

# PT-LB60/LB55 Series

Micro Portable Wireless XGA LCD Projectors PT-LB60NTEA 3200 Im XGA PT-LB55NTEA 2500 IM XGA **Micro Portable XGA LCD Projectors** PT-LB60EA 3200 Im XGA PT-LB55EA 2500 Im XGA



# The World's Fastest **Wireless Transmission Projectors**

Easy wireless projection (PT-LB60NTEA/LB55NTEA)

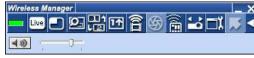
- World's fastest data transfer\*1
- Wireless PC motion/sound streaming\*<sup>2</sup>
- Abundant wireless functions, including
- wireless prompter and 16-window index style Simple, user-friendly settings
- Daylight View 2 technology
- Looks max. 50% brighter\*<sup>3</sup>
- Vivid colours in a bright room
- Auto operation with ambient light sensor (ALS)
- High power and portability
- Bright 3,200/2,500 lumens\*4
- Ultra-lightweight: 2.6 kg (5.7 lbs)\*<sup>5</sup>
- Slim and compact design: 83-mm (3-1/4<sup>°</sup>) thickness<sup>\*6</sup>
- **Quick** operation
  - 2-second speed start
  - Auto search
  - Real-time keystone correction
  - Operation assistance
  - Direct power off

- evaluation of wireless transmission from PC to projector. Wireless projection function
- umens for the PT-LB60NTEA and PT-LB60EA; 2,500 lumens for the PT-LB55NTEA and PT-LB55EA. .5. lbs for the PT-LB60EA and PT-LB55EA; 2.6 kg/5.7 lbs for the PT-LB60NTEA and PT-LB55NTEA. nd protruding parts not included.

# Simple & Flexible Wireless Projection



The PT-LB60NTEA and PT-LB55NTEA feature a wireless LAN function. There are no cables to connect other than the power cord, so setup is quick and easy and you have full layout flexibility. Featuring a host of convenient wireless functions, Both projectors enhance the projection applications. In addition, the PT-LB60/LB55 series projectors incorporate Panasonic's original Daylight View 2 technology, which makes images easy to see even in brightly lit rooms.



Wireless Manager Control Panel (Launcher)

# Easy Wireless Projection (PT-LB60NTEA/LB55NTEA)

# The World's Fastest Data Transfer\*1

Boasting wireless data transmission at five times the speed of our conventional model<sup>\*2</sup>, the PT-LB60NTEA/LB55NTEA provides a smooth display of moving picture files<sup>\*3</sup> at 30 fps<sup>\*4</sup>.



# Wireless PC Motion/Sound Streaming

In addition to the moving pictures, audio data can be sent at the same time, so you can give Microsoft<sup>®</sup> PowerPoint<sup>®</sup> presentations rich in moving pictures and sound effects with wireless convenience.

### **Abundant Wireless Functions**

The PT-LB60NTEA/LB55NTEA provides a host of convenient wireless functions, including Wireless Prompter (Secondary Display Transmission), selective area transmission and 16-window index style that lets you project images from up to 16 PCs at the same time. Wireless transmission is possible from one PC to a maximum of eight projectors at a time.



The settings for wireless connection can be made quickly and easily using Wireless Manager ME 3.0 software, which installs easily onto a PC using the included CD-ROM. You can also copy Wireless Manager onto a memory card and take it to a presentation site. This gives you wireless projection even where there are no PCs with Wireless Manager ME  $3.0^{+5}$ . When the Wireless Manager ME 3.0 is finished, the PC's LAN settings are restored to their original state, so the PC is ready to reconnect to your company LAN.

## **Other Wireless Features**

- Projector control/status monitoring capability via an Internet browser
- · Automatic connection to registered projectors
- The security method complies with WPA-PSK and WPA2-PSK.
- The Advanced Encryption Standard (AES) is used for all communication encryption.
- Wireless shutter function
- One-shot mode
- PowerPoint<sup>®</sup> page up/down operation using the supplied remote control

### **High-Speed Data Transfer**

In Live mode and Multi Live mode, the content of the PC screen is projected with the same smooth image motion as you get with a wired connection.

