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- Novastar MRV412 LED Display Receiving Card User Manual

Novastar MRV412

Novastar MRV412 LED Display Receiving Card User Manual

Model: MRV412 Brand: Novastar

1. Introduction

The Novastar MRV412 is an advanced LED display receiving card designed for high-performance LED screen applications. It serves as a crucial component in the LED display control system, responsible for receiving data from the sending card and distributing it to the LED modules. This card is an updated version of the MRV336, offering enhanced features and stability. This manual provides essential information for the proper installation, operation, and maintenance of your MRV412 receiving card.

2. SAFETY INFORMATION

- Ensure all power connections are secure and correctly rated for the device.
- Avoid exposing the card to moisture, extreme temperatures, or corrosive environments.
- Handle the card with care to prevent damage to components or connectors.
- Only qualified personnel should perform installation and maintenance procedures.
- Disconnect power before performing any installation, maintenance, or troubleshooting.

3. PRODUCT OVERVIEW

The MRV412 receiving card integrates 12 standard HUB75 connectors, eliminating the need for an external HUB structure. It supports various advanced features for optimal LED display performance.

3.1. Card Layout

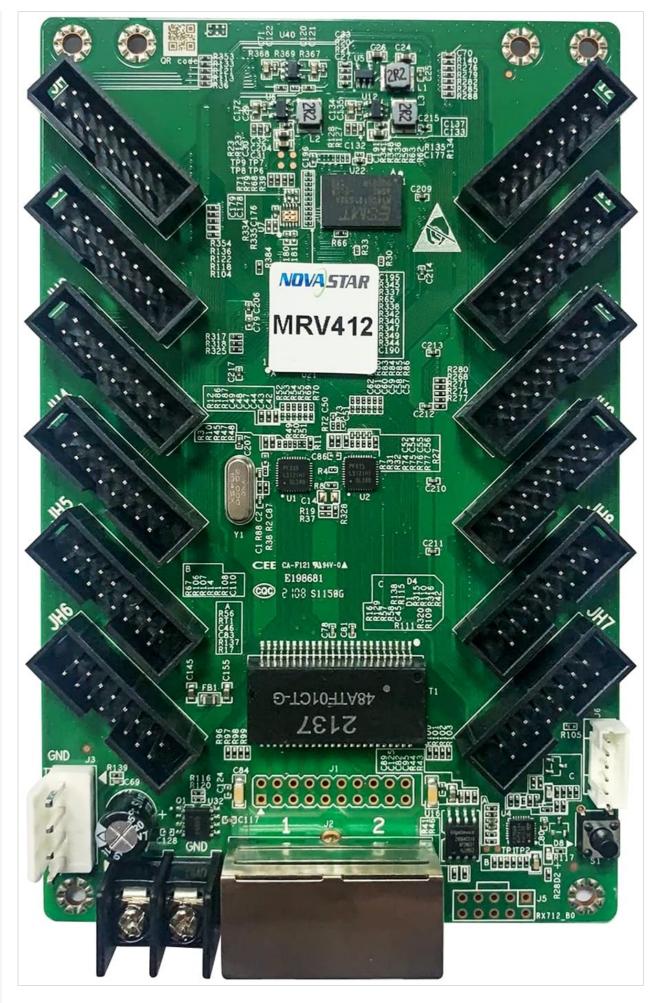


Figure 1: Front view of the Novastar MRV412 receiving card, showing the main chip, Ethernet port, power input, and multiple HUB75 output connectors for LED modules.

