# Samsung OMD Series SMART Signage

## Experience brilliant semi-outdoor signage with high visibility and simplified connections

## Highlights

- Attract and engage audiences with superior visibility and high brightness in 2,500-nit, 5,000:1 contrast ratio LED displays.

- Cut operating costs with energy-efficient technology even with high brightness, using an Auto Brightness sensor and customizable brightness range.

- Install easily and operate remotely with 2nd Generation SSSP powered by built-in Wi-Fi.

- Display and manage content readily with MagicInfo mobile and server solution.

- Gain flexibility with a choice of kit-type or complete-product configurations.

## Brighten in-window displays efficiently with proven LED BLU technology

Businesses need new strategies with lower total cost of operation (TCO) to attract customers' attention and convey information. When adopting in-window digital signage as a strategy, businesses need high brightness and visibility, along with digital merchandising and advertising content management. They also need easy installation with built-in Wi-Fi for remote, wireless control, collaboration with housing SI for mounting compatibility and the versatility of either a complete product or kit-type product.

Samsung OMD Series displays build on the success of Samsung in-window CCFL displays, with proven LED BLU technology that delivers even more efficiency to enliven business messaging.

OMD Series displays are brighter while reducing power consumption at

2,500 nit using 315 W compared to the SL46B at 1,500 nit using 356 W thus offering ultimate outdoor visibility at a great value.

**Conventional at 1,500 nit**
**Using 356 W**

**OM46D at 2,500 nit**
**Using 220 W**

*Figure 1. Great advantages in energy savings*

OMD Series displays deliver performance, quality and reliability for in-window displays. With innovative Samsung technology, the displays can outshine bright sunlight with 2,500 nit brightness, and automatic brightness control delivers optimal visibility in various lighting environments.

Wired and wireless connectivity, along with powerful remote system control through a mobile app. enables centralized, cable-free content management and device control. And the System-on-Chip (SoC) media player embedded within the in-window digital signage simplifies content management and provides a clutter-free configuration.

The displays are available in two configurations to suit the needs of any display environment. OMD-K displays are kit-type displays that can fit into customized housings to address a wide range of design and environmental requirements. OMD-W displays are standalone units with an aesthetic design and back cover.

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# Elevate business messaging with bright and visually appealing displays

## Combine high brightness and low energy consumption for ideal digital messaging

With 2,500-nit brightness that outshines other in-window displays, OMD Series displays achieve an optimal blend of excellent visibility and brightness. As internal Samsung testing revealed, the displays are one of the brightest products on the market, with an obvious advantage in illumination.

OMD Series displays with LED backlight technology, emits less carbon dioxide ($CO_2$) compared with conventional cold cathode fluorescent lamp (CCFL) display, while lower power consumption.

## Deliver high visibility in a bright, attractive display

Transitioning from CCFL to LED technology provides significant energy-saving advantages. An auto brightness sensor — another great feature for energy saving and panel life cycle extension — optimizes energy consumption by adjusting the display for optimal brightness in various ambient environments. The sensor regulates the display's brightness between 350 nit and 2,500 nit, automatically maintaining a level that is neither too dark nor too bright. The sensor's settings can be customized by the user to achieve the ideal balance of visibility and power consumption for any environment.

OMD Series displays have a high contrast ratio (5,000:1) that provides clear and vivid delivery of visual messaging. Unlike conventional in-window displays in which the contrast ratio dramatically decreases when exposed to brighter light sources, the OMD Series high-contrast ratio is maintained, even with a high brightness of 2,500 nit.

Another display issue is that light emitted from an LCD display is all polarized, so a customer wearing polarized sunglasses with right-angled polarized lenses perceives that the display is turned off. In order to display images to everyone, Samsung applied circular polarizing technology in OMD Series displays, which eliminates display blindness caused by polarized sunglasses.



Figure 2. Technologies for clear and dynamic messaging

## Experience easy, clutter-free installation, operation and maintenance

MagicInfo E Author makes content creation through your PC straightforward. With over 200 pre-built design templates, you can create and insert professional promotions with text, images and videos to convey and emphasize messages, so you never have to start from a blank page. The templates include a range of high-quality, royalty-free (RF) images that can be immediately used by shop owners for professional-looking results. Templates are available for a variety of business and markets, such as individual retail stores, quick-service restaurants (QSRs) and other dining establishments, grocery stores, cosmetic stores, arts and entertainment venues, and healthcare facilities. Both portrait and landscape template layouts are available to suit your unique display needs.

