

Panasonic

BUSINESS



Professional DISPLAYS

Line-up Catalogue February 2018



Worldwide
Olympic Partner



Worldwide
Paralympic Partner



Panasonic Professional Displays Lineup

4K UHD Display



- High Durability & Reliability
- Excellent 4K Image Quality
- Easy Installation & System Expandability

LQ70 Series

500 cd/m²

98" TH-98LQ70

84" TH-84LQ70

98" TH-98LQ70L

84" TH-84LQ70L

Protective Glassless Model



*Actual resolution: 3840 x 2160p (LQ70 Series only)

Indoor



- High Brightness
- 24/7 Use Reliability
- System Expandability

OpenPort PLATFORM® Models

AF1 Series

500 cd/m²

55" TH-55AF1

49" TH-49AF1

42" TH-42AF1



LinkRay Compatible Models

SF1H Series

700 cd/m²

55" TH-55SF1H

49" TH-49SF1H

42" TH-42SF1H

SF2H Series

700 cd/m²

80" TH-80SF2H

70" TH-70SF2H



LF80 Series

700 cd/m²

55" TH-55LF80

49" TH-49LF80

42" TH-42LF80

SF2 Series

450 cd/m²

65" TH-65SF2

55" TH-55SF2

49" TH-49SF2

43" TH-43SF2



(LF80/SF2 Series only) (LF80/SF2* Series only) *TH-65SF2, SF2W models

Standard



- Slim & Stylish offers Excellent Visibility
- Simple, Flexible Media Presentation
- Generous Connectivity for Professional Use

EF1 Series

350 cd/m² (75EF1: 410 cd/m²)

84" TH-84EF1

75" TH-75EF1

65" TH-65EF1

32" TH-32EF1



(84/65/32EF1 only)

LFE8 Series

350 cd/m²

55" TH-55LFE8

48" TH-48LFE8

43" TH-43LFE8



Video Wall



- High Visibility
- High Reliability
- Installation Flexibility

VF1

700 cd/m²

55" TH-55VF1H

LFV70

700 cd/m²

55" TH-55LFV70

LFV8

500 cd/m² (TH-49LFV8: 490 cd/m²)

55" TH-55LFV8

49" TH-49LFV8

LFV6

500 cd/m² (TH-55LFV6)

55" TH-55LFV6



(Except LFV8)

(VF1H/LFV70 only) (VF1H only)

(LFV70/LFV60/LFV8)

(LFV8 only)

Multi Touch



- Powerful and Intuitive Whiteboard
- Infrared Multi-touch
- Excellent Durability and Additional Features
- Universal Wireless Support (BF1 Series Only)

BF1 Series

350 cd/m² 80" TH-80BF1 65" TH-65BF1

Protective Glass Multi Touch Interactive Wireless DIGITAL LINK (SMART BOARD SOLUTION) Portrait SL0T 2.0

BQE1/BFE1

400 cd/m² 75" TH-75BQE1 65" TH-65BFE1

LFE8-IR

350 cd/m² 55" TH-55LFE8-IR

Protective Glass Multi Touch Interactive Portrait 4K (3840x2160) *BQE1 only

Interactive Signage



- ShadowSense™ Multi-touch
- Very robust and reliable touchscreens
- High visibility and responsiveness in bright environments
- Remotely manageable

LF80-SST Series

700 cd/m² 55" TH-55LF80-SST 49" TH-49LF80-SST 42" TH-42LF80-SST

AF1-SST Series

500 cd/m² 55" TH-55AF1-SST 49" TH-49AF1-SST 42" TH-42AF1-SST

Protective Glass Multi Touch Interactive 24/7 Operation USB Media Player DIGITAL LINK (SMART BOARD SOLUTION) Portrait

*DigitalLink LF80-SST only

Outdoor



- High Visibility Under Sunlight
- Durability Against Rain/Dust
- System Expandability

LFX60

2000 cd/m² 47" TH-47LFX60

LFX6N

1200 cd/m² 47" TH-47LFX6N

24/7 Operation Outdoor Protective Glass DIGITAL LINK (SMART BOARD SOLUTION) Portrait

Petersen Automotive Museum

On trend displays at Petersen Museum

The Petersen Automotive Museum partnered with Panasonic because they needed a combination of high-quality projectors and high-quality screens, as well as strategic support to help them achieve their vision and maintain their exhibits. They installed a total of 47 Panasonic projectors and 15 professional displays.



Equipment installed

PT-DZ780, PT-DZ870, TH-55LF80, TH-70LF50, TH-80LF50, TH-98LQ70, PT-RZ670, TH-55SF1H

Keele University

Contemplating the natural world at Keele University

Pure AV utilises Panasonic LCD displays to turn a traditional 48 seat IT lab at School of Pharmacy at Keele University into a modern 60 seat collaborative learning space



Equipment installed

TH-49LF80

LQ70 Series

4K UHD Display



Model no.	TH-98LQ70	TH-84LQ70	TH-98LQ70L	TH-84LQ70L
DISPLAY PANEL				
Screen Size (Diagonal)/Aspect Ratio	98-inch [2476.9 mm]/16:9	84-inch [2134.6 mm]/16:9	98-inch [2476.9 mm]/16:9	84-inch [2134.6 mm]/16:9
Panel Type	IPS Panel/D-LED	IPS Panel/E-LED	IPS Panel/D-LED	IPS Panel/E-LED
Effective Display Area (W x H)	2159 x 1214 mm [85.0" x 47.8"]	1860 x 1047 mm [73.3" x 41.3"]	2159 x 1214 mm [85.0" x 47.8"]	1860 x 1047 mm [73.3" x 41.3"]
Resolution (H x V)	3840 x 2160	3840 x 2160	3840 x 2160	3840 x 2160
Brightness (Typ)	500 cd/m ²	500 cd/m ²	500 cd/m ²	500 cd/m ²
Contrast Ratio	1300 :1	1400 :1	1300 :1	1400 :1
Dynamic Contrast Ratio	500000 :1	500000 :1	500000 :1	500000 :1
Response Time	8 ms [G to G]	12 ms [G to G]	8 ms [G to G]	12 ms [G to G]
Viewing Angle (Horizontal/Vertical)	178° / 178°	178° / 178°	178° / 178°	178° / 178°
Panel Surface Treatment	Anti-Glare (Haze 1 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 1 %)	Anti-Glare (Haze 10 %)
TERMINAL				
HDMI In	HDMI TYPE A Connector x4, HDMI 1*/HDMI 2* (Up to 4K@50/60Hz), HDMI 3*/HDMI 4* (Up to 2K@50/60Hz)		HDMI TYPE A Connector x4, HDMI 1*/HDMI 2* (Up to 4K@50/60Hz), HDMI 3*/HDMI 4* (Up to 2K@50/60Hz)	
DisplayPort In	DisplayPort x 1 (DP1.2a)*2		DisplayPort x 1 (DP1.2a)*2	
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 set (Shared with PC In)		Stereo Mini Jack (M3) x 1 set (Shared with PC In)	
PC In	Mini D-sub 15-pin x 1 (Female)*3		Mini D-sub 15-pin x 1 (Female)*3	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 set (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 set (Shared with DVI-D In)	
Audio Out	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1	
Serial In	D-sub 9-pin x 1, RS-232C Compatible		D-sub 9-pin x 1, RS-232C Compatible	
LAN	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)	
DIGITAL LINK	RJ45 x 1 (Shared with LAN)		RJ45 x 1 (Shared with LAN)	
Function Slot	SLOT NX x 2 (Vacant)		SLOT NX x 2 (Vacant)	
GENERAL				
Power Requirements	220-240 V AC, 50 Hz/60 Hz		220-240 V AC, 50 Hz/60 Hz	
Power Consumption	620 W	540 W	620 W	540 W
Power Off Condition	0.3 W	0.3 W	0.3 W	0.3 W
Stand-by Condition	0.5 W	0.5 W	0.5 W	0.5 W
Dimensions (W x H x D)	2233 x 1288 x 122 mm [87.9" x 50.7" x 4.8"]	1949 x 1141 x 99 mm [76.7" x 44.9" x 3.9"]	2233 x 1288 x 113 mm [87.9" x 50.7" x 4.5"]	1949 x 1141 x 92 mm [76.7" x 44.9" x 3.7"]
Carton Size (W x H x D)	2406 x 1520 x 460 mm [94.8" x 59.9" x 18.2"]	2156 x 1361 x 404 mm [84.9" x 53.6" x 15.9"]	2406 x 1520 x 460 mm [94.8" x 59.9" x 18.2"]	2156 x 1361 x 404 mm [84.9" x 53.6" x 15.9"]
Weight	Approx. 136.0 kg [299.9 lbs.]	Approx. 108.0 kg [238.1 lbs.]	Approx. 105.0 kg [231.5 lbs.]	Approx. 84.0 kg [185.2 lbs.]
Gross Weight	Approx. 161.0 kg [355.0 lbs.]	Approx. 130.0 kg [286.6 lbs.]	Approx. 130.0 kg [286.6 lbs.]	Approx. 106.0 kg [233.7 lbs.]
Protective Glass	Yes	Yes	—	—
Built-in Speaker	20W [10W + 10W] (10% THD)		20W [10W + 10W] (10% THD)	
Orientation	Landscape/Portrait		Landscape/Portrait	
Tilting Angle	10 degrees with landscape setting and 5 degrees with portrait setting*4		10 degrees with landscape setting and 5 degrees with portrait setting*4	
Operating Environment	Temperature: 0 °C to 40 °C [32 °F to 104 °F] / Humidity: 20 % to 80 % (Non condensation) / Altitude 0-2400 m [7874 ft]*5		Temperature: 0 °C to 40 °C [32 °F to 104 °F] / Humidity: 20 % to 80 % (Non condensation) / Altitude 0-2400 m [7874 ft]*5	
Storage Environment	Temperature: -20 °C to 60 °C [-4 °F to 140 °F] / Humidity: 20 % to 80 % (Non condensation)		Temperature: -20 °C to 60 °C [-4 °F to 140 °F] / Humidity: 20 % to 80 % (Non condensation)	
Operating Time*6	24 h/day		24 h/day	
OPTIONS				
Pedestal	TY-ST103PF9	TY-ST85P12	TY-ST103PF9	TY-ST85P12
Wall-hanging Bracket	TY-WK103PV9	—	TY-WK103PV9	—
Ceiling-hanging Bracket	TY-CE103PS10*7	TY-CE85PS12*7	TY-CE103PS10*7	TY-CE85PS12*7
Mobile Stand	—	TY-ST85PB1	—	TY-ST85PB1
3G-SDI Terminal Board	TY-TBN03G *Require 2 boards for 4K/60p		TY-TBN03G *Require 2 boards for 4K/60p	
Digital Interface Box	ET-YFB100G		ET-YFB100G	
DIGITAL LINK Switcher	ET-YFB200G		ET-YFB200G	

*1: HDCP1.4 supported, Embedded audio supported. *2: HDCP1.3 supported, Embedded audio supported. *3: RGB/YPbPr switchable. *4: Please contact your sales representative with regard to the tilt angle before installation. *5: Environmental temperature to use this unit at high altitudes [1400 m (4593 ft) and higher and below 2400 m (7874 ft) above sea level]: 0 °C to 35 °C [32 °F to 95 °F] When using the unit where it is 1400 m (4593 ft) and higher and below 2400 m (7874 ft) above sea level, make sure [High altitude mode] is set to [ON].

*6: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images. *7: Tilt angle limited to 10 degree maximum.

A wide range of professional 4K required applications

• Public Information



• Store Signage



• Rentals & Staging



• Control Rooms



• Broadcast Studios



• Meeting Rooms

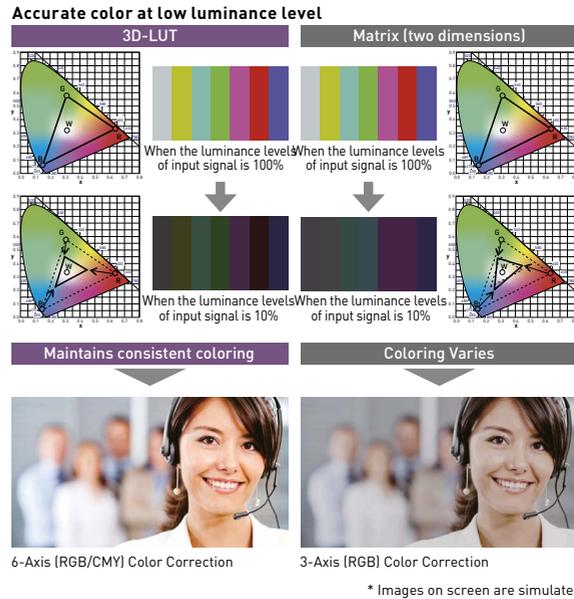


[LQ70 Series]

▶ 4K UHD Display

High Color Reproduction (3D-LUT & 6-Axis Color Correction)

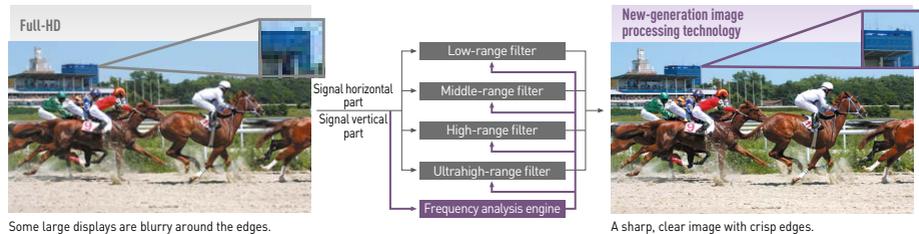
The color space on LCD displays tends to narrow when the luminance level drops, and it's often accompanied by color phase shifts. 3D-LUT (Look Up Table) Color Correction on the LQ70 Series has a look up table for each luminance level. Six Axis Coordinate Correction applies image processing to balance the six axes of the three primary colors (RGB) and their complementary colors (CMY). This keeps the intermediate shades of extremely fine colors vibrant and lifelike.



Non-4K Sources Are Also Beautifully Compensated

Panasonic's new-generation image processing technology (Detail Clarity Processor3*) also reproduces non-4K image content, such as Full-HD images and PC signals, with high picture quality. In addition, it compensates motion images for smooth, non-blurry display, which was difficult with conventional models.

* Optimizes the frequency and level of the input signal in horizontal and vertical directions to produce beautifully sharp, clear images.



Designed with Rugged Durability for Professional Use

The LQ70 Series has protective glass with 3.5J* impact resistance on the front of the display. With its strong resistance to external impacts, this rugged design allows safe installation in places where many people walk by, such as train stations, airports, and shopping malls. The special frame construction also resists twisting to boost reliability during installation. Ideal for rental applications, where the panel is frequently transported and installed.



* This value is from a Panasonic test. It does not imply a guaranteed value.

* Images on screen are simulated.

Portrait Installation Capability

When the LQ70 Series is installed vertically, it can display a person in almost life-size dimensions. It is ideal for digital signage use because it faithfully reproduces the textures and colors of a model's clothing and accessories. It helps to maintain a high-quality brand image. Vertical installation also has no effect on the lifetime of the panel.



Capable of 4-Input Multi Display with No Processor Required

The LQ70 Series features a 4-Input Multi Display function. The image can be switched from a full-screen display to a 4-Input Multi Display with a single press of a remote control button. Ideal for checking details in various applications, such as videoconferences, digital signage, and surveillance monitoring.



* Some restrictions exist for input signals and display splitting.
* 3G-SDI input and 4K image are not supported by the 4-Input Multi Display function.

Designed for Easy Transportation and Installation

By mounting eyebolts to the installation holes of the LQ70 Series and attaching hooks to the eyebolts, the unit can be easily moved and installed using a hoisting device such as a crane. The tough frame resists twisting and distortion, thus reducing the burden on the installation staff.

* The unit must be installed or uninstalled only by a specially trained installer.



SLOT NX Versatile 4K Input

The new SLOT NX makes it possible to change the interface to match the application. If the optional 3G-SDI Terminal Board is mounted, the LQ70 Series can be connected with SDI. This feature is convenient for use in broadcasting stations, for rental use and for long-distance connection. The LQ70 Series is expandable and will accommodate 4K input in the future.



