

# LT934C --- Product Brief

## Automotive Deserializer

### 1. Features

#### ● MIPI DSI/CSI Transmitter

- Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
- 1/2 configurable port
- 16 virtual channel
- 1 clock lane and 1/2/4 configurable data lanes; 2.5Gbps per data lane

#### ● LVDS Transmitter

- Compliant with VESA, JEIDA
- 1/2 configurable port with 1 clock lane and 4 data lanes per each port
- Configurable sync code detected
- data rate up to 1.2Gbps

#### ● TTL Transmitter

- 20-lane SDR/DDR Sampling Support
- Max Pixel Clock 74.25MHz

#### ● Automotive Display Port Transmitter

- 1/2 configurable link
- Bidirectional transmission with maximum 8.1Gbps/lane forward data channel and max 29.7Mbps back control 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 5m transmission distance for 8.1Gbps, and maximum 15m transmission distance for lower speed, depending on the attenuation of cable.
- Typical resolution 4K RGB888 60Hz with 2 lanes

#### ● MIPI DSI/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

#### ● Automotive Display Port Receiver

- 1/2/3/4 configurable port and single link for each port
- Bidirectional transmission with maximum 8.1Gbps forward data channel and max 29.7Mbps back control channel on each single link
- Receive video, I2C data from the forward data channel with scrambling, DC balance and FEC
- Transmit reference clock, I2C data, interrupt and frame sync on 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
- Typical resolution 1080P 24bit 60fps

#### ● Miscellaneous

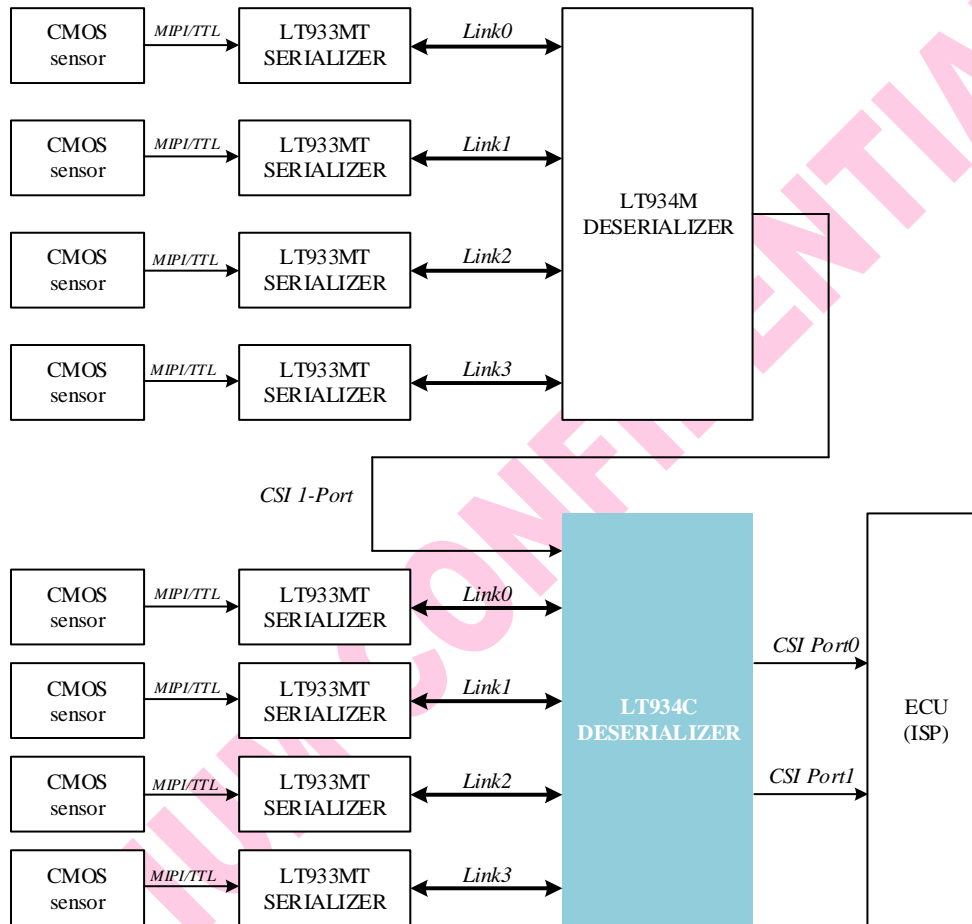
- SSC for transmitter
- Interrupt output
- Camera Synchronization
- Temperature and Voltage sensing
- Integrated 100KHz, 400KHz, 1MHz I2C master and slave
- External 27MHz oscillator
- 1.8V, 1.2V power for core and 1.8/3.3V power for IO
- POC/POE
- AEC-Q100 Grade 2

### 2. General Description

The LT934C deserializer is a part of Lontium's long distance video transmission family for Advanced Driver Assistance Systems (ADAS), designed to provide a solution for multi MIPI, TTL sensor transmission. The chip delivers maximum four 8.1Gbps forward data channels and back control channels and supports power over the cables. Together with a compatible serializer, each video can be transmitted with a maximum 15m coaxial (POC) or STP cable.

