Network

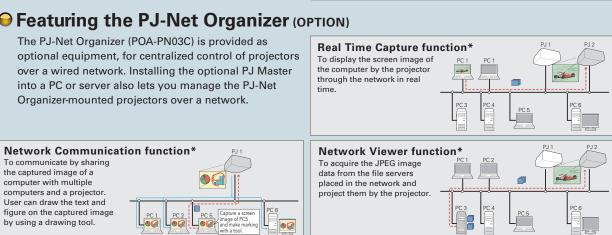## A Wired LAN Network Control function is included as standard equipment.

A centralized management and control system can be easily configured.

Standard function

Projector-1·········ON
Projector-2·········OFF
Projector-3·········ON
Temp A·········*****°C

Featuring the PJ-Net Organizer (OPTION)

The PJ-Net Organizer (POA-PN03C) is provided as optional equipment, for centralized control of projectors over a wired network. Installing the optional PJ Master into a PC or server also lets you manage the PJ-Net Organizer-mounted projectors over a network.

Real Time Capture function*
To display the screen image of the computer by the projector through the network in real time.

Network Communication function*
To communicate by sharing the captured image of a computer with multiple computers and a projector. User can draw the text and figure on the captured image by using a drawing tool.

Network Viewer function*
To acquire the JPEG image data from the file servers placed in the network and project them by the projector.

* Image transmission is compatible up to WXGA.

Responding to a Host of Large-Screen Needs

Conventions and Other Events

Project crisp, sharp images from a variety of sources - PCs, document cameras, BD Player and more. With the PLC-ZM5000's high output and brightness, there's no need to dim the room lights - so viewers can read handouts and take notes comfortably during the presentation. Using a PC gives you total control over image source switching, for easy, flexible large-screen presentations.
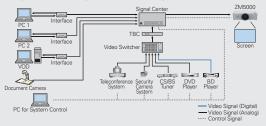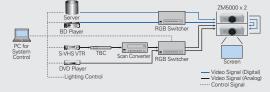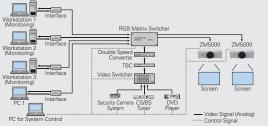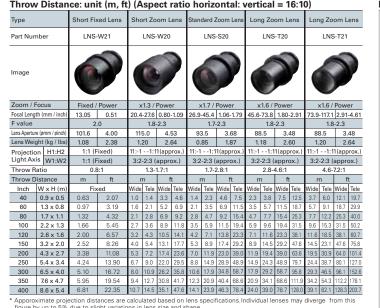
Theaters and Halls

Stack two PLC-ZM5000 units, and you can project images from high-definition sources onto a large screen at an even higher brightness level. Using a system control PC, all facets of the presentation - from start-up and brightness adjustment to image source switching - can be handled automatically. The PLC-ZM5000 is also ideal for "Cinema Advertising" —Works such as business commercials can be easily projected before or between movies.

Monitor Control

You can configure a large-screen monitor system by using multiple PLC-ZM5000's in a rear projection system to project images onto a multi-screen display. Use it to reproduce complex visual information, such as network control schematics, maps, and images from surveillance cameras. Using a system control PC makes it easy to operate and manage this kind of system.

