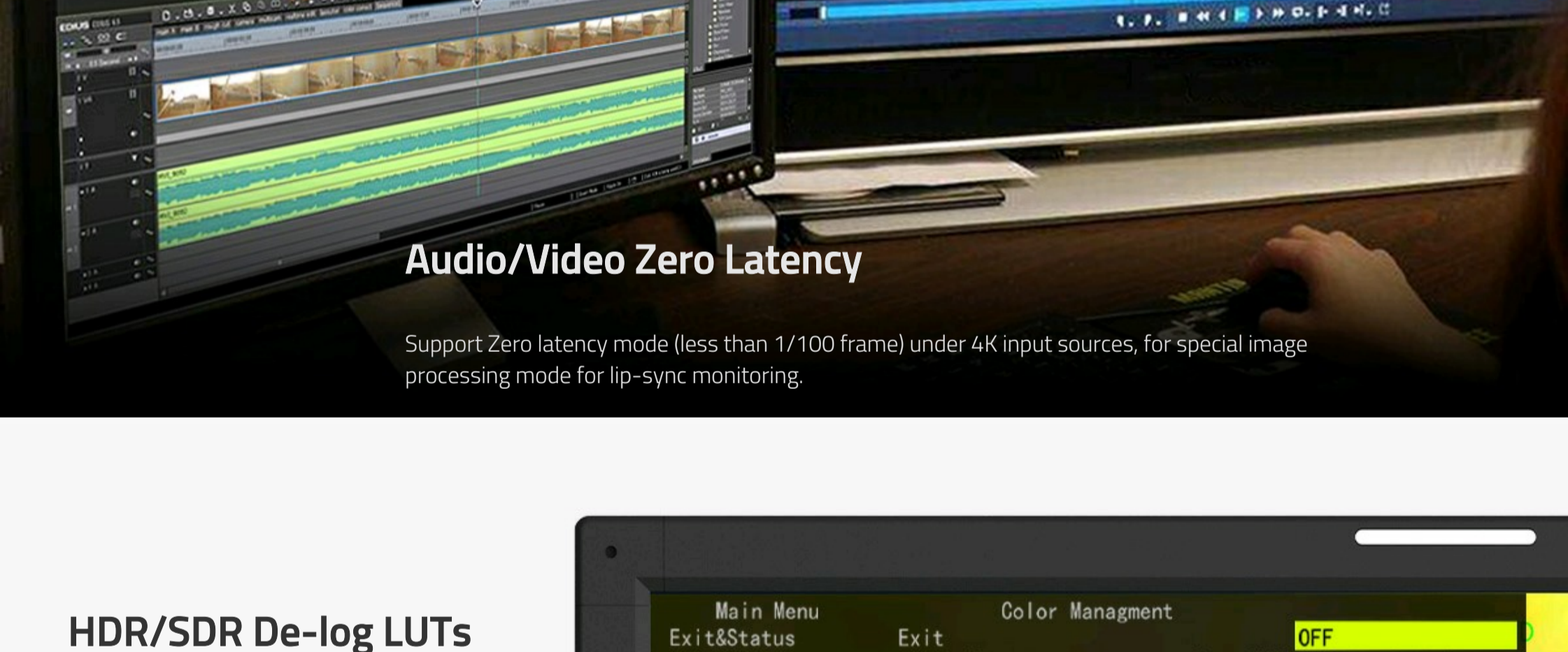
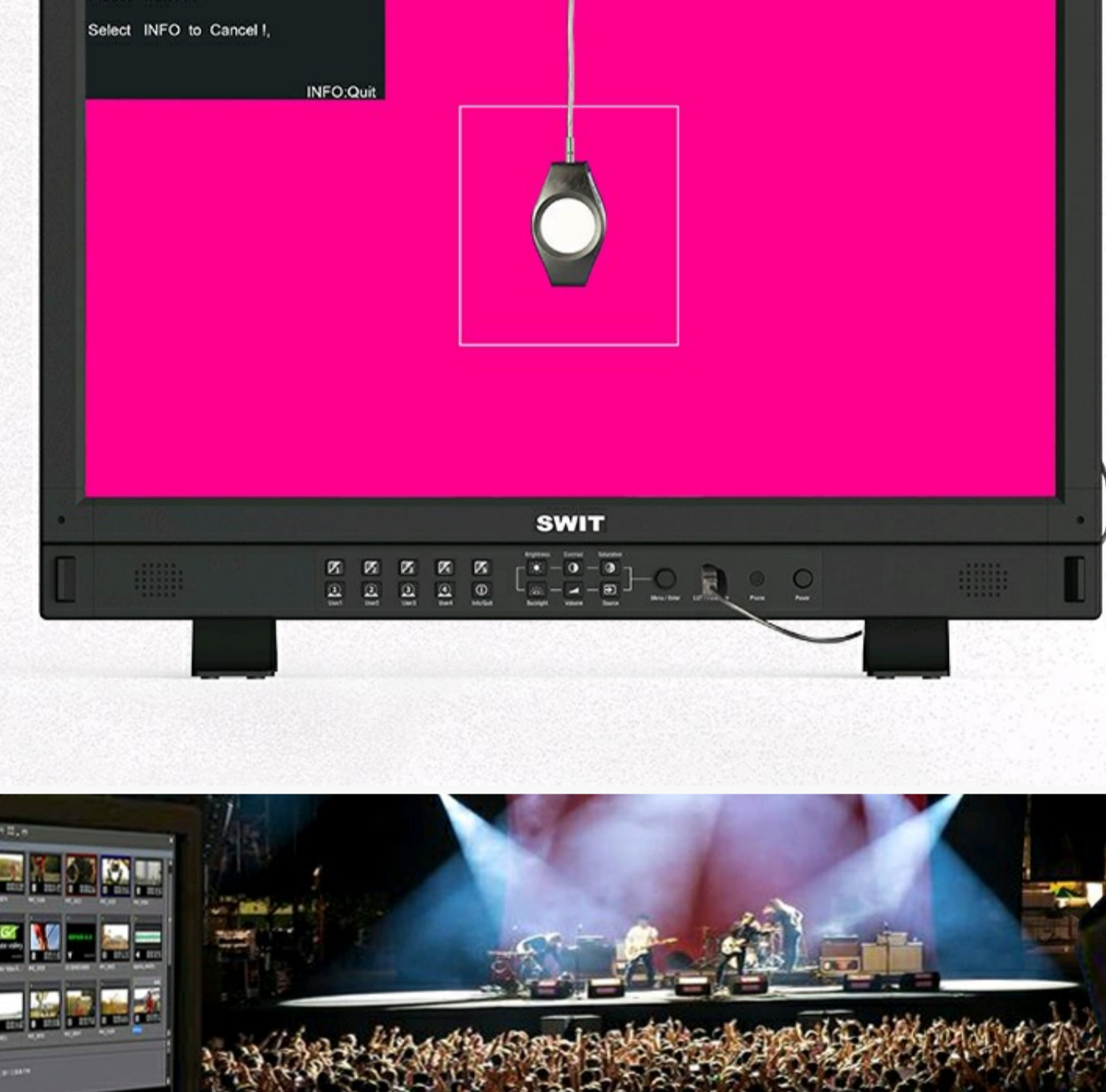
Supports 1 input source copied to 4 windows and display different HDR/SDR and color gamut simultaneously. You can get correct reference when producing HDR and SDR together.

