

20 FAQ's for General Audiences
Planar Mosaic Architectural Displays

- 1) **What is Planar Mosaic?** Planar® Mosaic™ is a tiled LCD display solution that falls in the category of Architectural Video Walls. The system allows you to mix-and-match three different sizes and shapes of LCD video tiles, including a truly square tile. You can arrange the tiles at any angle and in any position relative to each other, allowing for unprecedented flexibility and creativity. Mosaic is used to create ambiance, generate an emotional reaction, or build a brand experience.
- 2) **How does Mosaic work?** A Mosaic video tile arrangement acts like one big screen, where the tiles are like windows through to the underlying image or video. The tiles are programmed at the time of installation using the included Planar Mosaic Project Designer™ software. Each tile receives the entire image and knows exactly which piece of the whole image to display. If there are physical gaps between the tiles, the image is correctly displayed automatically.
- 3) **Who would use Mosaic?** Mosaic appeals to building owners and tenants for the lobbies or public spaces of their corporate offices, hospitality, healthcare and educational facilities. It also appeals to retailers for their showrooms and window displays. Unlike most digital signage and video wall products, Mosaic will often feature purely artistic content. Mosaic tiles may be viewed as a more dynamic alternative to traditional wall covering materials, architectural lighting, or fine art installations. Designers, consultants and architects will find many uses for Mosaic with their clients.
- 4) **What components make up the Mosaic system?** The Mosaic family includes three LCD tile sizes: AD22-Vincent (55" diagonal rectangle), AD46-Pablo (46" diagonal rectangle), and AD22-Salvador (21.6" diagonal square). Also included is the Mosaic Ensemble™, a package of components including the Mosaic Mount™, the Mosaic Power Supply Module, and the Mosaic Project Designer™ software.
- 5) **Are Mosaic tiles like normal displays?** No. Mosaic tiles are commercial-grade LED backlit displays that are built for 24/7 operation. The power supplies are off-board, meaning they can be rack-mounted at a distance from the tiles. This makes the tiles cool and quiet, thin and light weight, and long lasting. They are very bright, have excellent contrast as well as full high definition resolution.
- 6) **What are the specifications of the Mosaic tiles?** The Mosaic Vincent and Pablo tiles have a resolution of 1920x1080, and the Salvador tile is 960x960. The Mosaic system will support input resolutions of up to 4K. The Vincent and Pablo tiles are 700 nits brightness with a contrast ratio of 3500:1. The Salvador tile is 450 nits brightness with a contrast ration of 4000:1. All tiles support a viewing angle of 178 degrees and have an expected backlight life of 50,000 hours to half brightness.
- 7) **What can I display on a Mosaic wall?** Mosaic accepts a DisplayPort input. You can connect a PC or Mac, a Blu-ray Disc™ player, or even a basic media player. If you have more elaborate requirements, you can connect a digital signage system or other sophisticated content, switching or video wall control software. The content itself can be any imagery or video that is up to 3840x2160 in resolution. You can choose artistic content, informational content, or any combination of the two. You can display simple imagery or video in a standard aspect ratio, or create purpose-built content that plays off the unique shape of the Mosaic array you have designed.
- 8) **How is Mosaic different from other video walls?** Unlike other solutions, Mosaic supports arbitrary rotation of video tiles. It allows you to combine multiple tile sizes and shapes together, and lets you use "negative space" by spreading the tiles out. Mosaic also supports tight radius concave and convex arrays as well as overlapping displays. Mosaic does not require image or video pre-processing because of the built-in processing. Mosaic includes a truly square tile with a 1:1 aspect ratio, allowing for tile layouts never before imagined.

