

## EMS Mosaic Multi Video Overlay Card

- Upto 9 video overlay windows on a single screen.
- Multiple Mosaic cards allowing up to 144 video windows.
- Overlay windows can be randomly sized , overlapped positioned anywhere on the Windows® desktop.
- Multi-Screen support, no position or size restrictions.
- Mosaic supports upto 4 Horizon 4 VW-DIG graphics adapters.
- Video overlay windows are updated in real time with zero CPU overhead.
- Multi-standard video support. PAL, NTSC, SECAM and S-Video.
- Separate controls for brightness, contrast, colour and cropping.
- Window border selection and chroma keying.
- Mosaic user application program.
- Windows® NT4, 2000 and XP driver support with an SDK for custom applications.



The Mosaic is a PCI plug-in card which has been designed to operate in conjunction with the Horizon 4VW-DIG graphics card. The Mosaic, when combined with the Horizon 4, provides up to 9 separate video overlay windows. For systems that require more than 9 overlay windows, a second Mosaic card can be installed providing up to 18 separate windows.

### On Card Connectors

- 2 x 26 way D connectors mounted on the PCI back panel providing connection for video inputs.
- 2 x 40 way ribbon headers for connection to the Horizon 4VW-DIG adapters.
- On card jumper links provide selection of terminated or un-terminated 75ohm video inputs. (27 links, 3 for each overlay).

### Multiple Mosaic Cards

For systems that require more than 9 overlays, multiple Mosaic cards can be installed. There are many possible configurations with two methods of connecting Mosaic's to Horizon cards.

## Method 1:

Each Mosaic (maximum of 4), is connected to all Horizons, (maximum of 4), in the system. This allows any Mosaic window to be displayed anywhere on the desktop. Maximum screens = 16 and 32 video windows.

## Method 2:

If more than 32 video windows or more than 16 screens are required, the wall can be arranged so that the windows are displayed over part of it. Each Horizon card is configured to control a group of 4 screens using the Horizon registry settings. You can decide how many windows are required for each group of 4 screens that are controlled by the Horizon. For each Horizon, connect up to 4 Mosaic Cards, this allows you up to 32 video windows for each set of 4 screens. If some video windows are required to be displayed over more than 4 screens or need to be moved over more than 4 screens, the Mosaic cards can be connected to each Horizon card that you want the video overlays to operate over.

## Rules for Connecting MosaiCs...

- Each Mosaic can be connected to a maximum of 4 Horizon cards.
- Each Horizon can be connected to a maximum of 4 Mosaic Cards.
- Video overlays from a particular Mosaic card can only appear on the screens driven by the Horizon card it is attached to.

The following examples show some of the possibilities:

### Example 1.

Each Mosaic is connected to all Horizon Cards (Method 1)

- 1 to 4 Horizon cards - 1 to 16 screens
- 1 to 4 Mosaic cards - 9, 18, 27 Or 32 windows.

### Example 2:

Mosaic cards are connected to a single Horizon card (Method 2)

- 4 Horizon cards - 16 screens.
- 4 to 16 Mosaic cards - 32 to 144 video windows.

### Example 3:

Mosaic cards are connected to a single Horizon card (Method 2)

- 6 Horizon cards - 24 screens.
- 6 to 16 Mosaic cards - 54 to 144 video windows.

### Example 4:

Each Horizon has a single Mosaic card connected to it with a further Mosaic connected to all Horizons. This example use both connection Methods 1 and 2.

- 4 Horizon cards - 16 screens.
- 5 Mosaic cards - 45 video windows  
9 video windows per Horizon card = 36 windows  
(4 Mosaic Cards) (Method 2)  
9 video windows over the entire wall (1 Mosaic Card)  
(Method 1)

## Restrictions:

- The maximum number of video windows on a single screen is 9.
- Video windows from separate Mosaic cards cannot be displayed on the same screen.

Maximum configuration:

6 Horizon 4VW-DIG cards = 24 screens  
16 Mosaic cards = 144 video overlay windows.

## Cables:

As standard the Mosaic cards are shipped with the M2H4 cable set and 2 x 16 way BNC Splitter Cables.

Due to the many configurations possible with the Mosaic card, various cable sets are available to order:

## Cable Sets

M2H1-cable - Connects 1 or 2 Mosaic cards to 1 Horizon 4VW-DIG.

M4H1-cable - Connects 4 Mosaic cards to 1 Horizon 4VW-DIG.

M2H4-cable - Connects 1 or 2 Mosaic cards to 1, 2, 3 or 4 Horizon 4VW-DIG.

M4H4-cable - Connects 4 Mosaic cards to 1, 2, 3 or 4 Horizon 4VW-DIG.

As stated the Mosaic is shipped with the M2H4 cable set as standard. If a different cable set is required, please specify your requirements when ordering by quoting the Mosaic Model Number:

## Mosaic Model Numbers

Mosaic - Mosaic Card with M2H4-cable set (standard).

Mosaic-xxxx - Mosaic card supplied with a specific cable set (xxxx) for example Mosaic-M2H1.

Mosaic-NCR - Mosaic card with no ribbon cable set.

## Specification:

- Card Type: PCI 2.2 compliant adapter.
- Card Size: 100 x 260 (mm).
- Max Number of video overlay windows: 9.
- Max capture resolution per channel. 768 x 288.
- Supported video formats: PAL, NTSC, SECAM, S-video.
- Inputs per overlay window: 2 x Composite or 1 x Composite and 1 x S-video.
- Power consumption 12 watts.
- Power Requirements +5V at 2.2Amps, +12V at 100mA.

Electronic Modular Solutions Ltd.  
Kendal House, 20 Blaby Road, S. Wigston, Leics., LE18 4SB, England

Tel: +44 (0) 116 2775730, Fax: +44 (0) 116 2774973  
Email: [sales@ems-digitalmedia.com](mailto:sales@ems-digitalmedia.com), Web: <http://www.ems-digitalmedia.com>

