

SONY

Multiscan Projection System

VPH-1270Q/1270QM

PC-1270/1270M

SuperData

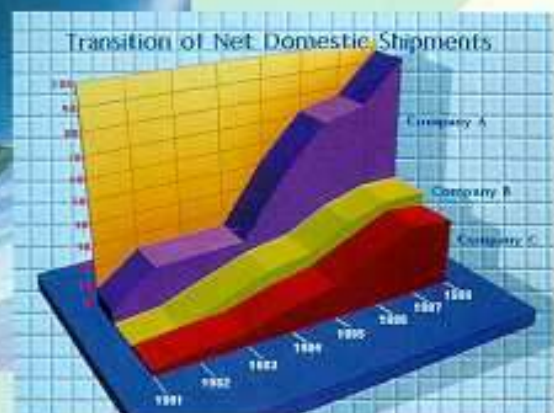
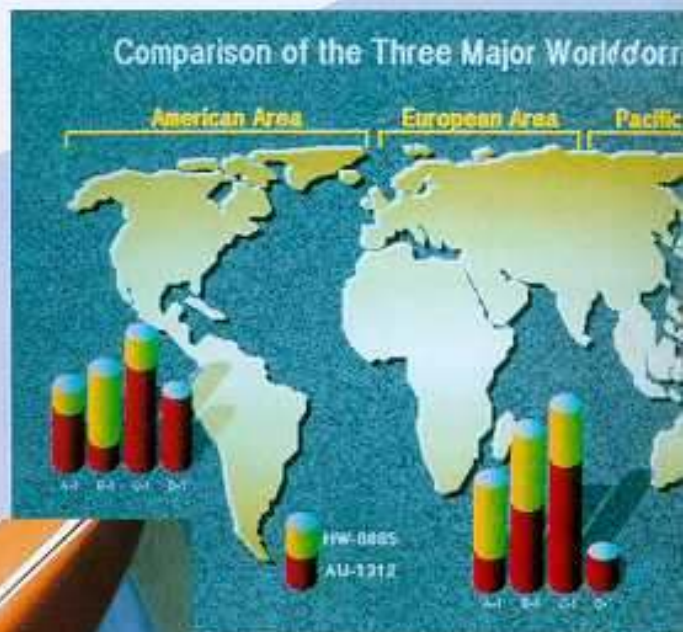


The Sony Superdata Multiscan Projection Engineered for Tomorrow Available Today

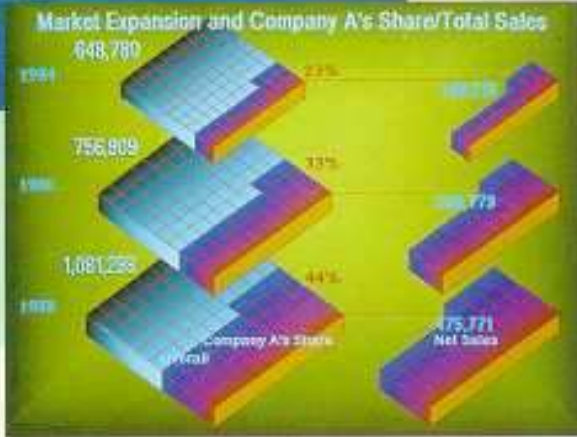
A large screen projection has become more and more essential in many environments: business presentations, entertainment, education/training, and in industrial design and research fields. Such diverse applications require a projector which can serve both as a computer data display and as a normal video display. Sony's multiscan projector, VPH-1270Q/1270QM, fully meets these requirements. Incorporating many technological innovations, the projector offers excellent features — high resolution, high brightness and multiscan capability, and whether the VTR playback, live camera pictures, or computer generated pictures are projected, audience attention will be concentrated on the screen. What's more, operation is simpler than ever before using the unique remote control system.

Various optional accessories such as the IFB series interface boards, the SIC series signal interface cables, and the PC-1270/1270M signal interface switcher have all been developed to enable a wide variety of the system configurations. Thus, this total system, a combination of the projector and associated peripherals, is bound to be the correct choice for any display requirement.

With unequalled performance, flexibility, and reliability, Sony's extended projector system will be ideal for a multitude of applications.



