

Specification

		M420X	M420XV
LCD Panel		0.63 inch LCD with Micro Lens Array (Aspect Ratio 4:3) Dichroic mirror separation-prism convergence system	
Resolution*1		1024 x 768 pixels	
Lens		Manual Zoom / Manual Focus, Zoom ratio 1 to 1.7, Throw ratio 1.3 to 2.2, F1.7-2.1, f=17.5-29.0mm	
Lamp		265W AC(195W in ECO1)	
Lamp Life*2 (Eco Mode On / Eco Mode Off)		3500H / 3000H	
Image Size (Projection Distance)		25 to 300 inch (0.64m to 13.77m)	
Colour Reproduction		10-bit signal processing (1.07 billion colours) (VIEWER, NETWORK : 16.7 million colours)	
Light Output*3 *4		Eco Mode Off	4200 ANSI lumens
		Eco Mode On	Approx.75% of Eco Mode Off
Contrast Ratio (White / Black)*4		2000:1	
Maximum Resolution		Analog	UXGA (1600 x 1200) with Advanced AccuBlend
		Digital	HDTV (1920 x 1080) with Advanced AccuBlend
Scan Rate		Horizontal	15kHz to 100kHz (RGB : 24kHz or over)
		Vertical	50Hz to 120Hz (HDMI : 50Hz to 85Hz)
Keystone Correction		Vertical Auto / Manual Approx. ±Max 30 degrees	
Input Terminals		2 Computer Input	2 D-Sub Mini 15pin VGA, SVGA, XGA, XGA+, WXGA, WXGA+, SXGA, SXGA+, UXGA RGB : 0.7Vp-p/75Ω H/V Sync : 4.0Vp-p/TTL Level
		2 Component Input	2 Stereo Mini Jack Stereo L/R 0.5Vrms/22kΩ or over 2 D-Sub Mini 15pin (Shared with Computer IN) Y : 1.0Vp-p/75Ω(with Sync) Cb, Cr (Pb, Pr) : 0.7Vp-p/75Ω Compatible signals : 480i, 480p, 720p, 1080i, 1080p /60Hz, 576i, 576p, 720p, 1080i/50Hz DVD Progressive (50/60Hz)
1 HDMI Input		1 HDMI Type A	VGA, SVGA, XGA, WXGA, SXGA / 480p, 576p, 720p, 1080i, 1080p DeepColor, LipSync, T.M.D.S. Specification, with H.D.C.P. Audio format : LPCM Number of channel : 2ch Sampling Frequency : 32/44.1/48kHz Sampling bit : 16/20/24-bit
		HDMI support audio	Same as Computer IN
1 S-Video Input		1 Mini DIN-4pin	Y : 1.0Vp-p/75Ω C : 0.286Vp-p/75Ω
		1 RCA pin x 2	Stereo L (MONO)/R : 0.5Vrms/22kΩ or over
1 Video Input		1 RCA pin	Compatible signals : NTSC/NTSC4.43/PAL/PAL-N/PAL-M/PAL-60/SECAM Compatible Video : 1.0Vp-p/75Ω
		Audio Input is Shared with S-Video	Same as S-Video
Output Terminals		1 RGB Output	Only Computer 1 input can be output
		1 Audio Output	1 D-Sub Mini 15pin 1 Stereo Mini Jack Stereo L/R 0.5Vrms/22kΩ or over, Selected Audio Signal input can be output
USB Port		1 Type A 1 Type B USB2.0 (for USB memory) USB2.0 (for PC)	
Wired LAN Port		1 RJ-45 10BASE-T / 100BASE-TX	
Wireless LAN (USB Port)		1 Type A IEEE 802.11 b/g/n (Optional USB Wireless LAN Unit required)	
Control Terminal		PC Control 1 D-sub 9Pin RS-232C	
Built-In Speaker		10W Monaural	
Quietness (Eco Mode On / Eco Mode Off)		30dB / 36dB	
Environment		Operational Temperatures	5°C to 40°C (ECO MODE) selected automatically at 35°C to 40°C, 20% to 80% Humidity (Non-Condensing)
		Storage Temperatures	-10°C to 50°C, 20% to 80% Humidity (Non-Condensing)
Power Requirement		100 to 240V AC, 50Hz/60Hz	
Input Current		3.9A - 1.7A	
Power Consumption		Eco Mode Off	100 - 130V : 358W 200 - 240V : 343W
		Eco1 Mode	100 - 130V : 271W 200 - 240V : 264W
		Standby Mode	100 - 130V / 200 - 240V : 8W
		Power-saving Mode	100 - 130V : 0.2W 200 - 240V : 0.4W
		Caloric Value	100 - 130V : 1222BTU (Max) 200 - 240V : 1170BTU (Max)
Dimensions (W x H x D)		398mm x 115mm x 282mm (Not Including Protrusions)	
Weight		3.6kg / 3.5kg	
Accessories		Remote control, Batteries(AAA x 2), Computer cable, Power code, User's manual(CD-ROM), Quick setup guide, Important information	
Regulations		For United States	UL Approved (UL 60950-1), Meets FCC Class B Requirements
		For Canada	C-UL Approved (CSA 60950-1), Meets DOC Canada Class B Requirements
		For Asia/Oceania	IEC60950-1, Meets AS/NZS CISPR.22 Class B
		For Korea	KC (safety : K60950-1, EMC : K00022, K00024, K61000-3-2)
		For China	GB4943, GB9254, GB17625.1
		For Russia	Gost R 60950-1, 51318.22, 51317.3.2./3.3.

