

# LT8612UX-EB

## HDMI2.0 to HDMI2.0 and VGA Converter with Audio

### 1. Features

#### z HDMI

- f* Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- f* Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
- f* Data rate up to 6Gbps
- f* Support 4Kx2K@60Hz
- f* Adaptive receiver equalization
- f* Support data channel swap(arbitrarily) and polarity inversion(independent)
- f* AC and DC couple capable
- f* Support 3D and HDR
- f* Support 8/10/12-bit color depth
- f* Support TMDS descrambling for EMI/RFI reduction
- f* Support SCDC and CEC2.0
- f* Integrated EDID shadow
- f* 5V tolerance DDC/HPD I/Os

#### z HDMI

- f* Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- f* Compliant with HDCP2.2 and HDCP1.4
- f* Data rate up to 6Gbps
- f* Support 4Kx2K@60Hz
- f* Programmable transmitter swing and pre-emphasis
- f* Support channel swap(arbitrarily) and polarity inversion(independent)
- f* DC couple capable
- f* Downstream receiver sensing
- f* Support 3D and HDR
- f* Support 8/10/12-bit color depth
- f* Support TMDS scrambling for EMI/RFI reduction
- f* Support SCDC and CEC2.0
- f* 5V tolerance DDC/HPD I/Os

#### z DAC

- f* Compliant with VESA VSIS1.2
- f* Support WUXGA timing and up to 200MSPS throughput
- f* Support CSC(Color Space Conversion) from YCbCr 4:2:2 to YCbCr 4:4:4 and YCbCr 4:4:4 to RGB
- f* Only support separate SYNC
- f* Amplitude calibration
- f* R/B swappable
- f* Load sensing
- f* 5V tolerance DDC I/Os

#### z DSP

- f* Up to four I2S interface supporting 8-channel audio, with sample rates of 32~192 kHz and sample sizes of 16~24 bits
- f* SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate
- f* IEC60958 or IEC61937 compatible

#### z M

- f* Internal rterm calibration
- f* External crystal supports 25MHz
- f* Integrated microprocessor
- f* Integrated SPI master
- f* Embedded SPI flash for firmware and HDCP keys
- f* Integrated 100/400kHz I2C slave for debug and firmware update
- f* 1.2V core power supply & 3.3V I/O power supply
- f* -40°C to +125°C ambient operating temperature range
- f* 76-pin 9x9mm QFN package

### 2. Pin

The LT8612UX is an HDMI to HDMI&VGA converter, which converts HDMI2.0 data streams to HDMI2.0 signals and



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