SONY

Data Projector

VPL-CX85

Incredible Brightness and a Convenient Wireless Capability – All Packed Into a Stylish and Compact Body

The VPL-CX85 is a state-of-the-art compact projector that boasts an incredible brightness of 3000 ANSI lumens by adopting a newly developed 0.79-inch LCD panel and advanced optical technology. This XGA (1024 x 768) projector comes in a compact and stylish design that is suitable for almost every environment, including high ambient-light conditions. Clear presentations can be made in classrooms and meeting rooms with an average capacity of up to 50 people. The Air Shot™ feature – a Sony original wireless-transmission function – is ideal for smooth and easy presentations without the inconvenience of untidy cables.

The VPL-CX85 is easy to set up using the Intelligent Auto Setup feature that instantly readies your projector for use at the push of a button. The projector's Side Shot™ feature allows you to place the projector off-axis from the center of the screen. Furthermore, with a newly developed cooling system and fan, based on the latest technology used in consumer projectors, the VPL-CX85 runs very quietly so as not to disturb your presentations. If you're looking for an innovative compact projector, the VPL-CX85 is the ideal choice.

FEATURES

3000 ANSI Lumens, Native XGA (1024 x 768) Resolution

With an incredible brightness of 3000 ANSI lumens, [1] the VPL-CX85 is one of the brightest projectors in its class. This, coupled with the projector's native XGA (1024 x 768) resolution, provides outstanding image quality even in extremely high ambient-light conditions.

[1] ANSI lumen is a standard measuring method of the American National Standards Institute IT7.228. Since there is no uniform method of measuring brightness, specifications will vary among manufacturers.

Short Focal-Length Lens, Power Focus, Power Zoom

The short focal-length lens enables a large screen size from a short throwing distance. An 80-inch [2] image can be projected from a distance of only 2.4 meters. This feature is invaluable when room space is limited but dynamic presentations are required.

[2] Viewable area, measured diagonally.

Air Shot Wireless Presentations [3]

The VPL-CX85 has a wireless transmission function, [4] which eliminates the need for cable connections between PC and projector. This convenient feature makes it easy to switch presentations from one person to another – the presenter simply passes a USB wireless LAN module to the next presenter. It also allows mobility between PC and projector, so that you can pick up your PC and walk to another part of the room without fumbling with a cable.

[3] Requires the wireless LAN card, USB wireless LAN module, and the Projector Station for Air Shot software application, all of which are supplied accessories. This software application can be installed in a PC using the supplied USB Storage Media. If Microsoft® Windows® 98 SE operating system is being used, then a driver in the CD-ROM must be installed so that the USB Storage Media can be used.
Hardware/Software Requirements:
Sony cannot guarantee the Air Shot feature will function properly on some computers even though the following requirements are satisfied.
CPU: Intel® Pentium® III 600-MHz processor or faster
Memory: 64 MB or more (128 MB or more is recommended). 128 MB or more is required when using Microsoft Windows XP
HDD: 10 MB or more
Resolution: VGA, SVGA, XGA, or SXGA
Color: 16-bit, 24-bit, or 32-bit color
OS: Microsoft Windows 98 SE / Windows ME / Windows 2000 / Windows XP (Home/Professional editions)

[4] This wireless transmission function complies with IEEE 802.11b (2.4-GHz frequency band). Transmission may slow or stop due to interference from devices such as microwave ovens, wireless medical equipment, or barriers. Animation effects and the slide show function in Microsoft PowerPoint® presentations can be used; however, transmission delays may occur if a large number of effects are performed at once or if several slides are turned at once. Wireless transmission should not be used with video. Applications that use DirectX® application programming interface may not be displayed properly.

Simple Mode

Air Shot simple mode is a revolutionary new way of presenting, allowing you to establish wireless communication between the projector and a PC and to instantly begin a presentation. This feature is easy to use even for those not familiar with setting up wireless network systems.

Making Air Shot wireless presentations is as easy as 1, 2, 3!