*1 : Effective pixels are more than 99.99%.
 *2 : Lamp life is defined as the average time span for the brightness of the lamp to be reduced by half, it does not refer to the warranty period for the lamp.
 *3 : This is the light output value (ANSI lumens) when the [PRESET] mode is set to [HIGH-BRIGHT].
 If any other mode is selected as the [PRESET] mode, the light output value may drop slightly.
 *4 : Compliance with ISO21118-2005

All specifications are subject to change without notice.

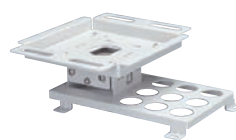
Remote Control (included accessory)



Options



Replacement lamp NP17LP



Ceiling mount kit NP12CM

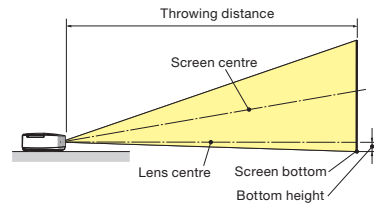


Wireless LAN unit
NP02LM1
NP02LM2
NP02LM3



Cable cover NP01CV

Throw Distance and Screen Size

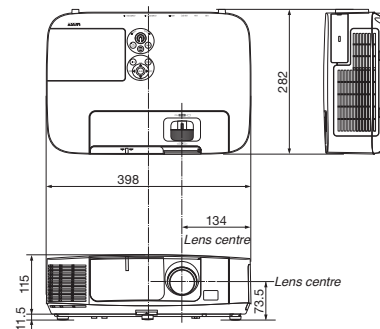


M420X/M420XV (Aspect ratio 4:3)

