

K2E Professional
Broadcasting Product

12G-SDI

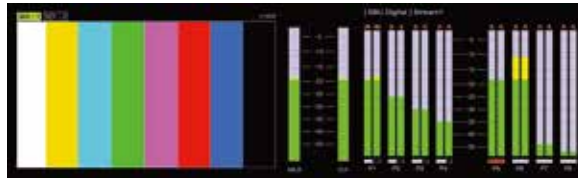
12G MASTER MONITOR

4KUHD Master Monitor



Examples of display picture

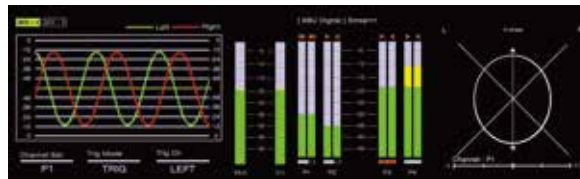
Video Screen
 Audio 16CH Level Meter
 Loudness Momentary
 Loudness Short term



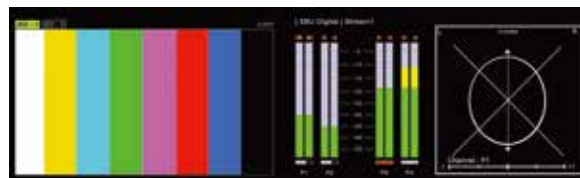
Video Screen
 Video Waveform
 Video Vector scope
 Audio Level Meter
 SDI Stream Error Check



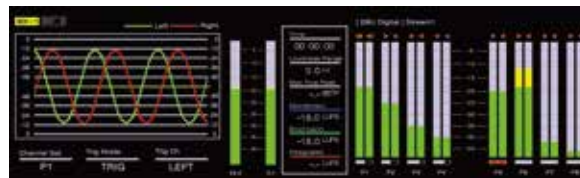
Audio Waveform
 Loudness Momentary
 Loudness Short term
 Audio Vector scope



Video Screen
 Audio Level Meter
 Audio Vector scope



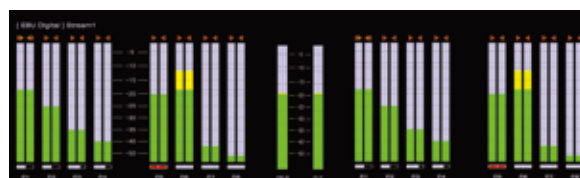
Audio Waveform
 Loudness Momentary
 Loudness Short term
 Loudness Status



Video Screen
 Video Vector scope
 Loudness Momentary
 Loudness Short term
 12G-SDI Error Check



Audio 64CH Level Meter
 Loudness Momentary
 Loudness Short term



Loudness Graph
 Loudness Status
 Loudness Momentary
 Loudness Short term
 Audio Vector scope



12G MASTER MONITOR

Front



ULM-1264

ULM-1264 can monitor and analyze all of 12G/3G/HD-SDI, Dolby E, Dolby Digital(AC3), AES/EBU and Analog audio.

On 8-inch LCD screens, it's easy and convenient to monitoring and set LKFS, Alarm, Speaker, Level meter scale, Phase and so on.

So all users can experience high-quality performance.

Features

- Audio Loudness(LUFS/LKFS) Monitoring
- Phase(Stereo Graphic), Loss of Input, Silence Audio Error*
- Speaker Alarm on error*
- LKFS Alarm function*
- Ability to monitor all kinds of audio (Dolby-E, AC3,3G/HD/SD-SDI embedded audio, Digital AES/EBU, Analog audio, etc)
- 2CH 3G/HD/SD-SDI preset based audio de-embedder(16CH)
- 2CH Dolby-E and Dolby digital(AC3) decoder*
- 8CH AES/EBU digital(unbalanced 75 Ohm and balanced 110 Ohm) audio
- Single 8" TFT-LCD, Display Resolution 1600X480
- Graphic Audio 16CH Level Meters 70 Segment
- Audio Level Meter Scale : SMPTE Digital, EBU IRT, BBC, SMPTE IRT, FRANCE VU, NORDIC, SMPTE VU, EBU Digital, Expanded DIN, EBU, EBU VU, DIN
- Phase-correlation LCD display, Speaker Alarm and Audio Phase reversal detection
- Signal Audio Multi Monitoring(SDI, Dolby, AES/EBU and Analog)
- Premium quality drivers and power amplifiers
- High quality production processing
- User-friendly button designed on the front panel
- Left/Right Power Speaker(4 Ohm 5W), Left/Right woofer Speaker(8 Ohm 10W)
- Audio Phase Correlation LCD Display and Signal Alarm
- Audio/Video Status Monitoring
- High sensitivity headphone jack
- System Controlled by SNMP*
- 19" standard rack mountable(2RU)
- DC Power Toggle SW
- * is optional.