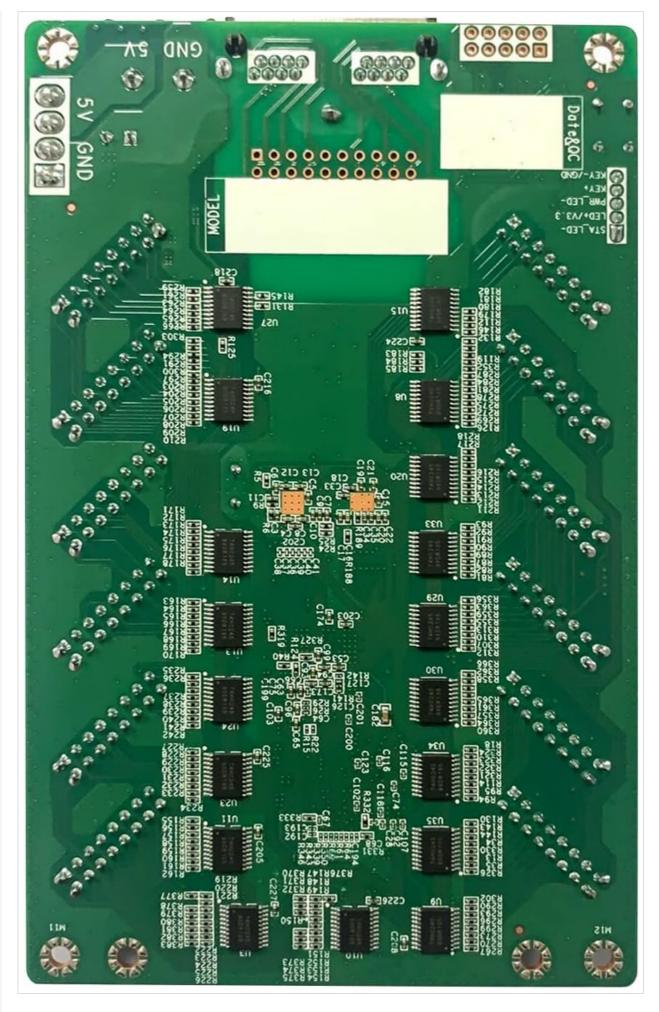


Figure 2: Back view of the Novastar MRV412 receiving card, illustrating the arrangement of various electronic components and solder points.

3.2. Key Features

- Integrated 12 standard HUB75 connectors, eliminating the need for an external HUB.
- Single card outputs 24-group of RGB data.
- Temperature monitoring for stable operation.
- Ethernet cable communication status detection.
- Power supply voltage detection.
- Supports high gray scale and high refresh rate for superior visual quality.
- Pixel-by-pixel brightness and chromaticity calibration for uniform display.
- · Complies with EU RoHS standard.

4. SETUP

4.1. Package Contents

Upon unpacking, verify that the following item is included:

• Novastar MRV412 LED Display Receiving Card

4.2. Physical Installation

Follow these steps to install the MRV412 card into your LED display cabinet:

- 1. **Prepare the Cabinet:** Ensure the LED display cabinet is powered off and properly grounded. Identify the designated slot for the receiving card.
- 2. **Insert the Card:** Carefully insert the MRV412 card into the designated slot, ensuring it is seated firmly. Secure it with screws if necessary.
- 3. **Connect Power:** Connect the power supply cables from the cabinet's power distribution unit to the power input terminals on the MRV412 card. Observe correct polarity.
- Connect Data Cables: Connect the Ethernet (RJ45) data cable from the sending card or previous
 receiving card in the chain to the input Ethernet port on the MRV412.
- Connect LED Modules: Use flat ribbon cables to connect the HUB75 output connectors on the MRV412 to the corresponding input connectors on your LED display modules. Ensure correct cable orientation and sequence.

4.3. Software Configuration

After physical installation, the MRV412 card requires configuration using Novastar's control software, typically NovaLCT. This software allows you to:

- Detect and identify the receiving cards.
- · Configure screen resolution and mapping.
- · Adjust brightness, contrast, and color settings.
- Perform pixel-by-pixel calibration.
- · Monitor card status and health.

Refer to the NovaLCT software manual for detailed configuration instructions.

