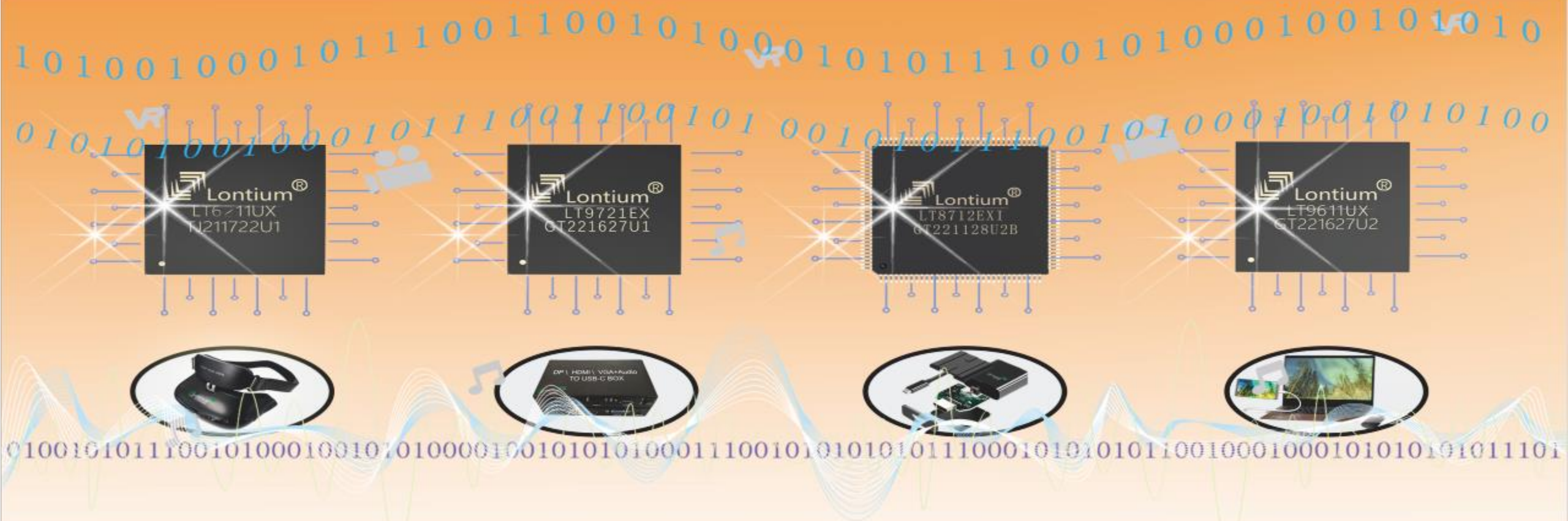


We produce mixed-signal products for a better digital world.

PRODUCT CATALOG

2018.11



Product Categories

ClearEdge™

HDMI

Transmitter
Receiver
Switch
Splitter
Repeater
Matrix/Cross-point
Converter

DP/eDP

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
Frame Rate 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	HDMI 2.0 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
LT6211UX	QFN-128	HDMI 2.0 Receiver(4-Port LVDS)	LT6211	
LT6211UXC	QFN-64	HDMI 2.0 Receiver(2-Port LVDS)	LT6211C	
LT6911UX	QFN-128	HDMI 2.0 Receiver(4-Port MIPI CSI/DSI)	LT6911	
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 DSI/CSI)	LT6911UXC	
LT6911B	BGA-144	HDMI 1.4 Receiver(4-Port MIPI DSI/CSI)		
LT6911	QFN-128	HDMI 1.4 Receiver(4-Port MIPI DSI/CSI)	LT6911UX	
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)	LT8619B	

HDMI Switch

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

HDMI Splitter

Part Number	Package	Description	Pin to Pin	Page
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	1-in 4-out HDMI 2.0 splitter		
LT86104SX	LQFP-128	1-in 4-out HDMI 1.4 splitter with HDCP engine	LT86104SXE LT86104NX	
LT86104SXE	LQFP-128	1-in 4-out HDMI 1.4 splitter with HDCP engine, jitter cleaning & signal repeating	LT86104SX LT86104NX	