Set yourself free.»

Wireless transfer

# A host of convenient wireless functions

#### Wireless Prompter Function (Secondary Display Transmission)



This allows transmission of content other than what's displayed on your PC. For example, you can display text documents on your PC screen while projecting slide from your Microsoft® PowerPoint® presentation\*e. You get a host of other convenient wireless transmission functions too, such as area-specified transmission and a multi-live mode for simultaneous display of up to 16 PCs.

## Selective Area Transmission



By using the area select window, you can specify the necessary information alone from the computer screen, and display it on the projection screen.

#### Multi-Live Mode

• Four-Window Style The operation is controlled using Wireless Manager ME 3.0.

#### Index Style: Four Thumbnails

New Concept Family Ca

This style projects images from up to four PCs as small windows along the bottom of the screen.

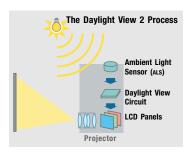
#### • Extended Index Style: 16 Thumbnails This style projects images from up to 16 PCs as small windows. Using the

To PCs as small windo projector's remote control, you can select any one of the index windows and display it on the main window or on a full screen.

#### Multiple Source Live Mode

You can simultaneously project a single computer's screen on up to eight projectors. This mode is useful when a number of projectors are installed, for example, in a large conference room, or when holding simultaneous presentations in several conference rooms.









## Looks max. 50% brighter

Panasonic's Daylight View 2 technology, which helps project sharp, crisp images that are easy to see even in brightly lit rooms. A built-in sensor measures the ambient light, and the halftone colours and brightness level are adjusted accordingly in real-time. Viewing brightness is increased by as much as 50%\*7.



the Daylight View 2 is turned on.

#### Simulated image when the Daylight View 2 is turned off.

# **High Power and Portability**

#### **Ultra-High Brightness**

Thanks to a high-performance optical system and high-efficiency 220-W UHM<sup>™</sup> lamp, the PT-LB60NTE and PT-LB60EA deliver an ultrabright 3,200 lumens and the PT-LB55NTEA and PT-LB55EA offer 2,500 lumens. Sharp, crisp images are easy to see.

#### **Ultra-Lightweight and Compact**

The PT-LB60NTEA/LB55NTEA at only 2.6 kg and the PT-LB60EA/LB55EA at 2.5 kg each pack a wealth of advanced Panasonic technology into a compact body-327 mm wide by 233 mm deep and only 83 mm high.

# **Quick Operation**

#### **Two-Second Speed Start**

With Speed Start, the image appears in about two seconds after you press the power button.

#### Auto Search

When a source is connected and you switch the unit on, it automatically detects what kind of source is connected and begins projection.

#### **Real-Time Keystone Correction**

The projector automatically senses if you adjust its angle (vertical direction) during operation and instantly makes whatever keystone correction is necessary for optimum viewing.

#### **Direct Power Off**

You can disconnect the power cable and move the projector as soon as your presentation is finished, because the cooling fan keeps operating until the lamp is cooled. For fixed instal-

lation systems, this means you can turn off the room's main power without waiting for the projector to cool down.

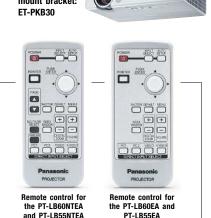


### **Other Features**

- · Operation assistance
- Short-throw zoom lens
- · Anti-theft features: User password, control panel lock and text superimposing
- Projector Al
- · Index Window
- · Auto power off
- Two RGB inputs

- · RGB 2 IN can be switched to RGB 1 OUT for loop-through monitoring
- HDTV compatibility
- · Full compatibility with sRGB colour space for accurate colour reproduction (in natural mode)
- · Picture mode selection (standard/dynamic/ natural)
- · Blackboard mode allows you to project images onto an ordinary classroom or conference room blackboard
- 3x digital zoom
- · Shutter function for image/sound muting
- · Selectable 17-language onscreen menu
- · Ceiling mountable (option)

**Optional** ceiling mount bracket: ET-PKB30



The remote control for the PT-LB60NTEA and PT-LB55NTEA features wireless projection controls including Microsoft PowerPoint® page up/down capability.

