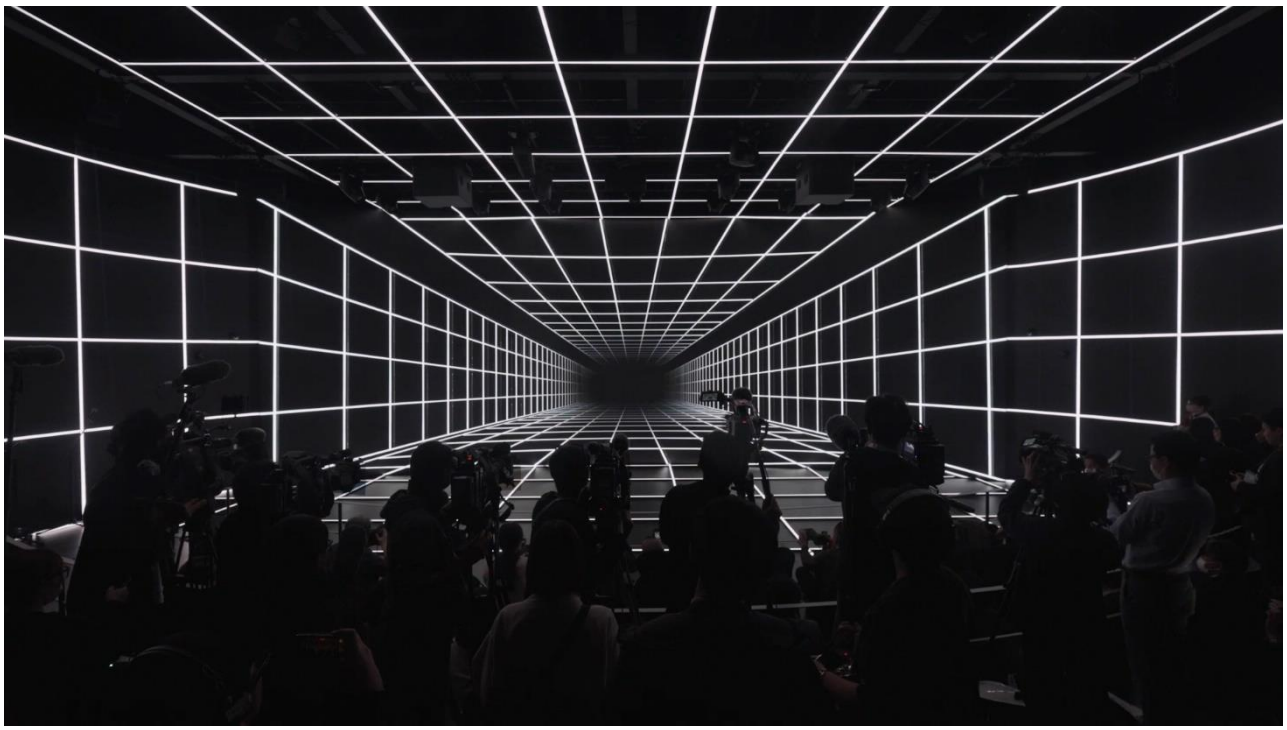
Press Release

September 25, 2025
Hibino Corporation

Hibino Handles Video Display and Audio Systems for “NTT Pavilion” at Expo 2025 Osaka, Kansai, Japan; Immersive LED System Enabling Next-Generation Immersive Live Viewing Using Real-Time 3D Point Cloud Data and 3D Live Footage



Real-time 3D spatial transmission experiment. Immersive LED System at NTT Pavilion in Yumeshima (center)

Hibino Corporation (Headquarters: Minato-ku, Tokyo; President & CEO: Teruhisa Hibino) handled the design, rental, and operation of the video display and audio systems for the NTT Pavilion exhibited by NTT, Inc. (Headquarters: Chiyoda-ku, Tokyo; President and CEO: Akira Shimada) at Expo 2025 Osaka, Kansai, Japan. Prior to the exhibition opening on April 13, 2025, the world’s first “real-time 3D spatial transmission experiment” was conducted on April 2 using NTT’s next-generation telecommunications infrastructure “IOWN.” This experiment transmitted the entire live performance space of techno-pop unit Perfume in real time, connecting the NTT Pavilion in Yumeshima and the special stage at Suita’s Expo ’70 Commemorative Park (site of the former Telecommunication Pavilion). We supported the realistic reproduction of the transmission space by providing a high-resolution stereo camera system for live 3D filming of the Suita stage, along with the 3D-compatible LED display system “Immersive LED System” and surround sound speaker system at the transmission destination in Yumeshima. These systems contributed to the experiment’s success by presenting NTT’s real-time 3D point cloud data as vivid stereoscopic imagery, clearly communicating point cloud technology while also staging it as an evocative experience demonstrating “the potential of future communication.” This transmission experiment can be experienced at the NTT Pavilion throughout the Expo period.

