



# SiI1292 MHL™ /HDMI®-to-HDMI Bridge

Single-port, auto-sensing, MHL/HDMI-to-HDMI bridge device for HD audio and video connectivity to HDTVs, PC monitors, projectors, and multi-function monitors (MFM)s

The SiI1292 enables an existing HDMI input to upgrade to a low-power, auto-sensing MHL/HDMI input solution, which facilitates HD audio and video connectivity between MHL-enabled mobile devices and HDTVs, PC monitors, projectors and MFMs.

## Applications

- ◆ MHL-enabled HDTVs
- ◆ MHL-enabled PC Monitors
- ◆ MHL-enabled Projectors
- ◆ MHL-enabled MFMs

## Key Features

- ◆ Dual-mode MHL or HDMI input
- ◆ Adaptive equalizer for HDMI long-cable support
- ◆ Low BOM cost

## Benefits Summary

- ◆ Low-power consumption
- ◆ Small package
- ◆ Adds MHL to one HDMI port

## Industry-Standard Compliance

- ◆ HDMI 1.4
- ◆ MHL

## Digital Video Output

- ◆ Integrated HDMI transmitter core
- ◆ HDMI output resolution support
  - up to 1080p@ 60 Hz with 12-bit color depth (HDMI input mode)
  - up to 1080p@ 24/30 Hz with 12-bit color depth (MHL input mode)

## Digital Video Input

- ◆ HDMI input resolution support – up to 1080p@ 60 Hz 12-bit color depth
- ◆ MHL input resolution support – up to 1080p@ 24/30 Hz

## Single-Wire Control Bus

## Consumer Electronics Control (CEC) & DDC

- ◆ Support for DDC and CEC signals

## System Operation

- ◆ Optional software control for MHL sink applications via 400 KHz local I<sup>2</sup>C bus
- ◆ Flexible interrupt registers and an interrupt pin
- ◆ Hardware support for automatic MHL/HDMI input detection

## Power Management

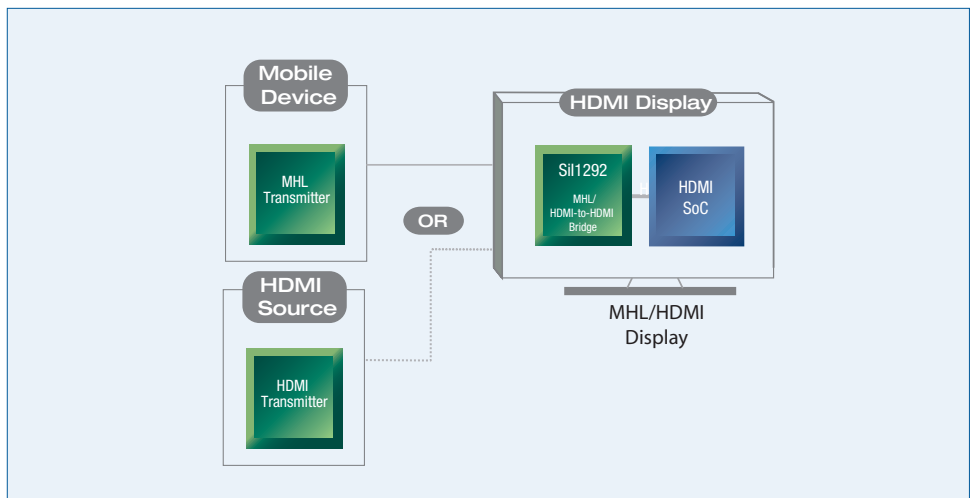
- ◆ Low power 1.2 V core
- ◆ On chip 3.3V and 1.8V regulators to reduce parts count

## Available Packages

- ◆ 40-pin QFN, 6 mm x 6 mm footprint

## Operating Range

- ◆ -20°C to +85°C extended temperature range support



Enhancing the connected HD experience

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