

**Panasonic**  
BUSINESS



# EXPO 2017 ASTANA

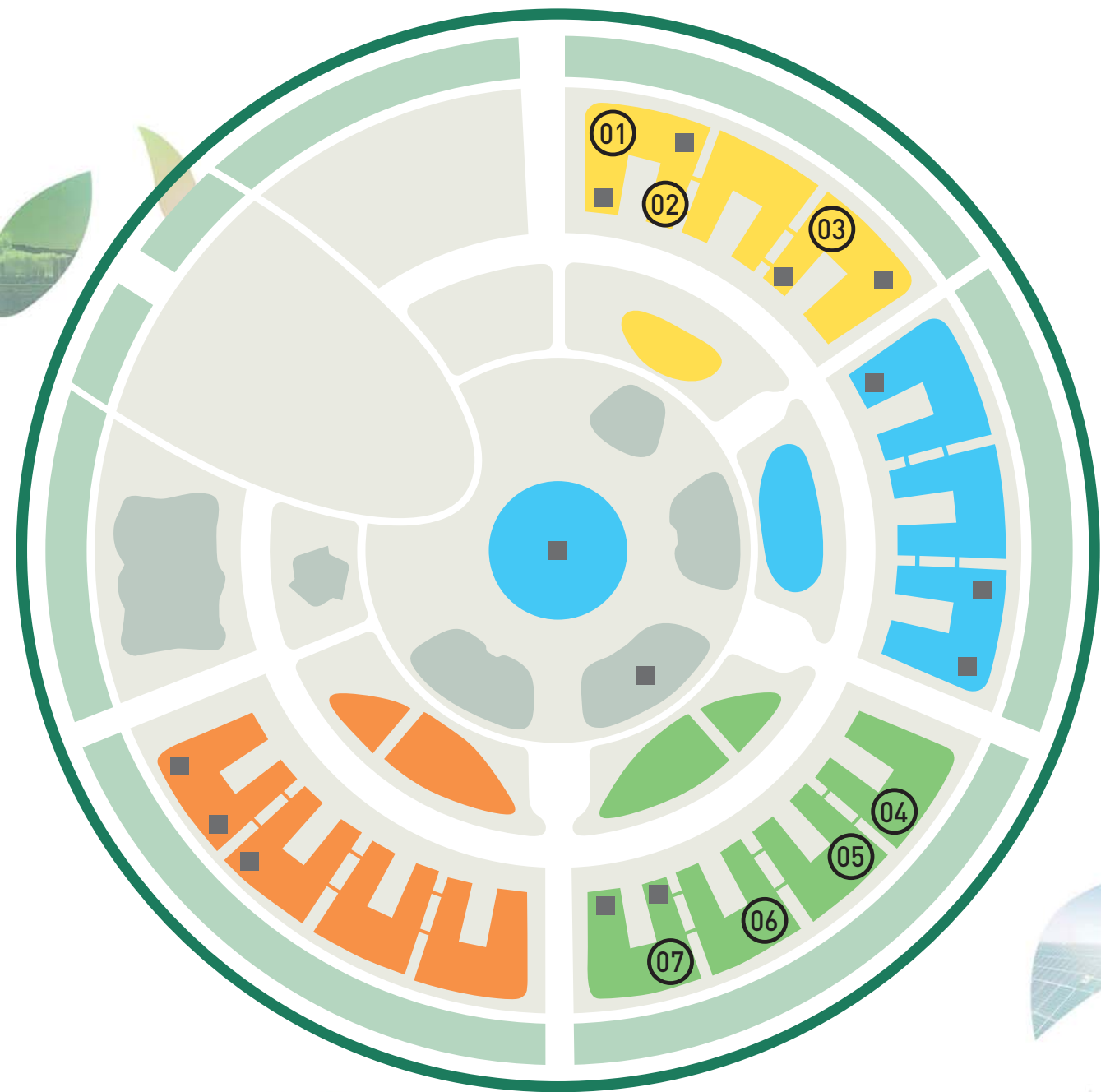
Panasonic Visual Systems Case Studies










# Uniting the World with Future Energy

The dream of a cleaner world with an endless supply of energy for everyone came closer to reality as more than 100 countries gathered in Kazakhstan's capital Astana to showcase their conceptions of Future Energy—the theme of this year's exposition. Staged June 10 to September 10, 2017, Expo 2017 Astana asked: "How do we ensure safe and sustainable access to energy for all while reducing CO<sub>2</sub> emissions?" Diverse solutions were presented with more than 68%\*<sup>1</sup> of national pavilions choosing Panasonic visual systems to express their vision. About 450 Panasonic projectors were supplied—a large proportion being highly efficient SOLID SHINE Laser projectors—together with about 50 professional displays. Supported by key Panasonic technologies such as single-cable AV and HDBaseT™-compliant control connections, management software with early warning capabilities, and optional calibration for multi-unit systems with an external camera, Panasonic not only delivered superior image quality, but also saved resources in setup. Take a tour of select pavilions in the following pages and see how Panasonic visual systems can place your organization at the forefront of communication.





○ Pavilions featured in this catalog

-  01 Germany
-  05 Japan
-  02 Netherlands
-  06 Thailand
-  03 Italy
-  07 Malaysia
-  04 Korea

■ Other pavilions Panasonic products are installed

**Panasonic was the No.1\*1 projector brand with 68%\*1 of installations at Expo 2017 Astana.**

- Projectors supplied: over **450** units
- Professional displays supplied: over **50** units
- Total unit deployment\*2: over **500** units

