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PRODUCT CATALOG



Video Transmission

Video Processing

HD-panel Controller & Driver

High-end IP

LONTIUM SEMICONDUCTOR CORPORATION
2020.02

Product Categories

ClearEdge™

HDMI

Transmitter
 Receiver
 Switch
 Splitter
 Repeater
 Matrix/Cross-point
 Converter

DP/eDP/eDPx

Transmitter
 Receiver
 Switch/Splitter
 Repeater
 Converter

USB/Type-C

Transmitter
 Converter
 Switch/Extender
 Repeater

MIPI/LVDS

Transmitter
 Repeater
 Level Shifter
 Converter
 Splitter

LCD Controller

Scaler
 FrameRate Converter
 Video Stream Rotator
 & Converter

HDMI Transmitter

Part Number	Package	Description	Pin to Pin	Page
LT9611UX	QFN-100	HDMI 2.0 Transmitter(2-Port MIPI CSI/DSI with input switch)		
LT9611UXC	QFN-64	HDMI 2.0 Transmitter(2-Port MIPI CSI/DSI)		
LT2611UX	QFN-100	HDMI 2.0 Transmitter(4-Port LVDS)		
LT2611UXC	QFN-64	HDMI2.0 (3Gbps) Transmitter(2-Port LVDS)		
LT9611	QFN-64	HDMI 1.4 Transmitter(2-Port MIPI CSI/DSI)		
LT8618SXA	LQFP-80	HDMI 1.4 Transmitter(TTL(RGB/YCbCr/BT656/BT1120)),improved performance	LT8618EXA	
LT8618SXB	QFN-64	HDMI 1.4 Transmitter(TTL(RGB/YCbCr/BT656/BT1120)),improved performance	LT8618EXB	
LT8618EXA	LQFP-80	HDMI 1.4 Transmitter(TTL(RGB/YCbCr/BT656/BT1120))	LT8618SXA	
LT8618EXB	QFN-64	HDMI 1.4 Transmitter(TTL(RGB/YCbCr/BT656/BT1120))	LT8618SXB	

HDMI Receiver

Part Number	Package	Description	Pin to Pin	Page
LT6211GX	BGA-169	HDMI2.1 Receiver(4Port LVDS+Audio), LPDDR inside		
LT6911GX	BGA-169	HDMI2.1 Receiver(4Port MIPI+Audio), LPDDR inside		
LT6211UX	QFN-128	HDMI 2.0 Receiver(4-Port LVDS)	LT6211	
LT6211UXC	QFN-64	HDMI 2.0(3Gbps) Receiver(2-Port LVDS)	LT6211C	
LT6911UX LT6911UXB	QFN-128 BGA-144	HDMI 2.0 Receiver(4-Port MIPI CSI/DSI)	LT6911 LT6911B	
LT6911UXC	QFN-64	HDMI 2.0 Receiver(2-Port MIPI CSI/DSI)	LT6911C	
LT6211C	QFN-64	HDMI 1.4 Receiver(2-Port LVDS)	LT6211UXC	
LT6211B	BGA-144	HDMI 1.4 Receiver(4-Port LVDS)		
LT6211	QFN-128	HDMI 1.4 Receiver(4-Port LVDS)	LT6211UX	
LT6911C	QFN-64	HDMI 1.4 Receiver(2-Port MIPI CSI/DSI)	LT6911UXC	
LT6911	QFN-128	HDMI 1.4 Receiver(4-Port MIPI CSI/DSI)	LT6911UX	
LT6911B	BGA-144	HDMI 1.4 Receiver(4-Port MIPI CSI/DSI)	LT6911UXB	
LT8619C	QFN-76	HDMI 1.4 Receiver(TTL(RGB/BT656/BT1120) / 2-Port LVDS),no scaler	LT8619B	
LT8619B	QFN-76	HDMI 1.4 Receiver(TTL / 2-Port LVDS) with scaler,integrated MCU	LT8619C	
LT8819EX	QFN-64	HDMI 1.4 Receiver(BT656/BT1120)		

HDMI Switch

Part Number	Package	Description	Pin to Pin	Page
LT8641UXE	QFN-128	4-in 1-out HDMI 2.0 switch with HDCP engine and digital audio output		
LT8641UX	BGA-144 QFN-128	4-in 1-out HDMI 2.0 switch		
LT8631UX	QFN-64	3-in 1-out HDMI 2.0 analog switch		
LT8641SXE	TQFP-100	4-in 1-out HDMI 1.4 switch with HDCP engine and digital audio output, jitter cleaning & signal repeating	LT8641SX	
LT8641SX	TQFP-100	4-in 1-out HDMI 1.4 switch with HDCP engine and digital audio output	LT8641SXE	
LT8631SX	QFN-64	3-in 1-out HDMI 1.4 analog switch		

HDMI Splitter

Part Number	Package	Description	Pin to Pin	Page
LT86102UXE	QFN-76	1-in 2-out HDMI 2.0 splitter, with HDCP 2.2 engine and audio output		
LT86102UX	TQFP-100	1-in 2-out HDMI 2.0 splitter		
LT86102SXE	LQFP-80	1-in 2-out HDMI 1.4 splitter with HDCP engine, jitter cleaning & signal repeating	LT86102SX	
LT86102SX	LQFP-80	1-in 2-out HDMI 1.4 splitter with HDCP engine	LT86102SXE	
LT86104UX	QFN-128 LQFP-128	1-in 4-out HDMI 2.0 splitter		
LT86104SXE	LQFP-128	1-in 4-out HDMI 1.4 splitter with HDCP engine, jitter cleaning & signal repeating	LT86104SX LT86104NX	
LT86104SX	LQFP-128	1-in 4-out HDMI 1.4 splitter with HDCP engine	LT86104SXE LT86104NX	

HDMI Repeater/Matrix & Cross-point

Part Number	Package	Description	Pin to Pin	Page
LT86121EX	QFN-88	HDMI 2.0 Repeater with DSC Encoder (1-in 1-out with Audio input/output)		
LT86121TXE	QFN-76	HDMI 2.0 Repeater with DSC Encoder, up to 6Gb/s/Lane		
LT86121RXE	QFN-76	HDMI 2.0 Repeater with DSC decoder, up to 6Gb/s/Lane		
LT86121TX	QFN-76	HDMI 1.4 Repeater with DSC Encoder, up to 3Gb/s/lane		
LT86121RX	QFN-76	HDMI 1.4 Repeater with DSC decoder, up to 3Gb/s/lane		
LT86101X	QFN-40	HDMI 2.0 Re-driver, DP++ to HDMI2.0 level shifter		
LT86101UXE	QFN-64	HDMI 2.0 Repeater, jitter cleaning		
LT8621SXE-M	QFN-76	2-in 1-out HDMI 1.4 switch with HDCP engine and digital audio output,integrated MCU,jitter cleaning & signal repeating		
LT86101UX	QFN-48	HDMI 1.4 Repeater,improved performance	LT86101SX	
LT86101SX	QFN-48	HDMI 1.3 Repeater	LT86101UX	
LT8642UX	QFN-128	HDMI 2.0 4-in 2-out Matrix switch with audio output		
LT8644	TQFP-100	Analog cross-point switch		
LT1258	QFN-54	12.5Gbps Dual-lane 2:1 Muxer and 1:2 Splitter with Equalization and De-Emphasis	DS125MB203	
LT1258EX	QFN-54	12.5Gbps 8-Channel Retimer	LT1258	
LT1204B		12Gbps Optical Transceiver		

HDMI Converter

Part Number	Package	Description	Pin to Pin	Page
LT8612UX	QFN-76	HDMI 2.0 to HDMI 2.0 and VGA, with HDCP2.2 engine and Audio Output		
LT8612SX	LQFP-80	HDMI 1.4 to HDMI 1.4 and VGA, with Audio Output and improved performance	LT8612EX-e3	
LT8612X-M	QFN-76	HDMI 1.4 to HDMI 1.4 and VGA, integrated MCU		
LT8612EX-e3	LQFP-80	HDMI 1.4 to HDMI 1.4 and VGA, with Audio Output	LT8612SX	
LT8522X	QFN-64	VGA to HDMI 1.4		
LT8522EX	TQFP-100	HDMI 1.4 & VGA to HDMI 1.4 & VGA, matrix switch with Audio Output		
LT8511EX	QFN-64	HDMI 1.4 to VGA, with Audio Output		
LT86101HC	QFN-40	HDMI 1.4 to Type-C		

DP/eDP/eDPx Converter/Repeater/Level shifter

Part Number	Package	Description	Pin to Pin	Page
LT87912	QFN-88	eDPx to eDP/DP/MIPI DSI/CSI Converter, Compatible with Vx1		
LT89121	QFN-76	eDPx to MIPI DSI/CSI Converter, Compatible with Vx1		
LT87121	QFN-76	eDPx to eDP/DP Converter, Compatible with Vx1		
LT86101X	QFN-40	HDMI 2.0 Re-driver, DP++ to HDMI2.0 level shifter		
LT8611SX	QFN-40	Dual mode DP Repeater & HDMI/DVI/Level Shifter		
LT8611SXD	QFN-32	Dual mode DP Repeater & HDMI/DVI/Level Shifter		
LT87101	QFN-40	DP/eDP re-driver, up to 2.7Gb/s		
LT8711	QFN-64	Dual mode DP-VGA converter, compliant with HDMI 1.4 spec, support audio output		
LT87101DC	QFN-40	DP/eDP to Type-C Converter		

USB Type-C/DP Transmitter

Part Number	Package	Description	Pin to Pin	Page
LT9711	QFN-76 BGA-81	2-Port MIPI/LVDS to Type-C(DP1.2/eDP) with USB 3.1 switch		
LT6711A LT6711B	QFN-64 BGA-81	HDMI 2.0 to Type-c(DP1.2/eDP) with USB 3.1 switch		
LT6711GX	QFN-88	HDMI2.1 to DP1.4 with Type-C		
LT9721	QFN-64	Single-port MIPI DSI/HDMI to Type-C(DP/eDP) with USB 3.1 Switch		
LT8718	QFN-88	TTL to Type-C(DP/eDP) with USB 3.1 Switch		

Type-C/DP Converter

Part Number	Package	Description	Pin to Pin	Page
LT8711GX	QFN-88	Type-C/DP1.4 to HDMI2.1 Converter		
LT8712EXC	QFN-88	Type-C/DP to HDMI 2.0 & VGA + Audio, support MST, PD Controller with 2*CC, Compliant with HDCP		
LT8712EXI	QFN-128	Type-C/DP to HDMI 2.0*2 & VGA + Audio,support MST,PD Controller with 2*CC,Compliant with HDCP		
LT8712X	QFN-76	Type-C/DP to HDMI 2.0 and VGA Converter with Audio		
LT8712	LQFP-128	Type-C/DP to HDMI 1.4*2 & VGA & Audio,PD Controller,Compliant with HDCP		
LT8711HE	QFN-64	Type-C/DP to HDMI 2.0,support PD Controller/swift Charge/Billboard with 2*CC		
LT8711EH-C	QFN-64	Type-C/DP to HDMI 2.0,support PD Controller,Compliant with HDCP	LT8711H-C	
LT8711UX	QFN-88	Type-C/DP to HDMI 2.0,support PD Controller with 2*CC,Compliant with HDCP		
LT8711H-C	QFN-64	Type-C/DP to HDMI 1.4,support PD Controller,Compliant with HDCP	LT8711EH-C	
LT8711V	QFN-48	Type-C/DP to VGA with audio,support PD Controller/swift Charge/Billboard with 2*CC		
LT86101CH	QFN-40	Type-C to HDMI 1.4 Converter		
LT87101CD	QFN-40	Type-C to DP/eDP Converter		
LT8400C	QFN-40	e-Marker Chip for USB Type-C Cable(EMCA)		

USB Extender/Switch

Part Number	Package	Description	Pin to Pin	Page
LT8311X2	QFN-12	USB 2.0 High Speed Signal Conditioner	TUSB211	
LT8311SX	QFN-64	USB 2.0 Extender, up to 60 meters by dual chip mode over single twisted pair for HS/FS and 130 meters for LS		
LT8312	QFN-20	USB2.0 Extender with switch, up to 10 meters by single chip mode extension and 20 meters by dual chip mode extension		
LT8311XE-Q	QFN-16	USB 2.0 Extender, up to 10 meters by single chip mode extension and 20 meters by dual chip mode extension		
LT8311EX	TSSOP-20	USB1.1/2.0 repeater, up to 120 meters by dual chip mode over Ethernet cable		
LT84101D	QFN-40	Dual channel USB 2.0/3.1 re-driver,Dual USB 3.1 Port,One USB 2.0 Port		

MIPI/LVDS Transmitter

Part Number	Package	Description	Pin to Pin	Page
LT7211UX	BGA-169	Type-C/DP1.4 to 4-Port LVDS with Audio, LPDDR inside		
LT7911UX	BGA-169	Type-C/DP1.4 to 4-Port MIPI CSI/DSI with Audio, LPDDR inside		
LT7211D	QFN-64	Type-C/DP/eDP to 2-port LVDS with Audio		
LT7211B	BGA-144	Type-C/DP/eDP to 4-port LVDS with Audio		
LT7211	QFN-128	Type-C/DP/eDP to 4-port LVDS,support 3D with Audio and PD Controller		
LT7911D	QFN-64	Type-C/DP/eDP to 2-port MIPI CSI/DSI with Audio		
LT7911B	BGA-144	Type-C/DP1.2 to 4-port MIPI CSI/DSI with Audio		
LT7911	QFN-128	Type-C/DP/eDP to 4 Port MIPI CSI/DSI, support 3D with Audio & PD Controller		
LT8918L	QFN-64 BGA-81	2-Port LVDS to MIPI DSI/CSI-2 Bridge		
LT8918	QFN-64 BGA-81	RGB TO MIPI DSI/CSI-2		

MIPI/LVDS Repeater/Level Shifter/Converter/Splitter/Switch

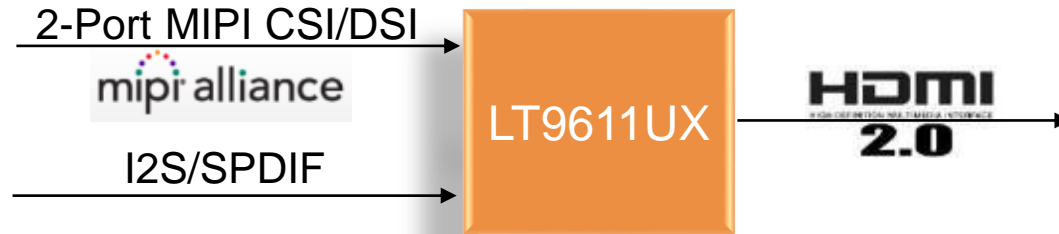
Part Number	Package	Description	Pin to Pin	Page
LT89101	QFN-64 BGA-81	MIPI CSI/DSI, LVDS Repeater		
LT89101L	QFN-64	MIPI-to-LVDS Level Shifter		
LT8911EXB	QFN-48	1-port MIPI CSI/DSI to eDP	LT8911B	
LT8911EX	QFN-64	2-port LVDS to eDP	LT8911	
LT8912B	QFN-64	1-Port MIPI DSI to 1-Port LVDS & HDMI with scaler		
LT9211	QFN-64	2-Port LVDS/MIPI/TTL to 2-Port LVDS/MIPI/TTL Converter with LVDS/MIPI input muxing and output Splitting functions		
LT933/934		AV Repeater with MIPI/LVDS Camera A/V converter		
LT947/948		AV Repeater for Auto display		

LCD Controller

Part Number	Package	Description	Pin to Pin	Page
LT8668SX	BGA-288	High Definition Display Controller, support Type-C /DP1.4 /HDMI2.1+ DP1.4/HDMI2.1 to eDP/eDPx + 4-Port LVDS/MIPI + DP1.4/HDMI2.1 with Audio, LPDDR Inside		
LT8668EX	LQFP-128	LCD Controller,support HDMI1.4/DP++ and VGA input,quad-channel LVDS output,resolution up to 4k2k/30Hz or 1080P/120Hz,support IIS audio in and IIS/SPDIF audio out		
LT2911R-D	QFN-76	2-Port LVDS/MIPI/TTL to 2-Port LVDS/MIPI/TTL Converter with Frame Rate Conversion and Rotation		

LT9611UX

HDMI 2.0 Transmitter(2-Port MIPI CSI DSI with input switch)



Features:

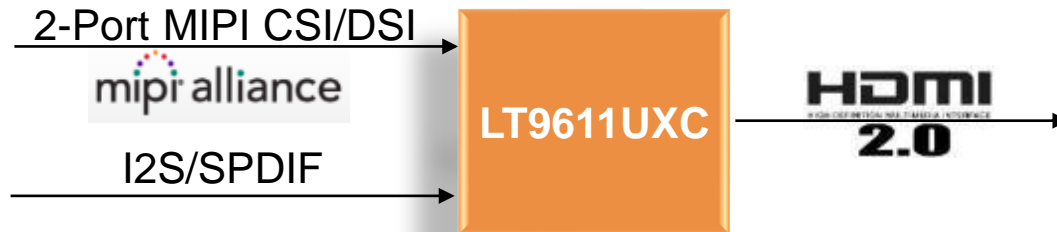
- ◆ MIPI CSI/DSI Receiver
 - ◆ Compliant with D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC 1.2 decoder
 - ◆ 4 physical ports grouped into 2 dual-port receivers, only one receiver activated at a time (2-to-1 switching internally)
 - ◆ 1/2 configurable ports per dual-port receiver
 - ◆ 1 clock lane and 1/2/3/4 configurable data lanes per port
 - ◆ 80Mbps~2Gbps per data lane
 - ◆ Skew calibration
- ◆ HDMI 2.0 Transmitter
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4K@60 Hz
 - ◆ 3D support
- ◆ Audio Input
 - ◆ Support SPDIF and 8-channel I2S audio input

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Personal media players
- ◆ Gaming
- ◆ Camera systems

LT9611UXC

HDMI 2.0 Transmitter(2-Port MIPI CSI DSI)



Features:

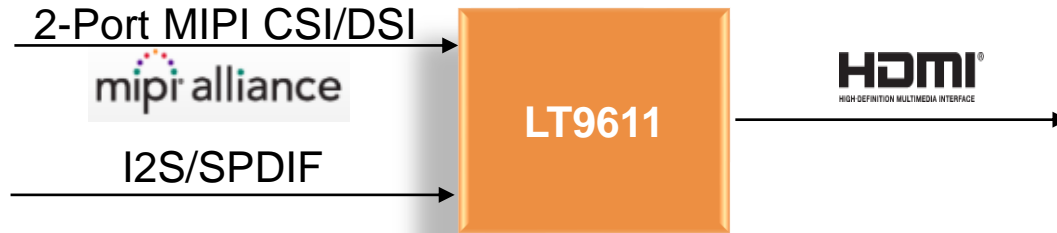
- ◆ MIPI CSI/DSI Receiver
 - ◆ Compliant with D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC 1.2 decoder
 - ◆ 1/2 configurable ports
 - ◆ 1 clock lane and 1/2/3/4 configurable data lanes per port
 - ◆ 80Mbps~2Gbps per data lane
 - ◆ Skew calibration
- ◆ HDMI 2.0 Transmitter
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4K@60 Hz
 - ◆ 3D support
- ◆ Audio Input
 - ◆ Support SPDIF and 2-channel I2S audio input

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Personal media players
- ◆ Gaming
- ◆ Camera systems

LT9611

HDMI 1.4 Transmitter(2-Port MIPI CSI DSI)



Features:

- ◆ MIPI CSI/DSI Receiver
 - ◆ Compliant with DCS 1.02,D-PHY 1.2,DSI 1.2,CSI-2 1.0
 - ◆ 1/2 configurable ports
 - ◆ 80Mbps~2.0Gbp/s per data lane
 - ◆ Support RGB888/RGB666/RGB666L/RGB565/YUV Format
- ◆ HDMI 1.4 Transmitter
 - ◆ Compliant with HDMI 1.4
 - ◆ Support HDCP 1.4
- ◆ Miscellaneous
 - ◆ 1.8V/3.3V Power Supply
 - ◆ DCS support
 - ◆ Support up to 8-channel Audio Input
 - ◆ Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Personal media players
- ◆ Gaming
- ◆ Camera systems

LT2611UX

HDMI 2.0 Transmitter(4-Port LVDS)



Features:

- ◆ LVDS Receiver
 - ◆ Compliant with VESA and JEIDA standard
 - ◆ 1/2/4 configurable ports
 - ◆ 1 clock lane and 3/4 configurable data lanes per port
 - ◆ 1.2Gbps per data lane
 - ◆ DeSSC capable: +/-5% @30~80kHz
 - ◆ 6-bit and 8-bit color depth
- ◆ HDMI 2.0 Transmitter
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4K@60 Hz
 - ◆ 3D support
- ◆ Audio Input
 - ◆ Support SPDIF and 8-channel I2S audio input

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Personal media players
- ◆ Gaming
- ◆ Camera systems

LT2611UXC HDMI 2.0 Transmitter(2-Port LVDS)



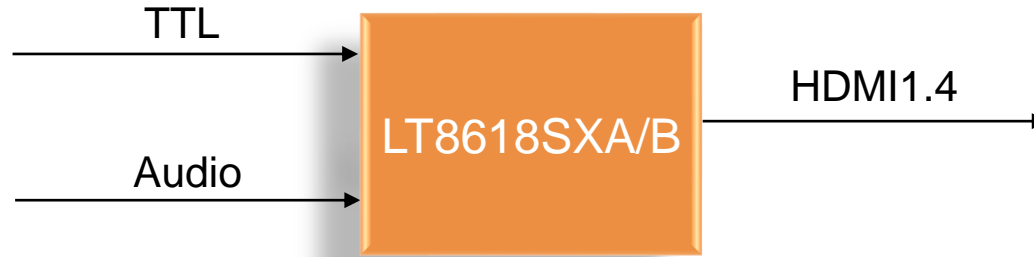
Features:

- ◆ LVDS Receiver
 - ◆ Compliant with VESA and JEIDA standard
 - ◆ 1/2 configurable ports
 - ◆ 1 clock lane and 3/4 configurable data lanes per port
 - ◆ 1.2Gbps per data lane
 - ◆ DeSSC capable: +/-5% @30~80kHz
 - ◆ 6-bit and 8-bit color depth
- ◆ HDMI 2.0 Transmitter
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 3Gbps
 - ◆ Support 4K@30 Hz
 - ◆ 3D support
- ◆ Audio Input
 - ◆ Support SPDIF and 2-channel I2S audio input

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Personal media players
- ◆ Gaming
- ◆ Camera systems

LT8618SXA/B HDMI 1.4 Transmitter(TTL)



Features:

Fully compatible with LT8618 and LT8618SXA/B

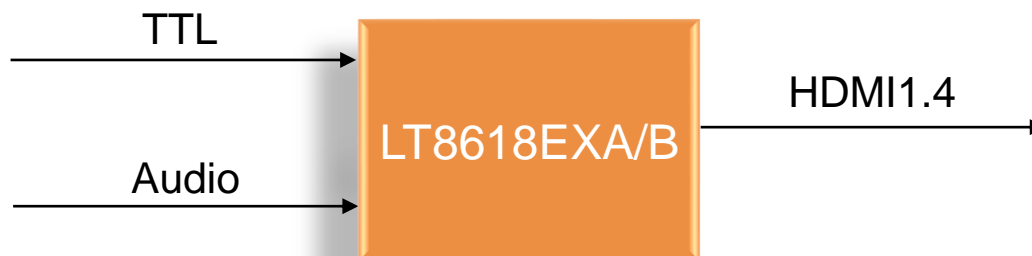
- ◆ **TTL Input**
 - ◆ Support 24-bit RGB, YUV and BT656/BT601/BT1120 Input
 - ◆ Support both SDR and DDR Data Sampling
 - ◆ Support both 1.8V and 3.3V Input Voltage Level
 - ◆ Support up to 148.5 MHz DDR or 297MHz SDR Clock Input
- ◆ **HDMI 1.4 Transmitter**
 - ◆ Compliant with HDMI 1.4
 - ◆ Support HDCP 1.4
- ◆ **Miscellaneous**
 - ◆ 1.8V/3.3V Power Supply
 - ◆ Support up to 8-channel I2S/SPDIF Input
 - ◆ Packaged in 9mm*9mm QFN64/12mm*12mm LQFP80

Applications:

- ◆ Car Video Recorder
- ◆ HD Sources
- ◆ PTV Box
- ◆ DVD, BD

LT8618EXA/B

HDMI 1.4 Transmitter(TTL)



Features:

Fully compatible with LT8618 and LT8618EXA/B

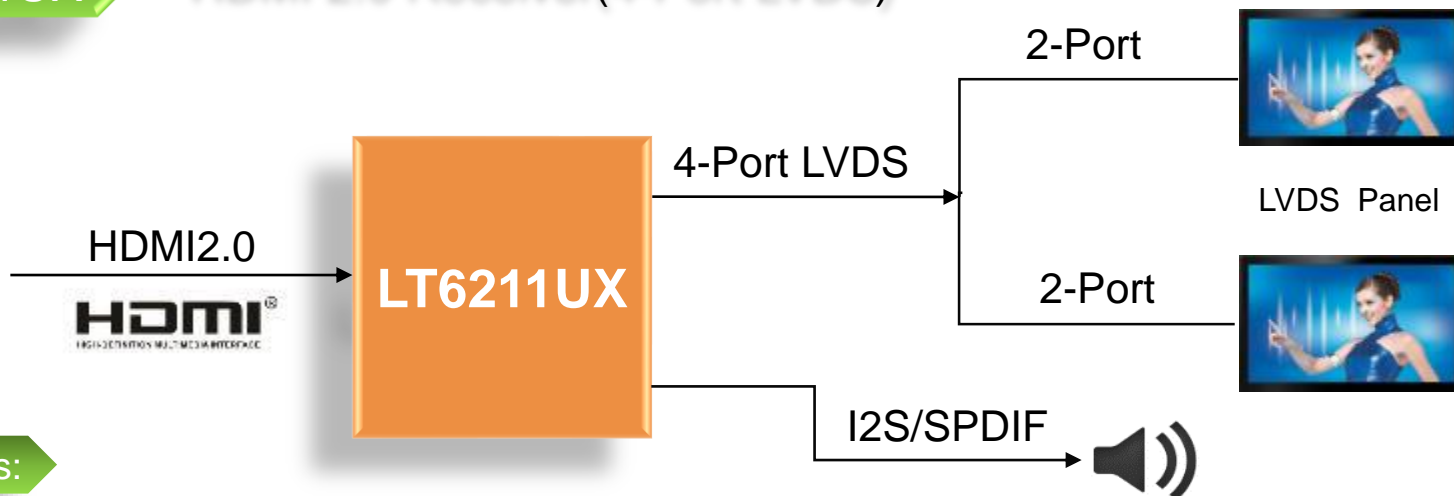
- ◆ TTL Input
 - ◆ Support 24-bit RGB, YUV and BT656/BT601/BT1120 Input
- ◆ HDMI 1.4 Transmitter
 - ◆ Compliant with HDMI 1.4
 - ◆ Support HDCP 1.4
- ◆ Miscellaneous
 - ◆ 1.8V/3.3V Power Supply
 - ◆ Packaged in 9mm*9mm QFN64/12mm*12mm LQFP80

Applications:

- ◆ Car Video Recorder
- ◆ HD Sources
- ◆ PTV Box
- ◆ DVD, BD

LT6211UX

HDMI 2.0 Receiver(4-Port LVDS)



Features:

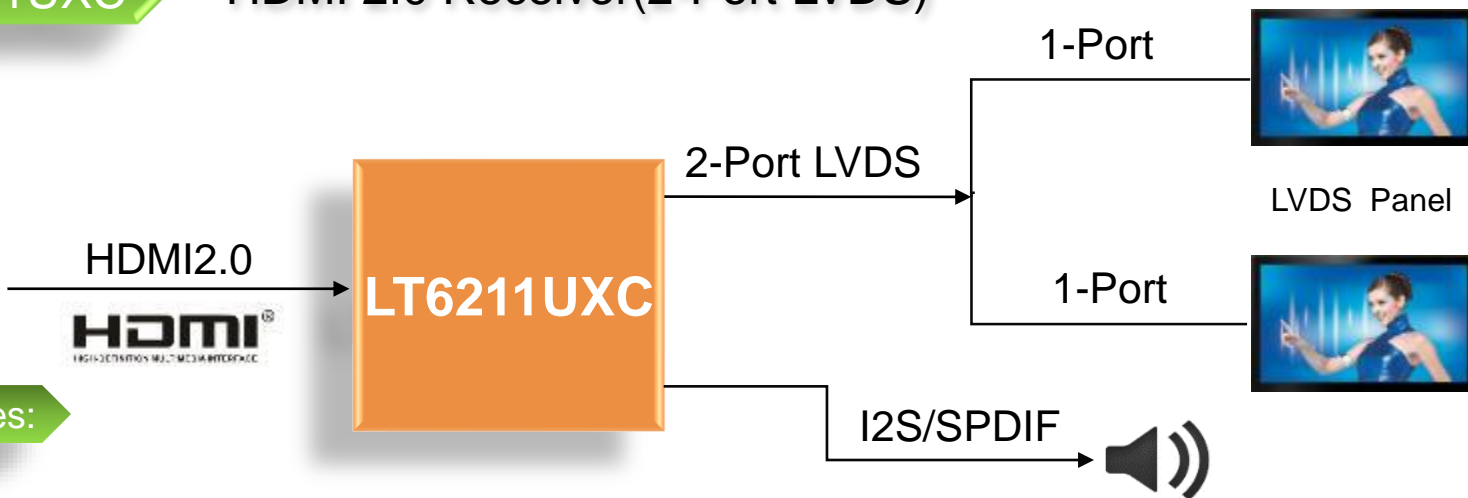
- ◆ HDMI 2.0 Receiver
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ LVDS Transmitter
 - ◆ Compliant with VESA and JEIDA standard
 - ◆ 1/2/4 configurable ports
 - ◆ 1 clock lane and 3/4 configurable data lanes per port
 - ◆ 1.2Gbps per data lane
 - ◆ 6-bit and 8-bit color depth
- ◆ Audio Output
 - ◆ Support SPDIF and 8-channel I2S audio output

Applications:

- ◆ VR

LT6211UXC

HDMI 2.0 Receiver(2-Port LVDS)



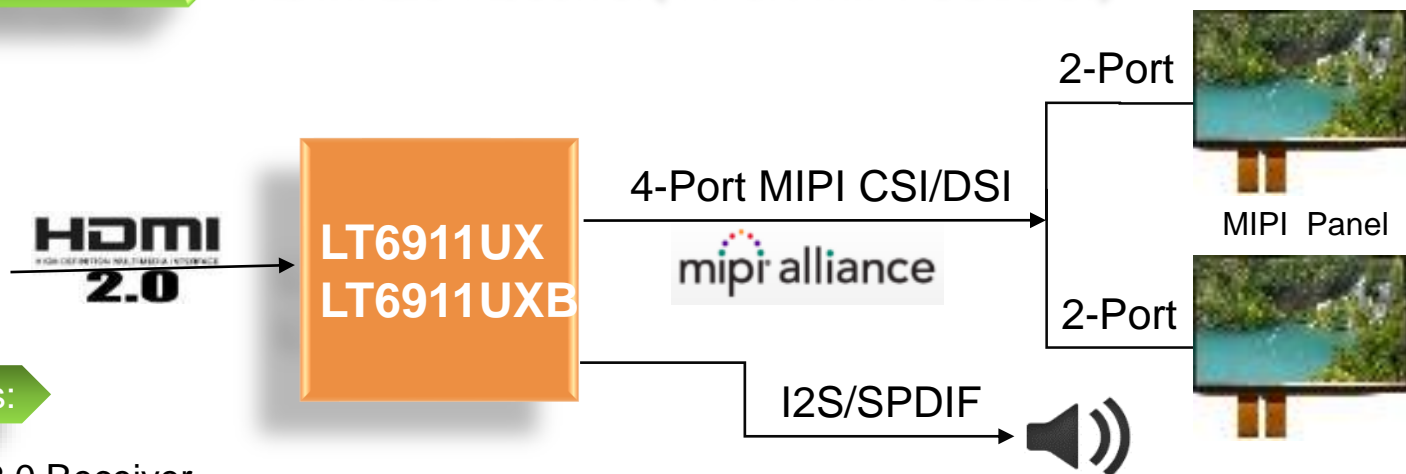
Features:

- ◆ HDMI 2.0 Receiver
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 3Gbps
 - ◆ Support 4k@30Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ LVDS Transmitter
 - ◆ Compliant with VESA and JEIDA standard
 - ◆ 1/2 configurable ports
 - ◆ 1 clock lane and 3/4 configurable data lanes per port
 - ◆ 1.2Gbps per data lane
 - ◆ 6-bit and 8-bit color depth
- ◆ Audio Output
 - ◆ Support SPDIF and 2-channel I2S audio output

Applications:

- ◆ VR

LT6911UX/UXB HDMI 2.0 Receiver(4-Port MIPI CSI/DSI)



Features:

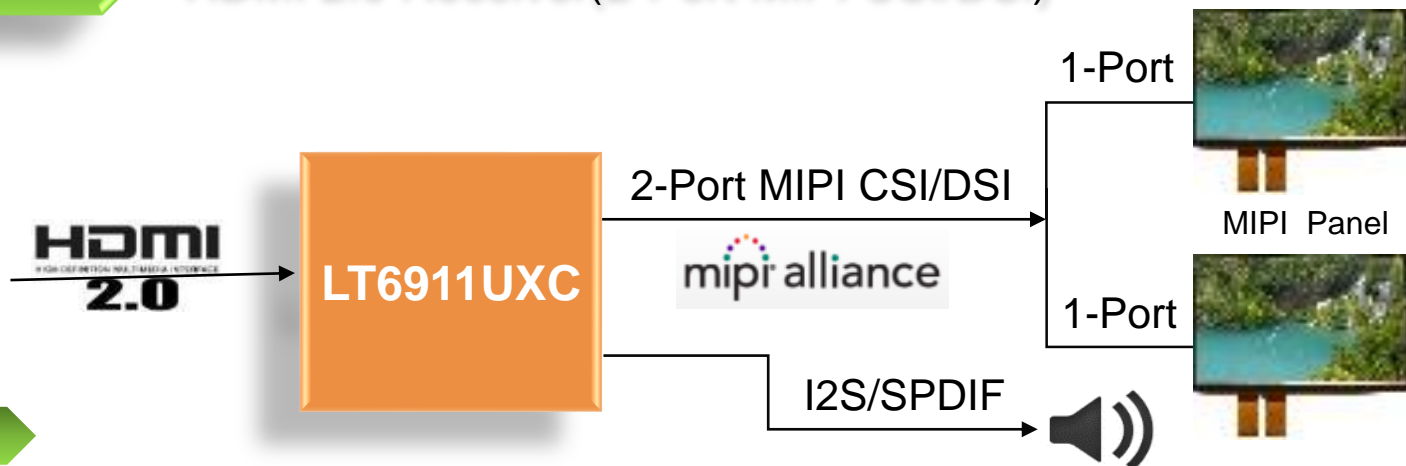
- ◆ HDMI 2.0 Receiver
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DCS 1.1, D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC 1.2 encoder
 - ◆ 1/2/4 configurable ports
 - ◆ 1 clock lane and 1/2/3/4 configurable data lanes per port
 - ◆ 80Mbps~2Gbps per data lane
 - ◆ Skew calibration
- ◆ Audio Output
 - ◆ Support SPDIF and 8-channel I2S audio output

Applications:

- ◆ VR

LT6911UXC

HDMI 2.0 Receiver(2-Port MIPI CSI/DSI)



Features:

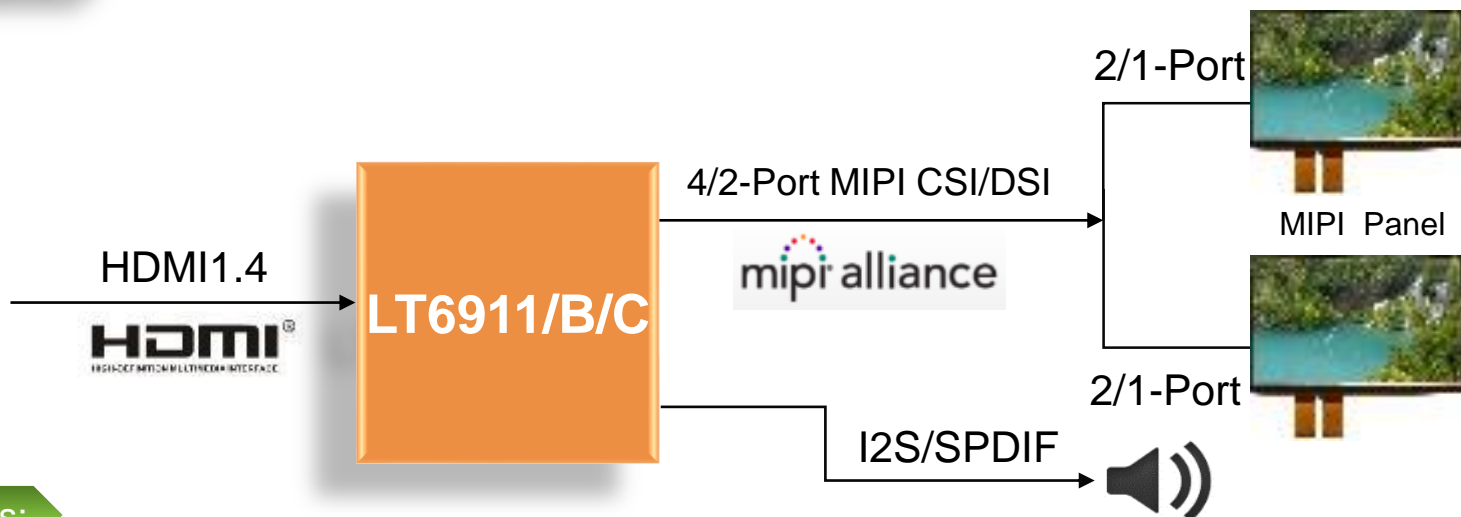
- ◆ **HDMI 2.0 Receiver**
 - ◆ Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - ◆ Compliant with HDCP 2.2 and HDCP 1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ **MIPI CSI/DSI Transmitter**
 - ◆ Compliant with DCS 1.1, D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC 1.2 encoder
 - ◆ 1/2 configurable ports
 - ◆ 1 clock lane and 1/2/3/4 configurable data lanes per port
 - ◆ 80Mbps~2Gbps per data lane
 - ◆ Skew calibration
- ◆ **Audio Output**
 - ◆ Support SPDIF and 2-channel I2S audio output

Applications:

- ◆ VR

LT6911/B/C

HDMI 1.4 Receiver(4/2-Port MIPI CSI/DSI)



Features:

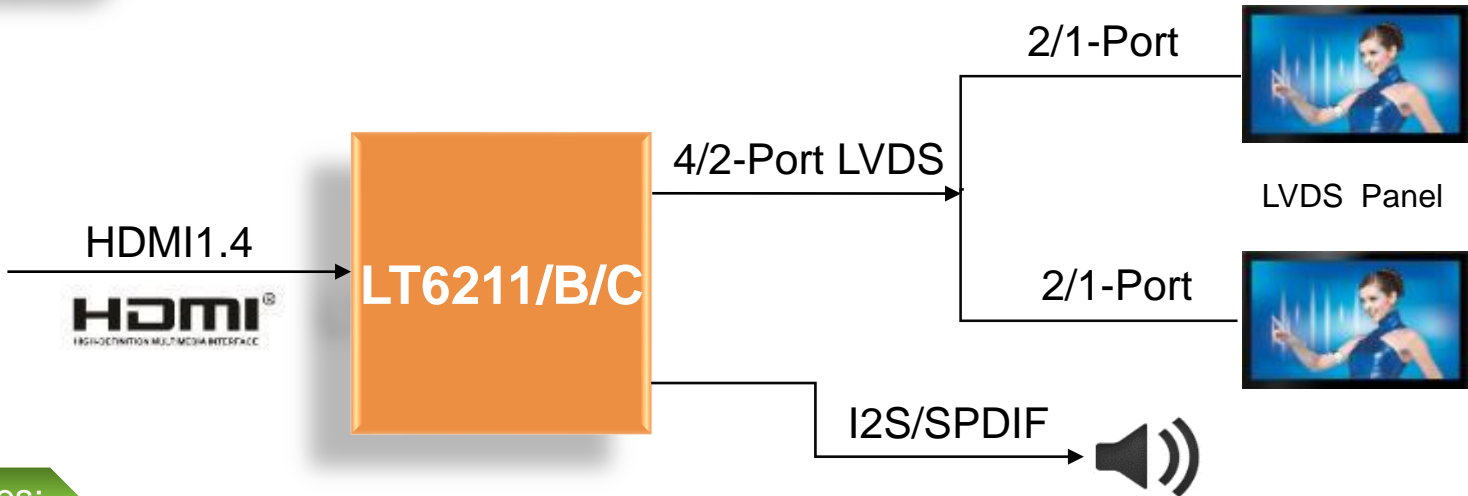
- ◆ HDMI 1.4 Receiver
 - ◆ Compliant with HDMI 1.4, up to 4k@30Hz
 - ◆ Support HDCP 1.4
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DSI 1.02, D-PHY 1.2, DSI 1.02, CSI-2 1.0
 - ◆ 1/2/4 configurable ports
 - ◆ 80Mb/s~1.5Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT6211/B/C

HDMI 1.4 Receiver(4/2-Port LVDS)



Features:

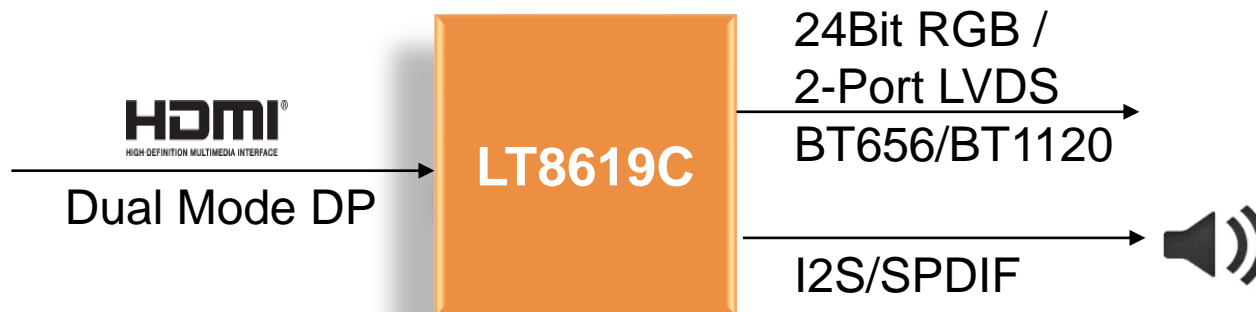
- ◆ HDMI 1.4 Receiver
 - ◆ Compliant with HDMI 1.4, up to 4k@30Hz
 - ◆ Support HDCP 1.4
- ◆ LVDS Transmitter
 - ◆ Compliant with VESA and JEIDA standard
 - ◆ 1/2/4 configurable ports
 - ◆ Maximum 1.2Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT8619C

HDMI 1.4/Dual Mode DP Receiver(TTL)



Features:

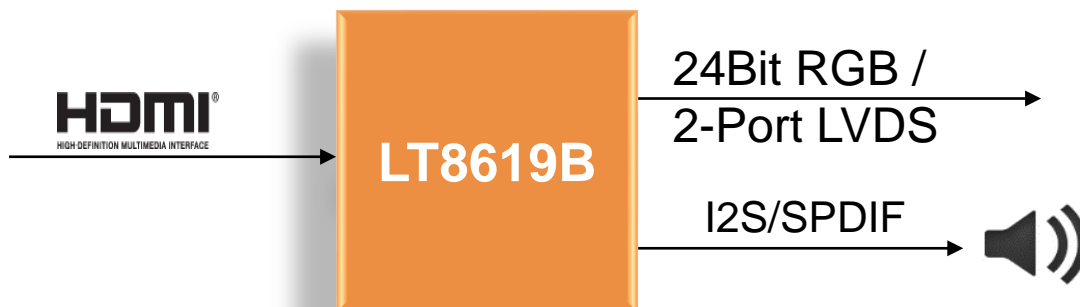
- ◆ Support HDMI 1.4/Dual Mode DP input
- ◆ Support HDCP function
- ◆ Support resolution up to 4K
- ◆ Support RGB/YCbCr output
- ◆ Support Single/Dual Port LVDS output
- ◆ Support 8-channel I2S/SPDIF output
- ◆ Support BT656/BT1120 output
- ◆ Support DDR output

Applications:

- ◆ Car Entertainment
- ◆ TV, Monitor
- ◆ Pico Projector
- ◆ Smart Projector

LT8619B

HDMI 1.4 Full Receiver with Scaler



Features:

- ◆ Support HDMI 1.4 input format
- ◆ Support HDCP function
- ◆ LT8619 output digital RGB 888, RGB 666, RGB 565 up to 4K resolution
- ◆ LT8619B output 2-Port LVDS or digital RGB 888, RGB 666, RGB 565 up to 4K resolution
- ◆ OSD and Scaler
- ◆ LT8619 support 8-channel I2S/SPDIF output
- ◆ LT8619B support 2-channel I2S/SPDIF output

Applications:

- ◆ Car Entertainment
- ◆ TV, Monitor
- ◆ Pico Projector
- ◆ Smart Projector

LT8819/EX

HDMI Receiver(BT656/BT1120)



Features:

- ◆ HDMI to Digital BT656/BT1120 output
- ◆ Compliant with HDMI 1.4
- ◆ Support HDCP function
- ◆ LT8819 support BT656 output formats:480P and 576P
- ◆ LT8819EX support BT656/BT1120 output resolution up to 1080P
- ◆ BT656 output support 8-channel I2S/SPDIF output
- ◆ BT1120 output support 2-channel I2S/SPDIF output

Applications:

- ◆ Car Entertainment
- ◆ Mobile Receiver Devices
- ◆ Video Wall Controller
- ◆ Matrix

LT8631SX/UX

HDMI 1.4/2.0 3:1 Switch



Features:

- 3 inputs, 1 output HDMI/DVI links
- Compliant with HDMI 1.4/2.0/DVI 1.0
- Support data rates up to 6Gbps, resolution up to 4K60Hz
- Integrated HPD switch, DDC switch
- Source/Sink connection detection for flexible system management
- No need external crystal
- Adaptive equalization

Applications:

- ◆ Front panel buffer for advanced television (HDTV) sets
- ◆ Standalone switcher
- ◆ Multiple input displays
- ◆ Projectors
- ◆ A/V receivers

LT8641UX

HDMI 1.4/2.0 4:1 Switch



Features:

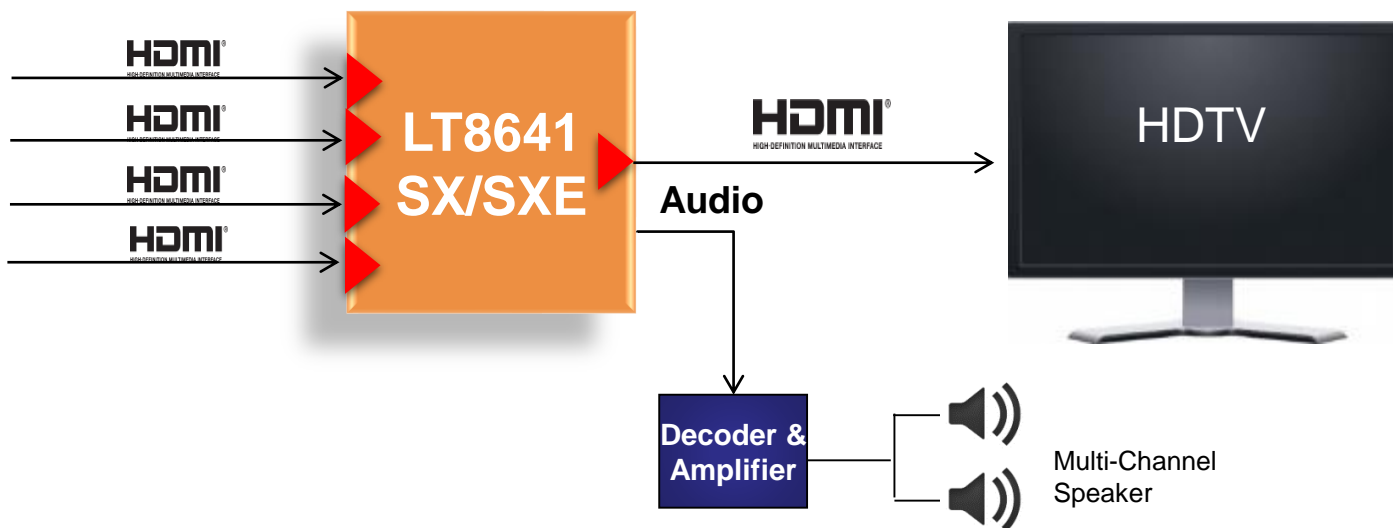
- Low cost HDMI 1.4/2.0 4 to 1 Switch
- Support up to 4k*2k@30Hz/4K*2K@60Hz resolution
- Low power consumption
- Adaptive equalization

Applications:

- ◆ Front panel buffer for advanced television (HDTV) sets
- ◆ Standalone switcher
- ◆ Multiple input displays
- ◆ Projectors
- ◆ A/V receivers

LT8641SX/SXE

HDMI 1.4/2.0 Switch with Jitter Cleaning & Signal Repeating



Features:

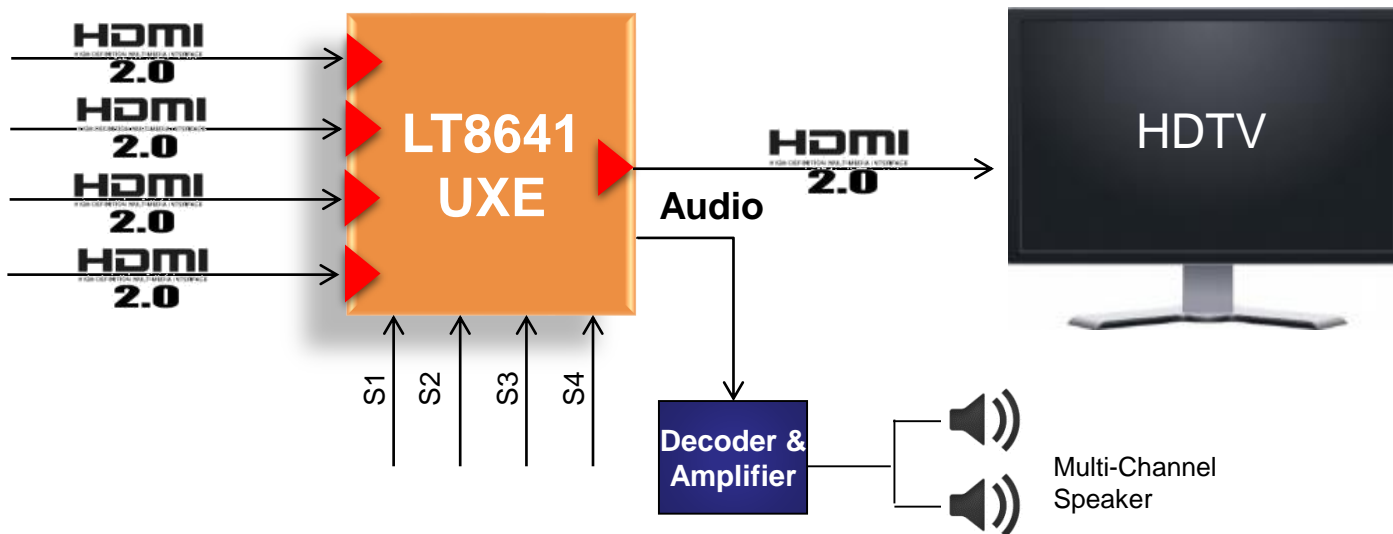
- HDMI 1.4/2.0 4 to 1 switch, jitter cleaning and signal repeating
- Best 4K@30Hz repeating performance up to 15 meters with #26 HDMI cable
- Support HDCP function
- Support HDMI 1.4/2.0 (YCbCr 4:2:0) resolution formats
- Support HDMI resolution format up to 3.4Gbps data rate and 4k*2k @60Hz YCbCr 4:2:0 format
- Support 8-channel I2S/SPDIF output
- Support ARC(Audio Return Channel)

Applications:

- ◆ Embedded TV Switch
- ◆ External HDMI Switch
- ◆ Digital Audio Amplifier
- ◆ HDMI Matrix, Repeater

LT8641UXE

HDMI 2.0 Switch with Audio, Jitter Cleaning & Signal Repeating



Features:

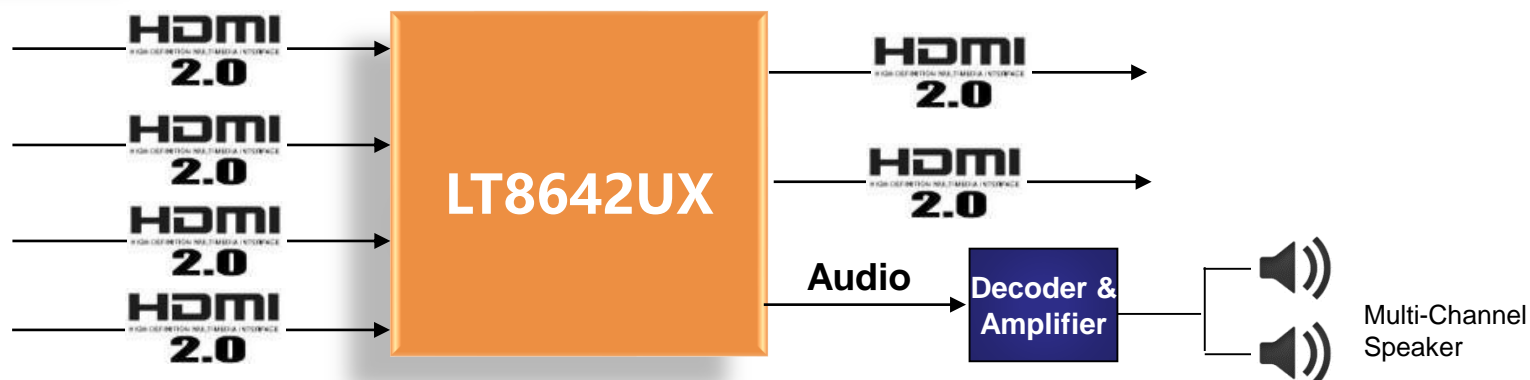
- ◆ HDMI 2.0 4 to 1 switch, jitter cleaning and signal repeating
- ◆ Best repeating performance up to 30 meters with #26 HDMI cable
- ◆ **Support HDCP 2.2 function**
- ◆ Support HDMI /2.0(YCbCr 4:2:0, RGB 4:4:4) resolution formats
- ◆ Support HDMI resolution format up to 6.0Gbps data rate and 4k*2k @60Hz YCbCr 4:2:0 and RGB 4:4:4 formats
- ◆ Support 8-channel I2S/SPDIF output
- ◆ Support ARC(Audio Return Channel)
- ◆ Packaged in QFN128 14mm*14mm

Applications:

- ◆ Embedded TV Switch
- ◆ External HDMI Switch
- ◆ Digital Audio Amplifier
- ◆ HDMI Matrix, Repeater

LT8642UX

4 to 2 HDMI 2.0 Matrix Switch with Audio Output



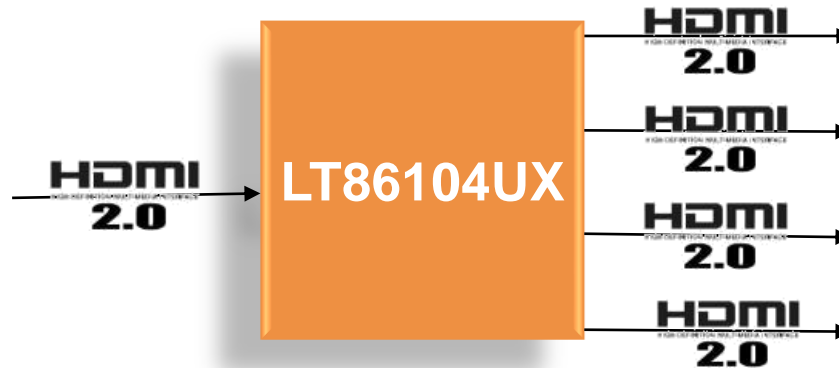
Features:

- ◆ 4 HDMI 2.0 input, 2 HDMI 2.0 outputs matrix switch
- ◆ Support data rate up to 6Gbps
- ◆ Support both AC couple and DC couple mode
- ◆ Low power consumption
- ◆ QFN128 package

Applications:

- ◆ Matrix Switch Box
- ◆ Digital Signage
- ◆ Video Broadcasting

LT86104UX HDMI2.0 1-In 4-Out Splitter



Features:

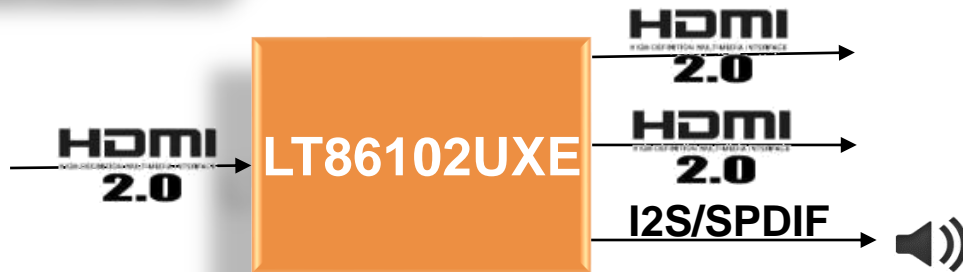
- HDMI 1.4/2.0 specifications compliant
- Support 3D video formats and 4Kx2K extended resolution formats up to 6.0Gbps data rate
- Adaptive equalization and de-emphasis to compensate long cable losses
- ODTs and calibration
- Integrated EDID shadow RAM and embedded EDID
- 5V-tolerant DDC interfaces
- 1 HDMI input port, up to 4 HDMI output ports
- Unlimited cascading for more output ports or signal repeating
- Jitter cleaning PLL for better performance
- DC/AC coupled signal input/output
- No external crystal is needed
- 1.2V and 3.3V power supply

Applications:

- ◆ Multiple display/TV support
- ◆ HDMI/DVI signal splitting/repeating

LT86102UXE

HDMI 2.0 Splitter with HDCP 2.2 support



Applications:

- ◆ Multiple display/TV support
- ◆ HDMI/DVI signal splitting/repeating

Features:

- HDMI2.0 Receiver
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4Kx2K@60Hz
 - Adaptive receiver equalization
 - Support data channel swap(arbitrarily) and polarity inversion(independent)
 - AC and DC couple capable
 - Support 3D and HDR
 - Support 8/10/12-bit color depth
 - Support TMDS descrambling for EMI/RFI reduction
 - Support SCDC and CEC2.0
 - Integrated EDID shadow
 - 5V tolerance DDC/HPD I/Os
- HDMI2.0 Transmitter
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - Compliant with HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4Kx2K@60Hz
 - Programmable transmitter swing and pre-emphasis
 - Support channel swap(arbitrarily) and polarity inversion(independent)
 - DC couple capable
- Downstream receiver sensing
- Support 3D and HDR
- Support 8/10/12-bit color depth
- Support TMDS scrambling for EMI/RFI reduction
- Support SCDC and CEC2.0
- 5V tolerance DDC/HPD I/Os
- Digital Audio Output
 - Up to four I2S interface supporting 8-channel audio, with sample rates of 32~192 kHz and sample sizes of 16~24 bits
 - SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate
 - IEC60958 or IEC61937 compatible
- Miscellaneous
 - Internal rterm calibration
 - External crystal supports 25MHz
 - Integrated microprocessor
 - Integrated SPI master
 - Embedded SPI flash for firmware and HDCP keys
 - Integrated 100/400kHz I2C slave for debug and firmware update
 - 1.2V core power supply & 3.3V I/O power supply
 - -40° C to +125° C ambient operating temperature range
 - 76-pin 9x9mm QFN package

LT86102UX HDMI 2.0 Splitter



Applications:

- ◆ Multiple display/TV support
- ◆ HDMI/DVI signal splitting/repeating

Features:

- HDMI 1.4/2.0 specifications compliant
- Support 3D video formats and 4Kx2K extended resolution formats up to 6.0Gbps data rate
- Supports 8/10/12bit deep color
- Supports 4K2K video up to 60Hz frame rate
- Supports all video format which is compliant with HDMI2.0/1.4 specification
- Adaptive equalization and de-emphasis to compensate long cable losses
- ODTs and calibration
- Integrated EDID shadow RAM and embedded EDID
- 5V-tolerant DDC interfaces
- 1 HDMI input port, up to 2 HDMI output ports
- Unlimited cascading for more output ports or signal repeating
- Jitter cleaning PLL for better performance
- DC/AC coupled signal input/output
- No external crystal is needed
- Packaged in TQFP100 14mm x 14mm

LT86102SX/LT86104SX

HDMI 1.4 Splitter



Features:

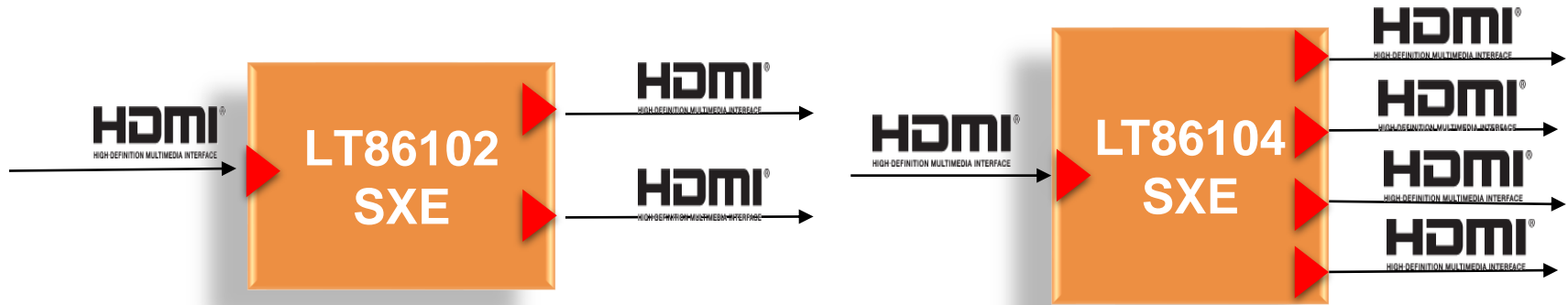
- HDMI 1.4/DVI 1.0 specifications compliant
- Support 3D video formats and 4Kx2K extended resolution formats up to 3.4Gbps data rate
- Adaptive equalization and de-emphasis to compensate long cable losses
- ODTs and calibration
- Integrated HDCP repeater engine compliant with HDCP 1.4 specification
- Fully hardware-controlled or optional software-controlled HDCP operations
- Pre-programmed HDCP key sets or external EEPROM stored key sets
- Integrated CEC controller
- Integrated EDID shadow RAM and embedded EDID
- 5V-tolerant DDC interfaces
- 1 HDMI/DVI input port, 2 or 4 HDMI/DVI output ports
- Unlimited cascading for more output ports or signal repeating
- LQFP80 package and LQFP128 package

Applications:

- ◆ Multiple display/TV support
- ◆ HDMI/DVI signal splitting/repeating

LT86102SXE/LT86104SXE

HDMI 1.4/2.0 Splitter with Jitter Cleaning & Signal Repeating



Features:

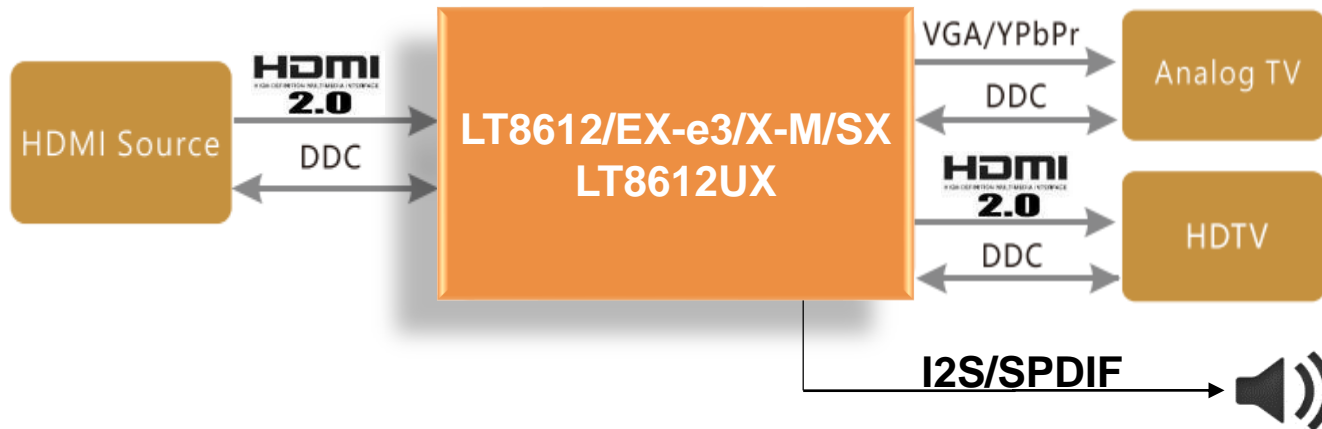
- HDMI 1.4/2.0 1 to 2, 1 to 4 Splitter, and jitter cleaning, signal repeating two chip in one
- Compliant with HDCP 1.4
- Best 1080P repeating performance up to 20 meters with #26 HDMI cable
- Best 4K@30Hz repeating performance up to 15 meters with #26 HDMI cable
- Support HDMI resolution formats up to 3.4Gbps data rate and 4K*2K @60Hz YCbCr 4:2:0 format
- As HDMI repeater it can support very long input distance and output distance
- LQFP80 and LQFP128 package

Applications:

- ◆ Digital Signage
- ◆ HDMI Matrix, Repeater
- ◆ HDMI/DVI Splitter
- ◆ Video Wall

LT8612/EX-e3/X-M/SX/UX

HDMI2.0/1.4 to HDMI2.0/1.4 & VGA/YPbPr



Features:

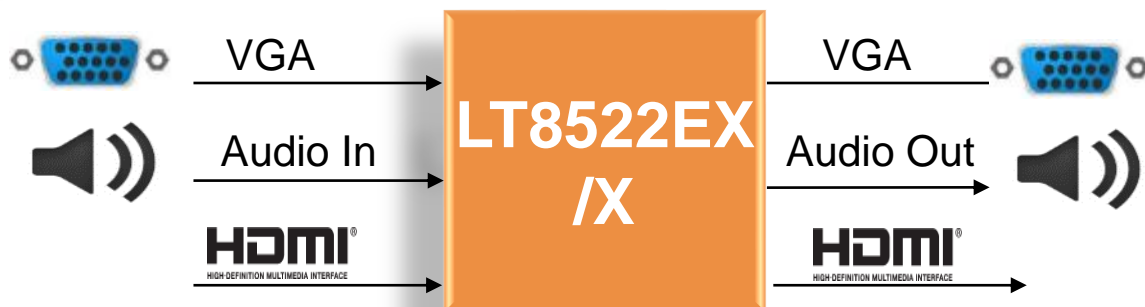
- ◆ HDMI 2.0/1.4 to HDMI 2.0/1.4 & VGA/YPbPr dual outputs
- ◆ Support HDCP function
- ◆ Support all HDMI 2.0/1.4 resolution formats
- ◆ Support 8/10/12 bit deep colour, up to 6 Gbps data rate
- ◆ LT8612EX-e3/SX/UX supports I2S and SPDIF outputs
- ◆ LT8612X-M with integrated MCU for space efficiency
- ◆ **LT8612UX supports HDMI 2.0 up to 4K@60Hz, with QFN76 package**

Applications:

- ◆ Digital Signage
- ◆ PC, Laptop Mother Boards
- ◆ HDMI to VGA/YPbPr Dongle
- ◆ Car Entertainment System

LT8522EX/X

HDMI & VGA Matrix Switch



Features:

- ◆ HDMI 1.4(LT8522EX) input and VGA input,HDMI and VGA Output,Matrix switch
- ◆ Compliant with HDMI 1.4
- ◆ Support HDCP function
- ◆ Support all HDMI 1.4 resolution formats
- ◆ Support 8/10/12 bit deep color,4K*2K up to 3.4Gbps data rate
- ◆ Low power consumption(no needed extra power adapter)

Applications:

- ◆ Matrix Switch Box
- ◆ VGA to HDMI converter
- ◆ HDMI to VGA converter

LT86121TXE

HDMI 2.0 Repeater with DSC Encoder



Features:

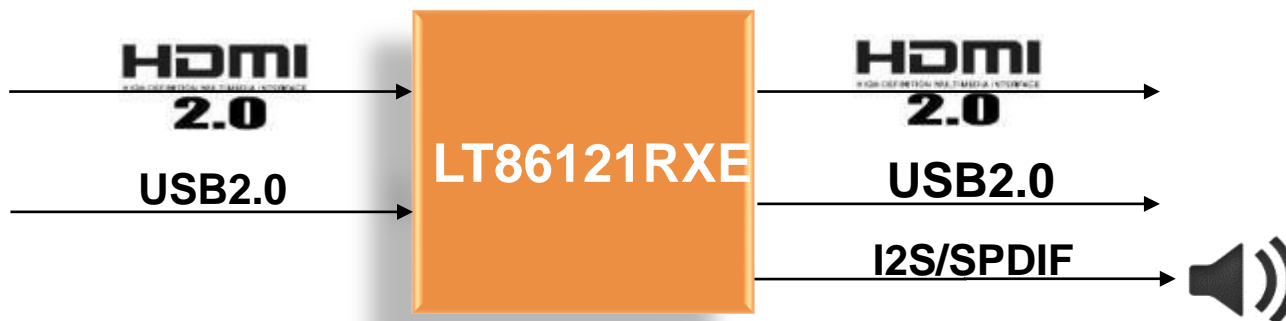
- HDMI2.0 Transmitter
 - Compliant with HDMI 2.0b,HDMI 1.4 and DVI 1.0
 - Integrated DSC encoder
 - Data rate up to 6Gbps
 - Support 4K@60Hz
 - On-die back termination
 - Support 3D video
 - FEC support
- Digital Audio Output
 - Support SPDIF and 2-channel I2S audio output
- Miscellaneous
 - Integrated microprocessor
 - GPIOs for system controls

Applications:

- ◆ Active Cables
- ◆ Surveillance
- ◆ KVM Extension

LT86121RXE

HDMI 2.0 Repeater with DSC Decoder



Features:

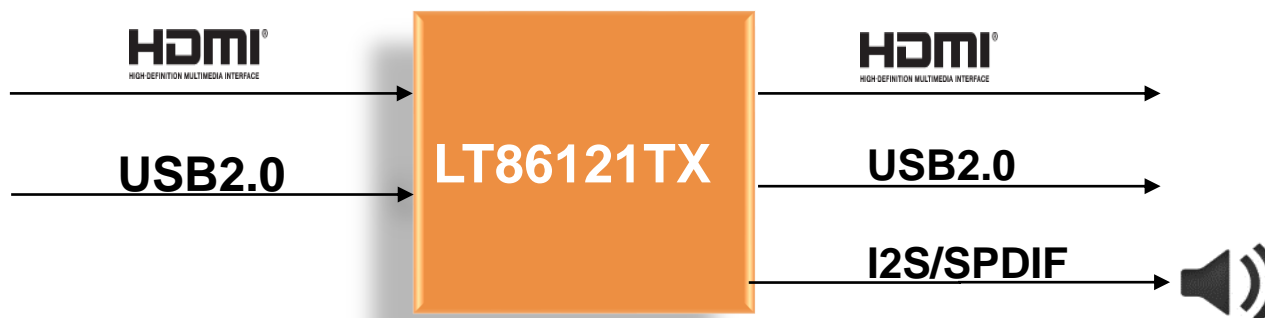
- HDMI2.0 Receiver
 - Compliant with HDMI 2.0b, HDMI 1.4 and DVI 1.0
 - Data rate up to 6Gbps
 - Support 4K@60Hz
 - 3D support
 - Integrated EDID shadow
 - Integrated DSC decoder
 - FEC support
- Digital Audio Output
 - Support SPDIF and 2-channel I2S audio output
- Miscellaneous
 - Integrated microprocessor
 - GPIOs for system controls

Applications:

- ◆ Active Cables
- ◆ Surveillance
- ◆ KVM Extension

LT86121TX

HDMI 1.4 Repeater with DSC Encoder



Features:

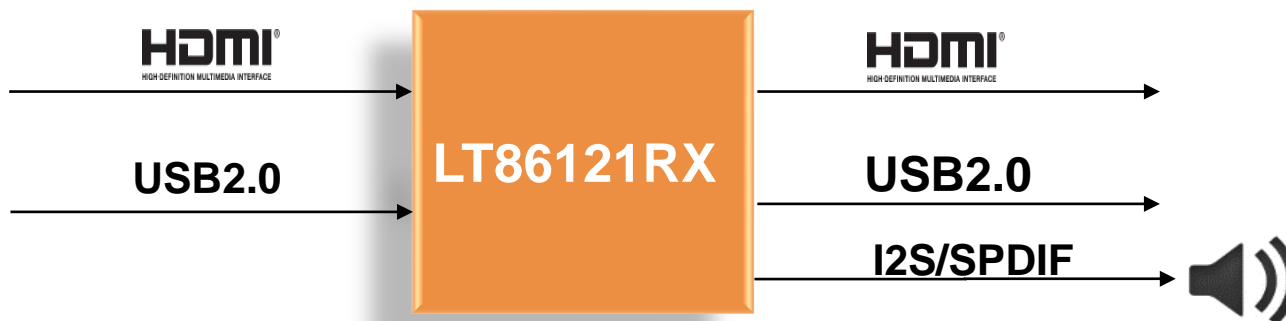
- HDMI1.4 Transmitter
 - Compliant with HDMI 1.4 and DVI 1.0
 - No HDCP encryption
 - Integrated DSC encoder
 - Data rate up to 3Gbps
 - Support 4K@30Hz
 - On-die back termination
 - Support 3D video
 - FEC support
- Digital Audio Output
 - Support SPDIF and 2-channel I2S audio output
- Miscellaneous
 - Integrated microprocessor
 - GPIOs for system controls

Applications:

- ◆ Active Cables
- ◆ Surveillance
- ◆ KVM Extension

LT86121RX

HDMI 1.4 Repeater with DSC Decoder



Features:

- HDMI1.4 Receiver
 - Compliant HDMI 1.4 and DVI 1.0
 - No HDCP decryption
 - Data rate up to 3Gbps
 - Support 4K@30Hz
 - Support 3D video
 - Integrated EDID shadow
 - Integrated DSC decoder
 - FEC support
- Digital Audio Output
 - Support SPDIF and 2-channel I2S audio output
- Miscellaneous
 - Integrated microprocessor
 - GPIOs for system controls

Applications:

- ◆ Active Cables
- ◆ Surveillance
- ◆ KVM Extension

LT86101X

HDMI 1.4/2.0 Re-driver, Dual-mode DP to HDMI 2.0 level-shifter



Features:

- ◆ Compliant with HDMI 1.4b and 2.0 Standard
- ◆ Support up to 6Gb/s Data Rates
- ◆ **Support Dual-mode DP input**
- ◆ Integrated DDC Interception and CEC
- ◆ Support Hot-Plug Detect
- ◆ Support Only AC Coupled Interface
- ◆ Programmable Input Equalization, Output Swing and De-emphasis
- ◆ Internal MCU and Flash for Online Firmware Upgrade
- ◆ Support External I2C Debug
- ◆ 1.8V/3.3V Power Supply
- ◆ Packaged in 5mm*5mm QFN40

Applications:

- ◆ Digital TV and Blu-Ray DVD Player
- ◆ Digital Project and LCD Display
- ◆ Home Entertainment and HDMI Cable Extender
- ◆ PC, Notebook, All-in-Ones Computer and Docking

LT86101UXE**HDMI 2.0 Repeater****Features:**

- ◆ Compliant with HDMI 1.4/2.0 specifications
- ◆ Support 3D video formats and 4K*2K extended resolution formats up to 6.0Gbps data rate
- ◆ **Very good performance at 1080P & 4K30**
- ◆ Support 8/10/12 bit deep color
- ◆ Support 4K2K video up to 60Hz frame rate
- ◆ Adaptive equalization and de-emphasis to compensate long cable losses
- ◆ ODTs and calibration
- ◆ Unlimited cascading for more output ports or signal repeating
- ◆ Jitter cleaning PLL for better performance
- ◆ DC/AC coupled signal input/output

Applications:

- ◆ Multiple display/TV support
- ◆ DVI/HDMI cable-extender modules
- ◆ Cable assemblies
- ◆ TMDS cable equalizer

LT86101SX/UX

HDMI 1.3/1.4 Repeater



Features:

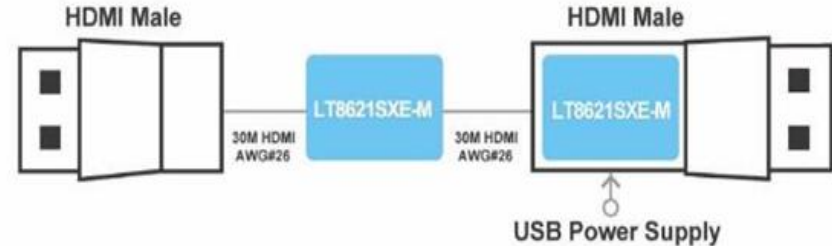
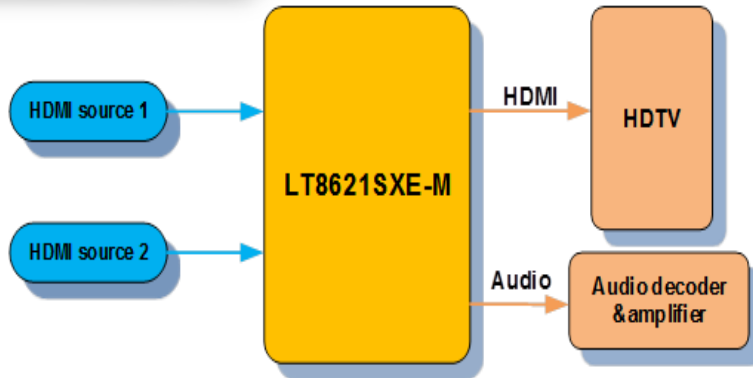
- ◆ Extend HDMI/Network Cable length up to 50M
- ◆ Compliant with HDMI 1.3 and HDMI 1.4
- ◆ Support HDCP bypass function
- ◆ Support HDMI resolution formats up to 3.4Gbps data rate
- ◆ Support cascade connection

