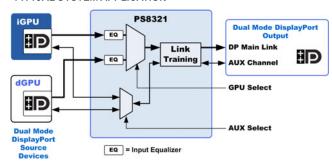


# PS8321 DisplayPort™ Dual Mode 2:1 Multiplexer

Product Brief PS8321

#### TYPICAL SYSTEM APPLICATION



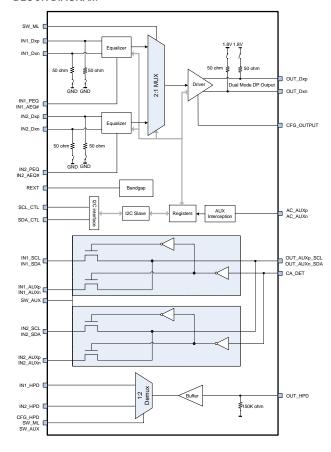
## **FEATURES**

- Supports 2:1 Dual Mode DisplayPort™ signal multiplexing
- Compliant to VESA DisplayPort Standard version 1.1a for both 1.62 and 2.7 Gbps link rates
- Compliant to VESA DisplayPort PHY Compliance Test Standard version 1.1
- Separated Main Link and AUX Channel switching controls
- Automatic receiver equalization adjustment compensates for PCB, cable and connector losses
- Full link training support for 1, 2, or 4 lane DisplayPort output
  - Supports all 4 output amplitude and pre-emphasis levels for DisplayPort output
- Supports DP source power management through AUX channel
- Automatic power down management
- Built-in AUX CH and DDC combiner for Dual Mode Source repeater
- · Automatic squelch for fail-safe and power saving
- Local I2C control or Pin Control options
- Single 3.3 V power supply
- 56-pin QFN Halogen free RoHS package
- 0° to 70°C operating temperature range
- ESD: HBM 8 kV

## **APPLICATIONS**

- Source Systems
  - Desktop and notebook PC motherboards
  - Notebook docking stations
  - Graphics cards
- · Sink Systems
  - Monitors
  - Branch Devices

#### **BLOCK DIAGRAM**



# DESCRIPTION

The PS8321 is an integrated dual mode DisplayPort 2:1 mutliplexer. The dual mode DisplayPort output supports HDMI/DVI compatibility through the use of a down-stream, level-shifting cable adapter (dongle). The device includes an automatic input equalizer to compensate for PCB signal loss. The DisplayPort output includes a repeater function complete with link training to assure system compliance test compatibility. All CMOS configuration input pins are internally pulled down by  $150 k\Omega$  resistors, except for the cable adaptor detection pin.

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