* All images shown are simulated.
* SLOT NX is not compatible with SLOT 2.0.
* Require 2 boards for 4K / 60p

AF1 Series



Indoor

Model no.	TH-55AF1	TH-49AF1	TH-42AF1
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	49-inch (1232 mm)/16:9	42-inch (1064 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	927 x 521 mm (36.5" x 20.5")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	500 cd/m ²	500 cd/m ²	500 cd/m ²
Contrast Ratio	1300:1	1300:1	1300:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1
Response Time	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR>10)	178°/178° (CR>10)	178°/178° (CR>10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)
PLATFORM			
OS	Android 4.4.3		Android 4.4.3
CPU	Cortex-A9, 1.0 GHz (Quad)		Cortex-A9, 1.0 GHz (Quad)
Memory	RAM 1 GB / ROM 8 GB		RAM 1 GB / ROM 8 GB
TERMINAL			
Display			
VIDEO In	BNC x 1 (Shared with Component In)		BNC x 1 (Shared with Component In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Component In)		Stereo Mini Jack (M3) x 1 (Shared with Component In)
HDMI In	HDMI Type A Connector x 2		HDMI Type A Connector x 2
Component/RGB In	BNC x 1 set (Shared with VIDEO In)		BNC x 1 set (Shared with VIDEO In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Video In)		Stereo Mini Jack (M3) x 1 (Shared with Video In)
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)
DVI-D Out	DVI-D 24-pin x 1		DVI-D 24-pin x 1
PC In	Mini D-Sub 15-pin x1 (Female)		Mini D-Sub 15-pin x1 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
Audio Out (L/R)	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1
Serial In/Out	D-sub 9-pin x 1/x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible
USB	USB connector (TYPE A) x 1, DC 5 V/1 A (USB3.0 is not supported)		USB connector (TYPE A) x 1, DC 5 V/1 A (USB3.0 is not supported)
IR In/Out	Stereo Mini Jack (M3) x 1 / x 1		Stereo Mini Jack (M3) x 1 / x 1
OpenPort PLATFORM			
LAN	RJ45 x 1 for Network Connection, 10BASE-T/100BASE-TX/1000BASE-T, Compatible with PjLink™		RJ45 x 1 for Network Connection, 10BASE-T/100BASE-TX/1000BASE-T, Compatible with PjLink™
USB	USB2.0 connector (TYPE A) x 3, DC 5 V/500 mA		USB2.0 connector (TYPE A) x 3, DC 5 V/500 mA
Micro-USB	Micro USB Connector x 1		Micro USB Connector x 1
microSD card slot	microSD, microSDHC x 1		microSD, microSDHC x 1
Wireless LAN	IEEE 802.11a/b/g/n		IEEE 802.11a/b/g/n
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz		220-240 V AC, 50 Hz/60 Hz
Power Consumption	190 W		175 W
Power Off Condition	Approx. 0.3 W		Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off]) Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])		Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off]) Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])
Dimensions (W x H x D)	1229 x 699 x 72 *mm (48.4" x 27.6" x 2.8" *)		947 x 541 x 72 *mm (37.3" x 21.3" x 2.8" *)
Carton Size (W x H x D)	1444 x 922 x 223 mm (56.9" x 36.3" x 8.8")		1123 x 743 x 203 mm (44.3" x 29.3" x 8.0")
Bezel Width	6.3 mm (0.25")		6.3 mm (0.25")
Weight	Approx. 25.0 kg (55.2 lbs.)		Approx. 15.6 kg (34.4 lbs.)
Gross Weight	Approx. 33.0 kg (72.8 lbs.)		Approx. 21.0 kg (46.3 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400x 400 mm (15.8" x 15.8")		VESA Compliant 200 x 200 mm (7.9" x 7.9")
Built-in Speakers	20 W [10 W + 10 W]		20 W [10 W + 10 W]
Orientation	Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)		Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)
Tilting Angle*1	0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)		0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)		Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)
Operating Time*4	24 h/day		24 h/day
OPTIONS			
Pedestal	TY-ST43PE8		TY-ST43PE8
Early Warning Software*5	ET-SWA100 Series		ET-SWA100 Series
Auto Display Adjustment Upgrade Kit*6	TY-VUK10		TY-VUK10
Multi Window Processor*7	ET-MWP100G		ET-MWP100G

*1: Please contact your sales representative with regard to the tilt angle before installation. *2: for up to 1400 m (4593 ft) altitude *3: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude. Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor. *4: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images. *5: Suffix of the part number may differ depending on the license type. *6: Download the latest Video Wall Manager from PASS in advance. (https://panasonic.net/cns/prodisplas/pass/) *7: The availability varies depending on the country.

* The handle part excluded, the thickness is 57 mm (2.3").

Feature video



AF1 Series: Pro Signage Display Featuring Android-based OpenPort PLATFORM

AF1 Partners

OpenPort PLATFORM® supports applications developed and mutually checked with Panasonic by the following global partners.



To know more visit:
<https://business.panasonic.co.uk/visual-system/openport-platform>

Evolving with Your Needs

Android™- and HTML5-based OpenPort PLATFORM® Gives Freedom to Customize and Grow with Digital Signage Apps, Simplifies Everyday Use. The AF1 Series incorporates a high-performance SoC (System on a Chip) with a 1 GHz Quad-Core CPU, 1 GB RAM, 8 GB Storage. All this is supported by an alliance with a leading signage software developer to jointly verify application operation. To find more information visit our website: <http://business.panasonic.co.uk/visual-system/openport-platform>



The Android robot is reproduced or modified from work created and shared by Google and used according to terms described in the Creative Commons 3.0 Attribution License.

Evolving with Your Needs

Simple, expandable, and reliable, the AF1 Series' Android™-based OpenPort PLATFORM® is powered by a high-performance SoC (System on a Chip) with a 1 GHz quad-core CPU, 1 GB of memory, and 8 GB* of internal storage. Together with verified apps created by global alliance partners for custom signage and other roles in business, these adaptive displays deliver your message with maximum impact now and in the future.

QUAD CORE
1GHz CPU

Graphic Processor

1 GB Memory

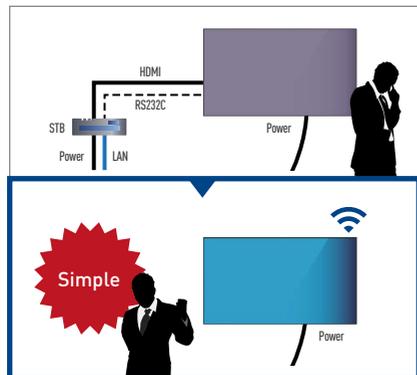
8 GB* Storage

CPU, GPU, and memory are all included in an SoC (System on a Chip).
* Total capacity of storage including OS.



No Need for External Devices and Cables

Thanks to the built-in media player function, external devices such as set-top boxes, PCs, and associated cabling are not required for digital signage applications. Wireless functionality paves the way to simple, stress-free installation while saving you time and money.



Panasonic Original Home Screen

Initial setup of network and language preferences is easy using the remote controller* and original Panasonic Home Screen.

* Some setting and application operations cannot be performed using the remote control. In this case, use a USB mouse to operate.



Simple App Installation

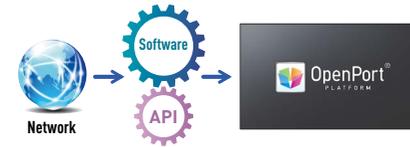
Applications are easily accessed and installed via Panasonic App Server*, which streamlines settings before operation. App installation is also enabled via USB drive or microSD card.

* Certain partner apps not supported.



Panasonic API Expands Application Functions

Panasonic's clear and intuitive API (Application Programming Interface) enables the expansion of application functions, allowing the display to be controlled remotely without need of RS232C or other complicated applications.



A Reliable, Fully Certified Platform

The OpenPort PLATFORM® based on Android™ is fully certified by Google to assure stable, secure, and reliable operation.

Mutual Check with App Alliance Partners

Applications running on OpenPort PLATFORM® are thoroughly checked by alliance partners and Panasonic for stable and secure operation.



See our partners: <http://business.panasonic.co.uk/visual-system/openport-platform/partners>

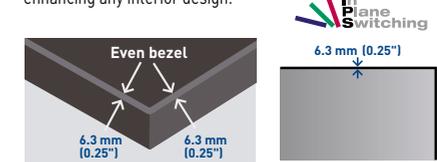
Optional Early Warning Software (ET-SWA100 Series)

Optional ET-SWA100 Series* Early Warning Software monitors the displays and projectors connected to an intranet and informs you when an abnormality is detected or there are symptoms of trouble. With this software installed, a monitoring server can be controlled remotely via tablet or PC.

* Part number suffix may differ depending on the license type.

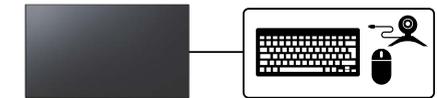
Bright and Stylish IPS Display

The slim-bezel AF1 Series is offered in 42-, 49-, and 55-inch sizes and features an edge-lit LED IPS panel with a high 500 cd/m² of brightness. This efficient technology assures uncommonly good off-axis visibility, preserving accurate color reproduction even in bright ambient light. Furthermore, the AF1 Series features a slim 6.3 mm-bezel-width that boosts perceived image size while enhancing any interior design.



Supports Connection of Peripheral Devices

Peripheral devices such as a mouse, keyboard, or USB camera can be connected to AF1 Series displays to further expand functionality.



Note: Some USB devices are not supported.

Supports External Memory Devices

USB drives and microSD cards can also be used to expand the 8 GB internal memory storage capacity.



Make Your Signage Easy with Panasonic Application

AF1 Series displays include a builtin Signage Player Application* that eliminates need of an external Settop Box (STB). As well as saving space, your signage system becomes smart and simple.

* OpenPort PLATFORM® Version 2.0 firmware (or later) is required.

For more information about Content Management Software Version 1.1, please visit: <https://panasonic.net/cns/prodisplays/download/software/>

Play Content Automatically with Scheduling Function

Content Management Software for PC Version 1.1 (free) enables easy playlist creation with media support including combinations of still and video images. You can set up schedules for playing and closing your media playlist at predetermined dates and times.



Convenient Playlist and Schedule Syncing

Playlists and schedules created with Content Management Software can be transferred to displays with USB memory, microSD Card, or via LAN. Synchronized playback on multiple displays is also supported.



SF2H/SF1H Series



Standard

Model no.	TH-80SF2H	TH-70SF2H	TH-55SF1H	TH-49SF1H	TH-42SF1H
DISPLAY PANEL					
Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/16:9	70-inch (1765 mm)/16:9	55-inch (1387 mm)/16:9	49-inch (1232 mm)/16:9	42-inch (1064 mm)/16:9
Panel Type	VA Panel/E-LED	VA Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1771 x 996 mm (69.7" x 39.2")	1538 x 865 mm (60.5" x 34.0")	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	927 x 521 mm (36.5" x 20.5")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ) [†]	700 cd/m ²	700 cd/m ²	700 cd/m ²	700 cd/m ²	700 cd/m ²
Contrast Ratio	5000:1	5000:1	1300:1	1300:1	1300:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1	50000:1	50000:1
Response Time	4.0 ms (G to G)	8.0 ms (G to G)	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	176°/176° (CR≥10)	176°/176° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 5 %)	Anti-Glare (Haze 12 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)
TERMINAL					
VIDEO In	4-pole Mini Jack (M3) x 1 (Audio In shared with DVI-D In/PC In/Video In)		BNC x 1 (Shared with Component /RGB Y/G)		
Audio In (L/R)	HDMI Type A Connector x 2		Stereo Mini Jack (M3) x 1 (Shared with Component In)		
HDMI In	—		HDMI Type A Connector x 2		
Component/RGB In	—		BNC x 1 set (Shared with Video In)		
Audio In (L/R)	—		Stereo Mini Jack (M3) x 1 (Shared with Video In)		
DVI-D In	DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible		DVI-D 24-pin x 1		
Audio In (L/R)	4-pole Mini Jack (M3) x 1 (Shared with PC/VIDEO In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)		
DVI-D Out	DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible		DVI-D 24-pin x 1		
PC In	Mini D-sub 15-pin x 1 (DDC2B compatible)		Mini D-Sub 15-pin x 1 (Female)		
Audio In (L/R)	4-pole Mini Jack (M3) x 1 (Shared with DVI-D/VIDEO In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		
Audio Out (L/R)	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1		
Serial In/Out	D-sub 9-pin x 1/x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible		
DIGITAL LINK	RJ45 x 1, 100BASE-TX, Compatible with PLink™ (Shared with LAN)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with LAN)		
LAN	RJ45 x 1, 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)		
IR In/Out	Stereo Mini Jack (M3) x 1 / x 1		Stereo Mini Jack (M3) x 1 / x 1		
USB	USB Type A Connector x 1, DC 5 V/1 A (USB 3.0 is not supported)		USB Type A Connector x 1, DC 5V/1A (USB 3.0 is not supported.)		
GENERAL					
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	380 W	235 W	190 W	175 W	155 W
Power Off Condition	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1835 x 1060 x 82 mm (72.3" x 41.8" x 3.3")	1580 x 919 x 80 mm (62.2" x 36.2" x 3.2")	1229 x 699 x 72* mm (48.4" x 27.6" x 2.8**)	1093 x 623 x 72* mm (43.1" x 24.6" x 2.8**)	947 x 541 x 72* mm (37.3" x 21.3" x 2.8**)
Carton Size (W x H x D)	1970 x 1191 x 351 mm (77.6" x 46.9" x 13.9")	1715 x 1050 x 351 mm (67.6" x 41.4" x 13.9")	1444 x 922 x 223 mm (56.9" x 36.3" x 8.8")	1308 x 846 x 203 mm (51.5" x 33.4" x 8.0")	1123 x 743 x 203 mm (44.3" x 29.3" x 8.0")
Bezel Width	R/L/T/B: 28.5 mm (1.12")	R/L: 18.6 mm (0.73"), T/B: 23.6 mm (0.92")	R/L/T/B: 6.3 mm (0.25")	R/L/T/B: 6.3 mm (0.25")	R/L/T/B: 6.3 mm (0.25")
Weight	Approx. 62.0 kg (135.0 lbs.)	Approx. 45.0 kg (99.0 lbs.)	Approx. 24.9 kg (54.9 lbs.)	Approx. 19.2 kg (42.4 lbs.)	Approx. 15.5 kg (34.2 lbs.)
Gross Weight	Approx. 73.0 kg (159.0 lbs.)	Approx. 55.0 kg (119.0 lbs.)	Approx. 33.0 kg (72.8 lbs.)	Approx. 26.0 kg (57.4 lbs.)	Approx. 20.0 kg (44.1 lbs.)
Pitch for Wall-Hanging	VESA compliant 600 x 400 mm (23.6" x 15.8")	VESA compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA compliant 200 x 200 mm (7.9" x 7.9")
Built-in Speakers	20 W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]
Orientation	Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right; landscape setting only)		Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)		
Tilting Angle	0-20 degrees forward/backward with landscape/portrait setting (Angle adjustment is not possible for forward/backward tilting installation.)		0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)		
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2 ; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)		Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2 ; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)		
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non-condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non-condensation)		
Operating Time*4	24 h/day		24 h/day		
OPTIONS					
Pedestal	TY-ST75PE9	TY-ST75PE9	TY-ST43PE8	TY-ST43PE8	TY-ST43PE8
Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G	ET-YFB100G	ET-YFB100G
DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G	ET-YFB200G	ET-YFB200G	ET-YFB200G
Early Warning Software*5	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series
Auto Display Adjustment Upgrade Kit*6	TY-VUK10	TY-VUK10	TY-VUK10	TY-VUK10	TY-VUK10
Multi Window Processor*7	ET-MWP100G	ET-MWP100G	ET-MWP100G	ET-MWP100G	ET-MWP100G

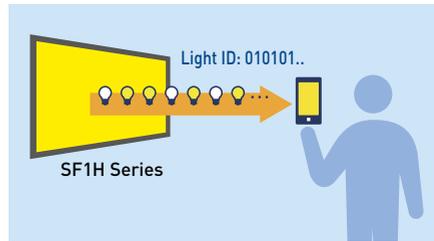
*1: Please contact your sales representative with regard to the tilt angle before installation.*2: for up to 1400 m (4593 ft) altitude
 *3: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude
 Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor.
 *4: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.
 *5: Multi Monitoring & Control Software Ver.2.0 or later is required. Suffix of the part number may differ depending on the license type.
 *6: Download the latest Video Wall Manager from Global Website in advance. (https://panasonic.net/cns/prodisplays/download/software/vwm)
 *7: The availability varies depending on the country.

+ The brightness of the display panel is equivalent to about 75% its full capacity, when the Light ID is transmitted. The displayed image may flicker, but this is due to a change in the brightness during Light ID transmission and not due to trouble.

* The handle part excluded, the thickness is 57 mm (2.3").

Built-in Light ID Transmission Function Sends and Receives Information

Panasonic has developed the most advanced mobile content delivery service to date, using visible light communication. LinkRay enables ordinary smartphones to read IDs in light sent from LED transmitters, such as displays (SF1H and SF2H Series) or LED lighting, and connect to associated web content. End users connect to content quickly, easily and securely through a simple, fast, intuitive and impactful end user experience.



Light ID Technology Features



- Fast**
Receives the signal within 0.3 seconds.
- Intuitive**
Simply wave the smartphone toward a signboard or other signage.
- Works Even in Crowds**
Receives as long as the light reaches the smartphone.

Usage Case Examples & Benefits



Signage for Exhibit
Information on Exhibit



Digital Signage
Coupon Delivery



Automatically adapts language according to device OS settings

Retail / Foodservices / Advertising

Follow-up your call to action on customer devices, provide buying incentives that convert to sales, enable online ordering, and expand customer relationship management and insight.

Airports / Transit / City Services

Provide scheduling, access assistance, city information, and translation services to individuals, track their movements, and enable "smart city" capabilities.