Applications:

- ◆ Multiple display/TV support
- ◆ DVI/HDMI cable-extender modules
- ◆ Cable assemblies
- ◆ TMDS cable equalizer

LT8621SXE-M

HDMI 1.4/2.0 2 to 1 Switch with Repeater



Features:

- 2 inputs 1 output HDMI 1.4/2.0 switch, with TMDS signal repeater
- Support HDCP1.4
- HDMI resolution up to 4K@30Hz, 4K@60Hz (YCbCr 4:2:0)
- Support HDMI signal repeating through HDMI cable and CAT6 cable
- Support digital audio out that allow direct audio amplifier connection, support 2-channel I2S or SPDIF outputs
- Support cascading with either HDMI or CAT6 cable
- Small package and low power which allow device being embedded in HDMI connector
- Support 3D format
- Integrated MCU for area and BOM saving

Applications:

- ◆ HDMI Extender via Cat6/Cat7 Cable
- ◆ 30/60 HDMI Cable

LT8644

16 Channel Cross-point Switch



Features:

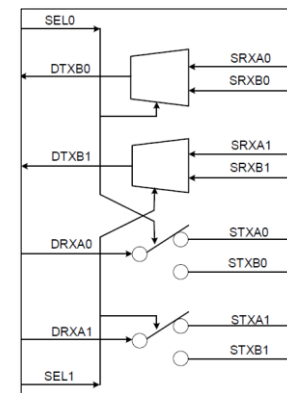
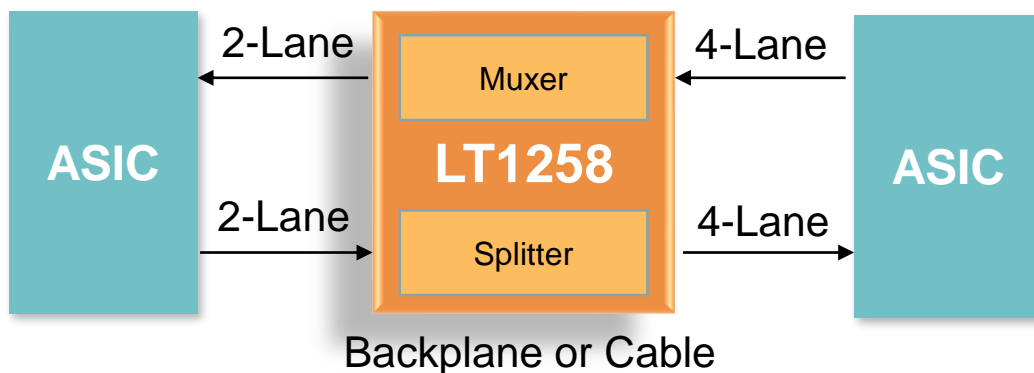
- ◆ 16 differential channel, cross-point switch to any channel
- ◆ Support data rate up to 3.4Gbps
- ◆ Support both AC couple and DC couple mode
- ◆ Low power consumption

Applications:

- ◆ Matrix Switch Box
- ◆ Digital Signage
- ◆ Video Broadcasting

LT1258

12.5Gbps Dual-lane 2:1 Muxer and 1:2 Splitter with Equalization and De-Emphasis



Features:

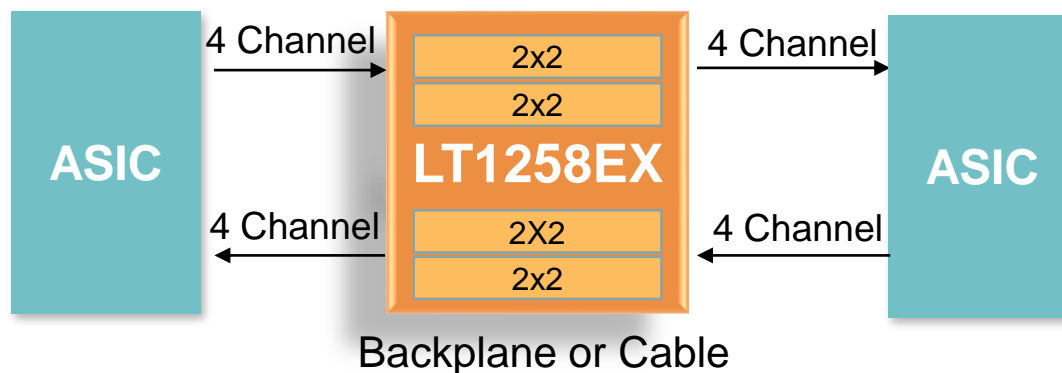
- Support 100Mbps to 12.5Gbps Data Rate
- Input Signal Detect and RX Detect Support
- 2x2 Analog Cross-Point Switch
- Data Lane Polarity Swappable
- Up to 30dB Equalization at 6.25GHz
- Programmable De-emphasis up to 12dB
- Up to 1.2V output Swing
- Programmable Through Pin Selection, EEPROM or SMBus Interface
- Selectable 2.5-V or 3.3-V Supply Voltage

Applications:

- ◆ 10G-KR
- ◆ CAUI-10
- ◆ SAS/SATA
- ◆ CPRI
- ◆ PCIe
- ◆ USB3.x

LT1258EX

12.5Gbps 8-Channel Retimer



Features:

- Support 8Gbps, 9.8Gbps to 12.5Gbps and theirs 1/2, 1/4, 1/8 Data Rate
- Integrated CDR for Jitter clean
- Input Signal Detect and RX Detect Support
- 2x2 Cross-Point Switcher
- Up to 4 forward channel and 4 backward channel working simultaneously
- On chip EYE-Open Monitor and PRBS Generator
- Data Lane Polarity Swappable
- Up to 30dB Equalization at 6.25GHz
- Programmable De-emphasis up to 12dB
- Up to 1.2V output Swing
- Programmable Through Pin Selection, EEPROM or SMBus Interface
- Selectable 2.5-V or 3.3-V Supply Voltage

Applications:

- ◆ 10G-KR
- ◆ CAUI-10
- ◆ SAS/SATA
- ◆ CPRI
- ◆ PCIe
- ◆ USB3.x

LT8511EX

HDMI 1.4 to VGA Converter



Features:

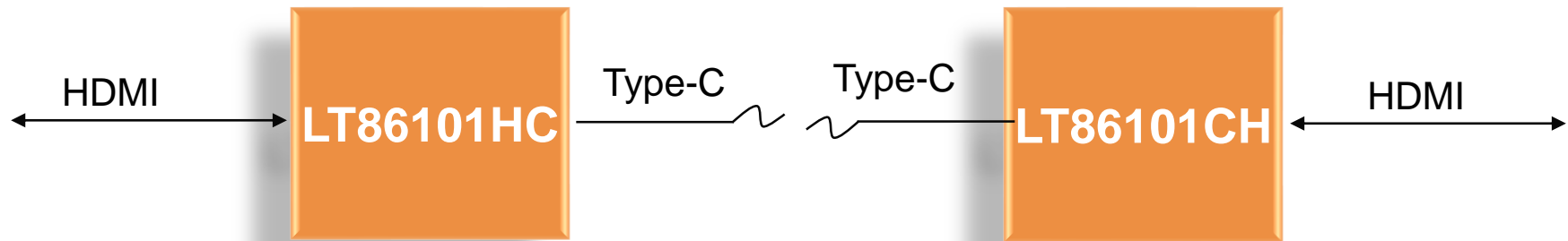
- ◆ Single-chip HDMI video processor integrated equalizer to driver the best signal quality
- ◆ Compliant with HDMI 1.4, DVI 1.0, 8/10/12 bit deep color and 4K*2K, up to 3.4 GHz data rate
- ◆ Support YCC to RGB and RGB to YCC conversion in ITU-R BT.601 and 709 color space
- ◆ Support pixel clock rate up to 300MHz up to 4K*2K @30Hz resolution
- ◆ Power consumption: 5V 140mA
- ◆ HDMI cable support up to 10M
- ◆ Support 8-channel I2S/SPDIF output

Applications:

- ◆ Mobile Phone
- ◆ Tablet/Pad
- ◆ Ultra book
- ◆ Home Game Console
- ◆ PC/Graphic Card

LT86101HC/LT86101CH

HDMI to Type-C/Type-C to HDMI Converter



Features:

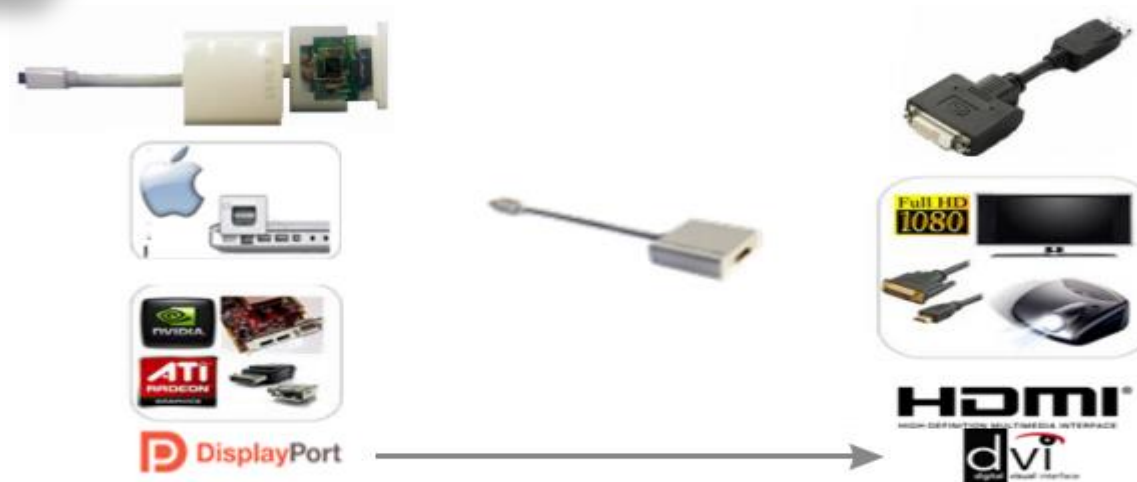
- ◆ Compliant with HDMI 1.4b, Type-C r1.2, USB PD 2.0 and HDMI 1.4b Alt Mode v1.0 Standards
- ◆ Support Hot-Plug Detect for HDMI Interface
- ◆ Support DDC and CEC
- ◆ Support Only AC Couple HDMI Interface
- ◆ Programmable Input Equalization, Output Swing and De-emphasis
- ◆ USB Full-Featured, Orientation and Role Detection
- ◆ 2 Power Roles Supported: Source and Sink
- ◆ 2 Data Roles Supported: DFP, UFP and DRP
- ◆ 3-level Current Ability Advertise/Detection for Type-C Power: USB Default, 1.5A@5V, 3A@5V
- ◆ Internal MCU and Flash for Online Firmware
- ◆ Support External I2C Debug
- ◆ 1.8V/3.3V Power supply
- ◆ Package in 5mm*5mm QFN40

Applications:

- ◆ Smartphone, Tablet and Other Mobile Devices
- ◆ VR/AR Helmet Display and Home Entertainment
- ◆ PC, Notebook, All-in-Ones Computer

LT8611SX/SXD

Dual mode DP Repeater & HDMI/DVI Level Shifter



Features:

- Display Port Repeating
- HDMI V1.4/DVI V1.0 Level Shifting
- Support HDMI 2.0 4:2:0 format
- DDC Level Shifting
- DDC Buffer Support
- HPD Level Shifting
- Power supply 3.3 V \pm 10%
- ESD protection up to 3 kV
- Power-saving mode by source-side disablement(using output enable)as well as sink-side detection(using Hot Plug Detect)
- Transparent operation: no re-timing or software configuration required

Applications:

- ◆ PC Motherboard/Graphics Card
- ◆ Dual mode DP to HDMI/DVI Cable Adaptor
- ◆ Digital Set-Top-Box 1-to-1
- ◆ Dual mode DP Repeater

LT87101

DP1.2 Re-driver



Features:

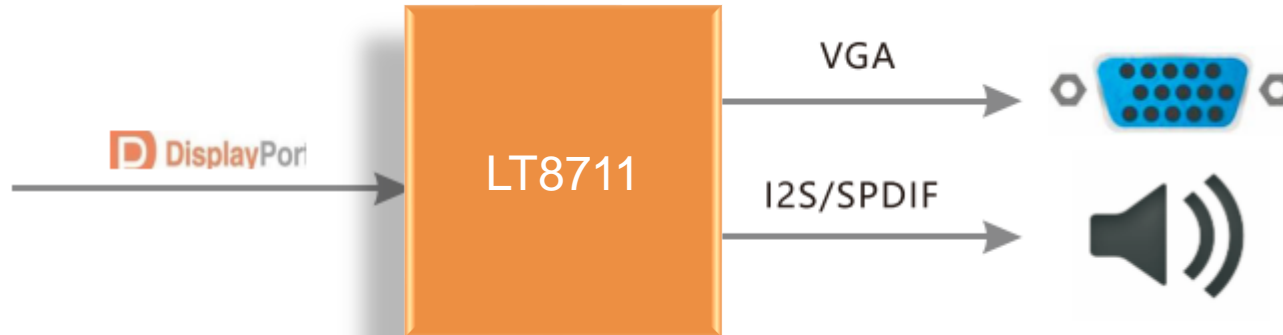
- Compliant with VESA DP1.2 Standard
- Support up to 2.7 Gb/s Data Rates
- Integrated AUX Interception
- Programmable Input Equalization, Output Swing and De-emphasis
- Internal MCU and Flash for Online Firmware Upgrade
- Support External I2C Debug
- 1.8V/3.3V Power Supply
- Packaged in 5mm*5mm QFN40

Applications:

- ◆ PC
- ◆ Notebook
- ◆ All-in-Ones Computer
- ◆ Docking
- ◆ Home Entertainment
- ◆ DP Cable Extender

LT8711

Dual mode DP to VGA Converter



Features:

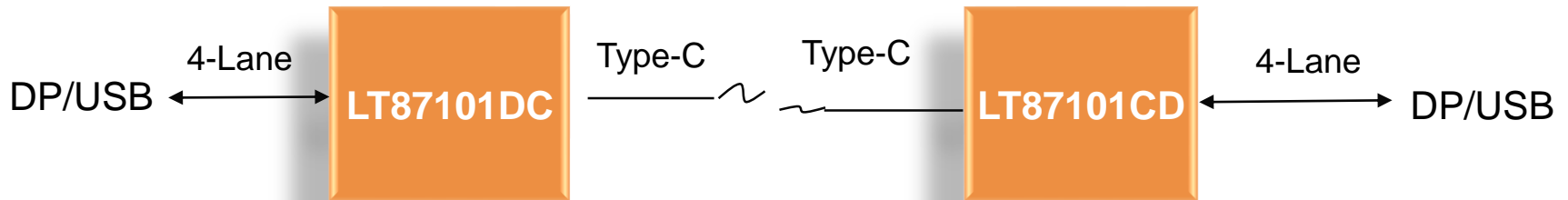
- ◆ Compliant with VESA DP1.2 Standard
- ◆ Support VGA output up to 200MSPS
- ◆ Packaged in 9mm*9mm QFN64

Applications:

- ◆ Tablet PC, Notebook PC
- ◆ Dongle

LT87101DC/LT87101CD

DP to Type-C/Type-C to DP Converter



Features:

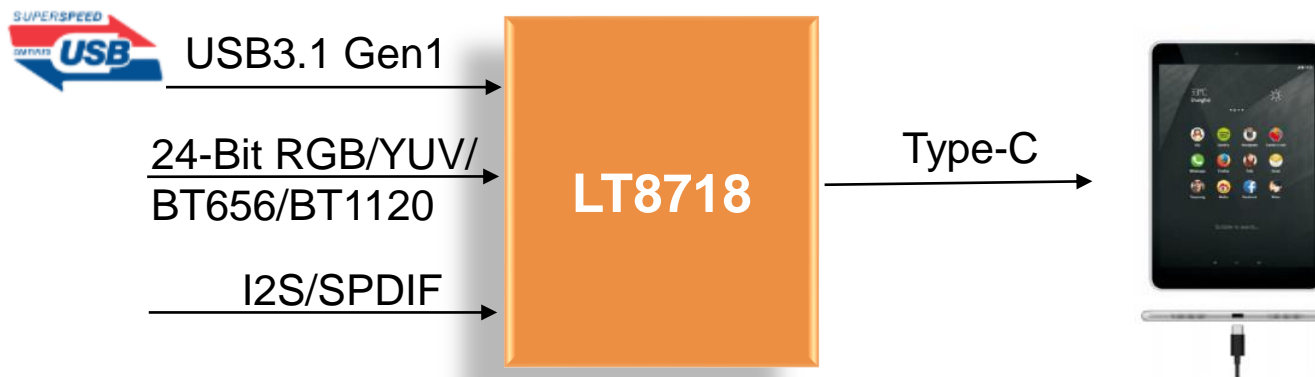
- Compliant with VESA DP1.2, Type-Cr1.2, USB PD2.0 and DP Alt Mode v1.0 Standards
- Sport either Pin Assignment C/E or Pin Assignment D/F, but Not Simultaneously
- Support Hot-Plug Detect for DP Interface
- Integrate AUX Interception
- Programmable Input Equalization, Output Swing and De-emphasis
- 2 Power Roles Supported: Source and Sink
- 2 Data Roles Supported: DFP, UFP and DRP
- 3-level Current Ability Advertise/Detection for Type-C Power: USB Default, 1.5A@5V, 3A@5V
- SBU Data Path Control for DP Alt Mode
- Internal MCU and Flash for Online Firmware Upgrade
- Support External I2C Debug
- 1.8V/3.3V Power Supply
- Packaged in 5mm*5mm QFN40

Applications:

- ◆ Smartphone, Tablet and Other Mobile Devices
- ◆ VR/AR Helmet Display and Home Entertainment
- ◆ PC, Notebook, All-in-Ones Computer and Docking

LT8718

TTL to Type-C(DP/eDP) with USB3.1 Switch



Features:

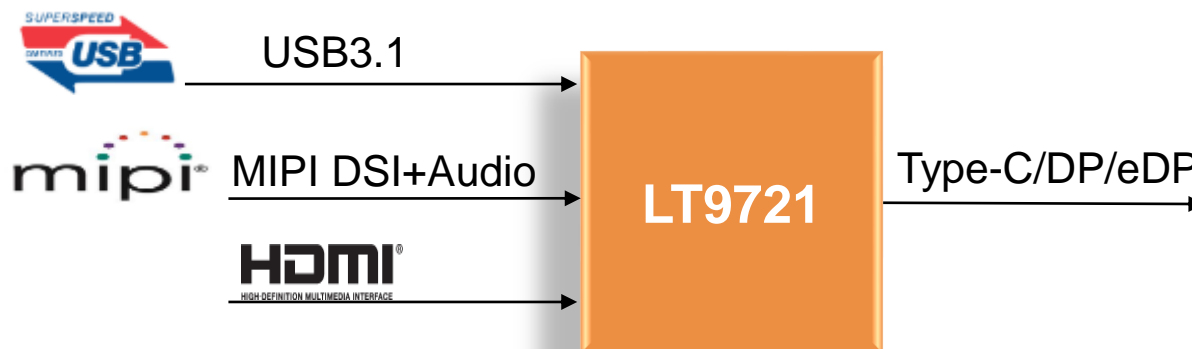
- ◆ 24-bit RGB/YUV and BT656/BT1120 input Resolution up to 4K*2K@30Hz
- ◆ Resolution up to 4K*2K@60Hz for YCbCr 4:2:0
- ◆ DP 1.2 transmitter up to 4K*2K@60Hz
- ◆ USB Type-C output interface