3DLUT Auto Self-Calibration

By X-rite i1 or JETI Specbos 1211

With built-in 3DLUT calibration software, (software copyright) support X-rite i1 and Jeti Specbos 1211 probes to directly connect with the monitor USB port. The monitor generates color patterns and the color probes read the color, send color info to monitor via USB. Then the monitor compares the color difference and generate 3DLUT and calibrate itself automatically.

Calibration time: X-rite i1 15min, Specbos 1211 45min
 Calibration result: ΔE≤1.0

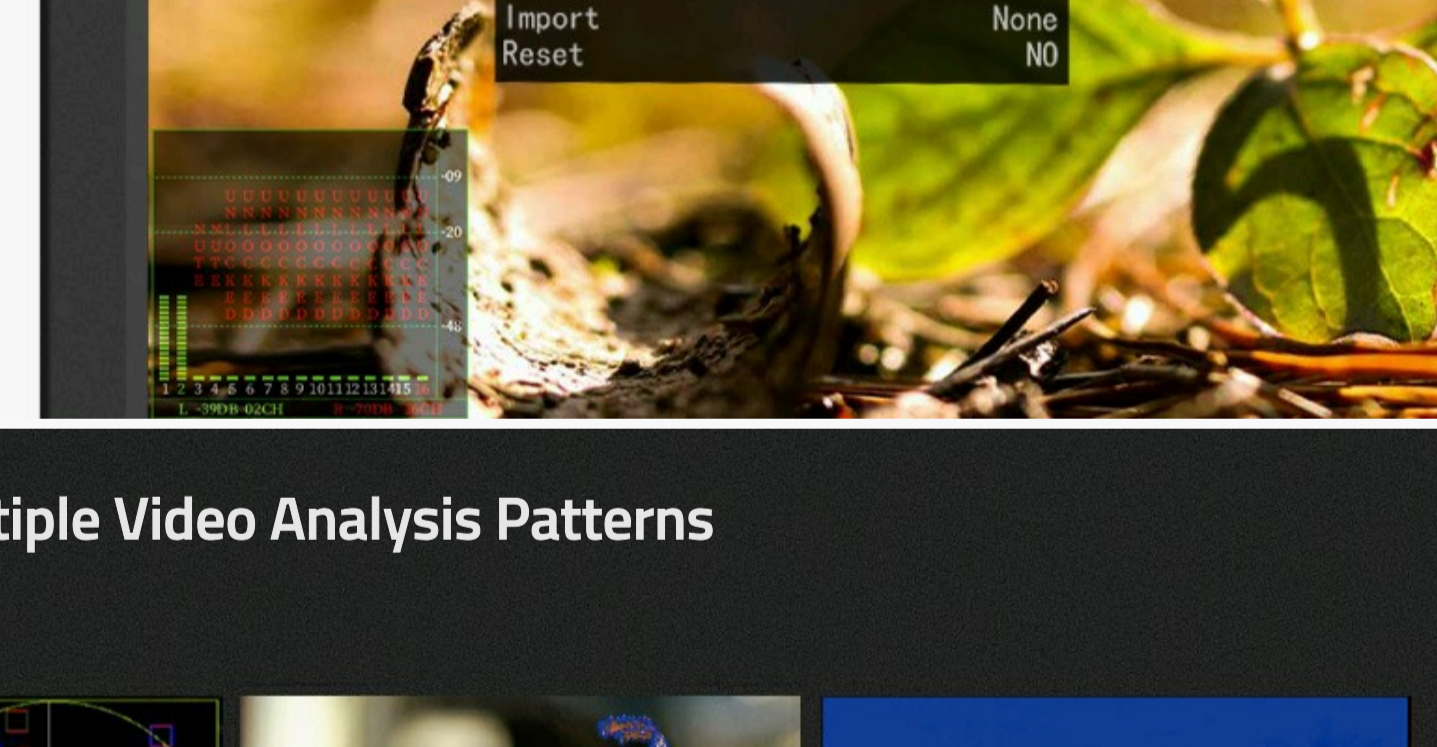


Audio/Video Zero Latency

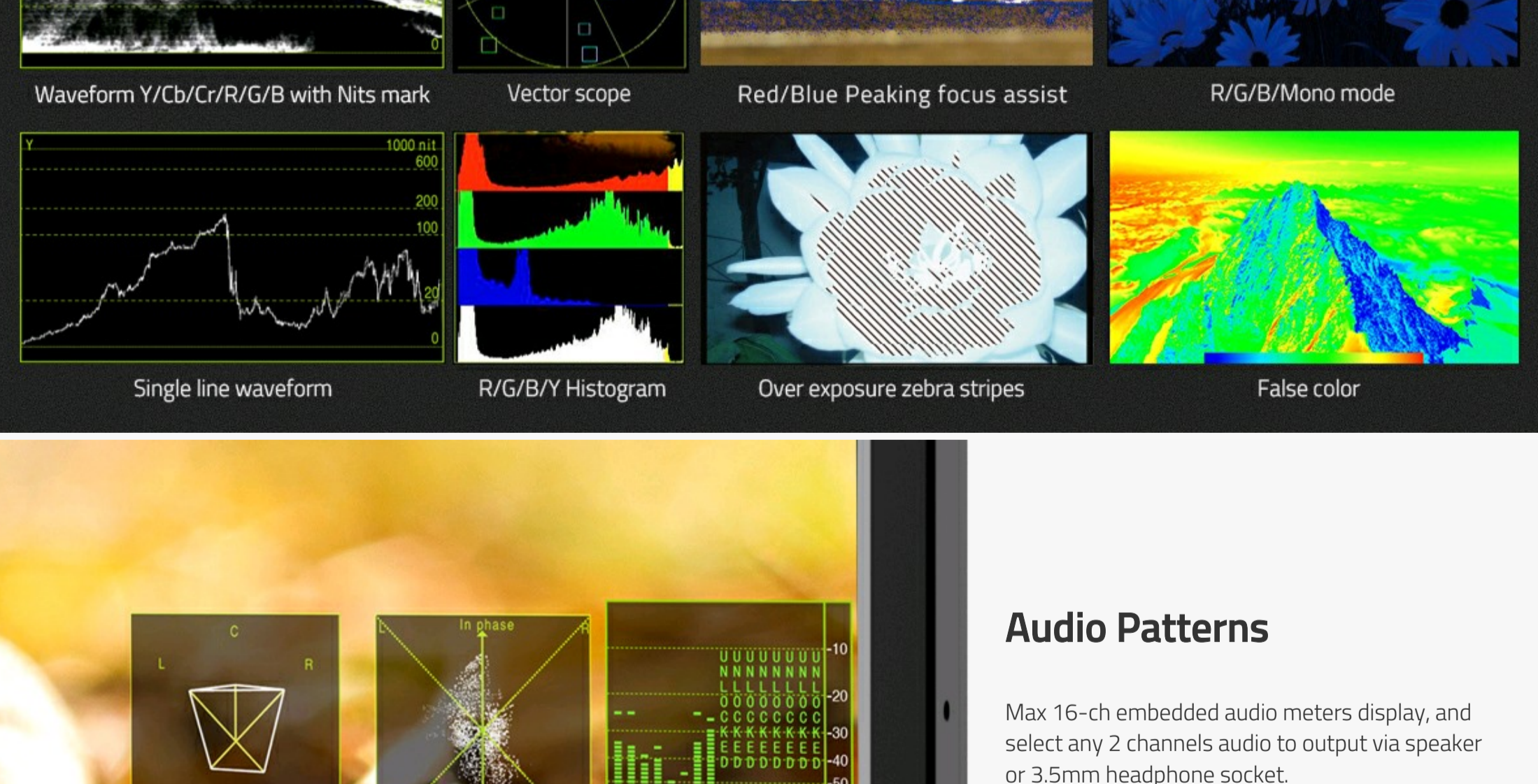
Support Zero latency mode (less than 1/1000 frame) under 4K input sources, for special image processing mode for lip-sync monitoring.

HDR/SDR De-log LUTs

The monitor has built-in multi camera De-log conversion LUTs, including Log-C, C-log, S-log2, S-log3, V-log, J-log1, RedLogFilm etc. You can also upload User LUTs to monitor by USB disk, support 17x17x17 3DLUT cube files.