The volume of the sound, from the built-in speaker or external speakers connected to the audio output terminal, can be adjusted using the remote control.



- As of February 7, 2006, according to our evaluation of wireless transmission from evaluation of projector. PT-LB20NTEA
- Content and DVDs set with DRM (Digital Rights
- Content and DVDs set with DRM (Digital Rights Management) cannot be transmitted. For moving picture files in QVEA size. Transmission will be slower and certain func-tions are not available compared to when using a computer that has the software installed. Also certain functions may not be available. (Please see operating instruction for details.) With Wireless Manager ME 3.0, you can use the projector screen as a secondary monitor for the C In this setup. Microsofte PowerBoirte must
- Projector screen as a secondary monitor for the PC. In this setup, Microsoffe PowerPoint<sup>®</sup> must be set to "Show Presenter View." Comparison with Daylight View 2 turned On and Off, using an 80-inch screen and ordinary meet-ing room lighting of 400 lux. (Projector: PT-LB60NTEA, screen gain: 2.6)

A total of three independent audio inputs are provided for PC 1, PC 2 and S-Video/Video.

#### **Specifications**

Power supply Power consumption LCD panel	100–240 V AC, 50/60 Hz 300 W (Approx. 3 W in standby mode with fan stopped) 4:3 aspect ratio
Panel size PT-LB60NTEA/LB60EA PT-LB55NTEA/LB55EA Display method Drive method Pixels	0.8" (20.32 mm) diagonal 0.7" (17.78 mm) diagonal Transparent LCD panel (x 3, R/G/B) Active matrix 786,432 (1,024 x 768) x 3, total of 2,359,296 pixels
Pixel configuration Lens	Stripe Manual zoom (1:1–1:1.2), manual focus, F 1.7–1.8, f 24.0–28.8 mm
Lamp Colours Brightness	220 W UHM™ lamp Full colour (16,777,216 colours)
PT-LB60NTEA/LB60EA PT-LB55NTEA/LB55EA Contrast	
Scanning frequency RGB YPBPR	Horizontal: 15–91 kHz, Vertical: 50–85 Hz 480i (525i): f⊨ 15.75 kHz; fv 60 Hz
	576i (625): fr 15.63 kHz; fv 50 Hz 480p (525p): fr 31.5 kHz; fv 60 Hz 576p (625p): fr 31.25 kHz; fv 60 Hz 720p (750p): fr 45 kHz; fv 60 Hz 1080i (1125): fr 33.75 kHz; fv 60 Hz
S-Video/Video	10001(1123): 1h 33.75 kHz; 1v 60 Hz 1080i(1125i): 1h 28.125 kHz; 1v 50 Hz NTSC, NTSC4.33, PAL-M, PAL60: 1h 15.75 kHz; 1v 60 Hz PAL, SECAM, PAL-N: 1h 15.63 kHz; 1v 50 Hz
Projection size Throw distance PT-LB60NTEA/LB60EA PT-LB55NTEA/LB55EA	33-300 inches/838-7,620 mm diagonally 1.1 m-10.8 m (3'7"-35'5") 1.2 m-12.0 m (3'11"-39'4")
Optical axis shift PT-LB60NTEA/LB60EA PT-LB55NTEA/LB55EA Keystone correction rang	9:1 (fixed)
On-screen menu	Vertical: ±30° 17 languages: English, French, German, Spanish, Italian, Korean, Russian, Chinese, Japanese, Swedish, Norwegian, Danish, Portuguese, Polish, Hungarian, Czech, and Thai
Installation Built-in speakers	Front/rear ceiling/desk (menu selection) 4 x 3 cm x 1 (oval), 1.0 W (monaural) output power
Terminals PC 1 IN RGB signal	D-sub HD 15-pin x 1 R, G, B: 0.7 Vp-p, 75 ohms, Sync on green: 1.0 Vp-p, 75 ohms HD/SYNC, VD: TTL (positive/negative
YPBPR signal	polarity compatible) Y: 1.0 Vp-p (including sync signal), 75 ohms; P <sub>B</sub> , P <sub>R</sub> : 0.7 Vp-p, 75 ohms
PC 2 IN/PC 1 OUT RGB signal	D-sub HD 15-pin x 1 (input/output selec- table using on-screen menu) R, G, B: 0.7 Vp-p, 75 ohms, Sync on
-	green: 1.0 Vp-p, 75 ohms HD/SYNC, VD: TTL (positive/negative polarity compatible)
YP <sub>B</sub> P <sub>R</sub> signal	Y: 1.0 Vp-p (including sync signal), 75 ohms; PB, PR: 0.7 Vp-p, 75 ohms

