

LT89121 --- Product Brief

eDPx to MIPI Converter

Features

● eDPx Receiver

- 1/2/4/8 configurable data lanes
- Input data rate is up to 3.75Gbps
- Adaptive receiver equalization for PCB and cable losses
- Support 3-byte,4-byte,5-byte mode
- Support 6bit,8bit,10bit,12bit color depth
- Support 2 sections,4 sections input mode
- Support Center Spread Spectrum , 30kHz/5000ppm

● Dual-Port MIPI DSI/CSI Transmitter

- Compliant with DCS1.1, D-PHY1.2, DSI1.3 and CSI-2 1.3
- 1/2 configurable port number
- 1 clock lane and 1/2/3/4 configurable data lanes per port
- 80Mbps~2Gbps per data lane
- Programmable transmitter swing and pre-emphasis
- Support Non-Burst mode, Burst mode and Command mode
- DSI support video formats: RGB565/666/888, Loosely RGB666, 16/24-bit YCbCr4:2:2, Loosely 20-bit

YCbCr4:2:2, 12-bit YCbCr4:2:0

- CSI support video formats: RGB565/666/888, YUV422 8/10-bit, Legacy YUV420 8-bit
- Support de-skew function

● Miscellaneous

- Internal or external oscillator
- Integrated microprocessor
- Embedded SPI flash for firmware
- Integrated 100/400kHz I2C slave
- Firmware update through SPI or I2C interface
- UART Support
- Backlight Control Support
- Low power consumption
- Power supply: 3.3V for I/O and 1.2V for core
- Temperature Range: -40°C ~ +85°C
- 76 pin QFN 9*9 package

Description

The LT89121 is a high performance eDPx to MIPI converter, designed to connect eDPx source to an MIPI sink.

The device is capable of automatic operation which is enabled by an integrated microprocessor that uses an embedded SPI flash for firmware storage. System control is also available through the use of a dedicated configuration I2C slave interface.

Applications

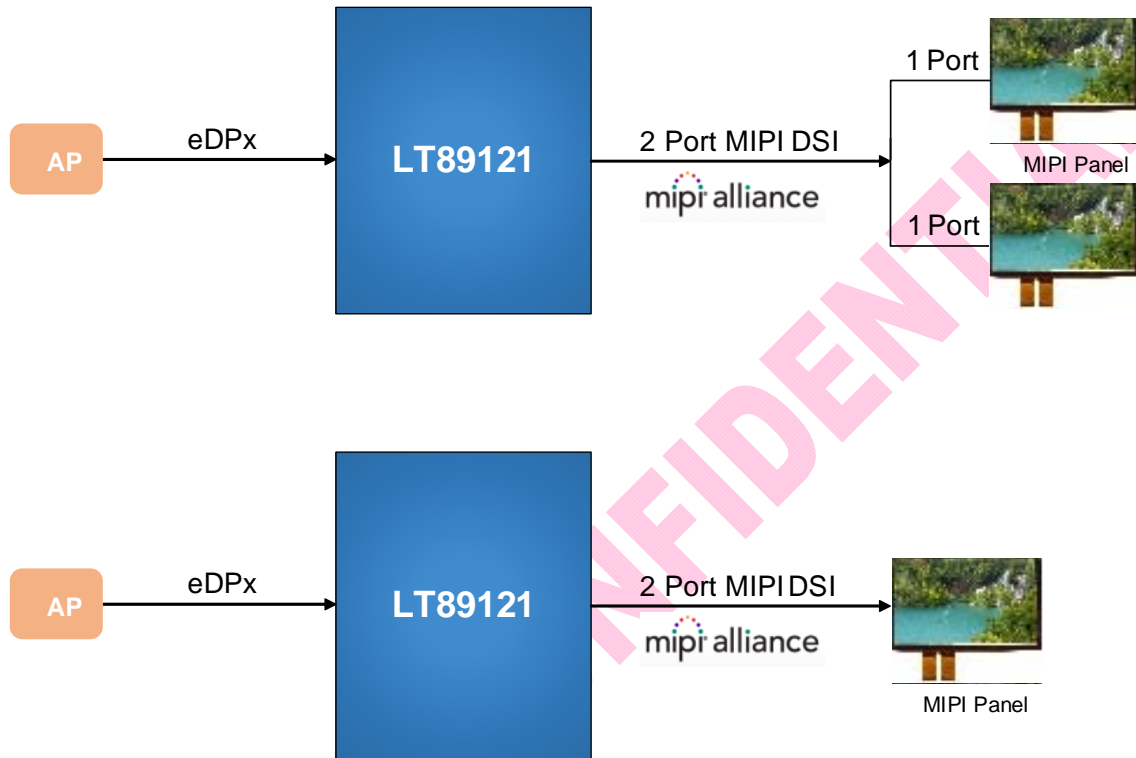


Figure 1. Application Diagram

Ordering Information

Table 1. Ordering Information

Part Number	Operating Temperature Range	Package	Packing Method
LT89121	-40° C to +85° C	QFN76 (9*9)	Tray

Copyright © 2019 Lontium Semiconductor Corporation, All rights reserved.

Lontium Semiconductor Proprietary & Confidential

This document and the information it contains belong to Lontium Semiconductor. Any review, use, dissemination, distribution or copying of this document or its information outside the scope of a signed agreement with Lontium is strictly prohibited.

LONTIUM DISCLAIMS ALL WARRANTIES, EXPRESSED OR IMPLIED, INCLUDING THOSE OF NONINFRINGEMENT, MERCHANTABILITY, TITLE AND FITNESS FOR A PARTICULAR PURPOSE. CUSTOMERS EXPRESSLY ASSUME THEIR OWN RISK IN RELYING ON THIS DOCUMENT.

LONTIUM PRODUCTS ARE NOT DESIGNED OR INTENDED FOR USE IN LIFE SUPPORT APPLIANCES, DEVICES OR SYSTEMS WHERE A MALFUNCTION OF A LONTIUM DEVICE COULD RESULT IN A PERSONAL INJURY OR LOSS OF LIFE.

Lontium assumes no responsibility for any errors in this document, and makes no commitment to update the information contained herein. Lontium reserves the right to change or discontinue this document and the products it describes at any time, without notice. Other than as set forth in a separate, signed, written agreement, Lontium grants the user of this document no right, title or interest in the document, the information it contains or the intellectual property in embodies.

Trademarks

Lontium™ 龙迅™ and ClearEdge™ is a registered trademark of Lontium Semiconductor. All other brand names, product names, trademarks, and registered trademarks contained herein are the property of their respective owners.

Visit our corporate web page at: www.lontiumsemi.com

Technical support: support@lontium.com

Sales: sales@lontium.com