1) Simply insert the wireless LAN card into the VPL-CX85, and turn on the projector.

2) Then, plug the USB wireless LAN module into your PC...

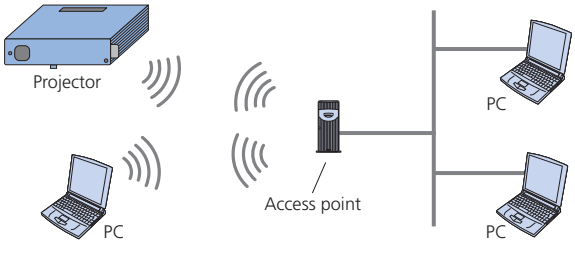
3) And voila! The image on your PC is automatically projected from the VPL-CX85.

Note: The Projector Station for Air Shot software application must be installed on the PC the first time the projector's Air Shot feature is used. This can be done by simply plugging the USB storage media into your PC and following the "Setup Wizard" instructions on your PC display. [5]

[5] When using Windows XP or Windows 2000, the user must be logged into an account with computer administrator access.

LAN Connection Capability [6]

In office environments with a wireless LAN capability, the VPL-CX85 can be accessed via a wireless LAN access point and used by any PC on the LAN. This configuration is convenient for remote maintenance and control of the projector.



[6] Simple mode cannot be used in this configuration. An IEEE 802.11b-compliant wireless LAN access point is required. Channels: 1 to 11. WEP: 128-bit (104) / 64-bit (40). Air Shot may not function properly in certain wireless LAN environments

High-Speed Image Transfer

Wireless connections can sometimes introduce delays when transmitting images to the projector. However, the VPL-CX85 employs a Sony original compression and transmission technique allowing for smooth presentations with high-quality images.

Security Feature

The Air Shot wireless feature offers a high level of security preventing cross-communication between projectors and PCs by using an encryption function, WEP (Wired Equivalency Protection). [7] This secure transmission function is automatically set even in Simple Mode.

[7] Sony cannot guarantee the security of wireless communications.

Multi-Connection Capability [8]

Up to five VPL-CX85 data projectors can be connected wirelessly, with the image from a single PC projected on each. This feature is ideal for large venues in which images have to be projected from various locations.

[8] Simple mode cannot be used in this configuration. Up to 5 projectors can be connected to a single PC.

Web Browser Access [9]

In any of the various Air Shot configurations, including Simple Mode, LAN Configuration, and Multi-Connection Configuration, all VPL-CX85 projectors can be accessed via a web browser. The setup menu can be changed and maintenance information can be obtained via a user-friendly GUI.

[9] Requires Microsoft Internet Explorer 5.0 or later.

Low Fan Noise

The VPL-CX85 is an incredibly quiet projector considering its ability to produce a brightness of approximately 3000 ANSI lumens. This low fan noise is attributed to a highly efficient cooling system based on the latest technology from high-end home projector systems. By adopting this technology, the fan noise can be suppressed to approximately 28dB [10] allowing for smooth, undisturbed presentations.

[10] This noise level is achieved when the projector's lamp mode is set to standard.

Stylish and Compact Design

At only 3.8 kg (8 lb 6 oz) in weight and with a convenient carrying case, the VPL-CX85 has the portability to go with you when you need it. [11] Its clean and simple design keeps commonly used controls and connectors at your fingertips, while concealing those used less frequently behind an easily accessible side panel that neatly slides open into the projector casing.

[11] Carrying case is supplied.

Easy-to-Use Remote Commander Units (RM-PJM17, RM-PJP1)

The VPL-CX85 is supplied with two handy Remote Commander units, the RM-PJM17 and the RM-PJP1. The RM-PJM17 is a full-function remote, to control and set up the projector, while the RM-PJP1 has very simple controls and a laser pointer, designed for presentations with the Air Shot feature.

RM-PJM17

RM-PJP1

Intelligent Auto Setup Function

Intelligent Auto Setup allows presentations to be started immediately. As soon as the power is turned on, the projector initiates a host of sophisticated set-up functions.

