

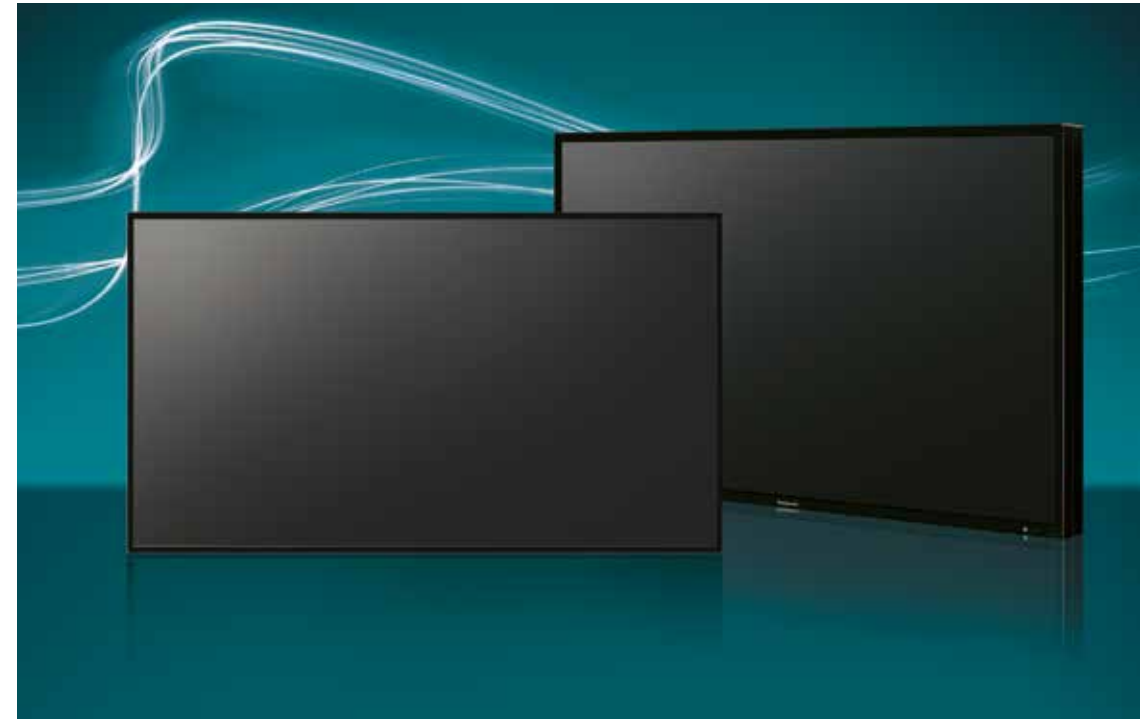
**Panasonic**

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# PROFESSIONAL DISPLAYS

LINE-UP CATALOGUE JANUARY 2015



# Panasonic Professional Displays Lineup

## 4K UHD Display



LQ70 Series

500 cd/m²

98" **NEW**

TH-98LQ70

84" **NEW**

TH-84LQ70



\*Actual resolution : 3840 x 2160p



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

## Indoor



LF50 Series

700 cd/m²

80"

TH-80LF50

70"

TH-70LF50

LF60 Series

700 cd/m²

55"

TH-55LF60

47"

TH-47LF60

42"

TH-42LF60

LF6 Series

450 cd/m²

55"

TH-55LF6

47"

TH-47LF6

42"

TH-42LF6



\*Optional (LF50 Series only)

(LF60/LF6 Series only)

(LF60 Series only)

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

## Video Wall



LFV70 Series

700 cd/m²

55" **NEW**

TH-55LFV70

LFV50 Series

800 cd/m²

55"

TH-55LFV50

LFV5 Series

500 cd/m²

55"

TH-55LFV5

47"

TH-47LFV5



(LFV70 only)

(LFV70 only)

- Installation Flexibility
- High Reliability
- High Visibility

## Outdoor



LFX60 Series

2000 cd/m²

47" **NEW**

TH-47LFX60

LFX6N Series

1200 cd/m²

47" **NEW**

TH-47LFX6N



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

## Multi Touch Screen



LFB70 Series

350 cd/m²

80"

TH-80LFB70

65"

TH-65LFB70

50"

TH-50LFB70



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

## Network



LFC70 Series

350 cd/m²

80"

TH-80LFC70

65"

TH-65LFC70

50"

