Panasonic

Professional DISPLAYS

Line-up Catalogue May 2015

For the latest information about Panasonic Professional Displays, please visit:

Professional Display Global Website: **panasonic.net/prodisplays**
YouTube: **www.youtube.com/PanasonicProDisplay**

All information included here is valid as of May 2015.

CT15-EG02PF
Printed in Japan.

Worldwide
Olympic Partner

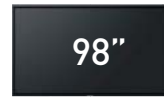# Panasonic Professional Displays Lineup

4K UHD Display

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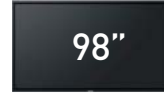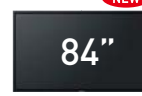- Easy Installation & System Expandability

LQ70 Series | 500 cd/m²

98"	84"
TH-98LQ70	TH-84LQ70
98" (NEW)	84" (NEW)
TH-98LQ70L	TH-84LQ70L

4K PROFESSIONAL | LED | 24/7 Operation | Protective Glass | 4K DIGITAL LINK | Narrow
*Actual resolution : 3840 x 2160p
*LQ70 Series only

Portrait | SLOT NX

Indoor

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

LF50 Series | 700 cd/m²

80"	70"
TH-80LF50	TH-70LF50

LF60 Series | 700 cd/m²
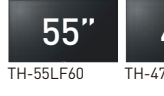
55"	47"	42"
TH-55LF60	TH-47LF60	TH-42LF60
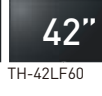
LF6 Series | 450 cd/m²
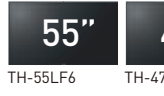
55"	47"	42"
TH-55LF6	TH-47LF6	TH-42LF6
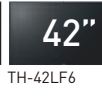
LED | 24/7 Operation | Protective Glass *Optional (LF60/LF6 Series only) | DIGITAL LINK SINGLE CABLE SOLUTION (LF60/LF6 Series only) | Narrow | Portrait | SLOT 2.0 (LF50 Series only)

Video Wall

- Installation Flexibility
- High Reliability
- High Visibility

LFV70 | 700 cd/m²

55"
TH-55LFV70
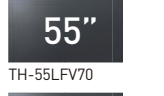
LFV50 | 800 cd/m²
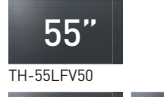
55"
TH-55LFV50

LFV5 Series | 500 cd/m²

55"	47"
TH-55LFV5	TH-47LFV5

LED | 24/7 Operation | DIGITAL LINK SINGLE CABLE SOLUTION (LFV70 only) | Ultra Narrow (LFV70 only) | Super Narrow | Pre Calibration | Portrait

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

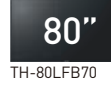LED | Outdoor | 24/7 Operation | Protective Glass | DIGITAL LINK SINGLE CABLE SOLUTION | Portrait
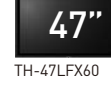
Multi Touch Screen

- Easy set-up & Operation
- Wireless & Network Capability
- ECO & Good Usability

LFB70 Series | 350 cd/m²

80"	65"	50"
TH-80LFB70	TH-65LFB70	TH-50LFB70
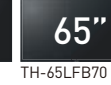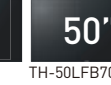
LED | Protective Glass | Multi Touch | Interactive | WIRELESS | DIGITAL LINK SINGLE CABLE SOLUTION | Portrait | SLOT 2.0

Network

- Bright Clear Image Quality
- Wireless & Network Capability
- Low Power Consumption

LFC70 Series | 350 cd/m²

80"	65"	50"
TH-80LFC70	TH-65LFC70	TH-50LFC70
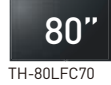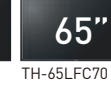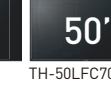
LED | Protective Glass | WIRELESS | DIGITAL LINK SINGLE CABLE SOLUTION | Portrait | SLOT 2.0

Standard

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

LFE8 Series | 350 cd/m²

65" (NEW)	55" (NEW)
TH-65LFE8	TH-55LFE8
48" (NEW)	43" (NEW)
TH-48LFE8	TH-43LFE8

LED | Narrow | Portrait

LQ Series

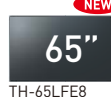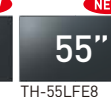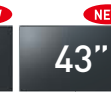| Model no.		TH-98LQ70	TH-84LQ70		TH-98LQ70L	TH-84LQ70L
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	98-inch (2476.9 mm)/16:9	84-inch (2134.6 mm)/16:9		98-inch (2476.9 mm)/16:9	84-inch (2134.6 mm)/16:9
	Panel Type	LCD IPS Panel/D-LED	LCD IPS Panel/E-LED		LCD IPS Panel/D-LED	LCD IPS Panel/E-LED
	Effective Display Area (W x H)	2159 x 1214 mm	1860 x 1047 mm		2159 x 1214 mm	1860 x 1047 mm
	Number of Pixels (H x V)	3840 x 2160 pixels	3840 x 2160 pixels		3840 x 2160 pixels	3840 x 2160 pixels
	Brightness (Typ)	500 cd/m²	500 cd/m²		500 cd/m²	500 cd/m²
	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°
TERMINAL	HDMI In	HDMI TYPE A Connector x 2 (Up to 4K@ 50/60 Hz)*1, HDMI TYPE A Connector x 2 (Up to 2K@ 50/60 Hz)*1			HDMI TYPE A Connector x 2 (Up to 4K@ 50/60 Hz)*1, HDMI TYPE A Connector x 2 (Up to 2K@ 50/60 Hz)*1	
	DisplayPort In	DisplayPort x 1 (DP1.2a)*1			DisplayPort x 1 (DP1.2a)*1	
	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 (Female)*2			Mini D-sub 15-pin x 1 (Female)*2	
	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	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 PJLink™ (Shared with DIGITAL LINK)			RJ45 x 1 100BASE-TX, Compatible with PJLink™ (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, 50/60 Hz			220-240 V AC, 50/60 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	1949 x 1141 x 99 mm		2233 x 1288 x 113 mm	1949 x 1141 x 92 mm
	Carton Size (W x H x D)	2406 x 1520 x 460 mm	2156 x 1361 x 404 mm		2406 x 1520 x 460 mm	2156 x 1361 x 404 mm
	Bezel Width	32.5 mm	32.5 mm		32.5 mm	32.5 mm
	Weight	Approx. 136.0 kg	Approx. 108.0 kg		Approx. 105.0 kg	Approx. 84.0 kg
	Gross Weight	Approx. 161.0 kg	Approx. 130.0 kg		Approx. 130.0 kg	Approx. 106.0 kg
	Protective Glass	Yes	Yes		—	—
	Built-in Speaker	20W [10W + 10W] (10% THD)			20W [10W + 10W] (10% THD)	
	Operating Environment	Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non condensation) / Altitude 0-2400 m*3			Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non condensation) / Altitude 0-2400 m*3	
	Storage Environment	Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non condensation)			Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non condensation)	
OPTIONS	Pedestal	TY-ST103PF9	TY-ST85P12		TY-ST103PF9	TY-ST85P12
	Wall-hanging Bracket	TY-WK103PV9	TY-WK85PV12		TY-WK103PV9	TY-WK85PV12
	Ceiling-hanging Bracket	TY-CE103PS10* *Tilt angle limited to 10 degree maximum.	TY-CE85PS12* *Tilt angle limited to 10 degree maximum.		TY-CE103PS10* *Tilt angle limited to 10 degree maximum.	TY-CE85PS12* *Tilt angle limited to 10 degree maximum.
	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 : HDCP supported, Embedded auido supported   *2 : RGB/YPbPr switchable

*3 : Environmental temperature to use this unit at high altitudes (1400 m and higher and below 2400 m above sea level): 0°C to 35 °C When using the unit
where it is 1400 m and higher and below 2400 m above sea level, make sure [High altitude mode] is set to [ON].

A wide range of professional 4K required applications

・ Public Information

・ Store Signage

・ Rentals & Staging

・ Control Rooms

・ Broadcast Studios

・ Meeting Rooms

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.

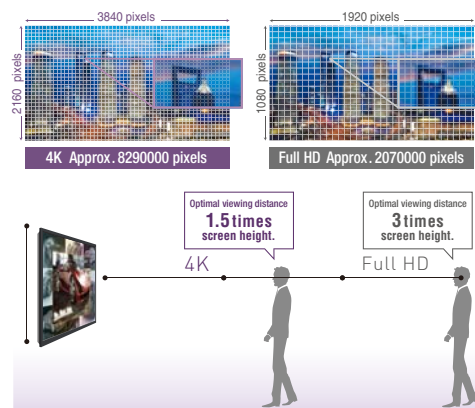| Protective glass resists impacts	Special latticed frame resists twisting
3.5-J	

* LQ70 Series only.

Stunning Panasonic 4K Quality Right Down to the Details

With approximately 8290000 pixels, or about four times the pixels of a Full-HD display, images are highly detailed. This dynamic, large-screen display achieves true-to-life, finely nuanced images. With an optimal viewing distance of 1.5 times the screen height, the LQ70 Series is an excellent choice for meeting rooms, where images are often viewed up close, and creates impressive ambience in signage applications for commercial facilities, where it can be expected to attract considerable attention. A 3D LUT (Look-Up Table) developed for broadcast monitors also enables stunning colour reproduction in places ranging from low to high brightness.

