

LT947LMT --- Product Brief

Automotive Serializer Series

1. Features

LVDS Receiver

- Compatible with VESA, JEIDA and sony sub-lvds standard
- 1/2 configurable port with 1 clock lane and 4 data lanes per each port for VESA and JEIDA standard
- 1 clock lane and configurable 4/8/10 data lanes for sony sub-lvds standard
- Configurable sync code detected
- Clock frequency up to 288MHz and data rate up to 1.2Gbps

MIPI DSI/CSI Receiver

- Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
- 1/2 configurable port
- 1 clock lane and 1/2/4 configurable data lanes for each port; 1.5Gbps per data lane

TTL Receiver

- 15-lane SDR/DDR Sampling Support
- Max Pixel Clock 37.125MHz

Automotive Display Port Transmitter

- 1/2 configurable link
- Bidirectional transmission with maximum 5.4Gbps forward data channel and max 3.7Mbps back control channel on link0, and link1 is only forward data channel
- Transmit video, I2C data and audio on the forward data channel with scrambling, DC balance and FEC
- Carry I2C data and interrupt from back control channel

with DC balance and ECC

Maximum 10m transmission distance for 5.4Gbps and 15m for 4.32Gbps

Miscellaneous

- DeSSC for receiver and SSC for transmitter
- Interrupt output
- Temperature and Voltage sensing
- Integrated 100KHz, 400KHz, 1MHz I2C slave
- 2-channel I2S slave
- 1.8V power for core and 1.8/3.3V power for IO
- POC/POE
- AEC-Q100 Grade 2
- Compatible with LT934LMT, LT948D

2. General Description

The LT947LMT serializer is a part of Lontium's long distance video transmission family for Advanced Driver Assistance Systems (ADAS), designed to provide a solution for LVDS, MIPI and TTL video transmission with a maximum 10m coax POC or STP cable. The chip delivers a 5.4Gbps forward data channel and back control channel and supports power over each cable.

3. Applications

- Automotive Display Application
- LVDS/MIPI/TTL Extender

LONTI



Copyright © 2020 Lontium Semiconductor Corporation, All rights reserved.

Lontium Semiconductor Proprietary & Confidential

This document and the information it contains belong to Lontium Semiconductor. Any review, use, dissemination, distribution or copying of this document or its information outside the scope of a signed agreement with Lontium is strictly prohibited.

LONTIUM DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF NONINFRINGEMENT, MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMERS EXPRESSLY ASSUME THEIR OWN RISK IN RELYING ON THIS DOCUMENT.

LONTIUM PRODUCTS ARE NOT DESIGNED OR INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS WHERE A MALFUNCTION OF A LONTIUM DEVICE COULD RESULT IN A PERSONAL INJURY OR LOSS OF LIFE.

Lontium assumes no responsibility for any errors in this document, and makes no commitment to update the information contained herein. Lontium reserves the right to change or discontinue this document and the products it describes at any time, without notice. Other than as set forth in a separate, signed, written agreement, Lontium grants the user of this document no right, title or interest in the document, the information it contains or the intellectual property it embodies.

Trademarks

Lontium™ and ClearEdge™ is a registered trademark of Lontium Semiconductor. All other brand names, product names, trademarks, and registered trademarks contained herein are the property of their respective owners.

Visit our corporate web page at: www.lontiumsemi.com

Technical support: support@lontium.com

Sales: sales@lontium.com