Specifications

Product Number		PLC-ZM5000	PLC-ZM5000L
Panel	Size	0.76 inch TFT p-Si x 3 (inorganic)	
	No. of pixels	6,912,000 (1920 x 1200 dots x 3)	
Projection Lens		Power-driven 1-1.7x, f=26.9 - 45.4 mm, F1.7 – 2.3 (LNS-S20)	Optional Lenses
Projection Lamp		NSHA 330 W	
Brightness *1		5,000 lm (Lamp mode: Auto / Normal, Image mode: Dynamic)	
Uniformity *1		90 % (corner to center)	
Screen Size		40 - 400 inch (Dependent on Lens)	
Contrast Ratio *1		2000 : 1 (Iris: on, Lamp mode: Auto / Normal, Image mode: Dynamic)	
Speaker		10 W, Monaural x 1	
Power Lens Shift (Max)		Up / Down: +/- 60 %, Left / Right: +/- 10 %	
Keystone Correction (Max)		Vertical +/- 30 degrees, Horizontal +/- 30 degrees	
Signal Compatibility	Video	1080p/50,1080p/60,1080i/50, 1080i/60, 720p/50, 720p/60,480i, 480p, 575i, 575p	
	Computer	WUXGA / UXGA / WSXGA+ / SXGA+ / SXGA / WXGA / XGA / SVGA / VGA / MAC	
Color Systems		NTSC / PAL / SECAM / NTSC4.43 / PALM / PAL-N	
Terminal	Input 1	Signal input DVI-D(HDCP) x 1, HDMI (Ver.1.3 with Deep color) x 1 (Digital), Signal input D-sub15 x 1 (Analog RGB) (with SCART RGB)	
	Input 2	Signal input 5-BNC x 1 (G,B,R,H/V,V) (VIDEO/Y,Pb/Cb,Pr/Cr)	
	Input 3	Signal input RCA x 1 Yellow (VIDEO/Y), Signal input RCA x 1 Blue (Pb/Cb), Signal input RCA x 1 Red (Pr/Cr), Signal input MINI DIN 4-pin x 1 (S-Video)	
	Monitor Out	Analog RGB Signal Output D-sub15 x 1 (*Analog input only, *Except several signals)	
	Audio Input	I: Mini jack x 1 (stereo), II: Mini jack x 1 (stereo), III: RCA x 2 (stereo, L (Mono) / R) x 1	
	Audio Output	Mini jack x 1 (stereo) (*Variable out)	
	Control	LAN (RJ-45) x 1,D-sub9pin x 1	
	Other	D-sub26pin for Optional Network box (Back of cabinet), USB*2: Type-B x1, Wired R / C: Mini jack x 1	
Fan Noise		29 dBA (Eco1)	
Operating Temperature		5 - 40 celsius degrees	
Scanning Frequency (Input)		Horizontal: 15 kHz – 120 kHz, Vertical: 48 Hz - 100 Hz, Dot Clock162 MHz (Analog)	
Power Source		AC 100 – 240 V, 50/60 Hz	
Power Consumption	100-120 V	Normal: 519 W Standby: 0.4 W (Eco) / 24 W (Network)	
	200-240 V	Normal: 488 W Standby: 0.6 W (Eco) / 26 W (Network)	
Dimensions (W x H x D)		489.5 mm x 164.0 mm x 434.8 mm (19.3 inch x 6.5 inch x 17.1 inch)	489.5 mm x 164.0 mm x 371.1 mm (19.3 inch x 6.5 inch x 14.6 inch)
Weight		9.8 kg (21.6 lbs)	9.0 kg (19.8 lbs)
Main Accessories		Removable power cord x 1, D-sub 15 cable x 1, PIN code-locking label, Owner's manual (Quick Manual & CD-ROM), Remote control x 1 (AAA battery x 2)	

Replacement Lamp Type No. : POA-LMP136
*1 Measurement, measuring conditions, and method of notation all comply with ISO 21118 international standards. Measurement method / conditions are based on Appendix 2. *2 USB interface does not guarantee that every USB device is compatible. * All product names and company names are trademarks or registered trademarks of their respective companies. * Product appearance and specifications are subject to change without notice.

Throw Distance: unit (m, ft) (Aspect ratio horizontal: vertical = 16:10)

Type	Short Fixed Lens	Short Zoom Lens	Standard Zoom Lens	Long Zoom Lens	Long Zoom Lens
Part Number	LNS-W21	LNS-W20	LNS-S20	LNS-T20	LNS-T21
Zoom / Focus	Fixed / Power	x1.3 / Power	x1.7 / Power	x1.6 / Power	x1.6 / Power
Focal Length (mm / inch)	13.05 0.51	20.4-27.6 0.80-1.09	26.9-45.4 1.06-1.79	45.6-73.8 1.80-2.91	73.9-117.1 2.91-4.61
F value	2.0	1.8-2.3	1.7-2.3	1.8-2.3	1.8-2.3
Lens Aperture (φmm / φinch)	101.6 4.00	115.0 4.53	93.5 3.68	88.5 3.48	88.5 3.48
Lens Weight (kg / lbs)	1.08 2.38	1.20 2.64	0.85 1.87	1.18 2.60	1.20 2.64
Projection Light Axis H1:H2	1:1 (Fixed)	1!:-1 - -1:11(approx.)	1!:-1 - -1:11(approx.)	1!:-1 - -1:11(approx.)	1!:-1 - -1:11(approx.)
W1:W2	1:1 (Fixed)	3:2-2:3 (approx.)	3:2-2:3 (approx.)	3:2-2:3 (approx.)	3:2-2:3 (approx.)
Throw Ratio	0.8:1	1.3-1.7:1	1.7-2.8:1	2.8-4.6:1	4.6-7.2:1

