

3D series



BT-3DL2550

LH series



BT-LH2550



BT-LH1760



BT-LH1710



BT-LH910G **NEW**

L series



BT-L2150 **NEW**



BT-L1500 **NEW**

Panasonic Broadcast & Professional LCD Monitors

3D Series

High-Quality LCD Monitor with 3D Display Capability



LH Series

High-Quality, Multifunctional LCD Monitors Fully Support Broadcast and Video Production Operations



L Series

Cost-Effective LCD Monitors with All the Basic Performance Required for Broadcast Applications





BT-3DL2550

This 647.7 mm (25.5 inches) LCD video monitor offers 3D compatibility in addition to superb basic HD display performance. It is ideal for high-quality, multifunctional 2D/3D monitoring at production sites.

Connector: SDI 1 SDI 2 VIDEO YPbPr/RGB DVI-D SYNC/HD VD AUDIO PIN GPI RS-232C HEADPHONE Power: AC DC

Xpol®*1 Polarizing Filter and 3D Polarized Eyewear for 3D Monitoring

The Xpol®*1 polarizing filter, which arranges micro-polarizers in a precise array, is bonded to the front surface of the LCD panel. This allows the viewing of 3D images*2 displayed with the line-by-line method using 3D Polarized Eyewear. Two pairs of 3D Polarized Eyewear are supplied with the product. Additional 3D Polarized Eyewear (BT-PGL10G) is available as option.



*1: Xpol® is a registered trademark of Arisawa Mfg. Co., Ltd.
 *2: Due to the characteristics of the Xpol®*1 polarizing filter, it is necessary to view 3D images from a position perpendicular to the LCD panel surface in order to properly perceive 3D effects.

Three 3D Video Input Systems Supported

The BT-3DL2550 supports three 3D video input systems: simultaneous, line-by-line and side-by-side. It accepts the output from the AG-3DA1 Integrated Twin-Lens 3D Camera Recorder and from existing 3D camera systems such as rig-type 3D camera systems as well as 3D TV broadcast signals, thus meeting virtually all production, editing and transmission needs.

- **Simultaneous:** Outputs left- and right-eye images through separate SDI cables. This system transmits FULL HD 3D video signals.
- **Line-by-line:** Allocates left- and right-eye images to odd-numbered lines and even-numbered lines. Conventional equipment for 2D video can be used with this signal type.

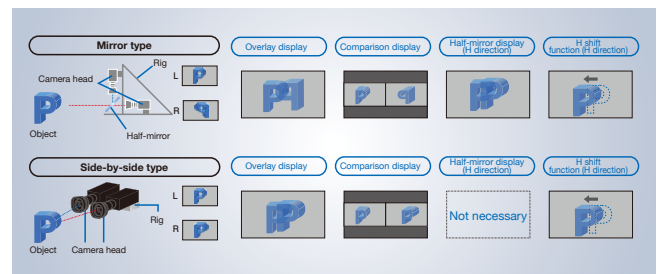
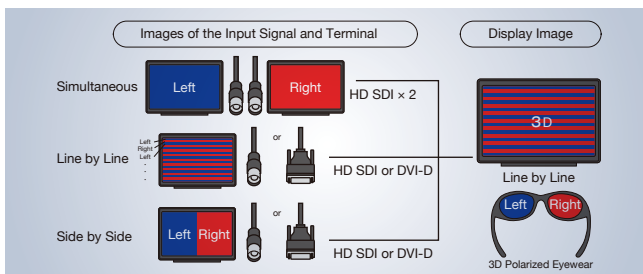
- **Side-by-side:** Splits the screen into left and right halves, and then combines the left and right images for viewing. This system is used mainly for 3DTV broadcasts.

Special 3D Display Function for a Rig-Type 3D Camera

The BT-3DL2550 is equipped with a special display function for adjusting images acquired with a rig-type 3D camera system (mirror type or side-by-side type). The following display/adjustment functions support lens axis adjustment and color matching when receiving simultaneous dual HD SDI inputs from a rig-type 3D camera system. This allows the BT-3DL2550 to meet professional 3D production needs.

- **Display Selection:** The screen display can be switched to normal 3D image display (line-by-line), overlay display, single-channel (left/right) display or comparison display.
 - **Overlay Display:** Displays left- and right-eye images together.
 - **Single Channel Display:** Displays left- or right-eye image.
 - **Comparison Display:** Displays left- and right-eye images next to each other.* This display mode is suitable for color matching and gradation adjustment for left-eye and right-eye cameras.
- **Half Mirror Function:** Inverts the right-eye image signal to flip the displayed image in the horizontal direction. This allows the 3D viewing of video input from a mirror type 3D camera system.
- **H Shift Function:** Shifts horizontally the image of one channel in the left or right direction (i.e. that is horizontal image translation), while showing an overlay display. This function is convenient for lens axis adjustment.

* The two screen images are the same in size and have an aspect ratio of 16:9. The Marker function cannot be used in this mode.





Wide Color Space FULL HD



Double Speed WXGA

WXGA

BT-LH2550

This compact 647.7 mm (25.5 inches) monitor offers a wide color space and 1920 x 1200-pixel resolution. Ideal for use in post-production and in applications such as filmmaking, computer graphics, printing and research.

Connector: SDI 1 SDI 2 VIDEO YPbPr/RGB DVI-D SYNC/HD
 VD AUDIO PIN GPI RS-232C HEADPHONE

Power: AC DC

BT-LH1760 / BT-LH1710

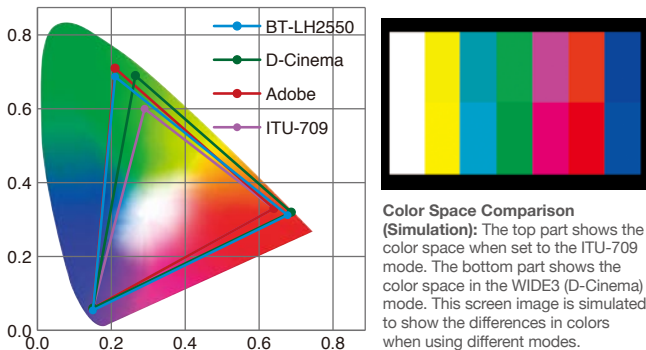
These versatile, rack-mountable 431.8 mm (17 inches) wide-screen LCDs operate on AC/DC power and can be used in various applications, both in the studio and in the field. The BT-LH1760 also has double-speed drive for blur-less moving images.

Connector: SDI 1 SDI 2 VIDEO YPbPr/RGB DVI-D SYNC/HD
 VD AUDIO PIN GPI RS-232C HEADPHONE

Power: AC DC

A Wide Color Space with Six Color Space Modes

The color space of the BT-LH2550 is 102% that of the NTSC standard, so it exceeds the EBU/SMPTE range that can be displayed by ordinary LCDs. It accurately reproduces colors that are not easily reproduced by conventional displays, including CRTs, to meet the needs of both broadcasters and image production companies, and to work in fields such as digital cinema, CG production, printing, publishing, advertising, and research. The BT-LH2550 also offers three new color space modes in addition to the three conventional modes. The modes are switchable by menu bottom.



BT-LH2550 Color Space Modes

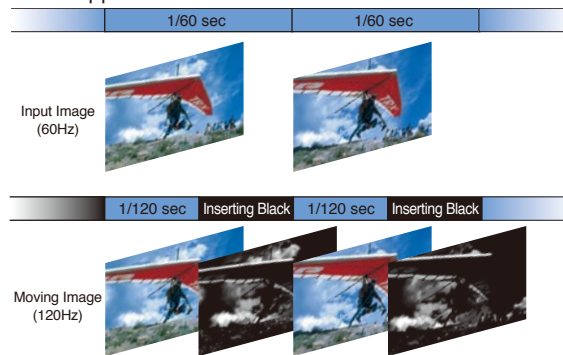
1. SMPTE-C: SMPTE-C standard
2. EBU: EBU standard
3. ITU-709: ITU-R BT.709 standard
4. WIDE1: Adobe color space, gamma of 2.2
5. WIDE2: Adobe color space, gamma of 1.8
6. WIDE3: D-Cinema color space, gamma of 2.6

A Space-Saving 647.7-mm (25.5-inch) Full-HD Monitor

The BT-LH2550 is a Full-HD WUXGA (1920 x 1200-pixel) high-resolution IPS monitor. Thanks to its LCD panel and the flat and lightweight design, the monitor saves space.

