

# Specifications

Model		IW008J-R	IW012J-R	IW016J-R
Physical Parameter	Pixel Pitch	0.84 mm	1.26 mm	1.68 mm
	Configuration (LxH, per cabinet)	960 x 540 pixels	640 x 360 pixels	480 x 270 pixels
	Diode Type	Flip-chip RGB LED	Flip-chip RGB LED	Flip-chip RGB LED
	Dimensions (mm, LxHxD, per cabinet)	806.4 x 453.6 x 72.2 mm	806.4 x 453.6 x 72.2 mm	806.4 x 453.6 x 72.8 mm
	Dimensions (inch, per cabinet)	36.4 x 2.8 inch	36.4 x 2.8 inch	36.4 x 2.9 inch
	No. of Modules (WxH, per cabinet)	4 x 3	4 x 3	4 x 3
	Weight (per cabinet/per m <sup>2</sup> )	12.4 kg / 33.9 kg	12.0 kg / 32.8 kg	12.2 kg / 33.4 kg
Optical Parameter	Brightness (Peak*/Max)	1,600 nit / 500 nit	1,600 nit / 800 nit	1,400 nit / 1,000 nit
	Contrast Ratio**	10,000 : 1	10,000 : 1	10,000 : 1
	HDR Compatibility	LED HDR / HDR10+ support / Multi-link HDR	LED HDR / HDR10+ support / Multi-link HDR	LED HDR / HDR10+ support / Multi-link HDR
	Viewing Angle (Horizontal/Vertical)	160° / 140°	160° / 140°	160° / 140°
	Bit Depth	16 bit (Internal processing 20bit)	16 bit (Internal processing 20bit)	16 bit (Internal processing 20bit)
Electrical Parameter	Video Rate	50/60 Hz	50/60 Hz	50/60 Hz
	Input Power Range	48Vdc	48Vdc	48Vdc
	Power Consumption - Max	460 (W/m <sup>2</sup> ) / 168 (W/Cabinet)	394 (W/m <sup>2</sup> ) / 144 (W/Cabinet)	342 (W/m <sup>2</sup> ) / 125 (W/Cabinet)
	Power Consumption - Typ	307 (W/m <sup>2</sup> ) / 112 (W/Cabinet)	241 (W/m <sup>2</sup> ) / 88 (W/Cabinet)	205 (W/m <sup>2</sup> ) / 75 (W/Cabinet)
	Heat Generation - Max	1,568 (BTU/m <sup>2</sup> ) / 574 (BTU/Cabinet)	1,344 (BTU/m <sup>2</sup> ) / 492 (BTU/Cabinet)	1,167 (BTU/m <sup>2</sup> ) / 427 (BTU/Cabinet)
	Heat Generation - Typ	1,045 (BTU/m <sup>2</sup> ) / 383 (BTU/Cabinet)	822 (BTU/m <sup>2</sup> ) / 301 (BTU/Cabinet)	700 (BTU/m <sup>2</sup> ) / 256 (BTU/Cabinet)
Operational Parameter	Refresh Rate	3,840 Hz	3,840 Hz	3,840 Hz
	Working Temperature / Humidity	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
	IP Rating	IP20	IP20	IP20
Certification	EMC Class A, Safety 60950-1	EMC Class A, Safety 60950-1	EMC Class A, Safety 60950-1	
Service	Front	Front	Front	

\* Peak Value according to IDMS (Information Display Measurement Standard)  
 \*\* Measured under 10lux light. Contrast in darkroom exceeds 1000000:1

Model Name		VG-RPW
Physical Parameter	Type	1RU rack mount; 19" rack
	Configuration	4 power modules per shelf
	Dimensions (mm, WxLxH)	482.6 x 429.5 x 43.4 mm
Electrical Parameter	Weight	14.25 kg
	Input Voltage	100~120Vac / 200~277Vac
	Output Voltage	48Vdc
	Output Power	4500W / 100~120Vac 10500W / 200~277Vac
	Efficiency	90% Min. (240Vac@25°C)
	Heat Dissipation	760W/2592BTU @ 80% load 1000W/3412BTU @ 100% load
	Power Redundancy	3+1 redundancy per shelf
Operational Parameter	Hot Swap	Supported for each power module
	Working Temperature / Humidity	-40°C~+50°C / 5%~95%RH
	Storage Temperature / Humidity	-40°C~+85°C / 5%~95%RH
	Operating Altitude	1500m max
	Audible Noise	55dba typ, full load
	Air Flow Direction	Front to rear
Certification	Lifetime	10 years (Full load, excluding fans)
	Safety	60950-1, UL, CE, CB
	EMC	Class A
	Earthquake Requirements	Zone 4

\* Remote power supply kit is sold separately.

