LT8631SX --- Product Brief

3:1 HDMI/DVI Switch

Features

- **3 inputs, 1output HDMI/DVI links**
- **HDMI 1.4/DVI 1.0 compliant**
- **Supports data rates up to 3.4Gbps**
- **Supports deep color**
- **RX side ODTs and management circuitry**
- **Integrated HPD switch, DDC switch, and +5V Power indicator switch, greatly lowering the cost and simplifying the manufacturing process**
- **Source/Sink connection detection for flexible system management**
- **I2C control supported**
- **Low added jitter**
- **Single 3.3V power supply**
- **5V-tolerant DDC interfaces**
- **HPD,DDC,data/clock channels ESD protection level meets class 3A according to JESD22-A114-B.**

Description

The LT8631SX is 3-Port HDMI/DVI switch that enable the connection of multiple HDMI/DVI source devices to high-definition television (HDTV). Based on ClearedEdge™ technology, it is compliant with the HDMI 1.4/DVI 1.0 specifications. LT8631SX is an advanced high-speed switch that delivers a cost-effective method for manufacturers to add additional HDMI/DVI ports to their HDTV. Multiple HDMI/DVI ports allow consumers to connect variety HDMI/DVI sources to their HDTV.
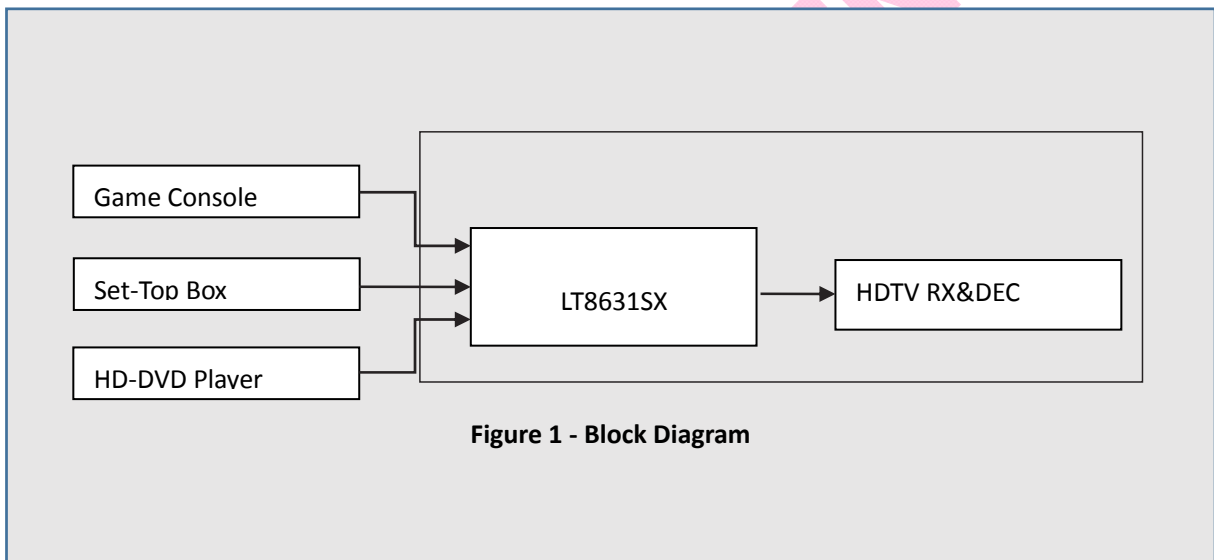
The LT8631SX is a three-to-one (3:1) switch ideally suited for use in the back panel of HDTV and A/V receivers, allowing consumers to connect multiple HDMI/DVI devices such as high-definition DVD players, set top boxes and game consoles. The LT8631SX switch selects a single HDMI/DVI signal from the three receiver ports and generates fully compliant HDMI//DVI audio/video output, as well as DDC and HPD switching in full compliance with the HDMI/DVI specifications.

The chip also integrates RX side on-die-terminations (ODTs), and employs the ODT management circuitry for cost-efficient system design and enhanced performance. The integrated DDC and HPD switches further lower the cost of system manufacture, and simplify the routing on the system board.

Application

Front panel buffer for advanced television (HDTV) sets

Standalone switcher

Multiple input displays

Projectors

A/V receivers

Block Diagram

Game Console

Set-Top Box

HD-DVD Player

LT8631SX

HDTV RX&DEC

Figure 1 - Block Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8631SX	−40°C to +85°C	9mm x 9mm QFN64	Tape and Reel

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