System,



VPH-1270Q/1270QM Projection System

Host of Outstanding Features

System Flexibility and Versatility

Throughout the design process, attention was focused on the design of an overall projection system. The IFB series interface boards, the SIC series signal interface cables, and the PC-1270/1270M signal interface switcher were developed with this in mind.

In addition to composite and Y/C input ports, the VPH-1270Q/1270QM has two further slots where the IFB series interface boards can be installed. By simply exchanging IFBs, the projector can be made to interface with a VTR, a video camera, or a personal or business computer.

To control several different sources in a display system, the PC-1270/1270M signal interface switcher can be used. In this way, a flexible and versatile projection system can be assembled.

Multiscan Capability

The use of computers in so many applications has brought with it the demand for a display device which will operate on a variety of scanning frequencies. Able to accept input

signals with horizontal scanning frequencies ranging from 15kHz to 75kHz and vertical scanning frequencies from 38Hz to 150Hz, the VPH-1270Q/1270QM is fully compatible with most currently available computers. Recognizing the horizontal and vertical scanning frequencies of the input signal, the projector speedily and accurately adjusts its scanning rates to those of the input signal, thereby giving an exact reproduction of the input signal without any missing lines/columns or distortion.

Superior Picture Performance

Innovative optical and electronic technology is incorporated into the VPH-1270Q/1270QM, which combines to provide a high light output of 650 lumens (peak white)/200 lumens (all white) and a high resolution of 1250 TV lines/1110 x 970 pixels. Red, Green, and Blue can be aligned with the utmost accuracy, enabling near perfect images to be projected over the entire screen. The new projector is also designed to be used with screens ranging from 70" to 250" in size, only simple adjustment being required when the screen size is changed.



Clear, sharp, detailed pictures stand-out on the screen so that audience can view the information satisfactorily, regardless of the screen size or ambient light conditions. Operational safety, performance, reliability and stability have also been incorporated into the design. In any large screen display application, the VPH-1270Q/1270QM can fulfill the need with bright, high quality pictures.

Easy Operation

The remote control unit RM-1270 is supplied with the projector to provide convenient operational control. All functions such as RGB Size and Shift*, Centering, and Clear blue. Input Selection and Picture Control are incorporated. All users have to do is simply aim the RM-1270 at the VPH-1270Q/1270QM or the PC-1270/1270M and touch the appropriate control key while watching indications or adjustment status information on the screen.

The on-screen display provides information on the signal being used, such as color standard, line frequency, sync polarity, etc. An infrared remote control unit, the RM-1270S, which is supplied with the PC-1270/1270M, can provide input selection. This unit can be provided as an optional accessory with the VPH-1270Q/1270QM, when a signal interface switcher is not being used.

After making adjustments, such as RGB Size/RGB Shift controls or Picture Controls, the projector will automatically memorize these settings for that specific input by simply pressing the Memory key on the RM-1270. The projector will always return to these settings for that specific input signal unless some further change is made, even after switching the power off, and repowering.

* Horizontal/Vertical size and shift controls are effective only in the RGB mode.



Multiscan projector

VPH-1270Q/1270QM

TECHNICAL ADVANTAGE

To attain such a high performance, the VPH-1270Q/1270QM has adopted 7" CRT's, sophisticated HACC lenses, and dynamic focus control.

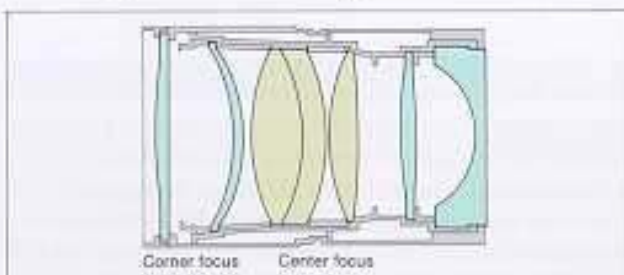
New 7" CRT

The new 7" (6.2" effective diagonal) CRT has been developed to give higher brightness and improved resolution when compared to current CRT's. These improvements arise from the finer beam spot size, the increase in green light emission resulting from the change in the constitution of the phosphor, and the more efficient use of high voltages. All of these factors contribute to the unequalled performance of the projector, while, at the same time, the improved CRT design makes a major contribution to the overall reliability of the equipment.



