Panasonic

LCD Monitor Line-up Catalog

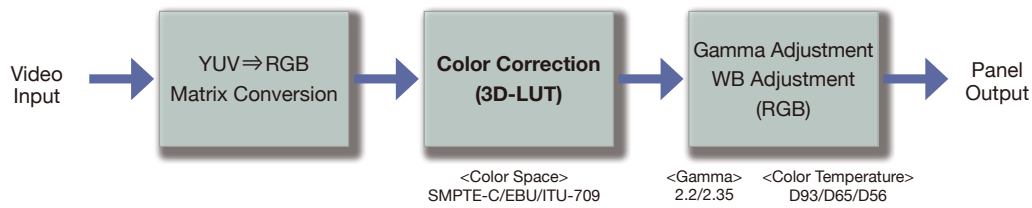*LH series*

BT-LH2550

BT-LH2170

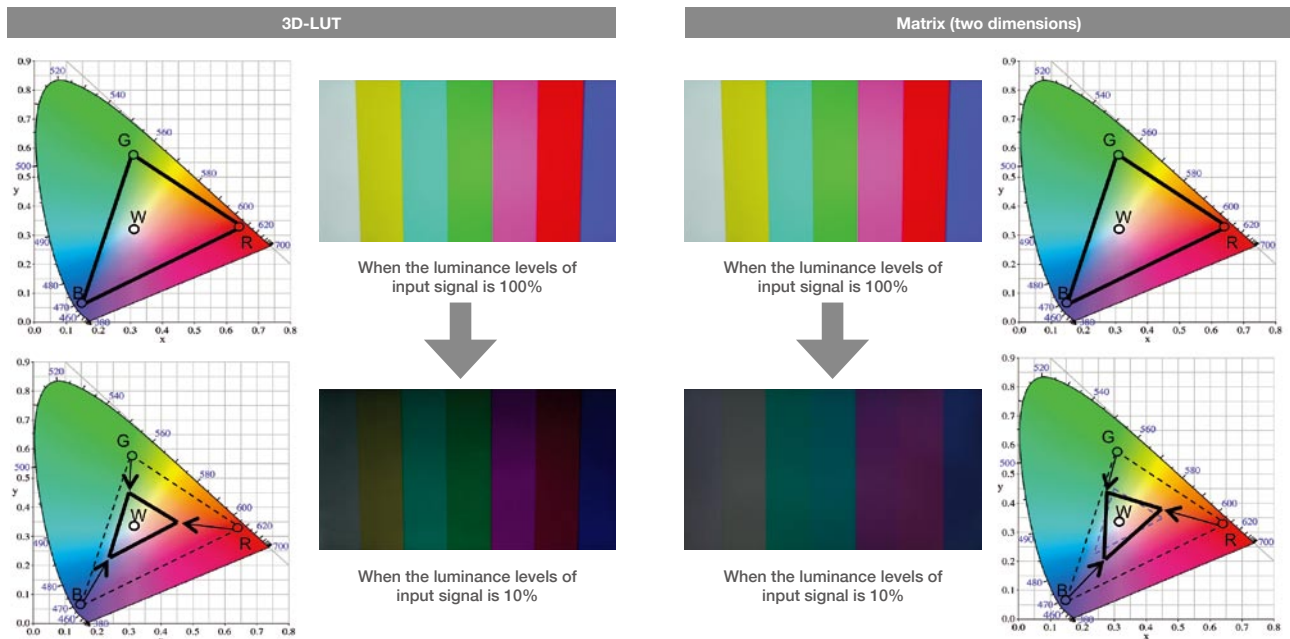BT-LH1850

BT-LH1710

BT-LH910G

3D series

BT-3DL2550

Image Quality and Color Management Technologies in the LH Series Professional LCD Monitors

Video Input → YUV⇒RGB Matrix Conversion → **Color Correction (3D-LUT)** → Gamma Adjustment WB Adjustment (RGB) → Panel Output

<Color Space>
SMPTE-C/EBU/ITU-709

<Gamma>
2.2/2.35

<Color Temperature>
D93/D65/D56

3D (three dimensional) -LUT Color Correction Keeps Colors Faithful Even at Low Luminance Level

The color space on LCD displays tends to narrow when the luminance level drops, and it's often accompanied by color phase shifts that cause colors to drift. 3D-LUT (Look Up Table) Color Correction on the LH Series LCD monitors includes a look up table for each luminance level, and applies 10 bit image processing to each RGB color to balance the six coordinate axes of the three primary colors (RGB) and their complementary colors (CMY). This solves the problem of color drifting at low luminance levels, and keeps colors natural.

3D-LUT

When the luminance levels of input signal is 100%

When the luminance levels of input signal is 10%

Matrix (two dimensions)

When the luminance levels of input signal is 100%

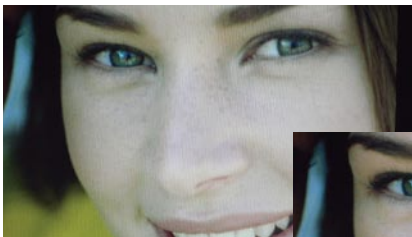When the luminance levels of input signal is 10%

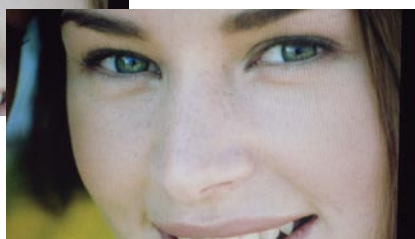## 6-Axis (RGB/CMY) Coordinate Correction Produces Smooth Intermediate Colors

In addition to enhancing low luminance areas, 3D-LUT Color Correction helps to produce finely nuanced intermediate hues. Based on color measurements in the intermediate color parts of the image, this function applies smooth correction processing while balancing the six coordinates of the three primary colors (RGB) and their complementary colors (CMY), resulting in beautifully smooth gradation. It keeps the intermediate shades of extremely fine colors vibrant and lifelike.

