

# P3 System Controllers™ Capacity Information Note

As of P3 System Controller software release 6.0.0.

## Processing & Output Capacity

The number of fixtures that can be driven by a single P3 System Controller is defined by following limits:

	P3-050	P3-150	P3-175	P3-275	P3-300	P3-PC
<b>Pixels</b>	100.000	520.000	520.000	1.040.000 (520.000 per output)	2.080.000 (520.000 per output)	20.736
<b>LED Video Panels</b>	1.000	1.000	1.000	1.000	1.000	1.000
<b>Creative LED Video Modules</b>	2.000	2.000	2.000	6.000 (3.000 per output)	2.000	2.000
<b>Flexible LED Video Modules</b>	500	500	2.000	6.000 (3.000 per output)	500	2.000
<b>Free Pixel Type Pixels</b>	50.000	50.000	520.000	1.040.000	50.000	20.736

This means that the following numbers of products can be driven by one single P3 System Controller:

Product	P3-050°	P3-150°	P3-175	P3-275	P3-300°	P3-PC
<b>LC2140 Panels (with P3 Upgrade Kit)</b>	80 (= 160 sqm)	416* (= 832 sqm)	416 (= 832 sqm)	832 <sup>2</sup> (= 1.664 sqm)	1.000 <sup>3*</sup> (= 2.000 sqm)	16 (= 32 sqm)
<b>LC1140 Panels (with P3 Upgrade Kit)</b>	160 (= 160 sqm)	832* (= 832 sqm)	832 (= 832 sqm)	1.000 <sup>2</sup> (= 1.000 sqm)	1.000 <sup>2</sup> (= 1.000 sqm)	33 (= 33 sqm)
<b>LC2140+ Panels</b>	80 (= 160 sqm)	416* (= 832 sqm)	416 (= 832 sqm)	832 <sup>2</sup> (= 1.664 sqm)	1.000 <sup>3*</sup> (= 2.000 sqm)	16 (= 32 sqm)
<b>EC-20 Panels</b>	115 (= 40 sqm)	601* (= 208 sqm)	601 (= 208 sqm)	1.000 <sup>2</sup> (= 346 sqm)	1.000 <sup>2</sup> (= 346 sqm)	24 (= 8 sqm)
<b>EC-10 Panels</b>	28 (= 10 sqm)	150* (= 52 sqm)	150 (= 52 sqm)	300 <sup>2</sup> (= 104 sqm)	600 <sup>4*</sup> (= 207 sqm)	6 (= 2 sqm)
<b>VDO Face 5 HB Panels</b>	9 (= 2,5 sqm)	50* (= 14 sqm)	50 (= 14 sqm)	100 <sup>2</sup> (= 28 sqm)	200 <sup>4*</sup> (= 56 sqm)	2 (= 0,5 sqm)