Museums / Exhibitions / Showrooms

Provide creative content beyond the physical limits of exhibits, track and understand the visitor experience, and stay engaged. Send multilingual info and display it on a smartphone.

Applications for LinkRay

Panasonic provides a dedicated LinkRay Solution app for iOS/Android™. Users can download to supported smartphones and tablets free.

Standard Application (Free)

LinkRay Solution



Supported Operating Systems

iOS Devices iOS 8.0 and later

Android Devices Android 5.0 and later

Note: Some devices may not operate correctly even if minimum requirements are met. To get the latest information concerning devices tested for compatibility, please visit the Panasonic LinkRay website.

<https://panasonic.net/cns/LinkRay/>

LinkRay Cloud Platform

Web Links associated to each ID can be easily managed on the LinkRay Cloud Platform or a Content Management System at any time.

Feature video



LinkRay (Introducing the Technology)



LinkRay (Use Cases)



LinkRay Solution@Live & Event Industrial Exhibition



LinkRay(TM) ID modulator for use with signboards or LED light sources

In addition to our range of Professional Displays equipped with built-in LinkRay™ technology, Panasonic provides a flexible solution to make LED lighting capable of transmitting LinkRay IDs.

Panasonic is offering three types of modulators.

The variable ID modulator AL-A001GL can handle an unlimited number of ID signals, allowing the scheduling and management of variable content. It is compatible with a 12-24V LED light source up to 50W, with daisy chaining also possible. This is the best option to equip larger signboards with LinkRay, for example, and for integration with variable content management system.

The fixed ID modulator NOTN70101 is designed for large LED signboards and showcase installations, and sends one ID signal. The small fixed ID modulator XC-ALS01W-1 is compact and lightweight, powered over USB up to 7W. It is especially suitable for low-cost and space-limited installations, such as product showcases, or low-power lighting, such as table-top ordering applications.



AL-A001GL
LinkRay variable ID modulator
50W; 12-24V
Dimensions:
148x43x33mm; 200g
Ideal for large LED sign panels from A3 to A0 sizes with variable contents



NOTN70101
LinkRay fixed ID modulator
60W; 12-24V
Dimensions:
182x40x22.5mm; 175g
Ideal for large LED sign panels from A3 to A0 sizes



XC-ALS01W-1
LinkRay small fixed ID modulator
7W; 5V
Dimensions:
66x30x10mm; 15g
Ideal for smaller LED sign panels from A5 to A3 sizes

LF80 Series

Indoor



Model no.	TH-55LF80	TH-49LF80	TH-42LF80
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	48-inch (1232 mm)/16:9	42-inch (1064 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	927 x 521 mm (36.5" x 20.5")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	700 cd/m ²	700 cd/m ²	700 cd/m ²
Contrast Ratio	1300:1	1300:1	1300:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1
Response Time	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)
TERMINAL			
VIDEO In	BNC x 1 (Shared with Component /RGB Y/G)		BNC x 1 (Shared with Component /RGB Y/G)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Component In)		Stereo Mini Jack (M3) x 1 (Shared with Component In)
HDMI In	HDMI Type A Connector x 2		HDMI Type A Connector x 2
Component/RGB In	BNC x 1 set (Shared with Video In)		BNC x 1 set (Shared with Video In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Video In)		Stereo Mini Jack (M3) x 1 (Shared with Video In)
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)
DVI-D Out	DVI-D 24-pin x 1		DVI-D 24-pin x 1
PC In	Mini D-Sub 15-pin x 1 (Female)		Mini D-Sub 15-pin x 1 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
Audio Out (L/R)	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1
Serial In/Out	D-sub 9-pin x 1/x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible
DIGITAL LINK	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with LAN)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with LAN)
LAN	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)
IR In/Out	Stereo Mini Jack (M3) x 1 / x 1		Stereo Mini Jack (M3) x 1 / x 1
USB	USB Type A Connector x 1, DC 5V/1A (USB 3.0 is not supported.)		USB Type A Connector x 1, DC 5V/1A (USB 3.0 is not supported.)
Function Slot	—		—
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz		220-240 V AC, 50 Hz/60 Hz
Power Consumption	190 W		175 W
Power Off Condition	Approx. 0.3 W		Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W		Approx. 0.5 W
Dimensions (W x H x D)	1229 x 699 x 72 [*] mm (48.4" x 27.6" x 2.8")	1093 x 623 x 72 [*] mm (43.1" x 24.6" x 2.8") [*]	947 x 541 x 72 [*] mm (37.3" x 21.3" x 2.8") [*]
Carton Size (W x H x D)	1444 x 922 x 223 mm (56.9" x 36.3" x 8.8")	1308 x 846 x 203 mm (51.5" x 33.4" x 8.0")	1123 x 743 x 203 mm (44.3" x 29.3" x 8.0")
Bezel Width	6.3 mm (0.25")		6.3 mm (0.25")
Weight	Approx. 24.7 kg (54.5 lbs.)		Approx. 15.3 kg (33.7 lbs.)
Gross Weight	Approx. 32.0 kg (70.6 lbs.)		Approx. 20.0 kg (44.1 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")		VESA compliant 200 x 200 mm (7.9" x 7.9")
Built-in Speakers	20 W [10 W + 10 W]		20 W [10 W + 10 W]
Orientation	Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)		
Tilting Angle	0-45 degrees forward/backward with landscape/portrait setting ^{*1} (Angle adjustment is not possible for forward/backward tilting installation.)		
Operating Environment	Temperature: 0 °C to 40 °C (32°F to 104°F) ^{*3} ; 0 °C to 35 °C (32 °F to 95 °F) ^{*4} / Humidity: 20 % to 80 % (Non-condensation)		
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non-condensation)		
Operating Time ^{*5}	24 h/day		
OPTIONS			
Pedestal	TY-ST43PE8	TY-ST43PE8	TY-ST43PE8
Wall-hanging Bracket	—		—
Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G
DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G	ET-YFB200G
Early Warning Software ^{*6}	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100
Auto Display Adjustment Upgrade Kit ^{*7}	TY-VUK10	TY-VUK10	TY-VUK10
Multi Window Processor ^{*8}	ET-MWP100G	ET-MWP100G	ET-MWP100G

*1: Please contact your sales representative with regard to the tilt angle before installation.

*2: If the temperature is 40 °C to 60 °C (104 °F to 140 °F), please keep in humidity 20 % to 40 % . *3: for up to 1400 m (4593 ft) altitude

*4: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude

*5: Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor.

*6: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

*7: Suffix of the part number may differ depending on the license type.

*8: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplays/pass/>)

*9: The availability varies depending on the country.

* The handle part excluded, the thickness is 57 mm (2.3").

SF2 Series

Indoor



Model no.	TH-65SF2	TH-55SF2	TH-49SF2	TH-43SF2
DISPLAY PANEL				
Screen Size (Diagonal)/Aspect Ratio	65-inch (1639 mm)/16:9	55-inch (1387 mm)/16:9	49-inch (1232 mm)/16:9	43-inch (1079 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1428 x 803 mm (52.6" x 31.6")	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	941 x 529 mm (37.0" x 20.8")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	450 cd/m ²	450 cd/m ²	450 cd/m ²	450 cd/m ²
Contrast Ratio	1300:1	1100:1	1100:1	1100:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1	50000:1
Response Time	10 ms (G to G)	12 ms (G to G)	12 ms (G to G)	12 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178°	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 1 %)	Anti-Glare (Haze 1 %)	Anti-Glare (Haze 1 %)	Anti-Glare (Haze 1 %)
TERMINAL				
VIDEO In/Audio In	4-pole Mini-jack (M3) x 1 HDMI Type A Connector x 2		4-pole Mini-jack (M3) x 1 HDMI Type A Connector x 2	
HDMI In	—		—	
Component/RGB In	—		—	
Audio In (L/R)	—		—	
DVI-D In	DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible		DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible	
Audio In (L/R)	4-pole Mini-jack (M3) x 1 (Shared with PC/VIDEO In)		4-pole Mini-jack (M3) x 1 (Shared with PC/AV In)	
DVI-D Out	DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible		DVI-D 24-pin x 1 (DVI Revision 1.0 compliant), HDCP 1.1 compatible	
PC In	Mini D-Sub 15-pin x1 (DDC2B compatible)		Mini D-Sub 15-pin x 1 (DDC2B compatible)	
Audio In (L/R)	4-pole Mini-jack (M3) x 1 (Shared with DVI-D/VIDEO In)		4-pole Mini-jack (M3) x 1 (Shared with DVI-D/AV In)	
Audio Out (L/R)	Stereo Mini-jack (M3) x 1		Stereo Mini-jack (M3) x 1	
Serial In/Out	D-Sub 9-pin x 1/D-Sub 9-pin x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible	
DIGITAL LINK	RJ45 x 1, 100BASE-TX, Compatible with PLink™ for TH-65SF2E and TH-55SF2W (Shared with LAN)		RJ45 x 1, 100BASE-TX, Compatible with PLink™ for TH-49/43SF2W (Shared with LAN)	
LAN	RJ45 x 1, 100BASE-TX, Compatible with PLink™ for TH-65SF2E and TH-55SF2W (Shared with DIGITAL LINK)		RJ45 x 1, 100BASE-TX, Compatible with PLink™ for TH-49/43SF2W (Shared with DIGITAL LINK); 10BASE-T/100BASE-TX, Compatible with PLink™ for TH-49/43SF2E	
IR In/Out	Stereo Mini-jack (M3) x 1 / x 1		Stereo Mini-jack (M3) x 1 / x 1	
USB	USB TYPE A Connector x 1, DC 5V/1A (USB 3.0 is not supported)		USB TYPE A Connector x 1, DC 5V/1A (USB 3.0 is not supported)	
Function Slot	—		—	
GENERAL				
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	155 W	115 W	110 W	95 W
Power Off Condition	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1452 x 834 x 64 mm (57.2" x 32.9" x 2.5")	1234 x 710 x 46 mm (48.5" x 28.0" x 1.8")	1098 x 634 x 46 mm (43.2" x 24.9" x 1.8")	965 x 559 x 46 mm (38.0" x 22.0" x 1.8")
Carton Size (W x H x D)	1648 x 1076 x 280 mm (64.9" x 42.4" x 11.1")	1448 x 952 x 223 mm (57.0" x 37.5" x 8.8")	1292 x 883 x 203 mm (50.9" x 34.8" x 8.0")	1141 x 779 x 203 mm (44.9" x 30.7" x 8.0")
Bezel Width	T/R/L: 9.5 mm (0.38"), B: 15.7 mm (0.62")	T/R/L: 9.5 mm (0.38"), B: 15.5 mm (0.61")	T/R/L: 9.5 mm (0.38"), B: 15.5 mm (0.61")	T/R/L: 9.5 mm (0.38"), B: 15.5 mm (0.61")
Weight	Approx. 29.8 kg (65.7 lbs.)	Approx. 18.0 kg (39.7 lbs.)	Approx. 14.7 kg (32.4 lbs.)	Approx. 10.7 kg (23.6 lbs.)
Gross Weight	Approx. 41.0 kg (90.4 lbs.)	Approx. 26.0 kg (57.3 lbs.)	Approx. 21.0 kg (46.3 lbs.)	Approx. 15.0 kg (33.1 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA compliant 400 x 400 mm (15.8" x 15.8")
Built-in Speakers	20W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]
Orientation*1	Landscape/Portrait (Angle adjustment 0 - 45 degrees for both left and right with landscape setting. When installing the portrait setting, be sure that the Power Indicator comes to the upside.)		Landscape/Portrait (Angle adjustment 0 - 45 degrees for both left and right with landscape setting. When installing the portrait setting, be sure that the Power Indicator comes to the upside.)	
Tilting Angle*1	Landscape setting: 0 - 45 degrees forward/backward Portrait setting: 0 - 45 degrees forward/backward		Landscape setting: 0 - 45 degrees forward/backward Portrait setting: 0 - 45 degrees forward/backward	
Operating Environment	Temperature: 0 °C to 40 °C (32°F to 104°F) / Humidity: 20 % to 80 % (Non Condensation)		Temperature: 0 °C to 40 °C (32°F to 104°F)*3: 0 °C to 35 °C (32 °F to 95 °F)*4 / Humidity: 20 % to 80 % (Non-condensation)	
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F)*2 / Humidity: 20 % to 80 % (Non Condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non-condensation)	
Operating Time*5	24 h/day		24 h/day	
OPTIONS				
Pedestal	TY-ST55PE9	TY-ST55PE9	TY-ST43PE9	TY-ST43PE9
Wall-hanging Bracket	—	—	—	—
Digital Interface Box	—	—	—	—
DIGITAL LINK Switcher	—	—	—	—
Early Warning Software*6	ET-SWA100	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100
Auto Display Adjustment Upgrade Kit*7	TY-VUK10	TY-VUK10	TY-VUK10	TY-VUK10
Multi Window Processor*8	ET-MWP100G	ET-MWP100G	ET-MWP100G	ET-MWP100G

*1: Please contact your sales representative with regard to the tilt angle before installation. Note that a gap of 0.5 mm or more is required when installing multiple displays.

*2: If the temperature is 40 °C to 60 °C (104 °F to 140 °F), please keep in humidity 20 % to 40 %. *3: for up to 1400 m (4593 ft) altitude

*4: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude
Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor.

*5: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

*6: Suffix of the part number may differ depending on the license type.

*7: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplays/pass/>)

*8: The availability varies depending on the country.

EF1 Series

Standard



Model no.	TH-84EF1	TH-75EF1	TH-65EF1	TH-32EF1
DISPLAY PANEL				
Screen Size (Diagonal)/Aspect Ratio	84-inch (2134 mm)/16:9	75-inch (1892 mm)/16:9	65-inch (1638 mm)/16:9	32-inch (801 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	VA Panel/D-LED	IPS Panel/D-LED
Effective Display Area (W x H)	1860 x 1046 mm (73.2" x 41.1")	1649 x 927 mm (65.0" x 36.5")	1428 x 803 mm (56.2" x 31.6")	698 x 392 mm (27.4" x 15.4")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	350 cd/m ²	410 cd/m ²	350 cd/m ²	350 cd/m ²
Contrast Ratio	1400:1	1200:1	4000:1	1400:1
Response Time	5.0 ms (G to G)	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥20)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 3 %)	Anti-Glare (Haze 2 %)	Anti-Glare (Haze 1 %)
TERMINAL*				
VIDEO In	4-pole Mini Jack (M3) x 1		4-pole Mini Jack (M3) x 1	
Audio In(L/R)	—		—	
HDMI In	HDMI TYPE-A Connector x 2* *VIERA LINK is not supported.		HDMI TYPE-A Connector x 2* *VIERA LINK is not supported.	
Component/RGB In	—		—	
Audio In (L/R)	—		—	
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)	
PC In	Mini D-sub 15-pin x 1		Mini D-sub 15-pin x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)	
PC Out	—		—	
USB	TYPE A USB Connector DC 5V/1A (USB 3.0 is not supported.)		TYPE A USB Connector DC 5V/1A (USB 3.0 is not supported.)	
Serial In	D-sub 9-pin x 1, RS-232C Compatible		D-sub 9-pin x 1, RS-232C Compatible	
DIGITAL LINK	—		—	
IR In/Out	Mini Jack (M3) x 1 / x 1		Mini Jack (M3) x 1 / x 1	
LAN	RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™		RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™	
Function Slot	—		—	
GENERAL				
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	535 W	285 W	175 W	65 W
Power off Condition	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1910 x 1102 x 78 mm (75.2" x 43.4" x 3.1")	1681 x 959 x 77 mm (66.2" x 37.8" x 3.02")	1459 x 835 x 82 mm (57.5" x 32.9" x 3.3")	727 x 426 x 64 mm (28.7" x 16.8" x 2.5")
Carton Size (W x H x D)	2059 x 1369 x 361 mm (81.1" x 53.9" x 14.3")	1831 x 1227 x 361 mm (72.1" x 48.3" x 14.3")	1655 x 1078 x 280 mm (65.2" x 42.5" x 11.1")	818 x 547 x 139 mm (32.2" x 21.6" x 5.5")
Bezel Width	22.6 mm (0.89") (L/R), 25.6 mm (1.01") (T/B)	14.8 mm (0.58") (L/R/T/B)	13.9 mm (0.55") (L/R/T), 14.9 mm (0.59") (B)	11.9 mm (0.5") (L/R/T), 17.2 mm (0.7") (B)
Weight	Approx. 70.0 kg (154.3 lbs.)	Approx. 55.0 kg (121.3 lbs.)	Approx. 24.0 kg (52.0 lbs.)	Approx. 5.3 kg (11.7 lbs.)
Gross Weight	Approx. 106.0 kg (233.7 lbs.)	Approx. 85.0 kg (187.4 lbs.)	Approx. 35.0 kg (77.2 lbs.)	Approx. 8.0 kg (17.7 lbs.)
Pitch for Wall-Hanging	VESA compliant 600 x 500 mm (23.6" x 19.7")	VESA compliant 600 x 400 mm (23.6" x 15.8")	VESA compliant 400 x 400 mm (15.8" x 15.8")	VESA compliant 100 x 100 mm (3.9" x 3.9")
Built-in Speaker	20 W [10W + 10 W] (10% THD)	20 W [10W + 10 W] (10% THD)	20 W [10W + 10 W] (10% THD)	20 W [10W + 10 W] (10% THD)
External Speaker	—	—	—	—
Orientation	Landscape/Portrait	Landscape	Landscape/Portrait	Landscape/Portrait
Tilting Angle	0-15 degrees forward with landscape setting*2	0-20 degrees forward with landscape setting*2	0-20 degrees forward with landscape setting*2	0-20 degrees forward with landscape setting*2
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*3 / Humidity: 20 % to 80 % (Non Condensation)*4			
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F)*3 / Humidity: 20 % to 80 % (Non Condensation)*4			
Operating Time*5	16 h/day		16 h/day	
OPTIONS				
Pedestal	—	—	—	TY-ST32PE1
Early Warning Software*6	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series

*1: Due to the terminal block construction, some connection cables and USB memory devices cannot be used. Be sure to check the "CONNECTION TERMINAL" information in the product specification sheet.

