Samsung LED Signage

IFR Series

Completely captivating. Fully flexible.

Indoor LED signage has become an increasingly popular tool for businesses of all sizes to deliver crisp and compelling messages to customers. Samsung's IFR series combines best-in-class LED picture quality, flexible design options and efficient operation in any environment. Advanced picture refinement technology ensures every image provides an immersive viewing experience, with comprehensive calibration tools to ensure all LED displays maintain uniform picture quality. Brilliant, true-to-life image capabilities are supported by multiple installation options for hassle-free and innovative configurations, as well as efficient operation at all times.

Highlights

- Best-in-class picture quality with advanced image refinement technology
- Support for HDR picture quality up to 8K for immersive viewing experience
- Flexible installations regardless of space constraints
- Factory and mobile calibration for fine-tuned, uniform images across the entire screen
- Redundant system to minimize display malfunction
- Frame rate synchronization for smooth content without screen tearing

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LED Signage

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Samsung Electronics Co., Ltd.
416, Maetan 3-dong, Yeongtong-gu, Suwon-si, Gyeonggi-do 443-772, Korea

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LED Signage an integral part of business

Digital signage has become an important targeting tool in both public and business indoor environments. In indoor spaces often flooded by natural sunlight, it is important to choose the right technology to engage potential customers. LED signage is ideally suited to locations flooded by natural sunlight, providing brilliant picture quality regardless of direct sunlight and glare. LED signage is constantly evolving and well-suited to corporate lobbies, hospitality venues and busy transportation hubs such as airports and railways – providing eye-catching displays whether greeting customers at reception or providing critical information throughout their travels. LED signage is now seen as an integral part of any modern business and as a result, the market is growing fast. Regardless of size, light or configuration, LED signage has the advanced visual capability and flexibility to enhance any business environment.

IFR series perfectly engineered to captivate customers

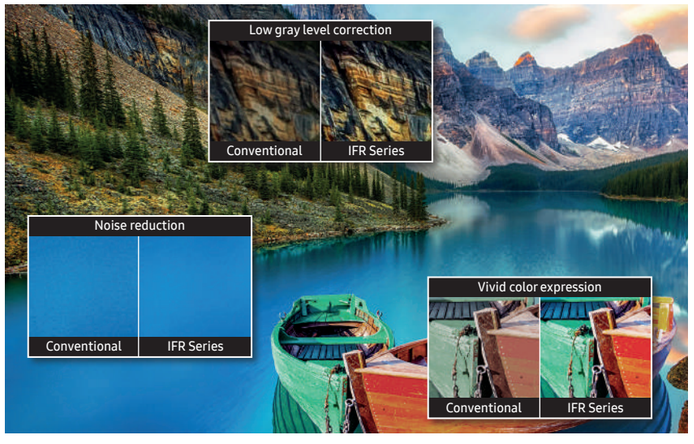
Samsung's IFR series is almost perfectly engineered for public and business environments, providing high picture quality, efficient operation and design flexibility. Best-in-class LED display is partnered with advanced HDR technology for up to 8K resolution, creating a truly immersive viewing experience. This is enhanced by rigorous factory calibration and easy mobile calibration for seamless viewing on a fully uniform screen. The IFR series enables smooth viewing, eliminating screen tearing without the need for any additional video processor. A redundancy system is also embedded within the IFR series to prevent any screen failures or downtime for a business' messaging and promotions. The IFR series supports two kinds of cabinets with landscape, portrait, curved and L-shaped installation options, allowing businesses to utilize a flexible design regardless of any environmental constraints.

Brilliant picture quality

Efficient operation

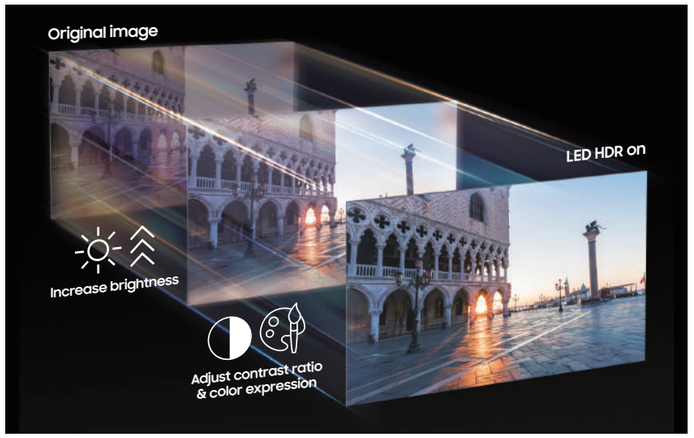
Flexible design

Brilliant picture quality



Best-in-class LED picture quality

Drawing on Samsung's industry leadership experience, technical knowhow and years of innovation in visual display technology, Samsung has developed LED signage with visual clarity that is second to none. The IFR series provides an impressive viewing experience with best-in-class picture quality for LED, producing images with exact color expression, reduced noise and a full range of grays and blacks.



