

World's largest*1 plasma display presents stunning images and emergency information on the spacious train platform at Minatomirai Station.

Installation Details

A 103-inch plasma display provides safety and guidance information.

NKB Inc. has specialized in advertising and information dissemination in transportation facilities such as station areas and railroad cars for some 30 years, and has a vast accumulation of know-how in the field.

In November 2006, with the cooperation of the Yokohama Minatomirai Railway Company, NKB Inc. installed a super-large digital HD media system with sound, called "Metro Mega Wide Vision" (MMWV), on the train platform at Minatomirai Station of the Minatomirai Line to display

high-quality advertisements and news. It is also being tested as a private-sector operated*2 safety guidance system to evaluate its practical application. NKB chose the world's largest*1 103-inch full-HD plasma display for use as the MMWV display.



▲ The cabinet is slim enough to ensure smooth platform function and passenger safety, while the large image attracts attention. (Screen image is simulated.)

◀ The huge display greets passengers exiting the railroad cars. It serves as an advertising medium and emergency information display. (Screen image is simulated.)

Real-time content updating allows speedy display of emergency information.

NKB had been reluctant to use display devices for transit advertising for the following reasons.

- They were unsuitable due to their inferior still image expression when compared to print media such as posters.
- Their small image size compared to print media lacked impact when placed in large areas like station facilities.

However, these problems were solved in the following ways.

- The use of high-definition images showing crisp, clear text and still images rapidly spread.
- A large 103-inch plasma display capable of rendering beautiful text and still images in HD on a screen that is more than two meters wide appeared on the market.
- In addition, unlike print media, displays allow emergency information to be instantly updated in the event of a disaster.

These superior features led NKB to recognize the public and social significance of the device's capabilities. NKB launched the new MMWV project and adopted a 103-inch plasma display.

*1: The world's largest commercial plasma display as of September 15, 2006, according to a Panasonic survey.
 *2: Using private companies for establishing infrastructure, which was previously constructed and operated only by the national government, in order to increase efficiency.

Plasma Display System Report

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System Outline

Long-distance transmission of compressed high-image-quality content over an ordinary telephone line.

The MMWW has to provide high-quality images because its primary purpose is to present advertising content. For this reason, the MMWW studio in Chiyoda Ward, Tokyo, edits the content using an HD-SDI system that conforms with HD broadcast standards.

The edited HD content is MPEG-compressed and transmitted from the MMWW studio to Minatomirai Station in real-time over an ordinary telephone line. The data is then processed by a decoder installed in the station and enters the plasma display as a component signal, thus achieving both real-time distribution of high-image-quality content and long-distance transmission.

The sound is audible only within a limited area.

Because NKB considers sound to be an essential part of motion-image content, they provide a soundtrack together with the large-screen

images displayed by the MMWW. When broadcasting sound in a public space such as a station platform, it is imperative to ensure that the sound will not interfere with public announcements or disturb passengers. To meet these requirements, NKB uses an audio system with super-directional speakers that deliver sound to people only within a specific area. This system limits the sound to a small area near the display.



The super-directional speakers (indicated by red circles) for high-frequency sound reproduction are installed on the ceiling of the platform. Sound from these speakers can be heard only by people standing in a limited area designated by a floor sheet (indicated by the arrow). [Screen image is simulated.]



The cabinet has ample space for effective heat radiation. Several cooling fans are also installed to release heat through the slits in the side panel.

After Installation

The plasma display's attention-grabbing power is ideal for advertising use. NKB also plans to install plasma displays in other parts of Japan to take advantage of their function as an emergency information system.

Since the train passengers who use the stations often spend hours watching TV at home, they are very sensitive and critical about the quality of the images. Despite their tendency to evaluate picture quality rather severely, the MMWW has received highly favorable reactions. The MMWW's large screen size stands out from the surroundings and the audio system delivers sound only to a limited area near the display, thus attracting passenger attention. NKB sees plasma displays as an effective means of transit advertising. NKB President Hisao Taki described his company's vision for installing the MMWW system in various parts of Japan as follows, "An MMWW that can also be used as an emergency information and guidance system is now being tested. The system is expected to serve a highly useful function not only in the Tokyo metropolitan area but also in cities all across the country."

Outline of the NKB Metro Mega Wide Vision (MMWW) System