#### NOTES ON USE

- Notes on use
  The projector uses a high-voltage mercury lamp that contains high internal pressure. This lamp may break, emitting a large sound, or fail to illuminate, due to impact or extended use. The length of time that it takes for the lamp to break or fail to illuminate varies greatly depending on individual lamp characteristics and usage conditions.
  The brightness of the lamp will gradually decrease with use.
  The lamp, LCD panel, polarising plate, and polarising beam splitter (PBS) are consumable parts. These parts may need to be replaced during the guarantee period if the projector is used for six or more hours per day.
- during the guarantee period if the projector is used or six or more hours per day.
  The replacement cycle of the LCD panel, polarising plate, and polarising beam splitter (PBS) will be shortened if the projector is subjected to continuous use for six or more hours. Likewise, the replacement cycle of the lamp will be shortened if the power is frequently turned on and off or the projector is subjected to continuous use for 10 or more hours.
- Interruptions may occur in the wireless connection due to signal interference or PC conditions.

# Panasonic

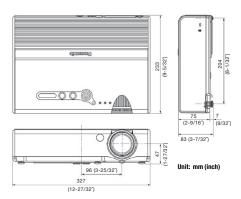
Weights and dimensions shown are approximate. Specifications are subject to change without notice. Product availability differs depending on region and country. This product may be subject to export control regulations. UHM is a trademark of Matsushita Electric Industrial Co., Ltd. VGA and XGA are trademarks of International Business Machines Corporation. Windows and PowerPoint are either registered trademarks or trademarks of Microsoft Corporation in the United States and/or other countries. All other trademarks are the property of their respec-tive trademark owners. Projection images simulated.

