

LT934C --- Product Brief

Automotive Deserializer

1. Features

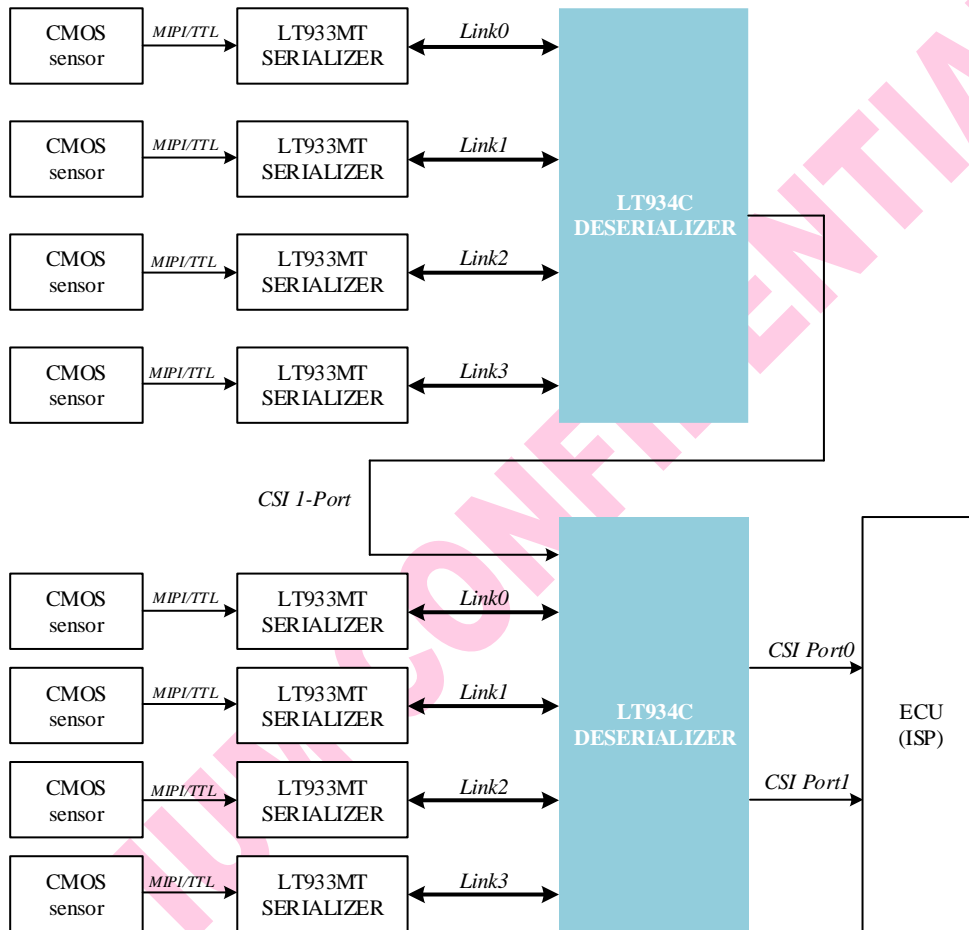
- **MIPI DSI/CSI Transmitter**
 - Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
 - 1/2 configurable port
 - 16 virtual channels
 - 1 clock lane and 1/2/3/4 configurable data lanes;
 - 2.5Gbps per data lane
- **LVDS Transmitter**
 - Compliant with VESA, JEIDA
 - 1/2 configurable port with 1 clock lane 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
- **ADP Transmitter**
 - 1/2 configurable link
 - Bidirectional transmission with 8.1/6.48/4.32/2.16 Gbps/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 6.48/4.32/ 2.16 Gbps, 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
- **ADP Receiver**
 - 1/2/3/4 configurable port and single link for each port
 - Bidirectional transmission with 8.1/6.48/4.32/2.16 Gbps/lane 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 6.48/4.32/ 2.16 Gbps, 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
 - 1.2V power for core and 1.8V/3.3V power for IO
 - POC/POE