A comfortable viewing distance varies depending on the type of image, the viewing environment, and the physical condition of the viewer.
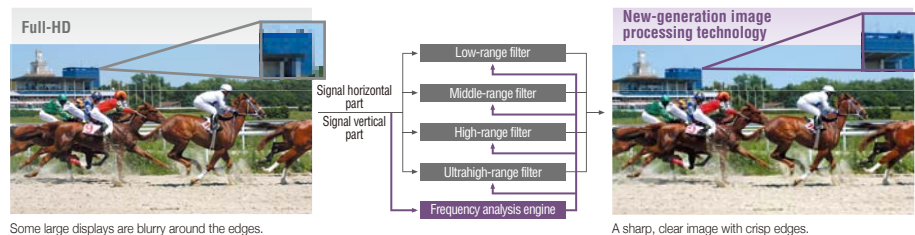
Optimal Viewing Distance Comparison
TH-98LQ70 : 1288 mm × 1.5 = 1932 mm
TH-103PF12 : 1419 mm × 3 = 4257 mm

3840 pixels — 2160 pixels
1920 pixels — 1080 pixels
4K Approx. 8290000 pixels
Full HD Approx. 2070000 pixels

Optimal viewing distance
1.5 times screen height.
4K

Optimal viewing distance
3 times screen height.
Full HD

High Reliability Enables Continuous 24/7 Operation

In addition to being impact resistant, the LQ70 Series is capable of constant, 24/7 operation.
It offers reliable use in public spaces where many people gather, such as train stations, airports, and shopping malls, as well as installation in control rooms. It is also equipped with a variety of input/output terminals for versatile applications.

*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.

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.

Full-HD

New-generation image processing technology

Signal horizontal part
Signal vertical part

Low-range filter
Middle-range filter
High-range filter
Ultrahigh-range filter
Frequency analysis engine

Some large displays are blurry around the edges.
A sharp, clear image with crisp edges.

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 colours 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.

* Eyebolts must not be used for permanent ceiling-suspended installation.

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.

SLOT NX

SLOT NX
3G-SDI Terminal Board (Optional)
4K/60p Input
3G-SDI Terminal Board x 2

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

4K Special Website

Feature video
4K UHD LCD Display LQ70 Series

LF Series

	Model no.	TH-80LF50	TH-70LF50		TH-55LF60	TH-47LF60	TH-42LF60
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/16:9	70-inch (1765 mm)/16:9		55-inch (1387 mm)/16:9	47-inch (1192 mm)/16:9	42-inch (1067 mm)/16:9
	Panel Type	LCD VA Panel/E-LED	LCD VA Panel/E-LED		LCD IPS Panel/E-LED	LCD IPS Panel/E-LED	LCD IPS Panel/E-LED
	Effective Display Area (W x H)	1771 x 996 mm	1538 x 865 mm		1209 x 680 mm	1039x 584 mm	930 x 523 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels		1920 x 1080 pixels	1920 x 1080 pixels	1920 x 1080 pixels
	Brightness	700 cd/m² (Typ)	700 cd/m² (Typ)		700 cd/m² (Typ)	700 cd/m² (Typ)	700 cd/m² (Typ)
	Contrast Ratio	5000:1	5000:1		1300:1	1300:1	1300:1
	Response Time	9 ms (G to G)	9 ms (G to G)		12 ms (G to G)	12 ms (G to G)	12 ms (G to G)
	Viewing Angle	176°/176°	176°/176°		178°/178°	178°/178°	178°/178°
TERMINAL	VIDEO In	BNC x 1			BNC x 1		
	Audio In (L/R)	Pin Jack x 1 set			Pin Jack x 1 set		
	HDMI In	HDMI Type A Connector x 1			HDMI Type A Connector x 2		
	Component/RGB In	BNC x 1 set			BNC x 1 set		
	Audio In (L/R)	Pin Jack x 1 set			Pin Jack x 1 set		
	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 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)	Pin Jack x 1 set			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/D-Sub 9-pin x 1, RS-232C Compatible		
	DIGITAL LINK	—			RJ45 x 1 (Shared with LAN)		
	LAN	RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PJLink™			RJ45 x 1 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)		
	IR In/Out	—			IR x 1/x 1		
	Function Slot	SLOT2.0 x 1			—		
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	Approx. 380 W	Approx. 260 W		Approx. 150 W	Approx. 140 W	Approx. 125 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)	1848 x 1073 x 89 mm	1604 x 931 x 89 mm		1248 x 718 x 68 mm	1076 x 621 x 68 mm	967 x 560 x 68 mm
	Carton Size (W x H x D)	1993 x1188 x 349 mm	1750 x 1047 x 349 mm		1411 x 940 x 204 mm	1210 x 826 x 204 mm	1113 x 705 x 222 mm
	Bezel Width	36 mm	30 mm		16 mm	16 mm	16 mm
	Weight	Approx. 60.0 kg	Approx. 47.0 kg		Approx. 25.8 kg	Approx. 16.7 kg	Approx. 14.5 kg
	Gross Weight	Approx. 71.0 kg	Approx. 56.0 kg		Approx. 31.5 kg	Approx. 21.8 kg	Approx. 18.5 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm		VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm
	Built-in Speakers	—	—		10 W [5 W x 5 W]	10 W [5 W + 5 W]	10 W [5 W + 5 W]
	Operating Environment	Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non Condensation)			Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non Condensation)		
	Storage Environment	Temperature: -20 °C to 60 °C*¹ / Humidity: 20 % to 80 % (Non Condensation)			Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non Condensation)		
OPTIONS	Pedestal	TY-ST65P20	TY-ST58P20		TY-ST58P20	TY-ST42P50	TY-ST42P50
	Wall-hanging Bracket	TY-WK70PV50	TY-WK70PV50		—	—	—
	Protective Glass	TY-PG80LF50	TY-PG70LF50		—	—	—
	Digital Interface Box	—	—		ET-YFB100G	ET-YFB100G	ET-YFB100G
	DIGITAL LINK Switcher	—	—		ET-YFB200G	ET-YFB200G	ET-YFB200G
	Early Warning Software	—	—		ET-SWA100	ET-SWA100	ET-SWA100
	Multi Window Processor	ET-MWP100G	ET-MWP100G		ET-MWP100G	ET-MWP100G	ET-MWP100G
	HD-SDI Terminal Board	TY-FB10HD	TY-FB10HD		—	—	—
	Dual HDMI Terminal Board	TY-FB10HMD	TY-FB10HMD		—	—	—

*1 : If the temperature is 40 °C to 60 °C, please keep in humidity 20 % to 40 %.

LF Series

Model no.		TH-55LF6	TH-47LF6		TH-42LF6
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	55-inch (1387 mm)/16:9	47-inch (1192 mm)/16:9		42-inch (1067 mm)/16:9
	Panel Type	LCD IPS Panel/E-LED	LCD IPS Panel/E-LED		LCD IPS Panel/E-LED
	Effective Display Area (W x H)	1209 x 680 mm	1039 x 584 mm		930 x 523 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels		1920 x 1080 pixels
	Brightness	450 cd/m² (Typ)	450 cd/m² (Typ)		450 cd/m² (Typ)
	Contrast Ratio	1300:1	1300:1		1300:1
	Response Time	12 ms (G to G)	12 ms (G to G)		12 ms (G to G)
	Viewing Angle	178°/178°	178°/178°		178°/178°
TERMINAL	VIDEO In	BNC x 1			BNC x 1
	Audio In (L/R)	Pin Jack x 1 set			Pin Jack x 1 set
	HDMI In	HDMI Type A Connector x 2			HDMI Type A Connector x 2
	Component In	BNC x 1 set			BNC x 1 set
	Audio In (L/R)	Pin Jack x 1 set			Pin Jack x 1 set
	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/D-Sub 9-pin x 1, RS-232C Compatible			D-Sub 9-pin x 1/D-Sub 9-pin x 1, RS-232C Compatible
	DIGITAL LINK	RJ45 x 1 (Shared with LAN)			RJ45 x 1 (Shared with LAN)
	LAN	RJ45 x 1 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)			RJ45 x 1 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)
	IR In/Out	IR x 1/x 1			IR x 1/x 1
	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
	Power Consumption	150 W	140 W		125 W
	Power Off Condition	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
	Dimensions (W x H x D)	1248 x 718 x 68 mm	1076 x 621 x 68 mm		967 x 560 x 68 mm
	Carton Size (W x H x D)	1411 x 940 x 204 mm	1210 x 826 x 204 mm		1113 x 705 x 222 mm
	Bezel Width	16 mm	16 mm		16 mm
	Weight	Approx. 25.8 kg	Approx. 16.7 kg		Approx. 14.5 kg
	Gross Weight	Approx. 31.5 kg	Approx. 21.8 kg		Approx. 18.5 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm		VESA Compliant 400 x 400 mm
	Built-in Speakers	10 W [5 W x 5 W]	10 W [5 W + 5 W]		10 W [5 W + 5 W]
	Operating Environment	Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non Condensation)			Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non Condensation)
	Storage Environment	Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non Condensation)			Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non Condensation)
OPTIONS	Pedestal	TY-ST58P20	TY-ST42P50		TY-ST42P50
	Digital Interface Box	ET-YFB100G	ET-YFB100G		ET-YFB100G
	DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G		ET-YFB200G
	Early Warning Software	ET-SWA100	ET-SWA100		ET-SWA100
	Multi Window Processor	ET-MWP100G	ET-MWP100G		ET-MWP100G

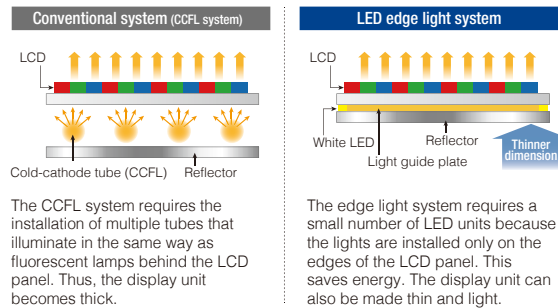## Bright, Full HD (1920 x 1080) Professional LCD Display `LF50` `LF60` `LF6`

In addition to the high resolution of Full-HD and the wide viewing angle of the IPS panel, the LF Series features high brightness. This makes it possible to display crisp, clear images even in bright places, for signage with excellent information transmission performance.

