

# P3 System Controllers™ Capacity Information Note

As of P3 System Controller software release 6.1.0.

## 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</b> (with P3 Upgrade Kit)	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</b> (with P3 Upgrade Kit)	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
MAC One	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	829
MAC Viper XIP	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	2.000
Exterior Dot-1 Pro 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)
Exterior Dot-4 Pro Strings	500	500	2.000	6.000 <sup>2</sup>	500	2.000 (up to 20.736 Dots in total)

	(number of Dots per string not important)	(number of Dots per string not important)	(number of Dots per string not important)	(number of Dots per string not important)	(number of Dots per string not important)	
<b>Exterior Dot-9 Pro Strings</b>	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)
<b>Exterior Dot-HP Pro</b>	2.000	2.000	2.000	6.000 <sup>2</sup>	2.000	1.546
<b>VDO Sceptron XB 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 XB 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>MAC Aura Raven XIP</b>	184	184	1.845	3.690 <sup>2</sup>	184	76

<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 number of pixels. This can limit the number 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.