5. OPERATION

5.1. Basic Operation

Once installed and configured, the MRV412 operates automatically as part of the LED display control system. It receives video and control data from the sending card and accurately renders it on the connected LED modules. The card's status indicators (if present) can provide visual feedback on its operational state.

5.2. Advanced Features

The MRV412 supports advanced display technologies, including high gray scale and high refresh rates, which are configured via the NovaLCT software. Pixel-by-pixel calibration ensures color and brightness uniformity across the entire display, which is critical for high-quality visual output.

6. MAINTENANCE

- Cleaning: Periodically inspect the card for dust accumulation. Use a soft brush or compressed air to gently clean the components. Ensure power is disconnected before cleaning.
- Environmental Control: Maintain a stable operating environment, avoiding excessive heat, humidity, or dust, which can degrade performance and lifespan.
- **Firmware Updates:** Check the Novastar official website for any available firmware updates for the MRV412. Firmware updates can improve performance, add features, or resolve known issues. Follow the provided instructions carefully during updates.
- Cable Inspection: Regularly inspect all connected cables (power, Ethernet, HUB75) for signs of wear or damage. Replace any faulty cables immediately.

7. TROUBLESHOOTING

This section addresses common issues you might encounter with the MRV412 receiving card.

| Issue | Possible Cause | Solution |
|---|--|---|
| No display on LED modules | No power to card; Loose data cable; Incorrect software configuration; Faulty card. | Check power connections; Verify Ethernet and HUB75 cables are secure; Review NovaLCT configuration; Test with a known working card. |
| Flickering or unstable display | Poor data cable quality; Incorrect refresh rate setting; Power supply instability. | Use high-quality Ethernet cables; Adjust refresh rate in NovaLCT; Ensure stable power supply to the cabinet. |
| Incorrect colors or color distortion | Improper color calibration; Faulty LED module; Software settings. | Perform pixel-by-pixel brightness and chromaticity calibration; Check individual LED modules; Verify color settings in NovaLCT. |
| Card not detected by software | Ethernet cable issue; Network configuration problem; Card not powered. | Ensure Ethernet cable is connected and functional; Check network settings on the control PC; Confirm card is receiving power. |

8. SPECIFICATIONS

| Feature | Specification |
|---------|---------------|
|---------|---------------|

| Feature | Specification |
|------------------------------------|---|
| Resolution | 256 x 226 pixels |
| RGB Data Output | 24 groups |
| HUB75 Interface | Yes (12 standard connectors) |
| Dimensions (L x W x H) | 6.14 x 4.25 x 0.79 inches (156 x 108 x 20 mm approx.) |
| Item Weight | 3.52 ounces (100 g approx.) |
| Certifications | RoHS |
| Temperature Monitoring | Supported |
| Ethernet Cable Status Detection | Supported |
| Power Supply Voltage Detection | Supported |
| Pixel-by-Pixel Calibration | Supported |

9. WARRANTY AND SUPPORT

9.1. Warranty Information

The Novastar MRV412 receiving card is covered by a standard manufacturer's warranty. Please refer to your purchase documentation or contact your reseller for specific warranty terms and conditions. Keep your proof of purchase for warranty claims.

9.2. Technical Support

For technical assistance, troubleshooting beyond this manual, or inquiries regarding software and additional instructions, please contact your product supplier or the official Novastar support channels. You may also reach out to Shenzhen Artpixel Technology Co., Ltd for support related to this product.

For the latest drivers, software, and documentation, please visit the official Novastar website.