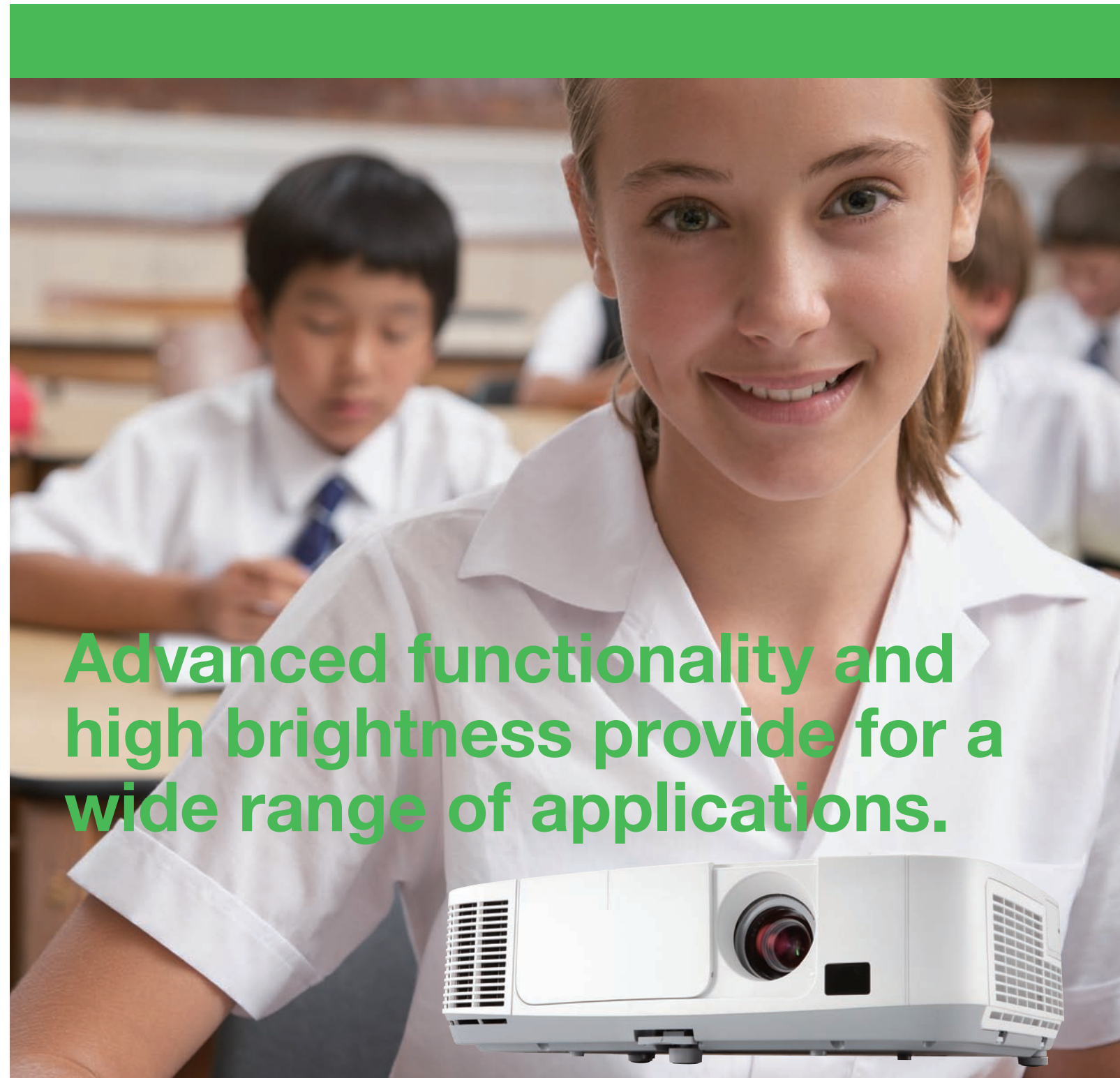
Screen size (inch)	Throwing distance(m)		Bottom height (cm)
	Wide	Tele	
25 (0.51x0.38)	0.64	1.09	6.0
30 (0.61x0.46)	0.78	1.32	7.1
40 (0.81x0.61)	1.05	1.79	9.5
60 (1.22x0.91)	1.61	2.71	14.3
80 (1.63x1.22)	2.17	3.63	19.1
100 (2.03x1.52)	2.72	4.55	23.8
120 (2.44x1.83)	3.28	5.47	28.6
150 (3.05x2.29)	4.11	6.86	35.7
180 (3.66x2.74)	4.95	8.24	42.9
200 (4.06x3.05)	5.50	9.16	47.6
240 (4.88x3.66)	6.61	11.01	57.2
300 (6.10x4.57)	8.28	13.77	71.4

*The values in the tables are design values and may vary.

Cabinet Dimensions



High-brightness projector M420X/M420XV



Advanced functionality and high brightness provide for a wide range of applications.



The projector can be unplugged during its cool down period after it is turned off.
 Parts of the projector will become heated during operation. Use caution when picking up the projector immediately after it has been operating.
 Use caution when putting the projector in the soft case immediately after the projector has been operating. The projector cabinet is hot.

Virtual Remote Tool uses Win2C/DDC library, ©Nicomsoft Ltd.
 HDMI, the HDMI Logo and High-Definition Multimedia Interface are trademarks or registered trademarks of HDMI Licensing LLC.
 Wi-Fi is registered trademark of the Wi-Fi Alliance.
 Trademark PLink is a trademark applied for trademark rights in Japan, the United States of America and other countries and areas.
 All other trademarks are the property of their respective owners.
 The images in this brochure are samples.
 This brochure uses recycled paper.



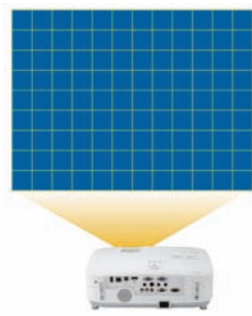
From classrooms to boardrooms, these high-bright, multi-function projectors adapt seamlessly to a wide range of spaces.



Features designed to make installation and maintenance easy

A convenient test pattern for picture adjustment

You can check the screen projection condition while setting up the projector by using a test pattern (grid). The projector can be checked independently without having to connect image devices and output test images.



An optional cable cover is available

The optional cable cover (NP01CV) can hide cables even in situations where cables stand out, such as with ceiling mountings.

With the cable cover attached to the projector



Equipped with a large, maintenance-free filter

The large filter has the two-layer construction. It provides excellent dust protection and eliminates the need for regular cleaning. Just replace the filter when you change the lamp.

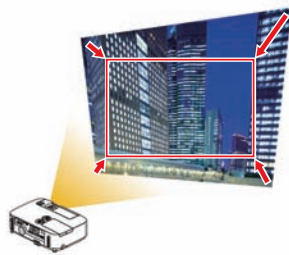


The 1.7x zoom provides excellent flexibility for installation locations

The projector supports a 1.7x zoom to cover a wide throw distance.