# Continuously display vibrant content with a sleek display that's ideally suited to the environment

Multiple connectivity options are available, including Wi-Fi connectivity and a mobile application which, together, support easier management. To maximize usage of the built-in Wi-Fi feature, Samsung provides the MagicInfo Mobile Application, which can be used on a tablet or other mobile device to easily deliver content to the display or to update the display's templates or content. The MagicInfo Server solution also enables professional management of multiple displays through a Wi-Fi network. In some cases, the available SD Card may be a better connectivity option than a USB memory stick because the card is designed for external environments in which the USB stick might be vulnerable to loss or theft.



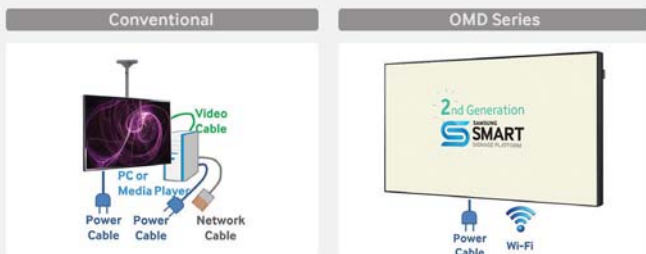Figure 4. Heat endurance and low noise for semi-outdoor use



Figure 3. Clutter-free installation at window front

## Present brilliant messaging in a slim, highly viewable and aesthetic design

A narrow, 9.3 mm bezel offers a slim, sophisticated appearance with minimal distraction. The slim bezel allows the OMD Series displays to be used in seamless video walls for stunning window and wall displays. In addition, the OMD Series slim-depth panel delivers an efficient use of space while reducing housing design costs.

## Rely on OMD Series durability, even in demanding conditions

The OMD Series LCD cell can withstand temperatures as high as 110°C (230°F), ensuring the displays' durability in direct and indirect sunlight environments.

In-window digital displays with high brightness tend to generate more noise than ordinary displays and, because the displays are typically installed inside the store's front window, this noise can detract from the store's image. OMD Series signage controls noise at 30 dBA at a 1-meter distance, the equivalent of a whisper in a quiet library.

## Choose the ideal display type for any business environment

OMD Series provides two models to fit any digital signage environment: OMD-K and OMD-W.

OMD-K is a kit-type panel that is specifically designed for use in various customized housings to serve a wide range of configurations and environmental needs. The OMD-K display has connectivity ports and labels that are exposed on the back side, so it is recommended for use in configurations that cover the rear portion of the display.

OMD-K is ideal for full outdoor environments because of its 2,500 nit brightness, provided the display's housing is designed with the outdoor environment in mind. This means that dust-proofing, water-proofing, cooling system and other considerations must be taken into account when designing the installation.

OMD-W is an aesthetically pleasing standalone panel with a back cover that hides its array of connectivity ports and openings.



Figure 5. Window type and kit type to fit any environment

* MagicInfo Mobile is compatible with :

1. Android  4.0 - 4.4.2 ( Galaxy S3, S4, S5, Galaxy Note2, Note3)
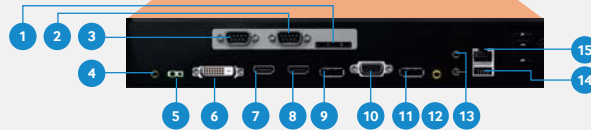2. iOS 6.0 - 8.0 (iPhone 4, 4S, 5)

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# OMD-W

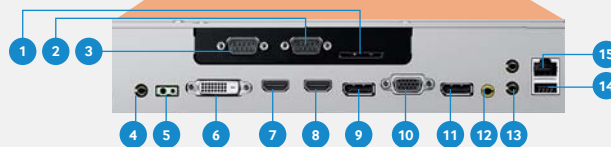## 46" / 55" / 75"



**Connectors**



1. SD CARD
2. RS232C IN
3. RS232C OUT
4. IR OUT
5. CONTROL IN/ALU
6. DVI IN
7. HDMI IN 1
8. HDMI IN 2
9. DP IN
10. RGB IN
11. DP OUT (LOOP OUT)
12. AV/COMPONENT IN
13. AUDIO IN/OUT
14. USB
15. RJ45

