# Panasonic



98-inch 4K UHD LCD Display

# **TH-98LQ70W**

## Product specification (design and specification subject to change without notice)

#### ■ DISPLAY

Screen Size (Diagonal)	98-inch (2476.9 mm)			
Panel Type	IPS / Direct-LED			
Aspect Ratio	16:9			
Effective Display Area (W x H)	2159 x 1214 mm			
Number of Pixels (H x V)	3840 x 2160 pixels			
Brightness	500 cd/m²			
Contrast Ratio	1300:1			
Dynamic Contrast Ratio	500000 : 1			
Response Time	8 ms (G to G)			
Viewing Angle (Horizontal / Vertical)	178° / 178°			
Panel Life Time	approx. 50000 hours (typ)*			
* When the good lifetime is at 500% of the heightness under the good liting of 35 degrees. Colsing (1/2 degrees policies)				

When the panel lifetime is at 50% of the brightness under the condition of 25 degrees Celsius (+/- 2 degrees celsius). Panel lifetime may be shortened due to usage environment.

Stereo mini jack (M3) x 1

#### **■** CONNECTION TERMINAL

HDMI TYPE A Connector x2 (Up to 4K@50/60Hz)*1
HDMI TYPE A Connector x2 (Up to 2K@50/60Hz)*1
DisplayPort x 1 (DP1.2a)*1
DVI-D 24pin x 1
Stereo mini jack (M3) x 1set (shared with PC IN)
Mini D-sub 15pin x 1 (Female)*2
Stereo mini jack (M3) x 1set (shared with DVI-D IN)
SLOT NX x 2*3 (Vacant)

### **■** CONTROL

SERIAL IN	D-sub 9pin x 1*1
LAN	RJ45 x 1 100BASE-TX* <sup>2</sup>
DIGITAL LINK	RJ45 x 1 100BASE-TX (shared with LAN)

<sup>\*1:</sup> RS-232C Compatible

## ■ AUDIO AUDIO OUT

Built in Speaker	20 W [10 W + 10 W] (10% THD)
■ ELECTRICAL	
Power Requirements	220-240 V AC, 50/60Hz
Power Consumption	620 W (653 VA)
	2116 BŤU
On Mode Average Power Consumption*	480 W

	2116 BTU
On Mode Average Power Consumption*	480 W
Power Off Condition	0.3 W
Stand-by Condition	0.5 W
Network Stand-by Mode	3 W

<sup>\*</sup> Based on IEC 62087 Ed.2 measurement method

#### ■ MECHANICAL

Dimemsions (W x H x D)	2233 x 1288 x 122 mm
Bezel Width	32.5 mm
Carton Dimensions (W x H x D)	2406 x 1520 x 460 mm
Weight	approx. 136 kg
Gross Weight	approx. 161 kg
Cabinet Material / Color	Metal / Black
Protective Glass	Yes
Mount Screw Holes	Diameter: M16, Valid screw depth: 26 mm
Evebolt Screw Holes	Diameter: M12, Valid screw depth: 25 mm

#### ■ INSTALLATION

_	III STALLE, LITOIN	
	Orientation	Landscape / Portrait
	Tilting Angle	10 degrees with landscape setting / 5 degrees with portrait setting
	+ 51	and the control of the other characteristics will be a

## \* Please contact your sales representative with regard to the tilt angle before installation.

#### **■** ENVIRONMENTAL

Operating Environment	Temperature	: 0°C to 40°C*¹ : 0°C to 35°C*²
	Humidity	: 20% to 80% (Non condensation)
	Altitude	: 0 to 2400 m* <sup>3</sup>
Storage Enviroment	Temperature	: -20℃ to 60 ℃
	Humidity	: 20% to 80% (Non condensation)

<sup>\*1:</sup> for up to 1400 m altitude

<sup>\*1:</sup> HDCP supported, Embedded auido supported \*2: RGB / YPbPr switchable \*3: Option 3G-SDI terminal board TY-TBN03G: (w/ active through)

<sup>\*2:</sup> PJLink compatible (shared with DIGITAL LINK)

<sup>\*2:</sup> for between 1400 m and 2400 m altitude
\*3: 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].