Throw Distance			Fixed																		
					Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele	Wide	Tele	
inch	W x H (m)	m	ft	m	ft	m	ft	m	ft	m	ft										
40	0.9 x 0.5	0.63	2.07	1.0	3.3	1.4	4.6	1.4	2.3	4.6	7.5	2.3	3.8	7.5	12.5	3.7	6.0	12.1	19.7		
60	1.3 x 0.8	0.97	3.19	1.6	2.1	5.2	6.9	2.1	3.5	6.9	11.5	3.5	5.7	11.5	18.7	5.7	9.1	18.7	29.9		
80	1.7 x 1.1	1.32	4.32	2.1	2.8	6.9	9.2	2.8	4.7	9.2	15.4	4.7	7.7	15.4	25.3	7.7	12.2	25.3	40.0		
100	2.2 x 1.3	1.66	5.45	2.7	3.6	8.9	11.8	3.5	5.9	11.5	19.4	5.9	9.6	19.4	31.5	9.6	15.3	31.5	50.2		
120	2.6 x 1.6	2.00	6.57	3.2	4.3	10.5	14.1	4.2	7.1	13.8	23.3	7.1	11.6	23.3	38.1	11.6	18.5	38.1	60.7		
150	3.2 x 2.0	2.52	8.26	4.0	5.4	13.1	17.7	5.3	8.9	17.4	29.2	8.9	14.5	29.2	47.8	14.5	23.1	47.6	75.8		
200	4.3 x 2.7	3.38	11.08	5.3	7.2	17.4	23.6	7.0	11.9	23.0	39.0	11.9	19.4	39.0	63.6	19.5	30.9	64.0	101.4		
250	5.4 x 3.4	4.24	13.90	6.7	9.0	22.0	29.5	8.8	14.9	28.9	48.9	14.9	24.3	48.9	79.7	24.4	38.7	80.1	127.0		
300	6.5 x 4.0	5.10	16.72	8.0	10.9	26.2	35.8	10.6	17.9	34.8	58.7	17.9	29.2	58.7	95.8	29.3	46.5	96.1	152.6		
350	7.6 x 4.7	5.95	19.54	9.4	12.7	30.8	41.7	12.3	20.9	40.4	68.6	20.9	34.1	68.6	111.9	34.2	54.3	112.2	178.1		
400	8.6 x 5.4	6.81	22.35	10.7	14.5	35.1	47.6	14.1	23.9	46.3	78.4	24.0	39.0	78.7	128.0	39.1	62.1	128.3	203.7		

* Approximate projection distances are calculated based on lens specifications. Individual lenses may diverge from this figure by up to 5% due to slight variations in lens size and shape.

Terminals

Remote Control

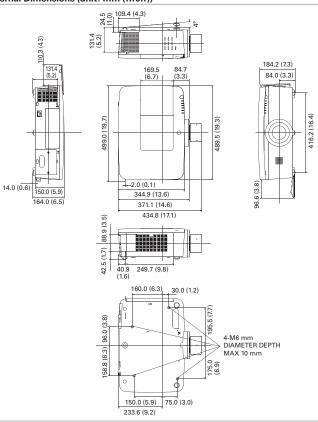## External Dimensions (unit: mm (inch))

All products manufactured by the Projector Division of SANYO's Digital System Company employ a quality management system that has undergone the inspection and registration process of the ISO 9001 international standard.

SANYO's Digital System Company has received ISO 14001 certification for the environmental management system used in its factory.

http://sanyo.com/projector/

Pixelworks ICs are used in this projector

Caution: Please consult the instruction manual to ensure safe and proper operation of the product.

