Nov 20, 2020

Panasonic Commercializes Transparent OLED Display Module with Superb Image Visibility

〜 Offering both transparency and high contrast 〜

Product Name	Transparent OLED Display Module	
Model No	TP-55ZT110 (with dimming unit)	TP-55ZT100 (without dimming unit)
Suggested Retail Price	Open price	
Size	55-inch	
Release Date	Beginning of December 2020	

Osaka, Japan – Panasonic Corporation today announced the commercialization of a 55-inch transparent OLED display module that boasts high image visibility, with plans to release it globally, starting from the Japanese and Asia-Oceania markets[1] in the beginning of December 2020.

As the display panel is see-through, objects behind it are still visible allowing a variety of image presentations such as display of images over actual objects in the background. With such a unique feature, the transparent OLED display is attracting a great deal of attention as a next-generation visual display device capable of enhancing the value of spaces.

The new product uses a self-illuminating transparent OLED display panel that does not require a backlight. Measuring less than 1 cm in thickness at the display section, the ultra-thin display panel offers high transparency and renders high-quality pictures with vivid colours. The dimming unit originally developed by Panasonic adjusts the amount of light passing through the panel in order to maintain high contrast and clearly display images even in an environment brightly lit by outside lights (TP-55ZT110). The product is provided in a highly versatile modular specification[2] to enable flexible installation not only in

homes but also in various other places including commercial complexes, transit advertisements and public facilities. What's more, multiple panels can be adjoined to display images on a larger screen*3.

From 2016, Panasonic showcased prototype transparent displays at trade shows and exhibitions held in various countries around the world, such as IFA (Germany), CES (U.S.A.), Milano Salone (Italy), China International Import Expo (China) and CEATEC (Japan). During those years, the company continuously evolved the technology whilst also exploring marketability. Panasonic has decided to commercialise this transparent display module in response to positive feedback and expectations that that such a transparent display would bring breakthroughs to image expressions and presentations against the backdrop of advanced communication infrastructure, such as 5G, and accelerated diversification of content.

Panasonic hopes to bring new value to public spaces which customers encounter in their daily lives and is challenging to create a new visual culture by leveraging its picture technology and knowhow which has been accumulated over many years.
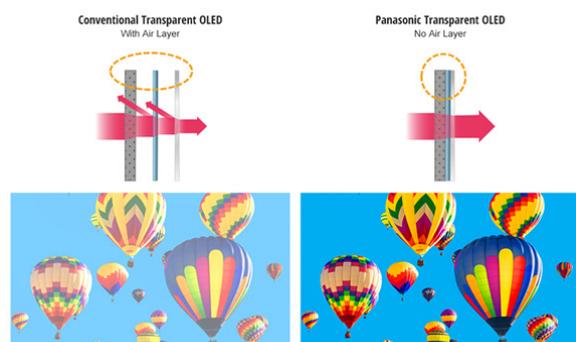
[Main Features]

1. Transparent OLED display panel renders high-quality pictures with vivid colours.

2. Originally developed dimming unit ensures sharp and clear image display even in a brightly lit environment. (TP-55ZT110)

3. Highly versatile modular specification*2 allows for flexible installation in various spaces.

[Product Features]

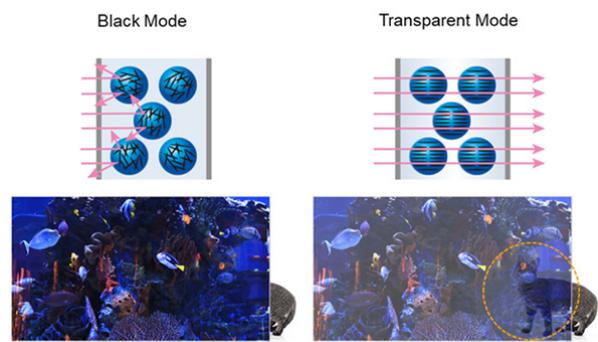## 1. Transparent OLED display panel renders high-quality pictures with vivid colours.

The organic light emitting diodes arranged to configure each pixel on the transparent OLED display panel emit light on their own, so the display panel renders vivid, high-quality images without using a backlight. Furthermore, its wide viewing angle enables clear viewing of the displayed image even from an oblique angle. The transparent display panel is suitable as digital signage (electronic signboard) and also for displaying images in a large space such as a show window. The display section measures less than 1 cm (55ZT100: 3.8 mm, 55ZT110: 7.6 mm) in thickness. The ultra-thin display panel blends in and harmonises with the surroundings just like a sheet of glass. All parts and members inside the display module are bonded precisely in a vacuum to minimise the reflection loss and improve the transparency.

