Samsung QMD Series SMART Signage

Display business messaging in ultra-realistic detail



Highlights

- Deliver your business messaging 16/7 in Ultra-High-Definition (UHD) resolution with ultimate picture quality designed for a commercial environment
- Experience true UHD with DisplayPort® (DP) 1.2 that supports a 60 Hz refresh rate
- Display various video sources on the same screen at their native Full-High-Definition (FHD) resolution, each from a different FHD source without the need for a separate component using picture-in-picture (PIP) and picture-by-picture (PBP) modes enabled on UHD resolution
- Install the display in portrait orientation easily with pivot mode

Bring the next generation of UHD picture quality to your commercial environment

Today's businesses, including banks, restaurants, retailers and more, are increasingly using digital signage to engage, educate and serve their customers. Commercial digital signage usage continues to increase,[1] and, because of its ability to offer clearer text and images, UHD has become the next big thing in display technology.[2]

With the latest UHD technology, businesses can leverage the next generation of ultimate picture quality for conveying more impactful messaging and information. UHD offers ultra-realistic detail, the ability to display more information on one screen, and four times the detail clarity, which is most evident when displaying text. For commercial applications, essential features, such as portrait mode and longer operational hours, are now combined with UHD clarity for the ultimate commercial display.

Display lifelike images and crisp text with a variety of media types and configurations

Samsung QMD Series SMART Signage features a new design and delivers 3,840 x 2,160 resolution, multi-format PIP support, DP 1.2 support, set-back box (SBB) support, portrait or landscape orientation and reliable 16/7 operation for amazing flexibility and picture clarity in commercial settings. For example, retail stores can leverage Samsung QMD Series with UHD to improve their brand image and showcase products in sharp detail, while corporations and arena or museum security centers can use the high-resolution displays to enhance security with stable and vivid content playback.



Figure 1. Commercial applications can leverage QMD Series clarity and operational capabilities.

Combine vivid, lifelike display with flexible commercial features

Attract customers and improve brand identity with UHD lifelike images and picture quality

QMD Series delivers four times the FHD resolution on the same screen area, resulting in the most accurate recreation of details possible. Text that displays on QMD Series in UHD is super-crisp due to its high pixel density. High-detail visuals, such as photos and videos, are visible with the smallest details for a hyper-realistic and immersive visual experience.



Figure 2. UHD high pixel density provides accurate detail representation.

In addition, customers can replace older video walls composed of smaller FHD displays with a single large QMD Series display to eliminate the bezels and produce a seamless view of the content. The resolution made up of the four FHD displays is singlehandedly covered by one UHD display.

Enjoy seamless video playback with QMD support for DP 1.2

QMD Series natively supports a high 60 Hz refresh rate that ensures seamless video playback and eliminates the choppy visual experience often observed at a lower refresh rate. The QMD Series supports DP 1.2 connectivity, which is capable of streaming UHD video content at a refresh rate of 60 Hz, delivering a true UHD experience.

Display four times the FHD content on a single multiscreen for greater visual impact

Now, you can provide more information through a smaller number of displays. UHD offers four times the resolution of FHD, which means that you can display the equivalent of four FHD content screens on a single UHD screen. QMD Series features a wide array of connectivity options, including the ability to display content from four separate input devices on the same screen without the need to first merge the content on a separate PC. With QMD Series, no special third-party components are required.

Various PIP and split-screen scenarios are possible, far beyond just four equally separated rectangles. This flexibility enables dynamic and efficient usage scenarios, such as the display of a video conferencing system on a large part of the screen, along with reference documents from a different device on another screen area for meeting attendees, or a product image display next to a specifications list in a retail store. PIP and split-screen support in the pivot mode will be introduced later in 2014.

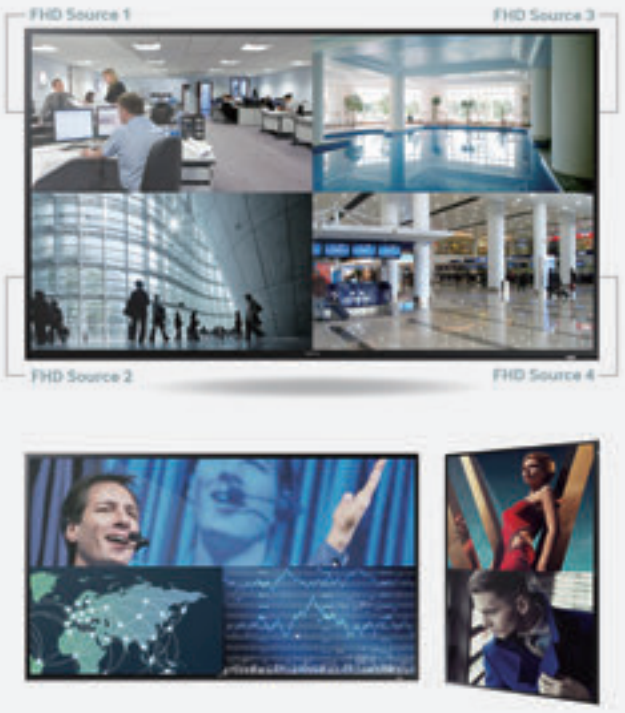


Figure 3. Split-screen display capabilities offer myriad usage scenarios.