HACC Lens

Lenses, obviously, play a very important role in projector performance. Consisting of three glass and four plastic lenses, the new HACC lens employed in the VPH-1270Q/1270QM is designed to give enhanced performance and to prevent aberration problems and thermal drift. Light transmission has also been remarkably improved due to the new lens coating method used. This HACC lens consistently delivers high contrast, razor sharp pictures.



Dynamic Focus Control

To obtain the best possible beam focus over the entire CRT screen, Dynamic Focus is employed. With this facility activated, the focusing field is modified by changing the focus potential as it sweeps off the tube axis, both horizontal and vertical, assuring precise focus over the entire scanned area. In this way, sharp pictures are reproduced over the whole screen.

Infrared Remote Control Unit

RM-1270

(supplied with the VPH-1270Q/1270QM)

The RM-1270 offers full remote control functions including input selection of both the projector and signal interface switcher, picture control, RGB size/shift and Centering controls. The function keys can be illuminated to allow adjustment and control in darkened room conditions. A 10m cable is provided to interconnect the remote control unit and either the VPH-1270Q/1270QM or PC-1270/1270M.



Infrared Remote Control Unit

RM-1270S

(supplied with the PC-1270/1270M)

The RM-1270S is intended to control power switching and input selection only for both the VPH-1270Q/1270QM and PC-1270/1270M.



SPECIFICATIONS

VPH-1270Q/1270QM

Optical

Projection system:	3 picture tubes, 3 lenses, direct projection system
Picture tube:	7-inch-high-luminance monochrome tubes with coolant sealed
Projection lens:	High performance hybrid lenses: HACC lens F 1.12/140mm
Projected picture size:	70" to 250" measured diagonally Factory preset 120"
Light output:	Peak white: 650 lumens All white: 200 lumens
Throwing distance:	72": 2.047m 120": 3.279m 200": 5.334m 250": 6.635m

General

Color System:	NTSC/PAL/SECAM/NTSC _{4.43} , automatically selected
RGB bandwidth:	40 MHz (±3dB)
Resolution:	1250 TV lines 1110 x 970 pixels (measured at 1H: 40kHz, 1V: 38Hz)
Scanning frequency:	Horizontal: 15kHz - 75kHz, automatically locked Vertical: 38Hz - 150Hz, automatically locked
TEST signals:	Cross hair, Hatch (coarse), Hatch (fine), Hatch (fine, invert), Dot pattern, H pattern, Window, Plug, White (100IRE)
Speaker:	Max. 3 W, 8 ohms, monaural, one unit
Power requirements:	VPH-1270Q: AC 120V, 50/60Hz VPH-1270QM: AC 220 - 240V, 50/60Hz
Power consumption:	360W max. (Video input) 410W max. (RGB input)
Dimensions:	620(W) x 355(H) x 617(D) mm (24 1/2" x 14" x 32 1/4")
Weight:	61 kg (134 lb 8 oz)

Inputs

VIDEO IN:	VIDEO: 1 Vp-p, sync negative, 75 ohms terminated, BNC Y/C: Y (Luminance): 1 Vp-p, sync negative, 75 ohms terminated, C (Chrominance): 0.385 Vp-p (NTSC), 0.3 Vp-p (PAL), 75 ohms terminated. Mini DIN 4-pin *Y/C IN has priority over VIDEO IN.
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AUDIO IN INPUT A:

-50dB, monaural, impedance more than 47 Kohms, Phono.
IFB-10 is plugged into:
R/B: 0.7 Vp-p, Positive, 75 ohms terminated, BNC
G/Sync on G: 0.7 Vp-p, Positive, 75 ohms terminated, 1 Vp-p,
Sync negative, 75 ohms terminated, BNC
Sync: Composite sync: • Analog level 0.6 - 8 Vp-p,
High impedance,
Positive/Negative
• TTL level, Positive/Negative
BNC
HDVD separate: • Analog level 0.6 - 8 Vp-p,
High impedance,
Positive/Negative
• TTL level, Positive/Negative
BNC

AUX/D: -50dB, impedance more than 47 Kohms
Phono x 2 (Stereo or monaural selectable)

INPUT B: CONTROL S: REMOTE 1:

Open: Optional IFB series can be plugged into.
Loop-through Mini
14 pin, From the PC-1270/1270M

Outputs

VIDEO OUT:
REMOTE 2:

1 Vp-p, 75 ohms terminated, BNC
D-sub 9 pin (female, RS-422 port)

SUPPLIED ACCESSORIES:

Interface Board IFB-10
Infrared Remote Control Unit RM-1270
Remote Control Cable for RM-1270 (10m)
Extension Board
AC Power Cord

OPTIONAL ACCESSORIES:

Interface Board: IFB-10/20/30/1000
Signal Interface Switcher: SIC-10/20/21/22/30
Signal Interface cables: SIC-10/20/21/22/30
Infrared Remote Control Unit: RM-1270S
(Supplied with the PC-1270/1270M)
Suspension Support: PSS-10/1270
100" Flat Screen: VPS-100F1
120" Flat Screen: VPS-120F
72" Curved Screen: VPS-72HG1
100" Curved Screen: VPS-100HG1
70" Rear Screen: VPS-700R

REAR PANEL



ACCESSORIES



Screens
VPS-100F1 (100" flat screen)
VPS-120F (120" flat screen)



Screens
VPS-72HG1 (72" curved screen)
VPS-100HG1 (100" curved screen)



Screen
VPS-700R (70" rear screen)



Projection suspension support
PSS-10



Projection suspension support
PSS-1270



Multi-cable
CCO BRS cable
(14 pin-14 pin, 2m, 5m, 10m, 25m)

PC-1270/1270M

With IFB series interface boards installed*, the PC-1270/1270M can accept up to eight signal inputs, thereby offering remarkable system flexibility. It can be connected to the VPH-1270Q/1270QM using a single CCQ-BRS multi-cable (Max. 25m)**. If a second PC-1270/1270M is interconnected to the first, up to sixteen inputs can be selected. Rack mount metals are supplied to mount the PC-1270/1270M into a standard EIA 19" rack, if desired.

*The IFB-10 and the IFB-1000 are supplied with the PC-1270/1270M.

**For the details of connections over longer distances, consult your nearest Sony offices.



REAR PANEL



SPECIFICATIONS

PC-1270/1270M

General

RGB bandwidth: 100 MHz (-3dB)
 Power requirements: PC-1270: AC 120V, 50/60Hz
 PC-1270M: AC 220-240V, 50/60Hz
 Power consumption: 50W
 Dimensions: 424(W) x 133(H) x 350(D)mm (16⁷/₈ x 5¹/₄ x 13⁷/₈"*)
 Weight: 6.6kg (14 lb 9 oz)

Inputs

INPUT 1 IFB-10 is plugged into:
 R/B: 0.7 Vp-p, Positive, 75 ohms terminated, BNC
 G/Sync on G: 0.7 Vp-p, Positive, 75 ohms terminated, 1 Vp-p, Sync negative, 75 ohms terminated, BNC
 Sync: Composite sync: • Analog level 0.6-8 Vp-p, High impedance, Positive/Negative
 • TTL level, Positive/Negative BNC
 HD/VD separate: • Analog level 0.6-8 Vp-p, High impedance, Positive/Negative
 • TTL level, Positive/Negative BNC
 AUDIO IN: -5dBs, Impedance more than 47 Kohms
 Phone x 2 (Stereo or monaural, selectable)

INPUT 2 IFB-1000 is plugged into:
 VIDEO¹⁾: 1 Vp-p, sync negative, Automatic 75-ohm termination²⁾, Loop-through BNC
 Y/C³⁾: Y (Luminance) 1 Vp-p, sync negative, Automatic 75-ohm termination²⁾
 C (Chrominance) 0.286 Vp-p (NTSC), 0.3 Vp-p (PAL), Automatic 75-ohm termination²⁾
 Loop-through mini DIN 4-pin
¹⁾Y/C IN has priority over VIDEO IN.
²⁾75-ohm termination is automatically set to OFF when connection is made to the OUT connector.
 AUDIO: -5dBs, impedance more than 47K ohms
 Phone x 2 (Stereo or monaural, selectable)

INPUT 3-8: Open. Optional IFB series can be plugged into.
REMOTE 1: 14-pin, From the second PC-1270/1270M
REMOTE 2: D-sub 25-pin (female), From the external control unit
CONTROL S: Loop-through Mini

