



## SAMSUNG SMART SIGNAGE

### QHH SERIES

Transform Customer Engagement through Next-Generation QLED Composition and True-To-Life Picture Quality

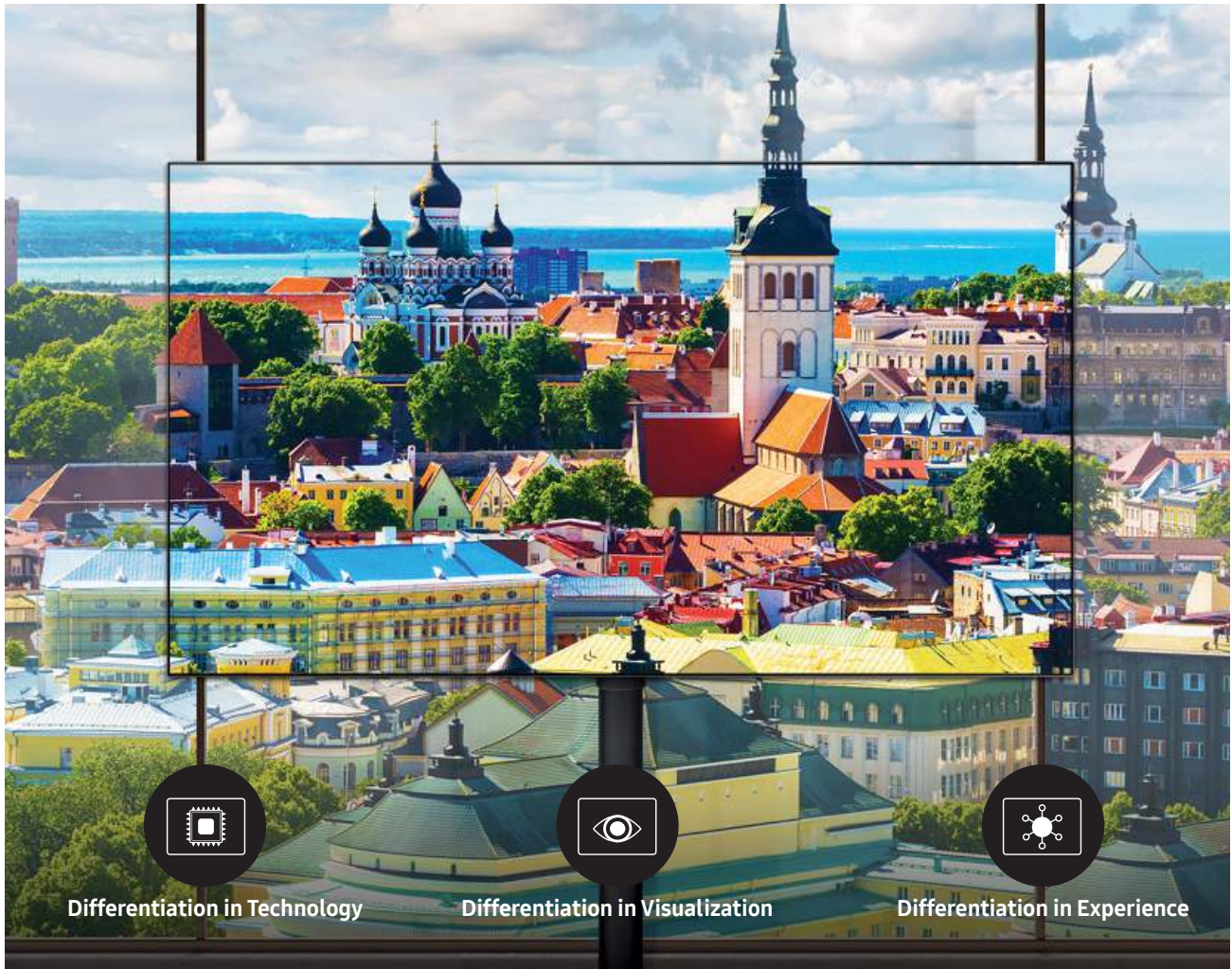
With the introduction of its new quantum-dot powered QHH Series QLED Signage, Samsung has elevated the traditional content experience with more lifelike quality guaranteed to deliver an unexpected viewing environment that resonates. The QHH Series displays can showcase more than one billion colors at 100 percent color volume, and produce deep blacks, pristine whites and sharp hues that make any picture pop. And with portrait and landscape configurations available, businesses can customize the displays to meet their unique operational needs and reach the widest audience possible without any added hassle or expense. Through this next-generation presentation, Samsung's QHH Series displays deliver the enhanced brilliance, detail and realism necessary to cut through the clutter and fuel interactive, ongoing business growth.