## **MAIN FEATURE**

Automatic Picture Position	Yes
4 Input Multi Display (up to FHD)	Yes
Screen Saver	Yes
PC Power Management	Yes
HDMI Power Management	Yes
DVI-D Power Management	Yes
ECO Mode	Yes
Button Lock	Yes
Remote-control Lock	Yes
Power-on Screen Delay	Yes
Input Search	Yes
Local Dimming	Yes
Operating Time*	24h/day

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

## **OPTIONAL ACCESSORIES**

3G-SDI terminal board	TY-TBN03G*1		
Pedestal	TY-ST103PF9		
Wall-hanging Bracket	TY-WK103PV9		
Celling-hanging Bracket	TY-CE103PS10*2		
Digital Interface Box	ET-YFB100G		

\*1: 2 boards (total 3G-SDI x 4) required for 4K@50/60Hz, 1 board (total 3G-SDI x 2) required for up to 4K@25/30Hz \*2: Tilt angle limited to 10 degree maximum

# **STANDARD (CERTIFICATIONS)**

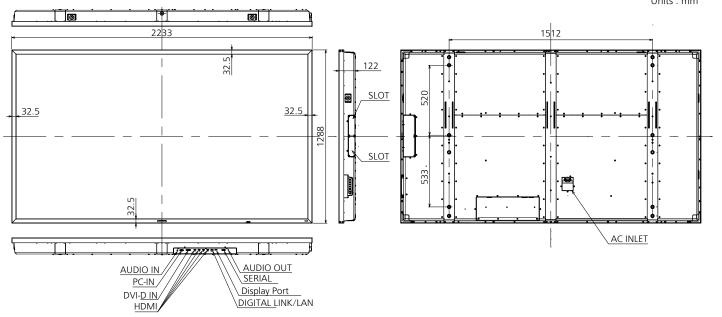
Safety Regulations	Europe : EN60065, IEC60065, EAC Asia : AS / NZS60065, SASO, IEC60065 / SS, IEC60065 / PAI				
Radiation Regulations	Europe : EN55022 Class-B, EN55024, EN61000-3-2, EN61000-3-3 Asia : CISPR22 Class-B				

## **INCLUDED ACCESSORIES**

AC power cord (approx. 3 m), Operating Instructions (Book), (CD-ROM), Remote Control Transmitter, Batteries x 2, Clamper, Eyebolt cap, Eyebolt, Panasonic badge, Panasonic badge attachment plate, Allen wrench

# **DIMENSIONS**

Cautions: This drawing is not a scale Units: mm



# **O** CONNECTION TERMINAL



<sup>\*</sup> Specifications and appearance are subject to change without notice.

# Preset Signals

Following signal timing is preset to this unit.

These preset signals are written on EDID of the each input terminal. (Except for \*6)

In many cases, it is possible to receive the signals other than below with this unit's multi scan function. (Except for 4K signal)