Related Documents - MRV412



NovaStar XA50 Pro Receiving Card Specifications

Comprehensive specifications document for the NovaStar XA50 Pro Receiving Card, detailing its features, certifications, pin configurations (LVDS, Parallel RGB, Serial Data), electrical parameters, operating conditions, and physical dimensions. Includes change history and product overview.

| AGUGSTAR | NovaStar A7s Receiving Card Specifications V2.1.1 Detailed technical specifications for the NovaStar A7s Receiving Card (V2.1.1), covering its features, improvements in display effect, maintainability, reliability, appearance, dimensions, pinouts, and electrical parameters. This document provides comprehensive information for integrating and utilizing the A7s card in LED display systems. |
|--|---|
| NEW STAR | NovaStar MRV208 Receiving Card Specifications and Features Detailed specifications, features, change history, and technical information for the NovaStar MRV208 Receiving Card, including its capabilities, connectivity, and operating parameters. This document provides comprehensive details for users and integrators. |
| ACRAGISTAR A48 Receiving Card Specifications | NovaStar A4s Receiving Card Specifications Detailed specifications for the NovaStar A4s Receiving Card, a high-performance component for LED display systems featuring pixel-level calibration, 3D support, and robust connectivity. |
| ABS Receiving Card VII.1 | NovaStar A8s Receiving Card Specifications LED Display Technology Detailed specifications for the NovaStar A8s Receiving Card, featuring Image Booster Engine, pixel-level calibration, HDR support, and advanced reliability features for professional LED displays. |
| To Learney 150 Cleater Silling Street Street Street 2012 Annual Street | NovaStar: Leading LED Display Control and Video Processing Solutions Explore NovaStar's comprehensive range of LED display control systems, video processors, multimedia players, and accessories. Discover innovative solutions for professional visual experiences, trusted for major events worldwide. |

Documents - Novastar - MRV412

MRV412 Принимающая карта

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Спецификация Novastar MRV412 DAFIO5oKZr0 BAEvnGkqCcQ dnqhyrjmxz Требуется Nova LCT V 5 2 или более поздняя версия Модуль ЖК дисплея может отображать температуру напряжение время одиночной работы и bkl9txnky2ip6ogco97fby1w6ksxacurprofdisplays ru upload iblock 4d6 bkl9txnky2ip6ogco97fby1w6ksxacur srsltid AfmBOop01pSlwEgouQDtap KZps8XIS2ellSW QiO qkFZCKnDUbOBho и profdisplays qkFZCKnDUbOBhoprofdisplays
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MRV412 V1.0.0 MRV412 V1.0.0 2021-04-26 MRV412 - , NovaStar. MRV412 512512 NovaLCT V5.3.1 . , , 18Bit , , RGB 3D, MRV412 . MRV412 12 HUB75E . 24 RGB. MRV412 , , , . :

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[pdf] Specifications Dimension Guide Diagram

MRV412 Receiving Card Specifications V1 1 0ledincloud resouce NovaStar Resource MRV 412 |||

MRV412 Receiving Card Specifications MRV412 Receiving Card Specifications

Change History Document Version V1.1.0 Release Date 2024-10-25 V1.0.6 V1.0.5

V1.0.4 V1.0.3 2023-12-30 2022-12-27 2022-08-31 2022-03-26 Description Added multi-batch adjustment and guick uploading of calibration coeffi...

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[pdf] Specifications Dimension Guide Diagram

Novastar MRV Series LED Receiving Card MRV412 Specification Controller Store MRV412 Card Specifications V1 0 3 v 1661251848 cdn shopify s files 1 0150 7190 3844 |||

MRV412 Receiving Card Specifications **MRV412** Receiving Card Specifications Change History Document Version Release Date V1.0.3 2022-03-26 V1.0.2 2021-12-03 V1.0.1 V1.0.0 2021-07-30 2021-04-26 Description Added the dimensions diagram description. Updated the pins section. Updated the cer...

lang:en score:36 filesize: 790.01 K page_count: 7 document date: 2022-04-07





[pdf] Specifications

Novastar MRV412 Receiving Card SpecificationNovastar LED 18Bit Grayscale 3DNovastar Specificationledscreenparts 2024 12 Specification |||

MRV412 Receiving Card Specifications MRV412 Receiving Card Specifications Change History Document Version Release Date V1.0.2 2021-12-03 V1.0.1 V1.0.0 2021-07-30 2021-04-26 Description Updated the certification description. Updated the description of features. Added the certification rela...

