

# 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

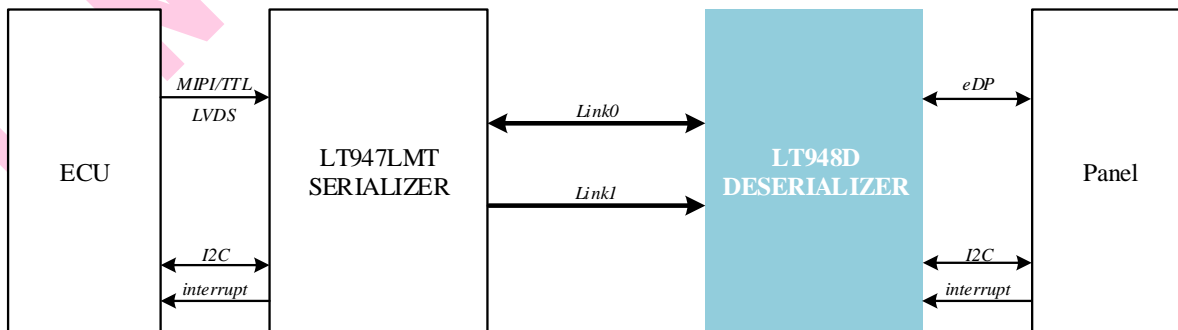


Figure 3.1 Application Diagram

## 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_U2Q07CAN	Preview	QFN64 (7.5*7.5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT948D06	LT948D06_U2Q07CAN	Preview	QFN64 (7.5*7.5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT948D08	LT948D08_U2Q07CAN	Preview	QFN64 (7.5*7.5)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT948D04	LT948D04_U2Q07CEN	Preview	QFN64 (7.5*7.5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT948D06	LT948D06_U2Q07CEN	Preview	QFN64 (7.5*7.5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT948D08	LT948D08_U2Q07CEN	Preview	QFN64 (7.5*7.5)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD

Note: AEC-Q100 is just for Grade A.

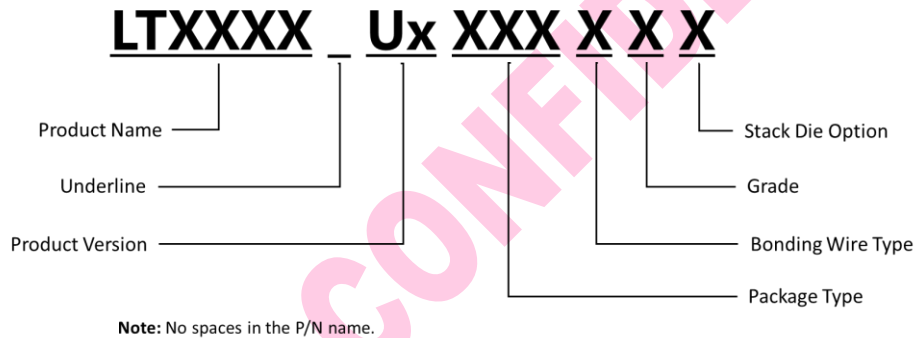


Figure 4.1 Part Number Naming Rules

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