ASTRO
Designing Your Vision

Inquiries

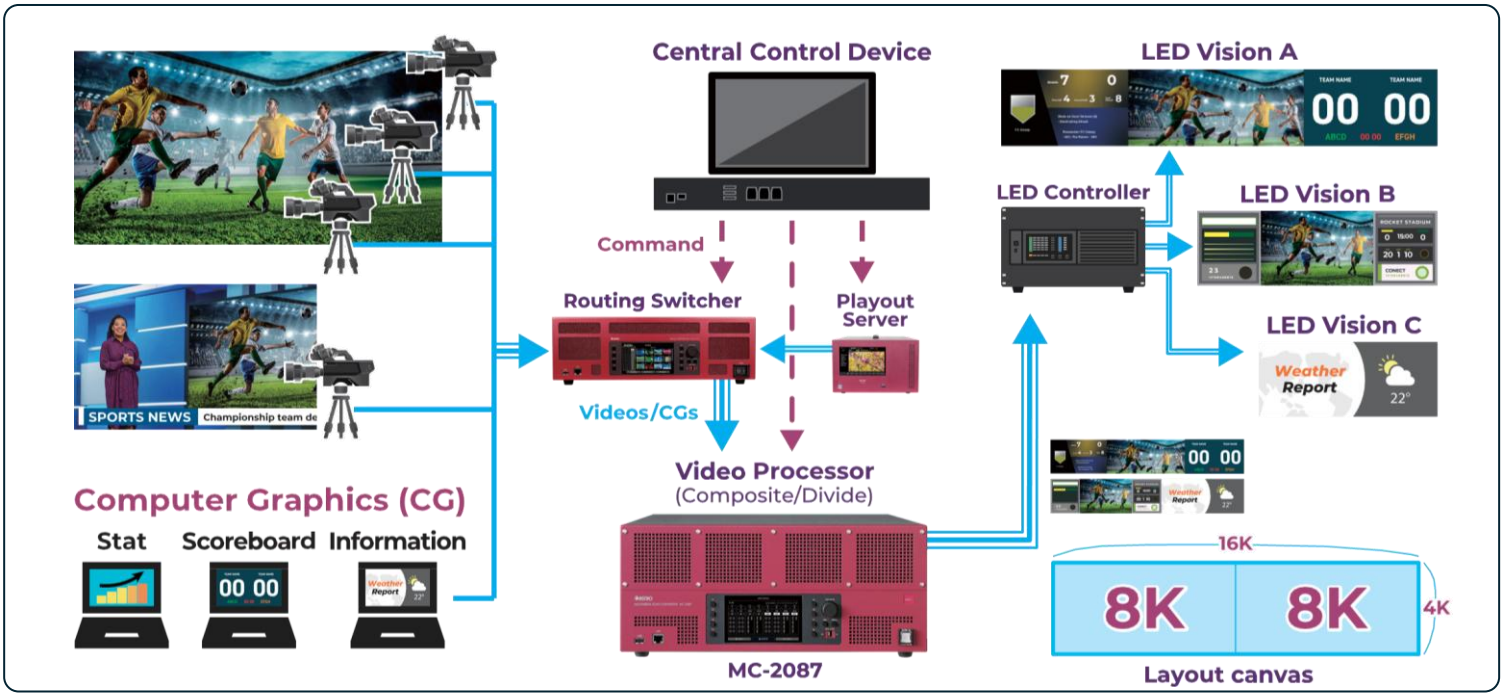
MC-2087

Multimedia Scan Converter

OUTLINE

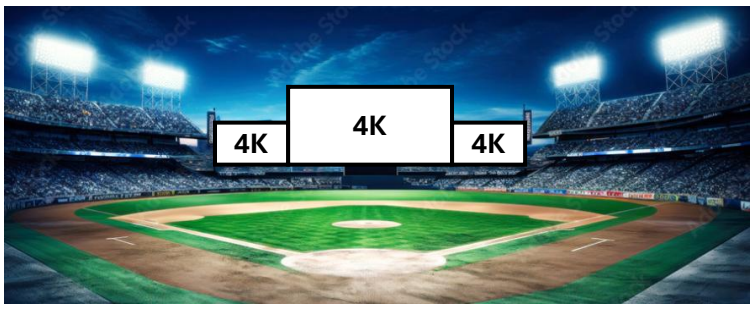
- The MC-2087 is a super high-performance video processor (Composing/Dividing) for large displays with 8K/4K/HD Input/Output.
- Astrodesign's specialty in FPGA-based hardware design creates both stability and robustness, as well as ultra-fast processing of large amounts of video data (16Kx4K) with precision (dot-by-dot) and low latency (2frames).