Double-Speed Drive for Blur-Less Moving Images [BT-LH1760 only]

Moving images without any afterimage are achieved by driving at a speed (120 Hz/100 Hz) that is twice the panel speed and inserting a black frame of a certain level between frames. Unlike frame creation methods, this system minimizes afterimages while displaying images faithful to the input signal. This high-performance, high-speed image display function is ideal for broadcast applications.



*When it is operating in 60 Hz.

Ideal Specifications for Use in the Studio and in the Field

The compact size, the lightweight built and its low power consumption are ideal for versatile and cost-effective use in either OB vans or studios. This LCD monitor operates on AC/DC power. Its rugged design features a production-tough aluminum diecast front frame. The monitor can also be mounted in a rack or hung on a wall using the optional accessories (rack mount: BT-MA1710G, wall mount: BT-WMA17G).





WXGA LED



BT-LH910G NEW

This high-resolution, high brightness and high contrast 228.6-mm (9-inch) monitor meets the production and broadcasting needs of outdoor use, studio recording, OB van installation and live broadcasting. Plus, it's equipped with a variety of 3D shooting assist functions.*1

Connector: SDI 1 (3G)*2 SDI 2 VIDEO HDMI VF YPbPr GPI RS-232C HEADPHONE Power: DC BATTERY

*1: These functions assist 3D shooting with a 2D image display. The BT-LH910G does not display 3D images. *2: 3G-SDI supports 1080/50p, 1080/59.94p, and 1080/60p of the SMPTE ST 425-A standard.

WXGA (1280 x 768) Resolution

The BT-LH910G offers the highest level of resolution in the portable monitor class, and opens the door to new applications in HD recording, production and broadcasting by surpassing the limits of conventional small monitors. This New IPS LCD panel features a mercury-free LED backlight.

Viewfinder Connector and Focus Assist Functions

- 15-pin Viewfinder Terminal: Can be used as a viewfinder for compatible Panasonic camera recorders*3 (requiring the optional BT-CS910G VF Cable).

- Focus-in-Red: Emphasizes the sharply focused area of the image by showing it in an easily visible red.



Focus-in-Red ON

*3 The AG-3DP1G (scheduled for release in Jan. 2012.), AG-3DA1, AJ-HPX3700, AJ-HPX2700, AJ-HPX3100, AJ-HPX2000, AJ-HPX2100, AJ-HDX900, and AG-HPX500 series. (The AG-HPX500 series displays SD resolution in black-and-white.) Optional hardware is required for mounting to a camera recorder.

Diverse 3D Camera Assist Functions*4*5

When receiving left-eye and right-eye video signals from a 3D camera, the BT-LH910G helps you to check 3D images on its 2D display and a rig-type 3D camera system.



3D Assist Function, Shift Mode

- **MIRROR:** With the left-eye and right-eye images displayed side-by-side on the screen, the right-eye image can be flipped in the horizontal or vertical direction.
- **SHIFT:** This function lets you move only the right-eye image horizontally or vertically in the overlay display.
- **COMPARISON:** This lets you confirm that there are no missing image segments at the frame edge of right or left image.
- **CONVERGENCE:** This function lets you switch the left-eye and right-eye images automatically or manually.
- **COLOR:** The Color function combines left-eye and right-eye images and displays them in a checkerboard pattern on a full screen. It allows you to check the brightness and color variance between the two images.
- **ZOOM FOCUS:** This function enlarges and displays a section of images displayed side-by-side. It can be used to check the variance in focus and zoom between the left-eye and right-eye images. Focus-in-Red can also be used together with this function.
- **VERTICAL:** The Vertical function lets you closely inspect vertical misalignment between the left-eye and right-eye images using an auxiliary horizontal-line marker.
- **OVERLAY:** This lets you check the width of left-right disparity by superimposing a vertical-line marker (in 3% intervals) on the overlay display or a difference image between right and left on a black-and-white display.

*4 Supported HD formats: 1080/60i, 1080/59.94i, 1080/50i, 1080/25PsF, 1080/24PsF, 1080/23.98PsF, 1035/60i, 1035/59.94i, 720/60p, 720/59.94p, 720/50p.

*5 The Overlay display on the BT-LH910G does not provide 3D effects even if 3D Eyewear is worn.

Features and Functions of the 3D/LH Series

- A three-dimensional LUT offering virtually the same color reproduction as CRTs in all video formats.
- Advanced image-enhancing circuitry, including excellent motion response and a diagonal line compensation circuit.
- Wide viewing angles: 178° horizontal and vertical for the BT-3DL2550/LH2550, 176° horizontal and vertical for the BT-LH1760/1710/LH910G.
- Ideal gradation for broadcast applications. Color temperature can be selected from 9300 K, 6500 K or 5600 K.
- Various marker, cross hatch overlay and blue-only display functions.
- Vector scope and waveform monitoring.
- Pixel-to-pixel display* and split-screen display (still image of a second BT-LH1760/LH1710/LH910G screen).

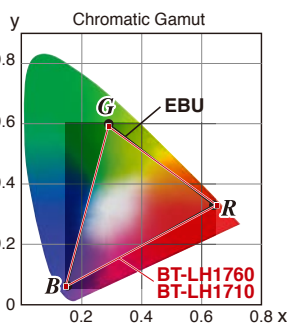
- Audio level meter overlay display (with SDI input).
- Time code and closed caption display.
- Cine-gamma (F-REC) compensation for Varicam shooting.
- Production-tough aluminum diecast frame (BT-LH1760/LH1710 front section), or magnesium diecast frame (BT-LH910G) built quality.*
- RS-232C/GPI remote control terminals.
- Tally lamp (red, green, amber).
- Rack mounting (BT-LH1760/LH1710/LH910G), wall mounting (BT-LH2550/LH1760/LH1710).

* Not supported by the BT-3DL2550/LH2550.

Faithful Color Reproduction Meets Broadcasting Needs

The 3D/LH series features an image processing engine. By using a three-dimensional LUT (Look Up Table) for each RGB color and applying precise 10-bit image processing, it achieves faithful color reproduction from low to high brightness levels in all video formats.

*SMPTE-C in North America.



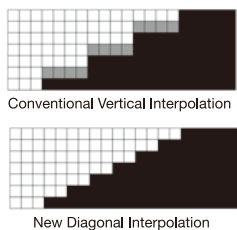
I/P Conversion Circuit for Motion Response

A circuit delay time (not including panel delay) of approximately 5 msec*1 is achieved by incorporating an I/P converter circuit that converts SD and HD interlace signals with high precision and generates a progressive signal without causing field-length delay. Minimizing the delay between the input signal and monitor output enables the user to confirm footage without any incongruity.

*1: Differs slightly depending on the signal format.

Diagonal Line Compensation

Jagged noise on diagonal lines in moving images is a common problem. These LCD monitors solve this by detecting correlations in the diagonal direction, resulting in smooth, precise reproduction of moving images.



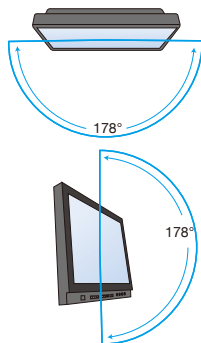
High-Speed Response

The biggest concern when receiving a video feed is response time in the intermediate gradations. The BT-LH1760 uses double-speed drive to achieve superb response over the entire image, enabling a vivid image display without blurring. The other models feature an overdrive circuit to improve response in intermediate gradations.

Wide Viewing Angle

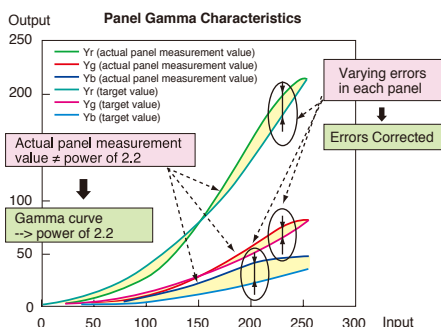
By using a high-intensity, high-contrast LCD panel, a wide viewing angle is achieved in all models. The BT-3DL2550*/LH2550 have a 178° viewing angle and the BT-LH1760/LH1710/LH910G have a 176° viewing angle (horizontal and vertical angles in both cases). Easy viewing is ensured by reducing color changes due to the viewing angle.

* The BT-3DL2550 in 2D mode.



Ideal Gradation for Broadcast Applications, and Selectable Color Temperature

In order to optimize the LCD monitor for professional broadcasting applications, compensation is conducted for each monitor in 256 discrete RGB steps, rated gamma properties (g = 2.2) are reproduced, and gradation suitable for broadcasting is achieved. Color temperature of 9300 K/6500 K/5600 K; 3000 K to 9300 K can be selected with the variable setting. In the case of the BT-LH910G, the manual white balance lets you directly adjust gain and bias for R, G and B.



