

DisplayPort Setup

Introduction: This document provides a brief guide for configuration and troubleshooting of a DisplayPort display environment.

DisplayPort Overview

DisplayPort is designed to be a comprehensive and consistent digital interface solution providing a wide range of benefits and capabilities. It is fully interoperable with existing DVI and VGA display environments to provide a straight-forward transition for end users.

Figure 1. DisplayPort Adapters

Adapter	HP Product Number	Availability	Notes
DisplayPort to DVI-D	FH973AA	Available now	<ul style="list-style-type: none">• Included with cards with a DisplayPort output• Uses dual-mode capability of DisplayPort output• DVI-D digital output only
DisplayPort to DVI-D Dual-link	NR078AA	Available May 2009	<ul style="list-style-type: none">• Available as AMO• Active device• Supports the HP LP3065 monitor requiring dual-link DVI input
DisplayPort to VGA	A5615AA	Available April 2009	<ul style="list-style-type: none">• Available as AMO• Active device, VGA output only

DisplayPort Capable Displays

The HP LP2275w 22" LCD monitor, HP LP2475w 24" LCD monitor, and HP DreamColor LP2480zx 24" LCD monitor all provide DisplayPort inputs. These monitors can be used with graphics cards providing DisplayPort outputs without the need for any adapters. Monitors with VGA, DVI-D, and DVI-D Dual-Link inputs can be used with the appropriate DisplayPort adapters (see Figure 1). Displays with HDMI inputs can be used with a non-HP DisplayPort to HDMI adapter.

DisplayPort Support

What do I do with my DVI-I cable?

DVI-I cables have the capability to support both digital and analog signals, allowing a user to configure either a DVI or VGA setup without changing the cable. A non-HP DisplayPort to DVI-I adapter must be purchased in order to use a DVI-I cable with a DisplayPort configuration. The DisplayPort to DVI-D adapters listed in the table above do not allow a DVI-I cable to be plugged in¹.

How can I troubleshoot a DisplayPort setup that is not displaying properly?

From the monitor, ensure that DisplayPort is selected as the active input. For optimal performance, use the monitor menu to disable Input Auto-Switching if it is enabled. On the HP DreamColor LP2480zx monitor, turn on Hot Plug Detect Support. Boot the system with only a single DisplayPort monitor attached, and once the system has booted and the driver loaded, configure additional displays if desired. Sometimes it may take longer than expected for a DisplayPort display to become active. Make sure that you are running with the latest graphics card video BIOS and display driver versions.

How do I set up multiple displays?

On graphics cards with both DVI and DisplayPort outputs, if the DVI connection is active it will always be the default display. It is usually more straightforward to configure the display attached to the DVI output first, and then configure DisplayPort displays after this has been completed. Most currently shipping graphics cards have 3 outputs, any 2 of which may be used to create a multiple display setup. For information on what cables and adapters are needed for a variety of DisplayPort configurations, including a mix of DisplayPort and DVI or VGA monitors, see the DisplayPort Configuration Mini White Paper.

¹ DVI-D cables carry digital-only signals. DVI-A cables carry digital DVI signals to an analog display. DVI-I cables can transmit either digital-to-digital or digital-to-analog signals.