For more information about product specifications, please visit: <http://panasonic.net/prodisplays/download/specsheets02.html>

*2: Please contact your sales representative with regard to the tilt angle before installation.

*3: Environmental temperature to use this unit at high altitudes 1400 m (4593 ft) and higher and below 2800 m (9186 ft) above sea level; 0 °C to 35 °C (32 °F to 95 °F).

*4: Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. • This unevenness will disappear while applying current continuously. If not, consult the distributor

*5: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

*6: Suffix of the part number may differ depending on the license type.

LFE8 Series



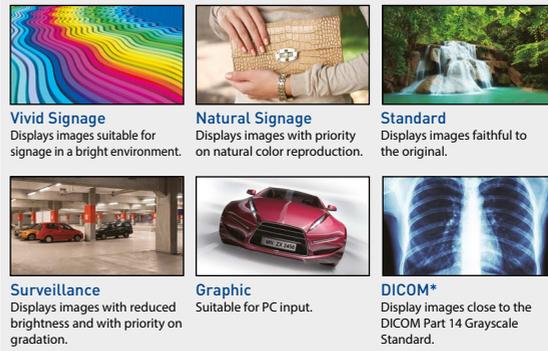
Model no.	TH-55LFE8	TH-48LFE8	TH-43LFE8
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	48-inch (1209 mm)/16:9	43-inch (1079 mm)/16:9
Panel Type	IPS Panel/D-LED	VA Panel/D-LED	VA Panel/D-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.8")	1054 x 592 mm (41.5" x 23.3")	940 x 529 mm (37.0" x 20.8")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	350 cd/m ²	350 cd/m ²	350 cd/m ²
Contrast Ratio	1200:1	4000:1	3000:1
Response Time	9 ms [G to G]	8 ms [G to G]	6.5 ms [G to G]
Viewing Angle (Horizontal/Vertical)	178°/178° [CR≥20]	178°/178° [CR≥20]	178°/178° [CR≥10]
Panel Surface Treatment	Anti-Glare (Haze 1 %)	N/A	N/A
TERMINAL *1			
VIDEO In	4-pole Mini Jack (M3) x 1		4-pole Mini Jack (M3) x 1
Audio In(L/R)	—		—
HDMI In	HDMI TYPE-A Connector x 2* *VIERA LINK is not supported.		HDMI TYPE-A Connector x 2* *VIERA LINK is not supported.
Component/RGB In	—		—
Audio In (L/R)	—		—
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 [Shared with PC In]		Stereo Mini Jack (M3) x 1 [Shared with PC In]
PC In	Mini D-sub 15-pin x 1		Mini D-sub 15-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 [Shared with DVI-D In]		Stereo Mini Jack (M3) x 1 [Shared with DVI-D In]
PC Out	—		—
USB	TYPE A USB Connector 5V DC/1A (USB 3.0 is not supported.)		TYPE A USB Connector 5V DC/1A (USB 3.0 is not supported.)
Serial In	D-sub 9-pin x 1, RS-232C Compatible		D-sub 9-pin x 1, RS-232C Compatible
DIGITAL LINK	—		—
LAN	RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™		RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™
Function Slot	—		—
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz		220-240 V AC, 50 Hz/60 Hz
Power Consumption	170 W		135 W
Power off Condition	Approx. 0.3 W		Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W		Approx. 0.5 W
Dimensions (W x H x D)	1239 x 712 x 62 mm (48.8" x 28.0" x 2.5")	1082 x 624 x 62 mm (42.6" x 24.6" x 2.5")	969 x 560 x 61 mm (38.2" x 22.1" x 2.4")
Carton Size	1365 x 864 x 185 mm (53.7" x 34.0" x 7.3")	1192 x 773 x 171 mm (47.0" x 30.5" x 6.8")	1070 x 696 x 159 mm (42.2" x 27.4" x 6.3")
Bezel Width	12.6 mm [0.5"] (L/R/T), 14.5 mm [0.6"] (B)	11.9 mm [0.5"] (L/R/T), 14.7 mm [0.6"] (B)	11.9 mm [0.5"] (L/R/T), 14.9 mm [0.6"] (B)
Weight	Approx. 16.0 kg [35.3 lbs.]		Approx. 8.7 kg [19.2 lbs.]
Gross Weight	Approx. 24.0 kg [53.0 lbs.]		Approx. 14.0 kg [30.9 lbs.]
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm [15.8" x 15.8"]		VESA Compliant 200 x 200 mm [7.9" x 7.9"]
Built-in Speaker	20 W [10W + 10 W] (10% THD)		20 W [10W + 10 W] (10% THD)
External Speaker	—		—
Orientation	Landscape/Portrait		Landscape/Portrait
Tilting Angle	0-20 degrees forward with landscape setting*2		0-20 degrees forward with landscape setting*2
Operating Environment	Temperature: 0 °C to 40 °C [32 °F to 104 °F]*3 / Humidity: 20 % to 80 % [Non Condensation]*4		Temperature: 0 °C to 40 °C [32 °F to 104 °F]*3 / Humidity: 20 % to 80 % [Non Condensation]*4
Storage Environment	Temperature: -20 °C to 60 °C [-4 °F to 140 °F]*3 / Humidity: 20 % to 80 % [Non Condensation]*4		Temperature: -20 °C to 60 °C [-4 °F to 140 °F]*3 / Humidity: 20 % to 80 % [Non Condensation]*4
Operating Time*5	16 h/day		16 h/day
OPTIONS			
Pedestal	TY-ST43PE8	TY-ST43PE8	TY-ST43PE8
Early Warning Software*6	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series

*1: Due to the terminal block construction, some connection cables and USB memory devices cannot be used. Be sure to check the "CONNECTION TERMINAL" information in the product specification sheet.
 For more information about product specifications, please visit: <http://panasonic.net/prodisplays/download/specsheets02.html>
 *2: Please contact your sales representative with regard to the tilt angle before installation.
 *3: Environmental temperature to use this unit at high altitudes (1400 m (4593 ft) and higher and below 2800 m (9186 ft) above sea level). 0 °C to 35 °C (32 °F to 95 °F).
 *4: Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. • This unevenness will disappear while applying current continuously. If not, consult the distributor
 *5: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.
 *6: Suffix of the part number may differ depending on the license type.

Easy Display of Images Optimized for the Display Content

LF80 SF2 LF8

Conventional display panels are preset with display modes such as Standard and Dynamic. The LF80/SF2/LF8 Series comes with an extensive display menu to let you select the most suitable mode for the content to be displayed and the viewing environment. You can select the best mode for the video source and the place of display.



*Although the term "DICOM" is used, this product is not medical equipment. Do not use displayed images for medical purposes such as examination or diagnosis.

Durability Operation

LF80 SF2

Built for Continuous 24/7 Operation
Use of quality electronic components guarantees dependable 24-hour operation seven days a week, even in portrait orientation.

Fanless Design
Standard models robust fanless design prevents problems caused by the intake of dusty air. The displays can be safely installed and operated in high-traffic environments.

Failover and Failback Safeguards for Mission Critical Situations

LF80 SF2

The LF80/8 Series is equipped with a variety of signal input terminals. If the main video and audio signals are interrupted, the system immediately switches to alternative signals. This makes it ideal for mission critical control rooms and surveillance centers. If the main signals are restored, the original image is displayed.

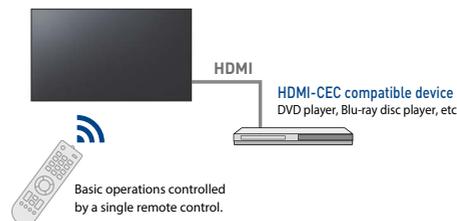


* The usable combinations of main and backup signals are limited. For details, see the LF80/8 product website.

HDMI CEC Device Linking Supported

SF2

HDMI-CEC compatible devices can be connected to the display by an HDMI cable, enabling the basic operations (such as power ON/OFF) of the compatible devices to be controlled by the display's remote control. Power ON/OFF of the display can also be switched using only the remote control (or main unit buttons) of the HDMI-CEC compatible devices.



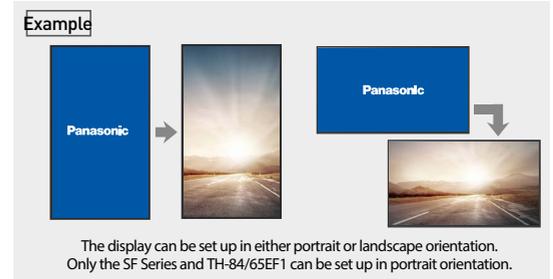
* The control of all devices cannot be guaranteed.

Customizable Original Screen

SF2 84/75/65EF1

An original image created by your company or other desired picture can be displayed when the unit is turned on and when there is no input signal. The image data for the original screen can be transferred and stored in the display unit via a USB memory. This function allows a company logo mark, brand image, etc., to be displayed when there is no input signal.

• Certain limitations apply to the format for original screen.
• Compatible with 1920 x 1080 resolution only.

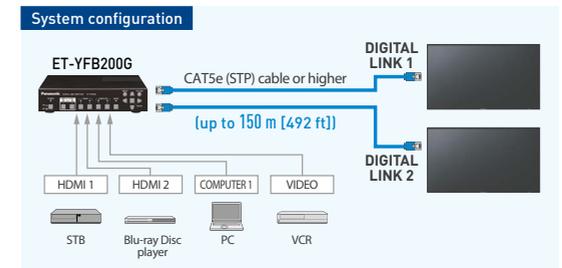


DIGITAL LINK Function Enables Simple Installation and Low System Costs

LF80 SF2

Using DIGITAL LINK makes it possible to transmit video, audio and control signals over a long distance (up to 150 m [492 ft]) with a single LAN cable*. Easy cabling also reduces labor during setup. This provides transmission of high-quality images and sounds, as well as remote control.

*1 When connected with the [Long reach] mode, the maximum transmission distance is 150 m (492 ft). In this case, the unit can receive the signals of up to 1080/60p. A CAT5e (STP) cable or higher is required.
*2 TH-65SF2E, SF2W model only.

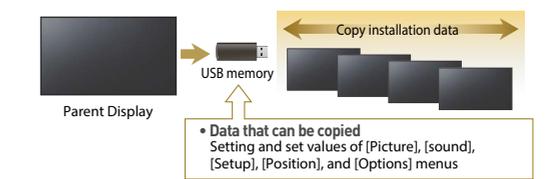


Cloning Function Speeds Up Multiple Display Setup

LF80 SF2 EF1 LFE8

When installing multiple displays, the Cloning function lets you use a USB memory (or LAN network) to copy the settings of a parent display to other units, thus greatly shortening the setup time.

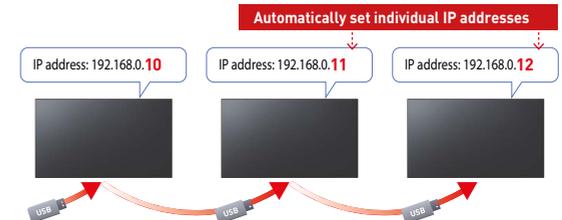
• [Date & Time], [Network Settings], [LAN Settings] and Display ID cannot be copied.
• The Cloning function works only for displays with the same screen size.
• Only the SF2 Series can be copied using a LAN network.



USB Memory Network Settings

SF2

Using a USB memory device, the network setting can be made for multiple displays. Individual IP addresses for each unit are automatically set.



Simple Signage Operation with No STB

LF80 SF2 EF1 LFE8

The display can automatically start showing pictures when a USB memory containing data is inserted. The display unit can be used as digital signage without a set-top box or PC. And the content can be displayed smoothly without including the black screen display. What's more, the order of content playback and playback time can be programmed. Content can also be rewritten and multiple displays can be operated via LAN.*

- If it is difficult to insert a USB memory due to installation conditions, use a commercially available extension cable.
- Some files cannot be played back even if they are in the supported format. Regarding restrictions, see the operation manual.
- * Multi Monitoring & Control Software (free) is required.

Applicable format

Still Image	JPG, JPEG, JPE, BMP*
Motion Image	AVI, MKV, ASF, WMV, TS, MTS, MP4, 3GP, MOV, FLV, F4V

* BMP is supported only by the 65/75/84FE1, SF2 Series.

Playback by one unit



Simultaneous playback by multiple units



One of up to four display units becomes the parent unit, and the other units display images in sync with the parent unit. This enables the display of images in perfect sync when the panels are arranged next to each other.

Multi Monitoring & Control Software (free) Lets You Control Devices in Groups

LF80 SF2 EF1 LFE8

This free Panasonic software enables you to monitor and control up to 2048 devices over a LAN network from a single PC. It facilitates the control of multiple devices used in a facility or store. Content can also be rewritten and multiple displays can be operated via LAN.

* Downloadable from the following URL

<https://panasonic.net/cns/prodisplays/download/software/>

INTRANET
Monitoring Station
PC with Multi Monitoring & Control Software

Make Your Signage Easy with Panasonic Application

SF2

The SF2 Series features a USB Media Player function that allows easy signage playback. Content Management Software is an application software for scheduling digital signage playback on a computer. It also allows power ON/OFF to be set.

For more information about Content Management Software Version 3.0, please visit:
<https://panasonic.net/cns/prodisplays/download/software/>

Play Content Automatically with Scheduling Function

Content Management Software for PC Version 3.0 (free) enables easy playlist creation with media support including combinations of still and video images. You can set up schedules for playing and closing your media playlist at predetermined dates and times.



Convenient Playlist and Schedule Syncing

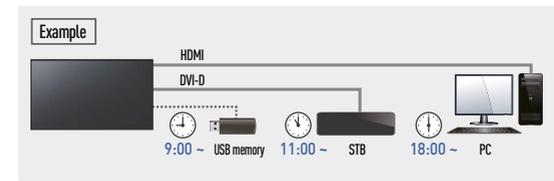
Playlists and schedules created with Content Management Software can be transferred to displays with USB memory, microSD Card, or via LAN. Synchronized playback on multiple displays is also supported.



Timer-Programmable Switching of Device Connection

SF2 84/75/65EF1

The timer function of the display unit can be used to change connected signal source devices at a desired time. This allows an easy change of displayed content according to the application or the progress of an event.



Play USB Content Instantly

SF2

Playing Full HD video, still images, and digital documents from USB storage devices couldn't be easier. Just insert a thumb drive into the USB port and start presenting without needing to connect a PC. The Memory Viewer app enables image* (JPEG, BMP) and video* (WMV, AVI, MOV, MP4, MPG) selection from handy thumbnail previews.

* In some cases, files may not be viewable even if they are encoded in a supported format.

Applicable format

Still Image	JPG, JPEG, JPE, BMP
Motion Image	AVI, MKV, ASF, MOV, GS, MGS, MP4, 3GP, MOV, FLV, F4V



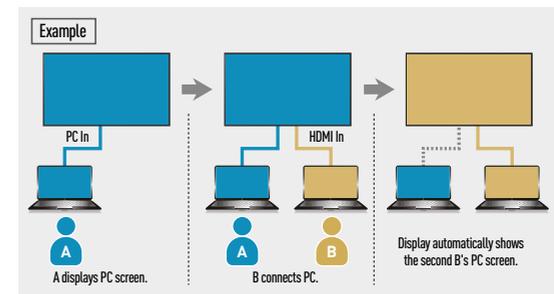
Smooth Switching of Presenters

SF2 84/75/65EF1

The SF2 Series, TH-84/75/65EF1 automatically switches source signals when the input signal for the current content stops or when an input signal other than the signal of the current content is received. When presenters change during a meeting, the displayed image can be switched easily by simply changing the cable connection, thus eliminating the need to operate the remote control.

* Only analog (PC input)/digital (HDMI input or DVI-D input) signal switchover is supported.

* The 2 switching inputs must be set in advance.



Choose the Installation to Match Your Application

LF80 SF2 LF8

The LF80/SF2/LF8 series is designed for use in either portrait or horizontal orientation with no effect on panel color and lifespan, further reducing TCO. A tilt installation up to 45 degrees forward or backward is also possible. The angle can be adjusted for easy viewing when installed in a high location.