Ideal Gradation for Broadcast Applications, and Selectable Color Temperature
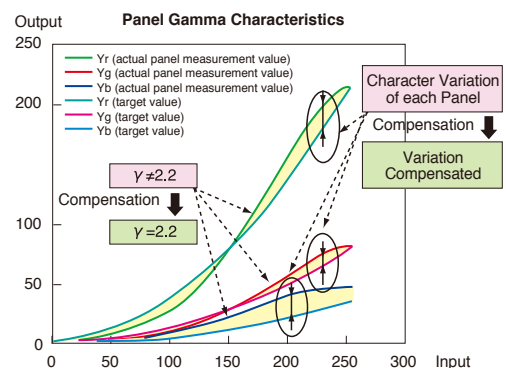
In order to optimize the LCD monitor for professional broadcasting applications, compensation is conducted for each monitor in 256 discrete RGB steps, rated gamma properties (gamma = 2.2) are reproduced, and gradation suitable for broadcasting is achieved. Color temperature of 9300 K/6500 K/5600 K and 3000 K to 9300 K can be selected with the variable setting.

3-Axis (RGB) Coordinate Correction

6-Axis (RGB/CMY) Coordinate Correction

Panel Gamma Characteristics

Output

Yr (actual panel measurement value)
Yg (actual panel measurement value)
Yb (actual panel measurement value)
Yr (target value)
Yg (target value)
Yb (target value)

Character Variation of each Panel

Compensation

Variation Compensated

γ ≠2.2

Compensation

γ =2.2

Input

25.5

21.5

Wide Color Space | FULL HD

FULL HD | L E D
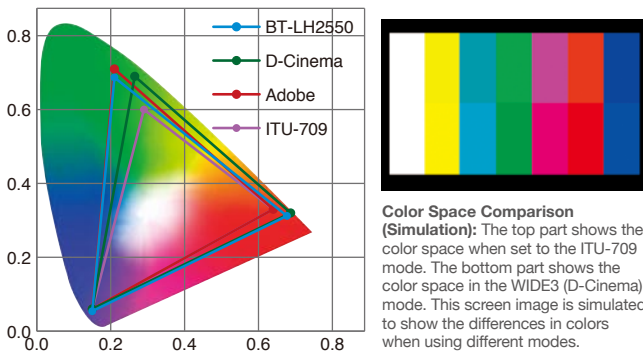
HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

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				

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.

Color Space Comparison (Simulation): The top part shows the color space when set to the ITU-709 mode. The bottom part shows the color space in the WIDE3 (D-Cinema) mode. This screen image is simulated to show the differences in colors when using different modes.

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

BT-LH2170

High performance and rugged durability with a Full-HD IPS panel and 3D-LUT color correction picture quality.
A 550 mm (21.5 inches) LCD monitor with excellent cost-performance for Professional use.

Connector:	SDI 1 (3G)	SDI 2	VIDEO	DVI-I	HDMI	AUDIO PIN
	GPI	RS-232C	RS-485	HEADPHONE		
Power:	AC	DC				

Full-HD IPS Panel and 3D-LUT Color Correction for Professional Picture Quality

The BT-LH2170 features a 550 mm (21.5 inches) IPS (horizontal orientation) LCD panel that offers Full-HD (1920 x 1080) resolution, high brightness, high contrast, and a wide viewing angle of 178° in horizontal and vertical directions. Combined with a high-quality engine that incorporates 3D-LUT color correction and 6-axis color correction functions for faithful color reproduction in all types of images, ranging from low to high brightness, the IPS LCD panel delivers true professional picture quality.

Shooting Assist Display Function for 2D/3D Production

Various shooting display assist functions are featured, such as Y Map (which expresses brightness levels with colors), a zebra pattern, focus-in-red, and an R/G/B single-color display.
It shows not only the assist display but also the result of picture adjustments and the source image side-by-side in two screens for comparison (picture assist function). The 3D shooting assist function also displays 2D images for 3D production.

2-Input Split-Screen Function

Professional Specifications with Improved Reliability and Durability

The rugged aluminum diecast body ensures high reliability and durability. The key lock function disables the control switches on the front panel except for power On/Off, menu operation and sound level adjustment. The speakers and headphone terminal are located on the front panel for convenient use in the field or studio.

WXGA LED

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

WXGA

BT-LH1850

High-quality images, advanced functions,
low power consumption and excellent cost-performance.
A 470 mm (18.5 inches) LCD monitor for broadcasting needs.

Connector:	SDI 1	SDI 2	VIDEO	DVI-I	HDMI	AUDIO PIN
	GPI	RS-232C	RS-485	HEADPHONE		
Power:	AC	DC				

High-Quality Imaging Engine with 3D-LUT Color Correction

By using a 3D-LUT color correctionfor with six axes and applying precise 10 bit image processing, faithful colors are reproduced from low to high luminance levels and natural intermediate colors are attained. (See page 1 for details.)

RS-485 Serial Remote

Up to 32 monitors connected in a loop-through configuration can each be designated and controlled by a distinct ID number. TSL commands allow text display (8 alphanumeric characters) and tally indication. The monitors also support unique Panasonic commands (equivalent to RS-232C).

TSL command display
Tally display (Red, Green, Amber)
Text display (up to 8)

External Control Device
RS-485   IN OUT   IN OUT   IN OUT
up to 32 Monitors

Tilt Stand and Other Features for Use in Both Field and Studio

The detachable tilt stand, front-panel key lock function, and front-panel speakers and headphone terminal are equipped to allow easy, convenient use in the field and studio.

Low Power Consumption and Mercury-Free Design Help Protect the Environment

A thorough energy-saving design has achieved low power consumption of only 22 W (with DC input). A mercury-free LED backlight is also gentle to the environment.

BT-LH1710

This versatile, rack-mountable 431.8 mm (17 inches) LCD operates on AC/DC power and can be used in various applications, both in the studio and in the field.

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

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.

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-LH1710 is also provided with a headphone jack.

Rack Mounting

This model can be mounted in a 19 type rack, The BT-LH1710 use the optional BT-MA1710G adaptor for rack mounting.

Wall Mounting

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

Protective Panel

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

WXGA | LED

HDMI
HIGH-DEFINITION MULTIMEDIA INTERFACE

BT-LH910G

High-resolution, high brightness and high contrast 228.6 mm (9 inches) monitor meets the broadcasting needs of outdoor use, studio recording, OB van installation and live broadcasting. Plus, it's equipped with 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. This 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, AJ-HPX3700, AJ-HPX2700, AJ-HPX3100, AJ-HPX2000, AJ-HPX2100, AJ-HDX900, AG-HPX600 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 *4*5

When receiving left-eye and right-eye video signals from a 3D camera, the BT-LH910G helps you to check 3D images.
• **MIRROR:** In the side-by-side display, the R image can be flipped in the horizontal or vertical direction.
• **SHIFT:** In the overlay display, the R image can be move horizontally or vertically.

