

1-chip DLP® Laser Projector with High Brightness LX-MU500Z

■Product Outline

The LX-MU500Z is a high-performance DLP® laser projector capable of projecting PC data and digital images.

■Basic Specifications

1. Product classification	Projector
Product name	Digital mirror device (DMD), 1 chip
Image device, No. of devices	Built-in
Projection lens	
2. Image device	
No. of pixels	1920 x 1200 (WUXGA)
Size	0.48"
Aspect ratio	16:10
3. Light source	
Type	20BLD(*1) array x2 Yellow phosphor wheel
	*1: Blue Laser Diode
4. Image	
Optical system	Time division color extraction, Sequential display
Light output	5000/3750 lm
	Notes:
	- When Image Mode is set to Presentation
	- Changed with light source mode
	Normal / Eco
	Brightness other than Normal setting is a calculated value, and is not guaranteed as a specification.
	- For the protection of product, the light emission from light source sometimes decreases when the temperature of surroundings rises.
Marginal illumination ratio	80%
Contrast ratio	
Dynamic	50,000:1
	Note: Fully white:Fully black
Electrical zoom	Max. 2.0x (length ratio)
Keystone adjustment range	Vertical ±30° Horizontal ±30°

5. Connection terminals and input /output signals (1)	
HDMI (1)/MHL	
Digital PC input	WUXGA/WSXGA+/UXGA/SXGA+/WXGA+/FWXGA/WXGA/SXGA/XGA/SVGA/VGA
Digital video input	1080p/1080i/720p/576p/480p Note: Supports audio input
HDMI (2)	Same as HDMI (1)
Mini Dsub15	
Analog PC input	WUXGA/WSXGA+/UXGA/SXGA+/WXGA+/FWXGA/WXGA/SXGA/XGA/SVGA/VGA/MAC
Component video input	1080p/1080i/720p/576p/576i/480p/480i
Mini DIN4	
S Video input	NTSC/PAL/SECAM/NTSC4.43/PAL-M/PAL-N/PAL-60
RCA	
Video input	NTSC/PAL/SECAM/NTSC4.43/PAL-M/PAL-N/PAL-60
RJ-45 (1)	
HDBaseT input	Image, audio, control, network (100BASE-TX) Notes: - Automatic switching between HDBaseT and normal network - Image and audio input is same as HDMI.
Network connection	Network (100BASE-TX/10BASE-T)
6. Connecting terminals and input / output signals (2)	
2RCA	Audio input (video / S video)
Mini jack	Audio input (analog PC / component)
Mini jack	Audio output
7. Feature	
Lens shift	Lens shift dial (V,H), Manual Amount of lens shift Vertical +50%/-50%, Horizontal +23%/-23%
Adjustable feet	Bottom of the projector: 4 Maximum angle of inclination: ±1.9
Dimensions	W: 450 mm, H: 154 mm, D: 379 mm
Weight	Approx. 8.9 kg
Noise level	37/35 dB* * Changed with light source mode Normal / Eco

<p>8. Others</p> <p>Infrared receiver Internal speaker</p> <p>Rated power supply voltage Maximum power consumption (100~120VAC) (220~240VAC)</p> <p>Standby power consumption (100 – 120VAC) (220 – 240VAC)</p> <p>Operation environment Storage environment</p>	<p>Front panel: 1, Top panel: 1 Monaural: 10 W</p> <p>AC100—240 V, 50/60 Hz</p> <p>530/415 W 490/395 W</p> <p>Notes: - Changed with light source mode Normal / Eco - The value for Eco mode is only a calculated value, and is not guaranteed as a specification.</p> <p>0.4/1.5 W 0.5/2.0 W Note: Changed with network setting : Off / On</p> <p>0°C — 40°C , 10%RH - 90%RH -10°C — 65°C</p>
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■ Projection Specifications