TH-50LFC70



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

## Standard



LFE7 Series

350 cd/m²

65"

TH-65LFE7

50"

TH-50LFE7

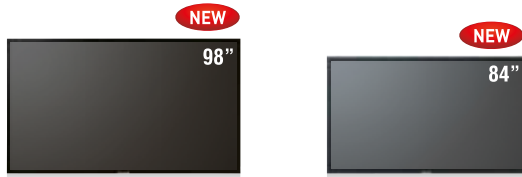
42"

TH-42LFE7



- Slim & Stylish Design
- Connection Terminals for Professional Use
- Portrait & Multi Display Configurations

# LQ Series



Model no.	TH-98LQ70	TH-84LQ70
<b>DISPLAY</b>		
Screen Size (Diagonal)/Aspect Ratio	98-inch/16:9	84-inch/16:9
Panel Type	LCD IPS Panel/D-LED	LCD IPS Panel/E-LED
Effective Display Area (W x H)	2159 x 1214 mm	1860 x 1047 mm
Number of Pixels (H x V)	3840 x 2160 pixels	3840 x 2160 pixels
Brightness (Typ)	500 cd/m <sup>2</sup>	500 cd/m <sup>2</sup>
Contrast Ratio	1300 : 1	1400 : 1
Dynamic Contrast Ratio	500000 : 1	500000 : 1
Response Time	8 ms (G to G)	12 ms (G to G)
Viewing Angle (Horizontal/Vertical)	178° / 178°	178° / 178°
<b>TERMINAL</b>	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	
DVI-D In	DVI-D 24pin x 1	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with PC In) x 1 set	
PC In	Mini D-sub 15-pin x 1 (Female)*2	
Audio In (L/R)	Stereo Mini Jack (M3) x 1 (Shared with DVI-D In) x 1 set	
Audio Out	Stereo Mini Jack (M3) x 1	
Serial In	D-sub 9-pin x 1, RS-232C Compatible	
LAN	RJ45 x 1 100BASE-TX, Compatible with PULink™ (Shared with DIGITAL LINK)	
DIGITAL LINK	RJ45 x 1 ( Shared with LAN )	
Function Slot	SLOT NX x 2 (Vacant)	
<b>GENERAL</b>	Power Requirements 220-240 V AC, 50/60 Hz	
Power Consumption	620 W	540 W
Power Off Condition	0.3 W	0.3 W
Stand-by Condition	0.5 W	0.5 W
Dimensions (W×H×D)	2233 x 1288 x 122 mm	1949 x 1141 x 99 mm
Carton Size (W x H x D)	2406 x 1520 x 460 mm	2194 x 1480 x 549 mm
Bezel Width	32.5 mm	32.5 mm
Weight	Approx. 136 kg	Approx. 100 kg
Gross Weight	Approx. 161 kg	Approx. 128 kg
Protective Glass	Yes	Yes
Built-in Speaker	20W [10W + 10W] (10% THD)	
Operating Environment	Temperature: 0 °C to 40 °C / Humidity: 20 % to 80 % (Non condensation) /Altitude 0-2400m*3	
Storage Environment	Temperature: -20 °C to 60 °C / Humidity: 20 % to 80 % (Non condensation)	
<b>OPTIONS</b>		
Pedestal	TY-ST103PF9	TY-ST85P12
Wall-hanging Bracket	TY-WK103PV9	TY-WK85PV12
Ceiling-hanging Bracket	TY-CE103PS10*	TY-CE85PS12*
	*Tilt angle limited to 10 degree maximum.	*Tilt angle limited to 10 degree maximum.
Mobile Stand	—	TY-ST85PB1
3G-SDI Terminal Board	TY-TBN03G* *Require 2 boards for 4K/60p	
DIGITAL LINK Interface Box	ET-YFB100G	

\*1 : HDCP supported, Embedded audio 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 to set [ON].

## 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

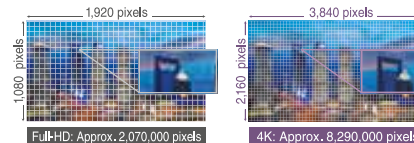
## Enables Continuous 24/7 Operation

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.



## Stunning Panasonic 4K Quality Right Down to the Details

With approximately 8,290,000 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.