### HIGHLIGHTS

- Achieve exceptional picture quality through a state-of-the-art quantum dot composition
- Deliver one billion colors precisely and at 100 percent volume in any brightness setting
- Accommodate unique environment dimensions with flexible portrait and landscape configurations
- Amplify graphic performance and content security within the powerful TIZEN 3.0 operating system
- Eliminate burn-in and color presentation variation during content transitions

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## WHY QLED SIGNAGE?



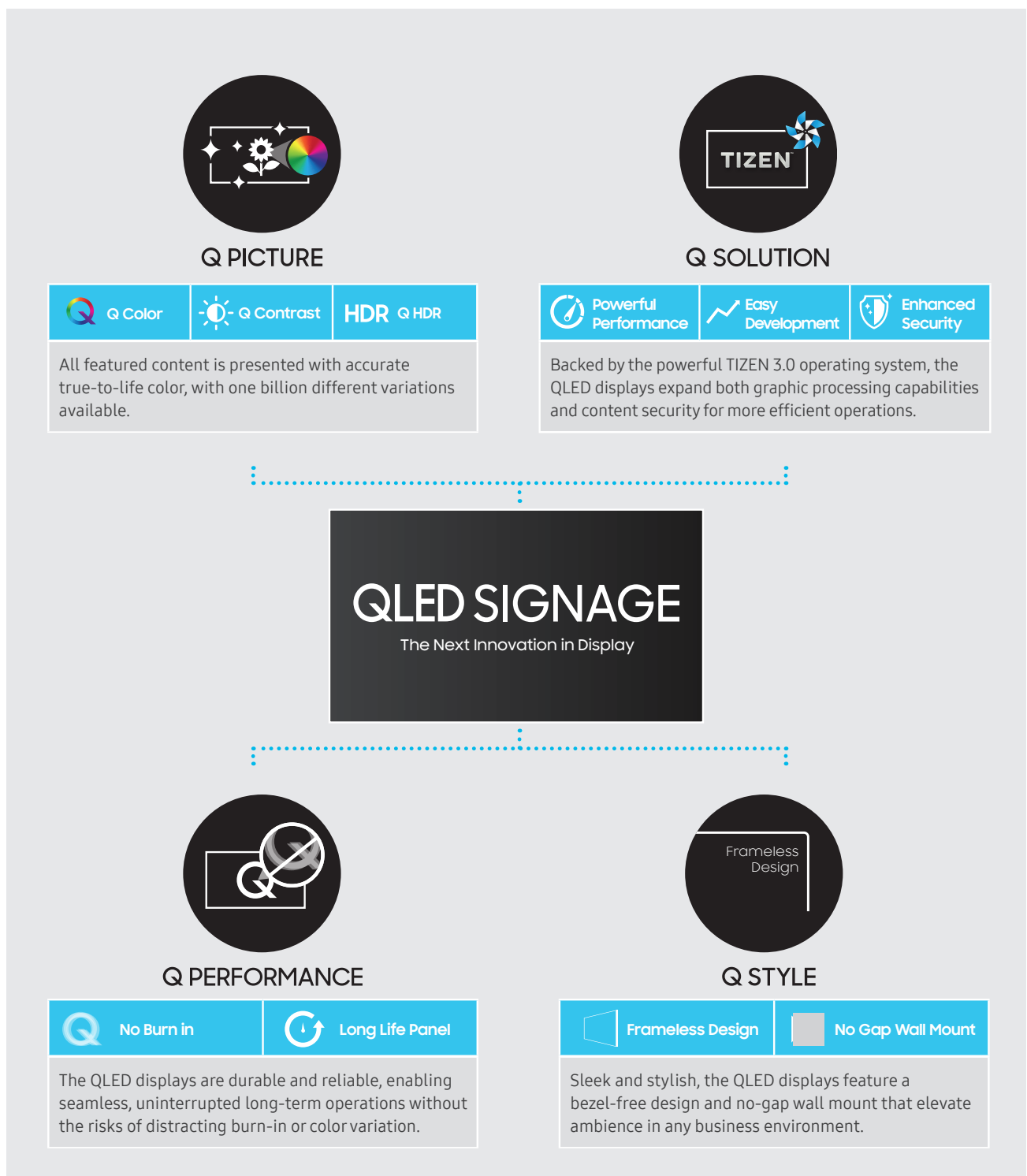
## SAMSUNG'S QLED SIGNAGE: UNLOCK NEW GROWTH OPPORTUNITIES