lang:en score:36 filesize: 809.49 K page_count: 7 document date: 2021-12-03



[pdf] Specifications Dimension Guide Diagram

NovaStar MRV412 Receiving Card Specifications V1 6Novastar DH7512 LED 12 HUB75E Output Olympian LEDMRV412 6olympianled 2024 05 6 |||



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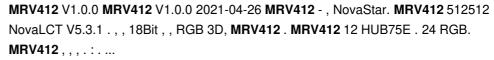
NOVA STAR

MRV412 Принимающая карта

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Спецификация Novastar MRV412 DAFIO5oKZr0 BAEvnGkqCcQ dnqhyrjmxz Принимающая карта DH7512 S цена описание характеристики купить в PROFDISPLAY

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NovaStar MRV412-N Receiving Card: Specifications, Features, and Appearance

Detailed specifications, features, and appearance overview of the NovaStar MRV412-N Receiving Card, a key component for LED display systems. Learn about its capabilities in color management, calibration, latency, and reliability.

lang:en score:35 filesize: 1.42 M page_count: 10 document date: 2025-05-20



[pdf] Specifications

MRV412 N 2 янв 2025 г — The is a general receiving card developed by NovaStar Tech Co Ltd hereinafter referred to as For PWM driver ICs single Receiving Card Specifications V1 0 1 oss novastar tech 01 |||

MRV412-N Receiving Card Specifications MRV412-N Receiving Card Specifications Change History Document Version V1.0.1 V1.0.0 Release Date 2025-01-02 2024-09-19 Description Added certification information. First release. Introduction The MRV412-N is a general receiving card developed by NovaSt...

lang:en score:35 filesize: 1.25 M page_count: 10 document date: 2025-01-02



[pdf] Specifications Dimension Guide Diagram

XI AN NOVASTAR TECH CO LTD Dec 3 2021 · The MRV412 is a general receiving card developed by NovaStar A single supports resolutions up to 512×512@60Hz NovaLCT V5 1 or 51120 RECEIVER Receiving Card Specifications V1 0 cdn awsli br 2454 2454497 arquivos |||

MRV412 Receiving Card Specifications **MRV412** Receiving Card Specifications Change History Document Version Release Date V1.0.3 2022-03-26 V1.0.2 2021-12-03 V1.0.1 V1.0.0 2021-07-30 2021-04-26 Description Added the dimensions diagram description. Updated the pins section. Updated the cer...

lang:en score:33 filesize: 756.09 K page_count: 7 document date: 2022-11-16



LED NATION Indoor P3.07 LED Screen Panel - High Refresh Rate, 4K Resolution

Discover the LED NATION Indoor P3.07 LED Screen Panel, featuring a 3.07mm pixel pitch, 960x960 resolution, 3840Hz refresh rate, and 5-year warranty. Ideal for professional indoor video walls with exceptional clarity and vivid colors. lang:en score:32 filesize: 7.56 M page_count: 8 document date: 2025-11-04



[pdf] Specifications Dimension Guide

Administrator LTD LED display XI 39 AN NOVASTAR TECH CO MRV412 Receiving Card Specifications novastar tech 3 Dimensions Tolerance ±0 1 Unit mm Pins Pin Definitions Ground GND 16 15 HOE Display enable signal Latch HLAT 14 13 HDCLK Shift clock Line decoding HD 12 11 HC HB 10 9 HA Novastar Screen Video Specification ledcontrollercard media wysiwyg |||

MRV412 Receiving Card Specifications **MRV412** Receiving Card Specifications Change History Document Version Release Date V1.0.1 2021-07-30 V1.0.0 2021-04-26 Description Added the certification related description. First release Introduction The **MRV412** is a general receiving card developed by...