Full-HD: Approx. 2,070,000 pixels

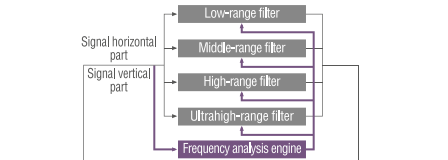
4K: Approx. 8,290,000 pixels

## 4K UHD Display

## 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.



Some large displays are blurry around the edges.

A sharp, clear image with crisp edges.

## 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.

## A wide range of professional 4K required applications

### • Public Information



### • Store Signage



### • Rentals & Staging



### • Control Rooms



### • Broadcast Studios



### • Meeting Rooms



# LF Series

Indoor



Model no.	TH-80LF50	TH-70LF50	TH-55LF60	TH-47LF60	TH-42LF60	
<b>DISPLAY</b>	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/m <sup>2</sup> (Typ)	700 cd/m <sup>2</sup> (Typ)	700 cd/m <sup>2</sup> (Typ)	700 cd/m <sup>2</sup> (Typ)	700 cd/m <sup>2</sup> (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	178°/178°	178°/178°	178°/178°	178°/178°	178°/178°	
<b>TERMINAL</b>	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 PLink™		RJ45 x 1 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)			
IR In/Out	-		IR x 1/x 1			
Function Slot	SLOT2.0 x 1		-			
<b>GENERAL</b>	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)			
<b>OPTIONS</b>	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
	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 %.



Model no.	TH-55LF6	TH-47LF6	TH-42LF6
<b>DISPLAY</b>			
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/m <sup>2</sup> (Typ)	450 cd/m <sup>2</sup> (Typ)	450 cd/m <sup>2</sup> (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°
<b>TERMINAL</b>			
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	—		—
<b>GENERAL</b>			
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)
<b>OPTIONS</b>			
Pedestal	TY-ST58P20	TY-ST42P50	TY-ST42P50
Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G
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

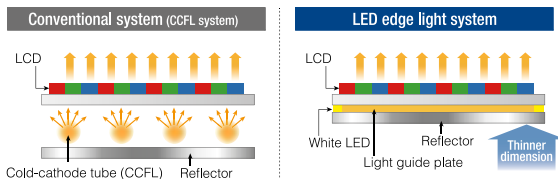
In addition to the high resolution of Full-HD and the wide viewing angle of the IPS panel, the LF Series features high brightness. This makes it possible to display crisp, clear images even in bright places, for signage with excellent information transmission performance.



**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.



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

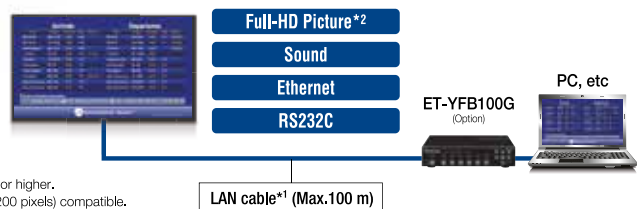
The display can be installed either horizontally or vertically to match the content and installation location without being affected by "Mura" (unevenness). This is because the display has relatively uniform pressure distribution as compared to a TV panel, which results in far better stability. Regardless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



**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\*. Easy cabling also reduces labor during setup. This provides transmission of high-quality images and sounds, as well as remote control.



\*1: CAT5e (STP) cable or higher.  
\*2: WUXGA (1920 x 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.



\* 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.

**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.



**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.

**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

The display can be installed in a permanent hanging position using eyebolts. Wall-mount brackets and hanging fixtures in compliance with VESA specifications can also be used for flexible installation.

\* 55-inch only.