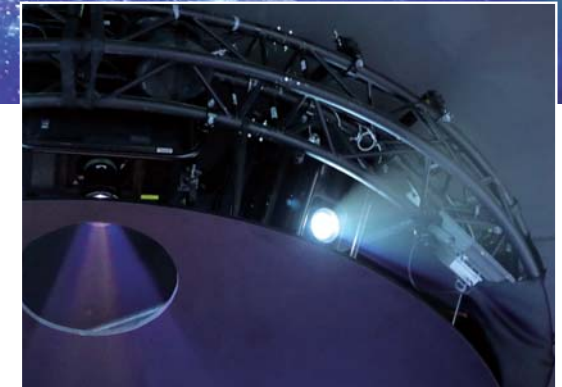


\*1 Based on Panasonic analysis of < 5,000 lm projectors operating across all pavilions.  
 \*2 Total includes back-up units.





For sheer "wow" factor, few could beat the Energy Show at the German pavilion. Panasonic's new PT-RQ13K SOLID SHINE Laser projectors delivered breathtaking images at 4K+ resolution, with imperceptible image degradation over the three-month event despite almost continuous daily operation.



Driving home the message that individual actions can contribute to a greater good, Germany's "Energy on Track" pavilion showed pioneering solutions aimed at sustainable life. Visitors were encouraged to engage rather than observe. SmartSticks enabled participation in quizzes about the exhibits, with accumulated points converted into an Energy Show at the culmination of their tour. In a clever demonstration of collective action, people were transfixed as lasers and mapped projections transformed a 12-sided space with large central table into a moving experience of the world.

Energy Show was made possible by eight Panasonic PT-RQ13K 4K+ 3-Chip DLP™ SOLID SHINE Laser projectors concealed in the ceiling. Among the world's smallest and lightest 4K+ projectors with 10,000 lumens and 20,000:1 digitally modulated contrast, this game-changing product continues to redefine staging possibilities when paired with high-quality conceptual content.




Germany

Equipment installed

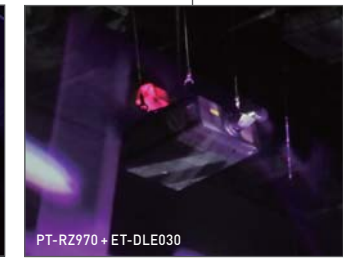
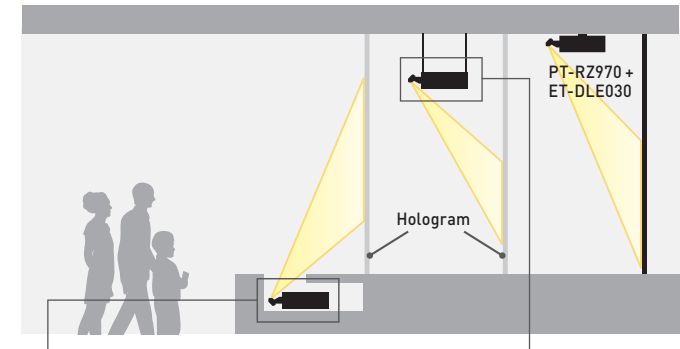


3-Chip DLP™ Projector  
**PT-RQ13K**

8 Units 



Light weight and laser light source allows select SOLID SHINE Laser projectors to be flexibly cable-rigged at almost any angle. Combined with lenses for short-throw projection, a range of possibilities for creative presentation are possible.