IPS Panel and LED Backlight Provide Light Weight, a Thin Profile, and Low Power Consumption `LF60` `LF6`

Detailed Full-HD picture quality and the wide viewing angle of the IPS panel produce clear, beautiful images in large spaces. The use of an LED backlight allows signage to be used for long periods with excellent visibility and low power consumption, to help reduce running costs.

Conventional system (CCFL system)	LED edge light system
LCD	LCD
Cold-cathode tube (CCFL) Reflector	White LED Reflector Light guide plate Thinner dimension

The CCFL system requires the installation of multiple tubes that illuminate in the same way as fluorescent lamps behind the LCD panel. Thus, the display unit becomes thick.

The edge light system requires a small number of LED units because the lights are installed only on the edges of the LCD panel. This saves energy. The display unit can also be made thin and light.

## Flexible, Vertical Installation `LF50` `LF60` `LF6`

The display can be installed either horizontally or vertically to match the content and installation location without being affected by "Mura" (unevenness). This is because the display has relatively uniform pressure distribution as compared to a TV panel, which results in far better stability. Regardless of the installation direction, the LED backlight life stays the same since a constant operating temperature is maintained.

TV Panel	LF Series
Mura (unevenness) may appear in Portrait mode. Mura (unevenness)	Mura (unevenness) hardly ever appear in Portrait mode.

DIGITAL LINK Function Enables Simple Installation and Low System Costs `LF60` `LF6`

Using DIGITAL LINK makes it possible to transmit video, audio and control signals over a long distance (up to 100 m) with a single LAN cable*1. Easy cabling also reduces labor during setup. This provides transmission of high-quality images and sounds, as well as remote control.

Full-HD Picture*2
Sound
Ethernet
RS232C

ET-YFB100G
(Option)

PC, etc

LAN cable*1 (Max.100 m)
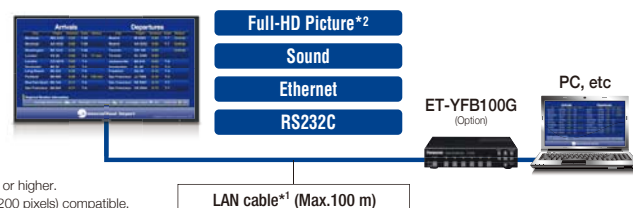
*1: CAT5e (STP) cable or higher.
*2: WUXGA (1920 × 1200 pixels) compatible.

24/7 Operation `LF50` `LF60` `LF6`

The tough design makes the display panel suitable for use as signage that operates all day and night in places such as restaurants, shopping malls and transportation facilities.

Day   Night

Premium Blend

* 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.

Fan-less Design `LF50` `LF60` `LF6`

The fan-less design prevents malfunctions otherwise caused by dust particles brought in by the fan. This enables safe installation in crowded areas.

Built-in Speaker `LF60` `LF6`

The speaker is built into the rear of the display. There is no need for external speakers when using content that has a soundtrack.

Stylish Slim Design and Light Weight `LF50` `LF60` `LF6`

Narrow bezel allows it to blend in with the installation space and gives greater visibility to the images on display. The bezel is also less noticeable in multi-screen displays, for effective large-screen applications.

A Slim Design that Fits almost any Installation Location `LF50` `LF60` `LF6`

Wall-mount brackets and hanging fixtures in compliance with VESA specifications can also be used for flexible installation.

LFV Series

	Model no.	**TH-55LFV70**	**TH-55LFV50**		**TH-55LFV5**	**TH-47LFV5**
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	55-inch (1387mm)/16:9	55-inch (1387 mm)/16:9		55-inch (1387 mm)/16:9	47-inch (1192 mm)/16:9
	Panel Type	LCD IPS Panel/D-LED	LCD IPS Panel/D-LED		LCD IPS Panel/D-LED	LCD IPS Panel/D-LED
	Effective Display Area (W x H)	1209 x 680 mm	1209 x 680 mm		1209 x 680 mm	1039 x 584 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels		1920 x 1080 pixels	1920 x 1080 pixels
	Brightness	700 cd/m²	800 cd/m² (Typ)		500 cd/m² (Typ)	500 cd/m² (Typ)
	Contrast Ratio	1200:1	1400:1		1400:1	1400:1
	Response Time	12 ms (G to G)	10 ms (G to G)		10 ms (G to G)	12 ms (G to G)
	Dynamic Contrast Ratio	500000:1	500000:1		500000:1	500000:1
	Viewing Angle	178°/178°	178°/178°		178°/178°	178°/178°
	Panel Surface Treatment	Anti-glare treatment (Haze 44%)	Anti-Reflection		Anti-Glare Treatment (Haze 10 %)	Anti-Glare Treatment (Haze 10 %)
TERMINAL	VIDEO In	BNC x 1	BNC x 1		BNC x 1	
	Audio In (L/R)	Pin Jack x 1 set (Shared with Component In)	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		HDMI Type A Connector x 1	
	Component/RGB In	BNC x 1 set	BNC x 1 set		BNC x 1 set	
	Audio In (L/R)	Pin Jack x 1 set (Shared with Video In)	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	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)		Stereo Mini Jack (M3) x 1 (Shared with PC In)	
	DisplayPort In	DisplayPort x 1	—		—	
	DVI-I Out	—	DVI-I 29-pin x 1		DVI-I 29-pin x 1	
	PC In	Mini D-sub 15-pin x 1 (Female)	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)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)	
	DIGITAL LINK In	RJ45 x 1	—		—	
	DIGITAL LINK Out	RJ45 x 1	—		—	
	USB	USB (Type A) x 1	—		—	
	Audio Out (L/R)	Pin Jack x 1 set	Pin Jack x 1 set		Pin Jack x 1 set	
	Serial In/Out	D-sub 9-pin x 1/D-sub 9-pin x 1, RS-232C Compatible	D-Sub 9-pin x 1/D-Sub 9-pin x 1, RS-232C Compatible		D-Sub 9-pin x 1/D-Sub 9-pin x 1, RS-232C Compatible	
	IR Transmitter In/Out	Stereo Mini Jack (M3) x 1/ x 1	IR x 1/x 1		IR x 1/x 1	
	LAN	RJ45 x 1 (Shared with DIGITAL LINK)	RJ45 x 1 (Web Browser Control Only)		RJ45 x 1 (Web Browser Control Only)	
GENERAL	Power Requirements	220-240 V AC, 50/60 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	330 W	320 W		220 W	160 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)	1213 x 684 x 95 mm	1216 x 687 x 122 mm		1216 x 687 x 122 mm	1045 x 590 x 109 mm
	Carton Size (W x H x D)	1551 x 961 x 450 mm	1551 x 979 x 450 mm		1551 x 979 x 450 mm	1390 x 950 x 445 mm
	Bezel Width	2.25 mm (Left/Top), 1.25 mm (Right/Bottom)	3.4 mm (Left/Top), 1.9 mm (Right/Bottom)		3.4 mm (Left/Top), 1.9 mm (Right/Bottom)	3.2mm (Left/Top), 1.7 mm (Right/Bottom)
	Bezel to Bezel	3.5 mm (Multi Screen)	5.3 mm (Multi Screen)		5.3 mm (Multi Screen)	4.9 mm (Multi Screen)
	Weight	Approx. 30.0 kg	Approx. 36.0 kg		Approx. 36.0 kg	Approx. 25.0 kg
	Gross Weight	Approx. 46.0 kg	Approx. 48.0 kg		Approx. 52.0 kg	Approx. 40.0 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm		VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm
	External Speaker	8 Ω, 20 W [10 W + 10 W]	8 Ω, 20 W [10 W + 10 W]		8 Ω, 20 W [10 W + 10 W]	8 Ω, 20 W [10 W + 10 W]
	Operating Environment	Temperature: 0 °C to 40 °C / Humidity: 10 % to 90 % (Non Condensation)			Temperature: 0 °C to 40 °C / Humidity: 10 % to 90 % (Non Condensation)	
	Storage Environment	Temperature: -20 °C to 60 °C / Humidity: 10 % to 90 % (Non Condensation)			Temperature: -20 °C to 60 °C / Humidity: 10 % to 90 % (Non Condensation)	
OPTIONS	Remote Control Kit	—	TY-RM50VW		TY-RM50VW	TY-RM50VW
	Cover Frame Kit	TY-CF55VW50	TY-CF55VW50		TY-CF55VW50	TY-CF47VW5
	Installation Mount	TY-VK55LV1	TY-VK55LV1		TY-VK55LV1	TY-VK47LV1
	Multi Window Processor	ET-MWP100G	ET-MWP100G		ET-MWP100G	ET-MWP100G

Installation video

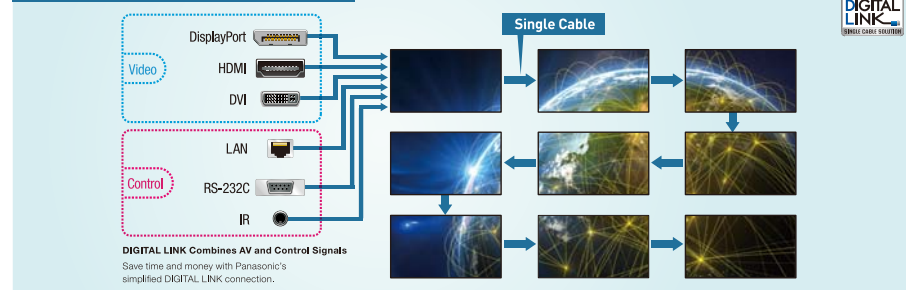Video Wall Workflow Panasonic
TY-VK55LV1

Ultra/Super Narrow Bezel LCD Display LFV Series

Video, Audio, and Control Signals Can Be Distributed by DIGITAL LINK Single Cable Daisy Chain
LFV70

The terminal board for the LFV70 Series is equipped with a DIGITAL LINK output terminal. Video, audio and control signals are combined into one DIGITAL LINK signal and can be transmitted by single cable daisy chain connection. This enables not only a multi-screen system to be configured using only displays and video sources with no need for a video splitter or other device, but also easy installation and control of multi-screen system thanks to simple cabling.