Audio Monitor

	Channel	Rack SIZE	12G-SDI	3G/HD-SDI	Dolby	AES /EBU	Analog	LKFS /LUFS	PHASE	Stereo Phase
ULM-1264	64	2RU	√	√	√	√		√	√	√
	Level Meter	Premium AMP	Signal Alarm	Graphic Mon	Video -LCD	A/V Status	WFM /Vector	SNMP/ Ethernet	Voice Memory	Speaker Alarm
	√	√	√	√	√	√	√	√	√	√

Back



12G/3G/HD-SDI, Dolby, AES/EBU, Analog Audio Input/Output

- 2ch 12G/3G/HD-SDI embedded audio Input
- 2ch 12G/3G/HD-SDI output (64ch de-embedder)
- Independent Dolby-E input*
- Compatible with Dolby digital(AC3) input*
- Dolby-E, AC3 Decoder output(AES/EBU 1/2~7/8, Down mix, Aux)*
- 8ch digital(AES/EBU) audio input (75 Ohm unbalanced)
- 8ch digital(AES/EBU) audio input(110 Ohm balanced)
- 8ch digital(AES/EBU) audio output (75 Ohm unbalanced)
- 8ch digital(AES/EBU) audio output(110 Ohm balanced)
- PGM Line output (AES/EBU)
- PGM Line output (balanced-XLR)
- Ethernet (SNMP : TCP/IP)*
- RS-422 remote control

* is optional.

Specifications

12G/3G/HD-SDI serial video input

Standard	12G/3G/HD-SDI: SMPTE 2082-10, SMPTE 424M, SMPTE 259M
Number of input	2
Connector	MINI-BNC
Equalization	Typical maximum equalized length of 5C cable: 80m at 2.97Gb/s, 150m at 1.485Gb/s
Return loss	> 15dB up to 1.5GHz

AES/EBU audio input (Dolby E, AC3)

Standard	SMPTE 276M for single ended synchronous or asynchronous PCM/AES
Number of input	2
Connector	BNC or add-on bus
Sampling rate	48 kHz Synchronous
Impedance	75 Ohm
Level	0.2V to 1V nom

AES/EBU audio input

Standard	AES-1992 for balanced synchronous or asynchronous PCM/AES, SMPTE 276M for single ended synchronous or asynchronous PCM/AES
Number of input	75 Ohm : 8 / 110 Ohm : 8
Connector	BNC or D-sub
Sampling rate	32 kHz to 96 kHz
Resolution	24 bit
Impedance	75 Ohm or 110 Ohm
Level	0.2V to 1V nom for BNC, 2V to 7V for balanced operation

Serial Interface RS-422 & Ethernet

Data Communications	RS-422
System Protocol	K2E Standard Protocol
Ethernet	1Port 10/100baes-T
Connector	RJ-45

Electrical & Mechanical

Input voltage	DC 24V
Frequency	50/60 Hz
Power	100W
Dimension	483X 44X 313 mm(WxHxD)
Weight	4Kg
Operating temperature	0°C to +40°C

12G/3G/HD-SDI serial video output

Standard	Same as serial video input
Number of output	2
Signal level	800mV nominal
DC offset	0V±0.5V
Rise/Fall time	135ps nominal
Overshoot	<10% of amplitude
Return loss	>15dB up to 1.5GHz(typ.) >10dB up to 3GHz(typ.)
Wideband jitter	<0.2UI

AES/EBU audio output & dolby digital(AC3), dolby E output

Number of output	2
Connector	BNC
add-on bus	1
Resolution	24 bit
Sampling rate	Sampling Rate 48KHz synchronous
Nominal I/O delay	1 frame

AES/EBU audio output

Number of output	75 Ohm : 8 / 110 Ohm : 8
Connector	BNC and D-sub 15pin
Resolution	24 bit

Program and Monitor Line Output

Type	Balanced
Number of output	2
Out connector	XLR

Color TFT-LCD

Screen size	8 Inch TFT-LCD
Display resolution	1600X480
Contrast ratio	500 : 1