3D Assist Function, Shift Mode

• **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:** This combines L and R images in a checkerboard pattern. It allows you to check the brightness and color variance.
• **ZOOM FOCUS:** This enlarges a section of images displayed side-by-side. It can be used to check the variance in focus and zoom. Focus-in-Red can also be used.
• **VERTICAL:** This lets you inspect vertical misalignment between the L and R images using a 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 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
• 3D-LUT color correction keeps colors faithful.
• Advanced image-enhancing circuitry, including excellent motion response and a diagonal line compensation circuit.
• Wide viewing angles of 178° maximum. (Angle varies slightly depending on model.)
• Ideal gradation for broadcast applications.
• Selectable color temperature: 9300 K, 6500 K or 5600 K.
• Cine-gamma (F-REC) compensation for Varicam shooting.
• Black mode makes dark image areas in low-gradation scenes easier to see.*
• Calibration software is pre-installed.*
• Various marker, cross hatch overlay and blue-only display functions.
• Vector scope and waveform monitoring.
• Pixel-to-pixel display without re-size process.
• Focus-in-Red function helps camera shooting.*

• Split-screen display (still/video or 2 video*).
• Audio level meter overlay display.
• Time code and closed caption display.
• HV delay display and mono mode.
• Function keys can be assigned to various functions.*
• 3D camera assist functions.*
• Remote control terminals of RS-232C, GPI and RS-485.*
• Tally lamp (red, green, amber).
• Power save mode and key lock function.
• Production-tough aluminum or magnesium diecast frame.*
• Detachable LCD protective panel (standard or optional)*
• Rack mounting,* wall mounting.*

* These features are not provided in some models. Refer to the list of functions on page 6 or the description of main features on pages 7 and 8. The detail of each function varies depending on the model. Certain modes and functions may not be functional when they are used in combination with other modes or functions.

FULL HD

3D PROFESSIONAL

25.5

Panasonic

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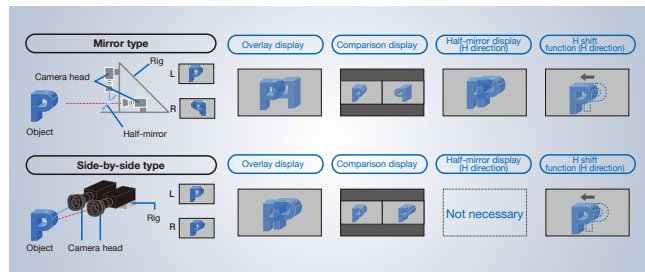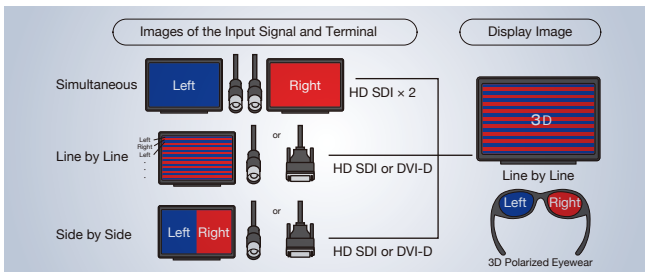
• **Side-by-side:** Splits the screen into left and right halves, and then combines the left and right images for viewing. This system is used mainly for 3DTV broadcasts.

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.

Images of the Input Signal and Terminal | Display Image

Simultaneous | Left | Right | HD SDI × 2

Line by Line | Left Right Left | or | HD SDI or DVI-D

Side by Side | Left Right | or | HD SDI or DVI-D

3D | Line by Line | 3D Polarized Eyewear | Left Right

Mirror type | Overlay display | Comparison display | Half-mirror display (H direction) | H shift function (H direction)
Camera head | Rig | L | R | Object | Half-mirror

Side-by-side type | Overlay display | Comparison display | Half-mirror display (H direction) | H shift function (H direction)
Object | Camera head | Rig | L | R | Not necessary

Feature Function List

#	Feature	BT-LH2550	BT-LH2170	BT-LH1850	BT-LH1710	BT-LH910G	BT-3DL2550
1	3D-LUT & 6-Axis Color Correction	√	√	√	√	√	√
2	I/P Conversion Circuit for Motion Response Latency Less than 1 Field	√	√	√	√	√	√
3	Diagonal Line Compensation	√	√	√	√	√	√
4	High-Speed Respons	√	√	√	√	√	√
5	Wide Viewing Angle	178°	178°	horizontal 170° vertical 160°	176°	176°	178° (2D mode)
6	Gradation & RGB Manual Control	√	√	√	√	√	√
7	Cine gamma Compensation	√	√	√	√	√	√
8	Black Mode	–	√	√	–	√	–
9	Calibration Function	√	√	√	–	√	√
10	Various Markers	√	√ (2D mode)	√	√	√	√ (2D mode)
11	Cross Hatch Overlay	√	√	√	√	√	√ (2D mode)
12	Waveform Monitoring	Y	Y/R/G/B	Y/R/G/B	Y	Y/R/G/B	–
13	Vectorscope Display	√	√	√	√	√	–
14	Pixel-to-Pixel Display	–	√	√	√	√	–
15	Focus-in-Red	–	√	√	–	√	–
16	Still Frame Display	√	√	√	√	√	√
17	2-Input Split-Screen	√	√	–	–	–	√
18	Audio Level Meter	√	√ (color)	√ (color)	√	√ (color)	√
19	Time Code Display	√	√	√	√	√	√
20	Closed Caption Display	1 Window	8 Windows	8 Windows	1 Window	8 Windows	1 Window (2D mode)
21	HV Delay Display and B/W Mode	√	√	√	√	√	√ (2D mode)
22	Function Keys	5	5	5	5	3	5
23	Diverse 3D Camera Assist Functions	–	√	–	–	√	√
24	External Remote Compatibility	RS-232C/GPI	RS-232C/GPI/RS-485	RS-232C/GPI/RS-485	RS-232C/GPI	RS-232C/GPI	RS-232C/GPI
25	Tally Lamp (s)	Front	Front	Front	Front	Front/Rear	Front
26	Power Save Mode	√	√	√	√	–	√
27	Key Lock	√	√	√	√	√	√
28	Rugged Frame Structure	–	Aluminum	–	Aluminum	Magnesium	–
29	Wall Mounting (with Option)	√	√	√	√	–	√
30	Rack Mounting (with Option)	–	–	–	√	√	–

[1] 3D-LUT Color Correction and 6-Axis Color Correction

These correction functions reduce the hue shift (color drift) resulting from changes in brightness, thus ensuring faithful color reproduction in all types of images ranging from low to high brightness. They also help to accurately express delicate halftone colors.