DIGITAL LINK Reduces Cabling Cost and Complexity

DisplayPort
HDMI
DVI
Video

LAN
RS-232C
IR
Control

Single Cable

DIGITAL LINK
SINGLE CABLE SOLUTION

DIGITAL LINK Combines AV and Control Signals
Save time and money with Panasonic's simplified DIGITAL LINK connection.

High Reliability Enables Continuous 24-Hour Operation and Portrait Installation
LFV70 **LFV50** **LFV5**

The use of a highly durable panel and electronic components allows continuous 24-hour operation, ideal for installation in public places, surveillance stations, etc. A built-in cooling fan automatically operates (when set to Auto) depending on the temperature. This prevents overheating in the upper screens of a multi-screen installation, which are easily subject to heating. The LFV Series can also be installed either horizontally or vertically, without any difference in panel life, so there is no effect on TCO.

* 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.

USB Easy Synchronized Playing
LFV70

Simply connect USB memory sticks containing still contents files to a 2 x 2-unit multi-screen configuration for easy synchronized 4K signages.

Cold Drink Menu

USB   LAN   USB
LAN
USB   LAN   USB

Failover and Failback Functions Support Emergency Situations
LFV70

The LFV70 Series is equipped with digital signal input terminals of two DVI-D, HDMI, DisplayPort, DIGITAL LINK, and USB. 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 centres.

Conventional

Main Input
Back up Input
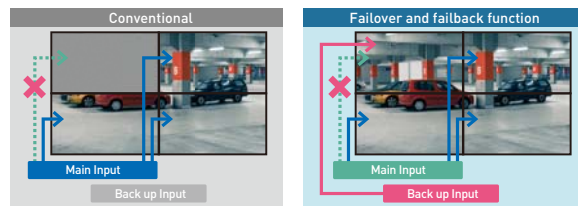
If the main display signal is interrupted, the image is simply cut off.

Failover and failback function

Main Input
Back up Input

Even if the main display signal is interrupted, the system switches to a back-up signal, so the image is not cut off.
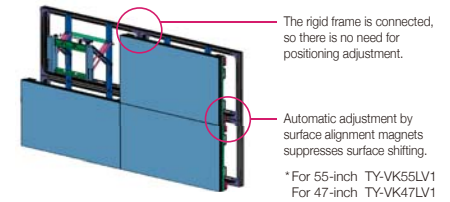

Installation Frame Simplifies Set-up
LFV70 **LFV50** **LFV5**

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.

The rigid frame is connected, so there is no need for positioning adjustment.

Automatic adjustment by surface alignment magnets suppresses surface shifting.

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

Wide Viewing Angle for Sharper Images

Anti-Glare (AG) treatment Panel **LFV70** **LFV5**

The AG layer scatters light reflected from the sun or illumination to reduce glare. This provides greater visibility. It is ideal for use in surveillance stations and public facilities.

Anti-Glare (AG) Treatment
Ambient Light
Scattering
Reduces glare by scattering reflected light
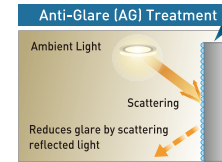
IPS Panel **LFV70** **LFV50** **LFV5**

No information is lost when viewed from right or left angles, and images are clear and easy to see.

178° wide viewing

Ultra Narrow Bezel with 3.5 mm* Thinness
LFV70

The ultra-narrow bezel results in joints that are only 3.5 mm* wide for video wall installations. Even in large-screen configurations, the screen borders can barely be seen, so images are powerful and natural.

Note: 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.

TH-55LFV70

bezel to bezel
3.5* mm

* TH-55LFV70 only.

Calibration Functions Support Multi-Screen Installation

Video Wall Manager Software **LFV70** **LFV50** **LFV5**

Colour differences can develop between displays as time passes after multi-screen installation. This new Video Wall Manager Software supports colour sensors for Calibration. It lets you adjust colours while using your existing calibration sensor.

Pre-calibration **LFV70** **LFV50** **LFV5**

The colour is adjusted on the LFV Series when it is shipped from the factory so there is no adjustment necessary during installation, which greatly shortens the time required for multi-screen installation. Colour differences between the displays are also suppressed in order to display natural-appearing images.

* In some cases, visual adjustment is necessary during multi-screen installation.

Video Wall Manager Software and Auto Display Adjustment Upgrade Kit
LFV70 **LFV50** **LFV5**

Panasonic's free Video Wall Manager software can be used with LFV Series displays. With this software, you can calibrate display colour using a colour sensor (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 colour among multiple displays automatically using a compatible camera (optional) (Nikon D5200/D5300)*.

* With normal zoom lens only.

LAN* or RS232C
*LFV70 Only   USB
Supported Cameras Nikon D5200, D5300
Backlight Control
White Balance Control
Completely Uniform Image

Auto Display Adjustment Upgrade Kit: **http://panasonic.net/prodisplays/products/ty-vuk10/index.html**

LFX Series

47"   47"
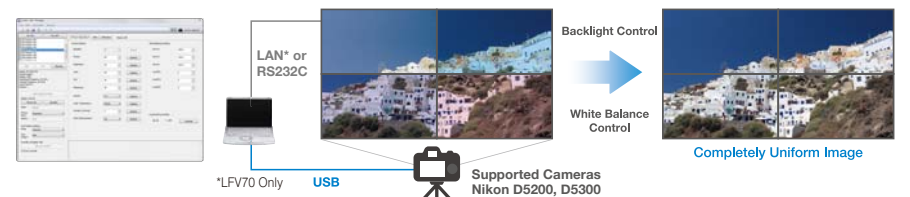
Model no.	TH-47LFX60	TH-47LFX6N
DISPLAY Screen Size (Diagonal)/Aspect Ratio	47-inch (1192 mm)/16:9	47-inch (1192 mm)/16:9
Panel Type	LCD IPS Panel/D-LED	LCD IPS Panel/D-LED
Effective Display Area (W x H)	1039 x 584 mm	1039 x 584 mm
Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels
Brightness	2000 cd/m² (Typ)	1200 cd/m² (Typ)
Contrast Ratio	1300:1	1300:1
Response Time	10 ms (G to G)	10 ms (G to G)
Viewing Angle	178°/178°	178°/178°
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 PJLink™ (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	1162 x 706 x 216 mm
Carton Size (W x H x D)	1308 x 851 x 323 mm	1308 x 851 x 323 mm
Bezel Width	32 mm	32 mm
Weight	Approx. 47.0 kg	Approx. 47.0 kg
Gross Weight	Approx. 55.0 kg	Approx. 55.0 kg
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 400 mm
Built-in Speakers	—	—
Direct Sunlight Capability	Yes (Built-in Air Cooling System)	Yes (Built-in Air Cooling System)
Dust and Water Resistant Level	IP55	IP55
Operating Environment*¹	Temperature: -20 °C*² to 50 °C / Humidity: 20 % to 80 % (Non Condensation)	Temperature: -20 °C*² to 50 °C / Humidity: 20 % to 80 % (Non Condensation)
Storage Environment	Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non Condensation)	Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non Condensation)
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	ET-SWA100	ET-SWA100

*1: Don't use in places where the presence of corrosive gases or salt damage area. *2: When used in Outdoor mode.

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)

LFX **IP- 5 5**

Dust Resistance
Level of protection from dust particles

Level	Degree of Protection
5	Protected against dust limited ingress (no harmful deposit)

Water Resistance
Level of water resistance

Level	Degree of Protection
5	Protected against water jet.

Outdoor

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.

An Ordinary LCD — Blackouts Occur
LFX Series — No Change

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, 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 100 m 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 100 m. 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 ET-YFB100G Digital Interface Box.

*1: Use an STP cable of CAT5e or higher.
*2: WUXGA (1920 × 1200 pixels) compatible.

[In a room]
ET-YFB100G (Option)
PC, etc
[Outdoors]
LFX Series
LAN cable*¹ (Max.100 m)
- Full-HD Picture*²
- Sound
- Ethernet
- RS232C
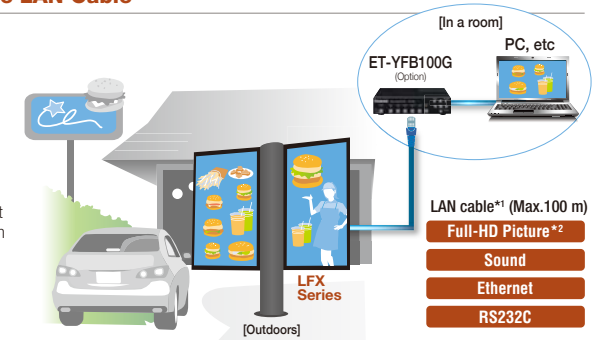
Aluminum Cabinet and Tempered Glass

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

Resists corrosion!

A 5 cm -diameter iron ball weighing 500 g.
Dropped from a height of 1.3 m.
The screen doesn't crack!

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.