Projectors for background, center, and foreground screens helped produce captivating stereoscopic dimensionality. High brightness enhanced audience immersion.

“Low Land, High Energy”—in one phrase, the Netherlands captures its unique geography and renewable energy program at Expo 2017 Astana. With its iconic windmills conceptually repurposed for wind-power generation, and network of active solar farms, the nation is leading the transition to clean power. Visitors to the pavilion were treated to a five-minute light, laser, and 3D holographic program that highlighted the Dutch way of thinking in spectacular fashion.

Stereoscopic video presentation was achieved with bright and compact PT-RZ970 SOLID SHINE Laser projectors fitted with ET-DLE030 ultra-short-throw lenses. Special screens used in conjunction with the projectors produced realistic image dimensionality without guests needing to wear 3D glasses. A mesmerizing projection program held audiences spellbound.

Equipment installed



1-Chip DLP™ Projector  
**PT-RZ970**

5 Units



Ultra-Short-Throw Lens  
**ET-DLE030**

5 Units



Netherlands



PT-RZ770 + ET-DLE030 x 3 units (front) and PT-RZ770 + ET-DLE030 x 2 units (rear).



Filterless PT-RZ770 and PT-RZ670 units have sealed optics and work quietly and dependably in dusty conditions. Laser light source and single-cable connection allows flexible rigging at almost any angle.



PT-RZ670 x 10 units.



Curved 360-degree screen.



Italy

Based on the question "What is energy and what does it serve?" the Italian pavilion comprised four oval-shaped areas each bearing the name of a prominent Italian scientist: Leonardo da Vinci, Alessandro Volta, Enrico Fermi, and Antonio Cotti, whose contributions to science and culture still resonate today. Immersing in Italy's rich history and culture, visitors had context for the country's achievement in generating more than 38% of its domestic power in 2016 from alternative sources while offering a vantage on Italy's plan for emissions-neutral energy.

Pavilion designers used curved walls to tell stories in pictures, selecting a total of 29 lightweight PT-RZ670 and PT-RZ770 1-Chip DLP™ SOLID SHINE Laser projectors to present gorgeously vivid images distortion-free on curved screen surfaces. A highlight of the exhibition was a 360-degree video panorama edge-blended for curved-screen projection by 10 highly versatile PT-RZ670 projectors.

Equipment installed



1-Chip DLP™ Projector  
**PT-RZ770**

5 Units



1-Chip DLP™ Projector  
**PT-RZ670**

24 Units



Ultra-Short-Throw Lens  
**ET-DLE030**

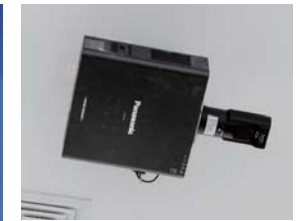
5 Units



PT-DZ870 x 4 units (theater).



PT-DZ110X + ET-D75LE95 x 1 unit.



The Panasonic ET-D75LE95 Ultra-Short-Throw Lens enables large-scale image projection in tight spaces without shadowing. The lenses were employed with 3-Chip DLP™ projectors at the Korean pavilion entranceway.



Boasting an exhibition area of 1,804 m<sup>2</sup>, Korea's pavilion was among the largest at Expo 2017 Astana. The venue provided ample space for its "Future Energy, Smart Life" concept to unfold. Augmented reality and cutting-edge animation guided visitors on the journey of an "energy seed" that linked past, present, and future technologies while celebrating a fusion of traditional and modern culture.