- | | |
|---|--|
| <p>1. Projection lens
F number
Focal length
Zoom ratio
Operation</p> | <p>F1.81 – F2.1
14.3 – 22.9 mm
1.6x
Zoom, Focus: manual</p> |
| <p>2. Projection capability
Image size
Projection distance
Throw ratio (100")</p> | <p>Wide: 60" – 300", Tele: 60" – 200"
Wide: 1.75 – 8.74 m, Tele: 2.80 – 9.32 m
Wide: [1.36:1], Tele: [2.18:1]</p> |
| <p>3. Image Size and Projection distance</p> | <p>Using an optical zoom function, it displays an image in the same size in a projection distance between L(W) and L(T).</p> |

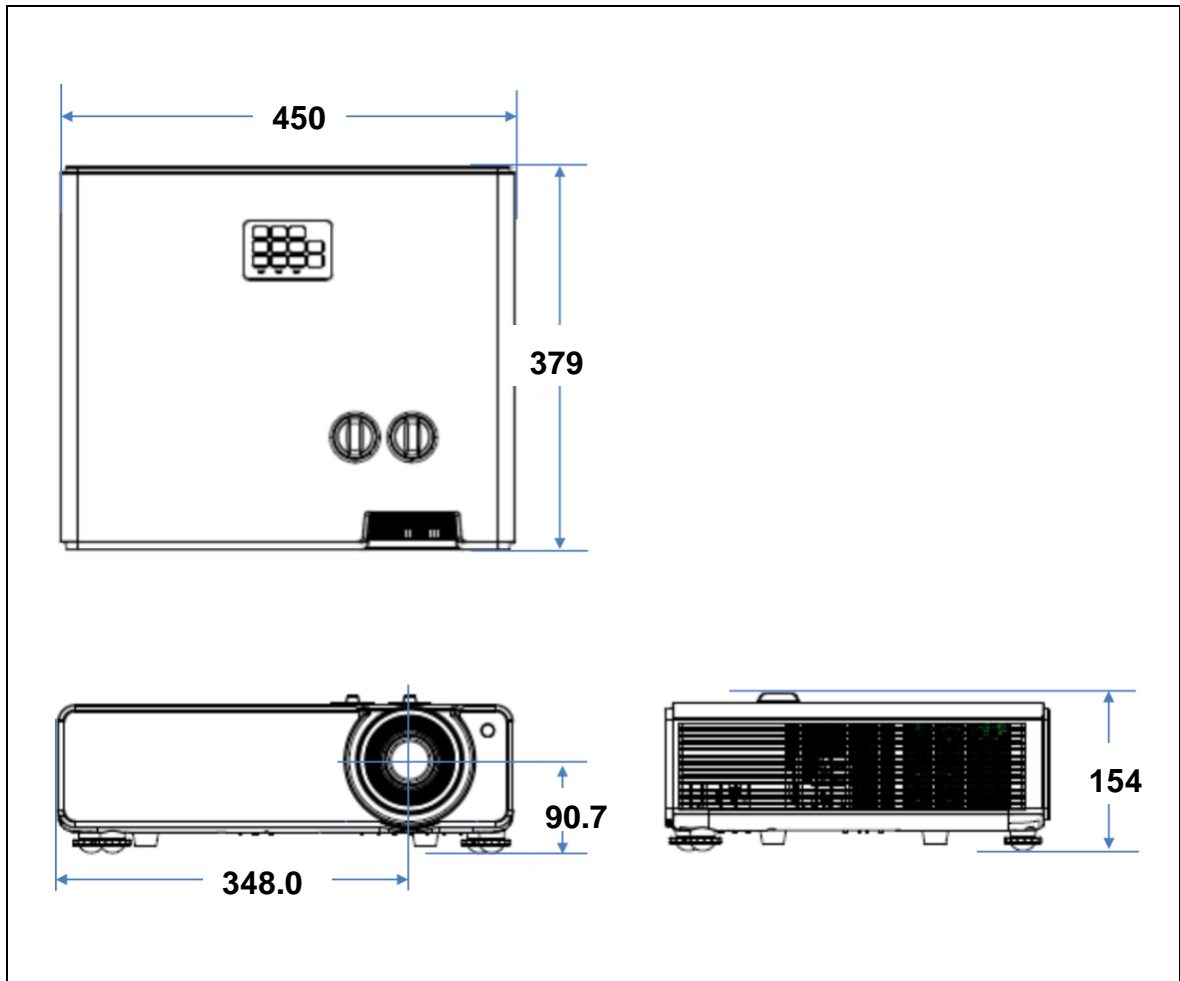
L(W): Projection distance at Wide end
L(T): Projection distance at Tele end

The following lists the projection distances when projecting a 16:9 image that corresponds to an aspect ratio of the image device.