Feature video

Outdoor Tough Signage Full HD LCD Display video

LFB Series

80"
65"
50"

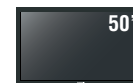|	Model no.	TH-80LFB70	TH-65LFB70		TH-50LFB70
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/16:9	65-inch (1638 mm)/16:9		50-inch (1257 mm)/16:9
	Panel Type	LCD VA Panel/E-LED	LCD VA Panel/E-LED		LCD VA Panel/E-LED
	Effective Display Area (W x H)	1771 x 996 mm	1428 x 803 mm		1095 x 616 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels		1920 x 1080 pixels
	Brightness	350 cd/m² (Typ)	350 cd/m² (Typ)		350 cd/m² (Typ)
	Contrast Ratio	5000:1	4000:1		5000:1
	Response Time	4 ms (G to G)	6.5 ms (G to G)		6.5 ms (G to G)
	Viewing Angle	176°/176°	178°/178°		176°/176°
TOUCH PANEL	Detection Method	Infrared Blocking Detection Method	Infrared Blocking Detection Method		Infrared Blocking Detection Method
	PC Connection Port	USB (3.0 Compliant)	USB (3.0 Compliant)		USB (3.0 Compliant)
TERMINAL	VIDEO In	BNC x 1			BNC x 1
	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			HDMI Type A Connector x 2
	Component/RGB In	BNC x 1 set			BNC x 1 set
	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 (Digital) x 1			DVI-D 24-pin (Digital) 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 x1 (Female), Plug & Play (VESA DDC 2B)			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)			Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
	PC Out	Mini D-Sub 15-pin x1			Mini D-Sub 15-pin x1
	USB A	TYPE A USB Connector × 1 (For Memory Viewer)			TYPE A USB Connector × 1 (For Memory Viewer)
	USB B	TYPE B USB Connector × 1 (For Touch Panel)			TYPE B USB Connector × 1 (For Touch Panel)
	Serial	D-Sub 9-pin x 1 (male) for external control, RS-232C Compatible			D-Sub 9-pin x 1 (male) for external control, RS-232C Compatible
	DIGITAL LINK	RJ45 x 1 (Shared with LAN)			RJ45 x 1 (Shared with LAN)
	LAN	RJ45 x 1, 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)			RJ45 x 1, 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)
	Function Slot	SLOT2.0 x 1			SLOT2.0 x 1
GENERAL	Power Requirements	220-240 V AC, 50/60 Hz	220-240 V AC, 50/60 Hz		220-240 V AC, 50/60 Hz
	Power Consumption	350 W	215 W		140 W
	Power Off Consumption	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
	Dimensions (W x H x D)	1868 x 1093 x 104 mm	1517 x 892 x 106 mm		1185 x 705 x 103 mm
	Carton Size (W x H x D)	2075 x 1319 x 404 mm (TH-80LFB70W) 2069 x 1315 x 400 mm (TH-80LFB70E)	1720 x 1027 x 286 mm (TH-65LFB70W) 1714 x 1023 x 282 mm (TH-65LFB70E)		1387 x 839 x 286 mm (TH-50LFB70W) 1385 x 836 x 284 mm (TH-50LFB70E)
	Bezel Width	43 mm	39 mm		39 mm
	Weight	Approx. 84.0 kg	Approx. 58.0 kg		Approx. 33.0 kg
	Gross Weight	Approx. 103.0 kg	Approx. 68.0 kg		Approx. 40.0 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	684 x 300 mm		400 x 300 mm
	Protective Glass Thickness	Approx. 4 mm/Anti-Glare	Approx. 3.2 mm/Anti-Glare		Approx. 2.5 mm/Anti-Glare
	Built-in Speaker	20 W [10 W + 10 W]	20 W [10 W + 10 W]		20 W [10 W + 10 W]
	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)
	Operating Environment	Temperature: 0 °C to 40 °C, Humidity: 20 % to 80 % (Non Condensation)			Temperature: 0 °C to 40 °C, Humidity: 20 % to 80 % (Non Condensation)
	Storage Environment	Temperature: -20 °C to 60 °C, Humidity: 20 % to 80 % (Non Condensation)			Temperature: -20 °C to 60 °C, Humidity: 20 % to 80 % (Non Condensation)
OPTIONS	Pedestal	TY-ST65P20	TY-ST65P20		TY-ST42P50
	Wall-hanging Bracket	TY-WK70PV50 (Vertical)	TY-WK65PR20 (Vertical)		TY-WK42PV20 (Vertical)
	Wall-hanging Bracket (Angled)	—	—		TY-WK42PR20 (Angled)
	Ceiling-hanging Bracket	—	—		TY-CE42PS20
	Mobile Stand	TY-ST80LF70	TY-ST65PB2		TY-ST50PB2/TY-ST58PF20
	Easy Wireless Stick	ET-UW100	ET-UW100		ET-UW100
	Digital Interface Box	ET-YFB100G	ET-YFB100G		ET-YFB100G
	DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G		ET-YFB200G
	Early Warning Software	ET-SWA100	ET-SWA100		ET-SWA100
FUNCTION BOARD	HD-SDI Terminal Board	TY-FB9HD	TY-FB9HD		TY-FB9HD
	HD-SDI Terminal Board with Audio	TY-FB10HD	TY-FB10HD		TY-FB10HD
	Dual Link HD-SDI Terminal Board	TY-FB11DHD	TY-FB11DHD		TY-FB11DHD
	Dual HDMI Terminal Board	TY-FB10HMD	TY-FB10HMD		TY-FB10HMD
	BNC Dual Video Terminal Board	TY-FB9BD	TY-FB9BD		TY-FB9BD
	DVI-D Terminal Board	TY-FB11DD	TY-FB11DD		TY-FB11DD

Feature videos

Built-in Whiteboard Function

Whiteboard Software Ver.5 for PC

Introduction of Panasonic Wireless Solution

LFC Series
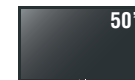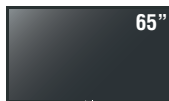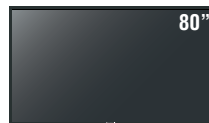
	Model no.	**TH-80LFC70**	**TH-65LFC70**	**TH-50LFC70**
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/ 16:9	65-inch (1638 mm)/16:9	50-inch (1257 mm)/16:9
	Panel Type	LCD VA Panel/E-LED	LCD VA Panel/E-LED	LCD VA Panel/E-LED
	Effective Display Area (W x H)	1771 x 996 mm	1428 x 803 mm	1095 x 616 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels	1920 x 1080 pixels
	Brightness	350 cd/m² (Typ)	350 cd/m² (Typ)	350 cd/m² (Typ)
	Contrast Ratio	5000:1	4000:1	5000:1
	Response Time	4 ms (G to G)	6.5 ms (G to G)	6.5 ms (G to G)
	Viewing Angle	176°/176°	178°/178°	176°/176°
TERMINAL	VIDEO In	BNC x 1		BNC x 1
	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		HDMI Type A Connector x 2
	Component/RGB In	BNC x 1 set		BNC x 1 set
	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 (Digital) x 1		DVI-D 24-pin (Digital) 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 x1 (Female), Plug & Play (VESA DDC 2B)		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)		Stereo Mini Jack (M3) x 1 (Shared with DVI-D In)
	PC Out	Mini D-Sub 15-pin x1		Mini D-Sub 15-pin x1
	USB	TYPE A USB Connector × 1 (For Memory Viewer)		TYPE A USB Connector × 1 (For Memory Viewer)
	Serial	D-Sub 9-pin x 1 (male) for external control, RS-232C Compatible		D-Sub 9-pin x 1 (male) for external control, RS-232C Compatible
	DIGITAL LINK	RJ45 x 1 (Shared with LAN)		RJ45 x 1 (Shared with LAN)
	LAN	RJ45 x 1, 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)		RJ45 x 1, 100BASE-TX, Compatible with PJLink™ (Shared with DIGITAL LINK)
	Function Slot	SLOT2.0 x 1		SLOT2.0 x 1
GENERAL	Power Requirements	220-240 V AC, 50/60 Hz	220-240 V AC, 50/60 Hz	220-240 V AC, 50/60 Hz
	Power Consumption	345 W	210 W	135 W
	Power off Consumption	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
	Dimensions (W x H x D)	1868 x 1093 x 99 mm	1484 x 859 x 97 mm	1151 x 672 x 94 mm
	Carton Size	2075 x 1319 x 404 mm (TH-80LFC70W)	1720 x 1027 x 286 mm (TH-65LFC70W)	1387 x 839 x 286 mm (TH-50LFC70W)
		2069 x 1315 x 400 mm (TH-80LFC70E)	1714 x 1023 x 282 mm (TH-65LFC70E)	1385 x 836 x 284 mm (TH-50LFC70E)
	Bezel Width	45 mm	25 mm	25 mm
	Weight	Approx. 83 kg	Approx. 55 kg	Approx. 30 kg
	Gross Weight	Approx. 101 kg	Approx. 64 kg	Approx. 38 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	684 x 300 mm	400 x 300 mm
	Protective Glass Thickness	Approx. 4 mm/Anti-Glare	Approx. 3.2 mm/Anti-Glare	Approx. 2.5 mm/Anti-Glare
	Built-in Speaker	20 W [10 W + 10 W]	20 W [10 W + 10 W]	20 W [10 W + 10 W]
	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)
	Operating Environment	Temperature: 0 °C to 40 °C, Humidity: 20 % to 80 % (Non Condensation)		Temperature: 0 °C to 40 °C, Humidity: 20 % to 80 % (Non Condensation)
	Storage Environment	Temperature: -20 °C to 60 °C, Humidity: 20 % to 80 % (Non Condensation)		Temperature: -20 °C to 60 °C, Humidity: 20 % to 80 % (Non Condensation)
OPTIONS	Pedestal	TY-ST65P20	TY-ST65P20	TY-ST42P50
	Wall-hanging Bracket	TY-WK70PV50 (Vertical)	TY-WK65PR20 (Vertical)	TY-WK42PV20 (Vertical)
	Wall-hanging Bracket (Angled)	—	—	TY-WK42PR20 (Angled)
	Ceiling-hanging Bracket	—	—	TY-CE42PS20
	Mobile Stand	TY-ST80LF70	TY-ST65PB2	TY-ST50PB2/TY-ST58PF20
	Easy Wireless Stick	ET-UW100	ET-UW100	ET-UW100
	Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G
	DIGITAL LINK Switcher	ET-YFB200G	ET-YFB200G	ET-YFB200G
	Early Warning Software	ET-SWA100	ET-SWA100	ET-SWA100
FUNCTION BOARD	HD-SDI Terminal Board	TY-FB9HD	TY-FB9HD	TY-FB9HD
	HD-SDI Terminal Board with Audio	TY-FB10HD	TY-FB10HD	TY-FB10HD
	Dual Link HD-SDI Terminal Board	TY-FB11DHD	TY-FB11DHD	TY-FB11DHD
	Dual HDMI Terminal Board	TY-FB10HMD	TY-FB10HMD	TY-FB10HMD
	BNC Dual Video Terminal Board	TY-FB9BD	TY-FB9BD	TY-FB9BD
	DVI-D Terminal Board	TY-FB11DD	TY-FB11DD	TY-FB11DD