Demonstrating the flexibility of Panasonic rear-projection technology, ET-D75LE95 ultra-short-throw lenses paired with PT-DZ110X 3-Chip DLP™ units lit up the pavilion entranceway with single-screen images projected onto three tall doors. Inside the pavilion's dedicated theater, four PT-DZ870 1-Chip DLP™ projectors, each with 8,500 lumens at WUXGA, aimed from concealed in-wall positions onto a specialized slit-ribbon screen. Live performers moved in and out of the screen with motion-tracking augmenting background images for a surreal entertainment experience. At the intersection of art and technology, Panasonic again makes the impossible possible.

Equipment installed



3-Chip DLP™ Projector  
**PT-DZ110X**

4 Units



1-Chip DLP™ Projector  
**PT-DZ870**

4 Units



Ultra-Short-Throw Lens  
**ET-D75LE95**

4 Units



LCD Projector  
**PT-EZ770**

2 Units



Korea



PT-RZ670 x 2 units (ZONE III).



PT-RZ970 x 3 units (ZONE II).



Centerpiece to the Japan pavilion was a wide theater screen lit up by three PT-RZ970 projectors, each with 10,000 lumens.



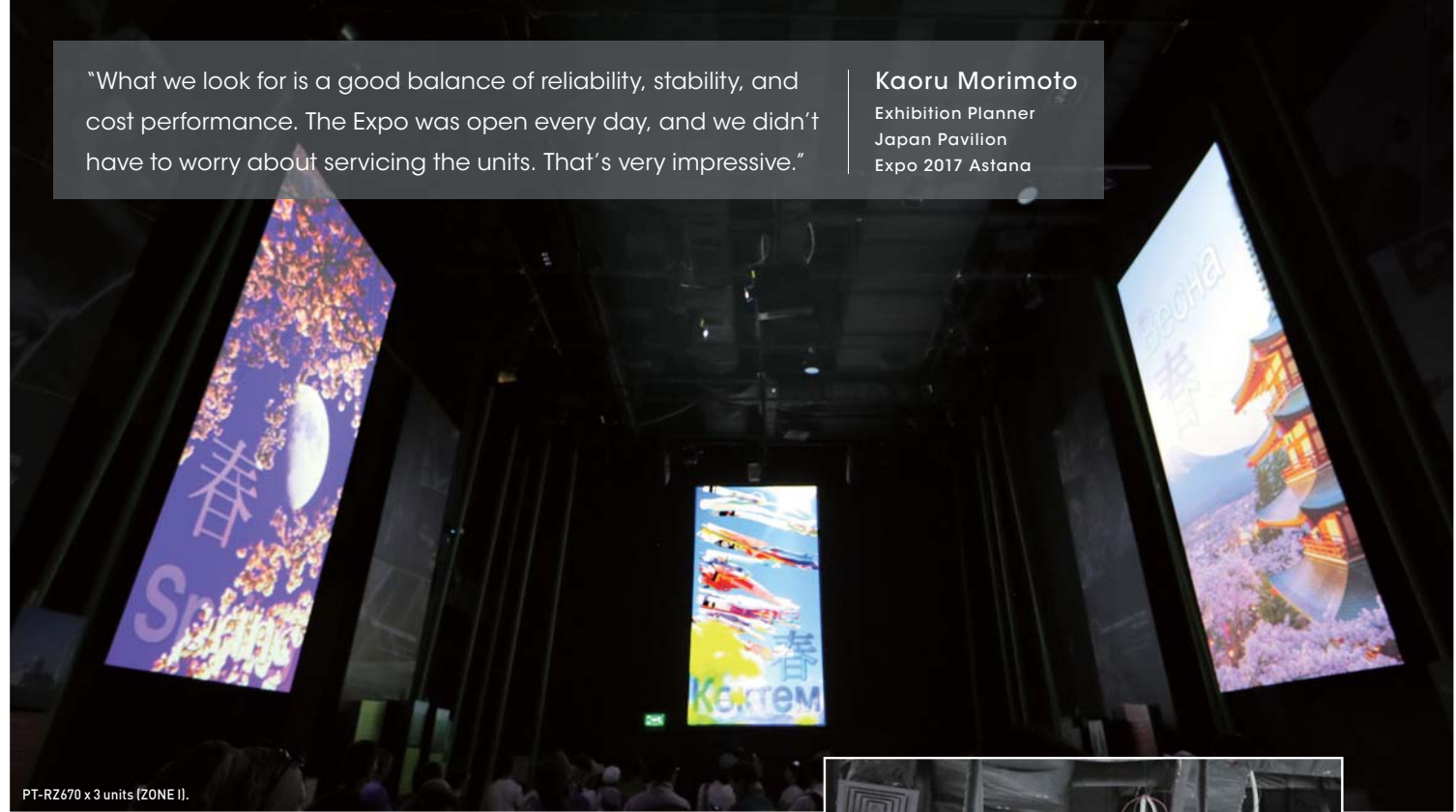
Watch Video  
URL: <https://youtu.be/UH3aAAhJLFs>