As businesses seek new ways to attract audiences and improve efficiency in increasingly-crowded environments, many are turning to advanced digital signage as a way to break through the clutter. By integrating quantum dot visual refinement technology, Samsung's QLED Signage offers these businesses an even greater competitive edge. An immersive high-quality picture creates a more memorable, attractive and buzzworthy customer experience. Beyond their external communication benefits, the QLED Signage displays additionally reinforce business branding through accurate and clean logo and color presentation. Through this diverse host of features, Samsung's QLED Signage is the perfect addition to generate additional revenue and strengthen customer loyalty.

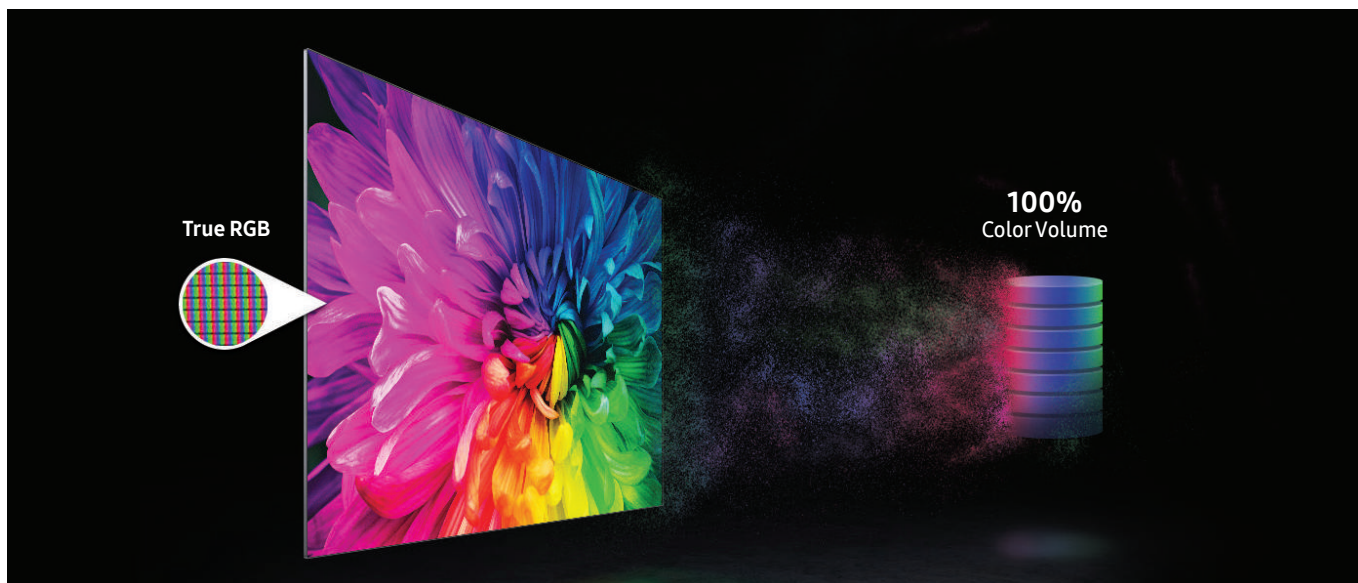
## QLED SIGNAGE: A VISUAL DISPLAY EVOLUTION

### ELEVATE YOUR BUSINESS WITH NEXT-GENERATION CONTENT

As the world's leading digital signage company, Samsung Electronics has forged its reputation through an unwavering commitment to innovation. And while most companies simply play in the commercial display space, Samsung has redefined it. With its QLED technology ushering the next era of interaction, Samsung has created new possibilities to bring previously untapped content to the B2B space. These displays deliver the clearest and most crisp picture possible, and accommodate any setting through B2Bspecific features, including:



## Q PICTURE



### SHOWCASE ONE BILLION COLORS WITH OPTIMAL PRECISION

Through compatibility with a variety of color spectra, the QHH Series displays achieve 100 percent color volume at optimal integrity for one billion different colors. This enhanced presentation brings even the most subtle visual details forward at varying levels of brightness, and fosters more realistic content within any indoor environment. As a result, retailers and other indoor businesses reliant on true-to-life product presentation can better drive purchase intent and improve customer satisfaction.