Distributed by:

SANYO Electric Co., Ltd.
Digital System company

Ⓒ 2010 SANYO Printed in Japan 2010.10 SI.
SML165

WUXGA Portable Projector

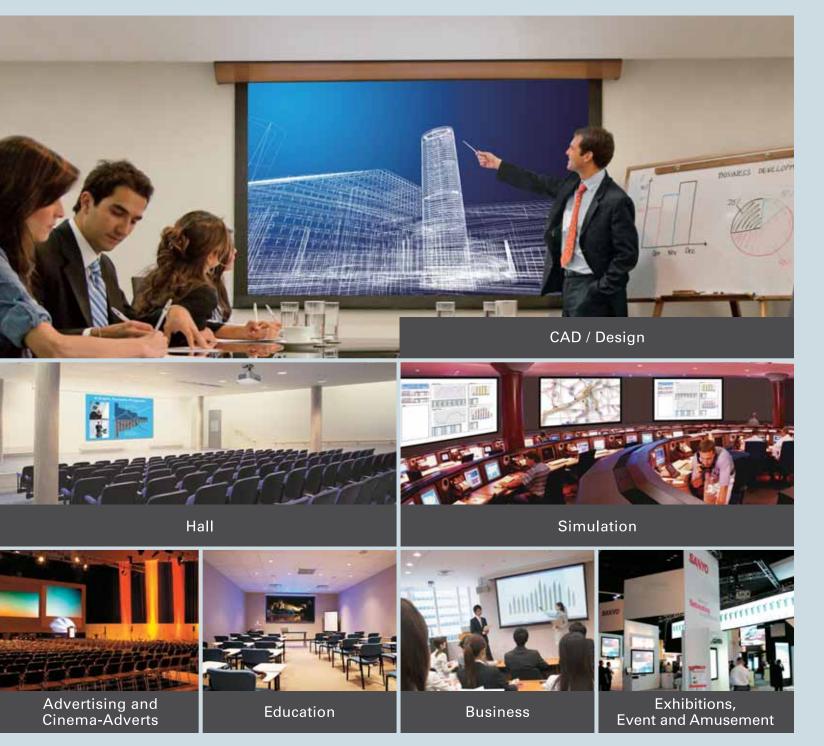# SANYO

PLC-ZM5000/ZM5000L

WUXGA Projector beyond Full HD Resolution For Professional Use

WUXGA Multimedia Projector

PLC-ZM5000/PLC-ZM5000L
Brightness of 5,000 lumens

WUXGA Projector beyond Full HD Resolution For Professional Use

CAD / Design

Hall

Simulation

Advertising and Cinema-Adverts

Education

Business

Exhibitions, Event and Amusement

Features a highly reliable new optical engine with inorganic panels, this projector has a brightness of 5000 lumens[*1] and a high contrast of 2000:1[*2]. Naturally suited to use in venues such as large meeting rooms, conference rooms CAD / Design and lecture halls, the projector is also ideal for projecting digital signage in bright places.

*1 Lamp mode: Auto / Nomal, Image mode: Dynamic *2 Iris: on, Lamp mode: Auto / Nomal, Image mode: Dynamic

High Resolution WUXGA Panel

16:10 Wide-Screen Aspect Ratio LCD Panels
The adoption of a high-resolution WUXGA panel enables projection of 16:10 aspect ratio WUXGA (1920 x 1200 dots) images.
Compared to the Full HD (1920 x 1080 dots) format, the size of the screen has been greatly expanded, enabling the display of even more information.

WUXGA (1920 x 1200)
XGA (1024 x 768)
WXGA (1280 x 800)
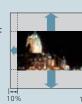Full HD (1920 x 1080)

Easy Installation

Lens Center Layout (Symmetry)
A symmetrical design with the lens in the center of the projector has been adopted to suit ceiling installation in particular. This allows the projector and the screen to be centered together, which not only makes design and installation much easier, but also offers a sense of greater stability through symmetry of the positioning between projector and screen.
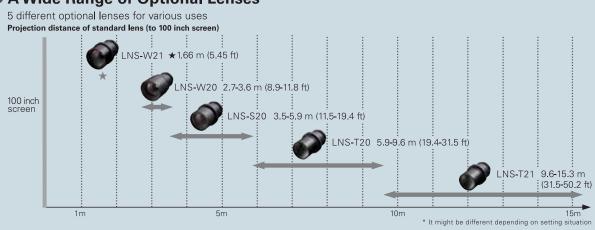
Powered Lens Shift & Powered Zoom and Focus
All models are equipped with a Powered Vertical/Horizontal Lens Shift function and an Electrical Zoom/Focus function that lets you adjust the projection position without having to move the projector. The powered function makes it easy to achieve fine positioning adjustments, using the remote control, even for projectors installed in high places.