Image size (16:10)			Projection distance	
Diagonal [type]	Width [cm]	Height [cm]	L(W) [m]	L(T) [m]
60	129	81	1.75	2.80
75	162	101	2.19	3.50
87	187	117	2.54	4.06
95	205	128	2.77	4.43
100	215	135	2.91	4.66
120	258	162	3.50	5.59
150	323	202	4.37	6.99
180	388	242	5.24	8.39
200	431	269	5.83	9.32
250	538	337	7.28	-
300	646	404	8.74	-

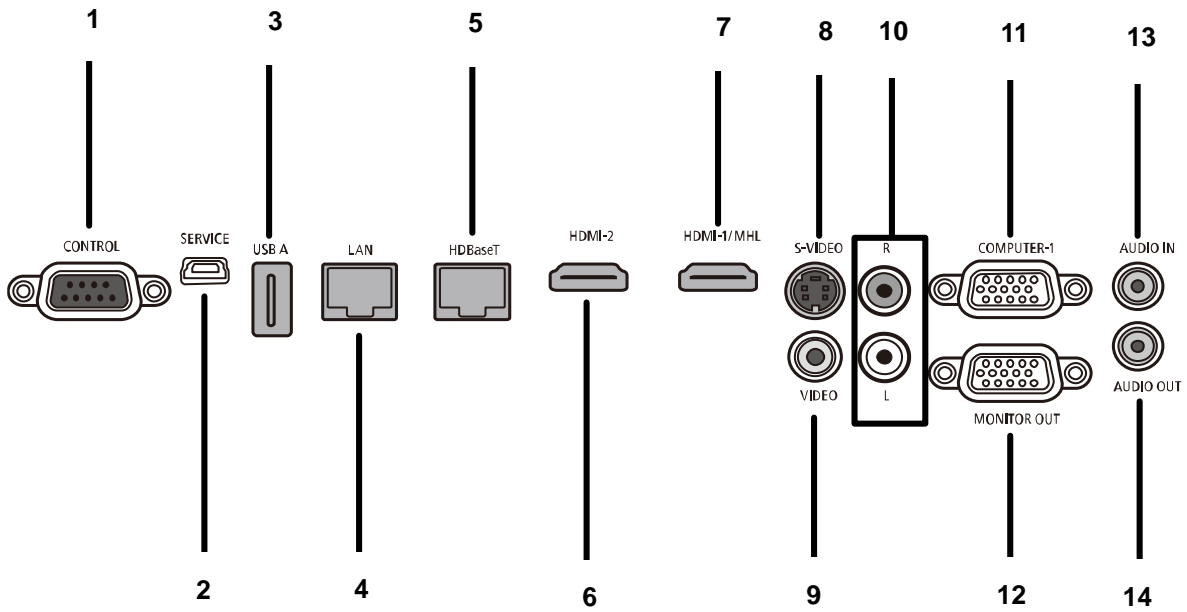
The distances listed on the table have been rounded off and are therefore approximate values.

■ External Dimensions



Dimensions	W: 450 mm, H: 154 mm, D: 379 mm (17.7 x 6.1 x 15.0 inches)
Lens center	348.0 mm from the right side ("front" is the side where lens is attached.) 90.7 mm from the installed surface
Weight	Approx. 8.9 kg

■ Terminals



1. Dsub9	RS-232 connection
2. USB Mini-B	Service port
3. USB Type A	Power supply
4. RJ-45	Network connection
5. RJ-45	HDBaseT input / Network connection
6. HDMI Type A	HDMI input
7. HDMI Type A	HDMI / MHL input
8. Mini DIN4	S-video input
9. RCA	Video input
10. 2RCA	Stereo audio input
11. Dsub15	Analog PC input / component video input
12. Dsub15	Analog PC output
13. Mini jack	Stereo audio input
14. Mini jack	Stereo audio output