Powered Lens Protector

When power is switched on, the powered lens protector opens automatically. No more wasted time looking for a missing lens cover; it's always on the projector.

Powered Tilt Adjuster and Auto Keystone Correction

The shooting angle can be set using the power-operated tilt adjuster via the supplied Remote Commander unit. The new setting is retained in memory and instantly recalled the next time the projector is used. Vertical keystone distortion is automatically corrected according to the tilt angle. Keystone distortion can be corrected up to 20 degrees. This means images can be projected with correct geometry even when installation space is limited.

Powered tilt adjuster

Auto keystone Correction

Auto Input Search

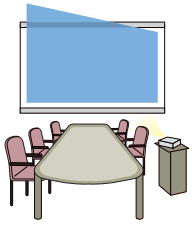
The VPL-CX85 automatically checks the projector's input connectors and selects the one to which an input signal is supplied. Images are projected from the moment the power is turned on.

Smart APA (Auto Pixel Alignment)

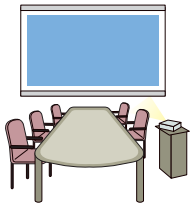
The Smart APA function automatically sizes and adjusts PC image displays for optimum picture performance allowing users to concentrate on their presentations, rather than time-consuming technical adjustments.

Side Shot™ Horizontal Keystone Adjustment

Side Shot digital horizontal keystone adjustment capabilities allow you to effortlessly align the picture at the press of a button. This technology allows you the convenience of placing the projector off-axis from the center of the screen when necessary.



Without Side Shot



With Side Shot

PC-Less Presentations

Photos and video clips can be run right from the VPL-CX85 projector using "Memory Stick™" media. This means there is no need for a PC. The system can directly project JPEG, including digital photo (DCF standard) and MPEG 1 [12] movie formats. Projected images can be directly controlled with the RM-PJM17 Remote Commander unit. Microsoft PowerPoint presentations, BMP, and TIFF files can also be projected by converting them to JPEG files, using the Projector Station for Presentation software application, and saving them to a "Memory Stick" media.

[12] The following MPEG-1 movie formats can be displayed from "Memory Stick" media: MPEG MOVIE, MPEG MOVIE EX, MPEG MOVIE CV, MPEG MOVIE HQ, MPEG MOVIE AD, and MPEG-1 from VAIO® Giga Pocket™ devices..

Off & Go [13]

The VPL-CX85 incorporates a built-in circuit that continues to run its cooling fan after the power is cut. This feature allows you to unplug the projector and carry it away without waiting, because the fan continues to cool the unit.

[13] Turn off the projector in accordance with the operating instructions. The projector should be cool before inserting it into the carrying case.

Direct Power On/Off

The projector's standby mode can be bypassed allowing power to be directly applied or cut using a main power breaker. This feature is ideal when multiple projectors have to be turned on and off, such as in an art museum or classroom.

Monitor Output

Projected images can be monitored by connecting a PC monitor to the monitor output and placing it in the presenter's field of view. This allows the presenter to face the audience for a fluid and professional delivery.

Various Inputs (Multiscan Converter)

The VPL-CX85 comes equipped with a scan converter to accept a wide variety of input signals – both computer images and video. For computer images, the VPL-CX85 supports signals ranging from VGA up to SXGA+ (1400 x 1050, fH 60 Hz), with horizontal frequencies of 19 to 92 kHz and vertical frequencies of 48 to 92 Hz. For video, it accepts component and composite signals, in addition to S-Video and RGB signals. Input signals with a variety of scanning lines, as well as interlace and progressive modes, are supported.

