

Specifications

■ LED Unit

| | | |
|--|---------------------------------------|-----------------------|
| Model Name | VS-15NP160F | VS-15NP160R |
| Pixel pitch | 1.50 mm | |
| LED type | Direct LED (SMD 3 in 1) | |
| Average lifetime | 100,000 hours in all brightness modes | |
| Resolution | 320 x 360 pixels | |
| Contrast ratio | 16,000:1 (typ.) | |
| Viewing angle (1/2 gain) | Horizontal | 170° |
| | Vertical | 170° |
| Color processing | 16-bit | |
| Frame rate | 50/60 Hz | |
| Front maintenance structure | ○ | |
| Calibrated brightness (typ.) | Bright | 800 cd/m ² |
| | Normal | 500 cd/m ² |
| | Eco | 190 cd/m ² |
| Power consumption (typ.) *An LED unit with a power unit | Bright | 195 W |
| | Normal | 150 W |
| | Eco | 105 W |
| Power Connection | DC input/output x 1 | |
| Environmental condition | 5-40 °C, 20-80 % RH non-condensing | |
| Dimensions (W x H x D) | 480 x 540 x 90 mm | |
| Weight | 12.6 kg | 11.9 kg |
| Country of origin | Japan | |

■ Power unit

| | | |
|------------------------|--|--------------|
| Model Name | S-NP15PWR | S-NP15PWR-EX |
| Voltage range | AC 100 - 240 V +/-10 %, 50/60 Hz +/-1 Hz | |
| Output power terminal | Circular type connector | |
| Redundant power supply | ○ | |
| Dimensions (W x H x D) | 415 x 88 x 565 mm | |
| Weight | 8.1 kg | 8.1 kg |
| Country of origin | Japan | |

■ Control unit

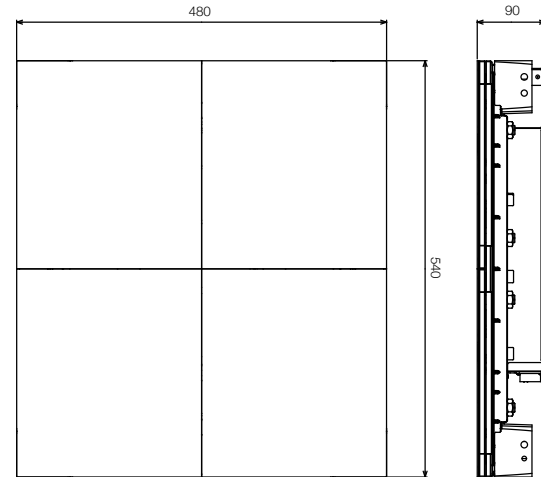
| | | |
|---------------------------|---|---------------|
| Model Name | VC-NP1000 | |
| Voltage range | AC 100 - 240 V +/-10 %, 50/60 Hz +/-1 Hz | |
| Power consumption (typ.) | With an OPS | 80 W |
| | Without OPS | 30 W |
| External control | LAN (RJ45 x 1) | |
| Image input | DVI-D (HDCP) x 2 | |
| Resolution | VGA (640 x 480) - WUXGA (1920 x 1200) | |
| Input frequencies | Horizontal | 31.5 - 92 kHz |
| | Vertical | 49 - 85 Hz |
| | Pixel clock | 25 - 165 MHz |
| Optional input board slot | Intel® OPS slot x 1 | |
| Input signal terminals | DVI-D (with HDCP) x 2 Up to 50-meter long DVI cable supported *1 | |
| Control interface | LAN (RJ45 x 1) | |
| Dimensions (W x H x D) | 415 x 108 x 194 mm | |
| Weight | 3.2 kg | |
| Country of origin | Japan | |

*1 The length varies depending on the quality of the source signals and the cables.

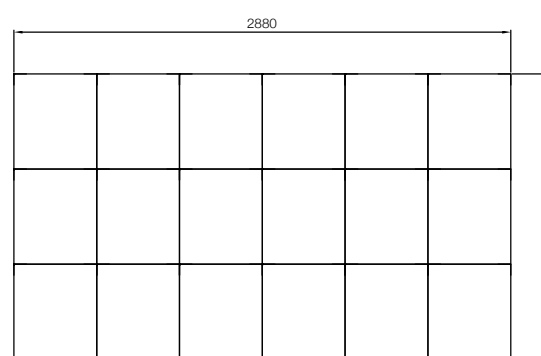
- This product requires special installation to prevent falling or toppling. This should be done by installation specialists.
- Electrostatic discharge may harm the surface of the LED units. To prevent such damage, you should discharge static electricity from your body before you contact with the LED units.
- Power cord is not included with main unit. And need the designated DC power cord (JC-PC3DC2, 5, 8, 12, 15, 20, 30, or 60).
- Service parts for this product are only stocked for five years after model production is discontinued.
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■ LED unit (mm)



■ Dimensions for a Full HD resolution video wall (mm)