Japan

"What we look for is a good balance of reliability, stability, and cost performance. The Expo was open every day, and we didn't have to worry about servicing the units. That's very impressive."

**Kaoru Morimoto**  
Exhibition Planner  
Japan Pavilion  
Expo 2017 Astana



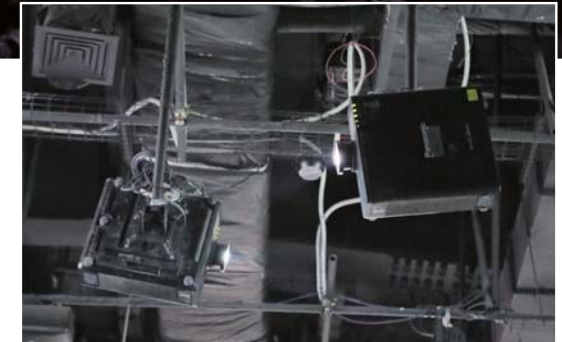
PT-RZ670 x 3 units (ZONE II).

PT-RZ670s with hermetically sealed laser modules delivered dust-resistant operation in portrait orientation.

Under the theme "Smart Mix with Technology," the Japan pavilion demonstrated a multi-layered approach to clean and efficient energy provision. Across three dazzling exhibition zones, Japan was able to deliver its vision for the future against a historical backdrop.

Panasonic was instrumental in bringing multi-media works to theater screens inside the venue. Three PT-RZ670 1-Chip DLP™ SOLID SHINE Laser projectors with 6,500 lumens were employed in portrait orientation—a strength of the series, which feature 360-degree orientation capability—while three 10,000-lumen PT-RZ970 1-Chip DLP™ SOLID SHINE Laser units, each with WUXGA resolution and 10,000:1 contrast, delivered dynamic images in the theater. Panasonic projectors, featuring high performance and absolute reliability, operated without any hint of a problem for the entire run of the exposition.

Special thanks to management at Japan pavilion, Expo 2017 Astana.



#### Equipment installed



1-Chip DLP™ Projector  
**PT-RZ970**

3 Units



1-Chip DLP™ Projector  
**PT-RZ770**

3 Units



1-Chip DLP™ Projector  
**PT-RZ670**

5 Units







PT-RZ670 x 4 units (entrance).



SOLID SHINE Laser projectors work flawlessly in any orientation, while quad-lamp PT-DZ21K flagships brought dazzling luminosity to every scene.



PT-DZ21K x 2 units (3D theater).

With an abundance of natural and agricultural resources, Thailand was ideally positioned to present the benefits of sustainability through the development of bioenergy. Visitors to its pavilion, themed "Bioenergy for All," toured three spaces comprising an Interactive Exhibition, Theater, and Live Exhibition. Each highlighted the relationship between sustainable energy and Thai culture through self-sufficiency programs envisioned by the late King Bhumibol.

Two 20,000-lumen PT-DZ21K 3-Chip DLP™ quad-lamp projectors, which are compatible with either active or passive 3D systems, simulated "farming future energy" with a narrative delivered by a 3D-animated mascot. Stage performances and interactive exhibits blended multi-media and motion-mapping technologies enhanced by Panasonic PT-RZ670 1-Chip DLP™ SOLID SHINE Laser projectors. Nine of these 6,500-lumen units were used throughout the Thai pavilion, with digital contrast modulation assuring natural whites and blacks for realistic and accurate pictures.

