

DisplayPort Training



DisplayPort

- Digital Signal
- Audio & Video
- Also known as DP
- Can passively convert from DP to mDP, HDMI or DVI (Digital)
- Can actively convert from DP to VGA (Analogue)
- Application: connect computer to a display
- Supports resolutions up to:
 - 2160p or 4k (Ultra HD)



Mini DisplayPort

- Digital Signal
- Audio & Video – same signal as standard DisplayPort
- Also known as mDP
- Can passively convert from mDP to DP, HDMI or DVI (Digital)
- Can actively convert from mDP to VGA (Analogue)
- Application: connect computer to a display
- Supports resolutions up to:
 - 2160p or 4k (Ultra HD)

Bidirectional and Unidirectional

- Bidirectional – Signal can travel either way
 - (e.g.) HDMI/DVI Cable:
 - Source can be HDMI and Display can be DVI; or
Source can be DVI and Display can be HDMI
- Unidirectional – Signal can only travel in one direction
 - (e.g) DisplayPort(DP)/VGA Cable:
 - Source can be DP and Display can be VGA
 - Source cannot be VGA and Display cannot be DP

Bidirectional and Unidirectional

- All DisplayPort adapters and adapter cables are Unidirectional
 - DP to VGA
 - DP to HDMI
 - DP to DVI
 - mDP to DP
 - mDP to VGA
 - mDP to HDMI
 - mDP to DVI

Bandwidth

- High Bit Rate (HBR)
 - 10.8Gbps
 - 12 bpc (bits per component)
 - 36 bpp (bits per pixel)
 - 120 Hz refresh rate
 - Support resolutions up to 4K
 - Offering lengths up to 3m
- Reduced Bit Rate (RBR)
 - 10.8Gbps
 - 12 bpc (bits per component)
 - 36 bpp (bits per pixel)
 - 120 Hz refresh rate
 - Support resolutions up to 1080p
 - Offering lengths beyond 3m up to 10m