[2] 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.

[3] 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.

Conventional Vertical Interpolation

New Diagonal Interpolation
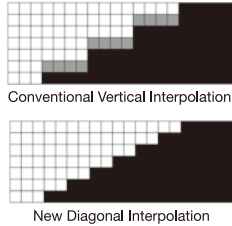
[4] High-Speed Response

The biggest concern when receiving a video feed is response time in the intermediate gradations. The all models feature an overdrive circuit to improve response in intermediate gradations.
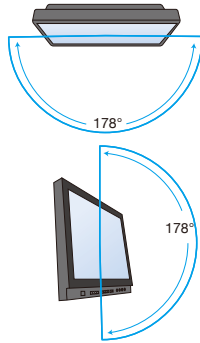
[5] Wide Viewing Angle

By using a high-intensity, high-contrast IPS LCD panel, a wide viewing angle is achieved. The BT-LH2550/LH2170/3DL2550* have a 178° and the BT-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.

178°

178°

* The BT-3DL2550 in 2D mode.

## [6] 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.

[7] Cine Gamma Compensation

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

[8] Black Mode

The BT-LH2170/LH1850/LH910G are 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.

Black Mode ON

Normal Mode
Black Mode

Luminance

Input Level

75%
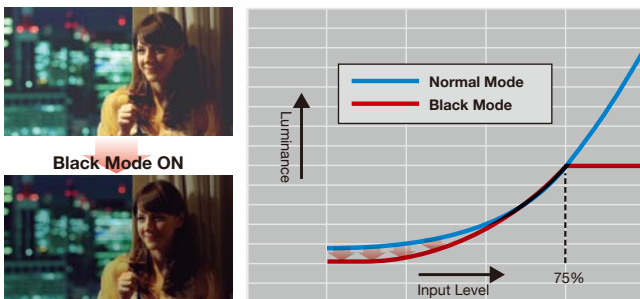
Pictures simulated.

[9] Calibration Function

Pre-installed software allows calibration 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-LH1710.

[10] 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%.
Center Marker (16:9/4:3): 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

[11] Cross Hatch Overlay

A simple cross hatch overlay at 120-dot intervals can be displayed to check the tilt of the camera.

*The BT-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

[12] Waveform Monitoring

The built-in waveform monitoring function displays a waveform in a sub-screen. In addition, the BT-LH2170, LH1850 and LH910G let you select the signal to be displayed from Y, R, G or B.

* Not provided in the BT-3DL2550.

Waveform Monitoring

[13] 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

[14] Pixel-to-Pixel Display

This function displays video pixels without any resizing.
• **The BT-LH2170:** Displays images with the same number of pixels as the source images.
• **BT-LH1850/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-LH2550/3DL2550.

1080i input signal (1920 x 1080)
Display (1366 x 768)

Pixel-to-Pixel Display Image
BT-LH1710 1080 center mode

[15] Focus-in-Red

The BT-LH2170/LH1850/LH910G are equipped with a Focus-in-Red function that emphasizes the sharply focused area of the image by showing it in an easily visible red.
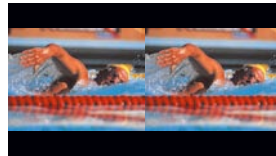

Focus-in-Red ON

[16] 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 and PART (center).

*Full-only on BT-LH2550/3DL2550.

Still   Video Monitor
FULL mode (4:3)

[17] 2-Input Split-Screen

The BT-LH2550/LH2170/3DL2500 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

[18] Audio Level Meter

The BT-LH2170/LH1850/LH910G are 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

[19] Time Code Display

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

[20] Closed Caption Display

The BT-LH2170/LH1850/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.

Time Code Display

Closed Caption Display

[21] 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.

[22] 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.

[23] Diverse 3D Camera Assist Functions

The BT-LH2170/LH910G/3DL2550 let you check 3D images using the left-eye and right-eye video signals from a 3D camera.

* The detail of each 3D assist function varies depending on the model. The following explanation is based on the function featured in the BT-LH2170. For the BT-LH910G, refer to the function descriptions on page 4. For the BT-3DL2550, refer to the descriptions on page 5.

• **MIRROR:** With the L (left-eye) and R (right-eye) images displayed side-by-side, the left and right images can be independently flipped in the horizontal or vertical direction.
• **SHIFT:** The R image can be moved horizontally or vertically in the overlay display.

3D Assist Function, SHIFT Mode

• **COMPARISON:** Simplifies checking for differences in the frame edges of the L and R images. In addition to side-by-side display, a top & bottom display is now possible.
• **CONVERGENCE:** Switches L or R images displayed on the full screen (manually or automatically).
• **COLOR:** Combines L and R images and displays them in a checkerboard pattern to check brightness and color variance.
• **ZOOM FOCUS:** Enlarges and displays L and R images side-by-side to check variance in focus and zoom.
A new dual-window focus-in-red display is also provided.
• **VERTICAL:** A horizontal line marker allows inspection of vertical misalignment between the L and R images.
• **OVERLAY:** Left-right disparity can be checked by superimposing a marker (in 3%, 2%, or 1% selectable intervals) on the overlay display, difference image between L and R in black-and-white display, or difference image between R and L in color display.

[24] 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.

[25] 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.

[26] 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.

[27] Key Lock Function

This disables front panel operation/control functions, except for the power switch, menu operation and sound level adjustment.

[28] Rugged Frame Structure

The BT-LH2170/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.

* Not provided in the BT-3DL2550/LH2550/LH1850.

Aluminum diecast frame
(BT-LH2170)

[29] Wall Mounting

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

* Not supported by the BT-LH910G.

[30] Rack Mounting

The BT-LH1710/LH910G are rack mountable.

