# **Key Features**

- Digital Home Entertainment LCD Projector
- Single Lens Projection System
- Three WXGA LCD Panels, .87" p-si TFT Panels
- Resolution: (1386 x 788) 3,276,504 Pixels (1,092,168 Pixels x 3)
- Lens: 1.3 Times Powered Lens Zoom, Focus F. No. 1.7-2.1 / f 33.6-42mm
- Standard Lens Throwing Distance:
   40" 1.5m-1.8m; 60" 2.3m-2.8m; 80" 3.1m-3.7m; 100" 3.9m-4.6m;
   120" 4.6m-5.9m; 150" 5.8m-7.0m; 200" 7.8m-9.3m; 300" 12m-14m
- High Quality I/P Converter
- Side Shot™ 2 Digital Keystoning
- Brightness: ANSI Lumens: 1200 Im/OEP, 1570 ANSI Im
- Memory Stick® Media Playback (JPEG/MPEG)\*
- CineMotion® Reverse 3-2 Pulldown Technology
- Ceiling or Table Mount Capable
- Contrast Ratio: 1300:1 Cinema Black Pro
- Improved Lamp Life Up to 3000 Hours
- HDMI HDTV Interface
- 12 Bit Panel Driver LSI
- Micro Lens Array and WV Film

## **Additional Features**

### **General Features**

- Ultra Quiet Fan (28db)
- Memory Stick® Media Playback (JPEG/MPEG)\*
- Built-In Speaker (2w x 2) For Memory Stick® Media Only)
- Lamp: 180w UHP Type
- Optical Engine Power: 1570 ANSI Lumen
- Contrast Ratio 1300:1 (Cinema Black Pro)
- Screen Size: 40-300"
- Input Video Signals: 480i/480p/1080i/720p
- Scanning Frequency: fh 19-72khz, fv 48-92hz Up To XGA VESA85

- Acceptable Video Signal:

   15kHz RGB/Component
   50/60Hz, Progressive
   Component 50/60Hz, DTV
   (480/60i, 575/50i, 480/60p, 575/50p, 720/60p, 720/50p, 1080/60i, 1080/50i), 1080/24PsF, Composite Video, Y/C Video
- Acceptable Computer Signal: RGB - Horizontal 19-72KHz (SVGA), Vertical 48-92Hz, Maximum Input Signal Resolution: XGA (1024 x 768 fV:85Hz) 1280 x 720 fV:60Hz; 1280 x 768 fV: 60 Hz

- Color System: NTSC, PAL, SECAM, PAL-M, PAL-N
- Composite Video Input
- S Video Input: Mini Din 4 Pin
- DVI-HDTV Interface (HDMI)
- Mini USB-B
- PJ Multi Input: RGB/Component/Progressive Component DTV: (480i/480p/720p/1080i)
- HDTV (RGB, Y/Pb/Pr)
   S-Video/Composite Video DVI-HDTV
- Interface Audio Input: Stereo Phono Plug



# **Key Technology**

### **Low Fan Noise**

VPL-HS20's fan noise 28dB is the lowest level in the Sony projector lineup. It is barely noticeable, which is critical for home applications.

### **Micro Lens Array and WV Film**

By incorporating these two technolgies, the VPL-HS20 achieves superb High Contrast.. The "Contrast Ratio" of LCD projectors is the difference between the On/Off status of the liquid crystal elements, which are in between the two polarizers. As the light passes through the panels the liquid crystal is "On"; which means the light should be shut out. To improve the contrast we implemented 3 main measures. First, we added Micro Lens Array (MLA) to the LCD panel to increase brightness. Then we add Wide View film (WV) to shift brightness (increased by MLA) for deeper blacks. Third, we modify the optical unit to reduce the light leak more than usual.

### Cinema Black Pro

Allows for Lamp (low, high) and Iris (on, off) control for better contrast and brightness. This menu driven feature turns the Iris shutter Off (open) for high brightness and standard contrast or On (closed) for low brightness and higher contrast. The contrast ratio is 1300:1.