Various Markers

Various markers can be displayed in both 16:9 and 4:3 aspect ratios.

- Aspect Marker (16:9): The BT-LH910G has seven modes of 4:3, 13:9, 14:9, CNSCO 2.39, CNSCO 2.35, 2:1 and VISTA. Other models have five modes of 4:3, 13:9, 14:9, CNSCO and VISTA, with background brightness control of Black (0%), Half (50%) or Normal (100%).
- Safe Area Marker (16:9/4:3): 95%, 93%, 90%, 88% or 80%. In 16:9 mode, all models can display a superimposed safe area marker corresponding to the aspect marker's angle of view.
- Center Marker (16:9/4:3): ON/OFF. The center marker can be displayed together with another marker, as shown in the example of right above.



4:3 Aspect Marker



Safe Area and Center Marker



4:3 Aspect and Safe Area Marker

Cross Hatch Overlay

A simple cross hatch overlay can be displayed to check the tilt of the camera. The BT-LH2550 displays the cross hatch overlay at 120-dot intervals. The BT-LH1760/LH1710 displays at 80-dot intervals. The BT-LH910G displays at 40/80-dot intervals. The BT-3DL2550 displays vertical lines at intervals of 6% of the screen width.



Cross Hatch ON

Waveform Monitoring

The built-in waveform monitoring function displays a waveform in a sub-screen. In addition, the BT-LH910G lets you select the signal to be displayed from Y, R, G or B.

* Not provided in the BT-3DL2550.



Waveform Monitoring

Vectorscope Display

All lines of the input signal via SDI are displayed as a vectorscope, and can be positioned in any of the four corners of the screen.

* Not provided in the BT-3DL2550.



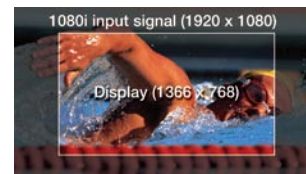
Vectorscope Display

Pixel-to-Pixel Display

This function lets you display and confirm video pixels without any resizing.

- BT-LH1760/LH1710: When displaying 1080i/p, you can check the zoom-in image and choose from five display areas: center, right-top, right-bottom, left-top or left-bottom.
- BT-LH910G: With 1080/60i input signals, you can check the zoom-in image with a screen width equivalent to 342.9 mm (13.5 inches).

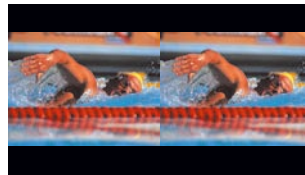
* Not provided in the BT-3DL2550/LH2550.



BT-LH1760/LH1710
Pixel-to-Pixel Display Image
(1080i, center mode)

Still Frame Display

A frame of video can easily be frozen and displayed as a still image on the left side of the screen. This function can be used to match a live camera with a frame of video shot at an earlier time or with a different camera. There are two display modes: FULL for displaying and comparing the entire image on the screen, and PART for displaying and comparing only the center part of the images. (Full-only on BT-3DL2550/LH2550)

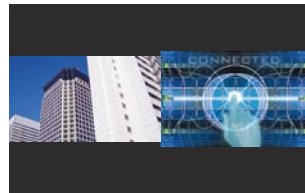


Still Video Monitor
FULL mode (4:3)

2-Input Split-Screen Function

The BT-3DL2500/LH2550 simultaneously displays two images side-by-side from two video inputs. This is especially useful for combining CGs and actual images. Because a single monitor can temporarily serve as two monitors, it helps to save space. It is also possible to set the size, color space, and gamma and RGB gains individually for each input.

*It may not be possible to display both images simultaneously with certain input signal combinations.



2-Input Split-Screen Function
(Left: SDI Input, Right: DVI Input)

Audio Level Meter Overlay

The BT-LH910G is equipped with a color audio level meter. This meter displays the level of embedded audio (3G SDI, SDI, HDMI*) input. Reference point setting, peak hold and overrange display are also possible. In other models, the skeleton bar meter displays the audio level of SDI embedded audio input on the screen. The display mode can be selected from 2-channel, 4-channel, 8-channel or OFF. * 2-channel display for HDMI input.



BT-LH910G Color Audio Level Meter



8ch Audio Level Meter

HV Delay Display and Mono Mode

The HV Delay function that displays the video blanking period, and the Mono mode that switches the display to black-and-white, can be assigned to function keys for quick access.

* In the BT-3DL2550, this function is supported only in 2D mode.

Time Code Display Function

With HD-SDI input, this function displays the value of the VITC, LTC or UB time code.



Time Code Display



Closed Caption Display

Closed Caption Function

The BT-LH910G can display closed captions with an SDI or VIDEO input. It supports the EIA-708 HD-SDI closed captioning standard (EIA-608 SD-SDI closed captioning standard), and can display up to eight windows simultaneously. Other models can display closed captions (32 characters x 15 lines) when an NTSC video signal is input. The display mode can be selected from CC1, CC2, CC3 or CC4.

* In the BT-3DL2550, this function is supported only in 2D mode.

Calibration Function

The BT-3DL2550/LH2550/LH910G comes installed with software that allows it to be calibrated without using a PC, by simply connecting a manufacturer-designated display color analyzer and measurement probe to the monitor.



*Konica Minolta CA-310 Display Color Analyzer with CA-PU32/PU35 or CA-PSU32/PSU35 Standard Measurement Probe. For more information about the Konica Minolta calibration system, please see the following website.
<<http://www.konicaminolta.com/instruments/index.html>>.

* Not equipped in the BT-LH1760/LH1710.

Cine Gamma Compensation

The cine-gamma (F-REC) compensation enables compatibility as a monitor for a Varicam Camcorder. This function supports the production of movies, film-like HDTV programs, and TV commercials.

The BT-LH910G is equipped with a black mode that also makes dark image areas in low-gradation scenes easier to see. It helps for producing movies as well as film-like HD programs and commercials.

Function Keys

Each of the function keys on the front panel can be assigned a function selected from various display and switchover functions* to enable one-touch display ON/OFF or mode change. These function buttons speed up operation and customize the functions to individual user needs.

* Assignable functions vary depending on the model. In the BT-3DL2550, functions that can be used vary in 3D display and 2D display.

Rugged Frame Structure

The BT-LH1760/LH1710 feature an aluminum diecast frame (front section only), while the BT-LH910G has a magnesium diecast frame. These rugged structures provide the toughness required in professional field work.



Aluminum diecast frame
(BT-LH1760/LH1710)

* Not provided in the BT-3DL2550/LH2550.

External Remote Compatibility

The standard RS-232C (9-pin) and GPI (9-pin) remote input terminals allow the monitor to be operated by an external device.

Tally Lamps

The front panel has red, green and amber tally lamps. The BT-LH910G also has a rear tally lamp for added convenience when being used as a viewfinder.

Power Save Mode

When no signal is received for 60 continuous seconds, the Power Save mode is activated to minimize power consumption.

* Not provided in the BT-LH910G.

Wall Mounting

The optional wall mounting hardware (optional BT-WMA17G or BT-WMA26G) allows wall mounting of these thin, lightweight LCD monitors.

* Not supported by the BT-LH910G.

Protective Panel

The optional protective panel (BT-PRP17G) protects the BT-LH1760/LH1710 LCD panel from environmental elements such as sand and dust during outdoor use.



FULL HD **LED**

BT-L2150 NEW 546.1 mm (21.5 inches) LCD Video Monitor

WXGA **LED**

BT-L1500 NEW 391.2 mm (15.4 inches) LCD Video Monitor

Developed focusing on basic features, such as a high-resolution, high-contrast LCD panel and two standard HD SDI input systems, these new-standard LCD monitors for broadcast applications offer high cost-performance.

Connector: SDI 1 SDI 2 VIDEO YPbPr HDMI AUDIO PIN GPI PC HEADPHONE Power: AC

High-Resolution, High-Contrast LCD Panels

These LCD monitors are equipped with high-resolution, high-contrast LCD panels for broadcast applications. The BT-L2150 has a wide-screen panel with a 16:9 aspect ratio for Full-HD (1920 x 1080) display. It offers a contrast ratio of 1,000:1. The BT-L1500 has a wide-screen panel with a 16:10 aspect ratio for WXGA (1280 x 800) display. Its contrast ratio is 700:1.