Powered Lens Shift (Vertical , Horizontal)
Featuring both vertical and horizontal lens shift (vertical: +/- 60 %, horizontal: +/-10 % (maximum)), the ZMseries enables intuitive operation for easy on-site setup.

60%
60%
10%
10%

Powered Zoom and Focus
Zoom and focus can be carried out electronically, so that adjustments can be made easily (smoothly). Of course operations can also be carried out using the remote control, so that adjustments can be carried out easily from a distance even after the projector has been installed in a high location.
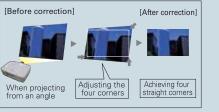* LNS-W21: Fixed Zoom

A Wide Range of Optional Lenses
5 different optional lenses for various uses
Projection distance of standard lens (to 100 inch screen)

100 inch screen

LNS-W21 ★1.66 m (5.45 ft)
LNS-W20 2.7-3.6 m (8.9-11.8 ft)
LNS-S20 3.5-5.9 m (11.5-19.4 ft)
LNS-T20 5.9-9.6 m (19.4-31.5 ft)
LNS-T21 9.6-15.3 m (31.5-50.2 ft)

1m   5m   10m   15m
* It might be different depending on setting situation

Interchangeable Lenses (Option)
To enable projection in various locations, the lens lineup extends from short to long focus lenses. No additional tools are necessary for changing lenses. Simply press the button and screw in the interchangeable lens.

Tilted Installation Possible (360° Tilt Angle)
The projector can be installed at a 360° tilt angle in the vertical direction. This makes it possible to project images facing directly above or below the projector.

Vertical Installation
The ZM Series can also be installed to project images upward or downward.

Corner Keystone Function
The Corner Keystone function corrects trapezoidal distortion. To square the image, simply designate the four corners with the remote control or projector buttons. The corrected data is stored in memory, so rectangular screens can be displayed with permanently installed projectors at lecture hall and conference room.

[Before correction]   [After correction]

When projecting from an angle | Adjusting the four corners | Achieving four straight corners

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Easy Maintenance

Easier Replacement
Lamp replacement has been simplified to make maintenance easier. Easy removal and replacement of the lamp from the top. Of course the lamp can also be replaced easily even if the projector is ceiling mounted.

Active Maintenance Filter (AMF) System
The "AMF: Active Maintenance Filter" system enables a filter cartridge replacement interval of approximately 10,000 hours[*3]. One cartridge containing a filter roll equal to 10 filters reduces the filter cartridge replacement frequency to one-tenth. Consequently, high reliability is provided with lower maintenance costs, while saving resources.

*3 When lamp mode: Normal is selected, It would be 13,000 hours when "Eco mode" is selected. This value is calculated through the company's independent test in reference to the JIS D0207 test method. The filter replacement period is an estimate and changes according to the use environment.

Useful Feature

Picture in Picture, Picture by Picture
"Picture in Picture" and "Picture by Picture" function
Two images can be projected simultaneously on a split screen, useful for situations such as TV conference.

P in P (Picture in Picture)
Image size and position are adjustable
Example <Product introduction>
At TV conference between A and B
Main screen: Presentation content
Sub screen: Party at the other side of the line
It is possible to share the information while seeing each other's face.

P by P (Picture by Picture)
Image size and position are fixed
Example <Use in class>
At science experiment
Left screen: DVD movie
Right screen: Teaching material
It is possible to project both video and materials.

Mechanical Shutter System
The Mechanical Shutter system is popular for a variety of professional uses. It allows this star-studded selection of SANYO Portable projectors to meet a host of demanding business needs, including meetings, entertainment and promotional applications.

Auto Input Signal Search
When using a conventional projector, you have to physically select the input signal. Auto Input Signal Search automatically determines the input signal when the projector is installed and the power is turned on, and sets the input for you.

10-Watt Speakers
High-output 10-watt speakers built into the projector produce powerful sound in spaces such as conference rooms and classrooms.

Antitheft Hook
The antitheft hook lets you attach a chain to the projector for strong protection against theft.

HDMI and DVI Terminal
The ZM series comes equipped with an HDMI terminal and DVI terminal. Video signal can be connected to HDMI and PC signal to DVI terminal directly, so it is possible to offer a variety of images with beauty and luster.

Screen Aspect Function
When the screen aspect is set according to the aspect ratio of used screen, the image that does not protrude from the screen can be projected.

WUXGA Multimedia Projector

PLC-ZM5000/PLC-ZM5000L
Brightness of 5,000 lumens