Clearly refined visuals

Utilizing a propriety algorithm, LED HDR creates true-to-life images, turning any content into HDR-level quality without requiring any special metadata. Dynamic Peaking and Inverse Tone Mapping ensure content is always being delivered at optimal peak brightness levels while avoiding glare. Additionally, in-depth Color Mapping prevents color distortion delivering refined and accurate color presentation.

Pin-sharp clarity, bright or dark

Discover the true beauty no matter how bright or dark a scene is. The IFR series supports HDR10+ which optimizes brightness and contrast ratio scene-by-scene to ensure each frame looks exactly as intended. With conventional displays, some scenes may look saturated or too dark, but with HDR10+ tone is fine-tuned continuously as content plays, making the picture is as detailed as it is in the real world.

HDR experience in large scale

With Multi-link HDR technology, IFR series delivers more impactful content than ever before, providing HDR quality content up to 8K resolution. Using Samsung's proprietary algorithm, Multi-link HDR turns any content into HDR level without needing any special meta-data. Multi-Link HDR is also a flexible solution that can be applied to various layouts and screen sizes with less cabling.

HDR quality up to 8K resolution

Any content Into HDR

Flexible configuration

Efficient operation

Screen uniformity all the time

Samsung's complete and comprehensive calibration solution ensures LED displays continuously maintain picture quality. While all LED screens undergo multi-step factory calibration process to tune individual pixels to uniform brightness and color, users can also easily manage brightness and color uniformity to meet their needs with their mobile devices throughout the lifetime of their display.

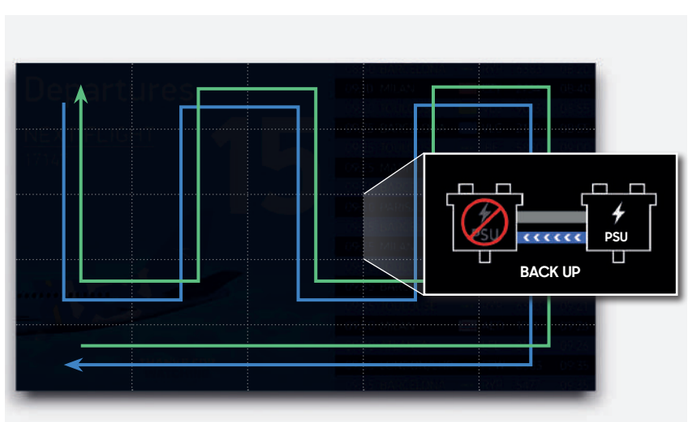
Factory Calibration

Color Expert LED

Color Expert LED Mobile

Seamless, smooth content playback

Frame rate synchronization, available on Samsung's MagicINFO™ content management platform, guarantees smooth content playback without screen tearing when multiple S-boxes are connected – even when combining or splitting content across cabinets. Additionally, thanks to Samsung's MagicINFO™ platform, no additional video processor is required, reducing operation costs.



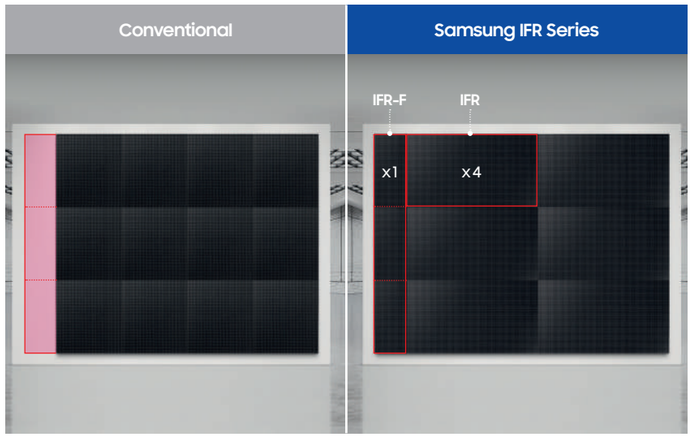
Operational safeguards to minimize downtime

IFR series features multiple operational safeguards intended to minimize screen failures including embedded dual power units and forward and reverse signal redundancy. These redundant systems help to ensure content interruptions are reduced as much as possible, keeping your message front and center.