Preset Signals

Memory No.	Preset signal		fH (kHz)	fV (kHz)	Sync.
1	Video 60Hz	60 Hz	15.734	59.940	—
2	Video 50Hz	50 Hz	15.625	50.000	—
3	15K RGB/Component 60Hz	480/60i	15.734	59.940	S on G/Y or Composite sync
4	15K RGB/Component 50Hz	575/50i	15.625	50.000	S on G/Y or Composite sync
5	1080/60i	1035/60i, 1080/60i	33.750	60.000	—
6	640 x 350	VGA mode1	31.469	70.086	H-pos, V-neg
7		VGA VESA 85 Hz	37.861	85.080	H-pos, V-neg
8	640 x 400	PC-9801 Normal	24.823	56.416	H-neg, V-neg
9		VGA mode 2	31.469	70.086	H-neg, V-pos
10		VGA VESA 85 Hz	37.861	85.080	H-neg, V-pos
11	640 x 480	VGA mode 3	31.469	59.940	H-neg, V-neg
12		Macintosh 13"	35.000	66.667	H-neg, V-neg
13		VGA VESA 72 Hz	37.861	72.809	H-neg, V-neg
14		VGA VESA 75 Hz	37.500	75.000	H-neg, V-neg
15		VGA VESA 85 Hz	43.269	85.008	H-neg, V-neg
16	800 x 600	SVGA VESA 56 Hz	35.156	56.250	H-pos, V-pos
17		SVGA VESA 60 Hz	37.879	60.317	H-pos, V-pos
18		SVGA VESA 72 Hz	48.077	72.188	H-pos, V-pos
19		SVGA VESA 75 Hz	46.875	75.000	H-pos, V-pos
20		SVGA VESA 85 Hz	53.674	85.061	H-pos, V-pos
21	832 x 624	Macintosh 16"	49.724	74.550	H-neg, V-neg
*22	1024 x 768	XGA VESA 43 Hz	35.524	86.958	H-pos, V-pos
23		XGA VESA 60 Hz	48.363	60.004	H-neg, V-neg
24		XGA VESA 70 Hz	6.476	69.955	H-neg, V-neg
25		XGA VESA 75 Hz	60.023	75.029	H-pos, V-pos
26		XGA VESA 85 Hz	68.677	84.997	H-pos, V-pos
27	1152 x 846	SXGA VESA 70 Hz	63.995	70.019	H-pos, V-pos
28		SXGA VESA 75 Hz	67.500	75.000	H-pos, V-pos
29		SXGA VESA 85 Hz	77.487	85.057	H-pos, V-pos
30	1152 x 900	SUN LO	61.795	65.960	H-neg, V-neg
31		SUN HIGH	71.713	76.047	Composite sync
32	1280 x 960	SXGA VESA 60 Hz	60.000	60.000	H-pos, V-pos
33		SXGA VESA 75 Hz	75.000	75.000	H-pos, V-pos
*34	1280 x 1024	SXGA VESA 43 Hz	46.433	86.872	H-pos, V-pos
35		SGI-5	53.316	50.062	S on G (H-pos, V-pos)
36		SXGA VESA 60 Hz	63.974	60.013	H-pos, V-pos
37		SXGA VESA 75 Hz	79.976	75.025	H-pos, V-pos
38		SXGA VESA 85 Hz	91.146	85.024	H-pos, V-pos
43	480/60p		31.470	60.000	S on G
44	575/50p		31.250	50.000	S on G
45	1080/50i		28.130	50.000	—
47	720/60p		45.000	60.000	—
48	720/50p		37.500	50.000	—
50	540/60p		33.750	60.000	—
52	1400 x 1050	SXGA+ 60 Hz	63.981	60.020	H-neg, V-neg

*Memory numbers 22 and 34 accept the signal as an interlace signal.
Images may not be reproduced correctly when signals other than those listed above are input. Contact your local Sony sales office for more information regarding signals not listed.

Control Panel Key Lock

Control panels on both the top and the side of the projector can be locked, preventing inadvertent or unauthorized adjustment of the controls.

On Screen Multi-Language Setup Menu

The On-Screen Display for projector control is available in thirteen languages: English, Dutch, French, Italian, German, Spanish, Portuguese, Russian, Swedish, Norwegian, Japanese, Chinese, and Korean. Its position and color can be altered, depending on user preferences.