Supported Video Formats

Input Signal Format	LH2550/LH1710/3DL2550 VIDEO	SDI 1	SDI 2	YPBPR (*1)	RGB-VIDEO (*1)	DVI-VIDEO (*2)	LH2170 VIDEO	SDI 1 (3G-SDI)	SDI 2	HDMI	DVI ANALOG YPBPR	DVI DIGITAL VIDEO	LH1850 VIDEO	SDI 1/SDI 2	HDMI	DVI-I ANALOG YPBPR	DVI-I DIGITAL VIDEO
NTSC	√						√						√				
PAL	√						√						√				
640×480 (59.94Hz)															√		
640×480 (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		√*3	√*3	√*3	√*3
1035/60i		√*4	√*4	√*4	√*4			√*4	√*4	√*4	√*4	√*4		√*4	√*4	√*4	√*4
1080/23.98PsF		√	√	√				√	√		√			√		√	
1080/24PsF		√	√	√				√	√		√			√		√	
1080/25PsF								√*5	√*5		√*5			√*5		√*5	
1080/23.98p		√	√	√				√	√	√	√	√		√	√	√	√
1080/24p		√	√	√				√	√	√	√	√		√	√	√	√
1080/25p		√	√	√				√	√	√	√	√		√	√	√	√
1080/29.97p		√	√	√				√	√	√	√	√		√	√	√	√
1080/30p		√	√	√				√	√	√	√	√		√	√	√	√
1080/50i		√	√	√	√	√		√	√	√	√	√		√	√	√	√
1080/50p				√		√		√	√	√	√	√		√	√	√	√
1080/59.94i		√	√	√	√	√		√	√	√	√	√		√	√	√	√
1080/60i		√	√	√	√	√		√	√	√	√	√		√	√	√	√
1080/59.94p				√		√		√	√	√	√	√		√	√	√	√
1080/60p				√		√		√	√	√	√	√		√	√	√	√

√: 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.

Input Signal Format	BT-LH910G VIDEO	VF-VIDEO	VF-YPBPR	YPBPR	SDI 1 (3G-SDI)	SDI2	HDMI
NTSC	√	√					
PAL	√	√					
640×480 (59.94Hz)							√
640×480 (60Hz)							√
480/59.94i			√	√	√	√	
480/59.94p			√	√			√
576/50i			√	√	√	√	
576/50p			√	√			√
720/50p			√	√	√	√	√
720/59.94p			√	√	√	√	√
720/60p			√	√	√	√	√
1035/59.94i			√*1	√*1	√*1	√*1	√*1
1035/60i			√*2	√*2	√*2	√*2	√*2
1080/23.98PsF			√	√	√	√	
1080/24PsF			√	√	√	√	
1080/25PsF			√*3	√*3	√*3	√*3	
1080/23.98p					√	√	√
1080/24p					√	√	√
1080/25p					√	√	√
1080/29.97p					√	√	√
1080/30p					√	√	√
1080/50i			√	√	√	√	√
1080/50p					√*4		√*5
1080/59.94i			√	√	√	√	√
1080/60i			√	√	√	√	√
1080/59.94p					√*4		√*5
1080/60p					√*4		√*5

Input Signal Format	BT-LH2550/3DL2550 RGB-COMP. (*1)	DVI-COMP. (*2)	BT-LH2170 HDMI (*3)	DVI-I	BT-LH1850 DVI-I	BT-LH1710 RGB-COMP. (*1)	DVI-COMP. (*2)
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)	√	√	√	√		√	√
1366 x 1024 (60Hz)					√	√	
1600 x 1200 (60Hz)	√	√					
1920 x 1080 (60Hz)			√	√			
1920 x 1200 (60Hz)	√*4	√					

√: Supported *1: 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. *2: When 1035/60i signal is input, images are displayed in 1080/60i. In that case, the displayed markers are for 1080/60i. *3: 1080/25PsF input is displayed as 1080/50i. *4: 3G-SDI supports 1080/50p, 1080/59.94p, and 1080/60p of the SMPTE ST 425-A standard. *5: RGB444 and SDI422 (12-bit) are not supported.

√: 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: The PC signal (1920 x 1080) on HDMI will be displayed as 1080/60p video signal. *4: It supports only VESA Reduced Blanking.

BT-LH2170 3G-SDI Supported Input Formats/ 3D Assist Mode Supported Input Formats

Input Terminal	Level	Format	Pixel Resolution	Bit	Interlace/ Progressive	Frequency
SDI 1	A	1920 x 1080	4:2:2 (YCbCr)	10	Progressive	60*2, 50
			4:4:4 (RGB), 4:4:4:4 (RGB + A)	10	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4 (YCbCr), 4:4:4:4 (YCbCr + A)	10	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4 (RGB)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4 (YCbCr)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:2:2 (YCbCr)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
		1280 x 720	4:4:4 (RGB), 4:4:4:4 (RGB + A)	10	Progressive	60*2, 50
			4:4:4 (YCbCr), 4:4:4:4 (YCbCr + A)	10	Progressive	60*2, 50
	B-DL	1920 x 1080	4:2:2 (YCbCr)	10	Progressive	60*2, 50
			4:4:4 (RGB), 4:4:4:4 (RGB + A)	10	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4 (YCbCr), 4:4:4:4 (YCbCr + A)	10	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4(RGB)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:4:4 (YCbCr)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
			4:2:2 (YCbCr)	12	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
	B-DS*1	2 x 1920 x 1080	4:2:2 (YCbCr)	10	Interlace	60*2, 50
					Progressive	30*2, 25, 24*2
		2 x 1280 x 720	4:2:2 (YCbCr)	10	Progressive	60*2, 50

Input Signal Format/ Status Display	SDI 1/2 (SIMULTANEOUS)
720/50p	√
720/59.94p	√
720/60p	√
1035/59.94i*1	√
1035/60i*2	√
1080/23.98PsF	√
1080/24PsF	√
1080/25PsF*3	√
1080/23.98p	√
1080/24p	√
1080/50i	√
1080/59.94i	√
1080/60i	√