VIDEO IN	RCA pin x 1, 1.0 Vp-p, 75 ohms		
S-VIDEO IN	Mini DIN 4-pin x 1,		
AUDIO IN	Y: 1.0 Vp-p, C: 0.286 Vp-p, 75 ohms RCA (L-R) x 1, 0.5 Vrms		
PC 1 AUDIO IN	(for VIDEO/S-VIDEO)		
PC 2 AUDIO IN	M3 (stereo) x 1, 0.5 Vrms M3 (stereo) x 1, 0.5 Vrms		
AUDIO OUT	M3 (stereo) x 1, $0-2.0$ Vrms (variable)		
SERIAL	Mini DIN 8-pin x 1 (RS-232C)		
Power cord length	2 m (6'7")		
Cabinet material	Moulded material (ABS/PC)		
Dimensions*2 (W x H x D			
Weight	(12-27/32" x 3-1/4" x 9-5/32")		
Weight PT-LB60NTEA/LB55NT	ΈΔ		
	2.6 kg (5.7 lbs.)		
PT-LB60EA/LB55EA	2.5 kg (5.5 lbs.)		
Operating environment			
Temperature	0°-40°C (32°-104°F)		
Humidity	20%–80% (no condensation)		
Remote Control Unit			
Power supply Operation range* <sup>3</sup>	3 V DC (AAA battery x 2) Approx. 7 m (23 feet) when operated		
operation range	from directly in front of the signal		
	receptor		
Dimensions (W x H x			
	51.5 x 123 x 2.11 mm		
	(2" x 4-13/16" x 13/16")		
Weight	74 g (2.6 ozs.) (including batteries)		
Wireless LAN (PT-LB60N Standard	IEEE802.11b/g		
Modulation	ILLL002.11D/g		
IEEE802.11b	Direct sequence spread spectrum		
	(DS-SS) system		
IEEE802.11g	Orthogonal frequency division multiplex		
<b>-</b>	(ofdm) system		
Transmission system IEEE802.11b	CCK (11/5.5 Mbps), DQPSK		
IEEEOUZ.IID	(2 Mbps), DBPSK (1 Mbps)		
IEEE802.11g	64-QAM (54/48 Mbps), 16-QAM		
	(36/24 Mbps), QPSK (18/12 Mbps), BPSK		
	(9/6 Mbps)		
Transmission speed			
IEEE 802.11b	11 Mbps, 5.5 Mbps, 2 Mbps, 1 Mbps 54 Mbps, 48 Mbps, 36 Mbps,		
IEEE 802.11g	54 Mbps, 48 Mbps, 36 Mbps,		
	24 Mbps, 18 Mbps, 12 Mbps, 9 Mbps, 6 Mbps		
<b>Operation range*</b> <sup>3</sup>	9 Mbps, 6 Mbps Approx. 30 m (98'5')		
Frequency range	2,412 MHz-2,472 MHz		
Channels	1–13 ch		
Supplied Accessories			
<ul> <li>Power cord</li> <li>Wireless remote</li> </ul>	optrol		
<ul> <li>Wireless remote</li> <li>Batteries for rei</li> </ul>			
<ul> <li>VGA cable</li> </ul>			
<ul> <li>Lens cover</li> </ul>			
<ul> <li>Carrying bag</li> </ul>			
<ul> <li>Wireless Manag</li> </ul>	er ME 3.0 (CD-ROM)*4		
Optional Accessories			
	lacement lamp unit		
	ing mount bracket		
	-function wireless remote control		
	al adapter (DIN 8-pin/D-sub 9-pin)		
*1: In Al mode.			
*2: Legs and protruding parts not included. *3: Operation range differs depending on the environment.			
*4: For the PT-LB60NTEA and			

E.

To use wireless functions, a PC is required that meets the condi-				
tions given below:				
0S:	Microsoft <sup>®</sup> Windows <sup>®</sup> 2000 Professional,			
	Windows <sup>®</sup> XP Professional, Windows <sup>®</sup> XP			
	Home Edition			
CPU:	Pentium <sup>®</sup> III or higher, or other compatible			
	processor (1 GHz or higher is recommended).			
Memory:	256 MB or more			
Free hard disk	space:			
	60 MB or more			
CD-ROM drive:	CD-ROM drive or DVD drive			
Wireless LAN:	IEEE 802.11b/g compatible (built-in wireless			
	LAN system or external IEEE 802.11b/g LAN			
	card must be installed and running normally.)			
	However, some IEEE 802.11g/b wireless LAN			
	may not allow connection to the projector.			
Web browser:	Internet Explorer 6.0 or later, Netscape			
	Communicator 7.0 or later			
Direct X:	DirectX <sup>®</sup> 8.1b or later must be installed.			
Operation is not o	uaranteed for all computers that meet the			
above conditions.				