Signal redundancy

Power redundancy

Flexible design



Flexible design for any location

To provide more flexibility in design, IFR series features two cabinet types. One, a larger and lighter version compared to conventional cabinets to simplify installation, and the other about a quarter of that size to create displays of varying dimensions. With support of portrait, landscape, curved and L-shaped installations, businesses can have ultimate control to create the ideal display for their space.

Size variation

Weight down

Cost-saving

Curved

L-shaped

Landscape/Portrait

Specifications

Model		IFR		IFR-E		
		IF015R	IF025R	IF020R-E	IF025R-E	IF040R-E
Physical Parameter	Pixel Pitch	1.5 mm	2.5 mm	2.0 mm	2.5 mm	4.0 mm
	Pixel Configuration	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue
	Configuration (LxH, per cabinet)	640 x 360 pixels	384 x 216 pixels	480 x 270 pixels	384 x 216 pixels	240 x 135 pixels
	Diode Type	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)
	Dimensions (mm, LxHxD, per cabinet)	960 x 540 x 79.5 mm	960 x 540 x 79.5 mm	960 x 540 x 79.5 mm	960 x 540 x 79.5 mm	960 x 540 x 79.5 mm
	Dimensions (inch, inchxD, per cabinet)	43.3 x 3.13 inch	43.3 x 3.13 inch	43.3 x 3.13 inch	43.3 x 3.13 inch	43.3 x 3.13 inch
	No. of Modules (WxH, per cabinet)	4 x 3	4 x 3	4 x 3	4 x 3	4 x 3
	Weight (per cabinet/per m^2)	11.8 kg / 22.8 kg	12.4 kg / 23.9 kg	12.4 kg / 23.9 kg	12.4 kg / 23.9 kg	12.4 kg / 23.9 kg
Optical Parameter	Brightness (Peak*/Max)	1,600 nit / 800 nit (TBD)	1,800 nit / 1,200 nit	1,600 / 1,000 nit (TBD)	TBD	1,500 nit / 900 nit
	Contrast Ratio (Peak/Max)	6,000:1 / 3,000:1 (TBD)	12,000:1 / 6,000:1	8,000:1 / 5,000:1 (TBD)	TBD	8,300:1 / 5,000:1
	Viewing Angle - Horizontal	160° (TBD)	160°	160° (TBD)	160° (TBD)	160°
	Viewing Angle - Vertical	160° (TBD)	160°	160° (TBD)	160° (TBD)	160°
	Bit Depth	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)
	Color Temperature - Default	6,500K	6,500K	6,500K	6,500K	6,500K
	Color Temperature - Adjustable	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)
Electrical Parameter	Video Rate	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
	Input Power Range	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz
	Power Consumption - Max	579 (W/m^2) / 300 (W/Cabinet) (TBD)	502 (W/m^2) / 260 (W/Cabinet)	TBD	TBD	502 (W/m^2) / 260 (W/Cabinet)
	Power Consumption - Typ	193 (W/m^2) / 100 (W/Cabinet) (TBD)	168 (W/m^2) / 87 (W/Cabinet)	TBD	TBD	168 (Wm^2) / 87 (W/Cabinet)
	Heat Generation - Max (BTU/SF)	183.5 BTU/SF per hour (TBD)	159.1 BTU/SF per hour	TBD	TBD	159.1 BTU/SF per hour
	Refresh Rate	3,840 Hz	3,840 Hz	3,240 Hz	3,840 Hz	3,240 Hz
Operational Parameter	Power Redundancy	Yes	Yes	Yes	Yes	Yes
	Working Temperature/ Humidity	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH
	Storage Temperature/ Humidity	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH
	IP Rating	IP20	IP20	IP20	IP20	IP20
	LED Lifetime	100,000 hours	100,000 hours	100,000 hours	100,000 hours	100,000 hours
Certification	Certification	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS
Service	Service	Front	Front	Front	Front	Front
Package	Box Dimension (mm, LxHxD)	1,119 x 699 x 206 mm	1,119 x 699 x 206 mm	1,119 x 699 x 206 mm	1,119 x 699 x 206 mm	1,119 x 699 x 206 mm
	Box Volume (m^2)	0.161	0.161	0.161	0.161	0.161
	Package Weight (kg, per cabinet)	17.5 kg	18.1 kg	18.1 kg	18.1 kg	18.1 kg
Special Installation	Curve (Concave)	N/A	N/A	N/A	N/A	N/A
	Curve (Convex)	N/A	N/A	N/A	N/A	N/A
	Rotation	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)
	L-shape	N/A	N/A	N/A	N/A	N/A