# LFV Series

## Video Wall



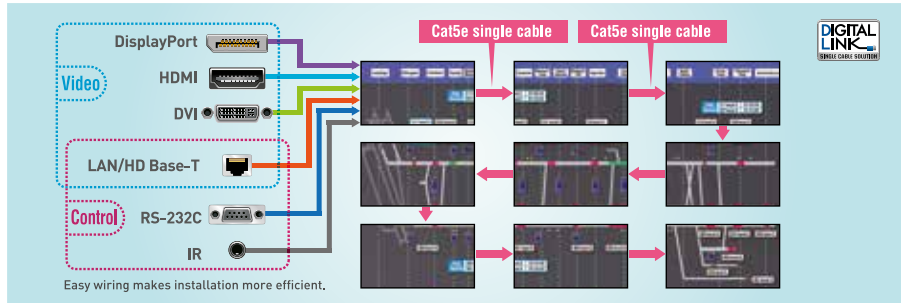
Model no.	TH-55LFV70	TH-55LFV50		TH-55LFV5	TH-47LFV5
DISPLAY	Screen Size (Diagonal)/Aspect Ratio	55-inch (1387mm)/16:9	55-inch (1387 mm)/16:9	55-inch (1387 mm)/16:9	47-inch (1192 mm)/16:9
	Panel Type	LCD IPS Panel/D-LED	LCD IPS Panel/D-LED	LCD IPS Panel/D-LED	LCD IPS Panel/D-LED
	Effective Display Area (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/m <sup>2</sup>	800 cd/m <sup>2</sup> (Typ)	500 cd/m <sup>2</sup> (Typ)	500 cd/m <sup>2</sup> (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 %)
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
	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: 20 % to 80 % (Non Condensation)	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: 20 % to 80 % (Non Condensation)	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

# Ultra/Super Narrow Bezel LCD Display LFB Series

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

LFB70

The terminal board for the LFB70 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.



## High Reliability Enables Continuous 24-Hour Operation and Portrait Installation

LFB70 LFB50 LFB5

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 LFB 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

LFB70

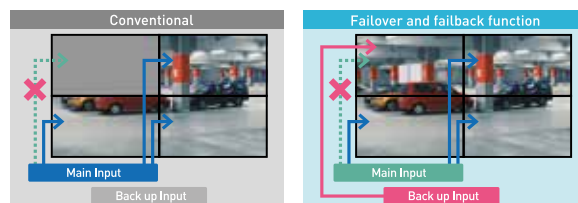
Simply connect USB memory sticks containing still contents files to a 2 x 2-unit multi-screen configuration for easy synchronized 4K signages.



## Failover and Failback Functions Support Emergency Situations

LFB70

The LFB70 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 centers.



If the main display signal is interrupted, the image is simply cut off.

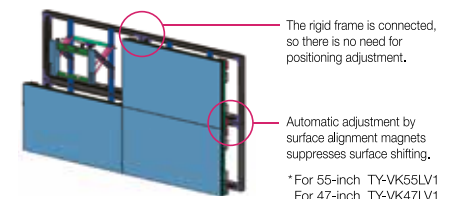
Even if the main display signal is interrupted, the system switches to a back-up signal, so the image is not cut off.

## Installation Frame Simplifies Set-up

LFB70 LFB50 LFB5

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.



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

## Calibration Functions Support Multi-Screen Installation

Video Wall Manager Software LFB70 LFB50 LFB5

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

Pre-calibration LFB70 LFB50 LFB5

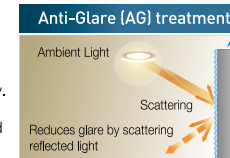
The color is adjusted on the LFB Series when it is shipped from the factory so there is no adjustment necessary during installation, which greatly shortens the time required for multi-screen installation. Color differences between the displays are also suppressed in order to display natural-appearing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

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

## Wide Viewing Angle for Sharper Images

Anti-Glare (AG) treatment Panel LFB70 LFB5

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.



IPS Panel LFB70 LFB50 LFB5

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



## Ultra Narrow Bezel with 3.5mm\* Thinness

LFB70

The ultra-narrow bezel results in joints that are only 3.5 mm (0.14")\* wide for video wall installations. Even in large-screen configurations, the screen borders can barely be seen, so images are powerful and natural.



\* TH-55LFB70 only.

## Turnkey Solution for Multi-window Presentations

LFB70 LFB50 LFB5

The ET-MWP100G Panasonic Multi-Window Processor (option) makes it possible to quickly and efficiently combine multiple displays and projectors into a video wall or a multi vision system. The ET-MWP100G can be used to build a wide range of creative, impressive images that were never before possible, including video walls, digital signage, TV studio displays, and live stage screens.

### Major Features

- Single or multiple output layouts and multiple canvases
- Simultaneous use of multiple layouts and canvases
- One or more windows (PinPs) on each canvas with 360° rotation of each window
- 16 interface board slots
- Low power consumption of max 160 W\* with 16 interface boards mounted
- Bezel area adjustment capable for flat panel displays



Multi-Window Processor ET-MWP100G (Optional)

\*When using a single power supply unit. The power consumption becomes 180 W when the optional ET-RPS100G power supply unit is added.