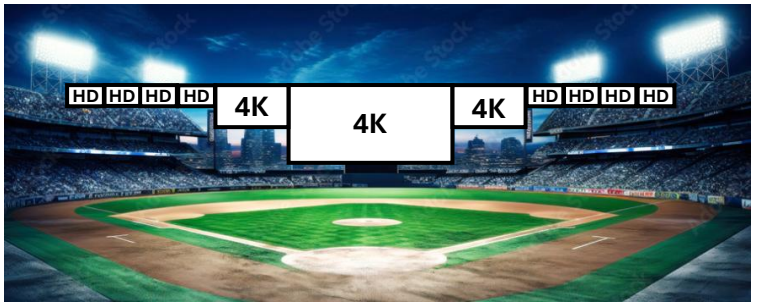
System Configuration for Large Display Control at Stadiums and Arenas



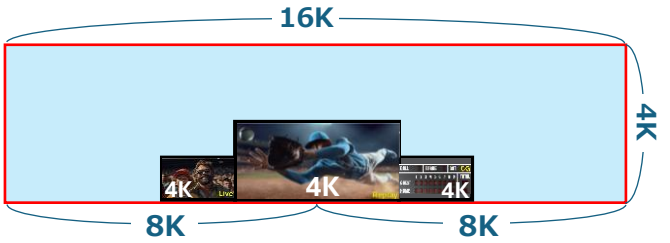
1. Examples of Large Displays in Sports

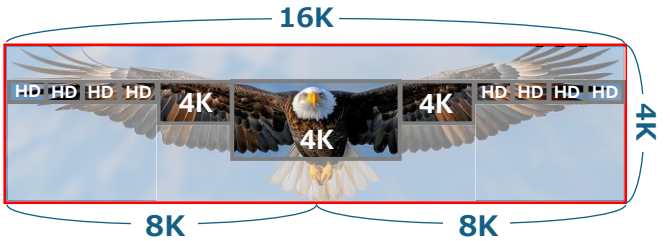
1. Horizontally Integrated Large Screen Display





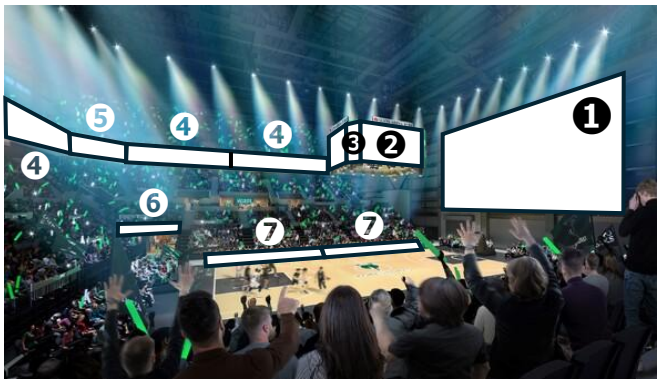
MC-2087 Layout Canvas (16Kx4K)



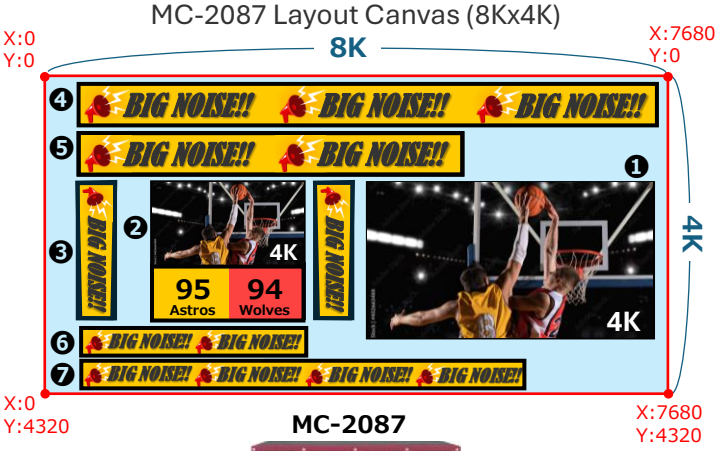


✓ The horizontally integrated LED Vision can be treated as one huge image on which to project other dynamic images.

