

DL-6350 Product Brief

USB to Dual WQHD/WQXGA with Gigabit Ethernet Dock SoC

From the world leader in USB graphics, Synaptics introduces the new DL-6350 Dock system-on-chip (SoC) that enables multiple 60 Hz low latency 2560x1600 resolution monitors over standard USB3.1Gen1 Type-C® and Standard-A connectors. The DL-6350 is highly integrated with included 1Gb Ethernet LAN, 5.1 Audio, DisplayPort 1.2 and HDMI® 1.4. The DL-6350 couples with DisplayLink® software on the host PC or mobile device, requiring zero hardware cost on the host. Since the DL-6350 is a pure USB solution, it can connect to any host with Standard A or Type-C connectors, providing a fully backward-compatible and future-proof docking solution. Plug it in and it works with no USB ALT Mode confusion.

DL-6350 Target Products

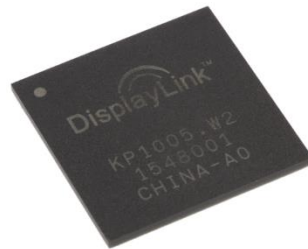
- Dual FHD/WQHD/WQXGA adapters
- USB docking

Maximum Resolution

- 2560 x 1600 @ 60 Hz

Product Applications

- USB3.1 Gen2/Gen1 Universal Docks
- USB3.1 Gen2/Gen1 Monitor Docks

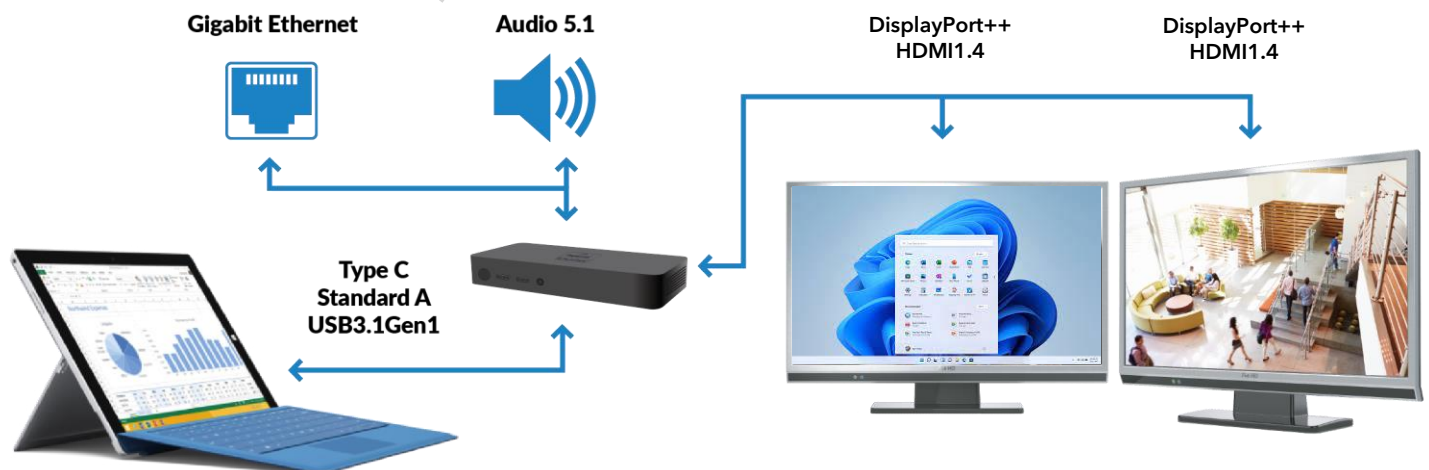


Benefits

- Single USB connector to support up to dual WQXGA
- Compatible with USB2 or USB3.1 Gen2/Gen1 Standard A or Type-C connections
- Multiple WQXGA displays on legacy PCs
- Integrated Ethernet and Audio
- 100% compatible with existing DisplayLink universal docking

Features

- 60 Hz panel refresh for lowest latency
- 2x 2560 x 1600p60 - WQXGA
- 2x 2560 x 1440p60 - WQHD
- 2x 1920 x 1080p60 - FHD
- Backward compatible with legacy monitors
- Integrated DP 1.2/DP++ interfaces
- Integrated HDMI 1.4 interfaces
- HDCP for protected video playback
- Integrated Gigabit Ethernet
- USB 3.1 Gen 1
- Integrated 2.0 Audio and 5.1 Audio



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USB Type-C: DL-6350 Supplies the Most Display Capacity

USB Type-C™ connector works seamlessly with DisplayLink USB graphics and docking. Whatever the host GPU capability, the DL-6350 enables up to two 2560x1600p60 displays without the added complexity of Alternate Modes that other standards such as VESA and MHL impose on the connector.

