

# DisplayLink DL-1x5 Series

## High Performance USB Virtual Graphics



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DisplayLink USB virtual graphics technology is the industry-leading solution for easy display and docking station connectivity to notebooks, netbooks, and desktop PCs. The DisplayLink DL-1x5 Series of chips allows manufacturers of USB 2.0-based peripherals, monitors, and projectors to quickly and economically build a variety of innovative display products.

### Chips and Software Features

- Highly integrated ICs include DVI, VGA, TTL and LVDS (FPI) outputs
- Dual-core decode design (DL-165/DL-195)
- DisplayLink DL2 video decompression engine
- Ultra low-power consumption compatible with USB bus-powered designs

### Output / Display Compatibility

- HDMI output, with integrated audio, available with external HDMI transmitter
- High-speed USB 2.0-compliant input and multiple video outputs
- Multiple video outputs including DVI (TDMS), analog DSUB (VGA)
- LVDS output for direct connection to an LCD panel
- Supports resolutions up to 2048 x 1152 including full HD (1080p)
- 12/24-bit RGB output (TTL) via external chips for connectivity to external HDMI devices
- Support for full-screen DVD video playback



## Product Applications

### USB Graphics Adapters

Connect a TV or monitor to a PC without having to add an additional graphics card.

### USB Monitors

Add monitors - including mobile monitors - without need for a discrete graphics card.

### USB Docking Stations

Use a single USB connection to add peripherals to any notebook or netbook.

### USB Projectors

Quickly set up and connect to a projector through USB or Wireless USB.

### Embedded Designs

Embed graphical displays where previously it was impossible.

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### DisplayLink Certified Plug and Display



DisplayLink Certified products are thoroughly tested in our labs to guarantee interoperability with the vast DisplayLink USB graphics ecosystem. Regular SW updates means a lifetime of performance updates. Look for the DisplayLink Certified Plug and Display Certified Logos.

### DisplayLink Compression – DL2

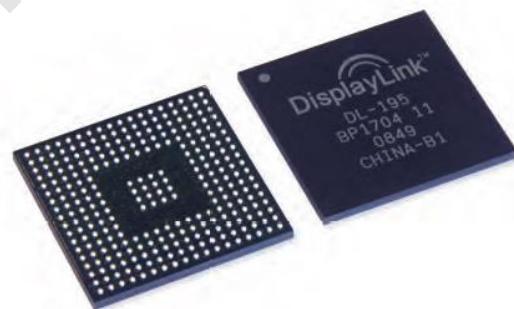
DisplayLink’s intelligent image processing algorithms, coupled with the high performance (DDR) memory interface and the DisplayLink DL2 adaptive compression scheme ensure a highly interactive, low latency user experience that is nearly indistinguishable from a traditional monitor connection. This allows smooth window and cursor movement as well as support for full-screen video playback.

### Packaging

- 19 mm x 19 mm
- 276-ball PBGA, lead free (RoHS compliant and industry “Green” conformance)
- 1 mm ball pitch

### Reference Design

- DisplayLink Supplies a complete set of schematics and PCB layout information along with firmware and OS drivers to complete a bus powered or mains powered monitor design



### Supported Platforms

#### Microsoft® Windows™

- Windows 10
- Windows 8.1
- Windows 7
- Legacy Windows XP - Vista

#### Apple® Mac® OS

- OS X 10.8 onwards

#### Google Android™

- v5.0 Lollipop onwards

#### Linux

- Ubuntu 14.10 onwards

Product Feature	DL-115	DL-125	DL-165	DL-195
Target products	Mini-monitors	Entry-level monitors & projectors	Entry-level docks, mainstream monitors & adapters	High-end monitors, docks & adapters
Maximum resolution	1024 x600	1280 x 1024 1440 x 900 (wide)	1600 x 1200 1920 x 1080 (wide)	1920 x1200 2048 x 1152 (wide)
Integrated DVI (TDMS) and analog DAC		✓	✓	✓
Integrated USB 2.0	✓	✓	✓	✓
Dual core decode engines			✓	✓
DisplayLink DL2 compression	✓	✓	✓	✓
Integrated LVDS	✓	✓	✓	✓
Compatible with external DisplayPort and HDMI (12/24-bit RGB)		✓	✓	✓
32-bit True Color	✓	✓	✓	✓



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