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



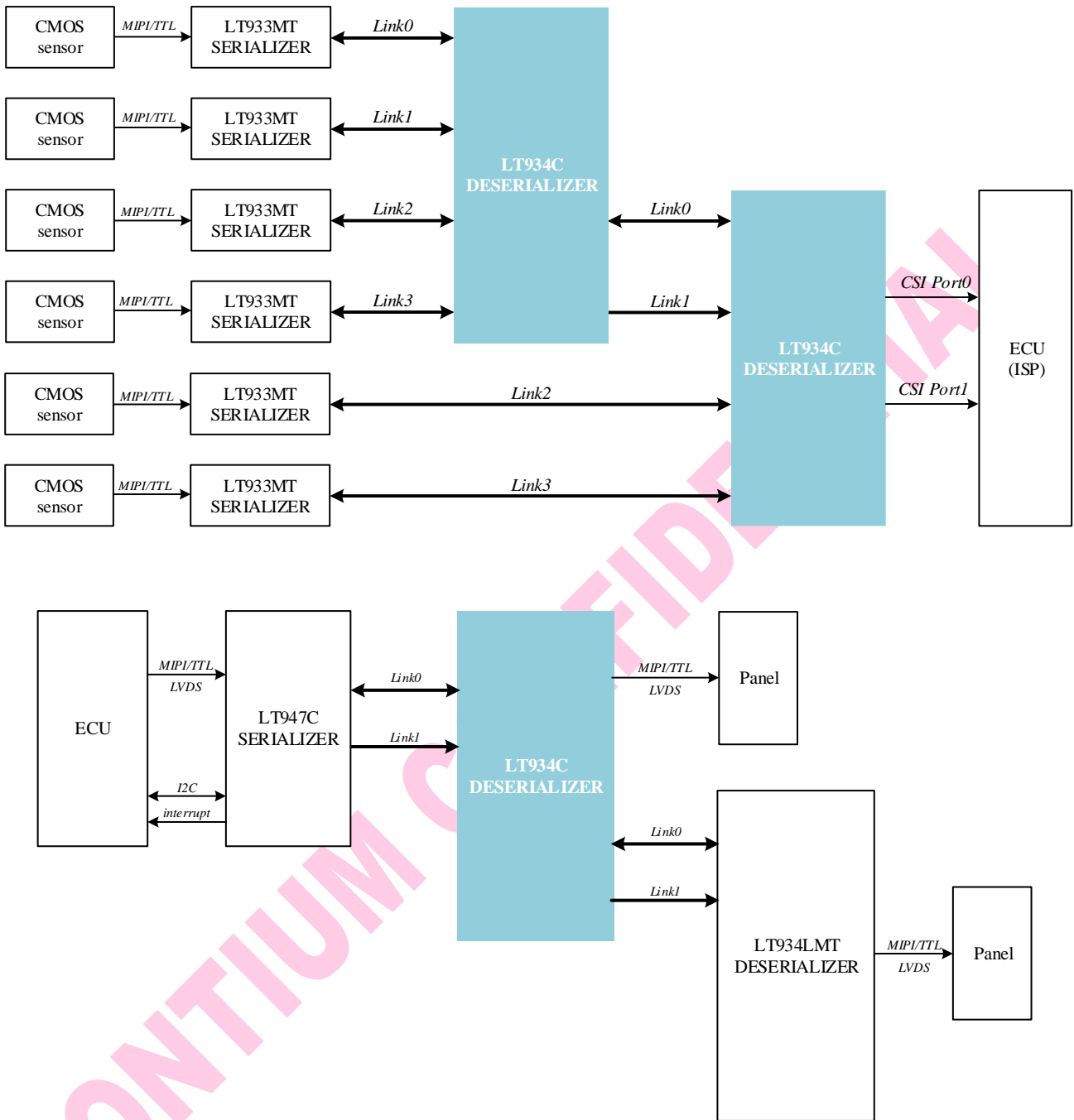


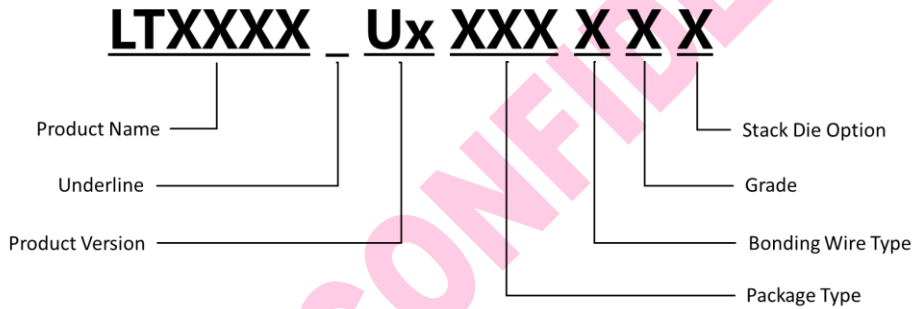
Figure 3.1 Application Diagram

4. Ordering Information

Table 4.1 Ordering Information

Product Name	Part Number	Product Status	Package	MSL	Bonding Wire	Grade	Operating Temperature Range	Stack Die Option	Packing Method	MPQ
LT934C04	LT934C04_U2Q04CAN	MP	QFN76 (9*9)Saw	3	Cu	A	-40°C to +105°C	N	Tray	2600pcs
LT934C06	LT934C06_U2Q04CAN	MP	QFN76 (9*9)Saw	3	Cu	A	-40°C to +105°C	N	Tray	2600pcs
LT934C08	LT934C08_U2Q04CAN	MP	QFN76 (9*9)Saw	3	Cu	A	-40°C to +105°C	N	Tray	2600pcs
LT934C04	LT934C04_U2Q04CEN	MP	QFN76 (9*9)Saw	3	Cu	E	-40°C to +85°C	N	Tray	2600pcs
LT934C06	LT934C06_U2Q04CEN	MP	QFN76 (9*9)Saw	3	Cu	E	-40°C to +85°C	N	Tray	2600pcs
LT934C08	LT934C08_U2Q04CEN	MP	QFN76 (9*9)Saw	3	Cu	E	-40°C to +85°C	N	Tray	2600pcs

Note: LT934C04_U2Q04CAN, LT934C06_U2Q04CAN, LT934C08_U2Q04CAN are automotive grade devices which are qualified by AEC-Q100 Grade 2 testing.



Note: No spaces in the P/N name.

Figure 4.1 Part Number Naming Rules

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