Because only a simple driver is required, the DL-6350 also works over any USB interface such as Standard-A, Micro-A or Type-C, as well as other non-PC platforms such as Mac®, Chrome™ OS, Ubuntu®, or Android™. The DL-6350 can also be extended by daisy-chaining other devices with DisplayLink technology.

SKU Options

SKU	Application
DL-6350	Two Head 2.5K Dock Chip with HDCP enabled (Requires DCP License) 484 BGA (18 x 18 x 1.2 mm)
DL-6350-N	Two Head 2.5K Dock Chip without HDCP enabled 484 BGA (18 x 18 x 1.2 mm)

2.5K USB Universal Docking

Based on the industry leading DL3 compression technology DL-6350 extends the benefits of low latency pixel perfect graphics to high-resolution monitors.

The DL-6350 integrates a USB 3.1 Gen 1 device interface, DL3 codec, two DisplayPort++ (dual mode) interfaces, two HDMI 1.4 interfaces, GbE, and audio on one SoC. The DL-6350 is supported by DisplayLink software for zero cost on the host for seamless docking on all hosts.

The DL-6350 also offers enhanced performance capabilities compared to the previous generation:

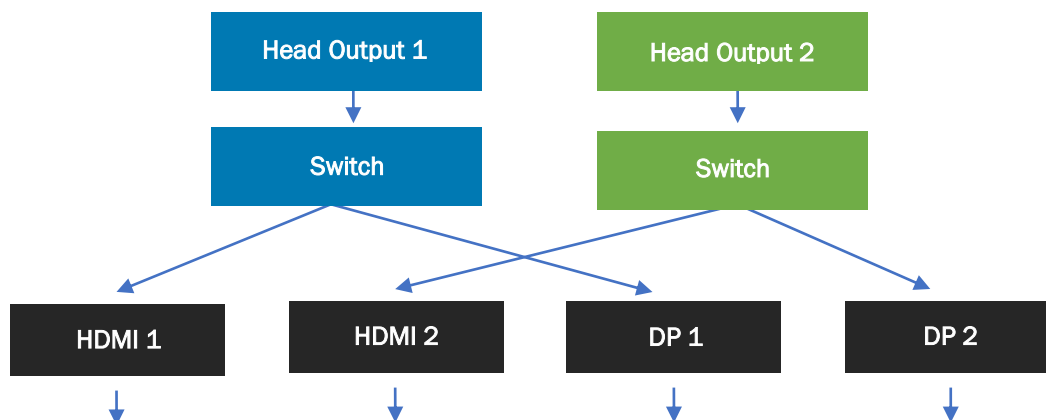
- 60 Hz panel refresh
- GPU/CPU balancing**
- Hardware accelerated mouse cursor**
- Heal to Perfect**

Assured compatibility between Type-C and Legacy USB:

Host	Dock	
	Standard-B Legacy Dock	Type-C New Dock
Standard-A Legacy Host	Just works	Just works
Type-C New Host	Just works	Just works

DL-6350 Video Output Options

The DL-6350 has four display outputs, two DP++ (dual mode DP 1.2) and two HDMI 1.4 interfaces integrated into the device. Only two outputs are active at any time.



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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 graphics ecosystem. Regular software updates ensure a lifetime of performance enhancements.

Look for the DisplayLink Certified Plug and Display mark.



DisplayLink Compression – DL3

- Low latency
- Pixel-perfect graphics
- Adapts automatically to bandwidth constraints
- Compression tuned for video content and high-quality graphics
- Uncompromised FHD/WQHD/WQXGA video quality

DL-6350 Monitor Support			
Interface	WQXGA	WQHD	FHD
	2560 x 1600p60	2560 x 1440p60	1920 x 1080p60
DP1	✓	✓	✓
DP2	✓	✓	✓
HDMI1	✓	✓	✓
HDMI2	✓	✓	✓

Supported Platforms

- Microsoft Windows® 10/11
- Apple Mac® OS
- Google® Android™
- Chrome OS™
- Linux™ Ubuntu®



WQXGA/QHD
HDCP

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