### 3. Applications

- Advanced Driver Assistance Systems (ADAS)
  - Surround View System
  - Front and Rear Image Sensor
  - Daisy chain panel



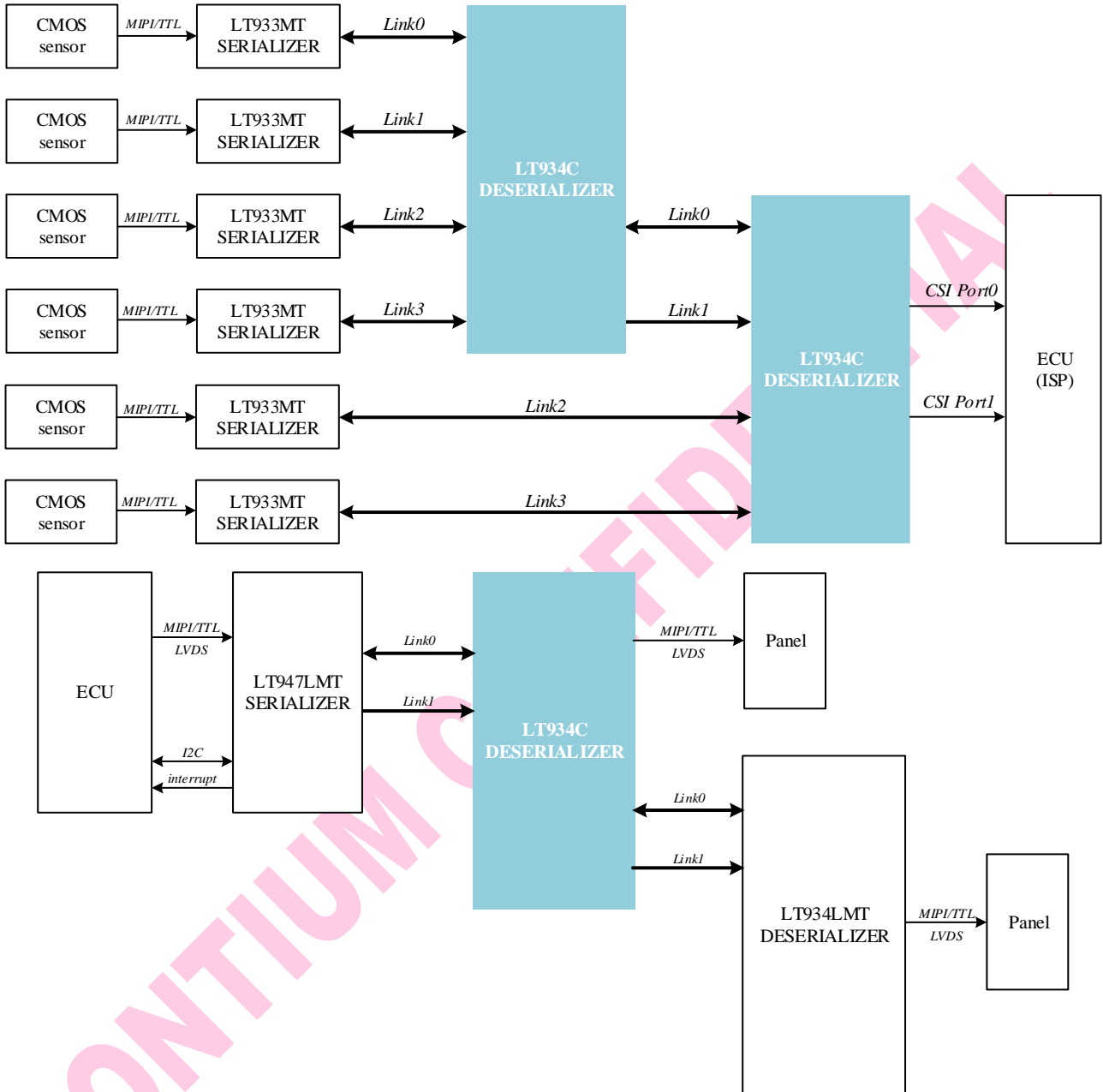
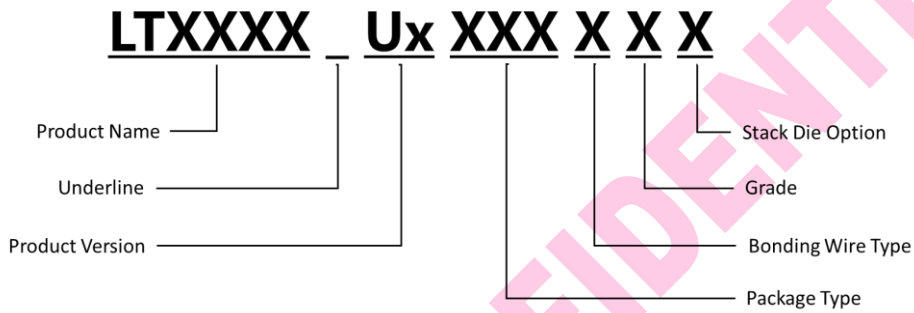


Figure 3.1 Application Diagram

## 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
LT934C04	LT934C04_U1Q04CAN	Preview	QFN76 (9*9)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT934C06	LT934C06_U1Q04CAN	Preview	QFN76 (9*9)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT934C08	LT934C08_U1Q04CAN	Preview	QFN76 (9*9)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD



Note: No spaces in the P/N name.

Figure 4.1 Part Number Naming Rules

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