Environmentally Friendly, Low-Current-Consuming LED Backlight

The current consumption when operating on AC is about 50% lower than that of the previous model, the BT-LH1760. Thanks to the low-current-consuming LED, these LCD monitors deliver enhanced versatility and cost effectiveness for use in OB vans and studios. The backlight uses a mercury-free, low-power-consuming LED for reduced environmental impact.

Diagonal Line Compensation

Jagged noise on diagonal lines in moving images is a common problem. These LCD monitors solve this by detecting correlations in the diagonal direction, resulting in smooth, precise reproduction of moving images.

New Design Offering Compact Size and Easy Operation

All functions and features, including the interface and operation sections, are integrated into the compact body. Taking advantage of the slim size and lightweight of the LCD panel, the integrated design enhances setup flexibility and simplifies operation.

Standard Protective Panel

The LCD panel is covered by a protective panel to protect it from damage during transportation (detachable).

Faithful Color Reproduction Meets Broadcasting Needs

The 10-bit image processing achieves faithful color reproduction from low to high brightness levels in all video formats.

Wide Viewing Angle

The high-contrast LCD panel provides a wide viewing angle. The BT-L2150 has 170° horizontal and 160° vertical viewing angles, while the BT-L1500 has 160° horizontal and 140° vertical viewing angles. Easy viewing is ensured by reducing color changes due to the viewing angle.

HD/SD Multi-Format

Compatible with most HD and SD formats, the BT-L2150/L1500 are ideal for a wide range of applications in locations around the world. They also support SD videos in NTSC and PAL TV systems.

Three Color Space Modes and Two Gamma Modes

The color space can be set to one of three modes (SMPTE-C/EBU/ITU-709). The gamma curve can be selected from 2.2 or 2.35 (CRT approximation).

RGB White Balance Adjustment Function

The color temperature can be selected from 9300 K, 6500 K, or a variable 2-value setting. The variable values can be set flexibly by using the RGB white balance adjustment function that enables adjustment of gain and bias individually for R, G and B.

Sharpness Control Function

A sharpness (contour correction) function is provided as standard equipment. The correction edge width can be selected (HIGH/LOW), and the amount of horizontal correction can be adjusted.

Aspect Ratio Conversion Mode

When an SD video signal is input, the aspect ratio can be selected from 4:3 or 16:9.

Blue-Only Function

This function for broadcast applications cuts out red and green signals from the video signal when displaying the picture.

Various Markers

Various markers can be displayed in both 16:9 and 4:3 aspect ratios.

- **Aspect Marker (16:9):** Angle of view with a 4:3 aspect ratio can be displayed on the screen for confirmation.

- **Safe Area Marker (16:9/4:3):** 93%, 88% or 80%. In 16:9 mode, all models can display a superimposed safe area marker corresponding to the aspect marker's angle of view.

- **Center Marker (16:9/4:3):** ON/OFF. The center marker can be displayed together with another marker, as shown in the example right above.

Closed Caption Function

When an NTSC video signal is input, this function can display closed captions (32 characters x 15 lines). The display mode can be selected from CC1, CC2, CC3 or CC4.



4:3 Aspect Marker



Safe Area and Center Marker



4:3 Aspect and Safe Area Marker

SDI Input

Two SDI input systems (SDI1/SDI2) with an automatic HD/SD switching function are provided as standard equipment. They support embedded audio, and the channel for audio output to speakers and headphone can be changed.

Component/Composite Inputs

Equipped with component (Y/PB/PR) input, composite video input and analog audio (L/R) input.

HDMI (Type A) Input

The next-generation HD Link is provided. It allows high-quality digital connection of a wide range of digital HD products with an HDMI terminal, such as BD/DVD players.

PC Terminal

The standard PC terminal (15-pin) enables the use of the monitor as a PC monitor (XGA/WXGA). It also allows the use of a PC to make settings.

GPI Remote

The standard GPI (9-pin) terminal allows the monitor to be operated remotely. An external device can be connected and used to remotely control input switching and tally lamp operation.

Tally Lamps

The front panel is equipped with tally lamps (red/green/amber).

Key Lock Function

The Key Lock function disables the front panel operation/control functions, except for Power switch, menu operation and sound level adjustment.

Stereo Speakers and Headphone Jack

The built-in speakers on the right and left sides of the screen let you confirm stereo sound without having to connect external speakers. The BT-L1250/1500 are also provided with a headphone jack on the front panel.

Fanless Drive

Fanless drive and its quiet operation make these models ideal for use in editing studios or MA rooms.

Power Down Mode

When the Power Down mode is on, the monitor automatically turns off when there is no operation nor signal input for a certain period of time.

Tilt Stand

The standard tilt stand (detachable) lets you adjust the monitor angle in backward and forward.

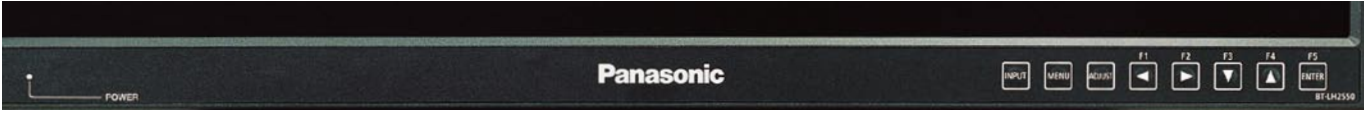
VESA Mount Compatibility

A VESA mount (100 mm x 100 mm) can be used.

Front Operation Panels



BT-3DL2550



BT-LH2550



BT-LH1760/BT-LH1710



BT-LH910G



BT-L2150



BT-L1500

Rear Panel Interfaces



BT-3DL2550



BT-LH2550



BT-LH910G



BT-LH1760/LH1710



BT-L2150/L1500

Input Signal	BT-3DL2550/LH2550/LH1760/LH1710						BT-LH910G						
	VIDEO	SDI 1	SDI 2	YPbPr (*1)	RGB-VIDEO (*1)	DVI-VIDEO (*2)	VIDEO	VF-VIDEO	VF-YPbPr	YPbPr	SDI1 (3G SDI)	SDI2	HDMI
NTSC	√						√	√					
PAL	√						√	√					
640x480 (59.94Hz)													√
640x480 (60Hz)													√
480/59.94i		√	√	√	√				√	√	√	√	
480/59.94p				√	√	√			√	√			√
576/50i		√	√	√	√				√	√	√	√	
576/50p				√	√	√			√	√			√
720/50p		√	√	√	√	√			√	√	√	√	√
720/59.94p		√	√	√	√	√			√	√	√	√	√
720/60p		√	√	√	√	√			√	√	√	√	√
1035/59.94i		(*)3	(*)3	(*)3	(*)3				(*)3	(*)3	(*)3	(*)3	(*)3
1035/60i		(*)4	(*)4	(*)4	(*)4				(*)4	(*)4	(*)4	(*)4	(*)4
1080/23.98PsF		√	√	√					√	√	√	√	
1080/24PsF		√	√	√					√	√	√	√	
1080/25PsF									(*)5	(*)5	(*)5	(*)5	
1080/23.98p		√	√	√							√	√	√
1080/24p		√	√	√							√	√	√
1080/25p		√	√	√							√	√	√
1080/29.97p		√	√	√							√	√	√
1080/30p		√	√	√							√	√	√
1080/50i		√	√	√	√	√			√	√	√	√	√
1080/50p				√		√					(*)6		(*)7
1080/59.94i		√	√	√	√	√			√	√	√	√	√
1080/60i		√	√	√	√	√			√	√	√	√	√
1080/59.94p				√		√					(*)6		(*)7
1080/60p				√		√					(*)6		(*)7

√: Supported *1: One pair of terminals is provided for YPBPR and RGB input. The input signal type is selected in the menu. For RGB, the input signal type is selected from VIDEO or COMP. *2: When a DVI-D input terminal is used, the input signal type is selected from VIDEO or COMP. *3: When a 1035/59.94i signal is input, images are displayed in 1080/59.94i. In that case, the displayed markers are for 1080/59.94i. *4: When 1035/60i signal is input, images are displayed in 1080/60i. In that case, the displayed markers are for 1080/60i. *5: 1080/25PsF input is displayed as 1080/50i. *6: 3G-SDI supports 1080/50p, 1080/59.94p, and 1080/60p of the SMPTE ST 425-A standard. *7: RGB444 and SDI422 (12-bit) are not supported.




