VISUAL DISPLAYS
Our 3-Step Guide to Display Success
Use this table or download our DISCAS calculator to decide image size based on distance between farthest viewer and the screen

| Step 1 - Getting the image size right |  |  |  | Step 2 - Display type |  | Step 3 - Choosing your display |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Farthest viewer from screen (m) | Screen Size (1/diagonal) | Screen Height (m) | Screen Width (m) | Ambient light levels | Display type | Key information and guidance |
| 7.5m-6m | 40"-90" | 0.5m-7.7m | 0.9-2m | Up to brightly lit spaces | Flat Panel Display (FPD) or Large Format Display (LFD) mostly LCD panels backlit with LEDs | - For single image use in smaller spaces <br> - For multi-screen installations in public and high traffic areas <br> - Easy to install and cost-effective at this size <br> Critical specification and purchasing requirements: <br> 1 Use professional grade displays to avoid reliability, monitoring, and controlling issues <br> 2 Use displays with anti-reflective screens to avoid 'cheap seats' where reflections from lights or windows create 'veiling glare' for some viewers - so always 'try before you buy'. <br> 3 Cost-effective only up to 90", from 90"-98" (max. available swize) choose ALR Laser Projection for best benefit-cost ratio <br> 4 These are commodity items. Procure from any mainstream AV/IT distributor which can genuinely provide product as per the two points above - and offers good demo and support facilities. |
| $\begin{aligned} & 6 m-a n y \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 90 " \text { - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & \text { 7.7m - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 2 m-a n y \\ & \text { size } \end{aligned}$ | Up to brightly lit spaces | ALR Laser Projection (laser projector with ambient light rejecting screen) | - Low cost <br> - Scalable to any required size <br> - Maintains perfect resolution at all sizes (unlike dVLED) <br> - ALR (ambient light rejecting) screens use cheaper, lower lumens projectors than those needed when projecting onto walls or standard white screen - PLUS... <br> - ALR screens conformto the global ANSI AVIXA 'PISCR' image quality and contrast standard <br> - Complete packages are sold as single line order items (SKUs) <br> Critical specification and purchasing requirements: <br> 1 Use our Complete Laser Display packages comprising Epson high-brightness, 3LCD laser projector, Epson projector mount, dnp Supernova ALR screen and extended Epson 5 year warranty - including optional free installation CAD drawings; optional site surveys; optional installation. All the work is done for you! - OR... <br> 2 Let us help you create your own version with with dnp Supernova ALR screens and your own projector, mount etc. |


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| Farthest <br> viewer <br> from screen (m) | Screen <br> Size <br> ("/diagonal) | Screen Height (m) | Screen Width (m) | Ambient light levels | Display type | Key information and guidance |
| Not applicable | $\begin{aligned} & \text { 110" - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & \text { 1.4m - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 2.4 m \text { - any } \\ & \text { size } \end{aligned}$ | Up to brightly lit spaces | Videowall <br> (Digital <br> Signage only. Large screen display made from smaller individual LCD panels with LED backlighting) | - Large screen displays made by 'tiling' smaller displays, such as a 110" display made from four 55" panels, arranged two high and two wide (this example known as $2 \times 2$ array) <br> - Bright displays with wide range of luminances available (350-3000cd/m²) <br> Critical specification and purchasing requirements: <br> 1 Not seamless - there is always a small gap between the panels, typically $7-2 \mathrm{~mm}$ <br> 2 Used only for signage applications - not suitable for meeting rooms, teaching, business presentations as users find the gaps/mullions between the individual display panels to be too distracting <br> 3 Lower capital costs than dVLED, but needs regular maintenance (calibration), so running costs must be factored |
| $\begin{aligned} & 15 m \text { - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 200 " \text { - any } \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 2.5 m-a n y \\ & \text { size } \end{aligned}$ | $\begin{aligned} & 4.4 m \text { - any } \\ & \text { size } \end{aligned}$ | Up to direct daylight | Direct View <br> LED (dvLED) | Super bright - up to 5000cd $/ \mathrm{m}^{2}$ [nit] <br> Ideal for digital signage <br> - Can even be used outdoors <br> It's too easy for clients to make expensive mistakes with dvLED, so note these critical specification and purchasing issues: <br> 1 Avoid for ProAV applications where engagement with content is important and/or for extended periods (eg meetings, teaching, presentations etc) unless you get the following points exactly right. <br> 2 Displaying exactly the same resolution as the content is mission-critical. Often users don't understand there's a fixed relationship between pixel size, image resolution and image size. If you specify a certain size and the display's pixels are not exactly the same as the image resolution (eg HD $1920 \times 1080,4 \mathrm{~K} / \mathrm{UHD}$ $3860 \times 2160$, etc) then content will be 'scaled' and not sharp. <br> 3 Reducing the brightness (luminance) to $350-500 \mathrm{~cd} / \mathrm{m}^{2}$ [nit] typically required for professional content presentation can reduce the dynamic range / contrast / quality of the image - and wastes budget on over-specified brightness. <br> 4 Beware wide range of cost options based on poorly-understood 'binning' (quality selection) of individual LEDs used in manufacture - you really do pay for the quality of what get. <br> 5 Let us do all the specification and best practice calculations for you. We'll do the hard work and guide to a guaranteed success for your clients. |