### Output Pattern Example





# LFX Series



Model no.	TH-47LFX60	TH-47LFX6N
<b>DISPLAY</b>		
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/m <sup>2</sup> (Typ)	1200 cd/m <sup>2</sup> (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°
<b>TERMINAL</b>		
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)	
<b>GENERAL</b>		
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)
<b>OPTIONS</b>		
Replacement Air Filter	TY-AF60STD	TY-AF60STD
Digital Interface Box	ET-YFB100G	ET-YFB100G
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)

Dust Resistance		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/m<sup>2</sup> Model with Wide-Viewing-Angle IPS Panel and LED Backlight

Images are clear even in brightly lit places. Full 2000 cd/m<sup>2</sup>\* 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.



\* The LFX60 only. The LFX6N has 1200 cd/m<sup>2</sup> of brightness.

## 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.



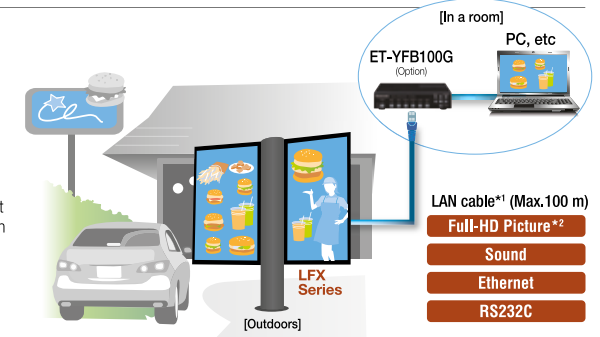
Direct sunlight raises the LCD panel temperature and causes blackouts.

The LFX operates stably even outdoors under direct sunlight.

## 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 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.



## 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.

## 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.

# LFB Series



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/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (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 x 1 (For Memory Viewer)		TYPE A USB Connector x 1 (For Memory Viewer)
	USB B	TYPE B USB Connector x 1 (For Touch Panel)		TYPE B USB Connector x 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 PLink™ (Shared with DIGITAL LINK)		RJ45 x 1, 100BASE-TX, Compatible with PLink™ (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-WK42PV20 (Vertical)
	Wall-hanging Bracket (Angled)	—	TY-WK65PR20 (Vertical/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
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



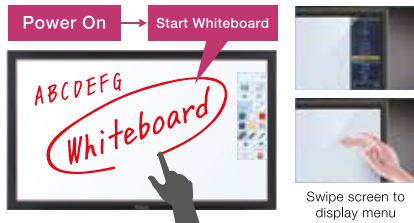
Model no.	TH-80LFC70	TH-65LFC70	TH-50LFC70
<b>DISPLAY</b>			
Screen Size (Diagonal)/Aspect Ratio	80-inch (2032 mm)/ 16:9	65-inch (1638 mm)/16:9	50-inch (1257 mm)/16:9
Panel Type	LCD VA Panel/E-LED	LCD VA Panel/E-LED	LCD VA Panel/E-LED
Effective Display Area (W x H)	1771 x 996 mm	1428 x 803 mm	1095 x 616 mm
Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels	1920 x 1080 pixels
Brightness	350 cd/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (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°
<b>TERMINAL</b>			
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 x 1		Mini D-Sub 15-pin x1
USB	TYPE A USB Connector x 1 (For Memory Viewer)		TYPE A USB Connector x 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 PLink™ (Shared with DIGITAL LINK)		RJ45 x 1, 100BASE-TX, Compatible with PLink™ (Shared with DIGITAL LINK)
Function Slot	SLOT2.0 x 1		SLOT2.0 x 1
<b>GENERAL</b>			
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) 2069 x 1315 x 400 mm (TH-80LFC70E)	1720 x 1027 x 286 mm (TH-65LFC70W) 1714 x 1023 x 282 mm (TH-65LFC70E)	1387 x 839 x 286 mm (TH-50LFC70W) 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)
<b>OPTIONS</b>			
Pedestal	TY-ST65P20	TY-ST65P20	TY-ST42P50
Wall-hanging Bracket	TY-WK70PV50 (Vertical)	—	TY-WK42PV20 (Vertical)
Wall-hanging Bracket (Angled)	—	TY-WK65PR20 (Vertical/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
Digital Interface Box	ET-YFB100G	ET-YFB100G	ET-YFB100G
Early Warning Software	ET-SWA100	ET-SWA100	ET-SWA100
<b>FUNCTION BOARD</b>			
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

# 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, color, 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.



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.