# OMD-K

## 46" / 55" / 75"



**Connectors**



1. SD CARD
2. RS232C IN
3. RS232C OUT
4. IR OUT
5. CONTROL IN/ALU
6. DVI IN
7. HDMI IN 1
8. HDMI IN 2
9. DP IN
10. RGB IN
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## OMD-W/K Specifications

| | | | OM46D-W/K | OM55D-W/K | OM75D-W/K |
|---|---|---|---|---|---|
| **Panel** | Diagonal Size | | 46" | 55" | 75" |
| | Type | | S-PVA | | |
| | Resolution | | 1920 x 1080 (16:9) | | |
| | Active Display Area (mm) | | 1018.08(H) x 572.67(V) | 1209.6(H) x 680.4(V) | 1650.24(H) x 928.26(V) |
| | Brightness (Typ.) | | 2,500 cd/m2 | | |
| | Contrast Ratio | | 5,000:1 | | |
| | Viewing Angle (H/V) | | 178/178 | | |
| | Response Time (G-to-G) | | 6 ms | | |
| | Display Colors | | 8 bit - 16.7 M | | |
| | Color Gamut | | 72% | | |
| **Display** | H-Scanning Frequency | | 30 - 81 kHZ | | |
| | V-Scanning Frequency | | 48 - 75 Hz | | |
| | Maximum Pixel Frequency | | 148.5 MHz | | |
| **Sound** | Speaker Type | | Built-in Speaker (10 W + 10 W) / N/A | | |
| **Connectivity** | INPUT | RGB | Analog D-SUB, DVI-D, DisplayPort® 1.2 | | |
| | | VIDEO | HDMI®1, HDMI2, Component (CVBS Common) | | |
| | | AUDIO | Stereo Mini Jack | | |
| | OUTPUT | RGB | DP1.2 (Loop-out) | | |
| | | VIDEO | N/A | | |
| | | AUDIO | Stereo Mini Jack | | |
| | | Power Out | N/A | | |
| | EXTERNAL CONTROL | | RS232C (In/Out), RJ45 | | |
| | EXTERNAL SENSOR | | Detachable Type (IR, Ambient) | | |
| **Power** | Type | | Internal | | |
| | Power Supply | | AC 100 - 240 V~ (+/- 10 %), 50/60 Hz | | |
| | Power Consumption | Max [W/h] | 395 | 495 | 935 |
| | | Typical [W/h] | 220 | 300 | 550 |
| | | Sleep mode | less than 0.5 W | | |
| | | Off mode | less than 0.5 W | | |
| **Mechanical Spec** | Dimensions (mm/in.) | Set | 1,035.9 x 590.5 x 139.2 (40.7 x 23.2 x 5.4) / 1,035.9 x 590.5 x 142.9 (40.7 x 23.2 x 5.6) | 1,227.4 x 698.2 x 139.5 (48.3 x 27.4 x 5.4) / 1,227.4 x 698.2 x 143.2 (48.3 x 27.4 x 5.6) | 1,675.8 x 953.8 x 124.6 (65.9 x 37.5 x 4.9) / 1,675.8 x 953.8 x 123.1 (65.9 x 37.5 x 4.8) |
| | | Package | 1,123 x 686 x 236 (44.2 x 27 x 9.2) | 1,335 x 808 x 265 (52.5 x 31.8 x 10.4) | 1,815 x 1,075 x 415 (71.4 x 42.3 x 16.3) |
| | Weight (kg/lb) | Set | 19.6 (37.2) / 18.7 (41.2) | 24 (52.9) / 22.4 (49.3) | 48 (105.8) / 42.2 (93) |
| | | Package | 25.1 (55.3) / 24.2 (53.3) | 30 (66.1) / 28.4 (62.6) | 60 (132.2) / 54.2 (119.4) |
| | VESA Mount (mm) | | 600 x 400 | 600 x 400 | 900 x 600 |
| | Protection Glass | | N/A | | |
| | Stand Type | | N/A | | |
| | Media Player Option Type | | Embedded, SIM (Slide in Module ) | | |
| | Bezel Width (mm/in.) | | 9.3 (0.37) [L/R: 7.8 (0.3), Bottom: 6.5 (0.2)] | | 11.7 (0.4) |
| **Operation** | Operating Temperature | | 0℃~ 40℃ (w/o Direct Sunlight) / 0℃~ 30℃ (w/o Direct Sunlight) | | |
| | Humidity | | 10~80% | | |