Feature video

Multi-Platform Wireless Projection Solutions from Panasonic

Introduction of Panasonic Wireless Solution

Multi Touch Screen LCD Displays LFB70 Series/
Network LCD Displays LFC70 Series

Quick-Start Whiteboard `LFB70`

Start working on the built-in whiteboard instantly—just switch on the display. You can draw straight or freehand lines, and change line thickness, colour, and background using the tool palette. To switch input sources, picture settings, and volume, swipe the edge of the screen to display the main menu—no remote control necessary.

| Power On | → | Start Whiteboard |

A B C D E F G
Whiteboard

Swipe screen to display menu
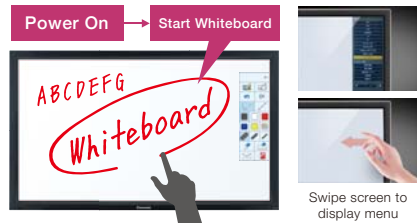
Easy and Intuitive Operation `LFB70`

Four-point multi-touch functionality makes it easy to resize and move graphics around on your documents. The included Stylus Pen and Eraser accessory is a convenient way to write large amounts of text. So simple to use, even for children and less technically experienced presenters.

Whiteboard Software for PC Extends Your Capabilities `LFB70`

Whiteboard Software for PC offers extra functionality for power users. As well as adding extra presentation tools and a PowerPointR Link mode to easily import and modify PowerPoint files, the application's six-point touch interface lets up to six people write and draw simultaneously. Other highlights include:

• Three modes of operation*3 (Whiteboard Function, PowerPoint® Link Mode, and Desktop Operation)
• More presentation tools*3 (Loupe, Spotlight, Shade, Fade-out Marker)
• Screen video recorder function*3
• Image capture
• Image import (JPEG, PNG, BMP)
• Start-up from external memory*3

HDMI or VGA Cable
USB Cable
Easy Whiteboard Software

(Windows Version)
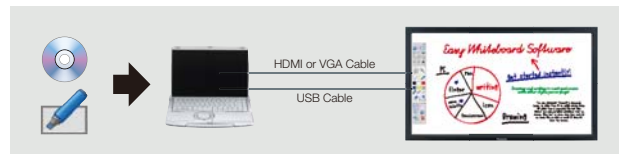
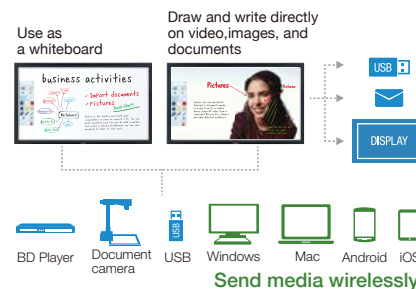## Write and Draw On Media from External Devices `LFB70`

You can write on almost any media you like, including video and still images. Swipe to bring up the main menu, display content from your external device, and start making notes. These dynamic multi-media capabilities make it easy for teams to share information and contribute ideas.

Easy Save and Share `LFB70`

Produce up to 100 pages of work on the whiteboard and save them to the built-in memory*1 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*2. Keeping everyone in the loop is simple.

Use as a whiteboard

Draw and write directly on video,images, and documents

business activities

Pictures

USB

DISPLAY

BD Player | Document camera | USB | Windows | Mac | Android | iOS

Send media wirelessly

Wireless and USB Connectivity `LFB70` `LFC70`

Miracast™ for Instant Wireless Sharing

Transmit documents, Full-HD video, images, and audio from compatible Android devices and Windows PCs to the big screen with Miracast™ — the latest wireless standard that doesn't require software or complicated setup. With no cables, fast connection, and high bandwidth, Miracast™ makes it easy for everyone to contribute.

Instant Playback of Content via USB

Playing back Full-HD video, still images, and digital documents from USB storage devices couldn't be easier. Just insert the memory device into the display's USB port and commence your presentation without having to first connect a PC. The USB Memory Viewer app enables image (JPEG, BMP) and video (WMV, AVI, MOV, MP4, MPG) selection from handy thumbnail previews.

Wireless Apps for iOS/Android Devices and PCs

A free iOS/Android app conveniently displays content from iPod touch®, iPhone®, iPad®, and Android devices, on the screen, with no cables and no hassle. For PC users, Wireless Manager ME 6.2*4 wirelessly transmits a variety of media (including audio*5) from your computer to the display. It includes a Multi-Live mode to facilitate the display of content from up to 16 PCs or iOS/Android devices simultaneously. Alternatively you can plug an Easy Wireless Stick (ET-UW100)*6 into your computer's USB port to send content wirelessly.

4-Window Multi | 4-Window Index
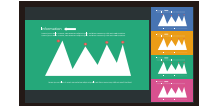
16-Window Index*7

System Flexibility `LFB70` `LFC70`

DIGITAL LINK

DIGITAL LINK transmits uncompressed Full HD video, audio, and control commands through a single CAT5e cable for up to 100 m (328 ft).
Connect all your source devices to an optional Digital Interface Box (ET-YFB100G) and use just one cable to link your display. This simplifies installation and saves on cabling costs.

LFB70/LFC70

HDMI
Video
Audio
Control Command

PC, etc.

CAT5e (STP) cable or higher (Max.100 m)

ET-YFB100G (Optional)

Easily Connect a Second Display

Use a VGA cable to mirror*8 content on a second display or projector — even the notes added to documents, images, or video during your presentation. This dual-display capability makes both the LFB70 and LFC70 Series ideal for use in lager venues.

Supported Inputs: HDMI/DVI/PC/Memory Viewer/Whiteboard

Other Features

• Expand and Customize with SLOT2.0
• PJLink™ Compliant
• Picture-in-Picture Capability
• Built-in Speaker
• Toughened Non-Reflective Glass

*1: Built-in memory ON/OFF is included. When OFF is selected, only one whiteboard page can be created. *2: Can be sent as JPEG format only. Does not support mail servers using SSL or STARTTLS. *3: For Windows® only. *4: Supported by Windows Vista®/Windows® 7/Windows® 8 and Windows® 8.1 and Macintosh (Mac OS X v10.6/v10.7/v10.8/v10.9). *5: Windows Vista®, Windows® 7 and Windows® 8 and Windows® 8.1 users must log in using the Administrator's account. When a Windows® 7-equipped computer is first used, the sound driver may require adjustment. *6: The ET-UW100 cannot transfer audio files. Only the 16-Window Index Style can be used in Multi-Live Mode. The ET-UW100 is available in the following countries and regions as of October 2013: North America, England, Germany, France, Spain, Italy, Belgium, Austria, Sweden, Norway, Denmark, Switzerland, Holland, Finland, Portugal, Greece, Australia, and Japan. A firmware update is necessary before using the ET-UW100. For more information, please visit our Professional Display global website at http://panasonic.net/prodisplays/ *7: When using the [M-DIRECT] or [S-DIRECT] setting for your display, you can connect with up to 10 PCs at the same time in Multi-Live mode. *8: Supports 1080/60p signal only.

Note: Images on screen are simulated. Use of this product shall be in compliance with all relevant and applicable copyright protection laws. Data or work entered by the user into the Product's external inputs (including but not limited to motion pictures and photography) shall be the creation of the user (excluding quoting) or shall be authorized for use by the author(s) of the data or work. Panasonic has no right or authority to grant the product user any licence, rights, and titles to use, modify, copy, or distribute, etc., any data or work not created by the user or used with express permission of the data or work's author(s).
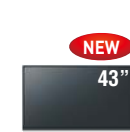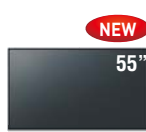
	Model no.	TH-65LFE8	TH-55LFE8		TH-48LFE8	TH-43LFE8
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	65-inch (1638 mm)/16:9	55-inch (1387 mm)/16:9		48-inch (1209 mm)/16:9	43-inch (1079 mm)/16:9
	Panel Type	LCD VA Panel/E-LED	LCD IPS Panel/D-LED		LCD VA Panel/D-LED	LCD VA Panel/D-LED
	Effective Display Area (W x H)	1428 x 803 mm	1209 x 680 mm		1054 x 592 mm	940 x 529 mm
	Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels		1920 x 1080 pixels	1920 x 1080 pixels
	Brightness	350 cd/m²	350 cd/m²		350 cd/m²	350 cd/m²
	Contrast Ratio	5000:1	1200:1		4000:1	3000:1
	Response Time	6.5 ms (G to G)	9 ms (G to G)		8 ms (G to G)	6.5 ms (G to G)
	Viewing Angle	176°/176° (CR≧20)	178°/178° (CR≧20)		178°/178° (CR≧20)	178°/178° (CR≧10)
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	USB 2.0 Type-A connector x 1			USB 2.0 Type-A connector x 1	
	Serial	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 PJLink™			RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PJLink™	
	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	160 W	170 W		150 W	135 W
	On Mode Average Power Consumption*1	115 W	130 W		105 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)	1451 x 829 x 62 mm	1239 x 712 x 62 mm		1082 x 624 x 62 mm	969 x 560 x 61 mm
	Carton Size	1667 x 1052 x 280 mm	1365 x 864 x 185 mm		1192 x 773 x 171 mm	1070 x 696 x 159 mm
	Bezel Width	7.5 mm (Left/Right/Top), 10.5 mm (Bottom)	12.6 mm (Left/Right/Top), 14.5 mm (Bottom)		11.9 mm (Left/Right/Top), 14.7 mm (Bottom)	11.9 mm (Left/Right/Top), 14.9 mm (Bottom)
	Weight	Approx. 36.2 kg	Approx. 16.0 kg		Approx. 11.5 kg	Approx. 8.7 kg
	Gross Weight	Approx. 47.0 kg	Approx. 24.0 kg		Approx. 17.0 kg	Approx. 14.0 kg
	Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm			VESA Compliant 200 x 200 mm	
	Built-in Speaker	20 W [10W + 10 W] (10% THD)			20 W [10W + 10 W] (10% THD)	
	External Speaker	—			—	
	Operating Environment	Temperature: 0 °C to 40 °C*2 / Humidity: 20 % to 80 % (Non Condensation)*3			Temperature: 0 °C to 40 °C*2 / Humidity: 20 % to 80 % (Non Condensation)*3	
	Storage Environment	Temperature: -20 °C to 60 °C*2 / Humidity: 20 % to 80 % (Non Condensation)*3			Temperature: -20 °C to 60 °C*2 / Humidity: 20 % to 80 % (Non Condensation)*3	
OPTIONS	Pedestal	TY-ST65PE8	TY-ST43PE8		TY-ST43PE8	TY-ST43PE8
	Early Warning Software	ET-SWA100	ET-SWA100		ET-SWA100	ET-SWA100

*1 Based on IED 62087 Ed.2 measurement method.

