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## INTRODUCTION

Digital signage is now the standard wherever people shop, travel, gather, eat, study and work. It is used to increase sales, improve branding, enhance an experience, drive an action and even reduce perceived wait times. The ultimate aim of digital signage is to have as many people as possible see a message in a given area, to hopefully generate the desired results. To get customers (internal or external) to take ACTION. Thus, the more eye-catching the signage, the greater the engagement will be with your customers. The goal of this paper is to identify a variety of opportunities where new and unique displays can be deployed for maximum impact.

## The digital signage market is expanding, and with that comes new opportunities

Businesses that look for a competitive edge in attracting and engaging with customers are businesses that will win in the rapidly changing business market. LG is a display manufacturer with a penchant for innovative thinking, and we see this as an exciting opportunity to design displays that can go where no display has gone before. These specialty formats have now been identified to further augment traditional rectangular displays in places customers would not otherwise expect them.

Thinking outside the box
Businesses have many potential spaces where traditional rectangular displays would not be the right fit, either vertically or horizontally, but would grab customer attention if used strategically. Today some of these areas are covered with static images that go virtually unnoticed.

The goal is to bring dynamic digital imagery into such challenging locations, and a stretched-type display with an extended wide format would provide the solution.

A stretched display departs from the conventional 16:9 aspect ratio so it imparts a significantly different feel that is very eye-catching and cutting-edge. When placed in a portrait mode, it gives the user a full seven feet of vertical screen real estate to present a message. Because it's so different, it is ideally suited for areas where you want to make a strong branding statement, such as the entryway of a building, to show that you're not like every other business: You have unique ideas and unique displays to showcase them.


## A stretched display facilitates very creative installations



The unique size and shape would allow a stretched display to be placed, for example, freestanding in an area where there might normally be a mannequin, or alongside one to create an ambience or scene. Other placements can be in shop interiors, as indoor sign boards, on building columns, retail pillars or hung from airport ceilings to provide wayfinding and flight information without obstructing the concourse view.

An ideal placement would be in a premium retail store with a unique interior, where there is a media pole. Approaching customers would be immediately attracted to the wide format of dynamic imagery, as the stretched display turns an ordinary pillar into a moving showpiece. Such applications can be sensor-driven, so approaching customers would activate a video where a spokesperson talks to them and makes purchase suggestions. In addition, facial recognition software could be added as well to enable customer-targeted messaging.

Additional possibilities include providing wayfinding and schedule information in subway stations, where real estate is very limited. A stretched display is also well-suited for corporate settings, public arenas, stock exchanges and money exchange boards.


## An amazing display of innovation comes to life

When bringing their ideas for a stretched display to fruition, LG Commercial Display engineers determined that a length of 86 inches would maximize screen size and use of mother-glass to allow four separate screens in one, without separation by bezels or seams. For the width, 13-14 inches ensures a perfect fit in a portrait installation on a standard building column. As an added benefit, the overall dimensions enable an extended wide 58:9 aspect ratio, which creates an immersive viewing experience like nothing ever seen before. And so the world's first 86-inch Ultra Stretch Display was developed.

With an 86-Inch Ultra Stretch Display, image quality is everything. When you consider that a stretched display can provide enough space for graphics that merge images, text, video
and animation, and that the display can be mounted on a ceiling, or across the top of shelves, on a pillar or column, on a wall in landscape or portrait configurations, or even freestanding on a floor, it stands to reason that the image quality needs to be exceptionally vivid, crisp and eye-catching to stop passersby in their tracks. To achieve such optimal quality, the solution is $3840 \times 600$ resolution with IPS (In-Plane Switching) screen technology providing optimum color and brightness from virtually any angle.

An IPS-based panel provides a true wide viewing angle of up to 178 degrees, where colors and contrast remain consistent and data is clearly readable-fashion colors pop like crazy, and food imagery fuels hearty appetites. With a non-IPS display, the viewer needs to be centered directly in front of the screen to realize the best performance. At an angle color and contrast decrease dramatically and text becomes illegible. Only IPS technology solves that problem and vastly improves off-angle viewing, which is extremely important in areas with heavy foot traffic.

WIDE VIEWING ANGLE

## A stretched display offers a broad canvas



LG's new 86 -inch Ultra Stretch Display delivers 500 nits of brightness, making it well-suited for delivering rich, clear messaging in virtually any ambient lighting. The display supports divided PBP (Picture-By-Picture) content in landscape or portrait installations, allowing up to four separate screen sections across the display, where each screen could show content from its own dedicated input. The display also supports lateral tiling for $1 \times 4$ or $4 \times 1$ installations and up to a $4 \times 4$ installation in a daisy chain configuration.


A LAN daisy chain allows you to control and monitor devices, distribute content and even update firmware. A classified in/out port prevents errors when connecting the daisy chain.


## Supporting HEVC will future-proof your display investment <br> A UHD (3840 x 600) resolution stretched display will support HEVC (High Efficiency Video Coding) content playback via H. 265.

- The H. 265 standard delivers UHD content more efficiently than H. 264 because it has nearly twice the compression ratio
- Brings huge bandwidth savings of approximately 40-45\% over H. 264 and with similar quality
- Since the content can be more tightly compressed it allows for a greater quantity of content on the display


## Create and manage content via software or provider

One of the major benefits of a stretch display is the ability to use multiple pieces of information-you can run four separate inputs and display four unique types of content simultaneously.

## DOSUPERSIGMTM

To edit that content, software such as LG's free SuperSignTM with media editor allows you to easily edit images or video clips of original content without any additional editing programs. Additionally, you can use SuperSign to create your content-a video, several bits of static images and rotating galleries for example-an ideal solution for flight information, with the video for advertising and continually updating images for flight and weather alerts. Finally, SuperSign enables remote connectivity, management and publishing of new firmware.

Content creation and management can also be done via provider service. If a business uses a professional content management service, the providers will be using either their own solutions with a media player or PC, or they can develop their application on LG's smart webOS ${ }^{\text {™ }}$ platform, eliminating the need for a media player.

LG is currently working with a variety of CMS providers to increase the ecosystem of available content and maximize the effectiveness of the webOS platform.

## webOS

A webOS-enabled display is an all-in-one hardware and software platform that allows software developers to install and run their software in a simplified solution. This approach offers the architecture for easy-to-build web-based apps across multiple platforms, including iOS ${ }^{\circledR}$, Android ${ }^{\circledR}$ and Windows ${ }^{\circledR}$. With webOS, content can reside on the display itself, for situations where constant updates are not needed. Simply set it, have it running, and update it weekly, monthly or whenever you wish via webOS.

## CONCLUSION

Businesses today are looking for exciting new ways to define their brand, attract and engage customers and influence buying decisions. LG's innovative new 86-inch Ultra Stretch Display can create a cutting-edge experience like nothing ever seen before, in places never before possible. The result is an amazing display of stopping power.

To learn more about this and other LG large-format displays, click here or contact us today.