### AMPLIFY IMMERSION THROUGH ENHANCED BRIGHTNESS AND PRESENTATION

The quantum dot integration enables Samsung's new QLED Signage to balance light and dark brightness (600nit in landscape and 500nit in portrait) and preserve gradation for a presentation that is deeper and more realistic than that offered by conventional alternatives. Through enhanced, semiconductor-based picture refinement technology, the QHH Series displays produce deeper blacks, sharper whites and more precise colors for an eye-catching picture that pops. In turn, businesses in any environment can deliver a truly immersive and captivating viewing experience without worrying about external interference.

## Q PICTURE



### DELIVER ANY CUSTOMER-FACING CONTENT AT HDR QUALITY

The QHH Series displays leverage HDR picture refinement technology to deliver a range of static and motion content as intended and without compromising visual quality. This includes support for both the HDR10 picture presentation standard and HDR+ technology. Through HDR10 compatibility, indoor businesses can guarantee that all featured content meets ultra-HDR guidelines and reaches customers as clearly and brightly as possible. The complementary HDR+ functionality additionally allows businesses to surpass industry limitations by converting standard definition (SDR) content to HDR quality quickly and efficiently. This flexibility grants businesses new opportunities to create high quality, HDR-ready content amplified by sharp contrast, vivid color depth and seamless streaming.



### ENLIVEN COMMERCIAL CONTENT WITH UHD PICTURE QUALITY

Featuring state-of-the-art UHD picture quality, the QHH Series displays empower users to create and deliver impactful messaging. Each QHH Series display showcases content with four times the ultra realistic detail and clarity of standard alternatives, with a wider screen offering more space for text and imagery. When combined with performance features, such as portrait mode and extended durability, the next-level presentation makes the QHH Series ideal for any commercial setting.

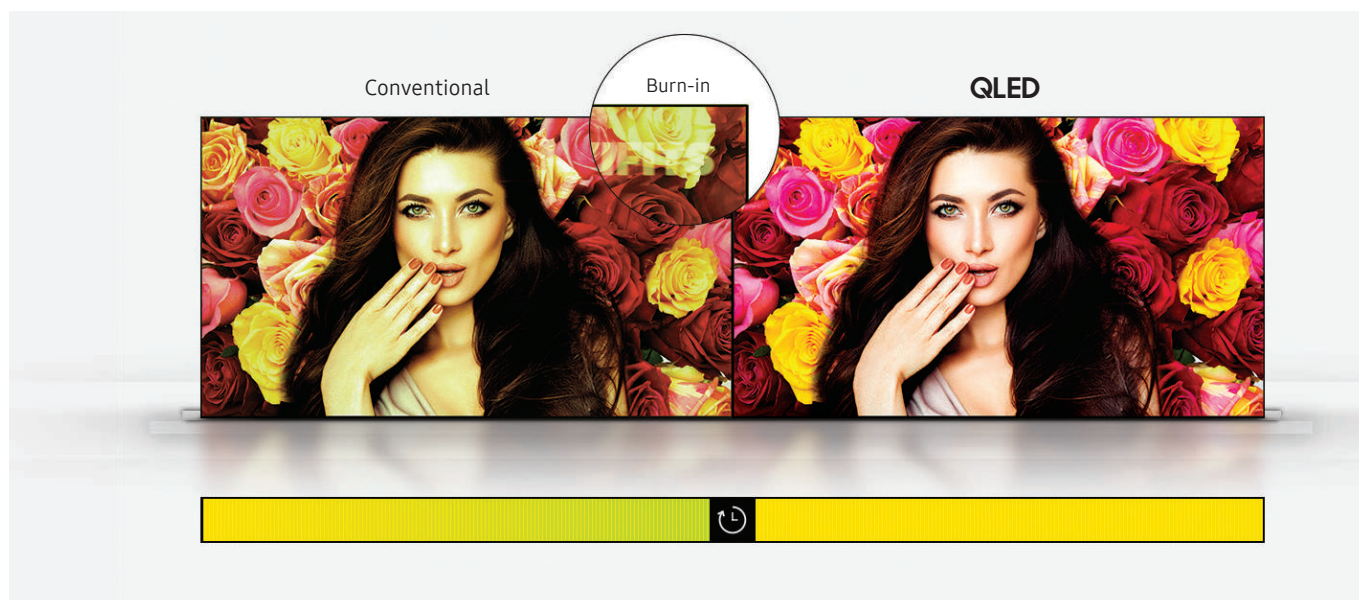
## Q SOLUTION



### EXPAND OPERATIONAL CAPABILITIES THROUGH THE POWERFUL TIZEN 3.0 OS

Samsung's QLED displays are the first in its lineup to feature the fifth generation SMART Signage Platform (SSSP 5.0), powered by the versatile TIZEN 3.0 operating system. Within TIZEN 3.0, indoor business users can elevate content with advanced graphics and achieve true UHD playback through a dedicated quad core CPU. TIZEN 3.0's rigid three-layer security structure also restricts file data access to a limited user base, and perfectly accommodates government, financial and other information-based businesses reliant on information protection.