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| OMD-W/K Specifications | | | OM46D-W/K | OM55D-W/K | OM75D-W/K |
|---|---|---|---|---|---|
| **Feature** | Key | | Extremely High Brightness, Outdoor Kit Solution | Extremely High Brightness, Semi-Outdoor Kit Solution | Extremely High Brightness, Semi-Outdoor Kit Solution |
| | Special | | Plug and Play, MagicInfo S2, Slide in Module, Digital Daisy Chains (100ea), Lamp Error Detection, Anti Image Retention, Temperature Sensor, RS232C/RJ45 MDC, PIP/PBP, Video Wall (10 x 10), Portrait Installation Support, Button Lock, Smart Scheduling, Wi-Fi Embedded, Sunglasses Viewable, Built-in Speakers (10 W + 10 W, **OMD-W only**) | | |
| | Internal Player (Embedded H/W) | Processor | Cortex®-A9 1 GHz Quad Core CPU | | |
| | | On-Chip Cache Memory | L1 (I/D) : 32 KB / 32 KB<br>L2 (Unified) : 1 MB | | |
| | | Clock Speed | 1 GHz CPU Quad | | |
| | | Main Memory Interface | 1.5 GB Dual 48 bit DDR3-933 (1,866 MHz) | | |
| | | Graphics | 2D & 3D Graphics Engine<br>- Up to 1920x1080. 32 bpp<br>- Supports OpenGL ES | | |
| | | Storage (FDM) | 8 GB ( 2 GB Occupied by O/S, 6 GB available) | | |
| | | Multimedia | Video Decoder<br>- MPEG-1/2, H.264/AVC (Dual)<br>- VC-1, JPEG, PNG,VP8<br>Audio DSP (Decoder)<br>- AC3 (DD), MPEG, DTS and etc. | | |
| | | IO Ports | USB 2.0 | | |
| | | Operating System | Linux® | | |
| **Certification** | Safety | | UL (USA) : UL 60950-1<br>CSA (Canada) : CSA C22.2 No. 60950-1<br>TUV (Germany) : EN60950-1<br>NEMKO (Norway) : EN60950-1<br>KC (Korea) : K60950-1<br>CCC (China) : GB4943.1-2011<br>PSB (Singapore) : IEC60950-1<br>GOST (Russia) : IEC60950-1, EN55022<br>SIQ (Slovenia) : IEC60950-1, EN55022<br>PCBC (Poland) : IEC60590-1, EN55022<br>NOM (Mexico) : NOM-019-SCFI-1998<br>IRAM (Argentina) : IEC60950-1<br>SASO (Saudi Arabia) : IEC60950-1 | | |
| | EMC | | FCC (USA) : FCC Part 15, Subpart B class B<br>CE (Europe) : EN55022, EN55024<br>VCCI (Japan) : V-3 (CISPR22)<br>KCC (Korea) : KN22, KN24<br>BSMI (Taiwan) : CNS13438 (CISPR22)<br>C-Tick (Australia) : AS/NZS3548 (CISPR22)<br>CCC (China) : GB 9254-2008, GB 17625.1-2003 | | |
| | Environment | | N/A | | |
| **Accessories** | Included | | External IR/Brightness Sensor, Quick Setup Guide, Regulatory Guide, Warranty Card, D-Sub cable, Power Cord, Remote Controller, Batteries | | |
| | Optional | Stand | N/A | | |
| | | Mount | N/A | | |
| **Media Player** | CPU | | SBB-C (Optional) | | |
| | N/B | | | | |
| | S/B | | | | |
| | GPU | | | | |
| | FDM/HDD | | | | |
| | Memory | | | | |
| | Ethernet | | | | |
| | Connectivity | USB | | | |
| | | Output | | | |
| | | Others | | | |

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## About Samsung Electronics Co., Ltd.

Samsung Electronics Co., Ltd. is a global leader in technology, opening new possibilities for people everywhere. Through relentless innovation and discovery, we are transforming the worlds of TVs, smartphones, tablets, PCs, cameras, home appliances, printers, LTE systems, medical devices, semiconductors and LED solutions. We employ 286,000 people across 80 countries with annual sales of US$216.7 billion. To discover more, please visit www.samsung.com.

## For more information

For more information about Samsung OMD Series displays, visit www.samsung.com/business or www.samsung.com/displaysolutions.

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