2. Multiple LED Screen Display

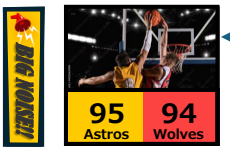


MC-2087 Layout Canvas (8Kx4K)



❶ Large Center LED Vision
- Live Video/Replay Video
- Player/Team Information
- Stats

❷❸ Center Hanging LED Vision
- Live Video/Replay Video
- Character Generator
- Points



❹❺❻❼ Ribbon LED Vision
- Character Generator

MC-2087

Coordinate Information (x,y)

Video Out

LED Controller

✓ LED Controller extracts the video frame from the video output from the MC-2087 by referring to the coordinate data.

✓ The large canvas that MC-2087 can make gives customers the freedom to layout more videos in a single space, enabling them to make clear video and CG than other comparable products.

2. Layout Canvas

The MC-2087 has 2 types of canvases.

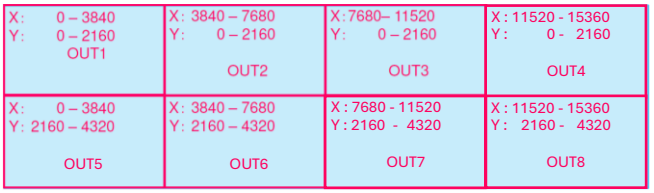
a) 7680 x 4320

b) 15360 x 4320

* By linking two or three MC-2087s together, customers can create canvases larger than16Kx4K.

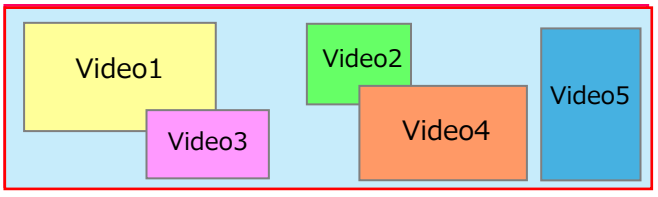
Operation

(STEP1) Set an output panel layout (Eight large 4K displays)



(1) Precise panel layout is available by using Coordinates (X,Y).
- ✓ Set the output frame in Dot units.

(STEP 2) Set your input windows



(1) Layout your input windows.
- ✓ Free position, Free aspect ratio
- ✓ Set the window in Dot units.

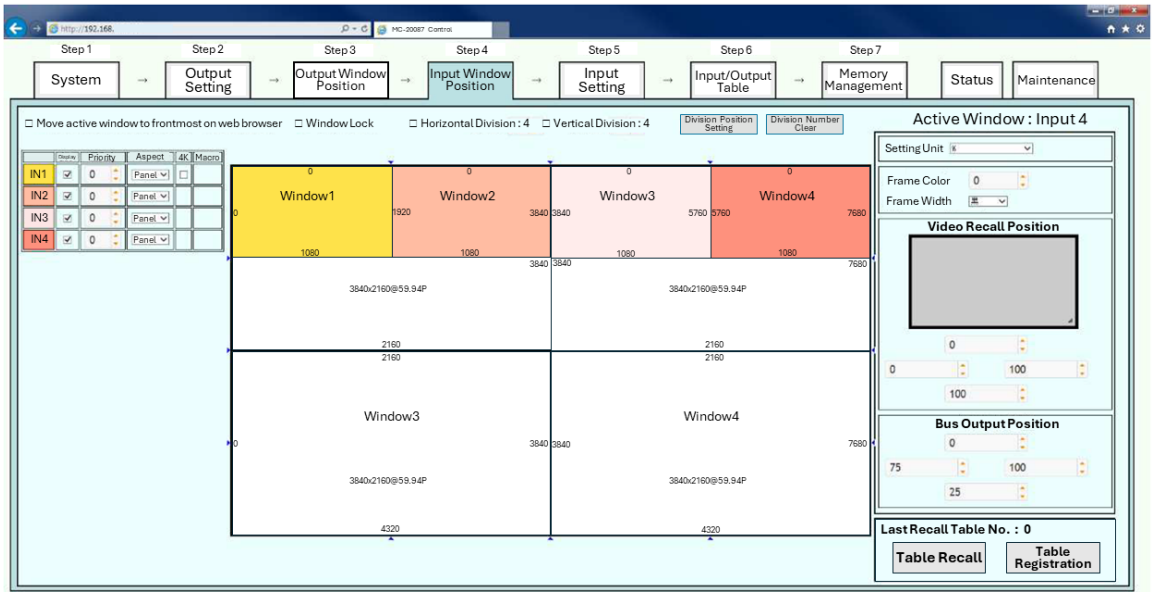
(2) Assign input video on each window.