Multiple Video Analysis Patterns



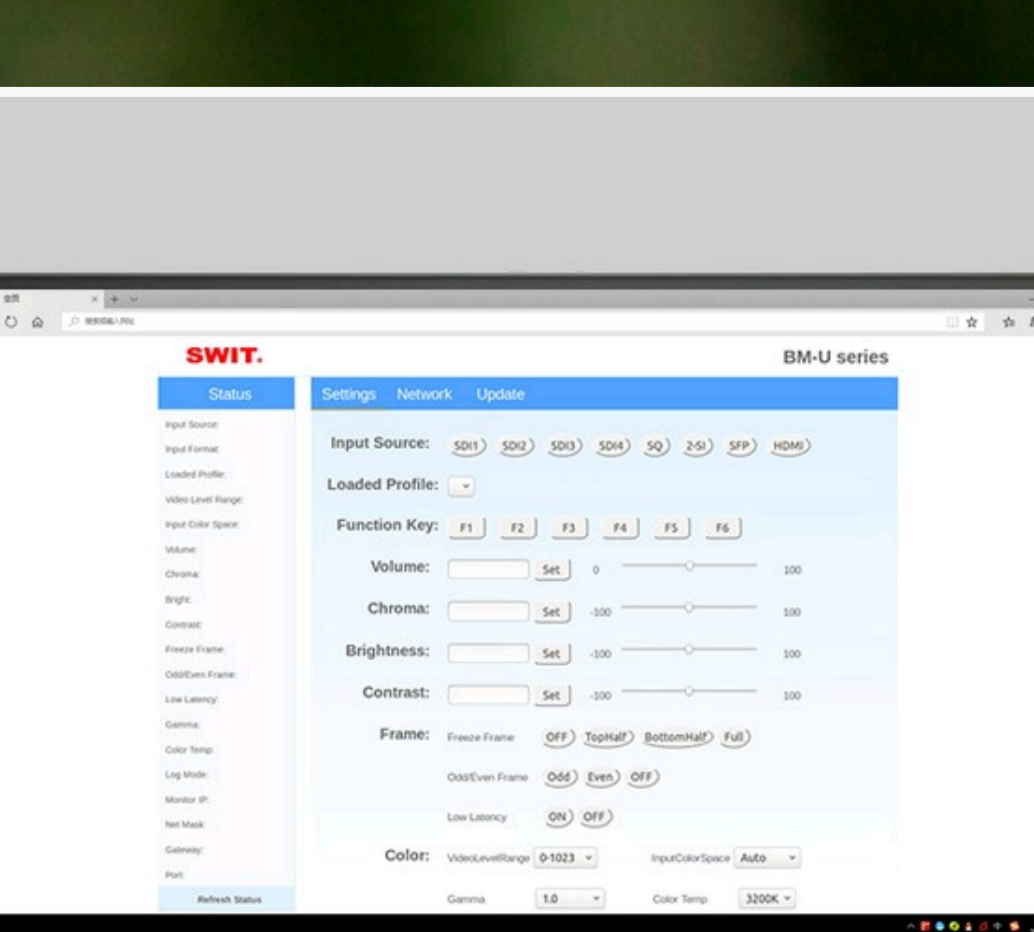
Audio Patterns

Max 16-ch embedded audio meters display, and select any 2 channels audio to output via speaker or 3.5mm headphone socket. Moreover, BM-U monitors support Lissajous and 5.1+2 surround sound patterns.



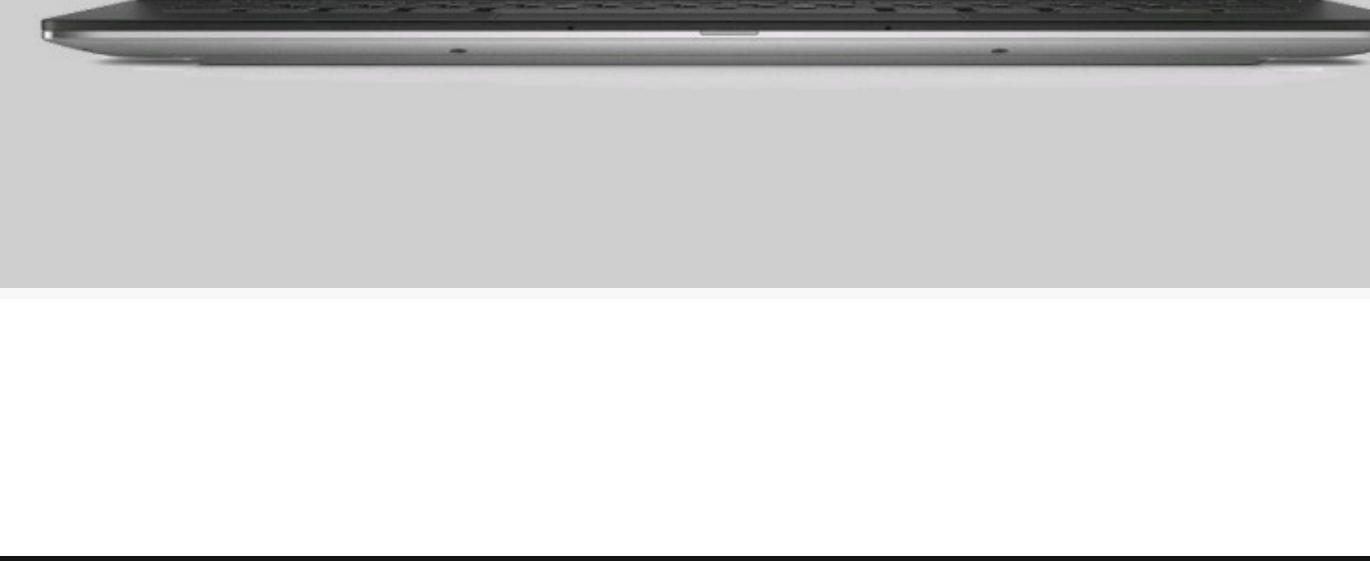
Eye Pattern

Built-in eye pattern to check input video transmission quality via SDI cable, especially the 12GSDI quality.