Input Signal	Display Character Example	BT-L2150/BT-L1500				
		VIDEO	SDI1	SDI2	HDMI	YPbPr
NTSC	NTSC	√				
PAL	PAL	√				
640x480 (59.94p)	640x480 (60p)				√	
640x480 (60p)	640x480 (60p)				√	
480/59.94i	480/60i		√	√		√
480/59.94p	480/60p				√	√
576/50i	576/50i		√	√		√
576/50p	576/50p				√	√
720/50p	720/50p		√	√	√	√
720/59.94p	720/60p		√	√	√	√
720/60p	720/60p		√	√	√	√
1080/23.98PsF	1080/24PsF		√	√		√
1080/24PsF	1080/24PsF		√	√		√
1080/25PsF	1080/50i		√	√		√
1080/23.98p	1080/24p		√	√	√	√
1080/24p	1080/24p		√	√	√	√
1080/25p	1080/25p		√	√	√	√
1080/29.97p	1080/30p		√	√	√	√
1080/30p	1080/30p		√	√	√	√
1080/50i	1080/50i		√	√	√	√
1080/50p	1080/50p				√	√
1080/59.94i	1080/60i		√	√	√	√
1080/60i	1080/60i		√	√	√	√
1080/59.94p	1080/60p				√	√
1080/60p	1080/60p				√	√





√: Supported

Input Signal	BT-3DL2550/LH2550		BT-LH1760/LH1710		BT-L2150/L1500
	RGB-COMP. (*1)	DVI-COMP. (*2)	RGB-COMP. (*1)	DVI-COMP. (*2)	PC
640 x 400 (70Hz)	√		√		√
640 x 480 (60Hz)	√	√	√	√	√
640 x 480 (75Hz)	√		√		√
640 x 480 (85Hz)	√		√		
800 x 600 (60Hz)	√	√	√	√	√
800 x 600 (70Hz)	√		√		
800 x 600 (75Hz)	√		√		√
800 x 600 (85Hz)	√		√		
1024 x 768 (60Hz)	√	√	√	√	√
1024 x 768 (70Hz)	√		√		√
1024 x 768 (75Hz)	√		√		√
1024 x 768 (85Hz)	√		√		
1280 x 768 (50Hz)	√	√	√	√	
1280 x 768 (60Hz)	√	√	√	√	√
1280 x 768 (75Hz)	√		√		
1280 x 800 (60Hz)					√
1280 x 1024 (60Hz)	√	√	√	√	(*)3
1600 x 1200 (60Hz)	√	√			
1920 x 1200 (60Hz)	(*)4	√			

√: Supported *1: One pair of terminals is provided for YPBPR and RGB input. The input signal type is selected in the menu. For RGB, the input signal type is selected from VIDEO or COMP. *2: When a DVI-D input terminal is used, the input signal type is selected from VIDEO or COMP. *3: BT-L1500 is not supported. "UNSUPPORTED SIGNAL" is displayed. *4: It supports only VESA Reduced Blanking.