HDMI Repeater/Matrix & Cross-point

Part Number	Package	Description	Pin to Pin	Page
LT86121TXE	QFN-76	HDMI2.0 Repeater with DSC Encoder		
LT86121RXE	QFN-76	HDMI2.0 Repeater with DSC Decoder		
LT86101X	QFN-40	HDMI 2.0 analog Repeater		
LT86101UXE	QFN-64	HDMI 2.0 Repeater		
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	
LT8644	TQFP-100	Analog cross-point switch		

HDMI Converter

Part Number	Package	Description	Pin to Pin	Page
LT8612SX	LQFP-80	HDMI 1.4 to HDMI 1.4 and VGA, improved performance	LT8612EX	
LT8612X-M	QFN-76	HDMI 1.4 to HDMI 1.4 and VGA, integrated MCU		
LT8612EX	LQFP-80	HDMI 1.4 to HDMI 1.4 and VGA	LT8612SX	
LT8522X	QFN-64	VGA to HDMI 1.4		
LT8522EX	TQFP-100	HDMI 1.4 & VGA to HDMI 1.4 & VGA, matrix switch		
LT8511EX	QFN-64	HDMI 1.4 to VGA		
LT86101HC	QFN-40	HDMI 1.4 to Type-C		

DP/eDP Converter/Repeater

Part Number	Package	Description	Pin to Pin	Page
LT8611SX	QFN-40	DP Repeater & HDMI/DVI Level Shifter		
LT8611SXD	QFN-32	DP Repeater & HDMI/DVI Level Shifter		
LT87101	QFN-40	DP/eDP re-driver, up to 5.4Gb/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		

Type-C/DP Transmitter

Part Number	Package	Description	Pin to Pin	Page
LT8718	QFN-88	TTL to Type-C(DP/eDP) with USB3.1 Switch		
LT9721	QFN-64	Single-port MIPIDSI/HDMI to Type-C(DP/eDP) with USB3.1 Switch		
LT6711A	QFN-64 BGA-81	HDMI2.0 to Type-C(DP1.2/eDP) with USB3.1 switch		
LT9711	QFN-76	2-Port MIPI DSI/CSI-2 to Type-C (DP1.2/eDP) with USB3.1 switch		

Type-C/DP Converter

Part Number	Package	Description	Pin to Pin	Page
LT8711V	QFN-48	Type-C/DP to VGA with audio, support PD Controller/Swift Charge/Billboard with 2* CC		
LT8711HE	QFN-64	Type-C/DP to HDMI2.0, support PD Controller/Swift Charge/Billboard with 2*CC		
LT8711H-CE	QFN-64	Type-C/DP to HDMI2.0, support PD Controller/Swift Charge	LT8711H-C LT8711EH-C	
LT8711EH-C	QFN-64	Type-C/DP to HDMI2.0, support PD Controller, Compliant with HDCP	LT8711H-CE LT8711H-C	
LT8711H-C	QFN-64	Type-C/DP to HDMI1.4, support PD Controller, Compliant with HDCP	LT8711H-CE LT8711EH-C	
LT8711UX	QFN-88	Type-C/DP to HDMI2.0, support PD Controller with 2*CC, Compliant with HDCP		
LT8712EXI	QFN-128	Type-C/DP to HDMI2.0*2&VGA&Audio, support MST,PD Controller with 2*CC, Compliant with HDCP		
LT8712X	QFN-76	Type-C/DP to HDMI2.0 and VGA Converter with Audio		
LT8712	LQFP-128	Type-C/DP to HDMI1.4*2&VGA&Audio, PD Controller, Compliant with HDCP		
LT87101CD	QFN-40	Type-C to DP/eDP Converter		
LT8400C	QFN-40	e-Marker Chip for USB Type-C Cable (EMCA)		
LT86101CH	QFN-40	Type-C to HDMI1.4		
LT8712EXC	QFN-88	Type-C (DP) to MST HDMI2.0+ VGA with integrated CC1/CC2, MCU, HDCP Key		