## Q PERFORMANCE



### CAPTIVATE AUDIENCES OVER LONG DURATIONS WITHOUT INTERRUPTION

Durable and reliable, Samsung's QLED displays provide interruption-free long-term performance to meet the operational demands of various indoor settings. As content progresses, these reinforced displays deter burn-in and prevent potential viewer confusion and distraction. Additionally, each QLED display is engineered to maintain consistent color integrity even during periods of extended use. This maintenance free consistency allows business leaders to focus on other critical growth areas without worrying about content presentation quality.

## Q STYLE



### INCREASE IMMERSION THROUGH A FRAMELESS, EASY-TO-INSTALL DESIGN

With a pristine and sophisticated composition, the QHH Series displays add style and ambience to any indoor environment. The displays' frameless design extends the overall available viewing space while ensuring viewers' eyes remain focused on the featured content, rather than on the display itself. A no-gap wall mount further enables users to cleanly implement the QHH Series displays, all while eliminating a common source of visual distraction and conserving valuable retail space.



## SPECIFICATIONS

MODEL			QH55H	QH65H
Panel	Diagonal Size	Class Measured	55"	65"
	Type		54.6" / 138.7cm	64.5" / 163.8
	Resolution		120Hz E-LED BLU	120Hz E-LED BLU
	Pixel Pitch (mm)		3840x2160(16:9)	3840x2160(16:9)
	Active Display Area		0.105 x 0.315 (mm)	0.124 x 0.372 (mm)
	Brightness(Typ.)		1209.60(H) x 680.40(V)	1428.48(H) x 803.52(V)
	Contrast Ratio (Typ.)		Landscape: 600nit(peak 1,500nit), Portrait: 500nit (peak 1,000nit)	Landscape: 600nit(peak 1,500nit), Portrait: 500nit (peak 1,000nit)
	Viewing Angle(H/V)		6000:1	6000:1
	Response Time (G to G)		178/178	178/178
	Display Colors		6ms (Typ)	6ms (Typ)
	Color Gamut		1.07B (True Display10bit)	1.07B (True Display10bit)
	Operation Hour		Color Volume 100% (DCI-P3)	Color Volume 100% (DCI-P3)
Display	Haze		16/7	16/7
	Dynamic C/R		0%	0%
	H-Scanning Frequency		Mega	Mega
	V-Scanning Frequency		30 ~ 81kHz	30 ~ 81kHz
Sound	Maximum Pixel Frequency		48 ~ 75Hz	48 ~ 75Hz
	Speaker Type		594MHz	594MHz
Connectivity			Built in Speaker (10W + 10W)	Built in Speaker (10W + 10W)
	Input Power Range	RGB	Display Port 1.2 (1)	Display Port 1.2 (1)
		VIDEO	HDMI 2.0 (2)	HDMI 2.0 (2)
		HDCP	HDCP2.2	HDCP2.2
		AUDIO	N/A	N/A
	Output	USB	USB 2.0 x 2	USB 2.0 x 2
		Audio	HDMI #1 ARC support	HDMI #1 ARC support
		EXTERNAL CONTROL	RS232C(in/out), RJ45	RS232C(in/out), RJ45
Power			N/A	N/A
			N/A	N/A
			Internal	Internal
			AC 100 ~ 240 V~ (+/- 10 %), 50/60 Hz	AC 100 ~ 240 V~ (+/- 10 %), 50/60 Hz
Mechanical Spec	Power Consumption	On mode [W]	122(Typical), 180(Rating), 198(Max)	144(Typical), 230(Rating), 253(Max)
		Sleep mode	less than 0.5W	less than 0.5W
		Off mode	less than 0.5W	less than 0.5W
			less than 0.5W	less than 0.5W
	Dimesion(mm)	Set	1225.2 x 697.8 x 44.0	1444.1 x 820.9 x 44.0
		Package	1420 x 819 x 170	1585 x 958 x 178
		Set	17.3	23.9
		Package	23	32.3
Operation			400x400	400x400
			N/A	N/A
			Foot Stand (Optional)	Foot Stand (Optional)
			Bezel-less Design	Bezel-less Design
Feature			Deco Frame: 2.6mm (T/L/R) / 6.7mm (B)	Deco Frame: 2.6mm (T/L/R) / 6.7mm (B)
			0°C~ 40°C	0°C~ 40°C