Specifications

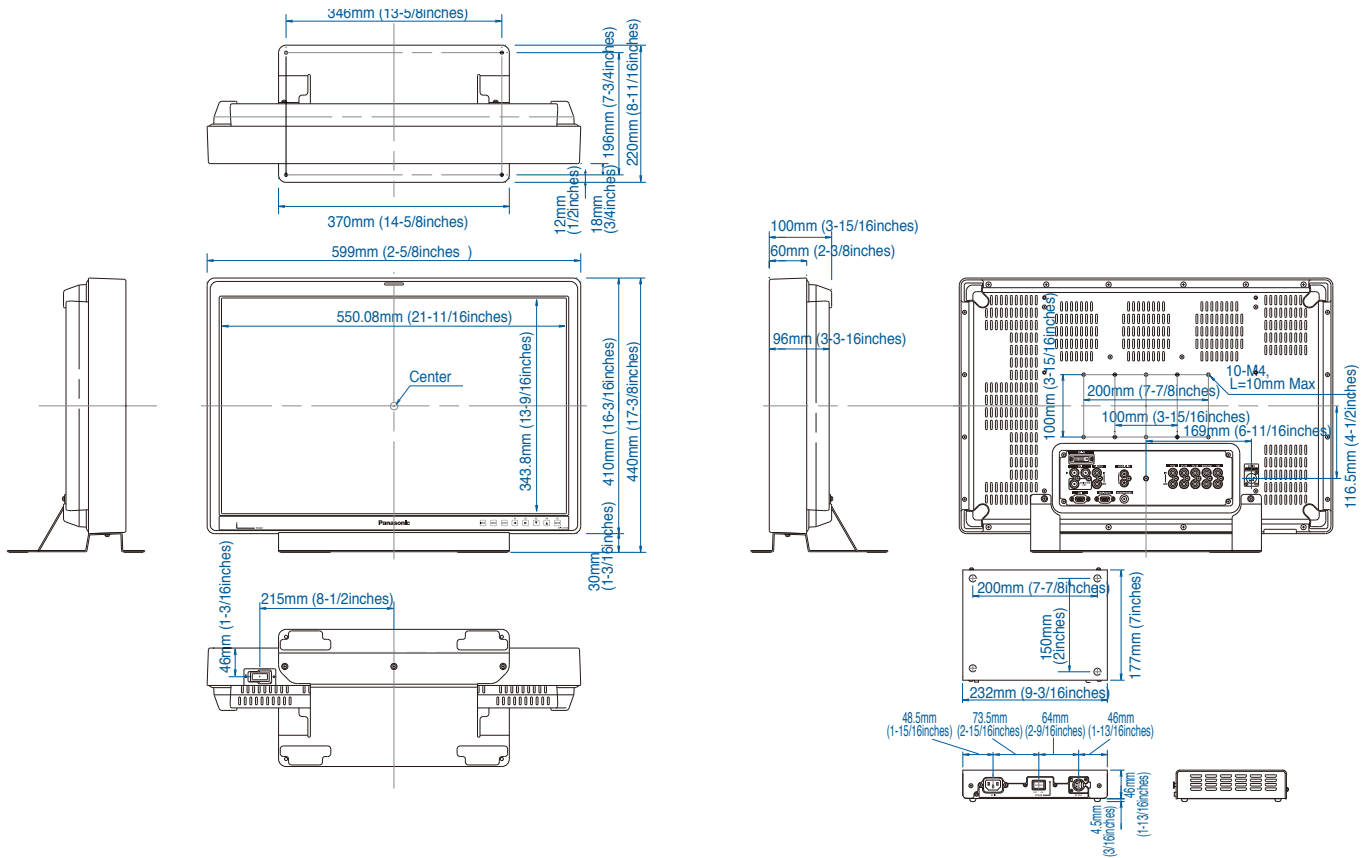
	BT-3DL2550	BT-LH2550	BT-LH1760
			
GENERAL			
Power Requirement:	DC 24 V 4.5 A, DC 5 V 0.03 A AC adapter In: 100 V to 240 V, 50/60 Hz, 1.6 A to 0.6 A	DC 24 V 4.5 A, DC 5 V 0.03 A AC adapter In: 100 V to 240 V, 50/60 Hz, 1.6 A to 0.6 A	AC 100 V to 240 V 50/60 Hz, 0.6 A to 0.3 A DC 12 V (11 V to 17 V) 4.0 A
Dimensions (WxHxD):	599 mm x 440 mm x 220 mm (23-5/8 inches x 17-3/8 inches x 8-11/16 inches), including stand 599 mm x 410 mm x 100 mm (23-5/8 inches x 16-3/16 inches x 3-15/16 inches), not including stand AC adapter: 232 mm x 50.5 mm x 177 mm (9-3/16 inches x 2 inches x 7 inches)	599 mm x 440 mm x 220 mm (23-5/8 inches x 17-3/8 inches x 8-11/16 inches), including stand 599 mm x 410 mm x 100 mm (23-5/8 inches x 16-3/16 inches x 3-15/16 inches), not including stand AC adapter: 232 mm x 50.5 mm x 177 mm (9-3/16 inches x 2 inches x 7 inches)	430 mm x 323.5 mm x 198mm (16-15/16 inches x 12-3/4 inches x 7-13/16 inches), Including stand 430 mm x 309 mm x 81.1mm (16-15/16 inches x 12-3/16 inches x 3-1/4 inches), not including stand
Weight:	10.3 kg (22.7 lbs), including stand 8.8 kg (19.4 lbs), not including stand AC adapter: 1.7 kg (3.7 lbs)	9.7 kg (21.4 lbs), including stand 8.2 kg (18.1 lbs), not including stand AC adapter: 1.7 kg (3.7 lbs)	7.1 kg (15.7 lbs), including stand 6.2 kg (13.7 lbs), not including stand
Operating Temperature:	5°C to 35°C (41°F to 95°F)	5°C to 35°C (41°F to 95°F)	5°C to 35°C (41°F to 95°F)
Operating Humidity:	20 % to 80 % (non dew)	20 % to 80 % (non dew)	20 % to 80 % (non dew)
Storage Temperature:	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)	-20°C to 60°C (-4°F to 140°F)
LCD PANEL			
Panel Size:	647.7 mm (25.5 inches)	647.7 mm (25.5 inches)	431.8 mm (17 inches)
Aspect Ratio:	16:10	16:10	15:9
Double Speed Drive: (100Hz/120Hz)	—	—	Yes
Resolution:	1,920 x 1,200 pixels (WUXGA)	1,920 x 1,200 pixels (WUXGA)	1,280 x 768 pixels (WUXGA)
Display Colors:	Approx. 16,770,000 colors	Approx. 16,770,000 colors	Approx. 16,770,000 colors
Viewing Angle:	178° both horizontal and vertical (in 2D mode, at contrast >10:1)	178° both horizontal and vertical (contrast >10:1)	178° both horizontal and vertical (contrast >10:1)
CONNECTORS			
Video Input/Output:	<ul style="list-style-type: none"> • Video: BNC x 2 (with through-out x 1) • YPbPr/RGB: BNC x 6 (with through-out x 3) • SYNC/HD: BNC x 2 (with through-out x 1) • VD: BNC x 2 (with through-out x 1) • SDI: BNC x 3 (with switched-out x 1) embedded audio supported • DVI-D: DVI-D x 1, (HDCP, TMDS single link) Vertical frequency: 50.0 Hz to 60.0 Hz Horizontal frequency: 31.5 kHz to 67.5 kHz Dot clock: 25 MHz to 165 MHz 	<ul style="list-style-type: none"> • Video: BNC x 2 (with through-out x 1) • YPbPr/RGB: BNC x 6 (with through-out x 3) • SYNC/HD: BNC x 2 (with through-out x 1) • VD: BNC x 2 (with through-out x 1) • SDI: BNC x 3 (with switched-out x 1) embedded audio supported • DVI-D: DVI-D x 1, (HDCP, TMDS single link) Vertical frequency: 50.0 Hz to 60.0 Hz Horizontal frequency: 31.5 kHz to 67.5 kHz Dot clock: 25 MHz to 165 MHz 	<ul style="list-style-type: none"> • Video: BNC x 2 (with through-out x 1) • YPbPr/RGB: BNC x 6 (with through-out x 3) • SYNC/HD: BNC x 2 (with through-out x 1) • VD: BNC x 1 • SDI: BNC x 3 (with switched-out x 1) embedded audio supported • DVI-D: DVI-D x 1, (HDCP supported) Vertical frequency: 50.0 Hz to 60.0 Hz Horizontal frequency: 31.5 kHz to 67.5 kHz Dot clock: 25 MHz to 165 MHz
Audio Input:	Pinjack x 2 (stereo)	Pinjack x 2 (stereo)	Pinjack x 2 (stereo)
Headphone Output:	M3 stereo mini jack x 1	M3 stereo mini jack x 1	M3 stereo mini jack x 1
Remote:	GPI: D-SUB, 9 pin RS-232C: D-SUB, 9pin	GPI: D-SUB, 9 pin RS-232C: D-SUB, 9 pin	GPI: D-SUB, 9 pin RS-232C: D-SUB, 9 pin
External DC Power Input:	XLR, 4pin (Supplied AC adapter only)	XLR, 4pin (Supplied AC adapter only)	XLR, 4pin
SIGNAL LEVEL			
Video:	SYNC signal level: 0.3 Vp-p to 4.0 Vp-p HD/VD Signal level: TTL level	SYNC signal level: 0.3 Vp-p to 4.0 Vp-p HD/VD Signal level: TTL level	SYNC signal level: 0.3 Vp-p to 4.0 Vp-p HD/VD Signal level: TTL level
Audio:	Audio input signal level: 0.5 Vrms Head phone output: 32 Ω, Variable Level	Audio input signal level: 0.5 Vrms Head phone output: 32 Ω, Variable Level	Audio input signal level: 0.5 Vrms Head phone output: 32 Ω, Variable Level Speaker output: 0.5W + 0.5W
SDI Embedded Audio:	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous	HD SDI: SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous
OTHERS			
Supplied Accessories:	3D polarized eyewear (with case) x 2, AC adapter, Power cord, Power cord hook, Screw, DC cable	AC adapter, Power cord, Power cord hook, Screw, DC cable	Power cord, power cord hook, screw
Optional Accessories:	BT-PGL10G 3D polarized eyewear, BT-WMA26G wall mount adaptor	Wall mount adaptor	Rack mount adaptor, Wall mount adaptor, Protective panel

