LT8618SX --- Product Brief

Low Power HDMI1.4 Transmitter

1. Features

- **RGB Input**
  - Support 24-bit RGB，YUV and BT656//BT1120 Input
  - Support both SDR and DDR Data Sampling
  - Programmable Rising/Falling Edge Clock Input
  - Support up to 148.5MHz DDR or 297MHz SDR Clock Input
  - Support both 1.8V and 3.3V Input Voltage Level

- **HDMI Transmitter**
  - Compliant with HDMI1.4 and HDCP1.4
  - Resolution Up to 4K 30Hz
  - Programmable output swing and pre-emphasis
  - 5V tolerance DDC/HPD I/Os

- **Miscellaneous**
  - 1.8V and 3.3V Power Supply
  - Support 100KHz and 400KHz I2C slave
  - Support up to 8-channel Audio Input
  - Temperature Range: -40°C ~ +85°C
  - Packaged in QFP80 12mm x 12mm and QFN64 9mm x 9mm

2. General Description

The LT8618SX is Lontium's low power version HDMI transmitter based on ClearEdge™ technology. It supports the 24-bit color depth HDMI 1.4 (High Definition Multimedia Interface) specification. They are fully backward compatible with Lontium's first generation HDMI transmitter LT8618EX.

LT8618SX is a high performance, low power part that are specifically designed for HD-Digital cameras, HD-Digital Video Cameras, HD-PMP/MP4 Players, Cell phones, etc. The normal operation power is less than 100mA playing 24bit 1080P content, and the standby power is less than 2mA.

3. Applications
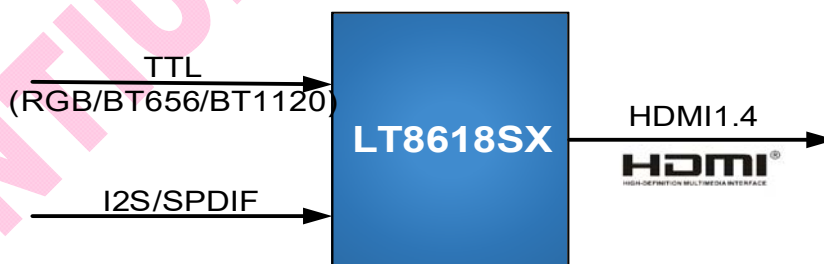
- DVD, BD
- Car Video Recorder
- PTV Box
- HD Sources

Figure 3.1 LT8618SX Typical Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Part Number	Product Version	Product Status	Operating Temperature Range	Package	Packing Method
LT8618SXA	U2	NRND	-40°C to +85°C	LQFP80 (12*12)	Tray
LT8618SXA	U3	MP	-40°C to +85°C	LQFP80 (12*12)	Tray
LT8618SXB	U2	EOL	-40°C to +85°C	QFN64 (9*9)	Tray
LT8618SXB	U3	MP	-40°C to +85°C	QFN64 (9*9)	Tray
NRND: Not Recommended for New Designs.					
MP: Mass Production.					
EOL: End of Life.					

Table 4.2 Product Version Information

Product Version	Information	Note
U2	1. TTL sampling clock phase cannot be adjusted in SDR mode; 2. TTL sampling clock phase cannot be fixed in DDR mode.	
U3	1. TTL sampling clock phase can be adjusted in SDR mode; 2. TTL sampling clock phase can be adjusted and fixed in DDR mode.	

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