lang:en score:31 filesize: 842.37 K page_count: 6 document date: 2021-07-27



[pdf] Specifications Diagram

2025 01 10 ЯНВ Г — The is a general receiving card developed by Tech Co Ltd hereinafter referred to as For PWM driver ICs single TechSpecificationSpecification10 NThe uses 12 standard HUB75E connectors for communicationoss 20ss 2picloudneutral s3 amazonaws CPQ 1 5 98 62114 867fb03509e1e0610d827e8a6e5442cc 9aa222458f3e617afcdca3dba1c7654c b8512a85a8f2b5fe7afbbb973c7cafef TechSpecificationSpecificationSpecification10 communicationMRV Series NovaStarMRV412 2MRV412 MRV 412 SpecificationMRV412 NNovaStar Software DownloadThe 2ledincloud resouce Resource |||

Specification Downloads NovaStar MRV412 N Receiving Card Specifications V1 2 oss novastar tech

MRV412-N Receiving Card Specifications **MRV412**-N Receiving Card Specifications Change History Document Version V1.0.2 Release Date 2025-01-10 V1.0.1 V1.0.0 2025-01-02 2024-09-19 Description Updated the appearance and dimension diagrams. Added certification information. First release. Introdu...

lang:en score:31 filesize: 1.38 M page_count: 10 document date: 2025-01-14

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Technical Specification

| Catalog Number | 149 |
|-----------------|---------------|
| Brand | NovaStar |
| IP | 20 |
| Light Color | None |
| EAN Code | 3800156601499 |
| Temperature | -20°C / +50°C |
| RGB Data Output | 24 Groups |
| Resolution | 512x512 |

[pdf] Specifications Datasheet Warranty Catalog

Sending Card For LED Display MRV412 Stamps Technical Specification Catalog Number 149 Brand NovaStar IP 20 Light Color None EAN Codeoptonicaled datasheet specification 3915 ||| Sending Card For LED Display MRV412 Stamps Technical Specification Catalog Number Brand IP Light Color EAN Code Temperature RGB Data Output Resolution 149 NovaStar 20 None 3800156601499 -20 C / 50 C 24 Groups 512x512 Interface Port Type Warranty 24 x HUB75 HUB75 2 Years ...

lang:en score:30 filesize: 925.24 K page count: 2 document date: 2025-11-17



[pdf] Specifications Datasheet Catalog

Receiver card for LED screens MRV412 N 12 sept 2025 — Stamps Technical Specification Catalog Number 66560 Brand NovaStar Temperature 20°C 50°Coptonicaled datasheet specification 5056 ||| Receiver card for LED screens **MRV412**-N Stamps Technical Specification Catalog Number Brand Temperature RGB Data Output Resolution Interface Port Type 66560 NovaStar -20C / 50C 24 Groups 512x512 12 x HUB75 HUB75 ...

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LED NATION Indoor P1.99 LED Screen Panel: High-Resolution Display Solutions

Explore the LED NATION Indoor P1.99 LED Screen Panel, featuring 4K resolution, 3840Hz refresh rate, and easy plug-and-play installation. Ideal for indoor video walls, broadcasting, and virtual studios. Includes technical specifications and support information.

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[pdf] Specifications Warranty Borchure

LM Brochure INDOOR P307mm 960x960 hereLED Screen Panels 22' x 9 45' P3 076 Indoor Led Video Walls Displays panels Outdoor MarketLM 1lednationusa 2025 09 1 ledmarketusa LED nationhereBy NovaStar single MRV412 N loads up to 512×512 pixels Supporting various functions such as color management 18Bit pixel level brightness and chroma LED 1LM srsltid

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lang:en score:26 filesize: 4.23 M page_count: 8 document date: 2025-06-18



<u>Catálogo NovaStar 2022: Proveedor Principal de Pantallas LED y Soluciones de Control</u>

Descubra el catálogo 2022 de NovaStar, proveedor principal de pantallas LED y soluciones de control avanzadas. Explore controladores, procesadores de video, reproductores multimedia y accesorios de alta tecnología para la industria audiovisual profesional.