	BT-LH1710	BT-LH910G	BT-L2150	BT-L1500
				
	AC 100 V to 240 V 50/60 Hz, 0.6 A to 0.3 A DC 12 V (11 V to 17 V) 4.0 A	DC12 V (11 V to 17 V), XLR 4pin 1.9 A (DC12 V)	AC 100 V to 240 V 50/60 Hz, approx. 30 W	AC 100 V to 240 V 50/60 Hz, approx. 25 W
	430 mm x 323.5 mm x 198mm (16-15/16 inches x 12-3/4 inches x 7-13/16 inches), including stand 430 mm x 309 mm x 81.1mm (16-15/16 inches x 12-3/16 inches x 3-1/4 inches), not including stand	230 mm x 214.5 mm x 170 mm (9-1/16 inches x 8-7/16 inches x 7-11/16 inches), including stand 230 mm x 183 mm x 78.5 mm (9-1/16 inches x 7-13/64 inches x 3-1/16 inches), not including stand	538 mm x 426 mm x 240 mm (21-3/16 inches x 16-3/4 inches x 9-7/16 inches), including stand 538 mm x 374 mm x 70 mm (21-3/16 inches x 14-3/4 inches x 2-3/4 inches), not including stand	397 mm x 360.5 mm x 240 mm (15-5/8 inches x 14-3/16 inches x 9-7/16 inches), including stand 397 mm x 308.5 mm x 70 mm (15-5/8 inches x 12-1/8 inches x 2-3/4 inches), not including stand
	7.1 kg (15.7 lbs), including stand 6.2 kg (13.7 lbs), not including stand	2.4 kg (5.3 lbs), including stand 1.7 kg (3.7 lbs), not including stand	7.5 kg (16.53 lbs), including stand 6.0 kg (13.23 lbs), not including stand	5.4 kg (11.9 lbs), including stand 3.9 kg (8.6 lbs), not including stand
	5°C to 35°C (41°F to 95°F) 20 % to 80 % (non dew) -20°C to 60°C (-4°F to 140°F)	0 °C to 40 °C (32 °F to 104 °F) 10 % to 85 % (non dew) -20°C to 60°C (-4°F to 140°F)	5°C to 35°C (41°F to 95°F) 20 % to 80 % (non dew) -20°C to 60°C (-4°F to 140°F)	5°C to 35°C (41°F to 95°F) 20 % to 80 % (non dew) -20°C to 60°C (-4°F to 140°F)
	431.8 mm (17 inches)	23 cm (9 inches) of effective display area	54.6 cm (21.5 inches)	39.1 cm (15.4 inches)
	15:9	15:9	16:9	16:10
	—	—	—	—
	1,280 x 768 pixels (WUXGA) Approx. 16,770,000 colors	1,280 x 768 pixels (WXGA) Approx. 16,770,000 colors	1,920 x 1,080 pixels (FULL HD) Approx. 16,700,000 colors	1,280 x 800 pixels (WXGA) Approx. 16,200,000 colors
	178° both horizontal and vertical (contrast >10:1)	176° both horizontal and vertical (contrast >10:1)	170° horizontal, 160° vertical (contrast >10:1)	160° horizontal, 140° vertical (contrast >10:1)
	<ul style="list-style-type: none"> Video: BNC x 2 (with through-out x 1) YPbPr/RGB: BNC x 6 (with through-out x 3) SYNC/HD: BNC x 2 (with through-out x 1) VD: BNC x 1 SDI: BNC x 3 (with switched-out x 1) embedded audio supported DVI-D: DVI-D x 1, (HDCP supported) Vertical frequency: 50.0 Hz to 60.0 Hz Horizontal frequency: 31.5 kHz to 67.5 kHz Dot clock: 25 MHz to 165 MHz 	<ul style="list-style-type: none"> Video: BNC x 1 (shares with Y) YPbPr/RGB: BNC x 3 (Y shares with Video) SDI: BNC x 2 (with active through-out) SMPTE274M/296M/259M-C/ ITU-R BT.656-4 compliant, embedded audio supported HDMI: HDMI (type A) x 1 (HDCP supported, embedded audio supported, VIERA Link not supported) VF: D-SUB, 15 pins x 1 	<ul style="list-style-type: none"> Video: BNC x 1 SDI: BNC x 2, SMPTE274M/296M/259M-C/ITU-R BT.656-4 compliant embedded audio supported YPbPr: BNC x 3 HDMI: HDMI (type A) x 1 (HDCP supported, embedded audio supported, VIERA Link not supported) PC: D-SUB 15 pin x 1 Vertical frequency: 60.0 Hz to 75.0 Hz Horizontal frequency: 31.5 kHz to 64.0 kHz Dot clock: 25 MHz to 108 MHz HD/SD signal level: TTL level 	<ul style="list-style-type: none"> Video: BNC x 1 SDI: BNC x 2, SMPTE274M/296M/259M-C/ITU-R BT.656-4 compliant embedded audio supported YPbPr: BNC x 3 HDMI: HDMI (type A) x 1 (HDCP supported, embedded audio supported, VIERA Link not supported) PC: D-SUB 15 pin x 1 Vertical frequency: 60.0 Hz to 75.0 Hz Horizontal frequency: 31.5 kHz to 60.0 kHz Dot clock: 25 MHz to 83.5 MHz HD/SD signal level: TTL level
	Pinjack x 2 (stereo)	—	Pinjack x 2 (stereo)	Pinjack x 2 (stereo)
	M3 stereo mini jack x 1	M3 stereo mini jack x 1	M3 stereo mini jack x 1	M3 stereo mini jack x 1
	GPI: D-SUB, 9 pin RS-232C: D-SUB, 9 pin	GPI: D-SUB, 9 pin RS-232C: D-SUB, 9 pin	GPI: D-SUB, 9 pin	GPI: D-SUB, 9 pin
	XLR, 4pin	XLR, 4pin	—	—
	SYNC signal level: 0.3 Vp-p to 4.0 Vp-p HD/VD Signal level: TTL level	—	—	—
	Audio input signal level: 0.5 Vrms Head phone output : 32 Ω, Variable Level Speaker output : 0.5 W + 0.5 W	Head phone output: 32 Ω, Variable Level	Audio input signal level: 0.5 Vrms Speaker output: 0.5 W + 0.5 W Head phone output: 32 Ω, Variable Level	Audio input signal level: 0.5 Vrms Speaker output: 0.5 W + 0.5 W Head phone output: 32 Ω, Variable Level
	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous SDI: BNC x 2 (active through connector x 2), SMPTE274M/296M259M-C/ ITU-R BT.656-4 complaint HDMI: Embedded Audio compatible	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous HDMI: Embedded Audio compatible	HD SDI : SMPTE299M compliant, 48 kHz, 8CH, synchronous/asynchronous SD SDI : SMPTE272M compliant, 48 kHz, 4CH, synchronous HDMI: Embedded Audio compatible
	Power cord, power cord hook, screw Power plug adaptor x 1	Battery holder for Anton/Bauer battery (pre installed), Tilt stand (pre installed)	Power code, Tilt stand (pre installed), Protective panel (pre installed)	Power code, Tilt stand (pre installed), Protective panel (pre installed)
	Rack mount adaptor, Wall mount adaptor, Protective panel	VF cable	—	—

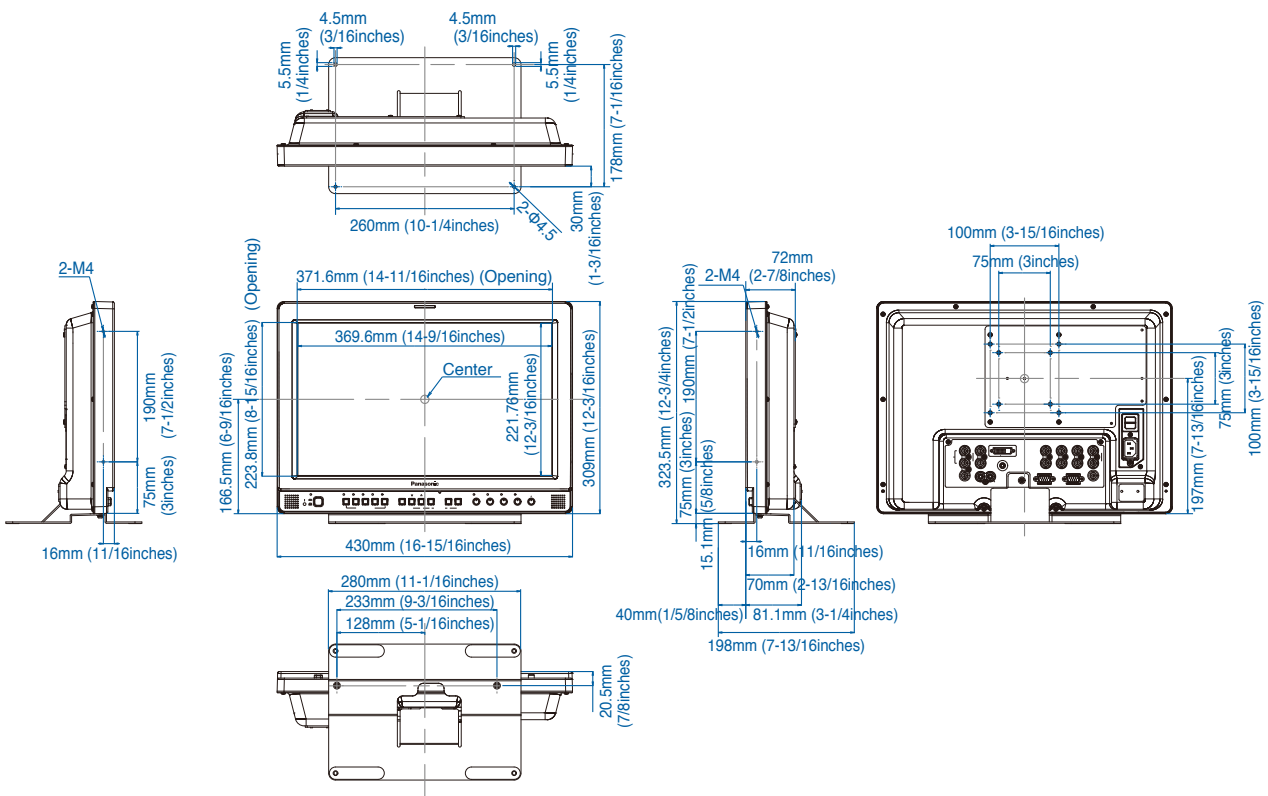
Weight and dimensions are approximate. The specifications shown above are subject to change without notice.