* Angle adjustment is not possible for forward/backward tilting installation. Be sure that the Power Indicator comes to the downside.

* The SF2 Series does not support angle adjustment for portrait installation.



VF/LFV Series



Model no.	TH-55VF1H	TH-55LFV70
DISPLAY PANEL		
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387mm)/16:9	55-inch (1387mm)/16:9
Panel Type	IPS Panel/D-LED	IPS Panel/D-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.7")	1209 x 680 mm (47.6" x 26.7")
Resolution (H x V)	1920 x 1080	1920 x 1080
Brightness (Typ)	700 cd/m ²	700 cd/m ²
Contrast Ratio	1200:1	1200:1
Dynamic Contrast Ratio	500000:1	500000:1
Response Time	8.0 ms (G to G)	12 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 44%)	Anti-Glare (Haze 44%)
TERMINAL		
VIDEO In	BNC x 1 (Shared with Component In)	BNC x 1 (Shared with Component In)
Audio In (L/R)	Pin Jack x 1 set (Shared with Component In)	Pin Jack x 1 set (Shared with Component In)
HDMI In	HDMI Type A Connector x 1	HDMI Type A Connector x 1
Component/RGB In	BNC x 1 set (Shared with VIDEO In)	BNC x 1 set (Shared with VIDEO In)
Audio In (L/R)	Pin Jack x 1 set (Shared with VIDEO In)	Pin Jack x 1 set (Shared with VIDEO In)
DVI-D In	DVI-D 24-pin x 2 (Female)	DVI-D 24-pin x 2 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)	Stereo Mini Jack (M3) x 1 (Shared with PC In)
DisplayPort In	DisplayPort x 1 (DP1.1 Dual Mode only)	DisplayPort x 1 (DP1.1 Dual Mode only)
DVI-D Out	—	—
DVI-H Out	—	—
PC In	Mini D-sub 15-pin x 1 (Female)	Mini D-sub 15-pin x 1 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
DIGITAL LINK In/DIGITAL LINK Out	RJ45 x 1/RJ45 x 1	RJ45 x 1/RJ45 x 1
USB	USB Type A Connector (DC 5 V/0.5 A) x 1 (USB 3.0 is not supported.)	USB Type A Connector (DC 5 V/0.5 A) x 1 (Memory Viewer Only, USB 3.0 is not supported.)
Audio Out (L/R)	Stereo Mini Jack (M3) x 1 set	Pin Jack x 1 set
Serial In/Out	D-sub 9-pin x 1 (Male)/D-sub 9-pin x 1 (Male), RS-232C Compatible	D-sub 9-pin x 1 (Male)/D-sub 9-pin x 1 (Male), RS-232C Compatible
IR In/Out	Stereo Mini-Jack (M3) x 1 / Stereo Mini-Jack (M3) x 1	Stereo Mini-Jack (M3) x 1 / Stereo Mini-Jack (M3) x 1
LAN In/Out	RJ45 x 1/x 1 (100BASE-TX, Compatible with PLink™) (Shared with DIGITAL LINK)	RJ45 x 1/x 1 (100BASE-TX, Compatible with PLink™) (Shared with DIGITAL LINK)
GENERAL		
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	300 W	330 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1211.4 x 682.2 x 99 mm (47.7" x 26.9" x 3.9")	1213.4 x 684.2 x 95 mm (47.8" x 26.9" x 3.7")
Carton Size (W x H x D)	1544 X 973 X 301 mm (60.8" X 38.3" X 11.9")	1551 X 961 X 450 mm (61.1" X 37.8" X 17.7")
Bezel Width	0.9 mm (0.036") (T/R/L/B)	L/T: 2.25 mm (0.088"), R / B: 1.25 mm (0.049")
Bezel to Bezel*1	1.8 mm (0.07") (Multi Screen)	3.5 mm (0.14") (Multi Screen)
Weight	Approx. 25.0 kg (55.1 lbs.)	Approx. 30.0 kg (66.1 lbs.)
Gross Weight	Approx. 34.0 kg (75.0 lbs.)	Approx. 46.0 kg (101.4 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")
External Speaker	8 Ω, 20 W [10 W + 10 W] (10% THD)	8 Ω, 20 W [10 W + 10 W] (10% THD)
Orientation*2	Landscape/Portrait	Landscape/Portrait
Tilting Angle*2	Vertical Only	Vertical Only
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*3 / 0 °C to 35 °C (32 °F to 95 °F)*5 / Humidity: 10 % to 90 % (Non-Condensation)	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*3 / Humidity: 10 % to 90 % (Non Condensation)
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 10 % to 90 % (Non Condensation)	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 10 % to 90 % (Non Condensation)
Operating Time*6	24 h/day	24 h/day
OPTIONS		
Remote Control Kit	—	—
Cover Frame Kit	TY-CF55VW1	TY-CF55VW50
Installation Mount	TY-VK55LV1	TY-VK55LV1
Early Warning Software*7	ET-SWA100 Series	ET-SWA100 Series
Auto Display Adjustment Upgrade Kit*8	TY-VUK10	TY-VUK10
Multi Window Processor*9	ET-MWP100G	ET-MWP100G

*1: Bezel-to-bezel distance means the combined top and bottom (or left and right) bezel width of adjacent displays in multi-screen configuration. The gap between displays is not included. Note that a gap of 0.5 mm or more is required when installing multiple displays.

*2: Please contact your sales representative with regard to the tilt angle before installation.

*3: For up to 2000 m (6562 ft) altitude. *4: For up to 1400 m (4593 ft) altitude. *5: For between 1400 m (4593 ft) and 2800 m (9186 ft) altitude.

*6: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

*7: Suffix of the part number may differ depending on the license type.

*8: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplays/pass/>) *9: The availability varies depending on the country.



Model no.	TH-55LFV8	TH-49LFV8	TH-55LFV6
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	49-inch (1237 mm)/16:9	55-inch (1387 mm)/16:9
Panel Type	IPS Panel/D-LED	IPS Panel/D-LED	IPS Panel/D-LED
Effective Display Area (W x H)	1209.6 x 680.4 mm (47.6" x 26.8")	1077.7 x 607.9 mm (42.5" x 24.0")	1209 x 680 mm (47.6" x 26.7")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	500 cd/m ²	450 cd/m ²	500 cd/m ²
Contrast Ratio	1400:1	1300:1	1400:1
Dynamic Contrast Ratio	500000:1	500000:1	500000:1
Response Time	12 ms (G to G)	8.0 ms (G to G)	12 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare Low-Reflection (Haze 3 %)	Anti-Glare (Haze 10 %)
TERMINAL			
VIDEO In	BNC x 1 (Shared with Component In)		—
Audio In (L/R)	Stereo Mini-Jack (M3) x 1 (Shared with Component/RGB In)		Stereo Mini Jack (M3) x 1 (Shared with Component/RGB In)
HDMI In	HDMI Type A Connector x 2		—
Component/RGB In	BNC x 1 (Shared with VIDEO In)		—
Audio In (L/R)	Stereo Mini-Jack (M3) x 1 (Shared with VIDEO In)		—
DVI-D In	DVI-D 24-pin x 1 (Female)		—
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		—
DisplayPort In/Out	DisplayPort x1 (Dp1.1a/DP1.2) / DisplayPort x 1 (Dp1.1a/DP1.2)		—
DVI-D Out	—		DVI-D 24-pin x 1 (Female)
DVI-I Out	DVI-I 29-pin x 1 (Female)		—
PC In	Mini D-Sub 15-pin x 1 (Female)		—
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		—
DIGITAL LINK In/DIGITAL LINK Out	—/—		—
USB	USB Type A Connector (DC 5 V/500 mA) x 1 (USB 3.0 is not supported.)		USB Type A Connector (DC 5 V/1 A) x 1 (USB 3.0 is not supported.)
Audio Out (L/R)	Stereo Mini-Jack (M3) x 1		—
Serial In/Out	2.5 mm stereo mini jack x 1 / 2.5 mm stereo mini jack x 1, RS-232C Compatible		D-Sub 9-pin x 1 (Male) / x 1, RS-232C Compatible
IR In/Out	Stereo Mini-Jack (M3) x 1 / Stereo Mini-Jack (M3) x 1		—
LAN In/Out	RJ45 x 1 (10BASE-T/100BASE-TX, Compatible with PLink™)/—		RJ45 x 1 (10BASE-T/100BASE-TX, Compatible with PLink™)/—
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	320 W	220 W	210 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1213.4 x 684.2 x 95 mm (47.8" x 26.9" x 3.7")	1077.7 x 607.9 x 103.9 mm (42.5" x 24.0" x 4.1")	1213.4 x 684.2 x 95 mm (47.8" x 27.0" x 3.7")
Carton Size (W x H x D)	1544 x 973 x 301 mm (60.8" x 38.3" x 11.9")	TBD	1544 x 973 x 301 mm (60.8" x 38.3" x 11.9")
Bezel Width	L/T: 2.25 mm (0.088"), R / B: 1.25 mm (0.049")	L/T: 2.25 mm (0.088"), R / B: 1.25 mm (0.049")	L/T: 2.25 mm (0.089"), R / B: 1.25 mm (0.050")
Bezel to Bezel*1	3.5 mm (0.14") (Multi Screen)	3.5 mm (0.14") (Multi Screen)	3.5 mm (0.14") (Multi Screen)
Weight	Approx. 30.0 kg (66.1 lbs.)	Approx. 22.0 kg (48.5 lbs.) TBD	Approx. 30.0 kg (66.1 lbs.)
Gross Weight	Approx. 40.0 kg (88.2 lbs.)	TBD	Approx. 40.0 kg (88.2 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400 x 400 mm (15.8" x 15.8")
External Speaker	8 Ω, 20 W [10 W + 10 W] (10% THD)	8 Ω, 20 W [10 W + 10 W] (10% THD)	8 Ω, 20 W [10 W + 10 W] (10% THD)
Orientation*2	Landscape/Portrait	Landscape/Portrait	Landscape/Portrait
Tilting Angle*2	Vertical Only	Vertical Only	Vertical Only
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)** / Humidity: 20 % to 80 % (Non-Condensation)		Temperature: 0 °C to 40 °C (32 °F to 104 °F)** / 0 °C to 35 °C (32 °F to 95 °F)** / Humidity: 10 % to 90 % (Non-Condensation)
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 5 % to 95 % (Non Condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 10 % to 90 % (Non Condensation)
Operating Time*5	24 h/day	24 h/day	24 h/day
OPTIONS			
Remote Control Kit	—	—	—
Cover Frame Kit	TY-CF55VW1	—	TY-CF55VW50
Installation Mount	TY-VK55LV1	TY-VK49LV2	TY-VK55LV2
Early Warning Software*6	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series
Auto Display Adjustment Upgrade Kit*7	TY-VUK10 (up to ver1.7)	TY-VUK10 (up to ver1.7)	TY-VUK10
Multi Window Processor*8	ET-MWP100G	ET-MWP100G	ET-MWP100G

*1: Bezel-to-bezel distance means the combined top and bottom (or left and right) bezel width of adjacent displays in multi-screen configuration. The gap between displays is not included. Note that a gap of 0.5 mm or more is required when installing multiple displays.

*2: Please contact your sales representative with regard to the tilt angle before installation.

*3: For up to 2000 m (6562 ft) altitude. *4: For up to 2800 m (9286 ft).

*5: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

*6: Suffix of the part number may differ depending on the license type.

*7: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplays/pass/>)

*8: The availability varies depending on the country.

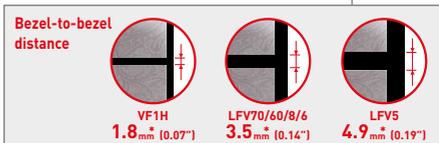
Narrow Bezel for Seamless Video Walls

VF1H Lfv70 Lfv6 Lfv8

Narrow frames on Panasonic's LCD Video Wall Series reduce bezel-to-bezel distance to a near-invisible 1.8 mm*. Even when viewed close-up, screen borders are almost indiscernible, resulting in truly spectacular large-format images.



* TH-55VF1H features 1.8 mm (0.07"), TH-55LFV70/6/8/6 3.5 mm (0.14"), and TH-47LFV5 4.9 mm (0.19") bezel-to-bezel distance. Bezel-to-bezel distance refers to the combined top and bottom (or left and right) bezel-width of adjacent displays in video-wall configuration. The gap between displays is not included. Note that a gap of 0.5 mm or more is required when installing multiple displays.



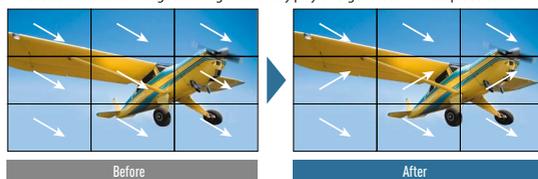
Improved Multi-Screen Video Visibility

VF1H Lfv6

When high-speed video is played on multiple screens in a video wall, some image misalignment can occur between vertically adjacent panels. VF1H and Lfv6 Series feature a Reverse Scan Function that alternates the scanning direction of vertically adjacent displays to improve image alignment. Frame Control Function, meanwhile, adjusts the number of video frames displayed to reproduce images with natural fluidity.

Reverse Scan Function

Reverses direction of image scanning to smoothly play enlarged video on multiple screens



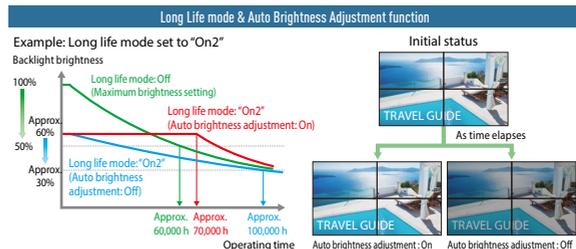
Note: Images are simulated.

Delivers Stable Brightness for Up to 8 Years*

VF1H

The VF1H Series incorporates Long Life mode and a new Auto Brightness Adjustment function. In Long Life mode, backlight brightness is optimized to extend product life. Auto Brightness Adjustment function corrects light output automatically according to the rate of backlight deterioration to maintain constant brightness for longer.

* Figure is approximate when operating continuously for 24 hours x 365 days.



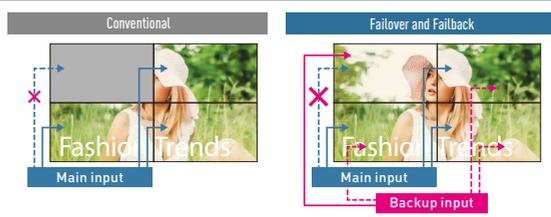
Note: Assuming operating conditions of 25 °C (± 2 °C). Environmental conditions and conditions of usage may affect brightness longevity and operating period. "On2" delivers approximately 60 % maximum specified backlight brightness. Auto brightness adjustment cannot be turned on if panel illumination period has exceeded 1,000 hours. Note: Images and graphs are simulated.

Failover and Failback Safeguards Maintain Image Display

VF1H Lfv70 Lfv6

Digital signal inputs comprise one or two DVI-D terminals together with HDMI, DisplayPort, DIGITAL LINK*, and USB terminals. If primary audio-video signals are interrupted, the display immediately switches to an alternative input. This makes the Panasonic LCD Video Wall Series (except Lfv8) well suited for use in control rooms and in other applications where uninterrupted playback is essential.

* DIGITAL LINK available on VF1H and Lfv70 only. Display Port available on Lfv70 only.



If AV signals via the primary input is interrupted, images are no longer displayed.

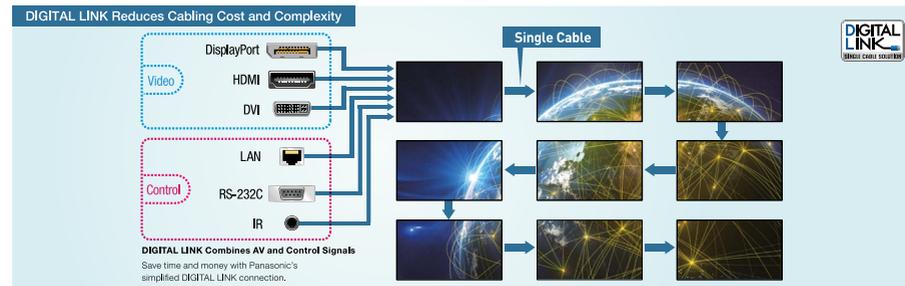
If the primary AV signal is interrupted, the system automatically switches to a backup input so video display is maintained.

Note: Possible combinations of main/backup input signals are limited. For details, please visit the Panasonic website.

DIGITAL LINK Simplifies Installation at Lower Cost

VF1H Lfv70

Based on HDBaseT™ technology, the DIGITAL LINK connection on VF1H and Lfv70 Series displays supports audio, video, and control signal transmission over long distances, and can also be used to daisy-chain multiple displays via a single cable. This eliminates the need for video splitters and other routing devices. The Lfv60/6/8/5 Series, meanwhile, supports daisy chain via DVI with separate video and control (serial or IR) connections. Note: CAT5e or higher STP cable required.



