LT948D --- Product Brief

Automotive Deserializer

1. Features

- **eDP Transmitter**
  - Compliant with Embedded DisplayPort version 1.4
  - 1/2/4 configurable lane with 1.62Gbps, 2.7Gbps, 5.4Gbps for each lane
  - Aux channel
  - Support ASSR
- **Automotive Display Port Receiver**
  - 1/2 configurable link
  - Bidirectional transmission with maximum 8.1Gbps/lane forward data channel and maximum 29.7Mbps back control channel
  - Receive video, I2C data and audio from the forward data channel with scrambling, DC balance and FEC
  - Carry 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 4K RGB888 30Hz with 1 lane, 4K RGB888 60Hz with 2 lanes
- **Miscellaneous**
  - SSC for transmitter

- Interrupt Input
- Temperature and Voltage sensing
- Integrated 100KHz,400KHz, 1MHz I2C master and slave
- 8-channel I2S master
- External 27MHz oscillator
- 1.8V, 1.2V power for core and 1.8/3.3V power for IO
- POC/POE
- AEC-Q100 Grade 2
- Compatible with LT947LMT

2. General Description

The LT948D deserializer is a part of Lontium's long distance video transmission family for Advanced Driver Assistance Systems (ADAS), designed to provide a solution for eDP video transmission with a maximum 15m coaxial (POC) or STP cable. The chip delivers an 8.1Gbps /lane forward data channel and back control channel and supports power the cable.

3. Applications

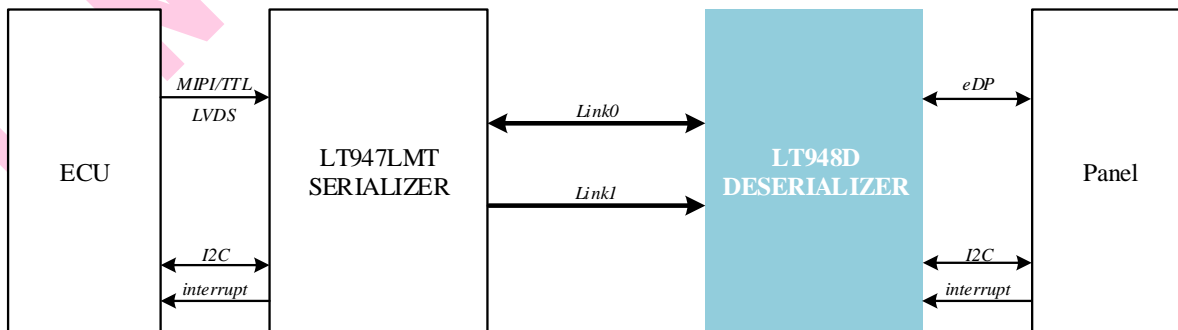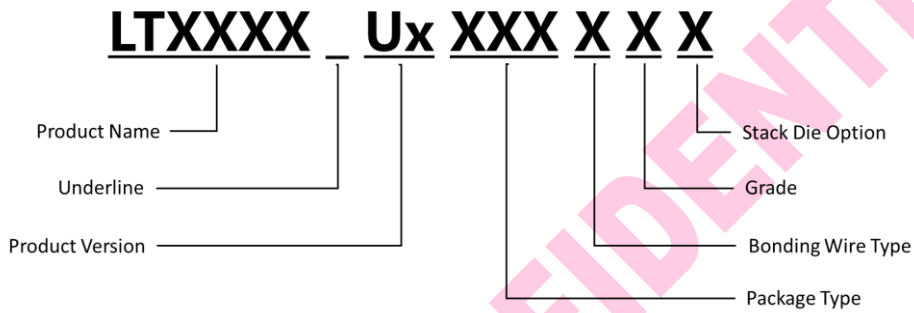- Advanced Driver Assistance Systems (ADAS)
  - Display System

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
LT948D04	LT948D04_U1Q07CAN	Preview	QFN64 (7.5*7.5)Saw	Cu	A	−40°C to +105°C	N	Tray	TBD
LT948D06	LT948D06_U1Q07CAN	Preview	QFN64 (7.5*7.5)Saw	Cu	A	−40°C to +105°C	N	Tray	TBD
LT948D08	LT948D08_U1Q07CAN	Preview	QFN64 (7.5*7.5)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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