√: Supported

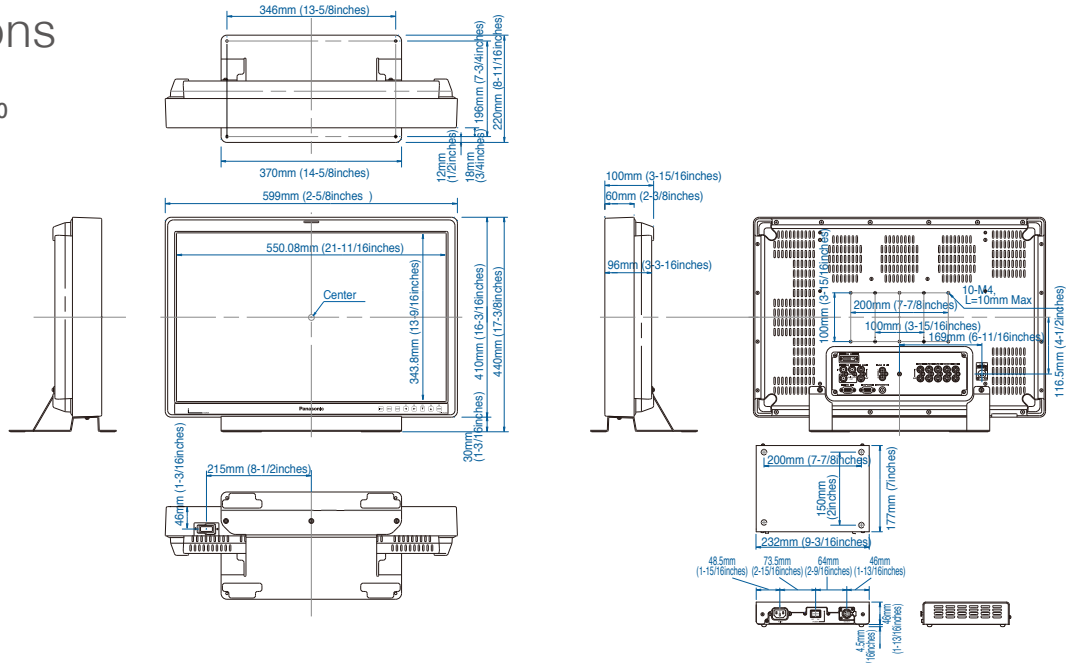*1: When 1035/59.94i signal is input, status display shows as 1080/59.94i.

*2: When 1035/60i signal is input, status display shows as 1080/60i.

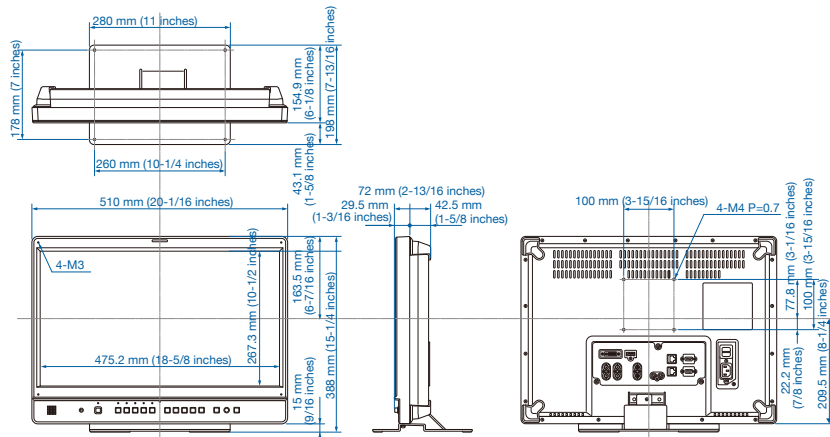*3: When 1080/25PsF signal is input, status display shows as 1080/50i.

*1: Only the data stream1 is displayed. *2: It corresponds to frame frequency 1/1.001.
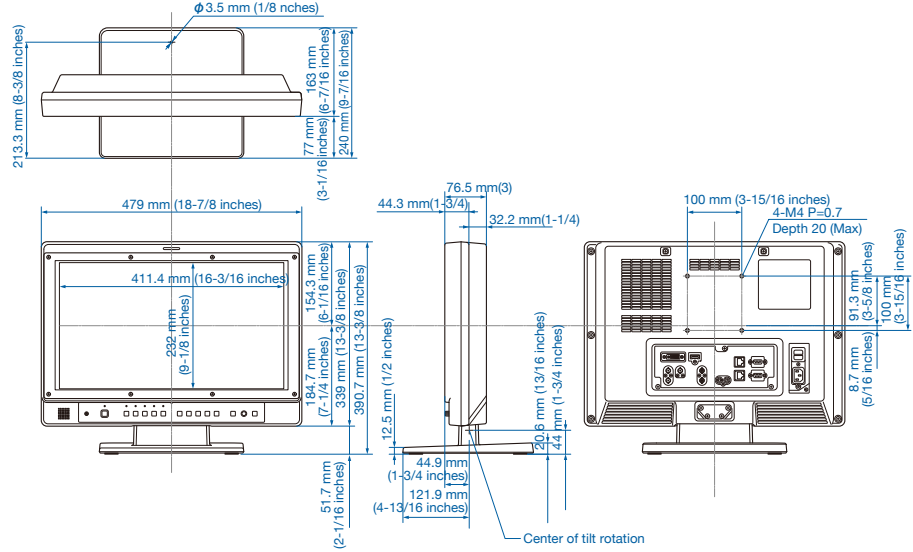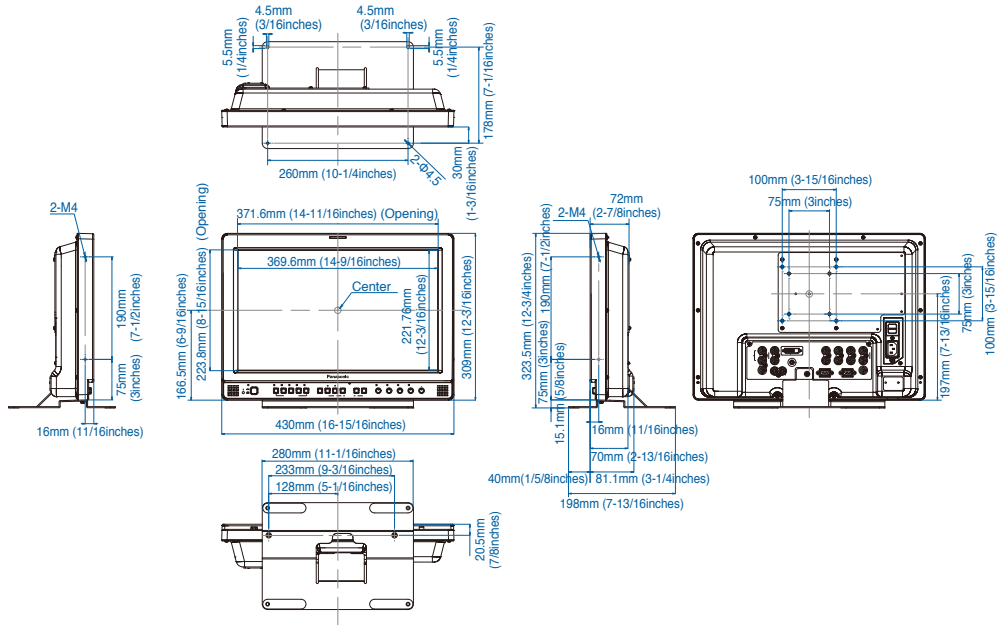
Dimensions