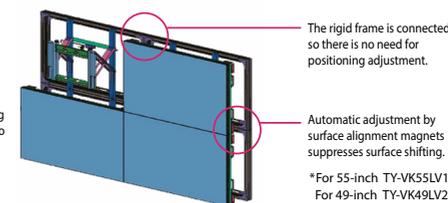
Installation Frame Simplifies Set-up

VF1H Lfv70 Lfv6 Lfv8

The optional Installation Mount makes it much easier to configure a video wall. There's no need for complicated display positioning, and fluctuations between installers are covered. It also saves time and cuts labor costs.

Video wall fluctuations occur when the bezels are not correctly aligned vertically and horizontally and the surfaces are not properly adjusted. Installation is quick and easy using the rigid frame, with easy adjustment using surface alignment magnets. This structure also makes the displays easier to remove when performing maintenance.

* Landscape setting only.



* For 55-inch TY-VK55LV1
* For 49-inch TY-VK49LV2
* For 47-inch TY-VK47LV1

Video Wall Manager Software and Auto Display Adjustment Upgrade Kit

VF1H Lfv70 Lfv6 Lfv8

Panasonic's free Video Wall Manager software can be used with LCD Video Wall Series displays. With this software, you can calibrate display color using a color sensor*1 (optional), adjust display settings, and control and manage data via PC. If you upgrade this software with an optional TY-VUK10 Auto Camera Adjustment Kit, you can adjust brightness and color among multiple displays automatically using a compatible camera (Nikon D5200/D5300/D5500)*2.

*1 Lfv8 series are not compatible with calibration using a color sensor.

*2 Available only with normal zoom lens: AF-S DX NIKKOR 18–55 mm f/3.5–5.6G VR, AF-S DX NIKKOR 18–140 mm f/3.5–5.6G ED VR, AF-S DX NIKKOR 18-55 mm f/3.5-5.6G VR II

With Lfv70 and TY-VUK10 connected



Auto Display Adjustment Upgrade Kit: <http://business.panasonic.co.uk/visual-system/ty-vuk10-features>

Other Features

- Optimized Image Modes* (VF1H/Lfv6 Series only)
- High-Performance Imaging Engine* (VF1H/Lfv6 Series only)

➔ * More information, please see page 24.

LFX Series



Model no.	TH-47LFX60	TH-47LFX6N
DISPLAY PANEL		
Screen Size (Diagonal)/Aspect Ratio	47-inch (1192 mm)/16:9	47-inch (1192 mm)/16:9
Panel Type	IPS Panel/D-LED	IPS Panel/D-LED
Effective Display Area (W x H)	1039 x 584 mm (40.9" x 23.0")	1039 x 584 mm (40.9" x 23.0")
Resolution (H x V)	1920 x 1080	1920 x 1080
Brightness (Typ)	2000 cd/m ²	1200 cd/m ²
Contrast Ratio	1300:1	1300:1
Dynamic Contrast Ratio	500000:1	500000:1
Response Time	10 ms (G to G)	10 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178°	178°/178°
Panel Surface Treatment	N/A	N/A
TERMINAL		
VIDEO In	—	—
Audio In (L/R)	—	—
HDMI In	HDMI Type A Connector x 1	
Component/RGB In	—	—
Audio In (L/R)	—	—
DVI-D In	DVI-D 24-pin x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)	
PC In	Mini D-Sub 15-pin x1 (Female)	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)	
Audio Out (L/R)	Pin Jack x 1 set	
DIGITAL LINK	RJ45 x 1 (Shared with LAN)	
Serial In	D-Sub 9-pin x 1, RS-232C Compatible	
LAN	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)	
GENERAL		
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	370 W	270 W
Power Off Condition	Approx. 0.3 W	Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W	Approx. 0.5 W
Outdoor Mode On	Approx. 41 W	Approx. 41 W
Network Stand-by Mode	Approx. 16 W	Approx. 16 W
Dimensions (W x H x D)	1162 x 706 x 216 mm (45.8" x 27.8" x 8.5")	1162 x 706 x 216 mm (45.8" x 27.8" x 8.5")
Carton Size (W x H x D)	1308 x 851 x 323 mm (51.5" x 33.5" x 12.7")	1308 x 851 x 323 mm (51.5" x 33.5" x 12.7")
Weight	Approx. 47.0 kg (103.0 lbs.)	Approx. 47.0 kg (103.0 lbs.)
Gross Weight	Approx. 55.0 kg (121.0 lbs.)	Approx. 55.0 kg (121.0 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	
Built-in Speakers	—	
Direct Sunlight Capability	Yes (Built-in Air Cooling System)	
Dust and Water Resistant Level	IP55 Equivalent	
Orientation	Landscape/Portrait	
Tilting Angle	0-20 degrees forward with landscape and portrait setting / 0-20 degrees backward with portrait setting*1	
Operating Environment*2	Temperature: -20 °C*3 to 50 °C (-4 °F*3 to 122 °F) / Humidity: 20 % to 80 % (Non Condensation)	
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)	
Operating Time*4	24 h/day	
OPTIONS		
Replacement Air Filter	TY-AF60STD	TY-AF60STD
Digital Interface Box	ET-YFB100G	ET-YFB100G
DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G
Early Warning Software*5	ET-SWA100 Series	ET-SWA100 Series

*1: Please contact your sales representative with regard to the tilt angle before installation. *2: Don't use in places where the presence of corrosive gases or salt damage area. *3: When used in Outdoor mode. *4: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images. *5: Suffix of the part number may differ depending on the license type.

Dust and Water Resistance Performance – Ideal for Outdoor Installation

IP level dust and water resistant performance provides tough durability in harsh conditions.

* What is IP?: This denotes the degree of dust and water resistance. IP is an abbreviation of the international standard Ingress Protection. (IEC60529)

Dust Resistance		Water Resistance	
Level of protection from dust particles		Level of water resistance	
Level	Degree of Protection	Level	Degree of Protection
5	Protected against dust limited ingress (no harmful deposit)	5	Protected against water jet.

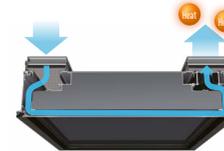
High-Brightness 2000-cd/m² Model with Wide-Viewing-Angle IPS Panel and LED Backlight

Images are clear even in brightly lit places. Full 2000 cd/m²* brightness maintains excellent visibility under direct sunlight. This makes the LFX ideal for installation in drive-through lanes. And because the brightness isn't affected by external light, information such as menu items and prices remain clear and easy to read.

* TH-47LFX60 only.

Forced Air-Cooling System Helps to Prevent Blackouts and Dew Condensation

Outside air is brought into the cabinet to produce an airflow between the front glass and the LCD panel. This suppresses internal temperature rises and prevents blackouts when the display is installed outdoors. It also serves as a countermeasure against condensation.



Direct sunlight raises the LCD panel temperature and causes blackouts.

The LFX operates stably even outdoors under direct sunlight.

Highly Durable Display Resists Temperature Changes and the Summer Sun

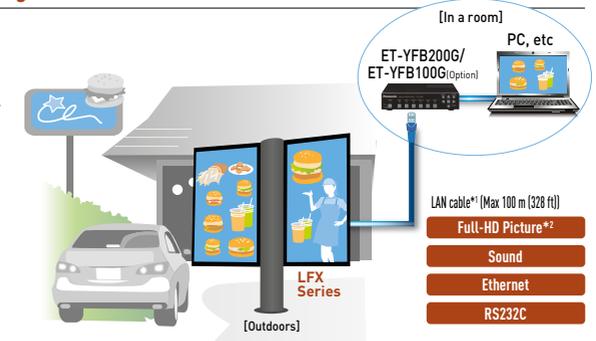
Featuring an operating temperature range of -20°C*1 to 50°C (-4 °F*1 to 122 °F), performance remains unchanged even in cold and hot climates.

*1: When used in Outdoor mode.

DIGITAL LINK for Transmission of Video, Audio and Control Signals for up to 100m (328 ft) with a Single LAN Cable

Only a single LAN cable*1 is required to transmit uncompressed HD video, audio and control signals for a distance of up to 100m (328 ft). This enables indoor installation of the PC and other devices connected to the display at an outdoor location in order to protect the PC and devices from rain and dust. Since only one cable needs to be connected between the PC and panel, cable routing work is quick and easy. Because a control signal can also be sent simultaneously, it is easy to upgrade the system by combining it with the optional DIGITAL LINK Switcher (ET-YFB200G)/Digital Interface Box (ET-YFB100G).

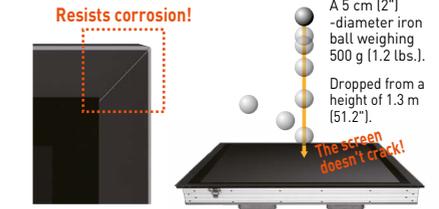
*1: Use an STP cable of Cat5e or higher. *2: WUXGA (1920 x 1200 pixels) compatible.



Outdoor

Aluminum Cabinet and Tempered Glass

The aluminum cabinet strongly resists corrosion. In addition, tempered glass ensures rugged strength against impacts.



High Reliability Enables Continuous 24-Hour Operation

The use of a highly durable panel and electronic components allows continuous 24-hour operation, ideal for installation in 24/7 stores, drive-thrus, public places, etc.

Supporting Stable Operation — Early Warning Software (ET-SWA100)

Early Warning Software monitors the status of display connected to an intranet and informs you when an abnormality is detected or predicted, and when there are symptoms of trouble. The minimizes display downtime to support more stable operation.

BF1 Series



Model no.	TH-80BF1	TH-65BF1
DISPLAY PANEL		
Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/16:9	65-inch (1638 mm)/16:9
Panel Type	VA Panel/E-LED	VA Panel/E-LED
Effective Display Area (W x H)	1771 x 996 mm (69.7" x 39.2")	1428 x 803 mm (56.2" x 31.6")
Resolution (H x V)	1920 x 1080	1920 x 1080
Brightness (Typ)	350 cd/m ²	350 cd/m ²
Contrast Ratio/Dynamic Contrast Ratio	5000:1/50000:1	4000:1/50000:1
Response Time	4 ms (G to G)	6.5 ms (G to G)
Viewing Angle (Horizontal/Vertical)	176°/176° (CR≥10)	178°/178° (CR≥10)
TOUCH PANEL		
Detection Method	Infrared Blocking Detection Method	Infrared Blocking Detection Method
Touch Operation	Up to 12-point multi-touch*1	Up to 12-point multi-touch*1
TERMINAL		
VIDEO In	BNC x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Component/RGB In)	
HDMI In	HDMI Type A Connector x 2	
Component/RGB In	BNC x 1 set	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with VIDEO In)	
DVI-D In	DVI-D 24-pin (Digital) x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)	
PC In	Mini D-Sub 15-pin x1 (Female), Plug & Play (VESA DDC 2B)	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)	
PC Out	Mini D-Sub 15-pin x1	
USB A	TYPE A USB Connector x 1 (For Memory Viewer)	
USB B	TYPE B USB Connector x 1 (For Touch Panel)	
Serial In	D-Sub 9-pin x 1 for external control, RS-232C Compatible	
DIGITAL LINK	RJ45 x 1 (Shared with LAN)	
LAN	RJ45 x 1, 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)	
Function Slot	SLOT2.0 x 1 (Vacant)	
GENERAL		
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	350 W	215 W
Power Off Condition/Stand-by Condition	Approx. 0.3 W/Approx. 0.5 W	Approx. 0.3 W/Approx. 0.5 W
Dimensions (W x H x D)	1868 x 1093 x 104 mm (73.6" x 43.1" x 4.1")	1517 x 892 x 108 mm (59.8" x 35.2" x 4.3")
Carton Size (W x H x D)	2075 x 1319 x 404 mm (81.7" x 52.0" x 16.0")	1720 x 1027 x 286 mm (67.8" x 40.5" x 11.3")
Weight	Approx. 81.0 kg (178.6 lbs.)	Approx. 58.0 kg (127.9 lbs.)
Gross Weight	Approx. 99.0 kg (219.0 lbs.)	Approx. 68.0 kg (150.0 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	684 x 300 mm (26.9" x 11.8")
Protective Glass Thickness	Approx. 3.3 mm (0.13")/Anti-glare (Haze 10%)	Approx. 2.9 mm (0.12")/Anti-glare (Haze 10%)
Built-in Speaker	20 W [10 W + 10 W] (10 % THD)	20 W [10 W + 10 W] (10 % THD)
External Speaker	8 Ω, 20 W [10 W + 10 W] (10 % THD)	8 Ω, 20 W [10 W + 10 W] (10 % THD)
Orientation	Landscape/Portrait (When installing the display on portrait setting, be sure to install with the power indicator at the top side of the display.)	
Tilting Angle	0-20 degrees with landscape setting	Up to 45 degrees backward in landscape orientation
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F) [for up to 1400 m (4593 ft) altitude] / 0 °C to 35 °C (32 °F to 95 °F) [for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude], Humidity: 20 % to 80 % (Non-condensation)	
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F), Humidity: 20 % to 80 % (Non-condensation)	
Operating Time*2	18 h/day	
Built-in wireless LAN function: Standard	2.4 GHz: IEEE802.11b/g/n, 5.0 GHz: IEEE802.11a/n	
Infrastructure Mode	WPA2-PSK (TKIP/AES), WPA-PSK (TKIP/AES), WEP (64-bit /128-bit), WPA-EAP/WPA2-EAP (PEAP [MS-CHAPv2/GTC] /EAP-FAST [MS-CHAPv2/GTC] /EAP-TTLS [MD5/MS-CHAPv2], 128-bit/64-bit)	
OPTIONS		
Pedestal	TY-ST65P20	TY-ST65P20
Mobile Stand	TY-ST80LF70	TY-ST65PB2
Wall-hanging Bracket	—	TY-WK65PR20 (Vertical)
Ceiling-hanging Bracket	—	—
Easy Wireless Stick*3	ET-UW100	ET-UW100
Digital Interface Box	ET-YFB100G	ET-YFB100G
DIGITAL LINK Switcher*4	ET-YFB200G	ET-YFB200G
Early Warning Software*5	ET-SWA100 Series	ET-SWA100 Series

1 When using the Whiteboard Software for Windows. Up to 4-point using the Built-in Whiteboard Software and Whiteboard Software for Mac.

*2 In case running for a long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

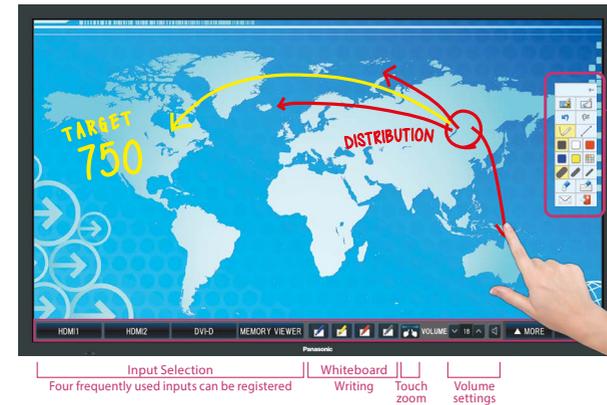
*3 This product can be purchased in the U.S., Canada, Japan, Australia, and New Zealand.

*4 Long Reach Mode on ET-YFB200G is not supported. *5 Part number suffix may differ depending on the license type.

Interactive Collaboration

On-screen Menu Bar Keeps You in Control

Don't lose the crowd—or your cool—in endless menus while you search for content or functions. With the BF1 Series, everything is to hand in a discreet menu bar at the bottom of the screen that offers instant access to source inputs, whiteboard tools, and other controls you use most frequently. Even when the pressure's on, you'll look like a pro.



Input Selection
Four frequently used inputs can be registered

Whiteboard
Writing

Touch zoom
Volume settings

Colors Everyone Can See

Color Universal Design (CUD) ensures that colors are reproduced clearly and accurately for the many millions of people living with color-vision defects. The CUD setting is ON/OFF-selectable (default setting is OFF) according to user preference, and the display's power LED indicator color is also CUD-compliant.

What is Color Universal Design (CUD)?

Due to genetics or other vision disorders, some people can perceive colors differently. Individuals can have difficulty distinguishing between certain color combinations. CUD ensures that color information is accurately expressed for the comfort and convenience of all.



Note: CUD logo denotes product certification by Color Universal Design Organization in Japan.

User-Friendly Menu Bar

Frequently used functions such as input selection, pen tool, enlargement tool, and volume control can be found in the menu bar. Access detailed information or hide it for uninterrupted full-screen display.



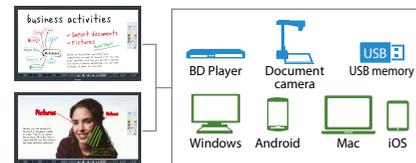
Quick-Start Whiteboard

Start working on the built-in whiteboard right away—just switch on the display. Intuitive operation makes life easy for kids and less tech-savvy presenters.

Write and Draw on Video and Still Images

You can write and draw on almost any media you like, including video and still images from external devices. These dynamic multi-media capabilities make it easy for teams to share information, contribute ideas, and solve problems.