2. Originally developed dimming unit ensures sharp and clear image display even in a bright environment. (TP-55ZT110)

The TP-55ZT110 is equipped with an originally developed dimming unit on the back side. This unit electrically controls the light transmittance and can change the mode between "Transparence Mode" and "Black Mode". In the Black Mode,

the dimming unit reduces the light transmittance to decrease the amount of light passing through the panel from the rear side, thus making the displayed image highly visible even in an environment brightly lit by outside lights. The background is not transparet, so the displayed image is highly visible, with high contrast and deep black levels and without disturbing reflections or glares. The TP-55ZT110 is a multifunctional display unit with the outstanding features of both transparent display and ordinary display.

Black Mode   Transparent Mode

3. Highly versatile modular specification*2 allows for flexible installation in various spaces.

The new product features a modular specification*2 with separate display unit and power supply unit, thus offering extra versatility in installation and system design. The product can be installed not only in homes but also in various other places including commercial complexes, transit advertisements and public facilities. What's more, multiple panels can be adjoined to display images on the large screen*3.
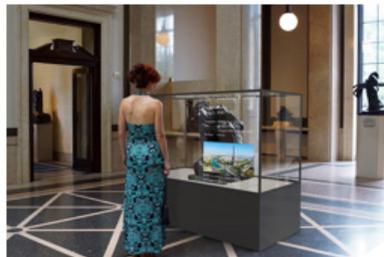
*1: Taiwan, Singapore, Australia, New Zealand

*2: The product is not delivered as an assembled unit. It is recommended to request a specialised company to install and set up the product.

*3: Two display panels can be adjoined in the short-side direction, and theoretically there is no limit to the number of display panels that can be connected in the long-side direction.
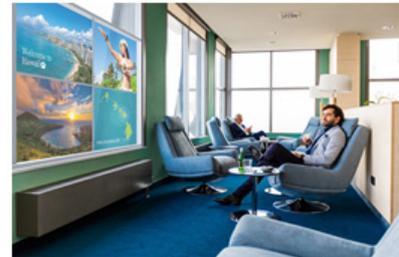
[Examples]

Retail Store

Museum

Lounge

*All images used are for illustrative purposes only.

[Main Specifications]

Model No.		TP-55ZT110	TP-55ZT100
Screen Size/Aspect Ratio		55-inch / 16:9	
Number of Pixels (Horizontal×Vertical)		1920×1080 pixels	
Panel Type		Transparent OLED panel	
Dimming Unit		Yes	-
HDMI Terminal		1 (Compatible with CEC Ver. 1.4b)	
Audio Output		Φ3.5-mm Stereo mini jack	
USB Terminal		- (For use in software updates)	
Size (Panel unit)	Effective Display Area (W x H)	1209.6×680.4 mm	
	Panel Outer Dimensions (W x H x D)	Approx. 1235×748.9×7.6 mm	Approx. 1225×744.4×3.8 mm
	Weight	Approx. 14.0 kg	Approx. 8.0 kg
	Packaging Dimensions (W x H x D), Weight	1365×925×133 mm, Approx. 21 kg	1365×925×133 mm, Approx. 15 kg
Size (Power supply unit)	External dimensions	210 × 60 × 305 mm	
	Weight	Approx. 1.75 kg	
	Packaging dimensions (W×H×D), Weight	648x373x170 mm, approx. 6 kg	
Operating Power Supply		AC 100 - 240 V, 50/60 Hz	
Power consumption / Standby power consumption		292 W / approx. 0.5 W (standby mode)	
Power cable length		Approx. 1.8 m	
Operating Range		Ambient temperature: 0℃ to 40℃, Relative humidity: 20% to 80% (no condensation)	
Included items	Panel unit	T-Con board (1), T-Con cover (1), D-Con board ⇔ Signal board cable (1), D-Con board(1), FFC (4), Instruction Manual (1)	T-Con board (1), T-Con cover (1), FFC (4), Instruction Manual (1)
	Power supply unit	Signal board (1), IR/LED board (1), FFC (1), DC cable (1), Power cord (5), T-Con board ⇔ Signal board connection cable (1), IR/LED board ⇔ Signal board cable (1), cable band (1), Screw (1), Remote control(1), Instruction Manual (1)	

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About Panasonic

Panasonic Corporation is a worldwide leader in the development of diverse electronics technologies and solutions for customers in the consumer electronics, housing, automotive, and B2B businesses. The company, which celebrated its 100th anniversary in 2018, has expanded globally and now operates 528 subsidiaries and 72 associated companies worldwide, recording consolidated net sales of 7.49 trillion yen for the year ended March 31, 2020. Committed to pursuing new value through innovation across divisional lines, the company uses its technologies to create a better life and a better world for its customers. To learn more about Panasonic: https://www.panasonic.com/global.

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