*2 Environmental temperature to use this unit at high altitudes (1400 m and higher and below 2800 m above sea level): 0 °C to 35 °C

*3 Depending on the temperature or humidity conditions, uneven brightness may be observed. This is not a malfunction.

Stylish LFE8 Professional Displays
Hit the Cost-to-Performance Sweet Spot

Installs in Just About Any Space

This slim design allows effective space utilization in stores, showrooms and conference rooms. With a depth of less than 62 mm, it is also not oppressive when mounted on a wall. Available in four sizes: 65, 55, 48, and 43 inches.

The Slim Bezel Enhances Viewing and Replacement

The bezel is about the same width all around the perimeter. On the 65-inch model, the bezel is only 7.5 mm wide on the top and both sides, and 10.5 mm on the bottom. In addition, when replacing, for example, a 60-inch PDP TV, a larger, 65-inch model can fit into almost the same space.

60 Display

65 LFE8

* Compared with the previous 60-inch model.

Simple Signage Operation with No Set-top Box

The LFE8 Series features a USB media player. Signage operation is possible by simply inputting the desired content via USB, eliminating the need for a set-top box. Both videos and still images can be displayed, so a wide variety of original signage content can be used.

[Notes]
• The maximum size of file is 2 GB.
• You cannot play the files which are protected by Digital Rights Management (DRM).
• Both an image and the sound choose support form.
• Don't support reproduction of only an audio file.

[Applicable device]
• Devices with security feature are not supported.
• Devices not formatted with FAT16 or FAT32 cannot be used.
• The maximum memory size of USB is 32 GB.

Single Media Player

Multi Media Player

Connecting more than one unit with LAN cable reproduces files in USB memory simultaneously. One of the units becomes Master, and the others Slaves.

*For Media Player, provide the following files in USB memory. Play file / Scenario / File list

Choose the Installation to Match Your Application

The LFE8 Series is often used vertically for menu boards and town guide displays, and can be mounted in landscape, portrait, or multi-screen configuration. This provides information that is easy to see even in relatively high places inside the store, and increases mounting possibilities.

Portrait

*Tilt
0-20 degrees forward with landscape setting.

Multi Display

Built-in Speakers Are Convenient for Videoconferences

The LFE8 Series features 10 W + 10 W built-in speakers. This eliminates the need for external speakers when displaying content with a sound track or when holding videoconferences. There is also no need to consider the space for the speakers when setting up the display.

Increased Signal Support for a Wide Variety of Content

Compared to the LFE7 Series, the number of signals supported by the LFE8 Series has been increased by 25 to provide a total of 59. This lets you display the content of various formats. It also saves labor, not only for signage use, but also for reproducing materials in meeting rooms by eliminating the need to convert materials in advance.

Applicable input signals

Component/Video	PC
18 signals	59 signals
+2 signals	+25 signals

*Compared to the LFE7 Series.

Multi Monitoring & Control Software Compatible

This free Panasonic original 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 devices can be separately displayed. Even more detailed information can be obtained by adding Early Warning Software (paid). 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.

Information desk

Corridor

INTRANET

Monitoring

Control

Group

LAN

Monitoring Station
PC with "Multi Monitoring Controls Software"

Shopping Mall

*Download Software from Global Website: http://panasonic.net/prodisplays/download/software/index.html
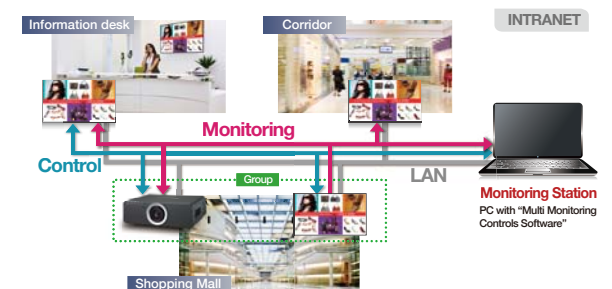
Early Warning Software Compatible

Combination with a network that includes Early Warning Software also allows remote monitoring of the panel's usage condition for cost-saving operation.

Early Warning Software:
http://panasonic.net/prodisplays/products/et-swa100/index.html

Monitoring display and projectors

Error occurrence

Warning occurrence

Monitoring

Internet

Error information

Warning information

Monitoring system (SNMP Manager)

Access point

E-Mail transmissions

Remote monitoring

Monitoring server

E-mail notification enables quick response

SNMP manager
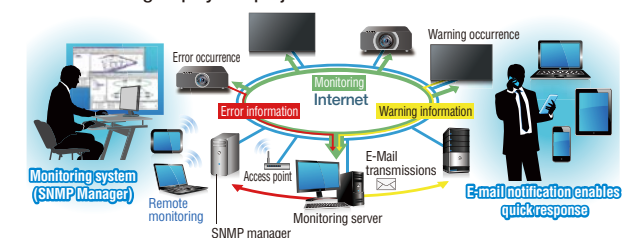
A LAN Control function for Internet-based control

This function is highly convenient for operating signage for multiple displays. Control is performed from a PC over a LAN network. General-purpose LAN cabling is used, and the PC allows troubleshooting if an error should occur, for immediate response.

Network

CRESTRON
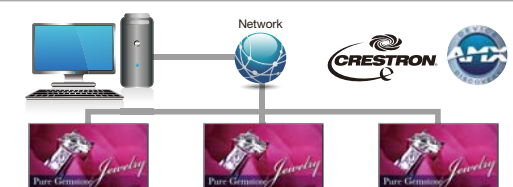
Panasonic professional displays at work in a variety of field and location.

Sanyo Broadcasting Co., Ltd., Japan

LFV Series
TH-55LFV5 x 12

A video wall system for use as part of a studio for TV programmes and for displaying information

Large-screen video wall system configured with super-narrow-bezel LCD displays

The visual display system installed in the new open studio has to fulfill the requirements for two application purposes: one for use as part of studio setups for the recording of TV programmes and the other for the display of information content during the use of the studio as a multi-purpose space. To draw attention of people to the image display, Sanyo Broadcasting decided to install a large-screen video wall system.

The large-screen video wall system and the huge logo mark in vivid colour embellish the open studio.

Why Panasonic?

- Anti-glare panel ideal for the recording of a TV programme
- Wide viewing angle

TV programmes are recorded in the open studio. Since the studio is conveniently located inside the train station, it is constantly visited by many people.

Kochi City Educational Committee, Japan

LFB Series
TH-65LFB70 x 85

An elementary school that combines Electronic Whiteboards with easy-to-operate video cameras to study and implement education

Studying and Implementing Elementary School Education Using Electronic Whiteboards

Kochi City Educational Committee is an administrative organization that manages a variety of schools in Kochi City. It has also established an Educational Research Institute and is engaged in the research of ICT. A total of 85 ICT Systems were used, centring on the LFB70 Series high-resolution LCD display with a touch panel.

Information can also be written directly onto the displayed images without having to use a PC.

Why Panasonic?

- A built-in Whiteboard function that allows use immediately after turning the power on
- Wireless connection for devices without having to use a PC
- A durable protective glass for break-resistant

For more information about case studies, please visit: **http://panasonic.net/prodisplays/casestudies/**

CEMUSA, Spain

LF Series
TH-70LF50 x 170

Panasonic fills Spanish airports with vibrant images, light, and colour

Spanish airports make reliable and effective digital signage imperative for an airport's successful communication.

The exclusive management of all airports of the peninsula and the Balearics was awarded to Cemusa, a leading international company in outdoor advertising based in Madrid. Cemusa presented a proposal that included installing a total of 171 advertising spaces with 70-inch displays. The displays selected were the Panasonic TH-70LF50, LCD displays that can operate continuously 24/7. The durable displays feature high image quality and high brightness levels.

Throughout any major airport, passengers are exposed to panels and displays which offer flight details, global news, entertainment, advertisements and more.

Why Panasonic?

- 24/7 Operation
- Guaranteed visibility
- Wide viewing angle
- Energy saving

Thanks to their 700 cd/m^2 brightness and 5000:1 contrast ratio, coupled with the 70-inch size and their wide viewing angle, the TH-70LF50 displays are highly visible in any public space.

Expo '70 Commemorative Park, Japan

LFX Series
TH-47LFX6 x 2

Durable, all-weather LCD displays installed in the huge public space measuring about 260 hectares provide various information to visitors

Durable, all-weather LCD displays selected for image displays

The Expo '70 Commemorative Park considered installing a digital signage system for the following main purposes:

- Reducing the number of signboards without decreasing the amount of information provided.
- Improving the quality of information and enhancing visitor service through speedy and accurate updates of information.