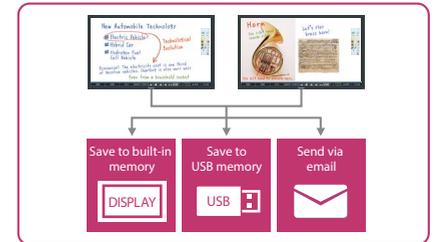
Note: Drawing on media transmitted via and Miracast input is not supported.



Easy to Save and Share

Produce up to 100 pages*1 of work on the whiteboard and save them to the built-in memory*2 or USB thumb drive as JPEG image files. You can also copy data stored on internal memory to a USB drive, or send your pages as image files directly from the screen via email*3. Keeping everyone in the loop is simple.

*1 With built-in memory setting to ON. When individual file data size is large, the number of pages that can be saved may decrease. *2 Built-in memory ON/OFF is included. When OFF is selected, only one whiteboard page can be created. *3 Can be sent as JPEG format only.



Whiteboard Software for PC Extends Your Capabilities

Whiteboard Software for PC offers deeper functionality for power users. As well as adding extra presentation tools and a PowerPoint® Link mode for easy import and modification of PowerPoint® files, the application's 12-point touch*1 interface lets a group of people write and draw simultaneously.

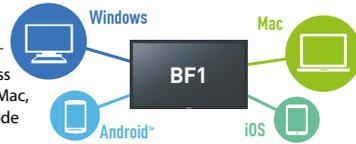
1 Up to 12-point for Windows, up to 4-point for Mac. Up to 4 points when using the Built-in Whiteboard Software.

More information about whiteboard software:
panasonic.com/cns/prodisplays/products/bf1/software.html

[BF1 Series]

Panasonic Wireless Solution

Panasonic's Wireless Display function supports secure high-bandwidth wireless transmission from compatible Windows* PCs. Proprietary apps for Windows*, Mac, iOS, and Android™ add a raft of easy-to-use functions, including Multi-Live Mode in split-screen.



Wireless Display with Wi-Fi-Certified Miracast*1

Share It On the Big Screen

Still images, video, and audio are all smoothly transmitted peer-to-peer from Windows* PCs and Android™ devices. Video content is supported at up to 1080p resolution, with high-bandwidth performance ensuring stutter-free video playback.



Selectable Display Modes

Display modes comprising Duplicate, Extend, and Second Screen allow your source device screen and the display to interact in different ways depending on your needs in the meeting space or classroom.

Duplicate Mode
Mirror your device's screen on the display



Extend Mode
Use the display as an extended PC screen



Second Screen Only
PC screen is shown only on the display



Prevents Improper Connection

A PIN code appears when a user attempts to connect to the display. Only those with access can transmit wirelessly, preventing improper or accidental use.



Smooth Video Playback

The Wireless Display feature is optimized to ensure smooth and uninterrupted playback of online streaming video sources, adding another layer of versatility and convenience.



Selectable Channels

Selectable 2.4 GHz and 5 GHz* channels for areas with Wi-Fi* congestion are included.



*America/Europe/CIS only.

*1 Drawing on media transmitted via Mirroring Input is not supported.

Panasonic Wireless Manager

- Fast and stable wireless connection
- Connect 4 or 16 PCs in Multi-Live Mode

Download free from our global website at <https://panasonic.net/cns/prodisplays>

Quick 3-Step Connection



Panasonic Wireless Apps

- Dedicated wireless apps for iOS and Android™
- Fewer steps to connect
- Wide media compatibility and functionality

Download free via App Store (iOS) or Google Play (Android™).

Easy Wireless Stick ET-UW100

- Self-contained Easy Wireless Stick plugs into PC's USB
- Provides internet access while operating wirelessly

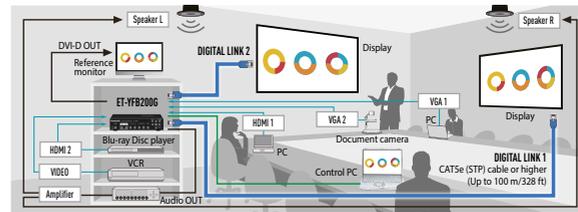
* This optional product can be purchased in the U.S., Canada, Japan, Australia, and New Zealand.



Simplified DIGITAL LINK Connection

DIGITAL LINK transmits uncompressed Full HD video, audio, and control commands through a single CAT 5e or higher STP cable for up to 100 m (328 ft). Connect all your source devices to an optional DIGITAL LINK Switcher (ET-YFB200G)/Digital Interface Box (ET-YFB100G) and use just one cable to link your display. This simplifies installation and saves on cabling costs.

Note: Long Reach Mode on ET-YFB200G is not supported.



For more information, please visit our DIGITAL LINK website: <http://business.panasonic.co.uk/visual-system/digital-link>

Other Features

- Expand and Customize with SLOT2.0
- PJ LINK™ Compliant
- Picture-in-Picture Capability
- Built-in Speaker
- Secondary Display
- Protective Glass and AG Screen Surface

BQE1/BFE1 Series

Interactive Collaboration

Touch-Screen Displays with Easy-to-Use Features for Classrooms & Conference Rooms

In addition to presenting educational materials, these displays can be used as whiteboards* to improve student understanding. Several students can write on them simultaneously, for active classroom participation.

*A computer installed with whiteboard software (available free of charge) is required.

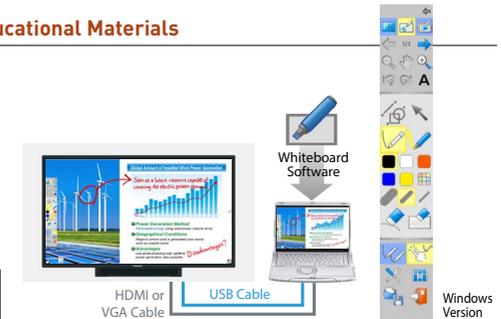


Whiteboard Software for Full Use of Educational Materials

This software can be used to display educational materials, and to make lessons easier to understand by jotting in notes.

- Presentation Functions* (Magnifying Glass, Pen/Marker)
- Electronic Pen, Finger-Touch Input
- Screen Capture/Recording Function*
- Simultaneous Operation of Up to 10 Points*
- Reading and Writing of JPEG and Other Image Data
- Writing and Saving of PowerPoint* Data*

* For the latest software please visit our global website: panasonic.net/cns/prodisplays/download/software/



Large, Easy-to-See Display Sizes for Classrooms and Conference Rooms

A large, 65-inch size that is easy to see in classrooms and conference rooms, and an even larger, 75-inch size are available. Select the one that matches the room size. Terminals for PC and HDMI input support highly detailed Full-HD images of lesson materials and other data. Even complicated drawings and small text are clear and legible as well.



High Visibility for Easy Info Sharing from a Distance

Easy-to-see confirmation of educational materials and data.

- Bright 400-cd/m² display of easy-to-see images.
- Anti-glare processing suppresses external reflections for high visibility.

Touch-Panel Provides Easy-to-Understand Information

Ideal for use as floor maps and signage to describe products in a showroom.

- Multi-touch input allows several people to write simultaneously.
- Easy-to-hear front speaker (included).
- Can be vertically installed. The speaker can also be mounted in the vertical configuration.
- Complies with VESA standards. Third-party mounting fixtures can be used.



BQE1/BFE1 Series



Model no.	TH-75BQE1	TH-65BFE1	TH-55LFE8-IR
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	75-inch (1892 mm)/16:9	65-inch (1638 mm)	55-inch (1387 mm)/16:9
Panel Type	VA Panel/E-LED	VA Panel/E-LED	IPS Panel/D-LED
Effective Display Area (W x H)	1650 x 928 mm (65.0" x 36.5") (TBD)	1428 x 803 mm (56.2" x 31.6")	1209 x 680 mm (47.6" x 26.8")
Resolution (H x V)	3840 x 2160	1920 x 1080	1920 x 1080
Brightness (Typ)	400 cd/m ²	400 cd/m ²	350 cd/m ²
Contrast Ratio	4000:1	4000:1	1200:1
Response Time	8 ms (G to G)	8 ms (G to G)	9 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥20)
TOUCH/IR			
Detection Method	Infrared Blocking Detection Method	Infrared Blocking Detection Method	Infrared Blocking Detection Method
Touch Operation	Up to 10-point multi-touch*1	Up to 10-point multi-touch*1	Up to 10-point multi-touch*1
TERMINAL			
VIDEO In	—	—	Mini Jack (M3) x 1
HDMI In	HDMI Type A Connector x 2	—	—
Component/RGB In	—	—	HDMI TYPE-A Connector x 2
DVI-D In	DVI-D 24-pin (Digital) x 1	—	—
PC In	Mini D-Sub 15-pin x1 (Female), Plug & Play (VESA DDC 2B)	—	—
Audio In (L/R)	Stereo Mini Jack (M3) x 1	—	DVI-D 24-pin x 1
Audio Out (L/R)	Stereo Mini Jack (M3) x 1	—	Stereo Mini Jack (M3) x 1 (Shared with PC In)
PC Out	Mini D-Sub 15-pin x 1	—	Mini D-sub 15-pin x 1
USB	TYPE A USB Connector x 1 (For Memory Viewer)	—	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
Serial In	D-Sub 9-pin x 1 for external control, RS-232C Compatible	—	—
DIGITAL LINK	—	—	TYPE A USB Connector 5V DC/1A (USB 3.0 is not supported.)
LAN	—	—	D-sub 9-pin x 1, RS-232C Compatible
Function Slot	—	—	—
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™
Power Consumption	370 W	205 W	—
Power Off Condition/Stand-by Condition	Approx. 0.5 W/Approx. 0.5 W	Approx. 0 W/Approx. 0.5 W	220-240 V AC, 50 Hz/60 Hz
Dimensions (W x H x D)	1710 x 1072 x 102 mm (67.3" x 42.2" x 4.0") (with speaker mounted)	1490 x 948 x 106 mm (58.7" x 37.4" x 4.2") (with speaker mounted)	175 W
Carton Size (W x H x D)	2010 x 1112 x 250 mm (79.2" x 43.8" x 9.9")	1640 x 1044 x 226 mm (64.6" x 41.2" x 8.9")	Approx. 0.3 W
Weight	Approx. 66.0 kg (145.5 lbs.)	Approx. 44.0 kg (97.0 lbs.) [Approx. 46.0 kg (101.4 lbs.) with speaker mounted]	Approx. 0.5 W
Gross Weight	Approx. 81.0 kg (178.6 lbs.)	Approx. 57.0 kg (125.7 lbs.)	1293 x 763 x 77 mm (50.9" x 30.0" x 3.0")
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm (15.8" x 15.8")	VESA Compliant 400x 400 mm (15.8" x 15.8")	1365 x 864 x 185 mm (53.7" x 34.0" x 7.3")
Protective Glass Thickness	Approx. 4 mm (0.16")	Approx. 4 mm (0.16")	Approx. 35.5 kg (78.3 lbs.)
Built-in Speaker	—	—	Approx. 44.0 kg (97.0 lbs.)
External Speaker	20 W [10 W + 10 W] (10% THD), W764 x H82 x D59 mm (W30.1" x H3.3" x D2.3")	16 W [8 W + 8 W], W764 x H82 x D59 mm (W30.1" x H3.3" x D2.3")	VESA Compliant 400 x 400 mm (15.8" x 15.8")
Orientation	Landscape/Portrait	Landscape/Portrait	Approx. 4 mm (0.16")
Tilting Angle	TBD	Up to 20 degrees backward in landscape orientation	20 W [10W + 10 W] (10% THD)
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F) [for up to 1400 m (4593 ft) altitude] / 0 °C to 35 °C (32 °F to 95 °F) [for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude], Humidity: 20 % to 80 % (Non-condensation)	—	—
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F), Humidity: 20 % to 80 % (Non-condensation)	—	—
Operating Time*2	16 h/day	—	—
OPTIONS			
Pedestal	TY-ST55PE9	TY-ST55PE9	TY-ST55PE9
Mobile Stand	—	—	ET-SWA100 Series
Wall-hanging Bracket	—	—	—
Ceiling-hanging Bracket	—	—	—
Easy Wireless Stick	—	—	—
Digital Interface Box	—	—	—
DIGITAL LINK Switcher	—	—	—
Early Warning Software	—	—	—

1: When using the Whiteboard Software for Windows. Up to 4-point using the Whiteboard Software for Mac.

*2: In case running for a long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images.

AF1-SST Series



Model no.	TH-55AF1-SST	TH-49AF1-SST	TH-42AF1-SST
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	49-inch (1232 mm)/16:9	42-inch (1064 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	927 x 521 mm (36.5" x 20.5")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	500 cd/m ²	500 cd/m ²	500 cd/m ²
Contrast Ratio	1300:1	1300:1	1300:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1
Response Time	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)
PLATFORM			
OS	Android 4.4.3		Android 4.4.3
CPU	Cortex-A9, 1.0 GHz (Quad)		Cortex-A9, 1.0 GHz (Quad)
Memory	RAM 1 GB / ROM 8 GB		RAM 1 GB / ROM 8 GB
TERMINAL			
Display			
VIDEO In	BNC x 1 (Shared with Component In)		BNC x 1 (Shared with Component In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Component In)		Stereo Mini Jack (M3) x 1 (Shared with Component In)
HDMI In	HDMI Type A Connector x 2		HDMI Type A Connector x 2
Component/RGB In	BNC x 1 set (Shared with VIDEO In)		BNC x 1 set (Shared with VIDEO In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Video In)		Stereo Mini Jack (M3) x 1 (Shared with Video In)
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)
DVI-D Out	DVI-D 24-pin x 1		DVI-D 24-pin x 1
PC In	Mini D-Sub 15-pin x1 (Female)		Mini D-Sub 15-pin x1 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
Audio Out (L/R)	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1
Serial In/Out	D-sub 9-pin x 1/x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible
USB	USB connector (TYPE A) x 1, DC 5 V/1 A (USB3.0 is not supported)		USB connector (TYPE A) x 1, DC 5 V/1 A (USB3.0 is not supported)
IR In/Out	Stereo Mini Jack (M3) x 1 / x 1		Stereo Mini Jack (M3) x 1 / x 1
OpenPort PLATFORM			
LAN	RJ45 x 1 for Network Connection, 10BASE-T/100BASE-TX/1000BASE-T, Compatible with PLink™		RJ45 x 1 for Network Connection, 10BASE-T/100BASE-TX/1000BASE-T, Compatible with PLink™
USB	USB2.0 connector (TYPE A) x 3, DC 5 V/500 mA		USB2.0 connector (TYPE A) x 3, DC 5 V/500 mA
Micro-USB	Micro USB Connector x 1		Micro USB Connector x 1
microSD card slot	microSD, microSDHC x 1		microSD, microSDHC x 1
Wireless LAN	IEEE 802.11a/b/g/n		IEEE 802.11a/b/g/n
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz	220-240 V AC, 50 Hz/60 Hz
Power Consumption	196 W	181 W	160 W
Power Off Condition	Approx. 0.3 W		Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off]) Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])		Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off]) Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])
Dimensions (W x H x D)	1309 x 784 x 76mm (51,5" x 30,9" x 3,0")	1171 x 701 x 76mm (46,1" x 27,6" x 3,0")	947 x 541 x 76mm (37,3" x 21,3" x 3,0")
Carton Size (W x H x D)	1444 x 922 x 223 mm (56,9" x 36,3" x 8,8")	1308 x 846 x 203 mm (51,5" x 33,4" x 8,0")	1123 x 743 x 203 mm (44,3" x 29,3" x 8,0")
Bezel Width	48mm (1,89")	48mm (1,89")	48mm (1,89")
Weight	49kg (108 lbs.)	39.8kg (87,7 lbs.)	33.5kg (73,85 lbs.)
Gross Weight	57kg (125,6 lbs.)	46.5kg (102,5 lbs.)	38.5kg (84,9 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400x 400 mm (15.8" x 15.8")	VESA Compliant 400x 400 mm (15.8" x 15.8")	VESA Compliant 200 x 200 mm (7.9" x 7.9")
Built-in Speakers	20 W [10 W + 10 W]		20 W [10 W + 10 W]
Orientation	Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)		Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)
Tilting Angle*1	0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)		0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)		Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2; 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)
Operating Time*4	24 h/day		24 h/day
OPTIONS			
Pedestal	TY-ST55PE9	TY-ST55PE9	TY-ST55PE9
Early Warning Software*5	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100 Series
Auto Display Adjustment Upgrade Kit*6	TY-VUK10	TY-VUK10	TY-VUK10
Multi Window Processor*7	ET-MWP100G	ET-MWP100G	ET-MWP100G
Detection Method	ShadowSense™ Touch		ShadowSense™ Touch
Touch Operation	Multi-touch up to 10 points		Multi-touch up to 10 points
Protective Glass Thickness	4mm hardened safety glass		4mm hardened safety glass

Interactive Signage

Featuring ShadowSense™ touch technology



ShadowSense™ touch is based upon the precise and accurate detection of an object's shadow as it enters, hovers within, or transitions out of a sensor's field of view.