✔: Preset signal

Signal name	H-Freq. (kHz)	V-Freq. (Hz)	Dot clock ferquency (MHz)	PC IN	HDMI 1 HDMI 2	HDMI 3 HDMI 4 DVI-D IN	DIGITAL LINK	Display Port
525 (480) / 60i	15.73	59.94	13.5	<b>V</b>				
625 (576) / 50i	15.63	50.00	13.5	<b>/</b>				
525 (480) / 60i* <sup>2</sup>	15.75	60.00	27.0		~	~	~	
625 (576) / 50i	15.63	50.00	27.0		~	~	~	
525 (480) / 60p*2	31.50	60.00	27.0	<b>/</b>	~	~	~	
625 (576) / 50p	31.25	50.00	27.0	<b>V</b>	~	~	~	<b>V</b>
750 (720) / 60p* <sup>2</sup>	45.00	60.00	74.25	<b>/</b>	~	~	~	<b>V</b>
750 (720) / 50p	37.50	50.00	74.25	<b>/</b>	~	~	~	
1125 (1080) / 60i*1*2	33.75	60.00	74.25	<b>/</b>	~	~	~	
1125 (1080) / 50i*1	28.13	50.00	74.25	<b>/</b>	~	~	~	
1125 (1080) / 24p*1*2	27.00	24.00	74.25	<b>V</b>	~	~	~	
1125 (1080) / 25p*1	28.13	25.00	74.25	<b>V</b>	~	~	~	
1125 (1080) / 30p*1*2	33.75	30.00	74.25	<b>V</b>	V	~	V	
1125 (1080) / 60p*1*2	67.50	60.00	148.5	V	~	~	V	<b>V</b>
1125 (1080) / 50p*1	56.25	50.00	148.5	<b>V</b>	~	~	V	<b>V</b>
640 x 480	31.47	59.94	25.18	<b>V</b>	V	~	V	<b>V</b>
800 x 600	37.88	60.32	40.00	V	~	~	~	V
1024 x 768	48.36	60.00	65.00	<b>V</b>	~	~	~	<b>V</b>
1280 x 768	47.70	60.00	80.14	V	<b>√</b> *6	~	~	V
1366 x 768	48.39	60.04	86.71	<b>V</b>	<b>✓</b> *6	~	~	<b>V</b>
1280 x 1024	63.98	60.02	108.0	<b>/</b>	~	~	~	<b>V</b>
1600 x 900	60.00	60.00	108.0	<b>/</b>	~	~	~	<b>/</b>
1920 x 1080	67.50	60.00	148.5	<b>V</b>	~	~	~	<b>V</b>
1920 x 1200	74.04	59.95	154.0	<b>/</b>	~	~	~	<b>/</b>
4K signal								
3840 / 24p* <sup>2</sup>	54.00	24.00	297.0		~		V	<b>V</b>
3840 / 25p	56.25	25.00	297.0		~		~	<b>V</b>
3840 / 30p* <sup>2</sup>	67.50	30.00	297.0		~		~	<b>V</b>
4096 / 24p* <sup>2</sup>	54.00	24.00	297.0		<b>V</b>		V	
3840 / 50p	112.5	50.00	594.0		<b>V</b>		<b>✓</b> *4	<b>✓</b> *5
3840 / 60p*2	135.0	60.00	594.0		<b>V</b>		<b>✓</b> *4	<b>✓</b> *5
4096 / 50p	112.5	50.00	594.0		<b>V</b>		<b>✓</b> *4	
4096 / 60p* <sup>2</sup>	135.0	60.00	594.0		<b>V</b>		<b>✓</b> *4	
4K (Dual Link) signal		-						
3840 / 50p	112.5	50.00	297.0		<b>✓</b> *3			
3840 / 60p* <sup>2</sup>	135.0	60.00	297.0		<b>✓</b> *3			
4096 / 50p	112.5	50.00	297.0		<b>✓</b> *3*6			
4096 / 60p* <sup>2</sup>	135.0	60.00	297.0		<b>✓</b> *3*6			

<sup>\*1:</sup> Based on SMPTE 274M standard.

### (Note)

<sup>\*2:</sup> Compatible with frame frequency 1/1.001

<sup>\*3:</sup> The format supports Dual Link. (see page 17)

<sup>\*4:</sup> Supported in YC<sub>B</sub>C<sub>R</sub> 4:2:0 format

<sup>\*5:</sup> Supported with MST (Multi Stream Transport) only

<sup>\*6:</sup> Not written on EDID
In some cases, these signals may not be displayed when setting Resolution on your PC.

<sup>•</sup> Signals without above specification may not be displayed properly.

<sup>•</sup> For the signals when 3G-SDI Terminal Board with Audio is installed, refer to the manual included with it.