DNP

News Release

DNP develops "Smart Display Window" that enables clear image display and AR effects even on a bright background by combining a transparent screen and a light control film

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Dai Nippon Printing Co., Ltd. (DNP) combines and integrates a transparent screen and a light control film, developed "Smart Display Window" that enables clear image display and AR effects even on a bright background.

Three smart display windows are connected (content is provided by dazzy Co.,Ltd)

[Background]

In recent years, the need for transparent screens in digital signage and space rendering has been increasing. However, only with transparent screens, there was a problem that when the background is bright, the screen image and the background overlap makes image quality poor.

To solve these problems, DNP is now able to display clear images even on bright backgrounds by combining DNP's light control film with a wide range of light blocking and transparent to the DNP's transparent screen of high transparency and high brightness. We have developed a "Smart Display Window" that enables AR effects by overlap of background image and taking advantage of its high transparency.

[Features of "Smart Display Window"]

○Clear image display even on bright backgrounds

○The electrically driven light control film can switch the degree of light transmission instantly with the power on / off. If you want to transmit light, you can see the scenery behind the screen, but if you switch to light blocking, the background will not be visible and the image projected on the screen will be clearly visible.

By taking advantage of these functions, it is possible to display a variety of AR-represented content by combining the actual space that is seen as the background with CG, explanatory text, videos and images.

○Depending on your needs, you can use "tiling" to connect multiple transparent screens in a tile to increase the size.

If the screen is transparent (left), you can see the landscape behind the screen. When it is shaded (right), the background disappears and the image projected on the screen becomes clear.

When only the text, images, etc. are displayed with the light shielded to hide the background (left).

By making it transparent, it superimposes various information on the background, and AR is given (right).

[Future plan]

In the future, DNP plans to sell the "Smart Display Window" developed this time in collaboration with projector manufacturers.

The Smart Display Window is being presented at the DNP booth of the "SID 2019" conference on display held in San Jose, USA from May 14-16.