

# Display port

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DisplayPort es una solución de conectividad muy similar a HDMI en cuanto a sus características técnicas, pero libre de licencias.

Está incluido en algunas tarjetas gráficas, y se puede encontrar en algunos monitores y portátiles, aunque es raro verlo en Televisores.

Esta solución es incompatible con DVI y HDMI.



**Display Port**



**Mini Display Port**



Versiones DisplayPort

Spec	DisplayPort 1.1	DisplayPort 1.2	DisplayPort 1.3
Max Resolution	4K @ 30Hz	4K @ 60Hz	8K @ 60Hz
Multi Stream Transport (MST)	No	Yes	Yes
3D	Limited Support	Yes	Yes
Video Compression	No	No	Yes
Audio	Yes	Yes	Yes
HD Audio	No	Yes	Yes
HDCP Version	1.x	1.x	1.x / 2.2



## Multipantalla en DP

- Tecnología *\_multipantalla*
- Tecnología **Multi- stream** \_\_ (MST) \_\_ a partir de DisplayPort 1.2
- Permite mostrar video en diferentes pantallas desde un único puerto
- Para ello los monitores, hubs y otros productos deben ser *compatibles*



Display Resolution (standard 60 frames per second refresh rate)	Maximum Number of Monitors based on DisplayPort 1.2 Bandwidth
1680 x 1050 (WSXGA)	5
1920 x 1080 (1080p) or 1920 x 1200	4
2560 x 1600 (WQXGA)	2
3840 x 2160 (UltraHD, 4K) or 4096 x 2160 (4K x 2K)	1




## Daisy chaining

- Conectar varios dispositivos conjuntamente utilizando una sola conexión cada dos dispositivos.
- Estos dispositivos tienen un puerto de entrada (DP input) y uno de salida (DP output).
- Cada puerto de salida se conecta al de entrada del siguiente dispositivo.
- Las GPU tienen una limitación en cuanto al número máximo de pantallas simultáneas (entre 3 y 6)



HOW TO DAISY-CHAIN DISPLAYPORT 1.2 MONITORS



**1** the FIRST 5 feet DisplayPort cable connects from the COMPUTER MOTHERBOARD or the VIDEO CARD DisplayPort output to the FIRST MONITOR's "DisplayPort IN"  
*PS: if you look in your monitor MANUAL, or directly on it, it should be clearly identified "DP IN" or "DisplayPort IN"*

**2** now you connect a SHORTER 3 feet DisplayPort cable (or any length necessary) to the FIRST MONITOR's "DisplayPort OUT" and the other end is connected to the SECOND MONITOR's "DisplayPort IN"

**3** connect another SHORT 3 feet DisplayPort Cable to the SECOND MONITOR's "DisplayPort OUT" and the other end is connected to the THIRD MONITOR's "DisplayPort IN"

**4** finally, you connect another SHORT 3 feet DisplayPort Cable to the THIRD MONITOR's "DisplayPort OUT" and the other end is connected to the LAST MONITOR's "DisplayPort IN"

**NOTE 1:** one of the GREAT thing about DAISY CHAINING DisplayPort monitors is that you'll ONLY have ONE cable connected to your computer (and you need JUST one DisplayPort output) and it can connect up to 4 DisplayPort 1.2 MST enable monitors

**NOTE 2:** your COMPUTER MOTHERBOARD or VIDEO CARD and your MONITORS MUST have a DisplayPort 1.2 output with MST. Check your manuals to know if they have it.

**NOTE 3:** some monitor like the DELL ones have DisplayPort 1.2 MST DISABLED BY DEFAULT. So before you can use that you'll have to go in the monitor's menu and ACTIVATE that feature. Refer to your monitor's manual.

**NOTE 4:** The TOTAL number of DisplayPort 1.2 MST monitors that you can connect depends on the TOTAL BANDWIDTH used.  
The higher the screen resolution, the less monitors you can connect.  
Refer to this quick chart:

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1920 x 1080 (1080p) or 1920 x 1200	4
2560 x 1600 (WQXGA)	3
3840 x 2160 (UltraHD, 4K) or 4096 x 2160 (4K x 2K)	1