The housing is designed to cover the entire display unit to prevent injury by bumping into the display corners.
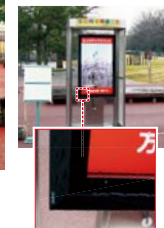
Images are displayed without any problem even if the display surface becomes wet with raindrops

Why Panasonic?

- Dust-proof and water-resistant performance equivalent to protection class IP44
- High-brightness for sharp and clear image even under bright sunlight
- The tempered glass provides strong resistance to impacts

Banpaku Navision uses durable LCD displays fit for outdoor applications. DIGITAL LINK is used to connect the outdoor displays to the image source equipment set up indoors.

Turnkey Solution for Multi-window Presentations

Multi-Window Processor
ET-MWP100G

DIGITAL LINK
SINGLE CABLE SOLUTION

The ET-MWP100G Multi-Window Processor makes it possible to quickly and efficiently combine multiple displays and projectors into a video wall or a multi vision system.

- ■ Flexible Window Layout
- ■ Extensive Connectivity
- ■ Ideal for Long-Term Operation

| Digital Signage Featuring the LFV Series LCD Displays

Video Wall
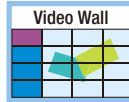
Incorporating the ET-MWP100G into this system allows a variety of content to be displayed with a highly flexible layout. It brings powerful impact and appeal to digital signage.

Smart Hub Makes Single-Cable Connection Easy

Digital Interface Box
ET-YFB100G

DIGITAL LINK
SINGLE CABLE SOLUTION

- ■ Transmits Digital Signals with a Single Cable
- ■ Outputting High-Quality Images in Their Optimal Form
- ■ Convenient Functions Expand System Configuration Potential

Efficient AV Control Integration

DIGITAL LINK Switcher
ET-YFB200G

DIGITAL LINK
SINGLE CABLE SOLUTION

- ■ Simple and Cost-Effective Multi-Output Switching
- ■ Easy Operation and Installation
- ■ High-Fidelity Digital Signal Transmission

| Application example: Distribute Digital Signals to Two Display Devices

Speaker L
DVI-D OUT
Reference monitor
Projector
Speaker R
ET-YFB200G
DIGITALLINK 2
HDMI 2
Blu-ray Disc player
VIDEO
VCR
HDMI 1
VGA 1
VGA 2
Amplifier
Audio Out
PC
PC
Document camera
Control PC
Display
DIGITALLINK 1
CAT5e (STP) cable or higher
(Up to 100 m)

For more information about DIGITAL LINK, please visit:
http://panasonic.net/prodisplays/solutions/technology/digital_link/index.html

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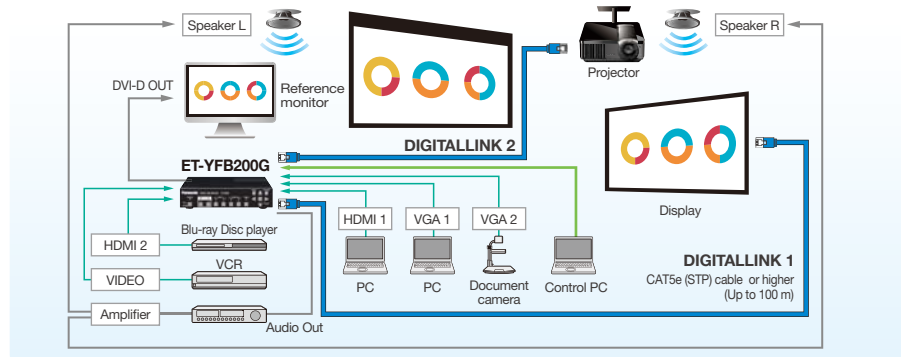		4K				Indoor								Video Wall				Multi Touch Screen	Network			Standard			
Size (inch)	TH-98LQ70	TH-84LQ70	TH-98LQ70L	TH-84LQ70L	TH-80LF50	TH-70LF50	TH-55LF60	TH-47LF60	TH-42LF60	TH-55LF6	TH-47LF6	TH-42LF6	TH-55LFV70	TH-55LFV50	TH-55LFV5	TH-47LFV5	TH-80LFB70	TH-65LFB70	TH-50LFB70	TH-80LFC70	TH-65LFC70	TH-50LFC70	TH-65LFE8	TH-55LFE8	TH-48LFE8	TH-43LFE8
Size (inch)	98	84	98	84	80	70	55	47	42	55	47	42	55	55	55	47	80	65	50	80	65	50	65	55	48	43
Function Board BNC Dual Video TY-FB9BD	–	–	–	–	–	–	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal	●	●	●	●	●	●	Fixed Terminal	Fixed Terminal	Fixed Terminal	Fixed Terminal
Dual HDMI TY-FB10HMD	–	–	–	–	●	●											●	●	●	●	●	●				
Dual Link HD-SDI TY-FB11DHD	–	–	–	–	–	–											●	●	●	●	●	●				
DVI-D for 11series TY-FB11DD	–	–	–	–	–	–											●	●	●	●	●	●				
HD-SDI TY-FB9HD	–	–	–	–	–	–											●	●	●	●	●	●				
HD-SDI with Audio TY-FB10HD	–	–	–	–	●	●											●	●	●	●	●	●				
3G-SDI with Audio TY-TBN03G	●	●	●	●	–	–											–	–	–	–	–	–				
Mounting Options **Pedestal** TY-ST103PF9	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-ST85P12	–	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-ST65P20	–	–	–	–	●	–	–	–	–	–	–	–	–	–	–	–	●	●	–	●	●	–	–	–	–	–
TY-ST58P20	–	–	–	–	–	●	●	–	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-ST42P50	–	–	–	–	–	–	●	●	–	●	●	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–
TY-ST65PE8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–
TY-ST43PE8	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●
Mobile Stand TY-ST85PB1	–	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-ST80LF70	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–	–	–
TY-ST65PB2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–	–
TY-ST58PF20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–	–
TY-ST50PB2	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–
Wall-hanging Bracket TY-WK103PV9	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-WK85PV12	–	●	–	●	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-WK70PV50	–	–	–	–	●	●	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–	–	–
TY-WK65PR20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–	–
TY-WK42PV20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–
TY-WK42PR20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–
Ceiling Bracket TY-CE103PS10	●*	–	●*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-CE85PS12	–	●*	–	●*	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
TY-CE42PS20	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	●	–	–	–	–
Installation Mounts** TY-VK55LV1	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	–	–	–	–	–	–	–	–	–	–	–
TY-VK47LV1	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	–	–	–
Cover Frame Kit** TY-CF55VW50	–	–	–	–	–	–	–	–	–	–	–	–	●	●	●	–	–	–	–	–	–	–	–	–	–	–
TY-CF47VW5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	●	–	–	–	–	–	–	–	–	–	–

* Tilt angle limited to 10 degree maximum.
** LFV Series only

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	4K				Indoor								Video Wall				Outdoor		Multi Touch Screen			Network			Standard			
	TH-98LQ70	TH-84LQ70	TH-98LQ70L	TH-84LQ70L	TH-80LF50	TH-70LF50	TH-55LF60	TH-47LF60	TH-42LF60	TH-55LF6	TH-47LF6	TH-42LF6	TH-55LFV70	TH-55LFV50	TH-55LFV5	TH-47LFV5	TH-47LFX60	TH-47LFX6N	TH-80LFB70	TH-65LFB70	TH-50LFB70	TH-80LFC70	TH-65LFC70	TH-50LFC70	TH-65LFE8	TH-55LFE8	TH-48LFE8	TH-43LFE8
Size (inch)	98	84	98	84	80	70	55	47	42	55	47	42	55	55	55	47	47	47	80	65	50	80	65	50	65	55	48	43
SPECIFICATION																												
Touch Operation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	–	–	–	–	–	–	–
IP Rating	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	IP55	IP55	–	–	–	–	–	–	–	–	–	–
24/7 Operation	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–
DIGITAL LINK	Yes	Yes	Yes	Yes	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Protective Glass	Yes	Yes	–	–	Yes*1	Yes*1	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Multi-res. Quad Display*2	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
INSTALLATION																												
Outdoor Installation	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	–	–	–	–	–	–	–	–	–	–
Multi Screen	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	Yes	Yes	Yes	Yes
Portrait	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
Pre Calibration	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–
Narrow Bezel	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes
Fan-less Design	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes
SLOT NX	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
SLOT2.0	–	–	–	–	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Ceiling-Suspension	–	–	–	–	Yes	Yes	Yes	–	–	Yes	–	–	Yes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–
Monitor Out	–	–	–	–	–	–	–	–	–	–	–	–	Yes	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
FUNCTION																												
Built-in Whiteboard	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	–	–	–	–	–	–	–
USB Media Player	–	–	–	–	–	–	–	–	–	–	–	–	Yes	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes
Memory Viewer	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Wireless Function	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Miracast™	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
LAN Control	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
Input Search	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Digital Zoom	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Bezel H/V Adjustment	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes
Daisy-Chain Connection	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–
IR In/Out (infrared signal) Connection	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes
Power on Screen Delay	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
Display ID Control	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
PC Power Management	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
DVI-D Power Management	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
HDMI Power Management	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	Yes	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Audio Input Select	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Picture in Picture	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Brightness Sensor	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Power Save Mode	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
Input/Button Lock	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
Remocon User Level	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
Weekly Command Timer	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	–
Screen Saver	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
Outdoor Mode	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	Yes	Yes	–	–	–	–	–	–	–	–	–	–
Early Warning Comapatible	Yes	Yes	Yes	Yes	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	–	–	–	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Super High Quality 4K Up-Scaling	Yes	Yes	Yes	Yes	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–	–

*1 Optional   *2 Up to Full HD.