lang:es score:22 filesize: 16.96 M page count: 34 document date: 2022-06-28



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LN Brochure INDOOR P199mm VIEW PACKAGES ONLINE LED nationlednationusa ⺠2024 03 lednationusa |||

VIEW PACKAGES ONLINE INDUSTRY-LEADING QUALITY COMPONENTS. WATCH VIDEO P1.99MM FULL WARRANTY 24- ... SMD1515 320 x 240 640 x 480 x 75mm / 25.2 x 18.9 x 3 ICN2065 3840hz 21 lb / pc - 9.6 kg NovaStar **MRV412** HIGHLIGHTED COMPONENTS POWER SUPPLY Slim bar with noiseless technology. RECEIVING CARD MR...

lang:en score:20 filesize: 6.2 M page_count: 8 document date: 2024-03-27



[pdf] Warranty Borchure

LN Brochure INDOOR P25mm 960x960 VIEW PACKAGES ONLINEhereVIEW ONLINELED Video Wall Screen 26 2' x 9 8' P2 5mm Indoor Turn key Led Solutions Outdoor NationLN 1LN 1lednationusa 2025 05 1 |||

VIEW PACKAGES ONLINE INDUSTRY-LEADING QUALITY COMPONENTS. FULL WARRANTY 3-YEAR WARRANTY FOR ALL ... 4 x 384 960 x 960 x 90 mm / 37.8 x 37.8 x 3.5 ICN 2037 / 2153 7680hz 60 lb / pc - 27 kg NovaStar MRV412 HIGHLIGHTED COMPONENTS RECEIVING CARD MRV412 Novastar 7680 Hz By NovaStar, single MRV412 I...

lang:en score:20 filesize: 7.65 M page_count: 8 document date: 2025-06-18



LED NATION INDOOR P1.99 LED Screen Panel | High-Resolution Video Wall Solution

Discover the LED NATION INDOOR P1.99 LED Screen Panel, a high-resolution, 4K panel designed for immersive indoor video walls. Featuring a 3840Hz refresh rate, plug-and-play installation, and a 3-year warranty.

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LN Brochure INDOOR P25mm 960x960 VIEW PACKAGES ONLINE 7 hours ago — well as width COMPATIBLE SUPPORTS POWER SUPPLY 100~240V 50 60Hz 600 W pc Power PowerCon In Out Data EtherCon OPERATION CONSUMPTION 1 srsltid

AfmBOooomgPhzZ2CasqgxJaheJiQ6n8bWcEGNi997ltwcWTtwVeuEPwC lednationusa 2025 05 ||| VIEW PACKAGES ONLINE INDUSTRY-LEADING QUALITY COMPONENTS. FULL WARRANTY 3-YEAR WARRANTY FOR ALL ... CN 2037 / 2153 7680hz 60 lb / pc - 27 kg NovaStar MRV208-1 HIGHLIGHTED COMPONENTS RECEIVING CARD MRV412 Novastar 3840 Hz By NovaStar, single MRV412 loads up to 512512 pixels. Supporting various fun...

lang:en score:20 filesize: 7.57 M page_count: 8 document date: 2025-04-30



NovaStar MRV416-N Receiving Card Specifications | LED Display Component

Detailed technical specifications for the NovaStar MRV416-N receiving card, featuring advanced display enhancements, maintainability, and reliability for LED video walls. Includes electrical, environmental, and physical parameters.

lang:en score:17 filesize: 1.51 M page_count: 10 document date: 2025-05-20



NovaStar MRV208-N Receiving Card Specifications

Detailed specifications for the NovaStar MRV208-N Receiving Card, covering its features, improvements in display, maintainability, and reliability, along with appearance, dimensions, pin definitions, and technical parameters for LED display systems.

lang:en score:16 filesize: 1.23 M page count: 10 document date: 2025-08-12