Outputs

MONITOR OUT: R/B: Analog level 0.7 Vp-p, Positive, 75 ohms terminated, BNC
 G/Sync on G: 0.7 Vp-p, Positive, 75 ohms terminated, 1 Vp-p, Sync negative, 75 ohms terminated, BNC
 HD/VDHV: 1 Vp-p, Positive/Negative, 75 ohms terminated, BNC
REMOTE 1: 14-pin, To VPH-1270Q/1270QM or first PC-1270/1270M

SUPPLIED ACCESSORIES: Interface Board IFB-10/1000
 Infrared Remote Control Unit RM-1270S
 Rack Mount Metal with Screws (one pair)
OPTIONAL ACCESSORIES: Interface Board IFB-10/20/30/1000
 Signal Interface Cable SIC10/20/30/21/22/30

Interface Board IFB series

These interface boards can be inserted into both the projector and the signal interface switcher. The type to use depends on the input signal configuration and the type of



IFB-10 Inputs: RGB: Analog, BNC x 3
AUDIO: Phono x 2 (Stereo or monaural selectable)
Dimensions: 129(W) x 35(H) x 125(D) mm (5¹/₈ x 1³/₈ x 5¹/₈)
Weight: Approx. 180 g (6.3 oz)
*One IFB-10 is supplied with both the VPH-1270Q/1270GM and the PC-1270/1270M



IFB-30 Inputs: RGB: TTL level, D-sub 9-pin (male)
AUDIO: Phono x 2 (Stereo or monaural selectable)
Dimensions: 129(W) x 35(H) x 125(D) mm (5¹/₈ x 1³/₈ x 5¹/₈)
Weight: Approx. 110 g (3.9 oz)

connector. A variety of signals types such as analog or digital RGB signal, composite video or Y/C signals, can be connected and displayed on the projector.



IFB-20 Inputs: RGB: Analog, D-sub 9-pin (male)
AUDIO: Phono x 2 (Stereo or monaural selectable)
Dimensions: 129(W) x 35(H) x 125(D) mm (5¹/₈ x 1³/₈ x 5¹/₈)
Weight: Approx. 170 g (6.0 oz)



IFB-1000 Inputs: VIDEO*: Loop-through BNC
Y/C*: Loop-through mini DIN 4-pin
AUDIO: Phono x 2 (Stereo or monaural selectable)
*Y/C IN has priority over VIDEO IN.
Dimensions: 129(W) x 35(H) x 125(D) mm (5¹/₈ x 1³/₈ x 5¹/₈)
Weight: Approx. 160 g (5.6 oz)
*One IFB-1000 is supplied with the PC-1270/1270M

Signal Interface Cable SIC series

These signal interface cables are designed to interconnect the IFB series interface boards in either the projector or the signal interface switcher with the various signal sources.

Using an SIC cable, a signal can be simultaneously connected to a local monitor as well as to the projector or the signal interface switcher.



SIC-10 Connector: 5 BNC's BNC
Length: 10 m (32.8 ft)



SIC-20 Connector: D-sub 15-pin to local monitor (female)
D-sub 15-pin to computer (male)
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft), overall
0.2m (0.7 ft), branch



SIC-21 Connector: D-sub 9-pin (female) to local monitor
D-sub 9-pin (male) to computer
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft), overall
0.2m (0.7 ft), branch



SIC-22 Connector: High Density 15-pin (female) to local monitor
High Density 15-pin (male) to computer
D-sub 9-pin to IFB-20 (female)
Length: 2m (6.6 ft), overall
0.2m (0.7 ft), branch

