

# LT933MT --- Product Brief

## Automotive Serializer Series

### 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 a 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

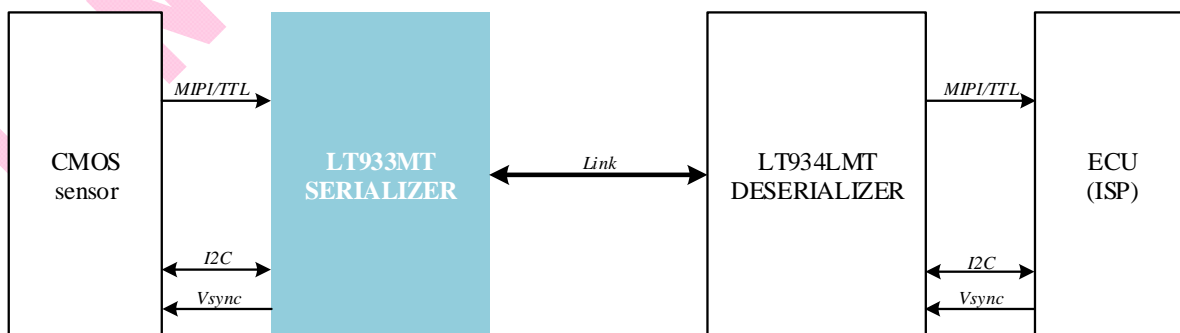
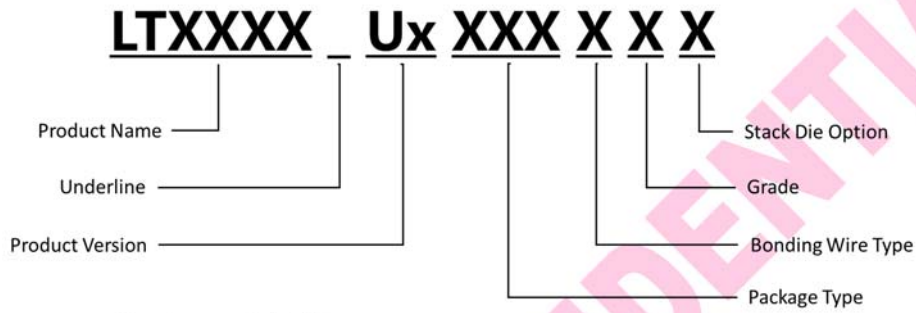


Figure 3.1 Application Diagram

## 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 |
|--------------|------------------|----------------|----------------|--------------|-------|-----------------------------|------------------|----------------|
| LT933MT      | LT933MT_U1Q12AAN | Preview        | QFN32 (5*5)Saw | Au           | A     | -40°C to +105°C             | N                | Tray           |



Note: No spaces in the P/N name.

Figure 4.1 Part Number Naming Rules

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