A geometric correction function to enable projection to a screen on an angle

The Geometric Correction Tool (GCT) of included Image Express Utility Lite software enables the projection of images from a computer to screen on an angle and to screens with complex shapes.



Advanced functionality designed for ease of operation

A USB display function for simple connection with a single USB cable

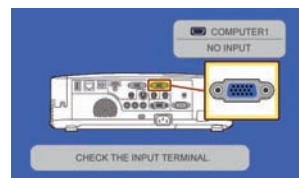
The USB display function lets you connect the projector and a computer with a standard USB cable to easily project computer screen images without computer cables.



Connect a USB cable to a USB port

"No-signal guidance" for easy cable connections

When there is no signal being input, the "No-signal guidance" display appears on the screen. Since you know in a glance where the cable should be inserted, your setup runs smoothly.



A guidance to tell no signal input

Supports Virtual Remote Tool for operation of projectors from a computer

*Use the included Virtual Remote Tool software.

Images can be sent over a LAN using the wired/wireless LAN option*

*Use the included Image Express Utility Lite software



Optional Wireless LAN unit**

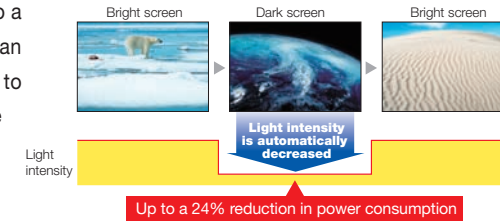
**Model name of the optional wireless LAN unit varies depending on the country where the unit is used (or to be used).
 NP02LM1 : United States, Canada, Mexico, Taiwan, Brazil, Colombia
 NP02LM2 : Europe, United Arab Emirates, Saudi Arabia, Oman, South Africa, Turkey, Ukraine, Egypt, Israel, Australia, New Zealand, Japan, Thailand, China, Hong Kong, Singapore, South Korea, Malaysia, Sri Lanka, Pakistan, Vietnam, India, Indonesia, Philippines, Peru, Chile, Argentina, Ecuador
 NP02LM3 : Russia

- Auto Vertical Keystone Correction
- Wall Colour Correction for vivid images even without a screen
- Front ventilation for effective heat dissipation

Added functions for the economical use of energy and the reduction of total cost of ownership

Equipped with an automatic Eco Mode to automatically control picture brightness

Eco Mode reduces light intensity automatically and imperceptibly when switching from white screens like charts or bright images to a dark screen or image. This function can reduce the power consumption by up to 24%. Both the projector and its remote are equipped with an Eco button for easy setting of Eco Mode.



Lengthen lamp lifetime

Using Eco Mode can increase the lamp lifetime to 3500 hours*. Furthermore, the low-energy design keeps power consumption to 0.2 W during standby (low energy consumption), which helps reduce total cost of ownership. *This is not a guaranteed value.

The Carbon Meter lets you visually check the amount CO2 you reduced

Equipped with an abundance of handy functionality

High brightness up to 4200 ANSI lumens

Built-in monaural speaker with a powerful 10 W output

*Not available on M420XV

Computer-free presentations

The projector allows you to project images without a computer. Simply insert a USB memory device loaded with image data directly into the projector.

*Supported graphic format is JPEG.

Basic DICOM mode allows simple display of medical images

The projector is preset with gradation characteristics for medical images (similar to DICOM standards). You can display medical images stored as DICOM files for presentations at academic conferences, etc.



*Cannot be used for the display of images for medical diagnosis.

The Quick start function starts projection a mere 3 seconds after the power is switched on

Quick Cooling and Direct Power Off allow speedy clean-up and transfer after use

Designed for a low noise level of 30dB (in Eco Mode) that doesn't disturb conferences or lessons

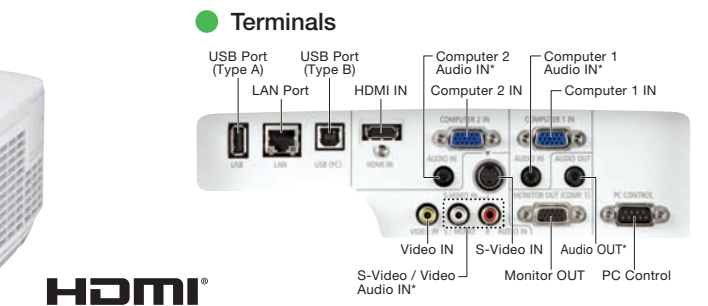
The RPM of the fan has been reduced and operation noises have been suppressed for a substantial reduction in noise.

The security function uses password settings and key locks to prevent unauthorized use



M420X

4200 ANSI lumens XGA 3.6kg



*Not available on M420XV

M420XV

4200 ANSI lumens XGA 3.5kg