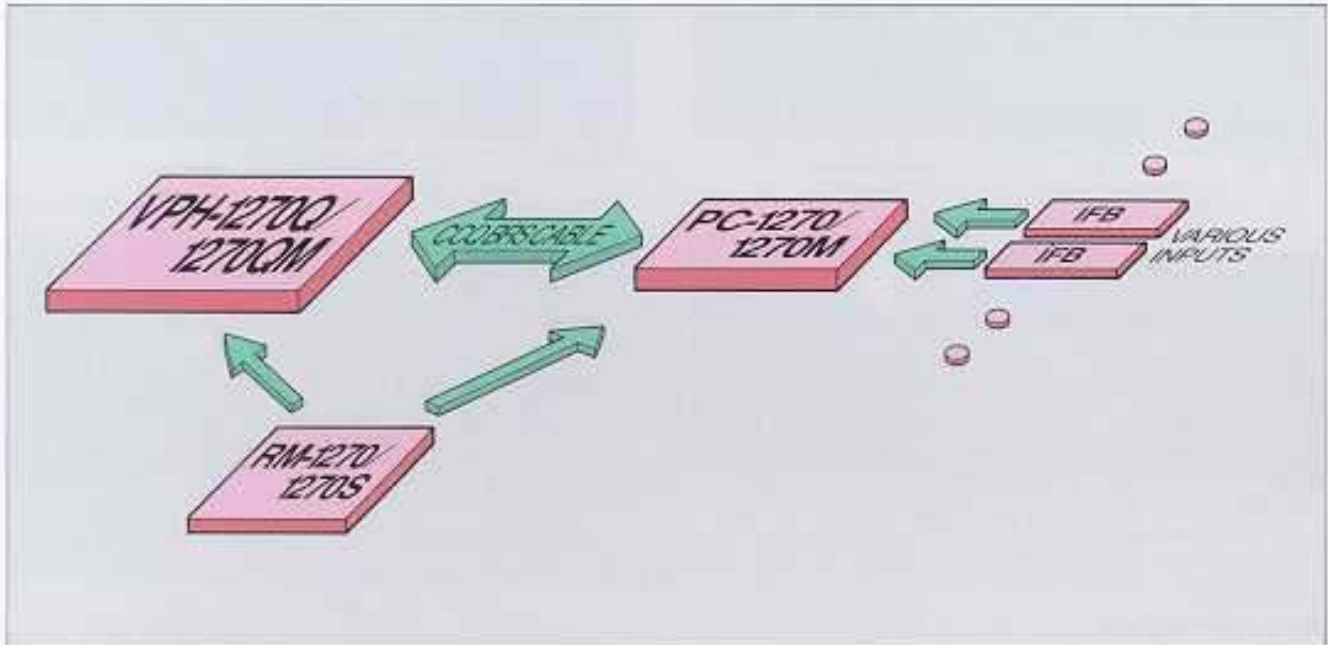


SIC-30 Connector: D-sub 9-pin (female) to local monitor
D-sub 9-pin (male) to computer
D-sub 9-pin to IFB-30 (female)
Length: 2m (6.6 ft), overall
0.2m (0.7 ft), branch

- Design and specifications subject to change without notice
- SIC series will be available soon

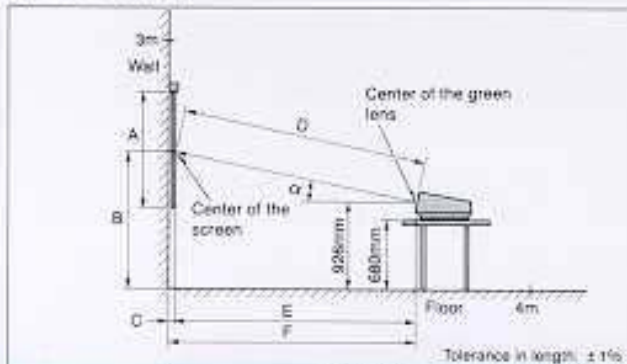
SYSTEM CONFIGURATION

The VPH-1270Q/1270QM projection system offers a perfect solution to any display requirement. It can be configured exactly as needed, and can provide performance in excess of that normally expected of projection systems. By exchanging the interface boards, most types of signal sources can be applied to the system.