■Supported image signal type

*1: FS= Frame Sequential, FP= Frame Packing, TB= Top-Bottom, SS= Side-By-Side

*2: Reduced Blanking (RB)

●D-sub input

PC

Resolution	Format	Vertical frequency (Hz)	Horizontal frequency (kHz)	Dot clock (MHz)	3D Format (*1)
640x480	VGA_60	59.940	31.469	25.175	FS,TB,SS
	VGA_72	72.809	37.861	31.500	—
	VGA_75	75.000	37.500	31.500	—
	VGA_85	85.008	43.269	36.000	—
720x400	720x400_70	70.087	31.469	28.3221	—
800x600	SVGA_60	60.317	37.879	40.000	FS,TB,SS
	SVGA_72	72.188	48.077	50.000	—
	SVGA_75	75.000	46.875	49.500	—
	SVGA_85	85.061	53.674	56.250	—
	SVGA_120(*2)	119.854	77.425	83.000	FS
1024x768	XGA_60	60.004	48.363	65.000	FS,TB,SS
	XGA_70	70.069	56.476	75.000	—
	XGA_75	75.029	60.023	78.750	—
	XGA_85	84.997	68.667	94.500	—
	XGA_120(*2)	119.989	97.551	115.500	FS
1152x864	1152x864_75	75.00	67.500	108.000	—
1280x720	1280x720_60	60	45.000	74.250	FS,TB,SS
1280x768	1280x768_60	59.870	47.776	79.5	FS,TB,SS
1280x800	WXGA_60	59.810	49.702	83.500	FS,TB,SS
	WXGA_75	74.934	62.795	106.500	—
	WXGA_85	84.880	71.554	122.500	—
	WXGA_120(*2)	119.909	101.563	146.25	FS
1280x1024	SXGA_60	60.020	63.981	108.000	TB,SS
	SXGA_75	75.025	79.976	135.000	—
	SXGA_85	85.024	91.146	157.500	—
1280x960	1280x960_60	60.000	60.000	108	TB,SS
	1280x960_85	85.002	85.938	148.500	—
1360x768	1360x768_60	60.015	47.712	85.500	TB,SS
1366x768	1366x768_60	59.790	47.712	85.500	—
1440x900	WXGA+_60	59.887	55.935	106.500	TB,SS
1400x1050	SXGA+_60	59.978	65.317	121.750	TB,SS
1600x1200	UXGA	60.000	75.000	162.000	TB,SS
1680x1050	1680x1050_60	59.954	65.290	146.250	TB,SS
640x480	MAC13	66.667	35.000	30.240	—
832x624	MAC16	74.546	49.722	57.280	—
1024x768	MAC19	75.020	60.241	80.000	—
1152x870	MAC21	75.06	68.68	100.00	—
1920x1080	1920x1080_60(*2)	60	67.5	148.5	—
1920x1200	WUXGA_60(*2)	59.950	74.038	154.00	—

Video

Resolution	Format	Vertical frequency (Hz)	Horizontal frequency (kHz)	Dot clock (MHz)	3D Format (*1)
720x480	480i	59.94	15.73	13.5	—
720x480	480p	59.94	31.47	27	—
720x576	576i	50	15.63	13.5	—
720x576	576p	50	31.25	27	—
1280x720	720/50p	50	37.5	74.25	—
1280x720	720/60p	60	45.00	74.25	—
1920x1080	1080/50i	50	28.13	74.25	—
1920x1080	1080/60i	60	33.75	74.25	—
1920x1080	1080/50P	50	56.25	148.5	—
1920x1080	1080/60P	60	67.5	148.5	—

•Video/S-Video

Color System	Vertical frequency (Hz)	Horizontal frequency (kHz)	Sub-carrier frequency (MHz)	3D Format (*1)
NTSC	60	15.73	3.58	—
PAL	50	15.63	4.43	—
SECAM	50	15.63	4.25 or 4.41	—
PAL-M	60	15.73	3.58	—
PAL-N	50	15.63	3.58	—
PAL-60	60	15.73	4.43	—
NTSC4.43	60	15.73	4.43	—