- High durability and touch accuracy
- Works even in very bright environments
 - Works with any input device (fingers, gloves, pens)
 - Avoids accidental touches by recognizing pens, fingers, sleeves or objects used as an eraser
 - High touch accuracy and fast response
 - Very robust due to high tolerance towards dirt and objects blocking sensors
 - Protection glass: 4mm hardened safety glass, smooth anti-glare surface for easy drawing and writing.

*1: Please contact your sales representative with regard to the tilt angle before installation. *2: for up to 1400 m (4593 ft) altitude *3: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude. Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor. *4: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images. *5: Suffix of the part number may differ depending on the license type. *6: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplas/pass/>) *7: The availability varies depending on the country.

LF80-SST Series



Model no.	TH-55LF80-SST	TH-49LF80-SST	TH-42LF80-SST
DISPLAY PANEL			
Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	49-inch (1232 mm)/16:9	42-inch (1064 mm)/16:9
Panel Type	IPS Panel/E-LED	IPS Panel/E-LED	IPS Panel/E-LED
Effective Display Area (W x H)	1209 x 680 mm (47.6" x 26.7")	1073 x 604 mm (42.2" x 23.7")	927 x 521 mm (36.5" x 20.5")
Resolution (H x V)	1920 x 1080	1920 x 1080	1920 x 1080
Brightness (Typ)	500 cd/m ²	500 cd/m ²	500 cd/m ²
Contrast Ratio	1300:1	1300:1	1300:1
Dynamic Contrast Ratio	50000:1	50000:1	50000:1
Response Time	8 ms (G to G)	8 ms (G to G)	8 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178°/178° (CR≥10)	178°/178° (CR≥10)	178°/178° (CR≥10)
Panel Surface Treatment	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)	Anti-Glare (Haze 10 %)
TOUCH			
Detection Method	ShadowSense™ Touch		ShadowSense™ Touch
Touch Operation	Multi-touch up to 10 points		Multi-touch up to 10 points
Protective Glass Thickness	4mm hardened safety glass		4mm hardened safety glass
TERMINAL			
VIDEO In	BNC x 1 (Shared with Component /RGB Y/G)		BNC x 1 (Shared with Component /RGB Y/G)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Component In)		Stereo Mini Jack (M3) x 1 (Shared with Component In)
HDMI In	HDMI Type A Connector x 2		HDMI Type A Connector x 2
Component/RGB In	BNC x 1 set (Shared with Video In)		BNC x 1 set (Shared with Video In)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with Video In)		Stereo Mini Jack (M3) x 1 (Shared with Video In)
DVI-D In	DVI-D 24-pin x 1		DVI-D 24-pin x 1
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In)		Stereo Mini Jack (M3) x 1 (Shared with PC In)
DVI-D Out	DVI-D 24-pin x 1		DVI-D 24-pin x 1
PC In	Mini D-Sub 15-pin x 1 (Female)		Mini D-Sub 15-pin x 1 (Female)
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
Audio Out (L/R)	Stereo Mini Jack (M3) x 1		Stereo Mini Jack (M3) x 1
Serial In/Out	D-sub 9-pin x 1/x 1, RS-232C Compatible		D-sub 9-pin x 1/x 1, RS-232C Compatible
DIGITAL LINK	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with LAN)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with LAN)
LAN	RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)
IR In/Out	Stereo Mini Jack (M3) x 1 / x 1		Stereo Mini Jack (M3) x 1 / x 1
USB	USB Type A Connector x 1, DC 5V/1A (USB 3.0 is not supported.)		USB Type A Connector x 1, DC 5V/1A (USB 3.0 is not supported.)
Function Slot	—		—
GENERAL			
Power Requirements	220-240 V AC, 50 Hz/60 Hz		220-240 V AC, 50 Hz/60 Hz
Power Consumption	196 W	181 W	160 W
Power Off Condition	Approx. 0.3 W		Approx. 0.3 W
Stand-by Condition	Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off])		Approx. 0.5 W (When [OpenPort PLATFORM standby] is set to [Off])
	Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])		Approx. 20 W (When [OpenPort PLATFORM standby] is set to [On])
Dimensions (W x H x D)	1309 x 784 x 76mm (51.5" x 30.9" x 3.0")	1171 x 701 x 76mm (46.1" x 27.6" x 3.0")	947 x 541 x 76mm (37.3" x 21.3" x 3.0")
Carton Size (W x H x D)	1444 x 922 x 223 mm (56.9" x 36.3" x 8.8")	1308 x 846 x 203 mm (51.5" x 33.4" x 8.0")	1123 x 743 x 203 mm (44.3" x 29.3" x 8.0")
Bezel Width	48mm (1.89")		48mm (1.89")
Weight	49kg (108 lbs.)	39.8kg (87.7 lbs.)	33.5kg (73.85 lbs.)
Gross Weight	57kg (125.6 lbs.)	46.5kg (102.5 lbs.)	38.5kg (84.9 lbs.)
Pitch for Wall-Hanging	VESA Compliant 400x 400 mm (15.8" x 15.8")		VESA Compliant 200 x 200 mm (7.9" x 7.9")
Built-in Speakers	20 W [10 W + 10 W]		20 W [10 W + 10 W]
Orientation	Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)		Landscape/Portrait (Angle adjustment 0-45 degrees for both left and right)
Tilting Angle*1	0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)		0-45 degrees forward/backward with landscape/portrait setting*1 (Angle adjustment is not possible for forward/backward tilting installation.)
Operating Environment	Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2 : 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)		Temperature: 0 °C to 40 °C (32 °F to 104 °F)*2 : 0 °C to 35 °C (32 °F to 95 °F)*3 / Humidity: 20 % to 80 % (Non-condensation)
Storage Environment	Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)		Temperature: -20 °C to 60 °C (-4 °F to 140 °F) / Humidity: 20 % to 80 % (Non Condensation)
Operating Time*4	24 h/day		24 h/day
OPTIONS			
Pedestal	TY-ST55PE9	TY-ST55PE9	TY-ST55PE9
Wall-hanging Bracket	—	—	—
Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G
DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G	ET-YFB200G
Early Warning Software*6	ET-SWA100 Series	ET-SWA100 Series	ET-SWA100
Auto Display Adjustment Upgrade Kit*7	TY-VUK10	TY-VUK10	TY-VUK10
Multi Window Processor*8	ET-MWP100G	ET-MWP100G	ET-MWP100G

Featuring ShadowSense™ touch technology



ShadowSense™ touch is based upon the precise and accurate detection of an object's shadow as it enters, hovers within, or transitions out of a sensor's field of view.

- High durability and touch accuracy
- Works even in very bright environments
 - Works with any input device (fingers, gloves, pens)
 - Avoids accidental touches by recognizing pens, fingers, sleeves or objects used as an eraser
 - High touch accuracy and fast response
 - Very robust due to high tolerance towards dirt and objects blocking sensors
 - Protection glass: 4mm hardened safety glass, smooth anti-glare surface for easy drawing and writing.

*1: Please contact your sales representative with regard to the tilt angle before installation. *2: for up to 1400 m (4593 ft) altitude *3: for between 1400 m (4593 ft) and 2800 m (9186 ft) altitude. Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction. This unevenness will disappear while applying current continuously. If not, consult the distributor.

*4: In case of long time, the moving image is recommended to be displayed. If you display a still picture for an extended period, the image retention might remain on the screen. However, image retention can gradually disappear by displaying a moving images. *5: Suffix of the part number may differ depending on the license type. *6: Download the latest Video Wall Manager from PASS in advance. (<https://panasonic.net/cns/prodisplas/pass/>) *7: The availability varies depending on the country.

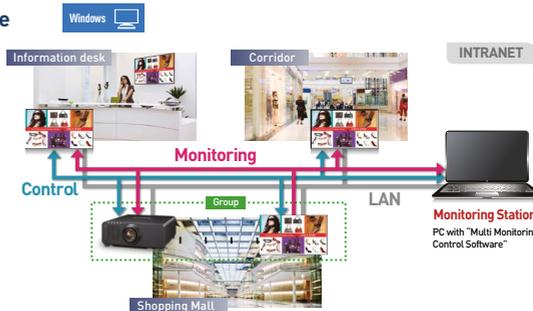
Panasonic Software Line-up

In order to maximize the use of professional displays, Panasonic offers a variety of software and applications (some free of charge, and others for a fee).

Downloadable for Free

Multi Monitoring & Control Software

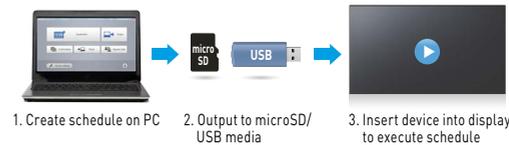
This free Panasonic software enables you to monitor and control up to 2048 devices over a LAN network from a single PC. As a monitoring function, the status of multiple devices can be listed in groups, and then detailed information on each device can be separately displayed. As a control function, control commands such as power ON/OFF, input switching and command inputs can be executed, and a schedule function can be used. For models that support the USB Media Player, this software can also be used to rewrite the content in the USB memory device.



Compatible Displays: VF1H, Lfv70, Lfv60, Lfv6, AF1 Series, SF1H Series, LF80 Series, SF2 Series, LF8 Series, BF1 Series, EF1 Series, LFE8 Series
panasonic.net/cns/prodisplays/download/software/#monitoring

Content Management Software

Content Management Software makes it possible to create scheduling data and media playlist on a PC and save it to one or more SD Cards. Insert the card into Space Players to execute the schedule. The software reduces complexity for temporary installations or where the device is frequently moved from place to place.



Compatible Display: AF1 Series, SF2 Series
panasonic.net/cns/prodisplays/download/software/

Whiteboard Software

This simple software is easy to operate. Requiring no PC installation, it can be started and used from external memory. Switching to a convenient, simple menu when using the Remote Pointer is also supported.



Compatible Displays: BF1 Series, BQE1 Series
panasonic.net/cns/prodisplays/download/software/#whiteboard

Wireless Manager

This application supports wired or wireless connection of screen display images from a PC to the display. Be sure to uninstall the old version of the software before upgrading to the new version.



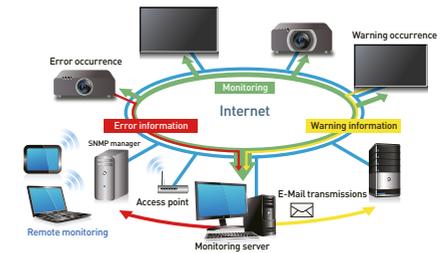
Compatible Displays: BF1 Series
panasonic.net/cns/prodisplays/download/software/#wireless

Optional

Early Warning Software (ET-SWA100 Series*)

Early Warning Software monitors the status of displays and projectors connected to an intranet and informs you when an abnormality is detected or predicted, and when there are symptoms of trouble. This minimizes downtime to provide more stable operation.

* Part number suffix may differ depending on the license type.



Video wall Manager (download for free) and Auto Display Adjustment Upgrade Kit (TY-VUK10)

Panasonic's free Video Wall Manager software can be used with LCD Video Wall Series displays. With this software, you can calibrate display color using a color sensor, adjust display settings, and control and manage data via PC. If software is upgraded with an optional TY-VUK10 Auto Display Adjustment Upgrade Kit, brightness and color among multiple displays can be automatically calibrated using a compatible camera (Nikon D5200/D5300/D5500)*.

* Available only with normal zoom lens: AF-S DX NIKKOR 18-55 mm f/3.5-5.6G VR, AF-S DX NIKKOR 18-140 mm f/3.5-5.6G ED VR, AF-S DX NIKKOR 18-55 mm f/3.5-5.6G VR II



For more information, please visit the PASS: panasonic.net/cns/prodisplays/pass/

Mobile App (iOS/Android)

Wireless Projector

This is an application that lets you send displayed screenshot, document files (PDF, PowerPoint, Excel, Word), and JPEG/PNG images saved to Android devices (tablets and smartphones) to a Panasonic wireless display over a wireless LAN (Wi-Fi), and display them. The application also lets you rotate the screen, enlarge or reduce the screen with a pinch operation, and flip through pages with a flick operation.

- Dedicated wireless apps for iOS and Android™
- Fewer steps to connect
- Wide media compatibility and functionality

For more information, please visit the Global Website:
panasonic.net/cns/prodisplays/download/software/#wireless



For More Information
panasonic.net/cns/prodisplays/download/software/wd_ios/



For More Information
panasonic.net/cns/prodisplays/download/software/wd_android/



Optional Accessories

		4k		Indoor												Standard					Video Wall				Interactive Collaboration		Interactive Signage				Outdoor																			
		TH-98LQ70L	TH-98LQ70L	TH-84LQ70L	TH-84LQ70L	TH-55AF1	TH-49AF1	TH-42AF1	TH-80SF2H	TH-70SF2H	TH-55SF1H	TH-49SF1H	TH-42SF1H	TH-55LF80	TH-49LF80	TH-42LF80	TH-65SF2	TH-55SF2	TH-49SF2	TH-43SF2	TH-84EF1	TH-75EF1	TH-65EF1	TH-32EF1	TH-55LF8	TH-48LF8	TH-43LF8	TH-84EF1-MRS	TH-75EF1-MRS	TH-55VF1H	TH-55LFV70	TH-55LFV6	TH-55LFV8	TH-49LFV8	TH-80BF1	TH-65BF1	TH-75BQE1	TH-65BFE1	TH-55AF1-SST	TH-49AF1-SST	TH-42AF1-SST	TH-55LF80-SST	TH-49LF80-SST	TH-42LF80-SST	TH-47LFX60	TH-47LFX6N				
FUNCTION OPTIONS	Screen Size (inch)	98	84	55	49	42	80	70	55	49	42	55	49	42	65	55	49			43	84	75	65	32	55	48	43	84	75	55	55	55	49	80	65	75	65	55	49	42	55	49	42	47	47					
	DVI-D 3G-SDI Termination Board	TY-FB11DD TY-TBN03G	Yes	Yes	-	-	-	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-	-	-	-				
MOUNTING OPTIONS	Pedestal	TY-ST103PF9 TY-ST85P12 TY-ST75PE9 TY-ST65P20 ¹ TY-ST55PE9 TY-ST42P50 TY-ST43PE9 TY-ST43PE8 TY-ST32PE1	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Mobile stand	TY-ST85PB1 ¹ TY-ST80LF70 ¹ TY-ST65PB2 ¹ TY-ST50PB2 ¹	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-			
	Wall-hanging Bracket	TY-WK103PV9 ¹ TY-WK42PV20	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-			
	Wall-hanging Bracket (angled)	TY-WK65PR20 ¹ TY-WK42PR20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Ceiling-hanging Bracket	TY-CE103PS10 ¹ TY-CE85PS12 ¹ TY-CE42PS20 ¹	Yes ³	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes ²	-	-	-	-	-	-	-	-	-	-			
	Installation Mount (Landscape setting only)	TY-VK55LV1 TY-VK49LV2 TY-VK47LV1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Remote Control Kit	TY-RM50VW	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-			
	Cover Frame Kit for 55"	TY-CF55VW1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Cover Frame Kit for 55"	TY-CF55VW50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Cover Frame Kit for 47"	TY-CF47VW5 ¹	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
	OTHERS	DIGITAL LINK Switcher	ET-YFB200G	Yes	Yes	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes ⁴	Yes ⁴	Yes ⁴	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	Yes ⁵	-	-	-	-	-	Yes ⁴	Yes ⁴	Yes ⁴	-	-	-	-	
		Digital Interface Box	ET-YFB100G	Yes	Yes	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes ⁴	Yes ⁴	Yes ⁴	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	Yes	-	-	-	-	Yes ⁴	Yes ⁴	Yes ⁴	-	-	-	-		
Easy Wireless Stick		ET-UW100 ⁶	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		
Multi Window Processor		ET-MWP100 ⁷	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Whiteboard Software for PC ⁸			-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-	
SOFTWARE	Wireless Manager		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	-	-	-	-	-	-	-	-
	Multi Monitoring & Control Software ⁹		-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Content Management Software		-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Video Wall Manager		-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Auto Display Adjustment Upgrade Kit	TY-VUK10 ⁹	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		
Early Warning Software	ET-SWA100 ¹⁰	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes		

The specifications has a case to change without notice.
^{*1}: Production discontinued. Please contact the sales company for options regarding discontinued products.
^{*2}: The Wall-hanging Bracket [TY-WK65PR20] suitable for both angled and vertical use. Also usable for portrait mounting in 0 degree. For vertical use only when using the TH-65BF1.
^{*3}: Tilt angle limited to 10 degree maximum. ^{*4}: TH-55/49/42 LF80 only. ^{*5}: Long Reach Mode on ET-YFB200G is not supported.
^{*6}: The product can be purchased in the US., Canada, Japan, Australia, and New Zealand. ^{*7}: The availability varies depending on the country.
^{*8}: Downloadable free. For more information, please visit Global website. <https://panasonic.net/cns/prodisplays/download/software/>
^{*9}: Download the latest Video Wall Manager from PASS in advance. <https://panasonic.net/cns/prodisplays/pass/>
^{*10}: Part number suffix may differ depending on the license type.

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YouTube – www.youtube.com/user/PanasonicBusiness
Facebook – www.facebook.com/PanasonicVisualSolutionsEU/

All information included here is valid as of February 2018