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

2020-07

**SAMSUNG**



# Samsung SMART LED Signage Remote power supply solution

VG-RPW for IWJ-R series

In any mission-critical environment, such as government, control rooms and broadcasting studios, delivering highly sensitive and often urgent information is one of the main tasks being performed on a constant basis. With this information being delivered through a variety of large screens, any display downtime is unacceptable and potentially detrimental to the objective or mission. A reliable solution that never turns off is vital, and Samsung's The Wall with a remote power option provides users with the right design, enabling hot swappable redundant power supplies to maintain efficient and constant operation in any demanding environment.

## Highlights

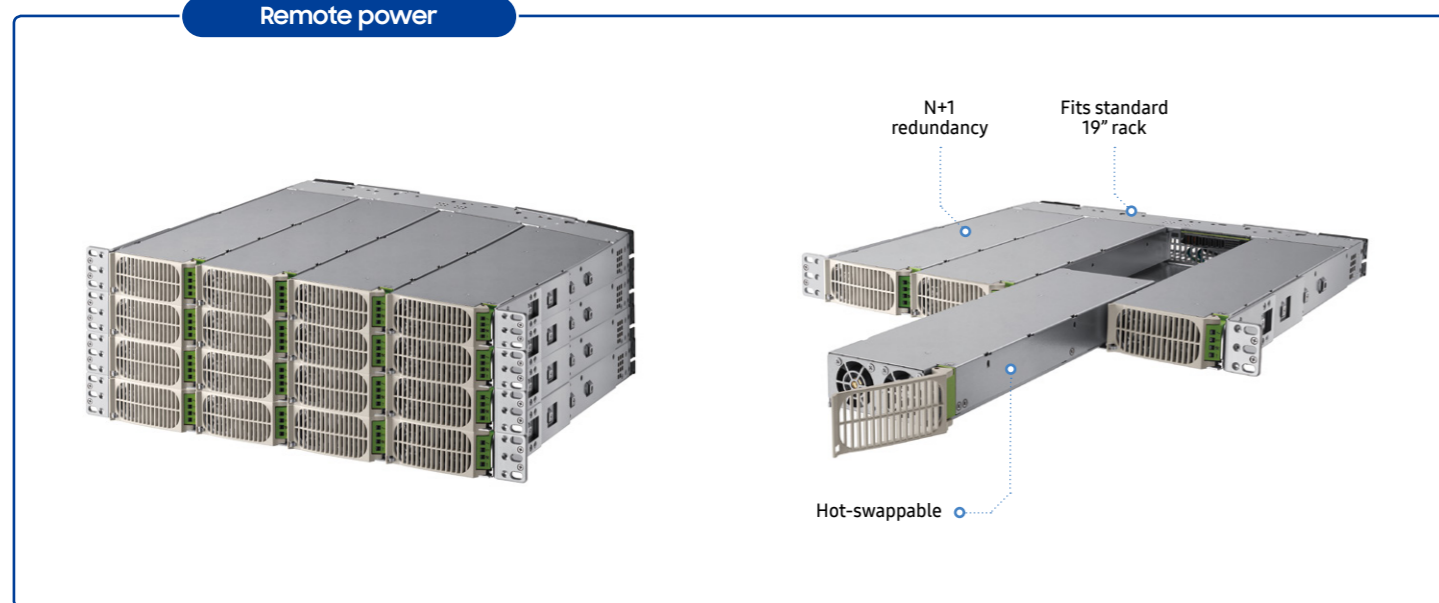
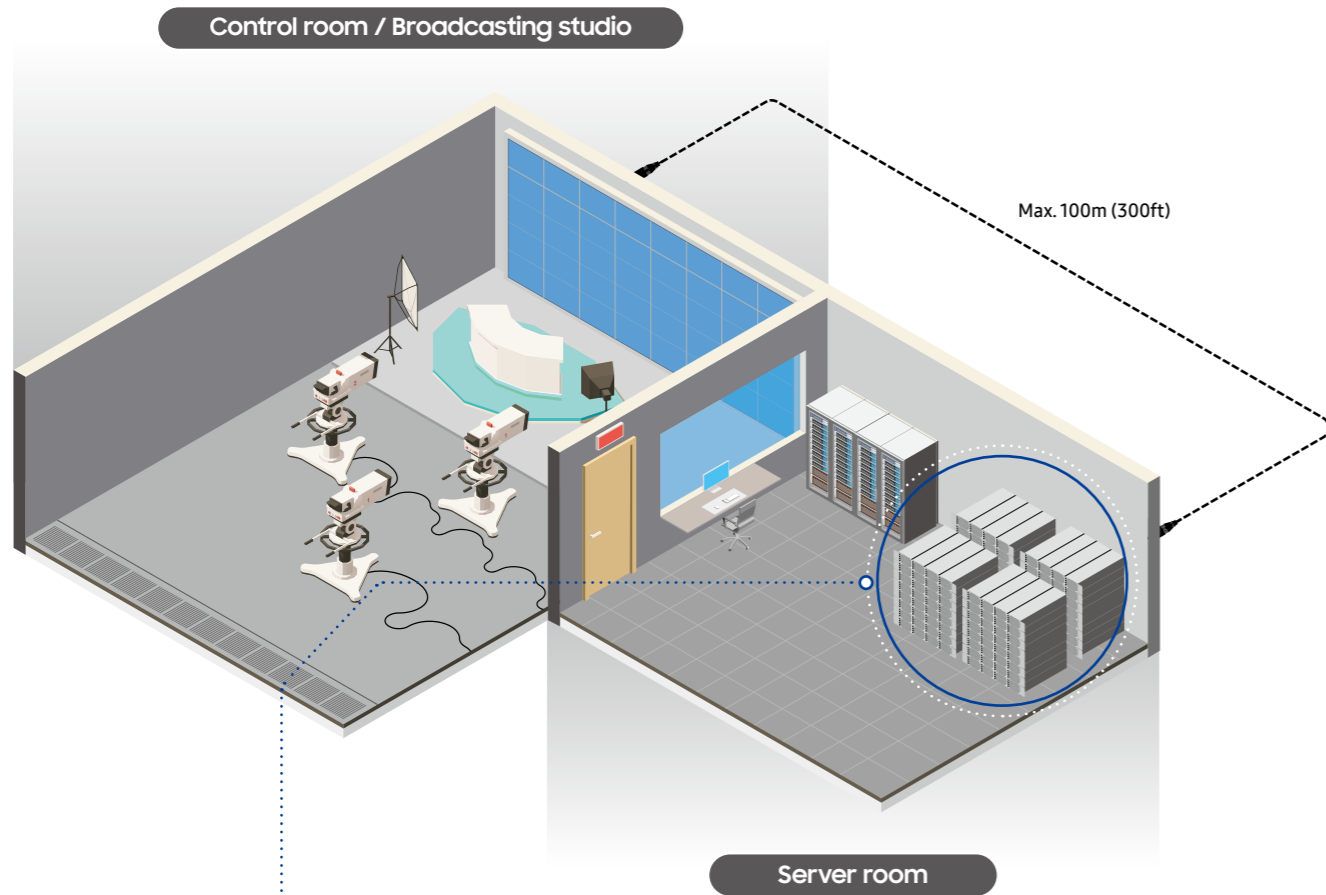
- Protect from content interruptions through n+1 power redundancy
- Hot swappable modules for 24/7 use without downtime
- Lower screen heat generation for stable operation
- Fits standard 19" rack for optimal space utilization
- Designed with safeguards to prevent any electrical malfunction
- Full compliance with electrical safety standards

\* Remote power supply is only available with IWJ-R series model.