Feature			10~80%	10~80%
			QLED Signage Display, Slim & Light Signage with Built-in MagicInfo S5, SSSP 5.0	QLED Signage Display, Slim & Light Signage with Built-in MagicInfo S5, SSSP 5.0
	Key	H/W	Temperature Sensor, Pivot Display, Clock Battery(168hrs Clock Keeping), Built in Speaker(10W 2ch), Wi-Fi/BT	Temperature Sensor, Pivot Display, Clock Battery(168hrs Clock Keeping), Built in Speaker(10W 2ch), Wi-Fi/BT
		S/W	Auto Source Switching & Recovery, LFD Home UI, Button Lock, Hot key option, Plug&Play (Initial Setting)	Auto Source Switching & Recovery, LFD Home UI, Button Lock, Hot key option, Plug&Play (Initial Setting)
	Processor	Processor	Coretex A72 1.7GHz Quad-Core CPU	Coretex A72 1.7GHz Quad-Core CPU
		On-Chip Cache Memory	L1 Instruction Cache : 48KB / L1 Data Cache : 32KB / L2 Cache : 2MB	L1 Instruction Cache : 48KB / L1 Data Cache : 32KB / L2 Cache : 2MB
		Clock Speed	1.7GHz Quad-Core CPU	1.7GHz Quad-Core CPU
		Main Memory Interface	3GB / 3ch 64bit LPDDR4 1.6GHz	3GB / 3ch 64bit LPDDR4 1.6GHz
	Graphics	Graphics	2D & 3D Graphic Accelerator Data Format : 32bpp Output resolution : 3840x2160p	2D & 3D Graphic Accelerator Data Format : 32bpp Output resolution : 3840x2160p
		Storage (FDM)	8GB (3.88GB Occupied by O/S, 4.12GB Available)	8GB (3.88GB Occupied by O/S, 4.12GB Available)
		Multimedia	Video Decoder - MPEG 1/2/4, H.263, H.264/AVC - UHD H.264/AVC, VC-1, AVS/AVS+, MVC - VP8, VP9, HEVC, JPEG Audio DSP(Decoder) - MPEG, AC3, AC4, DD, MP3 and etc	Video Decoder - MPEG 1/2/4, H.263, H.264/AVC - UHD H.264/AVC, VC-1, AVS/AVS+, MVC - VP8, VP9, HEVC, JPEG Audio DSP(Decoder) - MPEG, AC3, AC4, DD, MP3 and etc
		IO Ports	USB 2.0	USB 2.0
			Tizen 3.0 (VDLinux)	Tizen 3.0 (VDLinux)
Certification			60950-1	60950-1
			Class A	Class A
			ENERGY STAR 7.0 (TBD)	ENERGY STAR 7.0 (TBD)
Accessories			Quick Setup Guide, Warranty Card, Power Cord, Remote Controller, Batteries	Quick Setup Guide, Warranty Card, Power Cord, Remote Controller, Batteries
	Optional	Stand	STN-L4655E	STN-L4655E
		Mount	WMN4270SD / WMN-M11E (Slim W/M)	WMN4270SD / WMN-M11E (Slim W/M)
		Specialty	CLM450D	CLM450D
		Media Player	N/A	N/A

### About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. inspires the world and shapes the future with transformative ideas and technologies. The company is redefining the worlds of TVs, smartphones, wearable devices, tablets, cameras, digital appliances, medical equipment, network systems, and semiconductor and LED solutions. For the latest news, please visit the Samsung Newsroom at [news.samsung.com](http://news.samsung.com).

### SMART Signage

For more information about Samsung SMART Signage QHH Series, visit [www.samsung.com/business](http://www.samsung.com/business) or [www.samsung.com/displaysolutions](http://www.samsung.com/displaysolutions)

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## Assured Systems

Assured Systems is a leading technology company with over 1,500 regular clients in 80 countries, deploying over 85,000 systems to a diverse customer base in 12 years of business. We offer high-quality and innovative rugged computing, display, networking and data collection solutions to the embedded, industrial, and digital-out-of-home market sectors.

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