

LT8711X --- Product Brief

DP to VGA Converter with USB Type-C Support

Features

- DisplayPort receiver
 - DP 1.2 compliant
 - HDCP 1.3 compliant
 - Link rate 5.4/2.7/1.62Gbps (HBR2/HBR/RBR)
 - 1/2/4 lanes
 - Integrated CC controller for USB type-C Alt Mode support
 - 1Mbps AUX channel
 - SST/MST mode
 - Equalizer
 - Lane swappable
- Video DAC
 - VSIS 1.2 compliant
 - 200MSPS throughput
 - WUXGA timing
 - R/B swappable
 - YPbPr output capable
 - Separate SYNC or embedded SYNC (SOG/SOY)
 - Load sensing
 - Amplitude calibration
 - 5V tolerance DDC I/Os
- Digital audio output
 - I2S and SPDIF
 - 8-channel LPCM or compressed audio
 - Sample rate up to 192kHz
- Integrated MCU with embedded SPI flash
- Power supply: 3.3V for I/O and 1.2V for core

Description

The LT8711X is a DisplayPort(DP) to VGA converter, designed to connect a DisplayPort source to a VGA sink. The LT8711X integrates a DisplayPort 1.2 compliant receiver, and a high-speed triple-channel video DAC. The receiver port integrates a CC controller which enables DisplayPort Alternate Mode support when connected to a USB Type-C source.

The DisplayPort interface comprises 4 main lanes, AUX channel, and HPD signal. The receiver supports maximum 5.4Gbps (HBR2) data rate per lane and features multi-stream transporting (MST). The high speed differential pairs can be swapped so that the pin order of lane 0 to lane 3 can be flipped. The DisplayPort receiver incorporates HDCP 1.3 content protection scheme with an embedded key option for secure transmission of digital audio-video content.

Two package types are available, LT8711X-A and LT8711X-B, and both are provided in a 64-lead QFN package with ePad and specified over -40°C to +85°C operating temperature range.

Application

Docking station

DP-to-VGA dongle/adaptor

Block Diagram

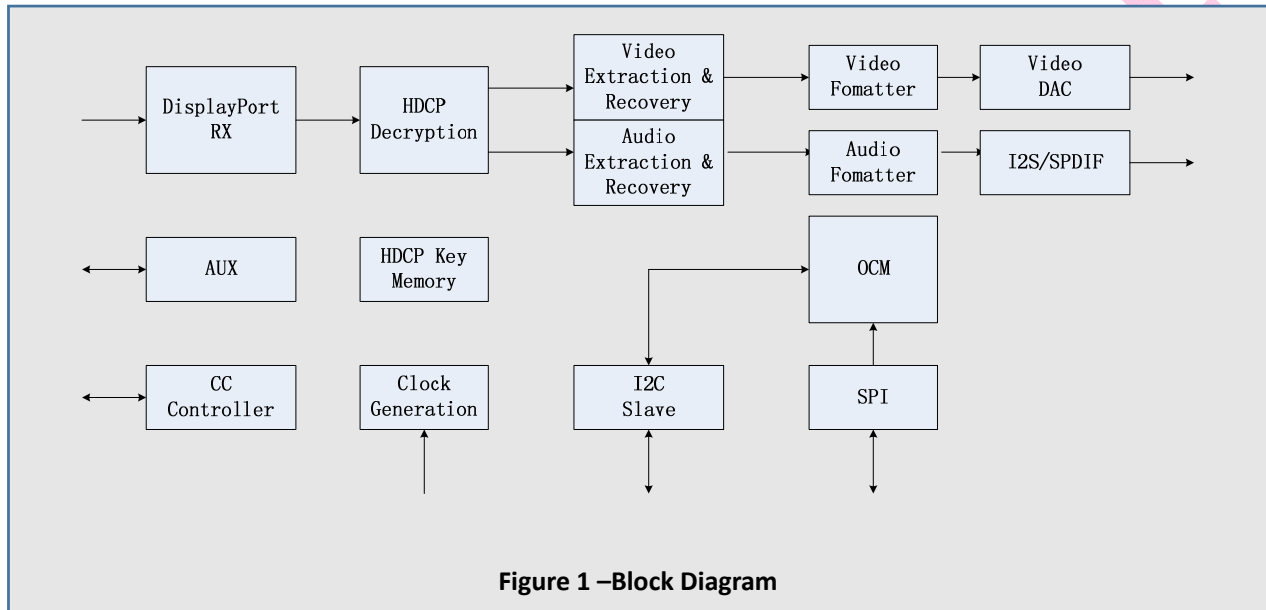


Figure 1 –Block Diagram

Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT8711X-A	-40° C to +85° C	QFN64	Tape and Reel
LT8711X-B	-40° C to +85° C	QFN64	Tape and Reel

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