● Successfully implementing next-generation immersive live viewing using the Immersive LED System; promoting its application for new immersive entertainment experiences

The Immersive LED System is a 3D-capable LED display system featuring “Ghost Tile,” a three-dimensional LED technology created by U.S. company Liminal Space, for which our hibino visual Div. holds an operating technology license. We provide large-scale video display and audio services across a wide range of fields. Primarily large-scale concerts, as well as MICE, sporting events, expositions, and virtual productions. We possess some of the world’s most extensive and advanced equipment, along with highly specialized engineers. Hibino Group is the only rental service provider in the world for the Immersive LED System. In addition to its groundbreaking stereoscopic technology that sets it apart from conventional 3D, the system’s revolutionary ability to incorporate real people, objects, and lighting fixtures has led to its growing adoption as an entertainment solution that creates new immersive experiences for concerts, exhibitions, and art projects. We have been working to further expand its applications by researching next-generation immersive live viewing systems that combine the technology with high-resolution stereo camera systems.

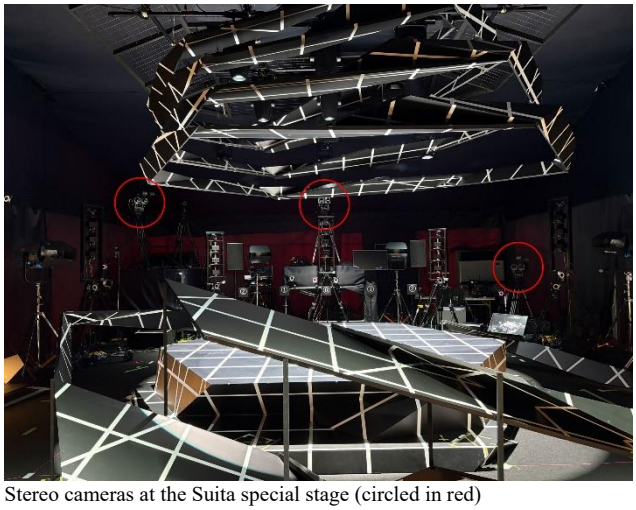
For this project, the NTT Pavilion required a new stereoscopic viewing experience that intertwined real-time 3D point cloud data with live stereo camera footage, and the Immersive LED System was selected as the ideal technology capable of achieving unprecedented spatial expression. This marks the world’s first successful attempt to render real-time 3D point cloud data as 3D imagery. It also represents Japan’s first successful attempt at high-resolution 3D live viewing using an Immersive LED System and a stereo camera system.

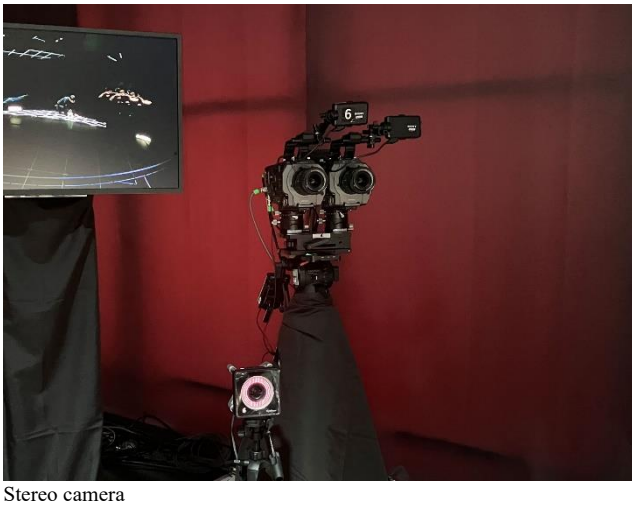
Immersive live viewing utilizing the Immersive LED System is expected to find new applications as an entertainment experience for events such as public viewings of concerts and sports.

● Materializing NTT’s real-time 3D point cloud data as vivid stereoscopic imagery

The real-time 3D spatial transmission experiment was the world’s first transmission experiment to relay the dynamic space of Perfume’s live performance to a remote location in near real-time using the next-generation telecommunications infrastructure IOWN.

Seven sets of NTT’s point cloud sensors, which measured Perfume’s performance as three-dimensional point cloud data, and four sets of our stereo camera systems, which captured live footage as 3D video, were positioned around the special stage at Suita’s Expo ’70 Commemorative Park (site of the former Telecommunication Pavilion). This comprehensive spatial information, combining visual data with audio and vibration, was transmitted in real time to the NTT Pavilion in Yumeshima.

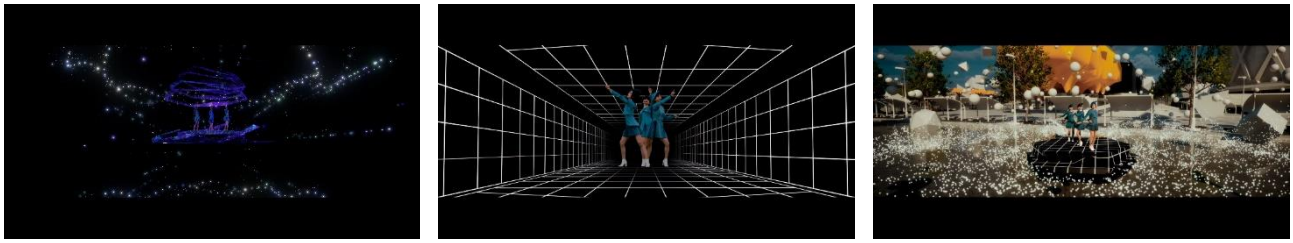

Stereo cameras at the Suita special stage (circled in red)


Stereo camera

The Immersive LED System, a 3D-capable LED display system measuring 13.2 meters wide and 4.8 meters high, along with a surround speaker system, was installed at the NTT Pavilion.