#### Dimensions



#### **Projection Distance**

#### PT-LB60NTEA/LB60EA

Diagonal image size	Distance to screen (L)		Height from the	
(4:3 aspect ratio)			edge of screen	
	min.	recommended*	max.	to center of lens
33"/ 0.84 m / 2.7'	-	-	1.1 m / 3.6′	5 cm / 2.0"
40°/ 1.02 m / 3.3'	1.2 m / 3.9'	1.4 m / 4.6'	1.4 m / 4.6	8 cm / 3.1"
50°/ 1.27 m / 4.2′	1.5 m / 4.9'	1.7 m / 5.6′	1.7 m / 5.6′	11 cm / 4.3"
60"/ 1.52 m / 4.9'	1.8 m / 5.9	2.1 m / 6.9'	2.1 m / 6.9'	13 cm / 5.1"
70″/ 1.78 m / 5.8′	2.1 m / 6.9'	2.5 m / 8.5'	2.5 m / 8.5	15 cm / 6.3"
80°/2.03 m/6.7′	2.4 m / 7.9'	2.8 m / 9.2'	2.8 m / 9.2	17 cm / 6.7"
90°/2.29 m/7.5′	2.7 m / 8.9'	3.2 m / 10.5'	3.2 m / 10.5'	19 cm / 7.5"
100"/ 2.54 m / 8.3'	3.0 m / 9.8'	3.5 m / 11.5'	3.5 m / 11.5'	21 cm / 8.3"
120"/ 3.05 m / 10.0'	3.6 m / 11.8'	4.3 m / 14.1'	4.3 m / 14.1'	25 cm / 9.8"
150°/ 3.81 m / 12.5'	4.6 m / 15.1'	5.4 m / 17.7′	5.4 m / 17.7	32 cm / 12.6"
200"/ 5.08 m / 16.7'	6.1 m / 20.0'	7.2 m / 23.6'	7.2 m / 23.6'	42 cm / 16.5"
250"/ 6.35 m / 20.8'	7.6 m / 24.9	9.0 m / 29.5'	9.0 m / 29.5'	53 cm / 20.9"
300"/ 7.62 m / 25.0'	9.1 m / 29.9	10.8 m / 35.4'	10.8 m / 35.4'	63 cm / 24.8"

#### PT-LB55NTEA/LB55EA

Diagonal image size (4:3 aspect ratio)	Distance to screen (L)			Height from the edge of screen
(4.5 aspect latto)	min.	recommended*	max.	to center of lens
33"/ 0.84 m / 2.7	-	-	1.2 m / 3.9	5 cm / 2.0"
40"/ 1.02 m / 3.3'	1.4 m / 4.6	1.5 m / 4.9'	1.5 m / 4.9′	6 cm / 2.4"
50°/1.27 m/4.2	1.7 m / 5.6	1.9 m / 6.2	1.9 m / 6.2	7 cm / 2.8"
60"/ 1.52 m / 4.9'	2.0 m / 6.6'	2.3 m / 7.5'	2.3 m / 7.5′	9 cm / 3.5"
70"/ 1.78 m / 5.8	2.4 m / 7.9	2.7 m / 8.9	2.7 m / 8.9'	10 cm / 3.9"
80°/2.03 m/6.7′	2.7 m / 8.9	3.1 m / 10.2'	3.1 m / 10.2'	12 cm / 4.7"
90°/2.29 m / 7.5′	3.0 m / 9.8'	3.5 m / 11.5'	3.5 m / 11.5′	13 cm / 5.1"
100"/ 2.54 m / 8.3'	3.4 m / 11.2'	4.0 m / 13.1'	4.0 m / 13.1'	15 cm / 5.9"
120"/ 3.05 m / 10.0'	4.1 m / 13.5'	4.8 m / 15.7'	4.8 m / 15.7	18 cm / 7.1"
150°'/ 3.81 m / 12.5'	5.1 m / 16.7'	6.0 m / 19.7'	6.0 m / 19.7'	22 cm / 8.7"
200"/ 5.08 m / 16.7'	6.8 m / 22.3	8.0 m / 26.2'	8.0 m / 26.2	30 cm / 11.8"
250"/ 6.35 m / 20.8'	8.4 m / 27.6	10.0 m / 32.8'	10.0 m / 32.8'	37 cm / 14.6"
300°/ 7.62 m / 25.0'	10.1 m / 33.1'	12.0 m / 39.4'	12.0 m / 39.4'	44 cm / 17.3"



**Optional replacement** lamp unit: ET-LAB30

#### **Ecology-Conscious Design**

Panasonic works from every angle to minimise environmental impact in the product design, production and delivery processes, and in the performance of the product itself over its life cycle. The PT-LB60/LB55 series models reflect the following ecological considerations.

- Lead-free solder is used to mount components to the printed circuit boards.
- No halogenated flame retardants are used in the • cabinet.
- No styrofoam is used in the packing materials.
- Lead-free glass is used for the lens.
- The packing case and operating manual are made from recycled paper.