(STEP 3) Register the Layouts in a table.
(STEP 4) Recall the table

- ✓ Up to 200 Layouts can be saved.
- ✓ LAN/RS-232C/ Remote control from external controller

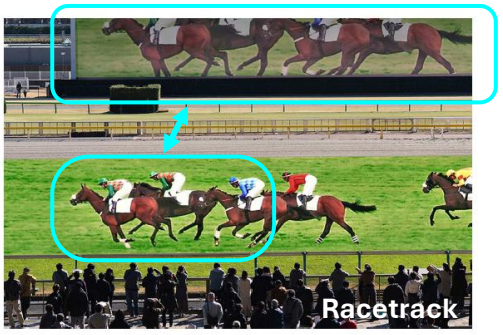
MC-2087 Web Control Panel

- ✓ Easy-to-understand UI and precise settings available in Dot units.
- ✓ Check and change of In/Out point and tables using only a Web-based software.



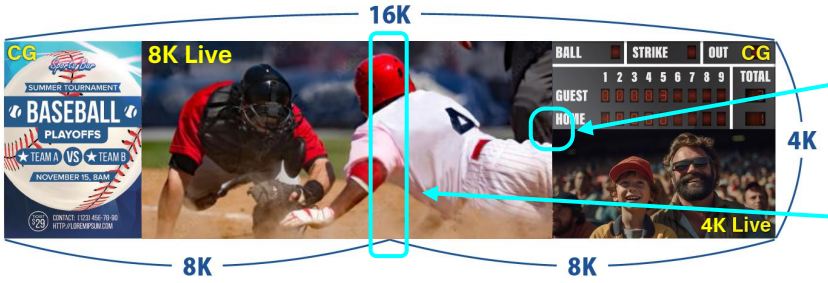
3. Selling Points

1. **Super high-speed video signal processing**
   - ➔ Smooth layout change even for the videos with a large amount of data on a 16Kx4K canvas.
   - ➔ **Real-time video processing** with a delay of only **2 frames**
     (Most software-based products have a longer delay.)



✓ Perfect for sports that compete on speed!
✓ MC-2087 supports 4K/120p, HD/240p.

2. **Frameless** and precise layout and scaling with **Dot-by-Dot** precision.



Possible to place and scale the frames with “Dot-by-Dot” precision using the X/Y coordinate setting (not the percentage setting)

Frameless display

3. **Saving in cost, space and power consumption**
   - ➔ The MC-2087 with 16Kx4K has more than 4 times bigger canvases compared to devices with 4K canvases. When it comes to Cost/Space/Power consumption, the MC-2087 is a top saver.

4. **Actual installations with AMX and CRESTRON control systems** in Japan.
   - ➔ The total sales for the MC series (MC-2085/2086/2087) exceed 500 systems in Japan. Most are used in the sport stadiums and arenas. Many units are operating in systems with AMX/CRESTRON central control devices at the large famous sports stadiums.

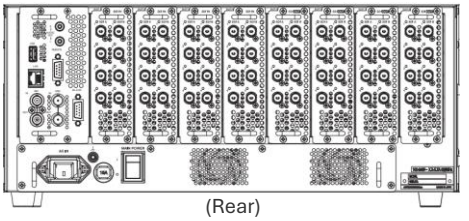
5. **Maintenance-free and reliable hardware design**.
   - ➔ In recent years, software-based products have been on the rise, but those require long start-up times and frequent application/OS updates. Once the total system has been installed in a stadium, having to carry out updates is necessary for ensuring quality, but risky as it is required not only for the device but for total system. Ensuring maintenance-free products is essential for customers who use the system in critical locations and over long periods of time. Also the time for maintenance can be reduced.

4. MC Series Comparison：MC-2085, 2086, 2087

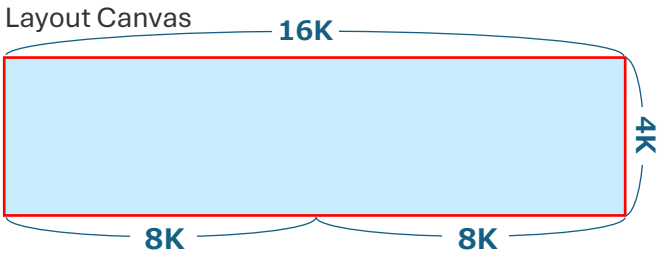
MC-2087 (8K/4K/HD)

I/O board : **8 slots**

8K : max 16 I/O, 4K/HD : max 64 I/O



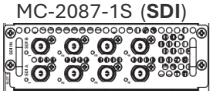
(Rear)



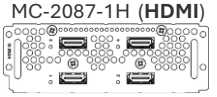
* MC-2087 can create a Layout Canvas 4 times larger than MC-2085/2086.