BT-LH2550/3DL2550

BT-LH2170
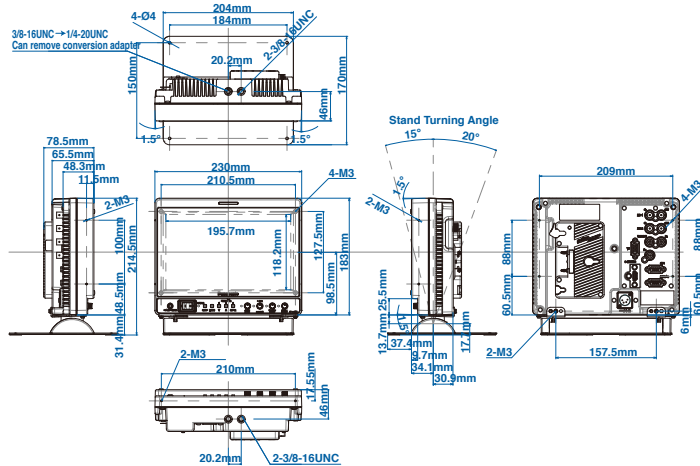
Dimensions
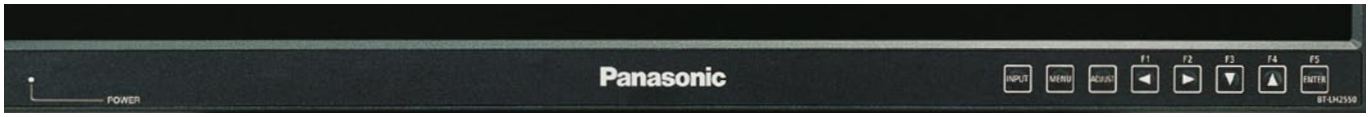
BT-LH1850

BT-LH1710

BT-LH910G

Front Operation Panels/Rear Panel Interfaces

BT-LH2550
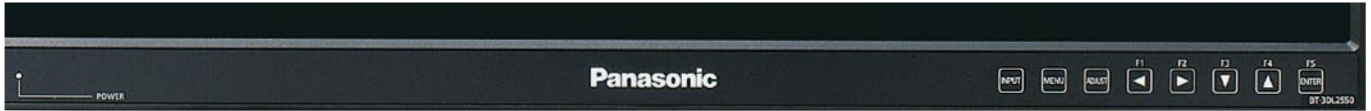

BT-LH2170

BT-LH1850

BT-LH1710

BT-LH910G

BT-3DL2550

BT-LH2550 Rear Connector Panel

BT-LH2170 Rear Connector Panel   (when AC Power Supply) (when DC Power Supply)

BT-LH1710 Rear Connector Panel

BT-LH1850 Rear Connector Panel   (when AC Power Supply) (when DC Power Supply)

BT-3DL2550 Rear Connector Panel

BT-LH910G Rear Connector Panel

Specifications

	BT-LH2550	BT-LH2170	BT-LH1850
	25.5	21.5	18.5
GENERAL			
Power Requirement:	DC 24 V 4.5 A, DC 5 V 0.03 A AC adapter In: 100 V to 240 V, 50 Hz/60 Hz, 1.6 A to 0.6 A	AC 100 V to 240 V, 50 Hz/60 Hz, 0.55 A to 0.25 A DC 12 V (11 V to 17 V), 3.8 A	AC 100 V to 240 V, 50 Hz/60 Hz, 0.30 A to 0.15 A DC 12 V (11 V to 17 V), 1.8 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)	510 mm x 388 mm x 198 mm (20-1/16 inches x 15-1/4 inches x 7-13/16 inches), including stand 510 mm x 373 mm x 72 mm (20-1/16 inches x 14-5/8 inches x 2-13/16 inches), monitor only, not including stand	479 mm x 390.7 mm x 240 mm (18-7/8 inches x 15-3/8 inches x 9-7/16 inches), including stand 479 mm x 339 mm x 76.5 mm (18-7/8 inches x 13-3/8 inches x 3 inches), monitor only, not including stand
Weight:	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)	Approx. 7.0 kg (15.43 lb), including stand Approx. 6.1 kg (13.45 lb), monitor only, not including stand	Approx. 7.0 kg (15.43 lb), including stand Approx. 5.6 kg (12.35 lb), monitor only, 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 % (no condensation)	20% to 80 % (no condensation)
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)	550 mm (21.5 inches)	470 mm (18.5 inches)
Aspect Ratio:	16:10	16:9	16:9
Double Speed Drive: (100Hz/120Hz)	—	—	—
Resolution:	1,920 pixels x 1,200 pixels (WUXGA)	1,920 pixels x 1,080 pixels (FULL HD)	1,366 pixels x 768 pixels (WXGA)
Display Colors:	Approx. 16,770,000 colors	Approx. 16,770,000 colors	Approx. 16,770,000 colors
Viewing Angle:	178° both horizontal and vertical (contrast >10:1)	178° both horizontal and vertical (contrast >10:1)	170° horizontal, 160° vertical (contrast > 10:1)
CONNECTORS			

Video Input/Output:	• Video: BNC x 2 (with through-out x 1)
	• YP$_B$P$_R$/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
		• Video: BNC x 2 (with through-out x 1)
		• SDI: BNC x 4 (with active through-out x 1)
		  SMPTE ST 424/274/296/259/ITU-R BT.656-4 standard
		  Embedded Audio supported
		• DVI-D: DVI-D x 1, (HDCP supported)
		• HDMI: HDMI (type A) x 1
		  (HDCP supported, embedded audio supported, VIERA Link not supported)
			• Video: BNC x 2 (with through-out x 1)
			• SDI: BNC x 3
			  (with active through-out x 1, switched-out x 1)
			  SMPTE274/296M/259M-C/ITU-R BT.656-4 standard
			  Embedded Audio supported
			• DVI-I: DVI-I x 1 (single link)
			• HDMI: HDMI (type A) x 1
			  (HDCP supported, embedded audio supported, VIERA Link not supported)

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, 9 pin	GPI: D-SUB, 9 pin, RS-232C: D-SUB, 9 pin RS-485: RJ-45 x 2 (input, output)	GPI: D-SUB, 9 pin, RS-232C: D-SUB, 9 pin RS-485: RJ-45 x 2 (input, output)
External DC Power Input:	XLR, 4pin (Supplied AC adapter only)	XLR, 4pin	XLR, 4pin
SIGNAL LEVEL			
Video:	SYNC signal level: 0.3 Vp-p to 4.0 Vp-p HD/VD Signal level: TTL level	HD/VD Signal level: TTL level	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: 0.31 Vrms Head phone output: 32 Ω, Variable Level	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:	AC adapter, Power cord, Power cord hook, Screw, DC cable	Power cord, Stand, Stand screw, Protective panel screw	Power cord, Tilt stand, Tilt stand screw, Protective panel screw
Optional Accessories:	Wall mount adaptor	Wall mount adaptor	Wall mount adaptor