Leverage industry-leading upscale technology to ideally display various content

Because commercial UHD content display is still new within the industry, it's important for UHD displays to also deliver the range of FHD content currently in use. Samsung upscaling technology, one of the best in the industry, adjusts lower resolution content to optimally display on the UHD resolution of the QMD Series display.

Design a sleek and aesthetic display area with the new SBB

Choose the optimal display orientation with pivot mode

To meet the demands of traditional commercial environments, digital signage is often installed in portrait mode. Thus, it is critical that the digital signage supports portrait installation to fit to the aesthetics of the setting while still delivering the dynamic qualities of digital signage. QMD Series offers pivot mode that allows them to be installed in either landscape or portrait orientation to suit the environment's needs.

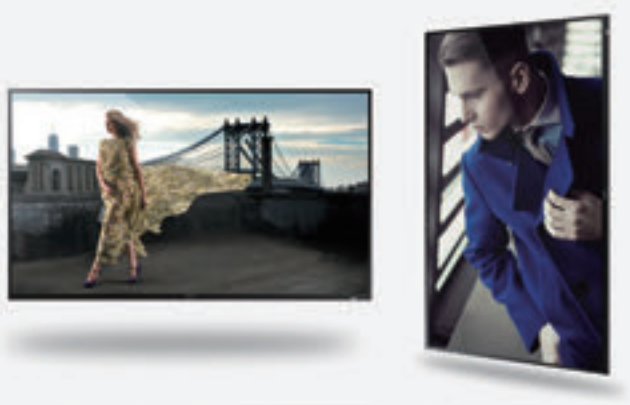


Figure 4. Pivot mode to fit the aesthetic setting while delivering dynamic content.

Create a streamlined display area with the Samsung SBB extension for streamed UHD content

Due to the relative novelty of UHD in commercial display settings, few media players currently offer support for UHD streaming. To meet this demand, Samsung plans to introduce an optional UHD-capable SBB in the third quarter of 2014, which can attach to the back of the QMD Series. The simple installation of this SBB eliminates unnecessary wire clutter and also removes the need to create separate housing for the media player.

Features and benefits

	Benefits
UHD Resolution	Delivers four times the FHD resolution, resulting in an accurate recreation of details
QMD support for DP 1.2	Ensures seamless video playback while eliminating the choppy visual experience observed at lower refresh rate Delivers a true UHD experience
4-FHD equivalency in a single UHD screen	Enables the replacement of video walls composed of smaller FHD displays with a single QMD Series display, eliminating the bezels for a seamless visual appearance Capitalizes on the availability of myriad connectivity options to deliver FHD video from four different sources on a single UHD screen without any special third party component. Supports various PIP and PBP configurations for more dynamic and efficient usage scenarios
Industry-leading upscaling technology	Adjusts lower FHD resolution content to display optimally on the QMD Series UHD
Support for pivot mode	Enables portrait installation to fit to the aesthetics of the signage area while delivering the dynamic qualities of digital signage
SBB extension for UHD content	Supports UHD streaming Simplifies installation of SBB to the back of the QMD Series, eliminating unnecessary wire clutter and the need for separate media player housing

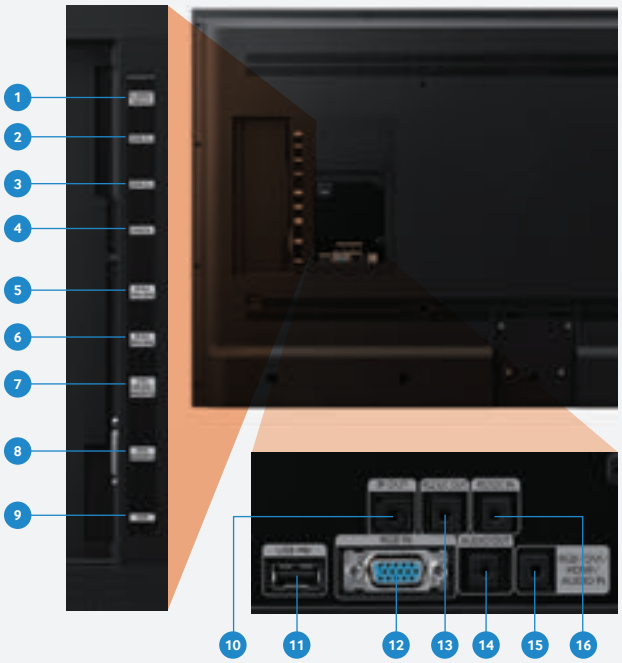
Samsung QMD Series

QMD

85"



