

Video

Video Processing

4:4:4 (RGB), 10-bit

4:4:4 (Y/Pb/Pr), 10-bit

Input Connectors

SDI IN 1--4 connectors: BNC type x 4 (INPUT 1--4)

* Conforms to SMPTE 424M (SMPTE 425M-AB), 292M, 259M-C.

HDMI IN 1--4 connectors: HDMI type A x 4 (INPUT 1--4)

* HDCP Supported

RGB/COMPONENT IN 1--2 connectors: HD DB-15 type x 2 (INPUT 1--2)

COMPOSITE IN 1--2 connectors: BNC type x 2 (INPUT 1--2)

* INPUT 1--2: Select SDI, HDMI, RGB/COMPONENT or COMPOSITE using menu.

Output Connectors

HSDI OUT (PGM, AUX) connectors: BNC type x 2 (PGM OUT, AUX OUT)

* Conforms to SMPTE 424M (SMPTE 425M-AB), 292M, 259M-C

HDMI OUT (PGM, AUX, MULTI-VIEW) connectors: Type A x 3 (PGM OUT, AUX OUT, MULTI-VIEW OUT)

* HDCP Supported

Analog RGB/HD-Component: Mini D-sub 15-pin type x 2 (PGM OUT, AUX OUT)

Input/Output Level and Impedance

Composite (COMPOSITE IN): 1.0 Vp-p 75 ohms

Analog RGB (RGB/COMPONENT IN, RGB/COMPONENT OUT): 0.7 Vp-p 75 ohms (H, V: 5 VTTL)

Analog HD (RGB/COMPONENT IN, RGB/COMPONENT OUT): 1.0 Vp-p 75 ohms (Sync-Signal: Bi-Level/Tri-Level)

Supported Video Formats

SDI (SDI IN, SDI OUT): 480/59.94i, 576/50i, 720/59.94p, 720/50p, 1080/23.98p (*3), 1080/24p (*3), 1080/29.97p (*3), 1080/30p (*3), 1080/25p (*3), 1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p

* Conforms to SMPTE 274M, SMPTE 296M, ITU-R BT.601-5.

HDMI (HDMI IN, HDMI OUT) (*1): 480/59.94i, 576/50i, 480/59.94p, 576/50p, 720/59.94p, 720/50p, 1080/23.98p (*3), 1080/24p (*3), 1080/29.97p (*3), 1080/30p (*3), 1080/25p (*3), 1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p 1024 x 768/60 Hz (*2), 1280 x 720/60 Hz, 1280 x 800/60 Hz (*2), 1280 x 1024/60 Hz (*2), 1400 x 1050/60 Hz, 1920 x 1080/60 Hz

HDMI (HDMI OUT MULTI-VIEW only) (*1): 1080/59.94p

Component (RGB/COMPONENT IN, RGB COMPONENT OUT): 480/59.94i, 576/50i, 480/59.94p, 576/50p, 720/59.94p, 720/50p, 1080/59.94i, 1080/50i, 1080/59.94p, 1080/50p

RGB (RGB/COMPONENT IN, RGB/COMPONENT OUT) (*1): 1024 x 768/60 Hz (*2), 1280 x 720/60 Hz (*2), 1280 x 800/60 Hz (*2), 1280 x 1024/60 Hz (*2), 1400 x 1050/60 Hz, 1920 x 1080/60 Hz

Composite (COMPOSITE IN): NTSC, PAL

*Note

*1 Conforms to CEA-861-E or VESA DMT Version 1.0 Revision 11.

*2 Output refresh rate is 75 Hz when frame rate is set to 50 Hz.

* The video signal frame rate must match the unit's frame rate setting.

*3 Only input format is supported.

* The output format of HDMI and RGB/Component is always the same.

When a Video format is selected, component signal is output from the RGB/COMPONENT connector.

When a RGB format is selected, RGB signal is output from the RGB/COMPONENT connector.

USB-VIDEO (USB STREAMING): 480/29.97p, 576/25p, 480/59.94p, 576/50p, 720/29.97p, 720/25p, 720/59.94p, 720/50p, 1080/29.97p, 1080/25p, 1080/59.94p, 1080/50p

Still Image: Windows(R) Bitmap File (.bmp)

* Maximum 1920 x 1080 pixels, 24-bit per pixel, uncompressed.

* It can be loaded up to 4 files from USB memory.