Dimensions

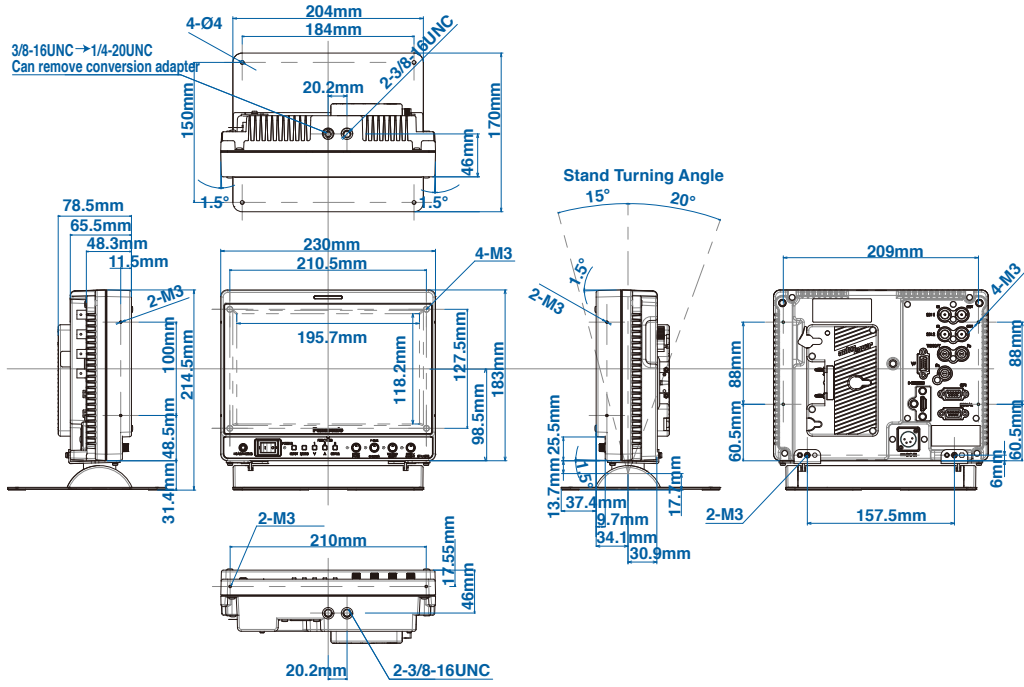
BT-3DL2550/LH2550



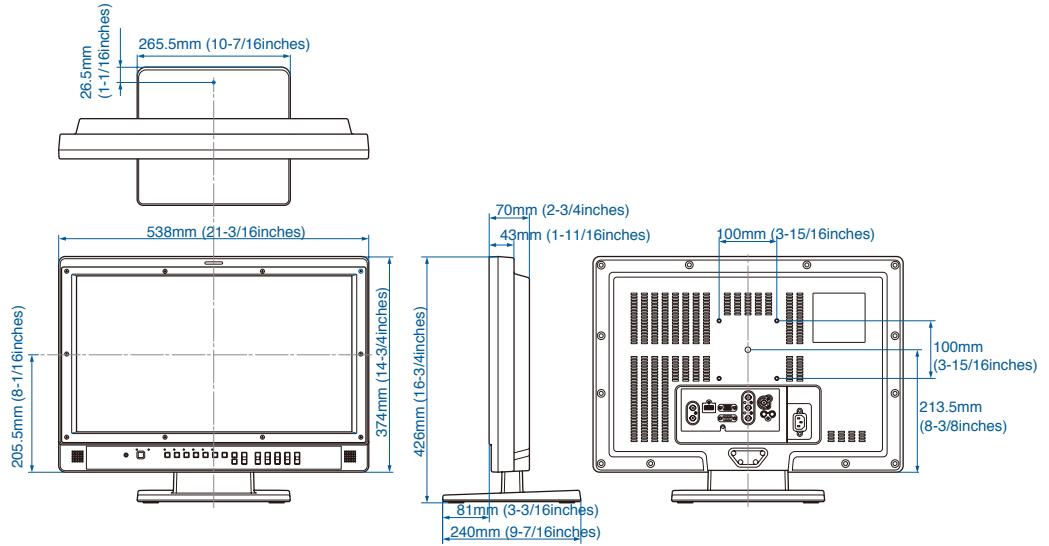
BT-LH1760/LH1710



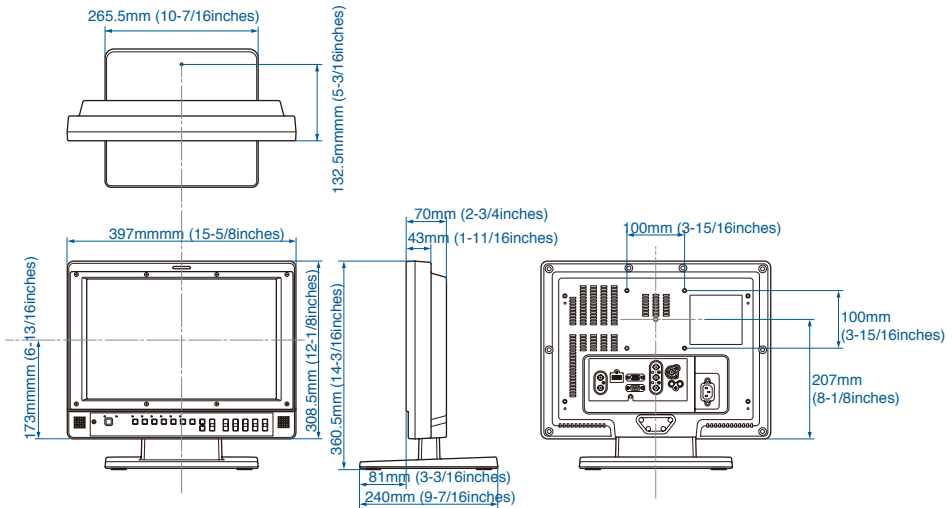
BT-LH910G



BT-L2150



BT-L1500





BT-PGL10G
3D Polarized Eyewear
for BT-3DL2550
Two pairs of BT-PGL10G are supplied with the BT-3DL2550. The BT-PGL10G is not optimized for use with other 3D polarized displays.



BT-WMA26G
Wall Mount Adaptor
for BT-3DL2550/LH2550
(Indoor use only)
Mount angles for LCD monitor can be adjusted in 5 steps (0°, 5°, 10°, 15°, 20°).



BT-WMA17G
Wall Mount Adaptor
for BT-LH1760/LH1710
(Indoor use only)
Mount angles for LCD monitor can be adjusted from up 5° to down 10°.



BT-PRP17G
Protective Panel
for BT-LH1760/LH1710



BT-MA1710G
Rack Mount Adaptor
for BT-LH1760/BT-LH1710



BT-CS910G
VF Cable for BT-LH910G

Options for BT-3DL2550/LH2550



A-E2BT24V
Battery Adapter



A-E241E
Battery Adapter



ELITE-S
Lithium Ion Battery ENDURA
136 Wh (14.8 V, 9.2 Ah)



E-HL9S
Lithium Ion Battery ENDURA
88 Wh (14.4 V, 2.6.15 Ah)

*For more information, please visit IDX web site (<http://www.idxtek.com/>).

Panasonic®

Panasonic Corporation
Business Solutions Business Group
2-15 Matsuba-cho, Kadoma, Osaka 571-8503
Japan
<http://pro-av.panasonic.net/>

[Countries and Regions]

Argentina	+54 1 308 1610
Australia	+61 (0) 2 9491 7400
Bahrain	+973 252292
Belgium	+32 (0) 2 481 04 57
Brazil	+55 11 3889 4035
Canada	+1 905 624 5010
China	+86 10 6515 8828
Hong Kong	+852 2313 0888
Czech Republic	+420 236 032 552/511
Denmark	+45 43 20 08 57
Egypt	+20 2 23938151
Finland, Latvia, Lithuania, Estonia	+358 (9) 521 52 53
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Hungary	+36 (1) 382 60 60
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Indonesia	+62 21 385 9449
Iran (Vida)	+98 21 2271463
(Panasonic Office)	+98 2188791102
Italy	+39 02 6788 367
Jordan	+962 6 5859801
Kazakhstan	+7 727 298 0891
Korea	+82 2 2106 6641
Kuwait	+96 522431385

Lebanon	+96 11665557
Malaysia	+60 3 7809 7888
Mexico	+52 55 5488 1000
Netherlands	+31 73 64 02 577
New Zealand	+64 9 272 0100
Norway	+47 67 91 78 00
Pakistan	+92 5370320 (SNT)
Palestine	+972 2 2988750
Panama	+507 229 2955
Peru	+51 1 614 0000
Philippines	+63 2 633 6163
Poland	+48 (22) 338 1100
Portugal	+351 21 425 77 04
Puerto Rico	+1 787 750 4300
Romania	+40 21 211 4855
Russia & CIS	+7 495 6654205
Saudi Arabia	+96 626444072
Singapore	+65 6270 0110
Slovak Republic	+421 (0) 2 52 92 14 23
Slovenia, Albania, Bulgaria, Serbia, Croatia, Bosnia, Macedonia, Montenegro	+36 (1) 382 60 60
South Africa	+27 11 3131622
Spain	+34 (93) 425 93 00
Sweden	+46 (8) 680 26 41
Switzerland	+41 (0) 41 259 96 32
Syria	+963 11 2318422/4

Taiwan	+886 2 2227 6214
Thailand	+66 2 731 8888
Turkey	+90 216 578 3700
U.A.E. (for All Middle East)	+971 4 8862142
Ukraine	+380 44 4903437
U.K.	+44(0)1344 70 69 13
U.S.A.	+1 877 803 8492
Vietnam	+848 38370280



JQA-0443



Factories of Business Solutions Business Group have received ISO14001:2004-the Environmental Management System certification. (Except for 3rd party's peripherals.)