SONY

XEL-1

OLED Digital HDTV

Key Features

- Incredibly Slim 3mm Thin Panel
- Blazing Fast Response Time
- 1,000,000:1 Contrast Ratio
- Exceptional Color Reproduction
- 178° viewing angle
- High Brightness
- Energy Efficient

Key Technologies

OLED Story What's so great about OLED– Lots! Blazing fast response times, wide viewing angles, exceptional color reproduction, outstanding contrast levels, and high brightness. The nature of its technology lends itself to extremely thin and lightweight designs along with the ability to use it in a variety of different applications. OLED is the holy grail of TV display technologies!

What is OLED– OLED stands for Organic Light Emitting Diode. The "organic" in OLED refers to organic material. Carbon is the basis of all organic matter. Examples of carbon-based substances include sugar, wood and the majority of plastics. The "LED" stands for "Light Emitting Diode" and describes the process of converting electric energy into light. There are two types of OLED – small molecule OLED and polymer OLED. Sony uses the small molecule type because it has a longer lifespan.

How does OLED work– A layer of organic material is sandwiched between two conductors (an anode and a cathode), which in turn are sandwiched between a glass top plate (seal) and a glass bottom plate (substrate). When electric current is applied to the two conductors, a bright, electro-luminescent light is produced directly from the organic material.

How is color created– OLED has more control over color expression because it only expresses pure colors when an electric current stimulates the relevant pixels. The OLED primary color matrix is arranged in red, green, and blue pixels, which are mounted directly to a printed circuit board. Each individual OLED element is housed in a special "micro-cavity" structure designed to greatly reduce ambient light interference that also works to improve overall color contrast.

The thickness of the organic layer is adjusted to produce the strongest light for each of the colors – red, green and blue - used to render the color picture. The three colors are further refined by a color filter, which purifies each color without the need for a polarizer, rendering outstanding color purity.

What's next for OLED– Sony established a milestone with the introduction of the industry's first Organic Light Emitting Diode (OLED) television, the XEL-1. This 11" diagonal desktop color television is just the first step Sony is taking in the world of OLED televisions. Larger screen sizes and higher native resolutions are possible. As substrates get thinner, the displays will in turn get thinner.

There are a variety of other uses for OLED technology. In fact, Sony has developed a new application for OLED technology called Organic Thin Film Transistor (TFT). The newly developed Organic TFT can be deposited on a flexible plastic display, which is the world's first full-color display that can project full color moving images even when the display is bent.

Incredibly Slim OLED TV's are incredibly slim because organic material directly emits light so OLED display panels do not require a thick backlight or complex construction like other flat panel technologies. The Sony® XEL-1 is an unbelievable 3mm thin (without its stand)!

Blazing Fast Response Time When turned "on," individual organic elements are stimulated directly by electric current, and therefore response time is incredibly fast.

Outstanding Contrast When an organic pixel is turned "off" the result is complete darkness. This results in deep blacks and an unheard of contrast ratio of 1,000,000:1. Yes, that's a one million to one contrast ratio!

Exceptional Color Reproduction Sony's unique "Super Top Emission" technology, which combined with a special mircro-cavity and color filters, enhances color purity, achieves extraordinary high color contrast. In fact, 105% of the NTSC color space can be achieved!

Wide Viewing Angles OLED colors and contrast look amazing even at wide 178° viewing angles due to the direct view nature of the panel. Pixel colors look fantastic even at wide 178° viewing angles for an outstanding viewing experience.

High Brightness Because OLED elements individually emit light that are directly displayed on the screen, high brightness levels can be achieved.

Energy Efficiency OLED technology delivers a more efficient means of utilizing light, which is generated by the organic material itself instead of an always on backlight; also, when elements are in their "off" state, they consume no power whatsoever.

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Features

General

Auto SAP: Yes

Closed Caption (CC): Yes

Video

Tuner: NTSC, CATV, ATSC, Clear QAM[1]

Noise Reduction: Yes

CineMotion® Reverse 3:2 Pulldown Technology: Yes (Off, Auto)

Comb Filter: Yes (3D Digital Comb Filter)

Picture Modes: Vivid, Standard, Custom

Wide Mode: Wide Zoom, Normal, Full, Zoom

Display Technology: OLED

Audio

Sound Mode: Dynamic, Standard, Custom

MTS Stereo Decoder: Yes

A/V Synch: Yes

Digital Amplifier: Yes

Speaker On/Off: No

Dolby® Digital: Yes (AC3 for ATSC)

Steady Sound: Yes

Sound Booster: Yes

S-Force® Front: Surround (On, Off)

Convenience

Favorite Channel: Yes

Xross Media Bar®: Yes

ID-1 Detection: Yes

LightSensor™ : Yes

Specifications

General

Aspect Ratio: 16:9

Screen Size: 11 inches measured diagonally

Television Type: OLED Flat Panel

Acceptable Video Signals: 480i, 480p, 720p, 1080i/60, 1080p/60

Video

Native Resolution: 960(H) x 540(V)

Picture Adjustment: Mode, Reset, Picture, Brightness, Color, Hue/Color, Temperature, Sharpness, Noise Reduction, MPEG Noise Reduction, Advanced Settings: Black Corrector, Gamma, Clear White, Color Space, Live Color

Audio

Audio Power Output: 2W (1W + 1W)

Inputs and Outputs

Component Video (Y/Pb/Pr) Input(s): No

Composite Video Input(s): No

Digital Audio Output(s): Yes (Optical)

RF Connection Input(s): 1 (rear)

S-Video Input(s): No

Headphone Output(s): 1 (Side)

HDMI™ Connection(s): 2 (Rear) supports 1080p/60, CEC capable

Memory Stick® Media Slot: Yes (Memory Stick PRO™)

Service and Warranty Information

Limited Warranty: 1 Year Parts / 1 Year Labor. See Warranty card for full details.

Dimensions

Weight: 4 lbs 3 oz (1.9Kg) with stand

Measurements: 11 5/16 x 9 15/16 x 5 1/2" (287 x 253 x 140mm) with stand

Supplied Accessories

Remote Control

Battery

AC Power Adapter

AC Power Cord

75-ohm Coaxial Cable

Cleaning Cloth

Operating Instructions

Warranty Card

Color: Black

UPC Code: 027242730557

1. Contact your local cable provider for details on how to access or subscribe to HD programming.

Please visit the Dealer Network for current information at www.sony.com/dn