INPUT board

MC-2087-1S (**SDI**)

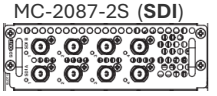


MC-2087-1H (**HDMI**)

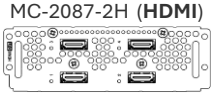


OUTPUT board

MC-2087-2S (**SDI**)



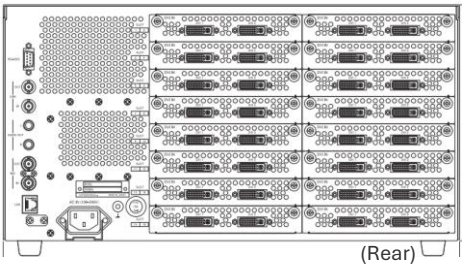
MC-2087-2H (**HDMI**)



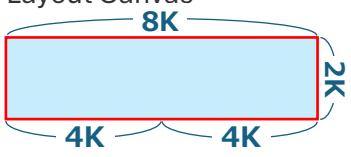
MC-2085/2086 (4K/HD/SD)

I/O board : **16 slots**

4K : max 8 I/O, HD : max 32 I/O

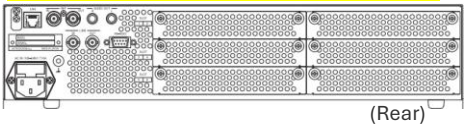


(Rear)



I/O board : **6 slots**

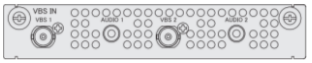
4K : max 3 I/O, HD : max 12 I/O



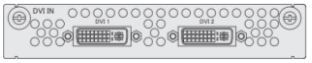
(Rear)

INPUT board

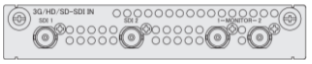
MC-1561-A : **VGA** (Component)



MC-1561-C : **Composite**

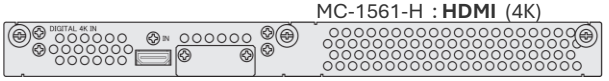


MC-1561-D : **DVI**-Sigle Link

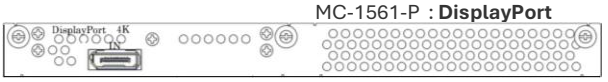


MC-1561-S : **SDI** (3G/HD/SD)

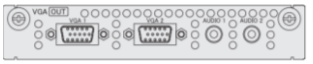
MC-1561-H : **HDMI** (4K)



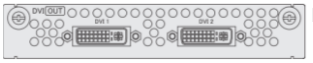
MC-1561-P : **DisplayPort**



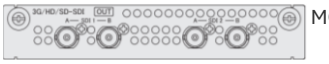
OUTPUT board



MC-1562-A : **VGA** (Component)

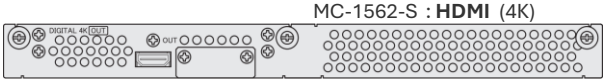


MC-1562-D : **DVI**-Sigle Link

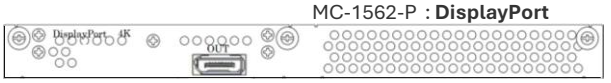


MC-1562-S : **SDI** (3G/HD/SD)

MC-1562-S : **HDMI** (4K)



MC-1562-P : **DisplayPort**



5. Applications

High-Definition Display

Simulators, Presentations, R&D

We provide special system environments that maintain reproducibility, such as simulation systems that require color and detailed images at their actual size, and image quality comparisons of different images in high-definition conditions.

Large Indoor/Outdoor Display

Sporting Facilities, Signage

For entertainment-oriented large display environments, it displays videos at optimal sizes even on oddly shaped displays and important text information in its original quality.

MC-2087

Displays Multiple Pieces of Information at Once

Crisis Management :
- **Transportation**
- **Disaster Prevention**

Based on high-definition map information, we provide a monitoring environment that enables accurate situational judgement by deploying video and graphic information according to various aspects.

Medical Facilities

- **Information Display**
- **Conference**

We assist advanced medical solutions by displaying images of medical equipment such as surgical field cameras, endo-scopes, and microscopes, as well as electronic information such as electronic medical records, all at once.

CLICK!

For more information about MC-2087

https://www.astrodesign.co.jp/english/product/mc-2087

About MC-2087

CLICK!

For more information about MC-2085/2086

https://www.astrodesign.co.jp/english/product/mc-2085_2086

About MC-2085/2086

CLICK!

For inquiries about MC-2085/2086/2087

https://www.astrodesign.co.jp/english/form/mailform.cgi?type=default

Inquiries