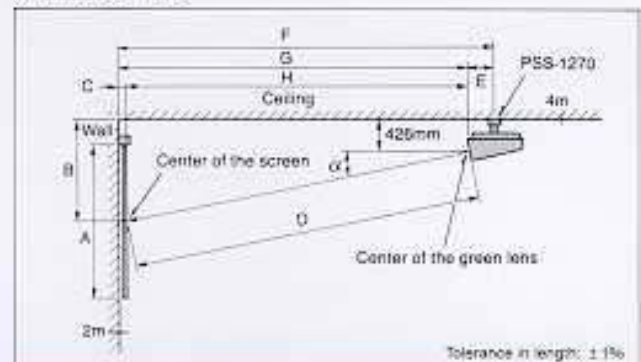
INSTALLATION EXAMPLES

(1) Flat/Desk top



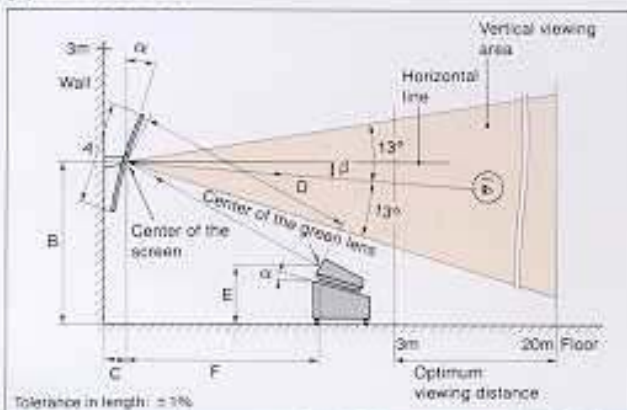
Screen size (inches)	Length (mm)						Angle (°)	
	A	B	C	D	E	F	α	β
72	1097	1436		2110	2047		14.0	
80	1219	1485		2326	2257		14.0	
100	1524	1640	34	2859	2788	2792	14.5	
120	1829	1771	35	3386	3279	3302	14.5	
150	2286	1998		4204	4055		14.8	
180	2743	2195		4951	4816		14.8	
200	3048	2333		5516	5334		14.8	
250	3810	2677		6862	6635		14.8	

(2) Flat/Ceiling



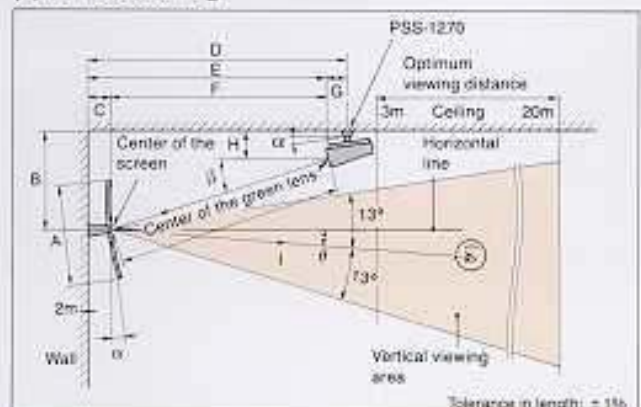
Screen size (inches)	Length (mm)								Angle (°)	
	A	B	C	D	E	F	G	H	α	β
72	1097	836		2110	322			2047	14.0	
80	1219	965		2326	320			2257	14.0	
100	1524	1140	34	2859	318	3111	2793	2769	14.5	
120	1829	1271	35	3386	316	3618	3302	3279	14.5	
150	2286	1495		4204	314			4063	14.8	
180	2743	1696		4951	312			4816	14.8	
200	3048	1833		5516	310			5334	14.8	
250	3810	2177		6862	318			6635	14.8	

(3) Curved/Floor



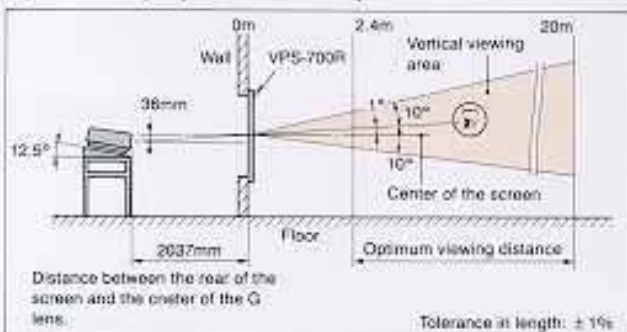
Screen size (inches)	Length (mm)						Angle (°)		
	A	B	C	D	E	F	α	β	θ
72	1125	1585	184	2180	738	1854	18.1	4.5	
100	1600	2107	303	3002	545	2564	17.4	3.4	

(4) Curved/Ceiling



Screen size (inches)	Length (mm)										Angle (°)		
	A	B	C	D	E	F	G	H	I	α	β	θ	
72	1125	1271	185	3477	2210	2025	267	464	2180	8.1	21.7	5.5	
100	1600	1539	305	3322	3069	2784	255	467	3002	8.0	33.0	5.0	

(5) 70° rear projection/Desk top



SYSTEM CONFIGURATION

SONY

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