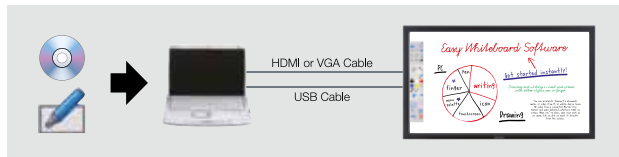


## Whiteboard Software for PC Extends Your Capabilities

LFB70

Whiteboard Software for PC offers extra functionality for power users. As well as adding extra presentation tools and a PowerPoint 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



## Write and Draw On Media from External Devices

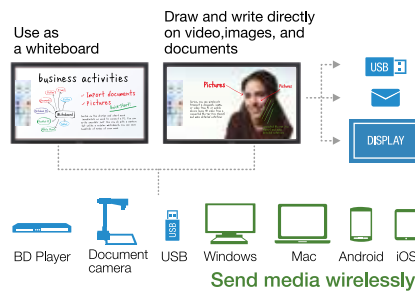
LFB70

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.



Send media wirelessly



(Windows Version)

## 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.



For more information, please visit:  
<http://panasonic.net/prodisplays/support/testedlist.html>

### Instant Playback of Content via USB

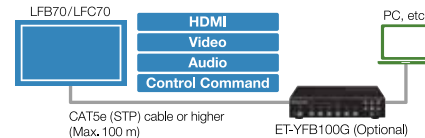
Playing back Full-HD video, still images, and digital documents from USB storage devices couldn't be easier. Just insert the memory device into the display's USB port and commence your presentation without having to first connect a PC. The USB Memory Viewer app enables image (JPEG, BMP) and video (WMV,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

## 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.



### Other Features

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

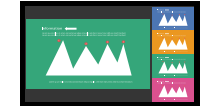
### Wireless Apps for iOS/Android Devices and PCs

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



### 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 larger venues.

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



\*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. \*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] 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 license, 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).

# LFE Series



Model no.	TH-65LFE7	TH-50LFE7	TH-42LFE7
<b>DISPLAY</b>			
Screen Size (Diagonal)/Aspect Ratio	65-inch (1639 mm)/16:9	50-inch (1270 mm)/16:9	42-inch (1065 mm)/16:9
Panel Type	LCD VA Panel/E-LED	LCD VA Panel/E-LED	LCD IPS Panel/D-LED
Effective Display Area (W x H)	1429 x 804 mm	1096 x 616 mm	928 x 522 mm
Number of Pixels (H x V)	1920 x 1080 pixels	1920 x 1080 pixels	1920 x 1,080 pixels
Brightness	350 cd/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (Typ)	350 cd/m <sup>2</sup> (Typ)
Contrast Ratio	5000:1	5000:1	1200:1
Response Time	6.5 ms (G to G)	9.5 ms (G to G)	8.0 ms (G to G)
Viewing Angle	176°/176°	176°/176°	178°/178°
Panel Surface Treatment	Anti-glare treatment	Anti-glare treatment	Anti-glare treatment
<b>TERMINAL</b>			
VIDEO In	—	—	—
Audio In (L/R)	—	—	—
HDMI In	HDMI Type A Connector x 2		HDMI Type A Connector x 2
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)
DVI-D Out	—	—	—
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 set		Stereo Mini Jack (M3) x 1 set
5V Charge Out	5 V 500 mA (Max)		5 V 500 mA (Max)
Serial In	D-Sub 9-pin x 1, RS-232C Compatible		D-Sub 9-pin x 1, RS-232C Compatible
LAN	RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™		RJ45 x 1 10BASE-T/100BASE-TX, Compatible with PLink™
IR In/Out	Stereo Mini Jack (M3) x 1/ x 1		Stereo Mini Jack (M3) x 1/ x 1
<b>GENERAL</b>			
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	135 W	95 W	95 W
Power Off Condition	0.4 W	Approx. 0.4 W	Approx. 0.4 W
Stand-by Condition	0.5 W	Approx. 0.5 W	Approx. 0.5 W
Dimensions (W x H x D)	1458 x 840 x 52 mm	1126 x 652 x 53 mm	963 x 566 x 77 mm
Carton Size (W x H x D)	1576 x 948 x 227 mm	1463 x 749 x 129 mm	1275 x 672 x 144 mm
Bezel Width	10.8 mm (Left/Right/Top), 17.9 mm (Bottom)	11.9 mm (Left/Right/Top), 17.7 mm (Bottom)	12.5 mm (Left/Right/Top), 22.1 mm (Bottom)
Weight	Approx. 33.5 kg	Approx. 14.5 kg	Approx. 9.5 kg
Gross Weight	Approx. 41.0 kg	Approx. 19.0 kg	Approx. 13.0 kg
Pitch for Wall-Hanging	VESA Compliant 400 x 400 mm	VESA Compliant 400 x 200 mm	VESA Compliant 200 x 200 mm
Built-in Speakers	20 W [10 W + 10 W] (10 % THD)	20 W [10 W + 10 W] (10 % THD)	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)
<b>OPTIONS</b>			
Pedestal	TY-ST65PE7	TY-ST42PE7	TY-ST42PE7
Early Warning Software	ET-SWA100	ET-SWA100	ET-SWA100

