

# LT947LMT --- Product Brief

## Automotive Serializer

### 1. Features

- **LVDS Receiver**
  - Compatible with VESA, JEIDA standard
  - 1/2 configurable port with 1 clock lane and 4 data lanes per each port for VESA and JEIDA standard
  - Configurable sync code detected
  - Data rate up to 1.2Gbps
- **MIPI DSI/CSI Receiver**
  - Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
  - 1/2 configurable port
  - 1 clock lane and 1/2/4 configurable data lanes for each port; 2.5Gbps per data lane
- **TTL Receiver**
  - 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

- **Miscellaneous**
  - DeSSC for receiver and SSC for transmitter
  - Interrupt output
  - Temperature and Voltage sensing
  - Integrated 100KHz,400KHz, 1MHz I2C slave
  - 2-channel I2S slave
  - 1.8V power for core and 1.8/3.3V power for IO
  - POC/POE
  - AEC-Q100 Grade 2

### 2. General Description

The LT947LMT serializer is a part of Lontium's long distance video transmission family for Advanced Driver Assistance Systems (ADAS), designed to provide a solution for LVDS, MIPI and TTL video transmission with a maximum 15m coax (POC) or STP cable. The chip delivers an 8.1Gbps/lane forward data channel and back control channel and supports power over each cable.

### 3. Applications

- Automotive Display Application
- LVDS/MIPI/TTL Extender

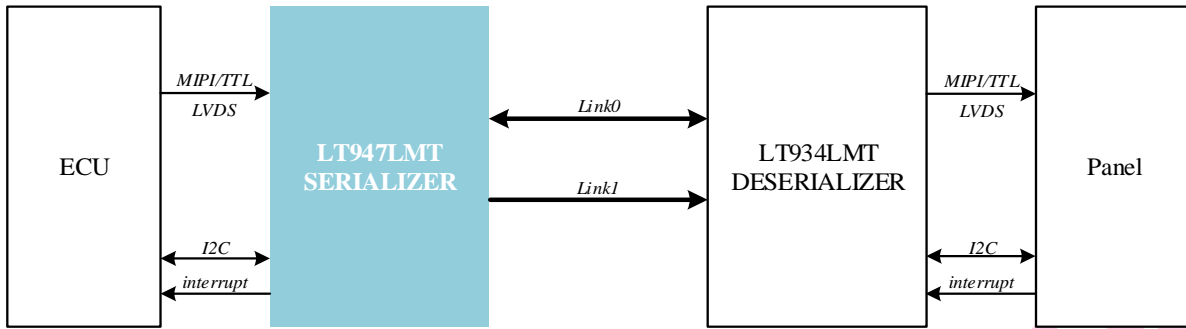


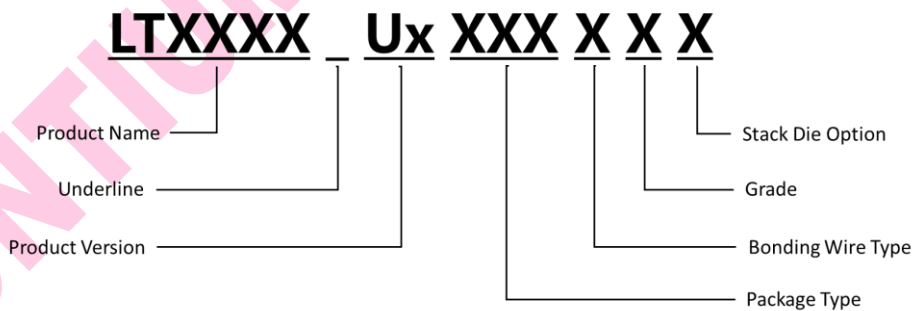
Figure 3.1 Application Diagram

## 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	MPQ
LT947LMT04	LT947LMT04_U2Q10CAN	Preview	QFN48 (6*6)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT947LMT06	LT947LMT06_U2Q10CAN	Preview	QFN48 (6*6)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT947LMT08	LT947LMT08_U2Q10CAN	Preview	QFN48 (6*6)Saw	Cu	A	-40°C to +105°C	N	Tray	TBD
LT947LMT04	LT947LMT04_U2Q10CEN	Preview	QFN48 (6*6)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT947LMT06	LT947LMT06_U2Q10CEN	Preview	QFN48 (6*6)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD
LT947LMT08	LT947LMT08_U2Q10CEN	Preview	QFN48 (6*6)Saw	Cu	E	-40°C to +85°C	N	Tray	TBD

Note: AEC-Q100 is just for Grade A.



Note: No spaces in the P/N name.

Figure 4.1 Part Number Naming Rules

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