<b>VDO Face 5 HC Panels</b>	9 (= 2,5 sqm)	50* (= 14 sqm)	50 (= 14 sqm)	100 <sup>2</sup> (= 28 sqm)	200 <sup>4*</sup> (= 56 sqm)	2 (= 0,5 sqm)
<b>VC-Grid 8x8 60 Modules</b>	1.562 (= 360 sqm)	2.000 (= 461 sqm)	2.000 (= 461 sqm)	6.000 <sup>2</sup> (= 1.382 sqm)	2.000 (= 461 sqm)	324 (= 75 sqm)
<b>VC-Grid 4x4 60 Modules</b>	2.000 (= 115 sqm)	2.000 (= 115 sqm)	2.000 (= 115 sqm)	6.000 <sup>2</sup> (= 346 sqm)	2.000 (= 115 sqm)	1.296 (= 75 sqm)
<b>VC-Grid 8x8 30 Modules</b>	1.562 (= 90 sqm)	2.000 (= 115 sqm)	2.000 (= 115 sqm)	6.000 <sup>2</sup> (= 346 sqm)	2.000 (= 115 sqm)	324 (= 19 sqm)
<b>VC-Grid 8x8 25 Modules</b>	1.562 (= 62 sqm)	2.000 (= 80 sqm)	2.000 (= 80 sqm)	6.000 <sup>2</sup> (= 240 sqm)	2.000 (= 80 sqm)	324 (= 13 sqm)
<b>VC-Grid 16x16 15 Modules</b>	390 (= 22 sqm)	2.000* (= 115 sqm)	2.000 (= 115 sqm)	4.062 <sup>2</sup> (= 234 sqm)	2.000 (= 115 sqm)	81 (= 5 sqm)
<b>VC-Strip 8x1 60 Modules</b>	2.000 (= 960 m)	2.000 (= 960 m)	2.000 (= 960 m)	6.000 <sup>2</sup> (= 2.880 m)	2.000 (= 960 m)	2.000 (= 960 m)
<b>VC-Strip 4x1 60 Modules</b>	2.000 (= 480 m)	2.000 (= 480 m)	2.000 (= 480 m)	6.000 <sup>2</sup> (= 1.440 m)	2.000 (= 480 m)	2.000 (= 480 m)
<b>VC-Strip 16x1 30 Modules</b>	2.000 (= 960 m)	2.000 (= 960 m)	2.000 (= 960 m)	6.000 <sup>2</sup> (= 2.880 m)	2.000 (= 960 m)	1.296 (= 622 m)
<b>VC-Strip 8x1 30 Modules</b>	2.000 (= 480 m)	2.000 (= 480 m)	2.000 (= 480 m)	6.000 <sup>2</sup> (= 1.440 m)	2.000 (= 480 m)	2.000 (= 480 m)
<b>VC-Strip 16x1 25 Modules</b>	2.000 (= 800 m)	2.000 (= 800 m)	2.000 (= 800 m)	6.000 <sup>2</sup> (= 2.400 m)	2.000 (= 800 m)	1.296 (= 518 m)
<b>VC-Strip 8x1 25 Modules</b>	2.000 (= 400 m)	2.000 (= 400 m)	2.000 (= 400 m)	6.000 <sup>2</sup> (= 1.200 m)	2.000 (= 400 m)	2.000 (= 400 m)
<b>VC-Strip 32x1 15 Modules</b>	2.000 (= 960 m)	2.000 (= 960 m)	2.000 (= 960 m)	6.000 <sup>2</sup> (= 2.880 m)	2.000 (= 960 m)	648 (= 311 m)
<b>VC-Strip 16x1 15 Modules</b>	2.000 (= 480 m)	2.000 (= 480 m)	2.000 (= 480 m)	6.000 <sup>2</sup> (= 1.440 m)	2.000 (= 480 m)	1.296 (= 311 m)
<b>VDO Sceptron 40 1000mm</b>	2.000 (= 2.000 m)	2.000 (= 2.000 m)	2.000 (= 2.000 m)	6.000 <sup>2</sup> (= 6.000 m)	2.000 (= 2.000 m)	829 (= 829 m)
<b>VDO Sceptron 40 320mm</b>	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	2.000 (= 640 m)
<b>VDO Sceptron 20 1000mm</b>	2.000 (= 2.000 m)	2.000 (= 2.000 m)	2.000 (= 2.000 m)	6.000 <sup>2</sup> (= 6.000 m)	2.000 (= 2.000 m)	414 (= 414 m)
<b>VDO Sceptron 20 320mm</b>	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	1.296 (= 415 m)
<b>VDO Sceptron 10 1000mm</b>	1.000 (= 1.000 m)	2.000 (= 2.000 m)	2.000 (= 2.000 m)	6.000 <sup>2</sup> (= 6.000 m)	2.000 (= 2.000 m)	207 (= 207 m)
<b>VDO Sceptron 10 320mm</b>	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	648 (= 207 m)
<b>VDO Fatron 20 1000mm</b>	500 (= 500 m)	2.000* (= 2.000 m)	2.000 (= 2.000 m)	5.200 <sup>2</sup> (= 5.200 m)	2.000 (= 2.000 m)	103 (= 103 m)
<b>VDO Fatron 20 320mm</b>	1.562 (= 500 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640 m)	324 (= 104 m)
<b>VDO Dotron</b>	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000