## **Optical Engine Power (OEP)**

This projectors optical unit has a maximum of 1400 ANSI lumen that is optimized for video content. When compared to a data grade projector showing the same video content, the HS20 has a higher brightness rating.

### 12 Bit Panel Drive with New I/P Converter

Full digital chassis by reducing the A/D and D/A conversions this new panel driver achieves four times more color gradation compared to the previous 10 bit panel drive (VPL-HS10). The new interlace to progressive converter processes both interlace and progressive HD for a more detailed and smooth images. **HDMI-HDTV Interface (High Definition Multimedia Interface)** 

Has been added for the latest generation in high definition television connectivity. A single wire delivers a full digital uncompressed HD signal that can be received from any HDMI compatible set top boxes.

# Specifications

# **Inputs and Outputs**

- Video Composite: Phone Type 1Vp-p±2dB sync negative
- Y/C In: Mini DIN 4-pin Y: 1Vp-p±2dB sync negative C: Burst 0.286Vp-p±2dB (NTSC), 75 ohm or 0.3Vpp±2dB (PAL)
- Component: Phono Type G with Sync Y: 1Vp-p±2dB sync negative B/CB/PB: 0.7Vp-p±2dB positive

R/CR/PR: 0.7Vp-p±2dB positive

- DVI: DVI-D (TMDS)
- HDMI: Digital RGB/YCB(PB)CR(PR) Digital Audio
- USB: Mini USB-B
- PJ Multi In: 32 Pin Multi Connector

- Video Composite: 1Vp-p±2dB sync negative
- Y: 1Vp-p±2dB sync negative C: Burst 0.286Vp-p±2dB (NTSC), 75 ohm or 0.3Vpp±2dB (PAL)
- Component/Progressive YPBPR/Analog RGB G: 0.7Vp-p±2dB Positive G with Sync Y: 1Vp-p±2dB Sync Negative B/CB/PB: 0.7Vp-p±2dB Positive R/CR/PR: 0.7Vp-p±2dB **Positive**
- SYNC/HD: Composite Sync: 1 to 5 Vp-p, High Impedance Positive/Negative Horizontal Sync: 1 to 5

Vp-p, High Impedance

Positive/Negative

- VD:
- Vertical Sync: 1 to 5 Vp-p, High Impedance Positive/Negative

### General

- Power Requirements: 100 to 240V, 50/60 Hz
- Power Consumption: Max. 260W. Standby 5W
- Operating Temperature: 0° to 35°C (32° to 95°F)
- Operating Humity: 35 to 85 %

### Accessories

### **Supplied Accessories**

- Instruction Manual
- Remote Control (RM-PJHS10)
- Signal Interface Cable (10m) (SIC-HS41)
- AA Battery x 2
- Air Filter (PK-HS10FL)
- Lens Cap

# **Optional Accessories**

- Easy Set-Up Signal Interface (IFU-HS1)
- V/L/R Interface (SIC-HS10)
- Y/Pb/Pr/S/L/R Cable (SIC-HS20)
- HD15/LR Interface (SIC-HS30)
- Y/Pb/Pr/S/V Interface (SIC-HS40)
- Replacement Lamp (LMP-H180)
- Replacement Air Filter (PK-HS10FL)
- Long Focused Conversion Lens (VPLL-CT10)
- Short Focused Conversion Lens (VPLL-CW10)
- Suspension Support (PSS-610)

### Weights & Measures

- Approx. Dimensions (w/h/d): 135/8" x 57/8" x 145/8" (345 x 148 x 369mm)
- Approx. Weight: 11 lbs. 14 oz. (5.4 kg)

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\*All Sony digital still cameras and camcorders except models DSCD-700, DSCD-770, DCR-TRV900, and DSR-PD100A store images on a Memory Stick media in the DCF file format, which is required for playback on these projectors. If the image file is re-named or manipulated, the DCF file format must be restored before playback is possible. Images captured on all other digital still cameras and camcorders will need to be formatted on a PC to the DCF file format (with third party software not supplied with the projector) before they can be viewed.