Connectors



1. IR / AMBIENT SENSOR
2. HDMI® IN 3
3. HDMI IN 2
4. HDMI IN 1
5. DP IN 3 (UHD 30 Hz)
6. DP IN 2 (UHD 60 Hz)
7. DP IN 1 (UHD 60 Hz) / MAGICINFO®
8. DVI IN / MAGICINFO IN
9. RJ45
10. IR OUT
11. USB
12. RGB IN
13. RS-232C OUT
14. AUDIO OUT
15. RGB/DVI/HDMI/AUDIO IN
16. RS232C IN

Samsung QMD Series

Specifications

			QM85D
Panel	Diagonal size		85"
	Type		120 Hz Slim Direct LED BLU
	Resolution		3,840 x 2,160 (16:9)
	Pixel pitch (mm/in.)		0.1625 x 0.1625 (0.006 x 0.006)
	Color gamut		1872.0 (H) x 1053.0 (V)
	Brightness (Typ.)		500 nit
	Contrast Ratio (Typ.)		5000:1
	Viewing Angle (H/V)		178 / 178
	Response Time (G to G)		6ms (Typ.)
	Display Colors		16.7 M (True Display) 1.07 B (Ditherd 10bit)
	Color Gamut		72%
Sound	Speaker type		Built-in speaker (15 W + 15 W)
Connectivity	Input	RGB	D-Sub, DVI-D, DisplayPort 1.2 (2), DisplayPort 1.1 (1)
		Video	HDMI (3)
		Audio	Stereo mini jack
	Output	RGB	N/A
		Video	N/A
		Audio	Stereo mini jack
		Power out	N/A
	External control		RS-232C (in/out), RJ45
	External sensor		IR
Power	Type		Internal
	Power supply		AC 100 - 240 V~ (+/- 10 %), 50/60 Hz
	Power consumption	Sleep mode	Less than 0.5 W
		Off mode	Less than 0.5 W
Mechanical specifications	Weight (kg/lb)	Set	55.5 (122.3)
		Package	71.4 (157.4)
	Dimensions (mm/in.)	Set	1903.4 x 1090.5 x 105.1 (74.9 x 42.9 x 4.1)
		Package	2,050 x 1,265 x 472 (80.7 x 49.8 x 18.5)
	VESA mount (mm/in.)		600 x 400 (23.6 x 15.7)
	Protection glass		N/A
	Stand type		Foot Stand (Optional)
	Media player option type		N/A
	Bezel width (mm/in.) [Top x Side x Bottom]		13.2 x 13.2 x 19.3 (0.5 x 0.5 x 0.7)
Operation	Operating temperature		0°C - 40°C (32°F -104°F)
	Humidity		10 - 80%

Samsung QMD Series

Specifications

			QM85D
Feature	Key		UHD LFD display
	Special	H/W	Temperature sensor, Pivot display, Clock battery (80 hrs clock keeping), Built-in speaker (10 W 2ch)
		S/W	FHD 4 PBP support (2/3/4 PBP), Auto source switching & recovery, LFD Home UI, Remote F/W update (MDC, MagicInfo Server), Button lock, DDC CI, DHCP with RJ45 MDC, Urgent message by MDC, Hot key option, Plug & play (initial setting)
	Internal player (Embedded H/W)	Processor	N/A
		On-chip cache memory	
		Clock speed	
		Main memory interface	
		Graphics	
		Storage (FDM)	
		Multimedia	
		IO ports	
		Operating system	
Certification	Safety		60950-1
	EMC		Class A
Accessories	Included		Quick setup guide, Warranty card, DP cable, Power cord, Remote controller, Batteries
	Optional	Stand	STN-L7585F
		Mount	WMN5770D
		Specialty	Overlay Touch CY-TQ85LDAH
Media player	CPU		2014 New SBB (Expected Release Date : '14/Aug)
	N/B		
	S/B		
	GPU		
	FDM/HDD		
	Memory	USB	
	Ethernet	Output	
	Connectivity	Others	

Legal and additional information

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For more information

For more information about Samsung QMD Series SMART Signage, visit www.samsung.com/business or www.samsung.com/displaysolutions

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1 Worldwide LFD market shows CAGR of 26%. (D.Search 2013 Q2, LCD Only)

2 UHD panel shipments are forecasted to increase rapidly. (IHS 2014)

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