Exterior PixLine 40 1280mm	2.000 (= 2.560 m)	2.000 (= 2.560 m)	2.000 (= 2.560 m)	6.000 <sup>2</sup> (= 7.680 m)	2.000 (= 2.560 m)	648 (= 829 m)
Exterior PixLine 40 320mm	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	2.000 (= 640 m)
Exterior PixLine 20 1280mm	1.562 (= 1.999 m)	2.000 (= 2.560 m)	2.000 (= 2.560 m)	6.000 <sup>2</sup> (= 7.680 m)	2.000 (= 2.560 m)	324 (= 415 m)
Exterior PixLine 20 320mm	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	1.296 (= 415 m)
Exterior PixLine 10 1280mm	781 (= 1.000 m)	2.000 (= 2.560 m)	2.000 (= 2.560 m)	6.000 <sup>2</sup> (= 7.680 m)	2.000 (= 2.560 m)	162 (= 207 m)
Exterior PixLine 10 320mm	2.000 (= 640 m)	2.000 (= 640 m)	2.000 (= 640 m)	6.000 <sup>2</sup> (= 1.920 m)	2.000 (= 640m)	648 (= 207 m)
Exterior Dot-HP	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
VC-Dot 1 Strings	500 (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (number of Dots per string not important)	6.000 <sup>2</sup> (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (up to 20.736 Dots in total)
VC-Dot 4 Strings	500 (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (number of Dots per string not important)	6.000 <sup>2</sup> (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (up to 20.736 Dots in total)
VC-Dot 9 Strings	500 (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (number of Dots per string not important)	6.000 <sup>2</sup> (number of Dots per string not important)	500 (number of Dots per string not important)	2.000 (up to 20.736 Dots in total)
VDO Atomic Dot CLD	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	1.219
VDO Atomic Dot WRM	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	1.219
VDO Atomic Bold	684	684	2.000	6.000 <sup>2</sup>	684	284
MAC Allure Profile	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
MAC Allure Wash PC	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
MAC Aura PXL	312	312	2.000	6.000 <sup>2</sup>	312	129
MAC Ultra Performance	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
MAC Ultra Wash	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
MAC Aura XIP	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	1.091

<sup>2</sup> Fixtures to be split over at least 2 outputs of the P3-275/300 System Controller.

<sup>3</sup> Fixtures to be split over at least 3 outputs of the P3-300 System Controller.

<sup>4</sup> Fixtures to be split over at least 4 outputs of the P3-300 System Controller.

\* When a fixture is rotated on the canvas, it (internally) consumes double the amount of pixels. This can limit the amount of products marked with \*, when rotated.

° When fixtures with different pixel pitch are mixed onto a P3-050/150/300 System Controller, the fixtures with lower pixel pitch consume the equivalent of their surface in the native pixel pitch of the showfile. Examples:

- When placed in a 20mm showfile, an EC-20 panel “consumes” 864 pixels
- When placed in a 10mm showfile, an EC-20 panel “consumes” 3.456 pixels
- When placed in a 40mm showfile, an LC2140+ panel “consumes” 1.250 pixels
- When placed in a 10mm showfile, an LC2140+ panel “consumes” 20.000 pixels

This is only applicable for the P3-050/150/300 System Controllers.

If you need to drive more products than listed in the table above, you can simply add more P3 System Controllers as described in their user manuals.

## DMX, Art-Net, sACN & K2 Capacity

The Light & Motion Controls on the P3 System Controllers are subject to following limits:

	Global Control	Light Controls	Motion Controls
<b>P3-050</b>	DMX or 1 universe of Art-Net/sACN*	DMX plus 128 universes of Art-Net/sACN	DMX or 1 universe of Art-Net/sACN * or K2
<b>P3-150</b>	DMX or 1 universe of Art-Net/sACN *	DMX plus 128 universes of Art-Net/sACN	DMX or 1 universe of Art-Net/sACN * or K2
<b>P3-175</b>	1 universe of Art-Net/sACN *	256 universes of Art-Net/sACN	1 universe of Art-Net/sACN * or K2
<b>P3-275</b>	1 universe of Art-Net/sACN *	1.024 universes of Art-Net/sACN	1 universe of Art-Net/sACN * or K2
<b>P3-300</b>	DMX or 1 universe of Art-Net/sACN *	DMX plus 64 universes of Art-Net/sACN	DMX or 1 universe of Art-Net/sACN * or K2
<b>P3-PC</b>	1 universe of Art-Net/sACN *	256 universes of Art-Net/sACN	1 universe of Art-Net/sACN * or K2

\* Global Control & Motion Controls must use same universe of DMX or Art-Net or sACN.