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- 9) **How do Mosaic tiles compare to rear-projection mini-cubes?** Mini-cubes have become quite popular in decorative implementations due to their small form factor. Mosaic tiles offer a range of features that mini-cubes cannot support. This includes ADA-compliant mounting depth, mixing of multiple tile sizes in a single video wall, and arbitrary rotation on a per-tile basis. Mosaic tiles can also be positioned in more flexible angles, pitches and overlaps, as well as in smaller-radius concave and convex arrangements. Mosaic tiles are thinner, lighter, cooler, quieter, and have a less expensive list price on a per-square-inch basis. Mosaic tiles are LED backlit displays which typically have better black uniformity, color balance, and off-axis matching than rear-projection cubes.
- 10) **Why are artistic display arrangements so uncommon?** Traditional video displays are not built for arbitrary rotation, spread out tile arrays with negative space, and multiple displays working together as a single screen. Without Mosaic, it is a complex and expensive process to achieve all these functions with standard displays. You would need to break up content into separate pieces and then re-render each of them for individual and synchronized media players, each of which is connected to its own display with playback software. Even if this is done, they still can't handle live video in real-time. For new content, the entire process must be repeated. Mosaic handles all of these functions simply and easily right out of the box.
- 11) **How much does Mosaic cost?** The Mosaic video tiles are individually priced. The per-tile price includes the Mosaic Ensemble™, a package of three components: The Mosaic Mount, the Mosaic Power Supply Modules, and Mosaic Project Designer Software. The retail list price (MSRP) for each tile is as follows: AD55-Vincent – \$9,999. AD46-Pablo – \$6,999. AD22-Salvador – \$3,899. All prices are in US dollars and do not include taxes, freight, or additional services. Separately priced accessory items include edge trim, cabling, redundant power supplies, extension brackets for overlapping tiles, design consulting, installation, and support/maintenance plans.
- 12) **How do I design a Mosaic tile layout?** You can create your own Mosaic designs using Planar Mosaic Project Designer™ software. There are two versions: an installable Windows application, and a mobile-friendly [online application](#). Both tools allow you to create tile layouts, preview content, and save your designs. The online application can be used for requesting a quotation from Planar. The Windows application is used to program the Mosaic tiles upon installation. Planar also offers design consulting services to help with tile layouts, system architecture, and content planning.
- 13) **Where do I go for specialized Mosaic video content?** There are several approaches to creating content for a Mosaic video wall. At a basic level, you can use stock images or videos from an online content library like iStockPhoto, Pond5 or Getty Images. Your own photo or video library is a great place to start. If you wish to create custom content, there are numerous video artists and creative services firms that specialize in designing custom video content. Please contact Planar for a list of recommended Mosaic content creation service firms. If you are a content developer, motion graphic artist, or graphic designer and want to design for Mosaic video walls, please [contact Planar](#).
- 14) **What does “off-board power” mean?** Mosaic power supplies are not built into the video tiles, they are in rack-mount (1U) modules up to 200 feet (60 meters) away from the Mosaic wall. Several tiles can be daisy-chained (connected in series) together in a group. There is a low-voltage (48V) connection between a Mosaic Power Supply Module and the first tile in a group of daisy-chained tiles. A single power supply module can support up to 12 Salvador tiles, 6 Pablo tiles, 4 Vincent tiles, or any combination of these tiles up to a cumulative total of 1000 watts. This means a power outlet is not required behind each tile. A redundant power supply option is also available.

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- 15) **What inputs and outputs does a Mosaic tile have?** Each Mosaic tile has a DisplayPort input and output, a power input and output, and a USB input. Tiles can be daisy-chained with power cables. Tiles can also be daisy-chained with DisplayPort data cables. The power daisy-chain and the content daisy-chain are completely independent of each other, meaning they don't have to follow the same path. Up to 256 tiles can be connected on a single DisplayPort daisy chain. The USB input is for programming the wall upon installation, which is a one-time setup process.
- 16) **Does Mosaic include mounting hardware?** Yes. The Mosaic Mount™ is included and is an integral part of the Mosaic system. A special mounting plate attaches to the wall and then the video tile snaps into this plate with snap catches at the four corners (push-in, push-out). Correct alignment is foolproof with auto-alignment posts. The Vincent and Pablo tiles can be positioned in "service mode" for easy connecting and disconnecting of cables. The combined Mosaic tiles and mount protrude only 3.7" from the wall, which makes it the only architectural video wall system that complies with the Americans with Disabilities Act (ADA).
- 17) **How does Mosaic handle image scaling?** A single image or video is automatically scaled up to display properly across an array of Mosaic video tiles, regardless of their placement. Mosaic video tiles can be connected in different ways depending on your requirements. For example, a single source can be displayed on a single Mosaic tile (1-to-1), over a portion of a Mosaic tile arrangement (tile groups), or over an entire Mosaic tile arrangement (single daisy-chain). Mosaic allows you to optimize resolution for these three factors: 1 – the resolution of the source content; 2 – the viewer's distance from the Mosaic wall; and 3 – the size of the Mosaic wall. For a detailed explanation, download the Mosaic Content Guide from the [Mosaic product page](#).
- 18) **Can I make a seamless video wall with Mosaic?** Mosaic video tiles can easily be arranged in a Matrix-style grid. While the tiles themselves are capable of a 5.9mm image-to-image gap, an additional gap is required for the push-in, push-out mounting system. Therefore, the effective image-to-image gap is around 10.8mm. A set of spacer brackets is available that attach to the wall behind the Mosaic Mount, making it easy to achieve perfect corner and side alignment of tiles. For true grid installations, we recommend Planar's [Clarity™ Matrix](#) product line which might be a better fit for your application.
- 19) **How do I get started with Mosaic?** The best way to begin is to start with the dimensions of the physical wall on which you imagine a Mosaic installation. Utilize the Mosaic Project Designer™ Online application (<http://mosaic.planar.com>) to create your tile layout. Input the size of your wall in the Wall Options dialog. Choose or upload your own content and preview your design. When you are happy with your design, click the Quote button and complete the form and submit it to Planar. You will then be contacted to discuss your design concept. You can also save and share your designs right from the software.
- 20) **Where can I buy a Mosaic video wall?** Mosaic is available through Planar Authorized Resellers. Many Planar reseller partners are advanced audio/visual integrators that can help you design, install and maintain a one-of-a-kind Mosaic implementation. If you do not have a relationship with a Planar reseller, please contact Planar at 1-866-475-2627. If you are an architect, designer or consultant interested in working with clients on Mosaic video wall designs and learning more about the product, please contact Planar.