## Standard

### LED backlight provide light weight, a thin profile, and low power consumption

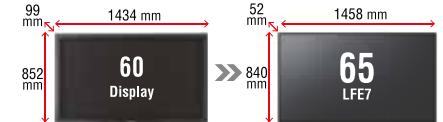
Detailed Full-HD picture quality and the beautiful images in large spaces. The use of an LED back light allows signage to be used for long periods with excellent visibility and low power consumption, to help reduce running costs.



Text and intricate patterns are crisply displayed.

### Provides a Step Up in Size for Replacing a 60-inch Model

The narrow bezel does away with all unnecessary decorations. The bezel width is slimmer than those of previous model,\* and the 65-inch model is about the same size as our previous 60-inch models. An existing cabinet can be used as is, while increasing the overall screen size.



\* Compared with the previous 60-inch model.

### Standard-equipped input/output terminals for signage use

The input/output terminals (HDMI, DVI-D, PC-IN) and control terminals (RS232C, LAN) needed for signage use are provided as standard equipment.

### Portrait Configurations

The thin, lightweight LFE7 Series can be installed vertically to meet a wide range of installation needs.



Portrait

		4K		Indoor							Video Wall				Outdoor		Multi Touch Screen			Network			Standard			
		TH-98LQ70	TH-84LQ70	TH-80LF50	TH-70LF50	TH-55LF60	TH-47LF60	TH-42LF60	TH-55LF6	TH-47LF6	TH-42LF6	TH-55LFB70	TH-55LFB50	TH-55LFBV5	TH-47LFBV5	TH-47LFBX60	TH-47LFBX6N	TH-80LFB70	TH-65LFB70	TH-50LFB70	TH-80LFC70	TH-65LFC70	TH-50LFC70	TH-65LFE7	TH-50LFE7	TH-42LFE7
Size (inch)		98	84	80	70	55	47	42	55	47	42	55	55	55	47	47	47	80	65	50	80	65	50	65	50	42
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	-	-	-	-	-	-	-	-	-
	DIGITAL LINK	Yes	Yes	-	-	Yes	Yes	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	Yes	Yes	Yes	Yes	Yes
	Multi-res. Quad Display <sup>2</sup>	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
INSTALLATION	Outdoor Installation	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	-	-	-	-	-	-	-	-	-	
	Video Wall	-	-	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
	Pre Calibration	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Narrow Bezel	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	Yes	Yes
	SLOT NX	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	SLOT2.0	-	-	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Ceiling-Suspension	-	-	Yes	Yes	Yes	-	-	-	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	Monitor Out	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
FUNCTION	Built-in Whiteboard	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	-	-	-	-	-	
	USB Sync. Play	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Memory Viewer	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Wireless Function	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	
	Miracast™	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	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
	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	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
	Bezel H/V Adjustment	-	-	Yes	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	-	-	-	-	-	-	-	-	-	-	-	-
	IR In/Out (infrared signal) Connection	-	-	-	-	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
	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
	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
	DVI-D Power Management	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
	Audio Input Select	Yes	Yes	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
	Picture in Picture	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	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	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
	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
	Remoco 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
	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
	Outdoor Mode	-	-	-	-	-	-	-	-	-	-	-	-	-	Yes	Yes	Yes	-	-	-	-	-	-	-	-	-
Early Warning Compatible	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	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

\*1 Optional \*2 Up to Full HD.