

LT933MT --- Product Brief

Automotive Serializer

1. Features

- **MIPI CSI Receiver**
 - Compliant with D-PHY1.2 & CSI-2 1.3
 - 1 clock lane and 1/2/4 configurable data lanes; 2.5Gbps per data lane
- **TTL Receiver**
 - 15-lane SDR/DDR Sampling Support
 - Max Pixel Clock 74.25MHz
- **Automotive Display Port Transmitter**
 - Bidirectional transmission with maximum 8.1Gbps forward data channel and max 29.7Mbps back control channel
 - Typical resolution 4K 24bit 30fps
 - Transmit video, I2C data on the forward data channel with scrambling, DC balance and FEC
 - Receive reference clock, I2C data and frame sync from back control channel with DC balance and ECC
 - maximum 5m transmission distance for 8.1Gbps, and maximum 15m transmission distance for lower speed, depending on the attenuation of cable
- **Miscellaneous**

- DeSSC for receiver and SSC for transmitter
- Camera Synchronization
- Temperature and Voltage sensing
- Integrated 100KHz,400KHz, 1MHz I2C master
- 1.8V power for core and 1.8/3.3V power for IO
- POC/POE
- AEC-Q100 Grade 2

2. General Description

The LT933MT serializer is a part of Lontium’s long distance video transmission family for Advanced Driver Assistance Systems (ADAS), designed to provide a solution for MIPI and TTL sensor data transmission with a maximum 15m coax (POC) or STP cable. The chip delivers an 8.1Gbps forward data channel and 29.7 Mbps back control channel and supports power over the cable.

3. Applications

- Advanced Driver Assistance Systems (ADAS)
 - Surround View System
 - Front and Rear Image Sensor
- MIPI-CSI/TTL Extender

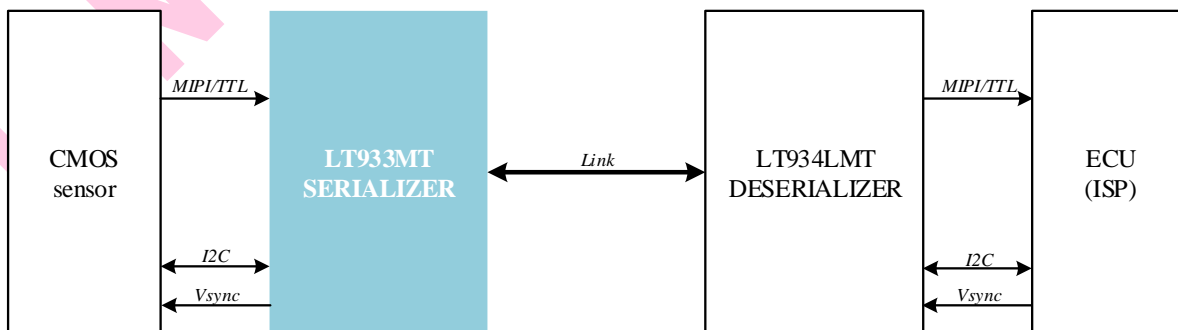


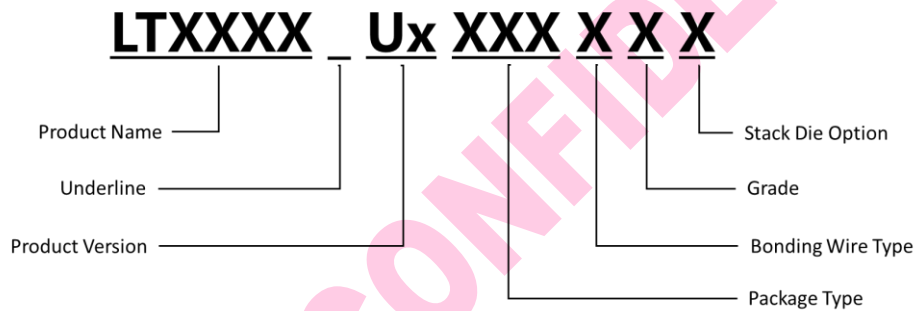
Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Product Name	Part Number	Product Status	Package	Bonding Wire	Grade	Operating Temperature Range	Stack Die Option	Packing Method	MPQ
LT933MT04	LT933MT04_U2Q12CAN	Preview	QFN32 (5*5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT933MT06	LT933MT06_U2Q12CAN	Preview	QFN32 (5*5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT933MT08	LT933MT08_U2Q12CAN	Preview	QFN32 (5*5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT933MT04	LT933MT04_U2Q12CEN	Preview	QFN32 (5*5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT933MT06	LT933MT06_U2Q12CEN	Preview	QFN32 (5*5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT933MT08	LT933MT08_U2Q12CEN	Preview	QFN32 (5*5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD

Note: AEC-Q100 is just for Grade A.



Note: No spaces in the P/N name.

Figure 4.1 Part Number Naming Rules

Copyright © 2020-2024 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 in embodies.

Trademarks

Lontium™ 龙迅™ 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