BT-LH1710	BT-LH910G	BT-3DL2550
17	9	25.5
AC 100 V to 240 V 50 Hz/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)	DC 24 V 4.5 A, DC 5 V 0.03 A AC adapter In: 100 V to 240 V, 50 Hz/60 Hz, 1.6 A to 0.6 A
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 81.1 mm (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	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)
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	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)
5°C to 35°C (41°F to 95°F)	0°C to 40°C (32 °F to 104 °F)	5°C to 35°C (41°F to 95°F)
20 % to 80 % (non dew)	10 % to 85 % (non dew)	20 % to 80 % (non dew)
–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)
431.8 mm (17 inches)	230 mm (9 inches) of effective display area	647.7 mm (25.5 inches)
15:9	15:9	16:10
—	—	—
1,280 pixels x 768 pixels (WUXGA)	1,280 pixels x 768 pixels (WXGA)	1,920 pixels x 1,200 pixels (WUXGA)
Approx. 16,770,000 colors	Approx. 16,770,000 colors	Approx. 16,770,000 colors
178° both horizontal and vertical (contrast >10:1)	176° both horizontal and vertical (contrast >10:1)	178° both horizontal and vertical (in 2D mode, at contrast >10:1)
• 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	• 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	• 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
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
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 RS-232C: D-SUB, 9pin
XLR, 4pin	XLR, 4pin	XLR, 4pin (Supplied AC adapter only)
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 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 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
Power cord, power cord hook, screw Power plug adaptor x 1	Battery holder for Anton/Bauer battery (pre installed), Tilt stand (pre installed)	3D polarized eyewear (with case) × 2, AC adapter, Power cord, Power cord hook, Screw, DC cable
Rack mount adaptor, Wall mount adaptor, Protective panel	VF cable	BT-PGL10G 3D polarized eyewear, Wall mount adaptor

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

Optional Accessories

As of April, 2013

BT-WMA26G
Wall Mount Adaptor
for BT-LH2550/ 3DL2550
(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-LH2170/LH1850/LH1710
(Indoor use only)
Mount angles for LCD monitor can be
adjusted from up 5° to down 10°.

BT-PRP17G
Protective Panel for BT-LH1710

BT-MA1710G
Rack Mount Adaptor
for BT-LH1710

AW-PS550N
AC Adaptor for BT-LH910G

BT-CS910G
VF Cable for BT-LH910G

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.

Other Manufacturer's Products

Battery options for BT-LH2550/3DL2550

A-E2BT24V
IDX V-Mount Battery Adaptor

A-E241E
IDX V-Mount Battery Adaptor

ENDURA ELITE-S
IDX Li-ion V-Mount Battery
136 Wh (14.8 V, 9.2 Ah)

ENDURA E-HL9S
IDX Li-ion V-Mount Battery
88 Wh (14.4 V, 2 6.15 Ah)

Batteries for BT-LH910G

HYTRON 50
Anton/Bauer Battery

DIONIC 90
Anton/Bauer Battery

DIONIC HC
Anton/Bauer Battery

ENDURA E-7S
IDX Li-ion
V-Mount Battery

ENDURA E-HL9
IDX Li-ion
V-Mount Battery

ENDURA E-10
IDX Li-ion
V-Mount Battery

*For more information, please visit IDX web site (http://www.idxtek.com/) or Anton/Bauer web site (http://www.antonbauer.com/).

Panasonic®

Panasonic Corporation
AVC Networks Company
2-15 Matsuba-cho, Kadoma, Osaka 571-8503
Japan
http://pro-av.panasonic.net/

[Countries and Regions]

Argentina	+54 1 308 1610	Kuwait	+96 522431385	Taiwan	+886 2 2227 6214
Australia	+61 (0) 2 9491 7400	Lebanon	+96 11665557	Thailand	+66 2 731 8888
Bahrain	+973 252292	Malaysia	+60 3 7809 7888	Turkey	+90 216 578 3700
Belgium	+32 (0) 2 481 04 57	Mexico	+52 55 5488 1000	U.A.E. (for All Middle East)	
Brazil	+55 11 3889 4035	Netherlands	+31 73 64 02 577		+971 4 8862142
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China	+86 10 6515 8828	Norway	+47 67 91 78 00	U.K.	+44(0)1344 70 69 13
Hong Kong	+852 2313 0888	Pakistan	+92 5370320 (SNT)	U.S.A.	+1 877 803 8492
Czech Republic	+420 236 032 552/511	Palestine	+972 2 2988750	Vietnam	+848 38370280
Denmark	+45 43 20 08 57	Panama	+507 229 2955		
Egypt	+20 2 23938151	Peru	+51 1 614 0000		
Finland, Latvia, Lithuania, Estonia		Philippines	+63 2 633 6163		
	+358 (9) 521 52 53	Poland	+48 (22) 338 1100		
France	+33 (0) 1 47 91 64 00	Portugal	+351 21 425 77 04		
Germany, Austria, Switzerland		Puerto Rico	+1 787 750 4300		
	+49 (0) 611 235 459	Romania	+40 21 211 4855		
Greece	+30 210 96 92 300	Russia & CIS	+7 495 6654205		
Hungary	+36 (1) 382 60 60	Saudi Arabia	+96 626444072		
India	+91 120 247 1000	Singapore	+65 6270 0110		
Indonesia	+62 21 385 9449	Slovak Republic	+421 (0) 2 52 92 14 23		
Iran		Slovenia, Albania, Bulgaria, Serbia,			
(Vida)	+98 21 2271463	Croatia, Bosnia, Macedonia, Montenegro			
(Panasonic Office)	+98 2188791102		+36 (1) 382 60 60		
Italy	+39 02 6788 367	South Africa	+27 11 3131622		
Jordan	+962 6 5859801	Spain	+34 (93) 425 93 00		
Kazakhstan	+7 727 298 0891	Sweden	+46 (8) 680 26 41		
Korea	+82 2 2106 6641	Syria	+963 11 2318422/4		

ISO 9001 JQA-0443

ISO 14001 JACO EC98J2010 / UKAS MANAGEMENT SYSTEMS 051

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

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