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras

LT9721

HDMI/MIPI DSI to Type-C(DP/eDP) with USB 3.1 Switch



Features:

- ◆ Single-Port MIPI DSI receiver up to 1080P@60Hz for RGB format and 4K@30Hz for YUV420 format
- ◆ HDMI 1.4 receiver up to 4K*2K@30Hz for RGB format and 4K*2K@60Hz for YUV 420 format
- ◆ DP 1.2 Transmitter up to 4K*2K@60Hz
- ◆ USB Type-C output interface

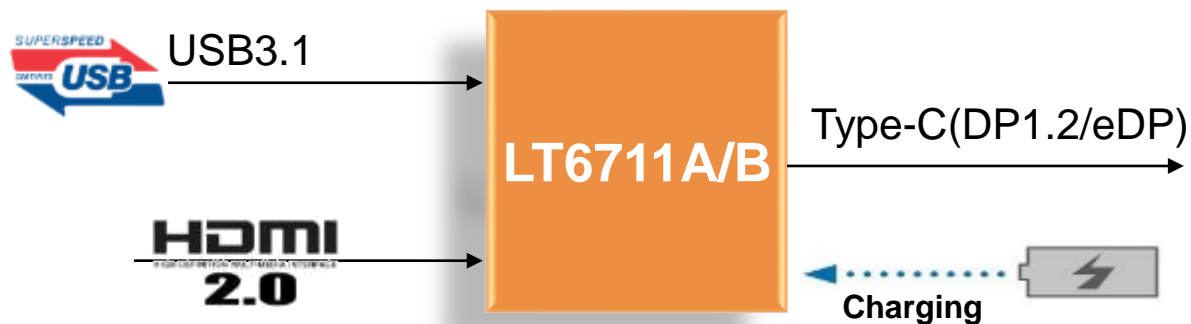
Applications:

- ◆ Smart Phone
- ◆ PAD/Tablets
- ◆ Digital video cameras
- ◆ Digital still Cameras



LT6711A/B

HDMI 2.0 to Type-C(DP 1.2/eDP) with USB 3.1 Switch



Features:

- ◆ HDMI 2.0 receiver up to 4K@60Hz
- ◆ DP 1.2 Transmitter up to 4K*2K@60Hz
- ◆ USB Type-C output interface
- ◆ LT6711B BGA81 Package

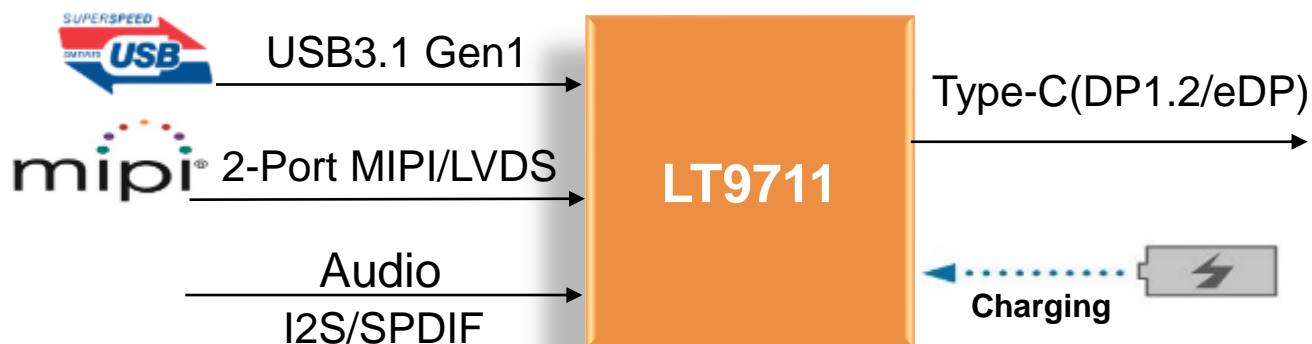
Applications:

- ◆ Smart Phone
- ◆ PAD/Tablets
- ◆ Digital video cameras
- ◆ Digital still cameras



LT9711

2-Port MIPI/LVDS to Type-C (DP 1.2/eDP) with USB 3.1 Switch



Features:

- ◆ 2-Port MIPI/LVDS receiver up to 4K@60Hz
- ◆ DP 1.2 Transmitter up to 4K*2K@60Hz
- ◆ USB Type-C output interface

Applications:

- ◆ Smart Phone
- ◆ PAD/Tablets
- ◆ Digital video cameras
- ◆ Digital still cameras

LT8711V

Type-C/DP 1.2 to VGA Converter with Audio



Features:

- USB Type-C
 - Compliant with VESA Displayport Alt Mode on USB Type-C standards V1.0
 - Compliant with USB Power Delivery specification R2.0,V1.0
 - Compliant with USB Type-C Cable and Connector specification R1.2
 - Built-in dual CC controllers for charger and normal communication
 - 3 data roles supported:DFP,UFP and DRP
- DP1.2 Receiver
 - Compliant with VESA DP1.2 and Embedded Displayport(eDP) V1.4
 - No HDCP decryption
 - 1/2 configurable data lanes
 - 1.62/2.7/5.4Gbps per data lane
 - Support SSC
 - 1Mbps AUX channel
 - Adaptive or programmable receiver equalization
- Miscellaneous
 - Support swift Charge
 - USB billboard module integrated
 - External oscillator
 - Integrated microprocessor
 - GPIOs for VBUS/VCONN/AUX and other system controls
 - Firmware update through I2C or USB interface

Applications:

- ◆ Tablet PC, Notebook PC
- ◆ Dongle

LT8711H-C

Type-C/DP 1.2 to HDMI 1.4 Converter



Features:

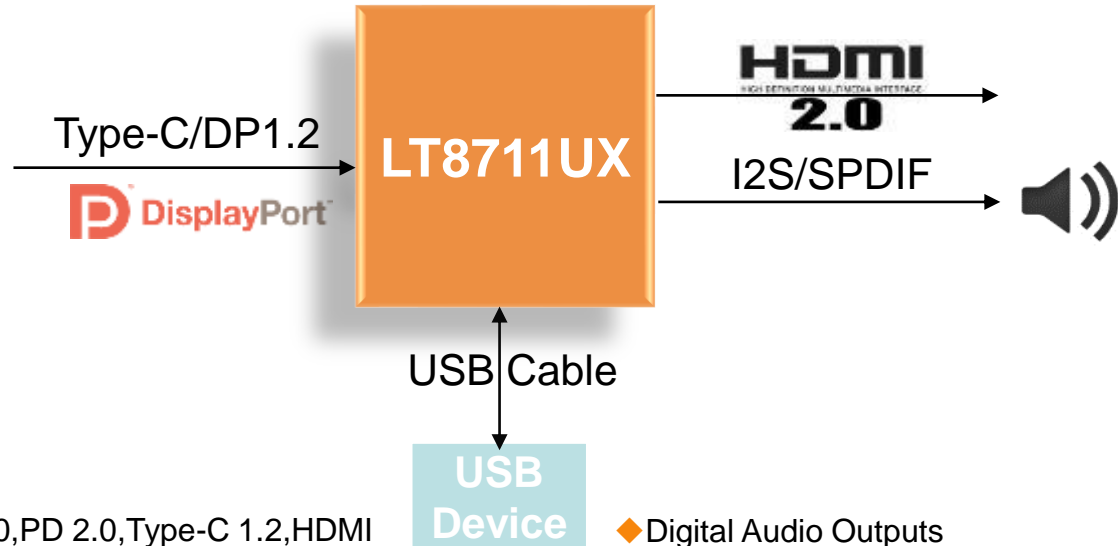
- USB Type-C
 - Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - Integrated CC1
- DP Receiver
 - Compliant with DP 1.2
 - 1.62/2.7Gbps
- HDMI Transmitter
 - Compliant with HDMI 1.4, DVI 1.0
 - Data rate up to 3.4Gbps
 - 4K@30Hz

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8711UX

Type-C/DP 1.2 to HDMI 2.0 Converter with Audio&USB 3.0 Switch



Features:

- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - ◆ Dual CC controllers
 - ◆ High speed switch
- ◆ DP Receiver
 - ◆ Compliant with DP 1.2, HDCP 1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
- ◆ HDMI Transmitter
 - ◆ Compliant with HDMI 2.0/1.4, DVI 1.0, HDCP 2.2/1.4
 - ◆ 6Gbps
 - ◆ 4k@60Hz
 - ◆ AC-couple capable
- ◆ Digital Audio Outputs
 - ◆ I2S/SPDIF
 - ◆ 8-channel LPCM or compressed audio
 - ◆ 192kHz

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8711HE

Type-C/DP1.2 to HDMI 2.0 Converter



Features:

◆ USB Type-C

- ◆ Compliant with VESA Displayport Alt Mode on USB Type-C standards V1.0
- ◆ Compliant with USB Power Delivery specification R2.0,V1.0
- ◆ Compliant with USB Type-C Cable and Connector specification R1.2
- ◆ Compliant with HDMI 1.4b Alt Mode on USB Type-C specification V1.0
- ◆ Compliant with DP Alt Mode 1.0,PD 2.0,Type-C 1.2,HDMI 1.4b Alt Mode 1.0
- ◆ Built-in dual CC controllers for charger and normal communication
- ◆ 3 data roles supported:DFP,UFP and DRP

◆ DP1.2 Receiver

- ◆ Compliant with VESA DPI1.2 and Embedded Displayport(eDP) V1.4
- ◆ No HDCP decryption
- ◆ 1/2/4 configurable data lanes
- ◆ 1.62/2.7/5.4Gbps per data lane
- ◆ Support SSC
- ◆ 1Mbps AUX channel
- ◆ Support 4K@60Hz

◆ HDMI 2.0 Transmitter

- ◆ Compliant with HDMI 2.0,HDMI 1.4 and DVI 1.0
- ◆ Data rate up to 6Gbps
- ◆ Support 4K@60Hz
- ◆ Support TMDS scrambling for EMI/RFI reduction
- ◆ Support SCDC

◆ Miscellaneous

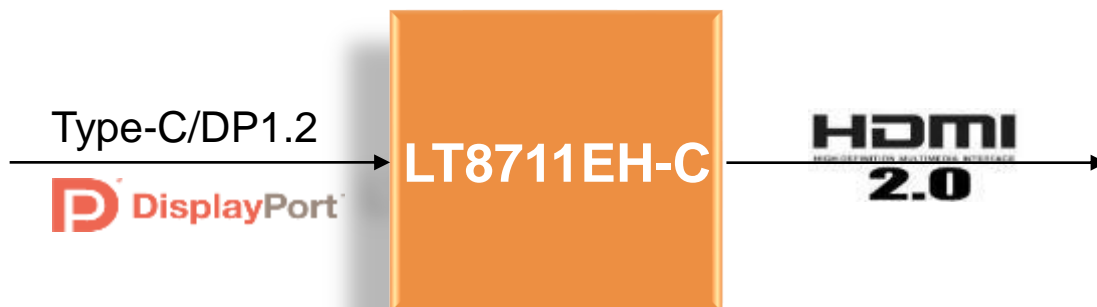
- ◆ DP receiver to HDMI transmitter bypass to support HDMI Alt Mode
- ◆ Support swift Charge
- ◆ USB billboard module and USB 2.0 switch integrated
- ◆ Internal or external oscillator
- ◆ Integrated microprocessor
- ◆ EmbeddedSPI flash for firmware
- ◆ GPIOs for VBUS/VCONN/AUX and other system controls

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8711EH-C

Type-C/DP 1.2 to HDMI 2.0 Converter



Features:

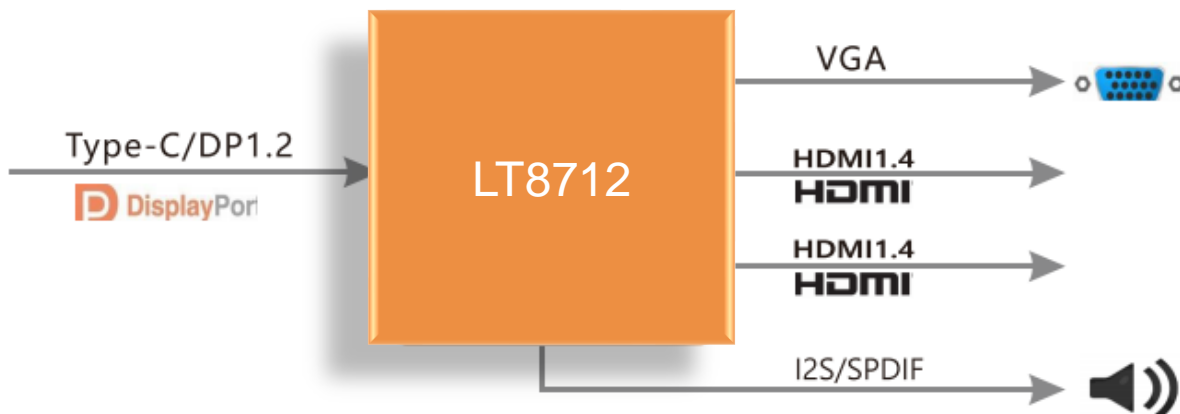
- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - ◆ Integrated CC1
 - ◆ MCU
- ◆ DP Receiver
 - ◆ Compliant with DP 1.2, HDCP 1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
- ◆ HDMI Transmitter
 - ◆ Compliant with HDMI 2.0/1.4, DVI 1.0, HDCP 2.2/1.4
 - ◆ 6Gbps
 - ◆ 4K@60Hz
 - ◆ AC-couple capable

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8712

Type-C/DP 1.2 to HDMI 1.4 & VGA+Audio



Features:

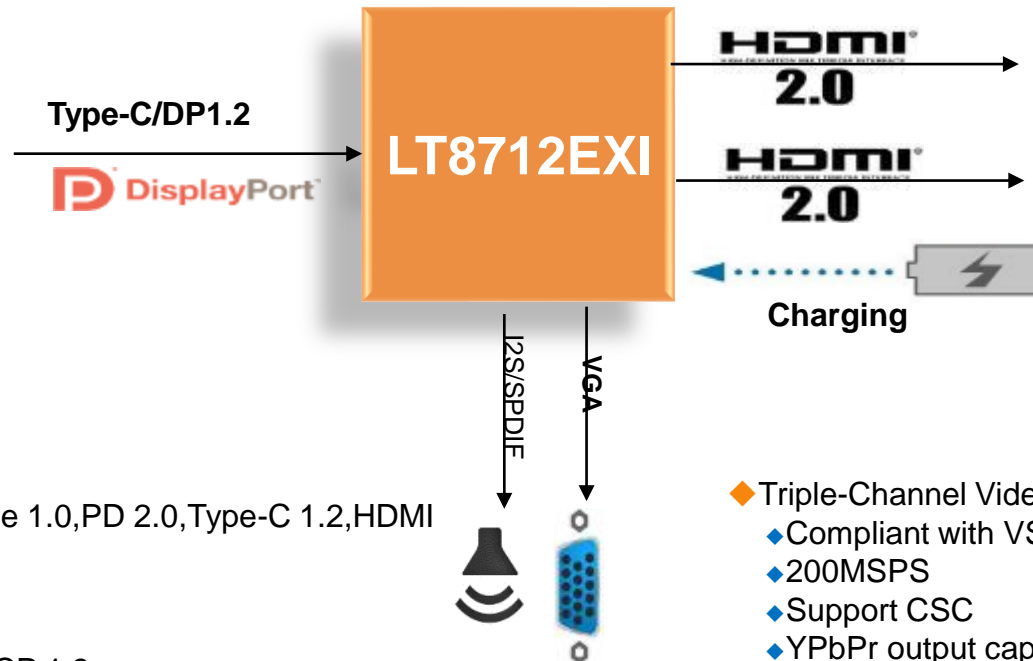
- ◆ Integrates a DP 1.2 compliant receiver
- ◆ Integrates a high speed triple-channel video DAC
- ◆ Integrates two HDMI 1.4 compliant transmitters
- ◆ Integrates a CC controller which enables DP Alternate Mode support when connected to a USB Type-C source
- ◆ Digital audio output
- ◆ Internal MCU and Flash for firmware Upgrade
- ◆ Packaged in 14mm*14mm LQFP128

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8712EXI

Type-C/DP 1.2 to HDMI 2.0*2 & VGA+Audio



Features:

- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - ◆ Dual CC controllers
- ◆ DP Receiver
 - ◆ Compliant with DP 1.2, HDCP 1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
 - ◆ SST/MST
- ◆ Dual HDMI 2.0 Transmitters
 - ◆ Compliant with HDMI 2.0/1.4, DVI 1.0, HDCP 2.2/1.4
 - ◆ 6Gbps
 - ◆ 4k@60Hz
 - ◆ AC-couple capable

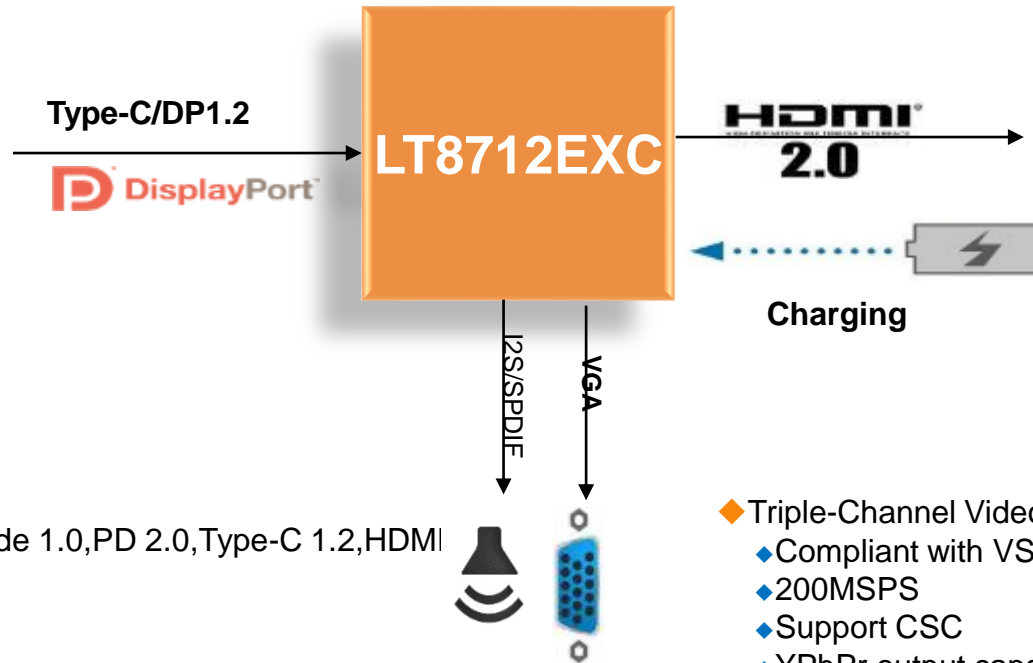
- ◆ Triple-Channel Video DAC
 - ◆ Compliant with VSIS1.2
 - ◆ 200MSPS
 - ◆ Support CSC
 - ◆ YPbPr output capable
 - ◆ Load sensing
- ◆ Digital Audio Outputs
 - ◆ I2S/SPDIF
 - ◆ 8-channel LPCM or compressed audio
 - ◆ 192kHz

Applications:

- ◆ Docking Station
- ◆ Dongle
- ◆ Video Hub

LT8712EXC

Type-C/DP 1.2 to HDMI 2.0&VGA+Audio, Small package



Features:

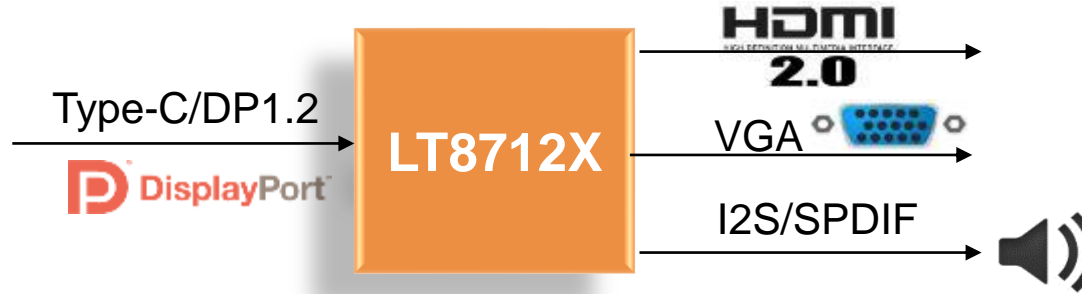
- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - ◆ Dual CC controllers
- ◆ DP Receiver
 - ◆ Compliant with DP 1.2, HDCP 1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
 - ◆ SST/MST
- ◆ HDMI Transmitters
 - ◆ Compliant with HDMI 2.0/1.4, DVI 1.0, HDCP 2.2/1.4
 - ◆ 6Gbps
 - ◆ 4k@60Hz
 - ◆ AC-couple capable
- ◆ Triple-Channel Video DAC
 - ◆ Compliant with VSIS1.2
 - ◆ 200MSPS
 - ◆ Support CSC
 - ◆ YPbPr output capable
 - ◆ Load sensing
- ◆ Digital Audio Outputs
 - ◆ I2S/SPDIF
 - ◆ 8-channel LPCM or compressed audio
 - ◆ 192kHz

Applications:

- ◆ Docking Station
- ◆ Dongle
- ◆ Video Hub

LT8712X

Type-C/DP 1.2 to HDMI 2.0&VGA+Audio



Features:

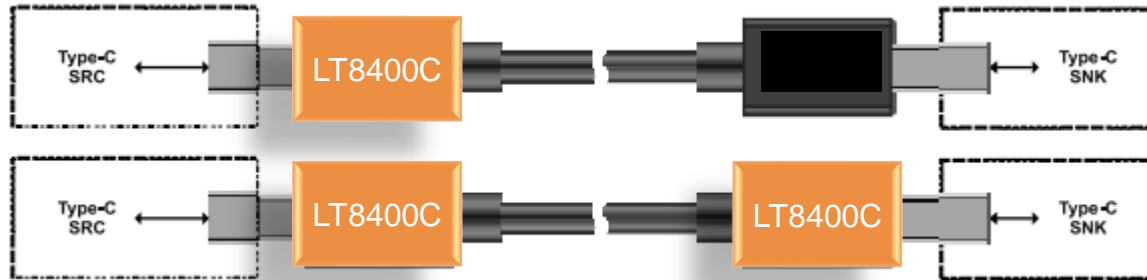
- USB Type-C
 - Compliant with VESA DisplayPort Alt Mode on USB Type-C standard V1.0
 - Compliant with USB Power Delivery specification R1.2
 - Compliant with USB Type-C Cable and Connector specification R1.2
 - Compliant with HDMI 1.4b Alt Mode on USB Type-C specification V1.0
 - Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
 - Built-in dual CC controllers for charger and normal communication
 - 3 data roles supported: DFP, UFP and DRP
- DP 1.2 Receiver
 - Compliant with VESA DP 1.2 and Embedded Displayport(eDP) v1.4
 - No HDCP decryption
 - 1/2/4 configurable
 - 1.62/2.7/5.4Gbps per data lane
 - Support SSC
 - 1Mbps AUX channel
 - Support 4K@60Hz
- HDMI 2.0 Transmitter
 - Compliant with HDMI 2.0, HDMI1.4 and DVI1.0
 - Data rate up to 6Gbps
 - Support 4K@60Hz
 - Support TMDS scrambling for EMI/RFI reduction
 - Support SCDC
 - 5V tolerance DDC/HPDI/Os
- Digital Audio Input/Output
 - One I2S interface supporting 2-channel audio, with sample rates of 32~192 kHz and sample sizes of 16~24 bits
 - SPDIF interface supporting PCM, Dolly Digital, DTS digital audio at up to 192kHz, frame rate
 - IEC60958 or IEC61937 compatible

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8400C

e-Marker Chip for USB Type-C Cable (EMCA)



Features:

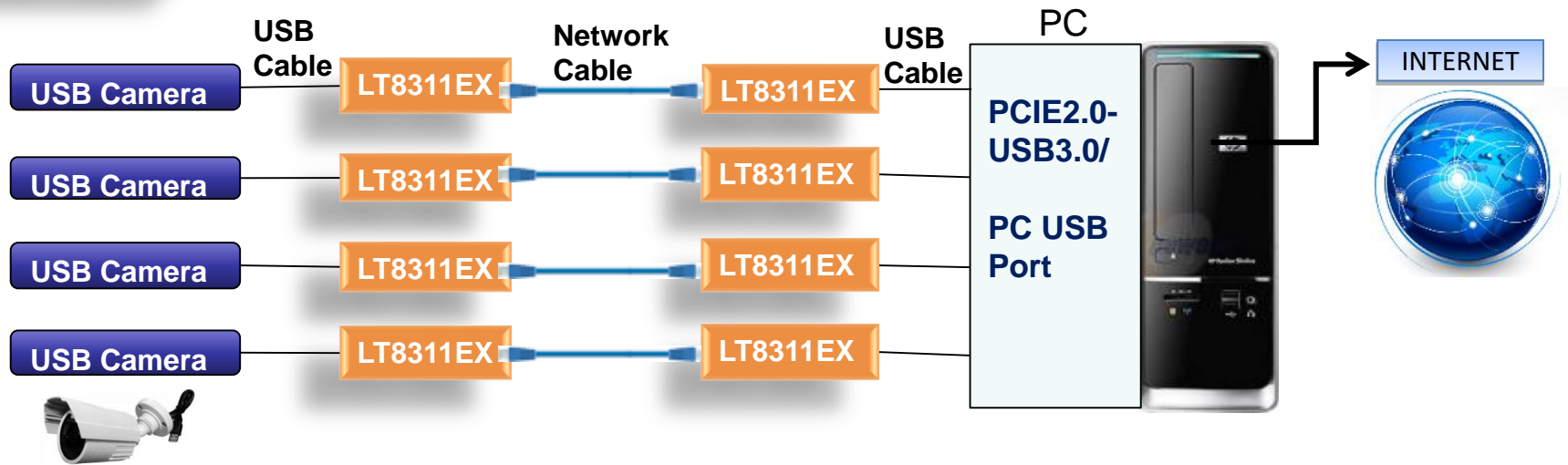
- ◆ Compliant to Type-C r1.2 Standard
- ◆ Support CC Logic and USB PD2.0
- ◆ Support SOP' /SOP" Communication
- ◆ Support VCONN Detect
- ◆ Internal MCU and Flash for Firmware Upgrade
- ◆ Support External I2C Debug
- ◆ 1.8V/3.3V Power Supply
- ◆ Packaged in 5mm*5mm QFN40

Applications:

- ◆ Passive Full-Featured USB Type-C Cable
- ◆ Active Full-Featured USB Type-C Cable

LT8311EX

For Surveillance Camera & KVM



LT8311EX can be installed on the camera PCB to reduce product size

Features:

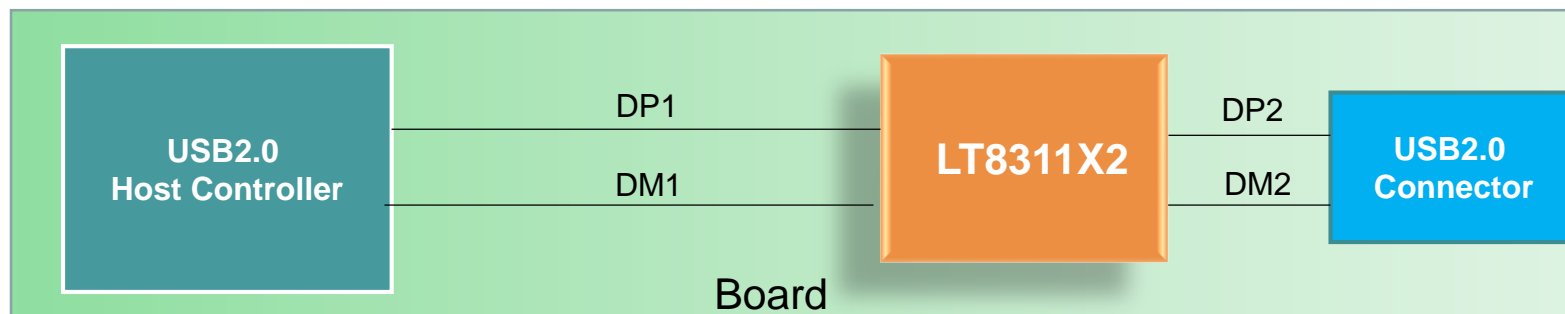
- Easy installation, low cost
- Plug & play, no extra video sampling card
- USB self-powered, don't need extra power adapter
- Up to 8 cameras supported per computer
- All the IP camera features apply here
- Fit family, small office and stores well
- Remote Intelligent control with bi-directional USB interface
- Seamless integration with IP based security systems
- Allows a USB device to have its cable length extended up to 100m over Ethernet cable

Applications:

- ◆ Surveillance
- ◆ KVM Extension

LT8311X2

USB 2.0 High Speed Signal Conditioner



Features:

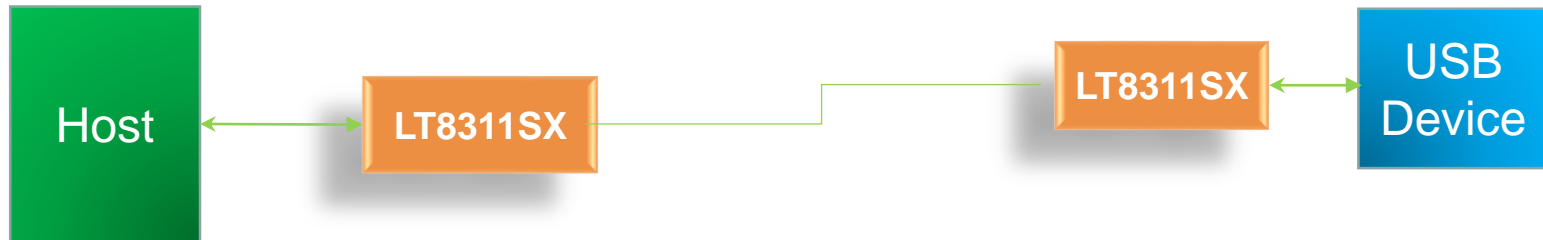
- ◆ Compatible with USB 2.0, OTG 2.0 and BC 1.2
- ◆ Support for HS, FS, LS signaling
- ◆ Auto detection and compensation of USB 2.0 HS signal
- ◆ Selectable HS signal compensation gain via external pull down resistor
- ◆ FS/LS signal bypass
- ◆ 3.3V single power supply
- ◆ Does not break DP/DM
- ◆ QFN-12 1.6mm x 1.6mm package

Applications:

- ◆ PC, Laptop Mother Boards
- ◆ Cell Phones
- ◆ Backplane
- ◆ Cable Extenders
- ◆ Televisions

LT8311SX

For Surveillance Camera & KVM



LT8311SX can reach 60 meters with single twisted pair

Features:

- Easy installation ,low cost
- Plug & play, no extra video sampling card
- USB self-powered, don't need extra power adapter
- Up to 60 meters with CAT6 cable or twisted pair
- All the IP camera features apply here
- Remote Intelligent control with bi-directional USB interface
- Seamless integration with IP based security systems
- Low cost / high performance KVM up to 60M, with/out HUB

Applications:

- ◆ Surveillance
- ◆ KVM Extension

LT8311XE-Q

USB 2.0 Extender



Features:

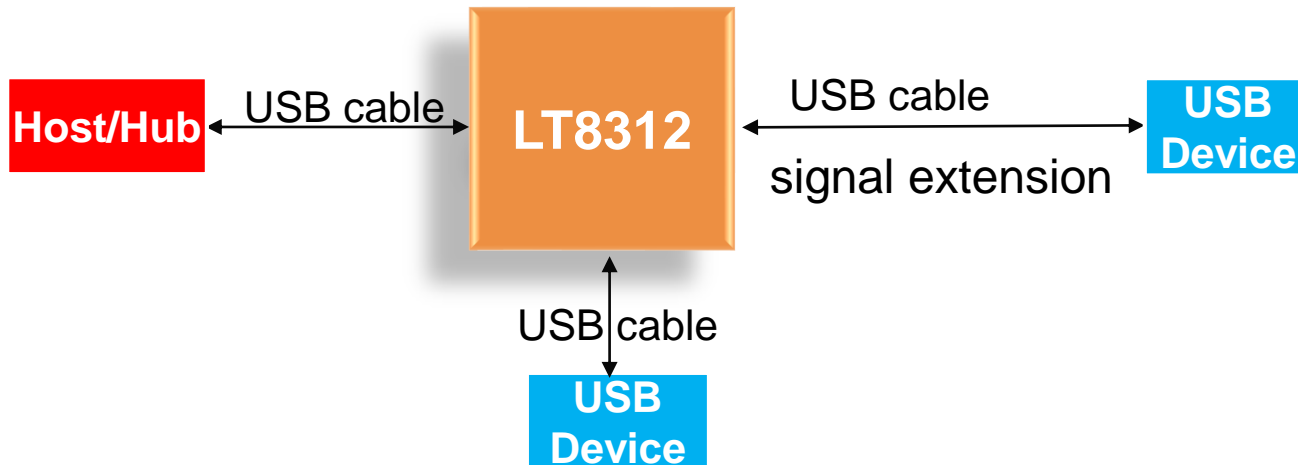
- Single chip extension length up to 10m over USB cable
- Dual chip extension length up to 20m over USB cable
- Dual chip extension length up to 40m over Ethernet cable
- Supports USB 2.0 high speed and USB 1.1 full/low speed device
- Supports hot plug
- I2C control for equalization adjustment
- Single 3.3V power supply
- 16 pin QFN 4mm*4mm package with Epad
- -40°C to 85 °C operating temperature range
- ESD: HBM to 2kV

Applications:

- ◆ PC Motherboard
- ◆ Data storage system
- ◆ Servers and workstation
- ◆ Car system
- ◆ KVM system

LT8312

USB 2.0 Extender with DeMux



Features:

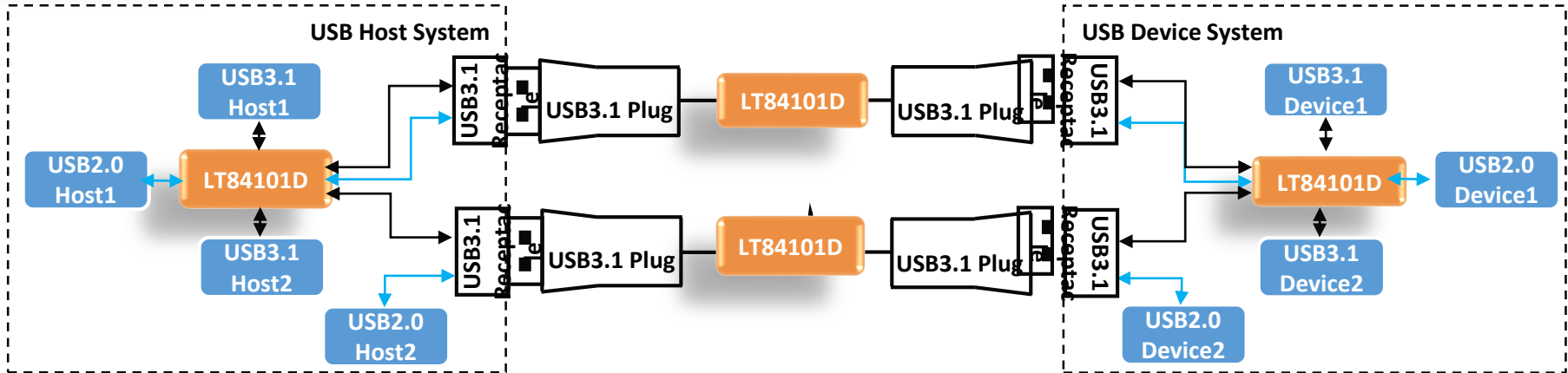
- One path for standard USB 2.0 signal bypass and the other path for USB 2.0 signal extension
- Extension length up to 10m over USB cable
- Dual chip extension length up to 20m over USB cable
- Support USB 2.0 high speed and USB 1.1 full/low speed device
- Support hot plug
- I2C control for equalization adjustment
- Single 3.3V Power supply
- 20 pin QFN 4mm*4mm package with Epad
- -40°C to 85°C operating temperature
- ESD:HBM to 2kV

Applications:

- ◆ PC Motherboard
- ◆ Data storage system
- ◆ Servers and workstation
- ◆ Car system
- ◆ KVM system

LT84101D

Dual-Port USB 3.1 Re-driver



Features:

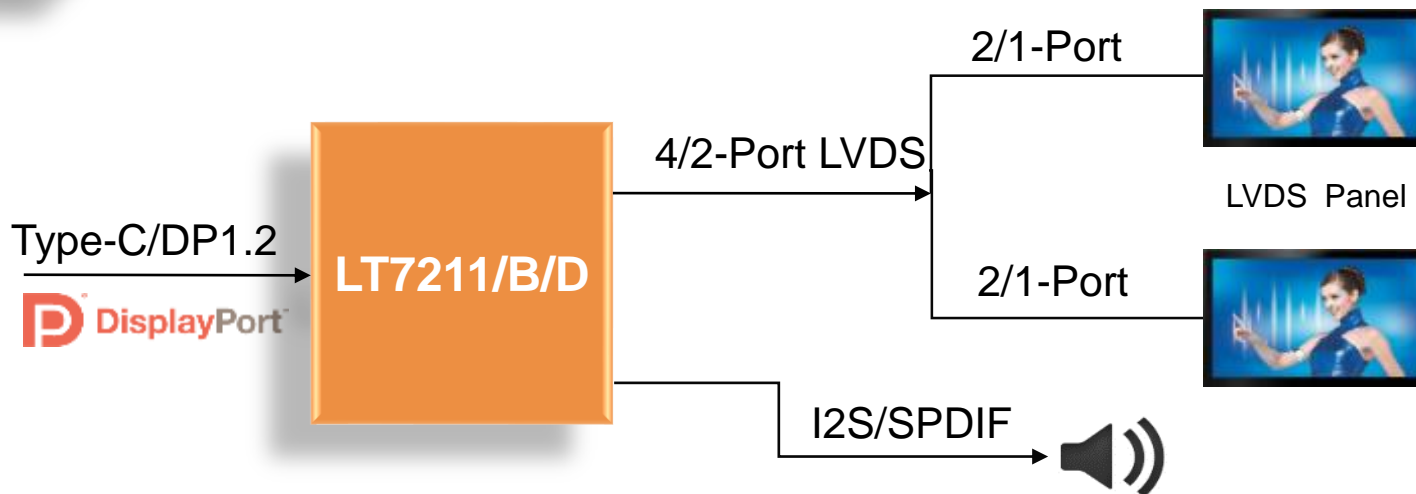
- ◆ Compatible with USB 3.1 Gen-1 Specification
- ◆ Compatible with USB 2.0 Specification
- ◆ Support 2-Port USB 3.1 Gen-1 Operation
- ◆ Support Simultaneous Operating of Two Stand-alone Data Transfer with 5Gb/s Data Rate for each USB 3.1 Gen-Port
- ◆ Support One USB 2.0 Port with 480 Mb/s Data Rate
- ◆ Supports LFPS Detect and Rx Detect for USB 3.1 Gen-1
- ◆ Supports Squelch Detect for USB 2.0
- ◆ Programmable Input Equalization
- ◆ Programmable Output Swing and De-emphasis
- ◆ Internal MCU and Flash for Online Firmware Upgrade
- ◆ 1.8V/3.3V Dual Power Supply
- ◆ Packaged in 5mm*5mm QFN40

Applications:

- ◆ Smartphone, Tablet and Other Mobile Devices
- ◆ Digital TV and Data Storage
- ◆ VR/AR Helmet Display and Home Entertainment
- ◆ PC, Notebook, All-in-Ones Computer
- ◆ USB 3.1 Cable Extender

LT7211/B/D

Type-C/DP to 4/2-Port LVDS



Features:

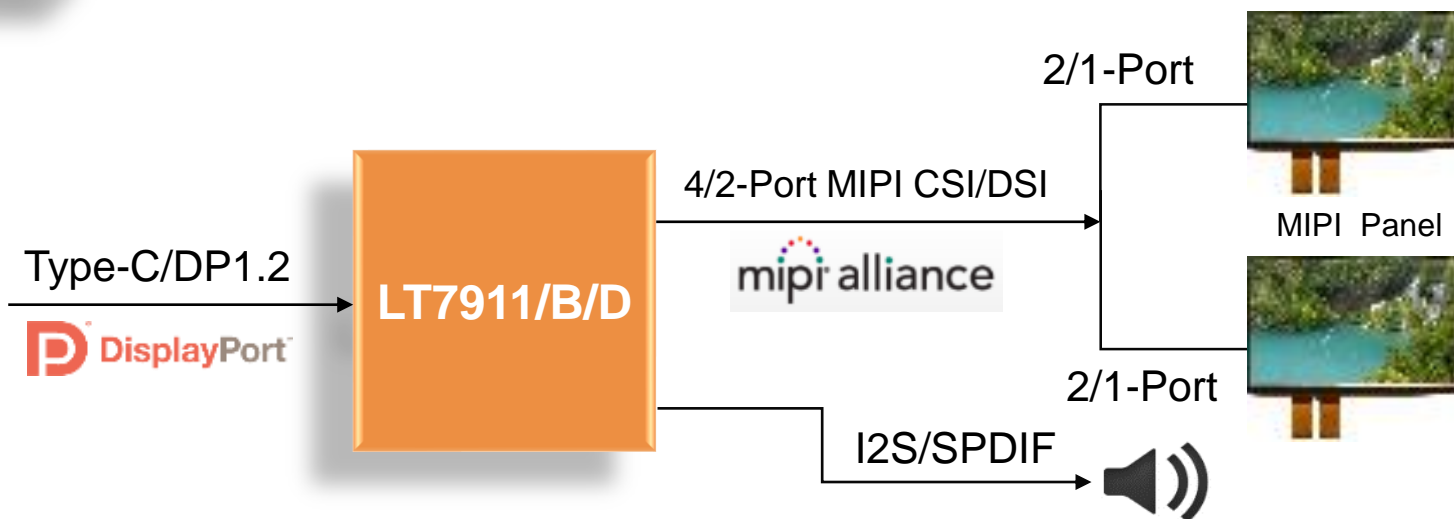
- ◆ Type-C/DP 1.2 Receiver
 - ◆ Compliant with DP 1.2 for 1.62 Gb/s, 2.7Gb/s, 5.4Gb/s, up to 4K@60Hz
 - ◆ 1/2/4 configurable lane
- ◆ LVDS Trasmmitter
 - ◆ Compatible with VESA and JEIDA standard
 - ◆ 1/2/4 configurable port
 - ◆ Maximum 1.2 Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT7911/B/D

Type-C/DP to 4/2-Port MIPI CSI/DSI



Features:

- ◆ Type-C/DP 1.2 Receiver
 - ◆ Compliant with DP 1.2 for 1.62 Gb/s, 2.7Gb/s, 5.4Gb/s, up to 4K@60Hz
 - ◆ 1/2/4 configurable lane
- ◆ MIPI CSI/DSI Trasmmitter
 - ◆ Compatible with DCS1.02, D-PHY 1.2, CSI-2 1.0
 - ◆ 1/2/4 configurable port
 - ◆ 80Mb/s~1.5Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT8918L

LVDS to MIPI CSI/DSI



Features:

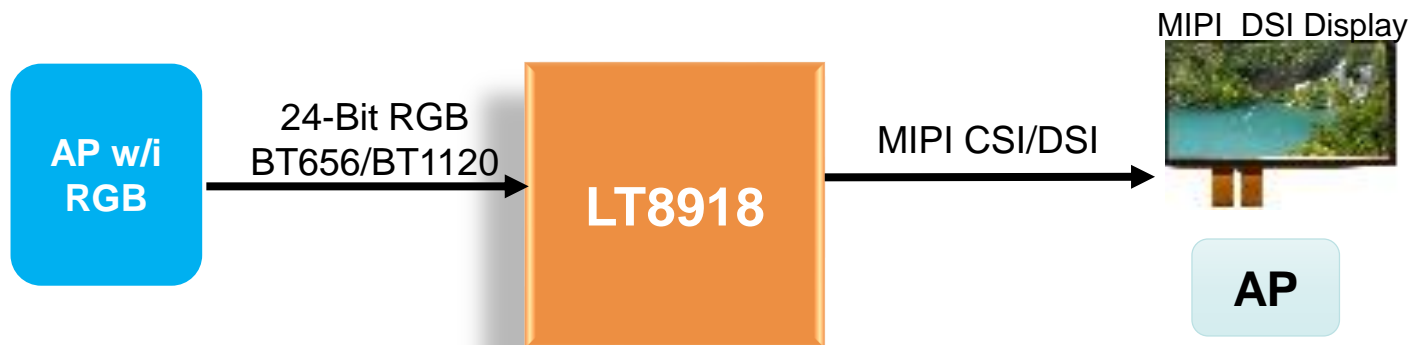
- Support 3-bit maximum 10dB Input Equalization
- 80Mb/s~1.5Gb/s per data lane
- 1.8V Single Supply Power per Data Lane for both Input
- Support 100KHz I2C slave
- External 25MHz Crystal Reference Clock
- Temperature Range: `40°C~+85°C
- Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Camera System

LT8918

RGB to MIPI CSI/DSI



Features:

- ◆ Support 24-bit RGB and BT656/BT 1120 input
- ◆ Compliant with DCS 1.02,D-PHY 1.1 and DSI 1.02
- ◆ Compliant with D-PHY 1.1 and CSI-2 1.0
- ◆ Resolution up to 1080P@60Hz

Applications:

- ◆ Mobile system
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car display and camera system

LT89101

MIPI CSI/DSI, LVDS Repeater



Features:

- Support 3-bit maximum 10dB Input Equalization
- Signal Re-driving without Data De-packetize
- 80Mb/s~2.5Gb/s per Data Lane for both Input and Output
- 1.8V Single Supply Power
- Temperature Range:-40°C~+85°C
- Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ Mobile system
- ◆ Home security systems
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Camera system

LT89101L**MIPI to LVDS Level Shifter****Features:**

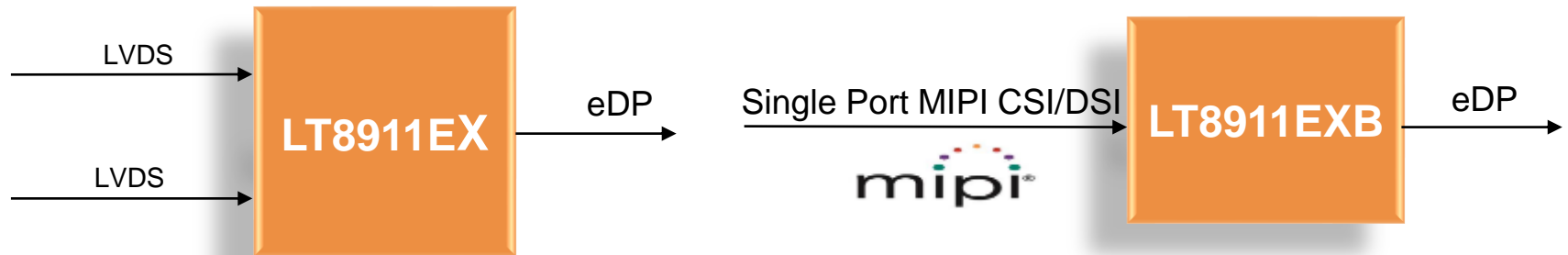
- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Signal Re-driving without Data De-packetize
- ◆ 80Mb/s~2.5Gb/s per Data Lane for both Input and Output
- ◆ 1.8V Single Supply Power
- ◆ Support 100KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range:-40°C~+85°C
- ◆ Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ Mobile system
- ◆ Home security systems
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Camera system

LT8911EX/EXB

2 Port LVDS/MIPI CSI/DSI to eDP



Features:

- LT8911EX
 - Support Single/Dual Port LVDS Input
 - Maximum 1.2Gb/s per data lane
 - 1~2 configurable port
 - Support 6-bit or 8-bit input color depth
 - Support input De-SSC ($\pm 5\%$ @30KHz~80KHz)
- LT8911EXB
 - Support Single Port MIPI CSI/DSI Input
 - Compliant with D-PHY 1.2, DSU 1.3 and CSI 1.3
 - Clock lane and 1~4 configurable data lanes
 - 80Mb/s~2.0Gb/s per data lane
 - Support 16/18/24/30/36-bit RGB format
 - Support Burst and Non-Burst Mode

Applications:

- ◆ Mobile systems (LT8911EX)
- ◆ Digital still cameras (LT8911EX)
- ◆ Cellular Handsets (LT8911EX)
- ◆ Personal Media Players (LT8911EXB)
- ◆ Digital video cameras (LT8911EXB)
- ◆ Gaming (LT8911EXB)

LT8912B**MIPI to HDMI/LVDS with Scaler****Features:**

- ◆ Compliant with HDMI 1.4
- ◆ Support MIPI DSI Non-Burst Mode (Continue Mode)
- ◆ Video Scaler on LVDS path
- ◆ Single to dual outputs
- ◆ Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ PAD with Calling Feature
- ◆ PAD/Tablet with eDP Panel
- ◆ Drone
- ◆ POS

LT2911R-D

MIPI/TTL/2-Port LVDS to MIPI/TTL/2-Port LVDS Converter With Frame Rate Conversion and Rotation



Features:

- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Support 90 degree rotation
- ◆ Frame Rate Convert support
- ◆ Input Data Lane and Polarity Swapping
- ◆ Input LVDS muxing function integrated
- ◆ Two port simultaneous display
- ◆ 80Mb/s~1.8Gb/s per data lane
- ◆ 1.8V Single Supply Power for LVDS Input
- ◆ Support 100KHz / 400KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range:-40°C to ±85 °C
- ◆ Packaged in QFN128 14mm*14mm
- ◆ LT2911R-D with Integrated DDR3 in QFN76 9mm*9mm for small board space

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Cameras System

LT9211

MIPI/TTL/2-Port LVDS to MIPI/TTL/2-Port LVDS Converter



Features:

- ◆ Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-21.00
- ◆ Compliant with VESA and JEIDA standard
- ◆ Alternative Input and Output configuration for MIPI/LVDS/TTL
- ◆ MIPI/LVDS input mux and output split supported
- ◆ MIPI/LVDS bypass Signal Level shift for FPGA
- ◆ Support 100KHz and 400KHz I2C Slave
- ◆ Up to 1080P@60Hz
- ◆ Packaged in QFN64 7.5mm*7.5mm

Applications:

- ◆ Mobile systems
- ◆ Cellular handsets
- ◆ Digital video cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Camera System

LT87121

eDPx to eDP/DP 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 color depth
- Support 2 sections,4 sections input mode
- Support Center Spread Spectrum 30KHz/5000ppm

● eDP/DP Transmitter

- Compliant with VESA eDP1.4/DP1.2
- Support 1.62/2.7/5.4 Gbps per lane
- Support 1/2/4 lanes
- Support SSC
- Programmable transmitter swing and pre-emphasis
- 1Mbps AUX channel
- MCCS Over AUX Support
- Support ASSR
- Support video formats: 6bpc RGB, 8bpc RGB/YCbCr 422/YCbCr 444, 10bpc RGB/YCbCr422/YCbCr 444

● Miscellaneous

- Internal or external oscillator
- Integrated microprocessor
- Embedded SPI flash for firmware
- Integrated 100/400kHz I2C slave
- Firmware update through SPI or I2C interface
- IIS/SPDIF input support(transmitter is DP mode)
- CSC support
- Dither support
- UART Support
- Backlight Control Support (transmitter is eDP mode)
- Low power consumption
- Power supply: 3.3V for I/O and 1.2V for core
- Temperature Range:
 - -40° C ~ +85° C
- 64 pin QFN 7.5*7.5 package

Applications:

- ◆ LCD monitor
- ◆ TV

LT89121

eDPx to MIPI Converter



Applications:

- ◆ LCD monitor
- ◆ TV

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 Spread Spectrum, 30kHz/5000ppm

● Dual-Port MIPI DSI/CSI Transmitter

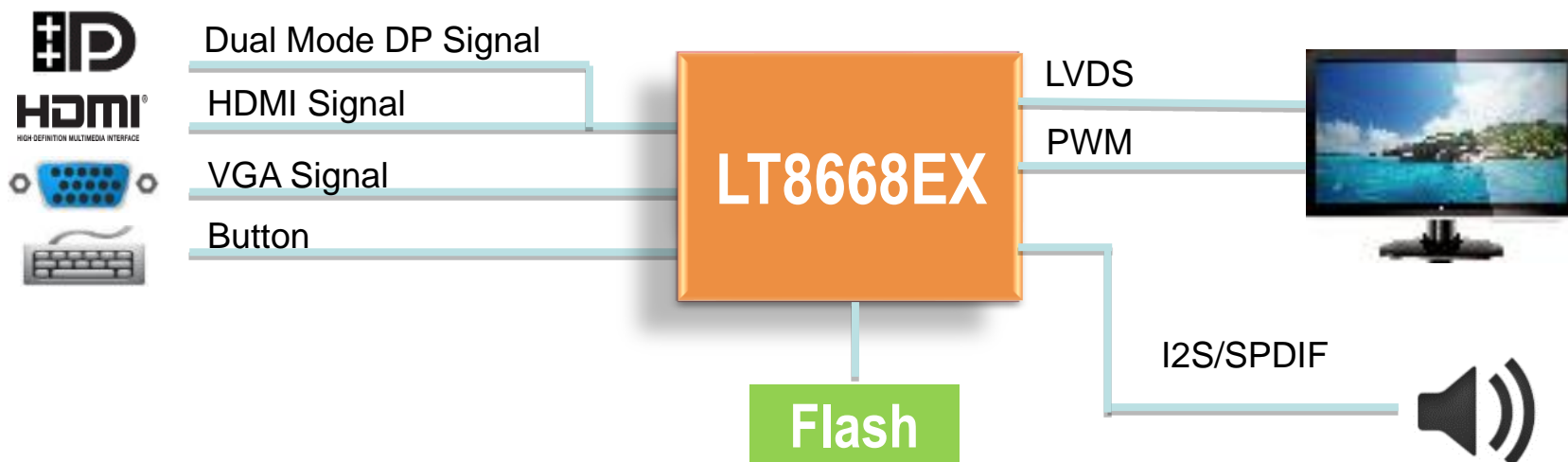
- Compliant with DCS1.1, D-PHY1.2, DSI1.3 and CSI-2 1.3
- 1/2 configurable port number
- 1 clock lane and 1/2/3/4 configurable data lanes per port
- 80Mbps~2Gbps per data lane
- Programmable transmitter swing and pre-emphasis
- Support Non-Burst mode, Burst mode and Command Mode
- DSI support video formats: 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
- De-Skew support
- **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

LT8668EX

LCD Controller



Features:

- ◆ Support HDMI 1.4 input resolution up to 4K*2K@30Hz
- ◆ Support 4-Port LVDS
- ◆ Support VGA resolution up to 1920*1200
- ◆ OSD, Scaler(4K and 2K resolution scaler bypass)
- ◆ Embedded MCU
- ◆ Support 8-channel I2S/SPDIF output
- ◆ PWM backlight control
- ◆ Quad LVDS channels support 4K*2K panel

Applications:

- ◆ LCD monitor
- ◆ Smart TV

Signal Conversion Matrix

Parts in Black are in MP status, Parts in blue are under test Parts in Red are in design status.

Converts to

Converts from	HDMI2.1	HDMI2.0	HDMI1.4	Type-C	DP1.4	DP1.2	Dual Mode DP	VGA	eDPx	eDP	LVDS	MIPI	RGB	BT656 BT1120	USB		
	HDMI2.1	LT8668SX	LT8668SX	LT8668SX	LT6711GX	LT8668SX LT6711GX	LT8668SX LT6711GX			LT8668SX	LT8668SX LT6711GX	LT8668SX LT6211GX	LT8668SX LT6911GX				
	HDMI2.0		LT86121EX LT86121TXE LT86121RXE LT8631UX LT8641UX LT86101UXE LT86102UX LT86104UX LT8641UXE LT8642UX LT86102UXE LT8612UX		LT6711A/B		LT6711A/B		LT8612UX	LT8668SX	LT6711A/B	LT6211UX LT6211UXC	LT6911UX LT6911UXC				
	HDMI 1.4			LT8631SX LT8641SX LT86101SX LT86102SX LT86104SX LT8612SX LT8612EX_e3 LT8612X-M LT8612SX	LT9721 LT86101HC		LT9721		LT8612SX LT8511EX LT8522EX LT8612EX_e3		LT9721	LT8619B LT8619C LT6211 LT6211B LT6211C	LT6911 LT6911B LT6911C	LT8619B LT8619C	LT8819EX LT8619C		
	Type-C	LT8668SX LT8711GX	LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H LT8711H-C LT8712 LT86101CH	LT87101C	LT8668SX	LT87101CD		LT8711V LT8712 LT8712X LT8712EXI LT8712EXC	LT8668SX	LT8668SX	LT7211 LT7211B LT7211D	LT7911 LT7911B LT7911D				
	DP1.4	LT8668SX LT8711GX				LT8668SX				LT8668SX	LT8668SX	LT8668SX	LT8668SX				
	DP1.2	LT8668SX	LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H LT8711H-C LT8712 LT86101CH	LT87101DC		LT87101		LT8711V LT8712 LT8712X LT8712EXI LT8712EXC			LT7211 LT7211B LT7211D	LT7911 LT7911B LT7911D				
	Dual Mode DP		LT86101X	LT86115X LT86101X					LT8711			LT8619B LT8619C		LT8619B LT8619C	LT8619C		
	VGA			LT8522EX LT8522X					LT8522EX			LT8668EX		LT8668EX			
	eDPx						LT87121 LT87912				LT87121 LT87912		LT89121 LT87921				
	eDP	LT8668SX	LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H LT8711H-C LT8712 LT86101CH	LT87101C		LT87101CD		LT8711V LT8712 LT8712X LT8712EXI LT8712EXC	LT8668SX		LT7211 LT7211B LT7211D	LT7911 LT7911B LT7911D				
	LVDS		LT2611UX LT2611UXC	LT2611UX LT2611UXC							LT8911EX	LT89101 LT9211 LT2911R-D	LT8918L LT9211 LT2911R-D	LT9211 LT2911R-D	LT9211 LT2911R-D		
	MIPI		LT9611UX LT9611UXC	LT8912B LT9611	LT9721 LT9711		LT9721 LT9711				LT8911EXB LT9721 LT9711	LT8912B LT89101L LT9211 LT2911R-D	LT89101 LT9211 LT2911R-D	LT9211 LT2911R-D	LT9211 LT2911R-D		
	RGB			LT8618EXB LT8618SXB	LT8718		LT8718				LT8718	LT9211 LT2911R-D	LT8918 LT9211 LT2911R-D	LT9211 LT2911R-D	LT9211 LT2911R-D		
	BT656 BT1120			LT8618EXB LT8618SX	LT8718		LT8718				LT8718	LT9211 LT2911R-D	LT8918 LT9211 LT2911R-D	LT9211 LT2911R-D	LT9211 LT2911R-D		
	USB																LT8311X2 LT8311XE/Q LT8312 LT8311EX LT84101D



Lontium Semiconductor