Ceiling Mountable

The VPL-CX85 can be ceiling mounted. Screw holes on the bottom plate are provided for use with a suspension-type bracket.

Back-to-Front Tilt

The VPL-CX85 can be tilted upwards or downwards up to 90 degrees, making it ideal for rear-projection applications.

Low-Power Consumption

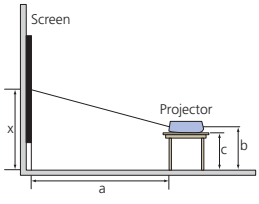
Standby power consumption of less than 0.5 W has been achieved, making the VPL-CX85 a highly eco-friendly projector.

Other Features

- Password Authentication System (Security Lock)
- Digital Zoom
- Freeze Function
- Picture/Audio Muting
- Adjustable Rear Legs

Throwing Distance

Floor Installation

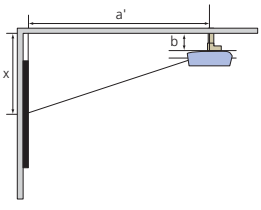


Screen Size (mm)		40	60	80	100	120	150	180	200	250	300
a	Minimum	1160	1760	2360	2970	3570	4470	5380	5980	7490	9000
	Maximum	1350	2040	2740	3440	4140	5180	6230	6930	8670	10420
b		x-237	x-356	x-474	x-593	x-711	x-889	x-1067	x-1185	x-1482	x-1778
c		x-299	x-417	x-536	x-654	x-773	x-951	x-1129	x-1247	x-1543	x-1840

Screen Size (inches)		40	60	80	100	120	150	180	200	250	300
a	Minimum	45 3/4	69 3/8	93	117	140 5/8	176 1/8	211 7/8	235 1/2	295	354 3/8
	Maximum	53 1/4	80 3/8	108	135 1/2	163 1/8	204	245 3/8	272 7/8	341 1/2	410 3/8
b		x-9 3/8	x-14	x-18 3/4	x-23 3/8	x-28	x-35	x-42	x-46 3/4	x-58 3/8	x-70 1/8
c		x-11 7/8	x-16 1/2	x-21 1/8	x-25 7/8	x-30 1/2	x-37 1/2	x-44 1/2	x-49 1/8	x-60 7/8	x-72 1/2

a: distance between the screen to the center of the lens
b: distance between the floor and the center of the lens
c: distance between the floor and the foot of the projector
x: distance between the floor and the center of the screen, free

Ceiling Installation



Screen Size (mm)		40	60	80	100	120	150	180	200	250	300
a'	Minimum	1260	1860	2470	3070	3670	4580	5480	6090	7600	9100
	Maximum	1450	2140	2840	3540	4240	5280	6330	7030	8770	10520
x		b+293	b+411	b+530	b+649	b+767	b+945	b+1123	b+1241	b+1538	b+1834
b		free									

Screen Size (inches)		40	60	80	100	120	150	180	200	250	300
a'	Minimum	49 5/8	73 1/4	97 3/8	121	144 5/8	180 3/8	215 7/8	239 7/8	299 1/4	358 3/8
	Maximum	57 1/8	84 3/8	111 7/8	139 1/2	167	208	249 1/4	276 13/16	345 3/8	414 1/4
x		b+11 5/8	b+16 1/4	b+20 7/8	b+25 5/8	b+30 1/4	b+37 1/4	b+44 1/4	b+48 7/8	b+60 5/8	b+72 1/4
b		free									

a': distance between the screen and the front mounting hole on the bottom surface of the projector
b : distance between the ceiling and the front mounting hole on the bottom surface of the projector
x: distance between the ceiling and the center of the screen
Ceiling mount is not supplied. Please contact your nearest Sony office for details on installing the VPL-CX85