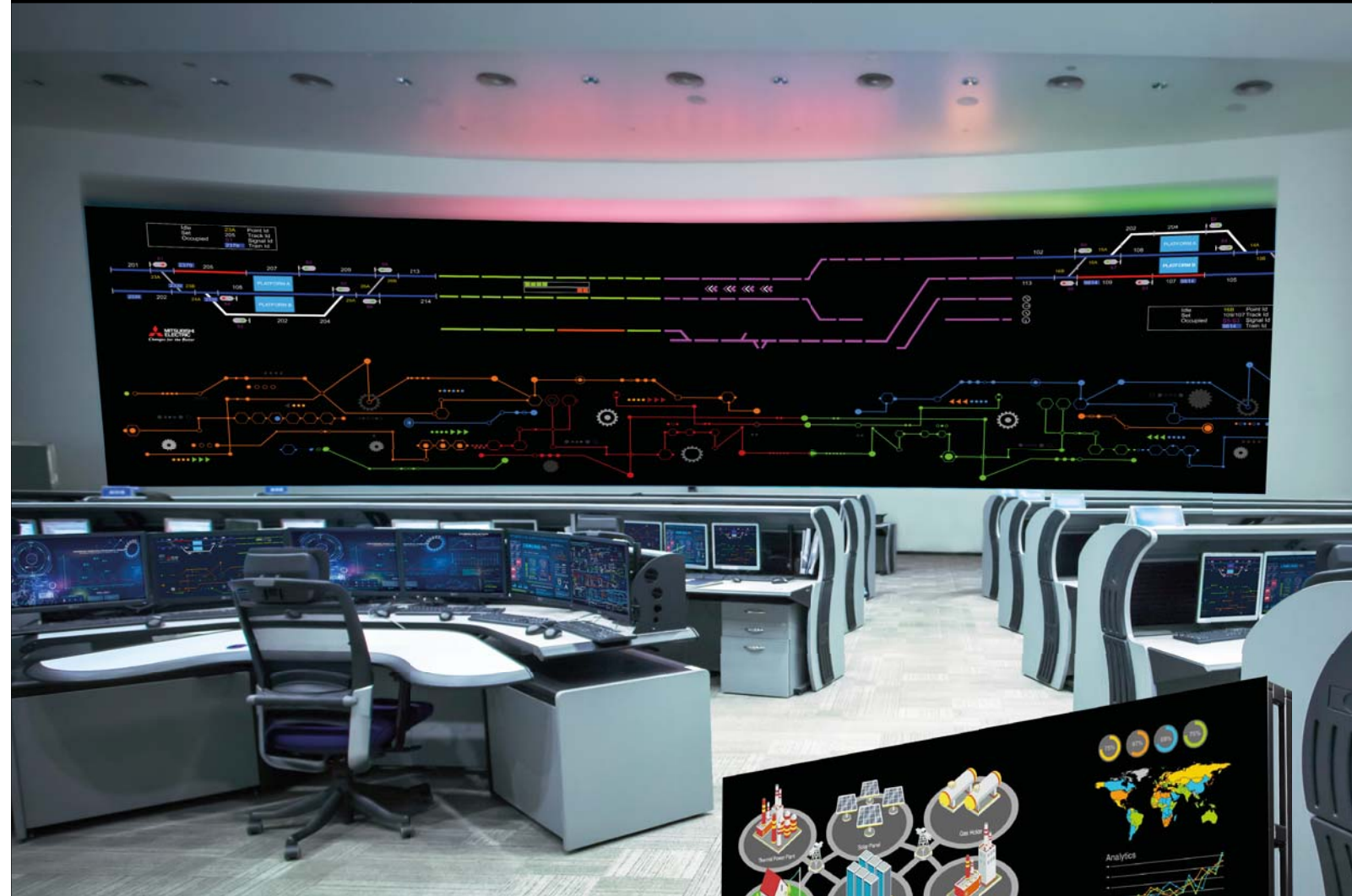


| | | |
|---|--------------------------|--------|
| Dimensions for a full HD resolution | 130" (2880 mm x 1620 mm) | |
| Required components for a full HD resolution (1920 x 1080 pixels) | x18 (6 wide x 3 high) | |
| weight* | 15NP160F | 227 kg |
| | 15NP160R | 214 kg |

*LED units only

MITSUBISHI ELECTRIC
Changes for the Better

for a greener tomorrow



Narrow Pixel Pitch Direct View LED

Model: VS-15NP160



for a greener tomorrow

Eco Changes is the Mitsubishi Electric Group's environmental statement, and expresses the Group's stance on environmental management. Through a wide range of businesses, we are helping contribute to the realization of a sustainable society.



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What is Narrow Pixel Pitch Direct View LED?

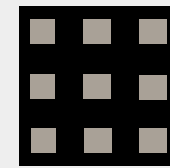
By definition, pixel pitch is the distance from the center of an LED element to the center of the next LED element. Our 1.5 mm narrow pixel pitch LED (NPP-LED) is an indoor-exclusive high-definition LED display with a smaller pixel size and pixel pitch than most conventional indoor/outdoor LED displays. This allows for creating seamless display walls with a wide viewing angle in large installations.