Perfume's performance featured transitions between the special stage in Suita, the NTT Pavilion in Yumeshima, and a virtually recreated 1970 Osaka Expo venue. The Immersive LED System alternated between displaying three types of information to convey Perfume's movements: freely adjustable 3D point cloud data, 4-view 3D live-action footage, and 3D pre-rendered CG from the virtual space. We collaborated with each team to perform subtle adjustments to the 3D effects, ensuring that the three distinct videos possessed equally outstanding three-dimensionality and depth and were seamlessly connected into a single world that could be enjoyed without any sense of dissonance.

Immersive LED System at the NTT Pavilion in Yumeshima



Video information transmitted from Suita to Yumeshima. From left: 3D point cloud data, 3D live-action footage, and virtual space scene.

Special 3D glasses for the Immersive LED System. Their passive design was praised for its simplicity and lightweight construction. Custom engraving is also possible.

For this project, we planned and proposed various large-scale video technology productions to explore how Perfume could be represented as a three-dimensional "point cloud"—a collection of points moving freely from any viewpoint—and how point cloud technology itself could be expressed. The Immersive LED System was selected to deliver an overwhelming 3D experience that fulfills the concept of "creating future communication that makes you feel like they're right beside you." This project, which involved an aspect of technical experimentation, required rapid design and adjustment within a short timeframe. We leveraged its expertise in virtual technology and 3D knowledge cultivated through XR stages(*1) and in-camera VFX(*2), combined with large-scale video technology honed at concerts and events, to provide a large-scale video display and audio system and its operation that combined advanced visual expression with high stability—suitable for showcasing NTT's world-class next-generation technology.

This real-time 3D spatial transmission experiment can be experienced in Zone 2 of the NTT Pavilion, a zone showcasing NTT's IOWN technology, where visitors can experience it vicariously through spatial reproduction systems such as the Immersive LED System.

● Comments from those involved

Fumio Hagiwara (General Manager of Event/Convention, hibino visual Div.), NTT Pavilion Chief Producer

"For someone like me who loves tackling unknown challenges, this project was incredibly exciting. Throughout the process of trial and error, we received tremendous support from many people, enabling us to chart a clear path toward realization. I am truly delighted to have been able to experience 'technology' that is rarely accessible and 'sentiments' that cannot be directly felt, and to actually give them form and expression. I sincerely hope you can sense the passionate dedication that our engineers poured into this challenge involving next-generation technology."

Emu Hino (Technical Director of hibino visual Div.), NTT Pavilion Chief Director

"I believe I was able to help guide the entire team in the right direction for this world-first endeavor, leveraging our expertise in 3D gained through XR and virtual production, along with the adaptability honed through events and concerts. During the repeated tests conducted at Hibino Immersive Entertainment Lab, we were able to solve various issues in advance by continuously visualizing productions that no one had ever seen before. I look forward to continuing to try productions that utilize our people, technology, and locations."

Takanori Higashida (General Manager of Business Strategy, hibino visual Div.), Immersive LED System Business Executive Producer

"The immersive live viewing we achieved using our stereo camera technology—capturing footage with two high-resolution cameras—and NTT's remarkable next-generation telecommunications technology IOWN will no doubt attract attention from various entertainment industries. Going forward. hibino visual Div. will continue creating new entertainment experiences alongside all types of innovative video technologies."

● Corporate mission of the Hibino Group: "Creating Emotions Around the World with Sounds and Visuals"

The Hibino Group is providing comprehensive solutions including audio, video, and lighting for over 50 pavilions, facilities, and events at Expo 2025 Osaka, Kansai, Japan, including the NTT Pavilion. The Group is contributing to the success of Expo 2025 Osaka, Kansai, Japan projects through its integrated capabilities, and as a leading company in the entertainment field of sound and visuals, it will continue to pursue challenges and technological innovation, striving to create unprecedented experiences that create new emotions.

(*1) XR stages: Our video expression technology that utilizes LED display systems and camera tracking systems to display "XR spaces"—merging the real world with the virtual world—in real time.

(*2) In-camera VFX: A virtual production filming technique whereby background footage is projected onto LED displays and filmed alongside the subject to create natural composites in real time. Synchronizing background footage with camera movement enables natural depth expression.

[Inquiries about this press release]

Customer Inquiries
hibino visual Div.
Inquiry Form: https://www.hibino.co.jp/english/support/input-visual.html

Media and Press Inquiries
Public Relations Section, Corporate Planning Group, hibino GMC, Hibino Corporation
TEL: 03-3740-4391 (Main)　　E-mail: ir@hibino.co.jp