**SAMSUNG**

## What is remote power?

Remote power, otherwise known as off-board power, is an external power source that can be installed separately from a screen. Due to The Wall's redundant system design, it is not impacted in the event of an unexpected power module failure. The main objective of remote power is to supply power consistently, ensuring zero downtime even in worst case scenarios, especially for mission-critical environments such as control rooms or broadcasting studios.



\* The number of power supply shelves and cables vary depending on screen size and installation distance.

## Why remote power?

Remote power capabilities protect screens from turning off due to an unexpected power outage. N+1 redundancy secures one additional power module per each N module, protecting against any downtime. In addition, hot swappable functionality enables users to replace broken power modules without turning off the screens, allowing them to continue running for maximum efficiency while the issue is repaired.



### High availability

Protect from screen-off by securing one additional power module per each N modules.



### Stable operation

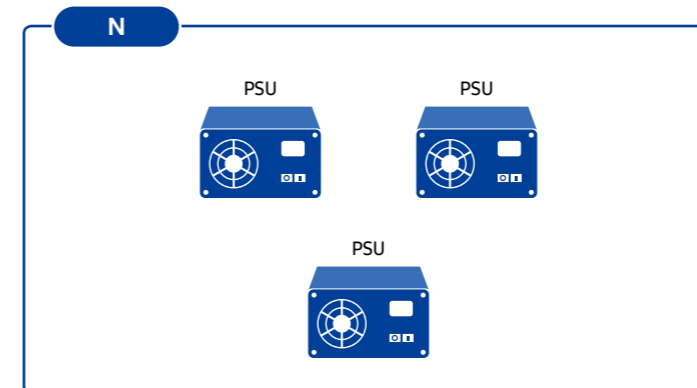
Disperse heat by taking power supply unit out of the screen, reducing surface temperature.



### Easy maintenance

Standard 19" size allows optimal space utilization and hot swappable modules eliminate unnecessary tasks.

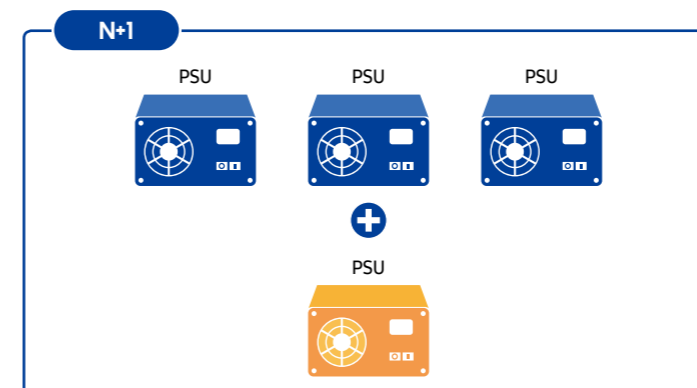
## What is N+1 redundancy?



A design assigned as N means the display was designed only to account for any failure at full load, with zero redundancy added.

Any mission critical applications will suffer as a result of unexpected outages.

\* What N refers to varies dependent on situation in which the term is used.  
\*\* PSU : Power Supply Unit