Webserver IP Remote Control

BM-U245HDR supports webserver remote control by Ethernet LAN connection. Use computer web browser to adjust the monitor control panel, and select input sources, open picture parameters, set up video / audio functions and assign function keys, etc, without install any APP.



SWIT®



BM-U245HDR

23.8" 1000nits 12GSDI 4K/8K HDR Monitor

Features

■ 23.8-inch UHD High Bright LCD

3840x2160 UHD native resolution IPS panel, 10bit 1.073G colors, 1000nits high bright LED backlight, 1000:1 contrast.

■ 18-bit Processing

Internal 18-bit signal processing.

■ 4K & 8K UHD Interfaces

12GSDI 4-in 4-out, supports Single link 4K, Quad link 4K and Quad link 8K inputs; HDMI 2.0 input, and 12GSDI via fiber input by optional SFP adaptor.

12G-SDI
HDMI 2.0
12GSDI via SFP fiber (Optional)

Single link 4K inputs

3GSDI A	3GSDI B
3GSDI C	3GSDI D

Quad link 4K inputs (2SI&SQD)

12GSDI A	12GSDI B
12GSDI C	12GSDI D

Quad link 8K inputs (2SI&SQD)
9 zones pixel-to-pixel zoom-in

■ Mixed inputs Multiviewer

4x independent 12G/6G/3G/HD-SDI or HDMI 1.3/1.4/2.0 mixed inputs multiview; Display waveform, vector, audio meters, EOTF, color gamut for each input.

12G/6G/3G/HD-SDI	12G/6G/3G/HD-SDI
12G/6G/3G/HD-SDI	12G/6G/3G/HD-SDI or HDMI

Mixed Multiviewing

■ HDR/Color Gamut selection, Payload ID auto setting

Gamma 1.0/1.8/2.2/2.4/2.6 or HLG/PQ/Slog3 HDR selection; BT.709, DCI-P3, BT.2020 selection; Payload ID auto set input range, color space, HDR/SDR, color gamut, color depth, etc.

■ Multi Color Gamut & EOTF Viewing

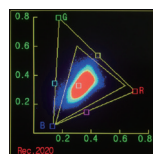
1 input source copied to 4 windows and display different HDR/SDR and color gamut simultaneously.

BT.2020 + HLG HDR	BT.709 + 2.4 SDR
DCI-P3 + PQ HDR	BT.2020 + S-log3 HDR

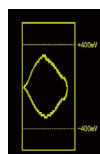
HDR/SDR simultaneously view

■ Color Gamut Pattern

Display BT.709 and BT.2020 color gamut position pattern.



Color Gamut Pattern



Eye Pattern

■ Eye Pattern

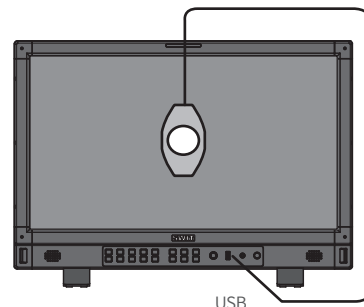
Built-in eye pattern to check input video transmission quality.

■ Zero Latency Processing

Less than 1/100 frame audio/video latency for 4K input sources, for special image processing mode for lip-sync monitoring.

■ 3DLUT Auto Self-Calibration

Built-in calibration software, supports X-rite i1 and JETI Specbos 1211 probes directly plug into monitor USB port to auto calibrate. Calibration time: X-rite i1: 15min; Specbos1211: 45min
Calibration result: $\Delta E < 1.0$



USB



Specbos 1211

X-rite i1 (Dedicated version)

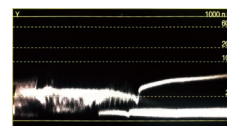
Built-in 3DLUT calibration software, Directly connect color sensor probe to monitor USB port, and the monitor will calibrate itself automatically.

