

LT8668SX --- Product Brief

High Definition Display Controller

1. Features

● USB Type-C

- Compliant with VESA DisplayPort alt mode on USB Type-C standard 1.0
- Compliant with USB power delivery specification 3.0
- Compliant with USB Type-C cable and connector specification 1.3
- Built-in dual CC controllers for charger and normal communication
- Data roles supported: DFP, UFP and DRP
- Power roles supported: source and sink
- Support USB Billboard function

● DP1.2a Receiver

- Compliant with DisplayPort specification 1.2a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- Compliant Embedded DisplayPort specification version 1.4
- Support DisplayPort 1/2/4 lanes
- Support HDCP 1.3/2.2/2.3
- Support HDCP repeater
- Support 4K@60Hz
- Support HDR10
- Support ASSR for eDP

● HDMI2.0 Receiver

- Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- Data rate up to 6Gbps
- Support HDCP 1.4/2.2/2.3
- Support HDCP repeater
- Support 4K@60Hz
- Support HDR10
- Support CEC

● DP1.2a Transmitter

- Compliant with DisplayPort specification 1.2a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- Compliant Embedded DisplayPort specification

version 1.4

- Support DisplayPort 1/2/4 lanes
- Support HDCP 1.3/2.2/2.3
- Support HDCP repeater
- Support 4K@60Hz
- Support HDR10
- Support ASSR for eDP

● HDMI2.0 Transmitter

- Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- Data rate up to 6Gbps
- Support HDCP 1.4/2.2/2.3
- Support HDCP repeater
- Support 4K@60Hz
- Support HDR10
- Support CEC

● Four-Port LVDS Transmitter

- Compatible with VESA and JEIDA standard
- Support 1/2/4 configurable ports
- 1 Clock lane and 3/4/5 configurable data lanes per port
- Data rate up to 1.2Gbps per data lane
- Support 4K@60Hz
- Programmable transmitter swing
- Support SSC

● Four-Port MIPI® DSI/CSI Transmitter

- Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3, 1 clock lane, and 1/2/3/4 configurable data lanes, , and 8 configurable data lanes only for CSI, 2.5Gbps per data lane
- Compliant with C-PHY1.0 & DSI-2 1.0 & CSI-2 2.0, 1/2/3 configurable data lanes, 5.7Gbps per data lane
- Support 1/2/4 configurable ports and only 1 port for CSI D-PHY 8lanes mode
- Support 4K@60Hz
- Support overlap mode
- DSI Support 16/20/24-bit YCbCr4:2:2, 24/30-bit RGB

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and implemented in 12mmx12mm BGA288 package.

3. Applications

- Display System on Motherboard, Monitor
- Display System for PCs and embedded applications Display

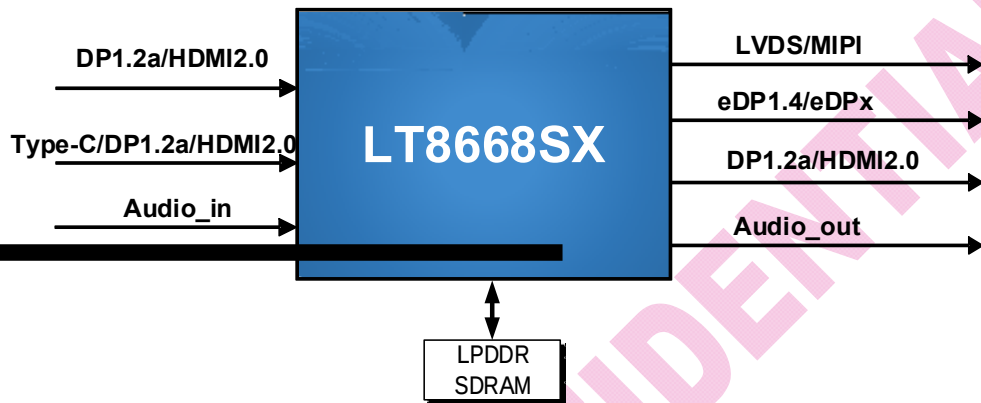


Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

	Part Number	Product Status	Package	Bonding Wire	Grade	Operating Temperature Range	Stack Die Option	Packing Method	MPQ
LT8668SX	LT8668SX_U2B03AED	Preview	BGA288 (12*12)	Au	E	TBD	D	Tray	1890pcs
	LT8668SX_U2B05AED								



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