Mitsubishi Electric's NPP-LEDs are specifically engineered to address the needs of demanding command and control room environments by delivering stunning visuals with innovative features and unbeatable durability and reliability.

Conventional Indoor/Outdoor LED

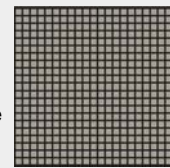


Narrow Pixel Pitch Direct View LED



10 mm pixel pitch

Pixel pitch comparison (Concept Image)
Compared to 30 x 30 mm reference



1.5 mm pixel pitch

Seamless

Delivers smooth and consistent graphics without the vertical and horizontal black lines appearing in large-screen video walls.



Image for screen gap such as LCD



Image non-screen gap such as LED

Long Service Life

Mitsubishi Electric's direct-view NPP-LED has a lifetime rating of 100,000 hours till half-brightness. It is designed for continuous 24/7 operations that is often required for mission-critical environments.

Flexible Installation

Narrow Pixel Pitch Direct View LED screens are available as rear access - and front access models.



Smooth curved design

Space-saving layout

Mitsubishi Electric Imaging Technologies

Natural Color Matrix

Wider color reproduction range for brilliant, vivid displays.



Before



After

Dynamic Gamma

Optimal contrast ratio shows more details, even with darker content.



Original



Compensated

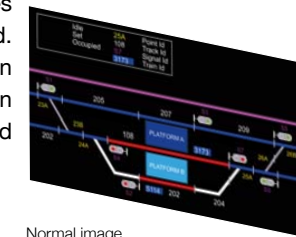
2-Dimensional Noise Reduction (2DNR)

Reduces noise from compressed images (i.e., MPEG).

Active Power Peak Saving Function

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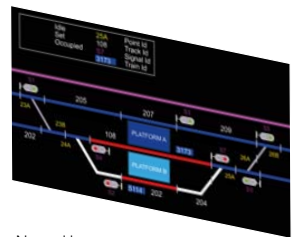
LED power consumption changes depending on the content displayed. Active power peak saving function limits the maximum power consumption by detecting the image brightness and automatically optimizing the image.



Normal image (power consumption is low)
Based on black image



Normal image (power consumption is high)



Normal image (power consumption is low)

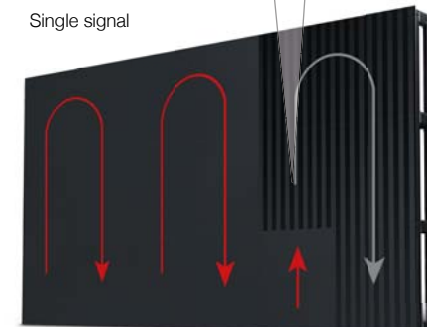
Redundancy

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Signal Redundancy

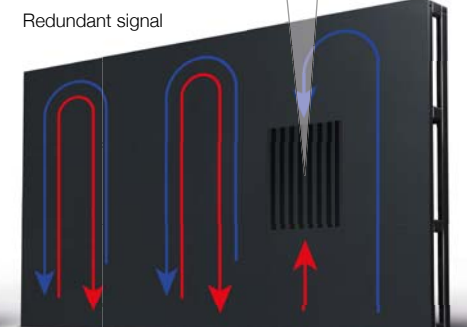
In the unlikely event of a single-unit failure, other panels will still keep displaying images via two way image transmission throughout the system.

Failure of an LED unit keeps subsequent units from displaying images



Single signal

Redundant signals allow LED units other than the failed unit to display images



Redundant signal

Power Redundancy

Optional power unit provides continuous operation at time of a power module failure.



Control unit

Dual-input signal

Control unit

Anti-Burn In

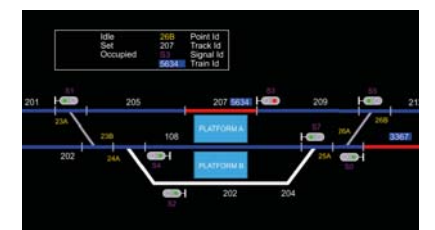
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LED brightness gradually diminishes over time as the display gets used. So, when displaying a static image over a long period of time, variations of luminance and chromaticity are caused by the difference in the operating time or age of each pixel.

Anti-Burn-In corrects these display variations and anomalies. As a result, uniformed luminance and chromaticity is preserved longer over the lifetime of the display.



Burn-in



Burn-in compensated

Scalability

- Intel® OPS-Standard slot (control unit)
- Supports OPS standard computers
- Supports OPS 3G-SDI-input board (DP-1SDI-3G)
- Supports OPS HDBaseT input board (VC-LM1HD)



VC-LM1HD



Long-distance signal transmission, up to 100 meters with CAT6(STP) cable.



DP-1SDI-3G