•HDMI (HDCP) input

PC

Resolution	Format	Vertical frequency (Hz)	Horizontal frequency (kHz)	Dot clock (MHz)	3D Format (*1)
640x480	VGA_60	59.940	31.469	25.175	FS,TB,SS
	VGA_72	72.809	37.861	31.500	—
	VGA_75	75.000	37.500	31.500	—
	VGA_85	85.008	43.269	36.000	—
720x400	720x400_70	70.087	31.469	28.3221	—
800x600	SVGA_60	60.317	37.879	40.000	FS,TB,SS
	SVGA_72	72.188	48.077	50.000	—
	SVGA_75	75.000	46.875	49.500	—
	SVGA_85	85.061	53.674	56.250	—
	SVGA_120(*2)	119.854	77.425	83.000	FS
1024x768	XGA_60	60.004	48.363	65.000	FS,TB,SS
	XGA_70	70.069	56.476	75.000	—
	XGA_75	75.029	60.023	78.750	—
	XGA_85	84.997	68.667	94.500	—
	XGA_120(*2)	119.989	97.551	115.500	FS
1152x864	1152x864_75	75.00	67.500	108.000	—
1280x720	1280x720_60	60	45.000	74.250	FS,TB,SS
1280x768	1280x768_60	59.870	47.776	79.5	FS,TB,SS

1280x800	WXGA_60	59.810	49.702	83.500	FS,TB,SS
	WXGA_75	74.934	62.795	106.500	—
	WXGA_85	84.880	71.554	122.500	—
	WXGA_120(*2)	119.909	101.563	146.25	FS
1280x1024	SXGA_60	60.020	63.981	108.000	TB,SS
	SXGA_75	75.025	79.976	135.000	—
	SXGA_85	85.024	91.146	157.500	—
1280x960	1280x960_60	60.000	60.000	108	TB,SS
	1280x960_85	85.002	85.938	148.500	—
1360x768	1360x768_60	60.015	47.712	85.500	TB,SS
1366x768	1366x768_60	60.015	47.712	85.500	TB,SS
1440x900	WXGA+_60	59.887	55.935	106.500	TB,SS
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1680x1050	1680x1050_60	59.954	65.290	146.250	TB,SS
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1152x870	MAC21	75.06	68.68	100.00	—
1920x1080	1920x1080_60(*2)	60	67.5	148.5	—
1920x1200	WUXGA_60(*2)	59.950	74.038	154.00	—

Video

Resolution	Format	Vertical frequency (Hz)	Horizontal frequency (kHz)	Dot clock (MHz)	3D Format (*1)
720(1440)x480	480i	59.94	15.73	27	FS
720x480	480p	59.94	31.47	27	—
720(1440)x576	576i	50	15.63	27	—
720x576	576p	50	31.25	27	—
1280x720	720/50p	50	37.5	74.25	FP,TB
1280x720	720/60p	60	45.00	74.25	FP,TB
1920x1080	1080/24p	24	27	74.25	FP,TB
1920x1080	1080/30p	30	33.75	74.25	—
1920x1080	1080/50i	50	28.13	74.25	SS
1920x1080	1080/60i	60	33.75	74.25	SS
1920x1080	1080/50P	50	56.25	148.5	—
1920x1080	1080/60P	60	67.5	148.5	—

●HDBaseT input

Supported HDMI signals	All HDMI signals in the previous table
Cable type	Use a CAT5e or CAT6A cable
Maximum cable length	100 m (328.1 feet) However, this is shorter than the above depending on the connection method.

■ Accessories

5-1 Main Supplied Accessories	Remote control LV-RC08	Power supply: DC 3.0V (with CR2025) Communication range: approx.8 m within ± 30 degrees of the receiver
	Power Cord	Connects the unit to a power source.
5-2 Optional Parts	Remote control, LV-RC08	Power supply: DC 3.0V (with CR2025) Communication range: approx.8 m within ± 30 degrees of the receiver