SUPPLIED ACCESSORIES

IFU-WLC1
Wireless LAN card

IFU-WLM1
USB Wireless LAN module

USB Storage Media

Carrying Case

Remote Commander: RM-PJM17, AA sized batteries (x2), Presentation Tool: RM-PJP1, AAA sized batteries (x2), HD D-sub 15-pin cable (2m), USB cable A type to B type, Security Label, Air Filter (replacement), Operating Instructions, Quick Reference Sheet, CD-ROM (application software), AC Power Cord

OPTIONAL ACCESSORY

LMP-C190
Replacement Lamp

DIMENSIONS

Front

Right Side

CONTROL PANELS AND CONNECTOR PANEL

Control Panel (Top)

Control Panel (Side)

Connector Panel (Side)

SPECIFICATIONS

Optical		
Projection System	3 LCD panels, 1 lens projection system	
Panel	0.79-inch XGA LCD panel with Micro Lens Array 2,359,296 pixels (786,432 pixels x 3)	
Projection lens	1.2 times F1.6 to 1.78, f23.5 to 28.2 mm	
Lamp	190 W/150 W UHP	
Screen coverage	40 to 300 inches (measured diagonally)	
Keystone Correction Range	Max. ±30° horizantally, ±20° vertically*	
Light Output	3000 ANSI lm (lamp mode high) (standard: approx. 2200 ANSI lm)	

Signals		
Color System	NTSC3.58, PAL, SECAM, NTSC4.43, PAL-M, PAL-N, PAL60	
Resolution	Video	750 TV lines
	RGB	1024 x 768 pixels
Acceptable Signals	Computer	fH: 19-92 kHz, fV: 48-92 Hz (up to SXGA+ (fV: 60 Hz))
	Video	15 kHz RGB/Component 50/60 Hz, Progressive Component 50/60 Hz, DTV (480/60i, 575/50i, 480/60p, 540/60p, 575/50p, 720/60p, 720/50p, 1080/60i, 1080/50i), Composite video, Y/C video

General		
Speaker	Mono 1 W (max.) x 1	
Power Requirements	AC 100 to 240 V, 50/60 Hz	
Power Consumption	Max	280 W
	Standby	7 W (standard), 0.5 W (low)
Operating Temperature	0 to 35 °C (32 to 95 °F)	
Operating Humidity	35% to 85% (no condensation)	
Dimensions (WxHxD)	mm	328 x 92.6 x 283.8
	inches	13 x 3 3/4 x 11 1/4
Mass	kg	Approx. 3.8 kg
	lb	Approx. 8 lb 6 oz
Heat Dissipation	921.3 BTU	

Input/Output		
Video Input	S Video	Y/C Mini DIN 4-pin
	Composite	RCA pin jack
	Audio	Stereo mini jack
Input A	RGB/Component	Analog RGB/Component (HD D-sub 15 pin female x 1)
	Audio	Stereo mini jack (A/B)
Input B	RGB	Analog RGB (HD D-sub 15 pin female x 1)
	Audio	Stereo mini jack (A/B)
USB	Upstream (B type, female x 1)	
Wireless LAN	Wireless LAN card slot x 1	
Memory Stick	Memory Stick media slot x 1	
Output	RGB	Analog RGB (HD D-sub 15 pin female x 1)
	Audio	Stereo mini jack (variable out)
Remote	RS-232C	D-sub 9-pin female x 1

Safety	
Regulations	UL1950, cUL (CSA 60950), DHHS, DNHW, FCC Class B, IC Class B, DEMKO (EN60950), CE (LVD, EMC), C-Tick, Dentori, VCCI Class B
Laser	Class II, 1 mW output

* Horizontal and vertical keystone correction ranges are dependent on one another.
Maximum keystone correction may vary with input signal.

eco info

- Halogenated flame retardants are not used in cabinets.
- Halogenated flame retardants are not used in printed wiring boards.
- Lead-free solder is used for soldering.
- Polystyrene foam for the packaging cushions is not used in packaging.
- Standby power consumption: 0.5 W (or less)

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