Effects

Transition: Mix, Cut, Wipe (9 patterns)

Composition: PinP, Chrominance Key, Luminance Key

Others: Output Fade, Output Freeze, User Logo

Audio

Audio Processing

Sampling Rate: 24 bits, 48 kHz

Audio Formats

SDI (SDI IN, SDI OUT): Linear PCM, 24 bits, 48 kHz, 2 ch

* SMPTE 299M, SMPTE 272M-C

HDMI (HDMI IN, HDMI OUT): Linear PCM, 24 bits, 48 kHz, 2 ch

USB-AUDIO (USB STREAMING): Linear PCM, 16 bits, 48 kHz, 2 ch

Input Connectors

AUDIO IN 1--4 jacks: Combo type (XLR, 1/4-inch TRS phone), balanced, phantom power (DC 48 V, 10 mA Max)

AUDIO IN 5--8 jacks (1/4-inch TRS phone type) (LINE 1--2)

* AUDIO IN 5 and 7 are mic level capable. (MIC 5, 7)

AUDIO IN 9--12 jacks (RCA phono type) (LINE 3--4)

Output Connectors

AUDIO OUT MAIN (L, R) jacks: XLR type

AUDIO OUT AUX 1 (L, R) jacks: RCA phono type

AUDIO OUT AUX 2/MONITOR (L, R) jacks: 1/4-inch TRS phone type

PHONES jack: Stereo 1/4-inch phone type

PHONES jack: Stereo miniature type

Nominal Input Level

AUDIO IN 1--4 jacks: -64 to +4 dBu (Maximum input level: +24 dBu)

AUDIO IN 5, 7 jacks: -64 to +4 dBu (Maximum input level: +24 dBu)

AUDIO IN 6, 8 jacks: +4 dBu (Maximum input level: +24 dBu)

AUDIO IN 9--12 jacks: -10 dBu (Maximum input level: +9 dBu)

Input Impedance

AUDIO IN 1--4 jacks: 30 k ohms

AUDIO IN 5--8 jacks: 30 k ohms

AUDIO IN 9--12 jacks: 7 k ohms

Nominal Output Level

AUDIO OUT MAIN L-R jacks: +4 dBu (Maximum output level: +24 dBu)

AUDIO OUT AUX 1 jacks: -10 dBu (Maximum output level: +8 dBu)

AUDIO OUT AUX 2/MONITOR jacks: +4 dBu (Maximum output level: +24 dBu)

Headphones: 72 mW + 72 mW (32 ohms load)

Output Impedance

AUDIO OUT MAIN L-R jacks: 600 ohms

AUDIO OUT AUX 1 jacks: 1 k ohms

AUDIO OUT AUX 2/MONITOR jacks: 600 ohms

Headphones: 30 ohms

Residual Noise Level (IHF-A, typ.)

U-92 dBu (All faders: Min)

-89 dBu ([MAIN] Fader: Unity, Channel faders: Unity only one INPUT1 channel, Preamp gain: Min)

-60 dBu ([MAIN] Fader: Unity, Channel faders: Unity only one INPUT1 channel, Preamp gain: Max)

* Input 150 ohms terminate

* Output Connector: AUDIO OUT MAIN (L, R) jacks & AUDIO OUT AUX 2/MONITOR jacks

-100 dBu (All faders: Min)

-98 dBu ([MAIN] Fader: Unity, Channel faders: Unity only one INPUT1 channel, Preamp gain: Min)

-74 dBu ([MAIN] Fader: Unity, Channel faders: Unity only one INPUT1 channel, Preamp gain: Max)

* Input 150 ohms terminate

* Output Connector: AUDIO OUT AUX 1 (L, R) jacks

Audio Effects

Auto mixing, Anti-feedback, 4-Band EQ, Delay, Compressor, HPF, Noise Gate, Reverb, Limiter, Voice changer, 15-Band EQ, Adaptive Noise Reduction, Low Frequency Cut, Loudness AGC, and Auto Leveler

Channel Effects(common): HPF, Compressor, Noise Gate, 4-Band EQ, Delay

Channel Effects(FX Block): Anti-feedback, Voice changer

Master Effects: 4-Band EQ, Compressor, Limiter, Reverb, 15-Band EQ

Common Section

Remote Control

RS-232C connector: D-sub 9 pin type

LAN connector: RJ45 100BASE-TX

USB Interface

USB MEMORY port (HOST): USB A type for USB MEMORY(USB flash drive, Still image)

USB port (HOST): USB A type(Use for future expansion)

USB STREAMING port (DEVICE): USB B type for USB-VIDEO(SuperSpeed/Hi-Speed), USB-AUDIO (Full-Speed)

Other Functions

Preset Memory (8 types)

Panel lock function

EDID emulator

Auto switching (Video follows audio)

Remote Camera Control

Display

7 inch Graphic color LCD 800 x 480 dots (touch screen)

Power Supply

AC Adaptor, Secondary AC Adaptor DC 9 V to 16 V (XLR-4-32 type)

Current Draw

2.8 A

Power Consumption

67 W

Operation Temperature

+0 to +40 degrees Celsius

+32 to +104 degrees Fahrenheit

Accessories

Startup Guide

Leaflet "USING THE UNIT SAFELY"

AC adaptor

Power cord

Ground Cord

Dimensions

437 (W) x 325 (D) x 125 (H) mm

17-1/4 (W) x 12-13/16 (D) x 4-15/16 (H) inches

Weight

5.9 kg

13 lbs 1 oz

System recommendations for recording (VR Capture) or streaming HD material

Windows

8.0 or higher

Mac

OS X 10.7 and higher

* When recording data in the HD size, use OS X 10.8.5 or later.

Common

Ivy Bridge Core i5 and higher

8GB Memory or more

USB 3.0 (supported USB3.0 Intel Chipset e.g. 7Series)