Model		IFR-F		IFR-EF		
		IF015R-F	IF025R-F	IF020R-EF	IF025R-EF	IF040R-ER
Physical Parameter	Pixel Pitch	1.5 mm	2.5 mm	2.0 mm	2.5 mm	4.0 mm
	Pixel Configuration	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue	1 red, 1 green, 1 blue
	Configuration (LxH, per cabinet)	160 x 360 pixels	96 x 216 pixels	120 x 270 pixels	96 x 216 pixels	60 x 135 pixels
	Diode Type	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)	Surface Mount Device (SMD)
	Dimensions (mm, LxHxD, per cabinet)	240 x 540 x 81 mm	240 x 540 x 81 mm	240 x 540 x 81 mm	240 x 540 x 81 mm	240 x 540 x 81 mm
	Dimensions (inch, inchxD, per cabinet)	23.3 x 3.18 inch	23.3 x 3.18 inch	23.3 x 3.18 inch	23.3 x 3.18 inch	23.3 x 3.18 inch
	No. of Modules (WxH, per cabinet)	1 x 3	1 x 3	1 x 3	1 x 3	1 x 3
	Weight (per cabinet/per m^2)	3.2 kg / 24.7 kg	3.2 kg / 24.7 kg	3.2 kg / 24.7 kg	3.2 kg / 24.7 kg	3.2 kg / 24.7 kg
Optical Parameter	Brightness (Peak*/Max)	1,600 nit / 800 nit (TBD)	1,800 nit / 1,200 nit	1,600 / 1,000 nit (TBD)	TBD	1,500 nit / 900 nit
	Contrast Ratio (Peak/Max)	6,000:1 / 3,000:1 (TBD)	12,000:1 / 6,000:1	8,000:1 / 5,000:1 (TBD)	TBD	8,300:1 / 5,000:1
	Viewing Angle - Horizontal	160° (TBD)	160°	160° (TBD)	160° (TBD)	160°
	Viewing Angle - Vertical	160° (TBD)	160°	160° (TBD)	160° (TBD)	160°
	Bit Depth	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)	16 bit (Internal processing 18bit)
	Color Temperature - Default	6,500K	6,500K	6,500K	6,500K	6,500K
	Color Temperature - Adjustable	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)	2,800 ~ 10,000K (use S/BOX)
Electrical Parameter	Video Rate	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz	50/60 Hz
	Input Power Range	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz	100~240 VAC, 50/60 Hz
	Power Consumption - Max	694 (W/m^2) / 90 (W/Cabinet) (TBD)	617 (W/m^2) / 80 (W/Cabinet)	TBD	TBD	617 (W/m^2) / 80 (W/Cabinet)
	Power Consumption - Typ	232 (W/m^2) / 30 (W/Cabinet) (TBD)	208 (W/m^2) / 27 (W/Cabinet)	TBD	TBD	208 (W/m^2) / 27 (W/Cabinet)
	Heat Generation - Max (BTU/SF)	219.9 BTU/SF per hour (TBD)	195.5 BTU/SF per hour	TBD	TBD	195.5 BTU/SF per hour
	Refresh Rate	3,840 Hz	3,840 Hz	3,240 Hz	3,840 Hz	3,240 Hz
Operational Parameter	Power Redundancy	N/A	N/A	N/A	N/A	N/A
	Working Temperature/ Humidity	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH	0°C~40°C / 10~80%RH
	Storage Temperature/ Humidity	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH	-20°C~45°C / 5~95%RH
	IP Rating	IP20	IP20	IP20	IP20	IP20
	LED Lifetime	100,000 hours	100,000 hours	100,000 hours	100,000 hours	100,000 hours
Certification	Certification	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS	EMC Class A, Safety 60950-1, FCC, UL, CB, KCC, RoHS
Service	Service	Front	Front	Front	Front	Front
Package	Box Dimension (mm, LxHxD)	653 x 148 x 354 mm	653 x 148 x 354 mm	653 x 148 x 354 mm	653 x 148 x 354 mm	653 x 148 x 354 mm
	Box Volume (m^2)	0.342	0.342	0.342	0.342	0.342
	Package Weight (kg, per cabinet)	4.9 kg	4.9 kg	4.9 kg	4.9 kg	4.9 kg
Special Installation	Curve (Concave)	3000R (TBD)	3000R (TBD)	3000R (TBD)	3000R (TBD)	3000R
	Curve (Convex)	3000R (TBD)	3000R (TBD)	3000R (TBD)	3000R (TBD)	3000R
	Rotation	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)	Yes (90 degree clockwise)
	L-shape	Yes	Yes	Yes	Yes	Yes

* Peak value according to IDMS (Information Display Measurement Standard)