Equipment installed



3-Chip DLP™ Projector  
**PT-DZ21K**

2 Units

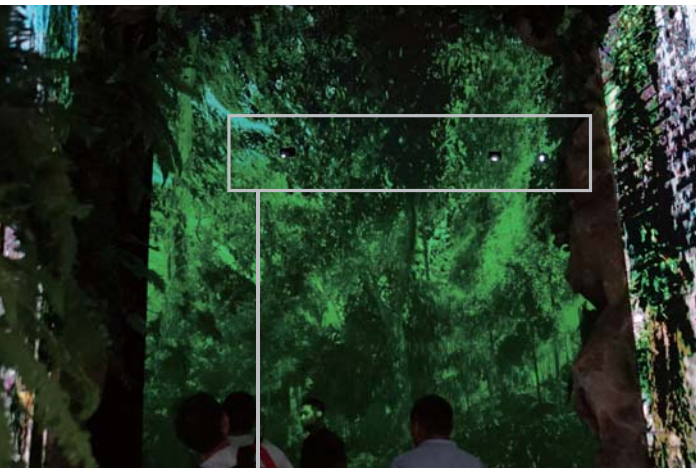


1-Chip DLP™ Projector  
**PT-RZ670**

9 Units



Thailand



A triumph of imagination made possible with PT-RZ770 1-Chip DLP™ SOLID SHINE Laser projectors, the rainforest room was a hit with visitors.



As one of the world's most forested nations, Malaysia made geography central to its pavilion theme "Powering Green Growth." The exhibition showed a nation committed to renewable energy and driven by investment in green technology. Upon entry, visitors were wrapped in a panoramic virtual rainforest inhabited by roaming wildlife; trees vaulting into a tropical canopy, and ambient forest sounds transporting this unique Asian wilderness to Kazakhstan, a land of steppe and desert, in a way many had never experienced before.

This stunning exhibit was made possible with eight PT-RZ770 1-Chip DLP™ SOLID SHINE Laser projectors configured for seamless projection mapping. With extensive Geometric Adjustment features expandable for quick and precise mapping via multi-projector and control software, and delivering 7,200 lumens of brightness at WUXGA resolution, the projectors performed flawlessly for captivated audiences.




Malaysia

Equipment installed




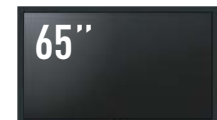
1-Chip DLP™ Projector  
**PT-RZ970**

1 Unit 



1-Chip DLP™ Projector  
**PT-RZ770**

7 Units 



65"  
Touch Screen Display  
**TH-65LFB70**

2 Units

## Featured Projector Lineup

### 3-Chip DLP™ Projectors (Laser Models)



PT-RS30K



PT-RQ13K



PT-RZ12K/RS11K



### 3-Chip DLP™ Projectors (Lamp Models)



PT-DZ21K/DS20K

Note: PT-DZ21K2 successor model also available.



PT-DZ13K/DZ10K/  
DZ110X



### LCD Projector (Lamp Models)



PT-EZ770



PT-EZ580



PT-VX420

### 1-Chip DLP™ Projectors (Laser Models)



PT-RZ970/RZ770/  
RZ660



PT-RZ670



PT-RZ570



PT-DZ870/DX100



PT-DZ770



PT-DZ680



### Ultra-Short-Throw Lens



ET-D75LE90/D75LE95

For 3-Chip DLP™ Projectors



ET-DLE030

For 1-Chip DLP™ Projectors

## Featured Display Lineup

### Indoor

55"

TH-55LFE8

### Outdoor

47"

TH-47LFX60

### Touch Screen

65"

TH-65LFB70

Note: TH-65BF1 successor model also available.

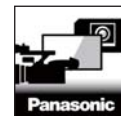
## Early Warning Software

ET-SWA100



## Professional Outdoor Signage Displays

Panasonic Visual Systems also offers a selection of bulletproof all-weather displays for outdoor use. With massive brightness and excellent contrast for high visibility in direct sunlight, these Panasonic displays provided millions with visitor information at the entrance to Expo 2017 Astana.



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# Panasonic

## BUSINESS



PROJECTOR



PRO DISPLAY



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