■ Delog 3DLUTs & User 3DLUTs Upload

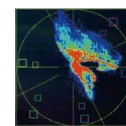
With built-in De-log LUTs including Log-C, S-log2, S-log3, C-log, V-log and RedLogFilm LUTs, to convert Log video to 709 SDR or HLG/PQ HDR. Support User 3DLUTs upload by USB.

■ Waveform/Vector/Histogram

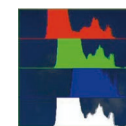
Support waveform (Y, Cb, Cr, R, G, B) and single line mode; support vector scope and R/G/B/Y histogram display, with multiple display position, size and color selection.



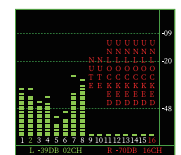
Y, Cb, Cr, R, G, B Waveform with nits



Vector scope



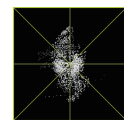
R/G/B/Y histogram



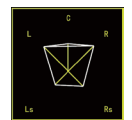
16-ch audio meters

■ Audio Patterns

Display up to 16-ch audio level meters, and select any 2 channels to output via 3.5mm socket or speakers; Support Lissajous and 5.1+2 surround patterns.



Lissajous



surround sound pattern

■ Others

Focus assist, R/G/B/mono, False color, Zebra, H/V delay, Freeze; 15:9, 14:9, 13:9, 4:3, 2.35:1, 2:1, 1.85:1 and User defined markers; Support TSL 3.1/4.0 UMD and text TALLY display; GPI control and webserver IP control, USB firmware updates.



- ◆ 4x12GSDI, 8K Input Ready
- ◆ 1000nits, HLG/PQ/S-log3 HDR
- ◆ Multi CG/EOTF viewing
- ◆ 3DLUT Self-calibration, dE<1.0

Video Formats

SDI 1/2/3/4 IN/OUT, SFP (Optional)

4096×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 3840×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 2048×1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 2048×1080i (50 / 59.94 / 60)
 1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 1080i (60 / 59.94 / 50)
 1080psf (30 / 29.97 / 25 / 24 / 23.98)
 720p (60 / 59.94 / 50)
 480i (59.94) 576i (50)

4K Quad-link SDI IN/OUT (each channel)

2048×1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)

8K Quad-link SDI IN/OUT (each channel)

4096×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 3840×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)

HDMI IN

4096×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 3840×2160p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 1080p (60 / 59.94 / 50 / 30 / 29.97 / 25 / 24 / 23.98)
 1080i (60 / 59.94 / 50)
 720p (60 / 59.94 / 50)

Specifications

Model		BM-U245HDR
Display	LCD size	23.8 inches
	Resolution	3840×2160
	Aspect Ratio	16:9
	Color Depth	10bit 1.073G colors
	Signal Process	18bit
	Color Gamut	100% Rec709; 91.9% DCI-P3
	Viewing angle	H/V 178/178
	Backlight	LED
	Brightness	1000nits
	Contrast	1000:1
Input	SDI	12G/6G/3G/HD-SDI ×4
	HDMI	HDMI 2.0 ×1
	UMD	RS485×1
	GPI (Tally)	RS485×1
	Ethernet	RJ45×1, 1000M
	USB	USB-A×1 – 3DLUT & Firmware
Output	SDI	12G/6G/3G/HD-SDI ×4
	Analog audio	3.5mm headphone + Speaker
	UMD	RS485×1
General	AC Input	AC 100-240V 50/60Hz
	DC Input	DC 12-17V & V-mount plate
	Power	≤120W
	Working environment	0°C - +40°C; 10% - 90%
	Storage environment	- 15°C - + 60°C; 10% - 90%
	Dimensions	593×404.5×92mm
	Weight	10kg







SFP IN

SDI 12G
OUT 1 IN 1
SDI 12G
OUT 2 IN 2
SDI 12G
OUT 3 IN 3
SDI 12G
OUT 4 IN 4

ETHERNET
HDMI IN

RS485
OUT IN

GPI

IN&OUT	PIN
GND	1
NC	2
RXD-	3
NC	4
NC	5
RXD+	6
TXD-	7
TXD+	8

RS485