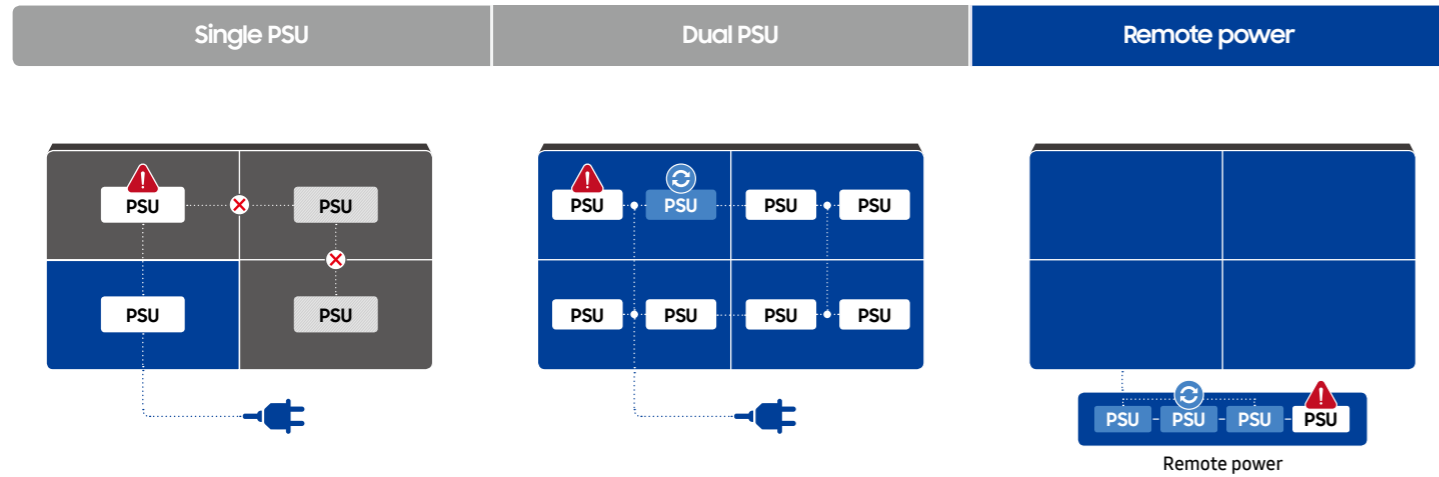
A design assigned N+1 indicates an additional component has been added to support a single failure. The typical design provides one extra unit for every three needed.

Benefitting mission critical applications overall for an optimized solution.

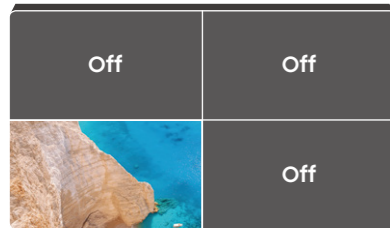


## Comparative advantages of remote power

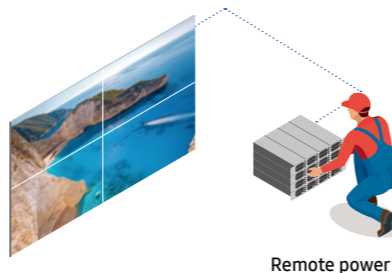
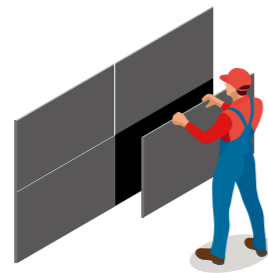
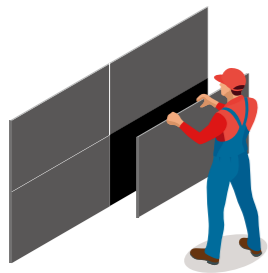
Remote power is the ideal solution when you need an effective and hot swappable source of power redundancy. When compared with a single PSU, it provides more effective back-up of PSU, along with more secure redundancy. In comparison to a dual PSU, remote power can rely on the power of all other PSU, not just one, with the added capability of being able to replace modules while still running, unlike both single and dual PSU solutions.



When one PSU fails...



When you repairs...



When one PSU fails, all the PSU connected with it turn off.

When one PSU fails, another PSU backs it up.

When one PSU fails, other PSU back it up together.

Power redundancy is not secured.

For power redundancy, additional PSU should be secured as much as existing PSU (nx2, nx3, ...)

For power redundancy, additional PSU should be secured as much as you want (n+1, n+2, ...)

Screen off is needed when replacing the power module.

Screen off is needed when replacing the power module.

Enabling to replace the power module while running.

## Optimal solution for mission-critical applications

Samsung's The Wall is an optimal solution for mission-critical environments and applications. Control rooms for example, require 24/7 monitoring and analytics capabilities for every minor detail, with downtime not being an option at any time. When considering broadcasting studios, there can be no errors during a live broadcast, with power redundancy being a must-have for total peace of mind and maximum audience engagement.



### Keep control room operating 24/7 without any downtime

In control rooms, any downtime is critical because every minor detail needs to be monitored in case of an emergency. Remote power options enables your control room to operate 24/7 at maximum performance.



### Don't worry about screen-off during live broadcast

All the components in a broadcasting studio should be working like a dream, especially when broadcasting live. With remote power options, you have complete peace of mind for a smooth broadcast, every time.