USB Switch/Extender

Part Number	Package	Description	Pin to Pin	Page
LT8312	QFN-20	USB2.0 Extender with switch		
LT8311XE-Q	QFN-16	USB2.0 Extender		
LT8311EX	TSSOP-20	USB 1.1/2.0 repeater, improved performance		
LT84101D	QFN-40	Dual channel USB2.0/3.1 re-driver, Dual USB3.1 Port, One USB2.0 Port		
LT8311SX	QFN-64	True USB2.0 Repeater on CAT5/6 single differential pair		

MIPI/LVDS Transmitter

Part Number	Package	Description	Pin to Pin	Page
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		
LT89101R	BGA-144 QFN128	MIPI/2-Port LVDS/TTL Repeater , 90 degree rotation		
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	LQFP-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		

LCD Controller

Part Number	Package	Description	Pin to Pin	Page
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	QFN-128 BGA-144	2-Port LVDS/TTL to MIPI with 90 degree rotation		
LT9211R	QFN-128 BGA-144	MIPI to 2-Port LVDS/TTL with 90 degree rotation		

LT9611UX HDMI2.0 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 DSC1.2 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
- ◆ 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 4k@60Hz
 - ◆ 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 HDMI2.0 Transmitter (2-Port MIPI CSI/DSI)



Features:

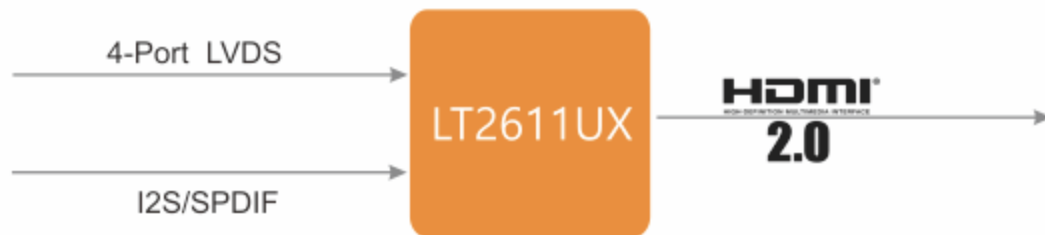
- ◆ MIPI CSI/DSI Receiver
 - ◆ Compliant with D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC1.2 decoder
 - ◆ 1/2 configurable ports
 - ◆ 1 clock lane and 1/2/3/4 configurable data lanes per port
 - ◆ 80Mbps~2Gbps per data lane
 - ◆ Skew calibration
- ◆ HDMI2.0 Transmitter
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 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

LT2611UX

HDMI2.0 Transmitter (4-Port LVDS)



Features:

- ◆ LVDS Receiver
 - ◆ Compatible 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
- ◆ 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 4k@60Hz
 - ◆ 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

HDMI2.0 Transmitter (2-Port LVDS)



Features:

- ◆ LVDS Receiver
 - ◆ Compatible 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
- ◆ HDMI2.0 Transmitter
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 3Gbps
 - ◆ Support 4k@30Hz
 - ◆ 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 HDMI1.4 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 port
 - ◆ 80Mb/s~2.0Gb/s per data lane
 - ◆ support RGB888/RGB666/RGB666L/RGB565/YUV Format
- ◆ HDMI1.4 Transmitter
 - ◆ Compliant with HDMI1.4
 - ◆ support HDCP1.4
- ◆ Miscellaneous
 - ◆ 1.8V/3.3V Power Supply
 - ◆ DCS support
 - ◆ Support up to 8-channel Audio Input
 - ◆ Packaged in 7.5mmx7.5mm QFN64

Applications:

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

LT8618SXA/B

HDMI1.4 Transmitter (TTL)



Features:

Fully compatible with LT8618 and LT8618EXA/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 148.5MHz DDR or 297MHz SDR Clock Input
- ◆ HDMI1.4 Transmitter
 - ◆ Compliant with HDMI1.4
 - ◆ support HDCP1.4
- ◆ Miscellaneous
 - ◆ 1.8V/3.3V Power Supply
 - ◆ Support up to 8-channel I2S/SPDIF Input
 - ◆ Packaged in 9mmx9mm QFN64 / 12mmx12mm QFP80

Applications:

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

LT8618EXA/B

HDMI1.4 Transmitter (TTL)



Features:

Fully compatible with LT8618 and LT8618SXA/B

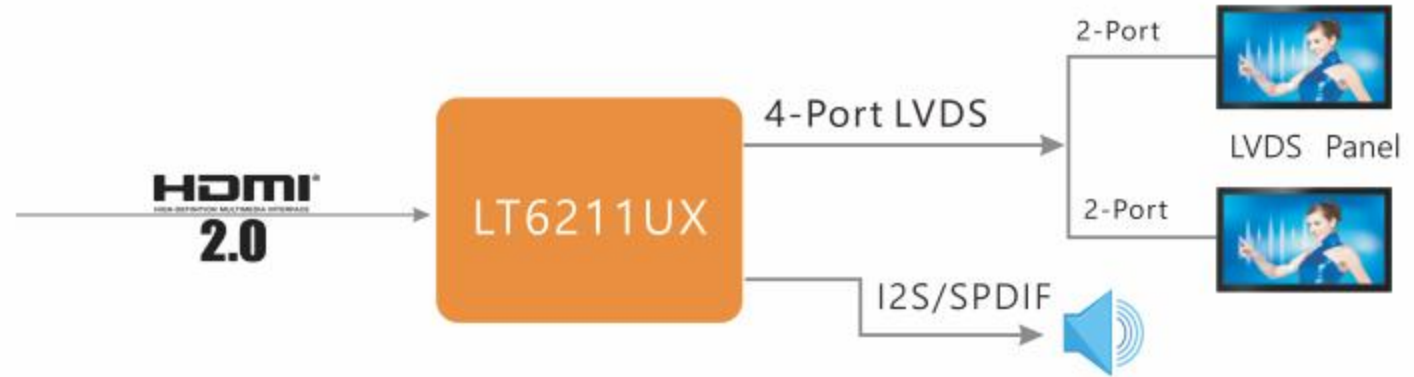
- ◆ TTL Input
 - ◆ Support 24-bit RGB, YUV and BT656/BT601 Input
- ◆ HDMI1.4 Transmitter
 - ◆ Compliant with HDMI1.4
 - ◆ support HDCP1.4
- ◆ Miscellaneous
 - ◆ 1.8V/3.3V Power Supply
 - ◆ Packaged in 9mmx9mm QFN64 / 12mmx12mm QFP80

Applications:

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

LT6211UX

HDMI2.0 Receiver (4-Port LVDS)



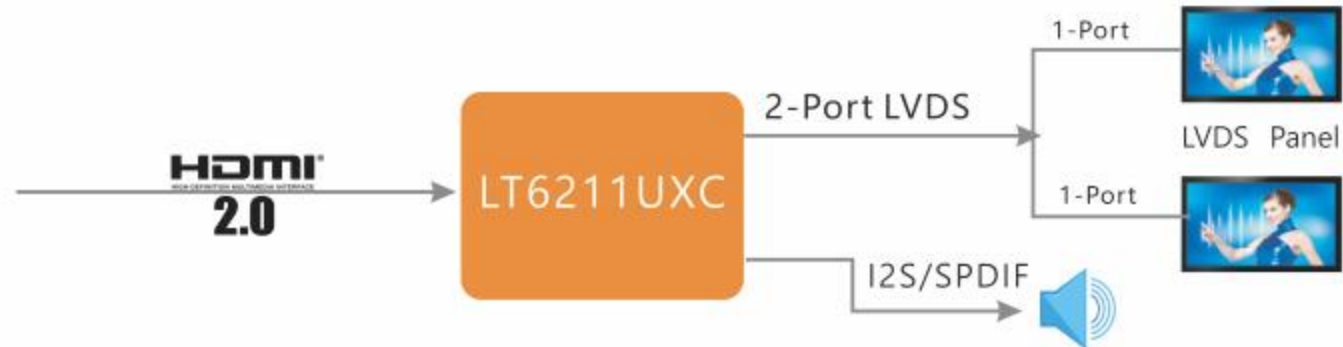
Features:

- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ LVDS Transmitter
 - ◆ Compatible with VESA and JEIDA standard
 - ◆ 1/2/4configurableports
 - ◆ 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 HDMI2.0 Receiver (2-Port LVDS)



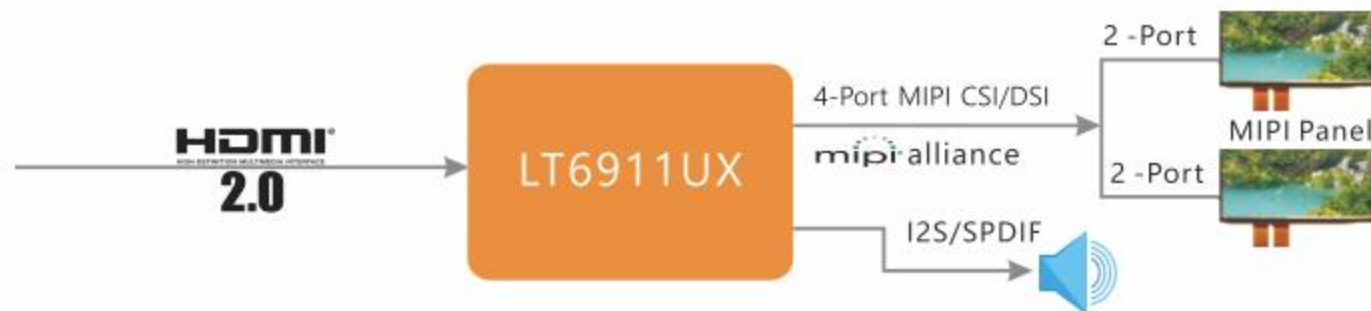
Features:

- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 3Gbps
 - ◆ Support 4k@30Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ LVDS Transmitter
 - ◆ Compatible 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 HDMI2.0 Receiver(4-Port MIPI CSI/DSI)



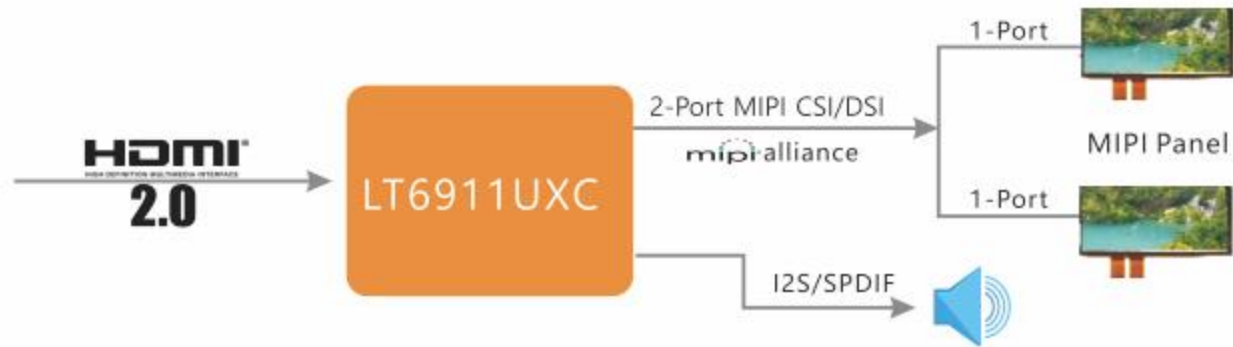
Features:

- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DCS1.1, D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC1.2 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 HDMI2.0 Receiver(2-Port MIPI CSI/DSI)



Features:

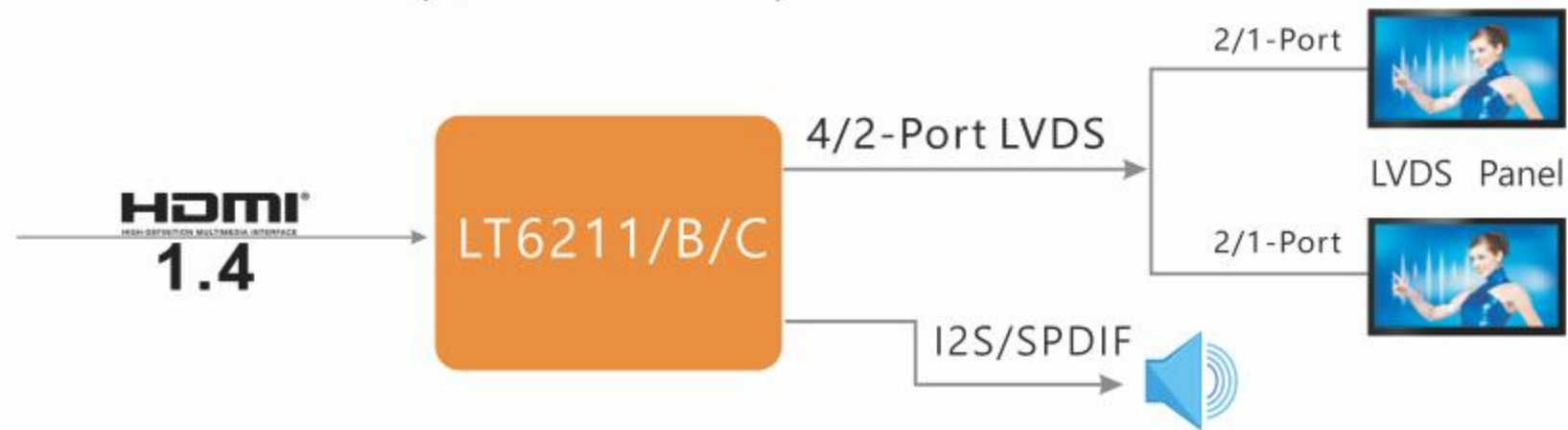
- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DCS1.1, D-PHY 1.2, DSI 1.3, CSI-2 1.3
 - ◆ Integrated DSC1.2 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

LT6211/B/C

HDMI1.4 Receiver (4/2-Port LVDS)



Features:

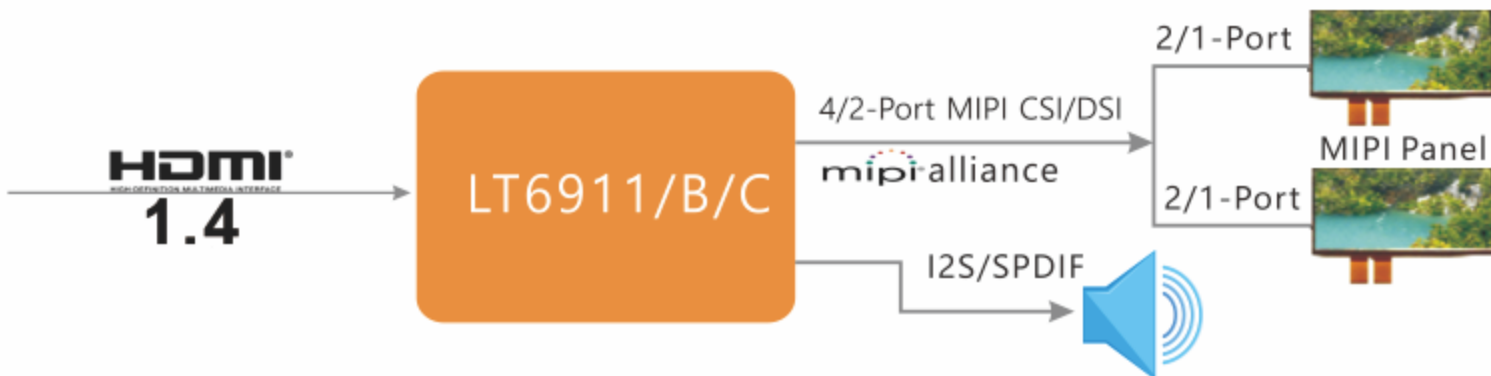
- ◆ HDMI1.4 Receiver
 - ◆ Compliant with HDMI1.4, up to 4K@30Hz
 - ◆ Support HDCP1.4
- ◆ LVDS Transmitter
 - ◆ Compatible with VESA and JEIDA standard
 - ◆ 1/2/4 configurable port
 - ◆ Maximum 1.2Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT6911/B/C

HDMI1.4 Receiver (4/2-Port MIPI CSI/DSI)



Features:

- ◆ HDMI1.4 Receiver
 - ◆ Compliant with HDMI1.4, up to 4k@30Hz
 - ◆ Support HDCP1.4
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DCS 1.02, D-PHY 1.2, DSI 1.02, CSI-2 1.0
 - ◆ 1/2/4 configurable port
 - ◆ 80Mb/s~1.5Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT8619C

HDMI1.4/Dual Mode DP Receiver(TTL)



Features:

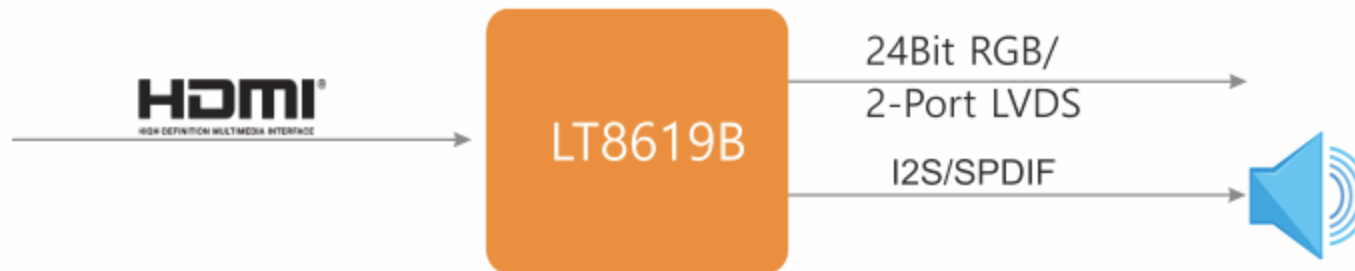
- ◆ Support HDMI1.4/Dual Mode DP input
- ◆ Support HDCP function
- ◆ Support resolution up to 4K
- ◆ Support RGB/YCbCr output
- ◆ Support Single/Dual Port LVDS output
- ◆ Support 8-channel I2S/SPDIF output
- ◆ Support BT656/BT1120 output
- ◆ Support DDR output

Applications:

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

LT8619B

HDMI1.4 Full Receiver with Scaler



Features:

- ◆ Support HDMI1.4 input format
- ◆ Support HDCP function
- ◆ LT8619 output digital RGB 888,RGB666,RGB565 up to 4K resolution
- ◆ LT8619B output 2-Port LVDS or digital RGB 888,RGB666,RGB565 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 outputs
- ◆ Compliant with HDMI1.4
- ◆ 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
- ◆ Supports data rates up to 6Gbps, resolution up to 4K@60Hz
- ◆ 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

LT8641SX/UX

HDMI1.4/2.0 4:1 Switch



Features:

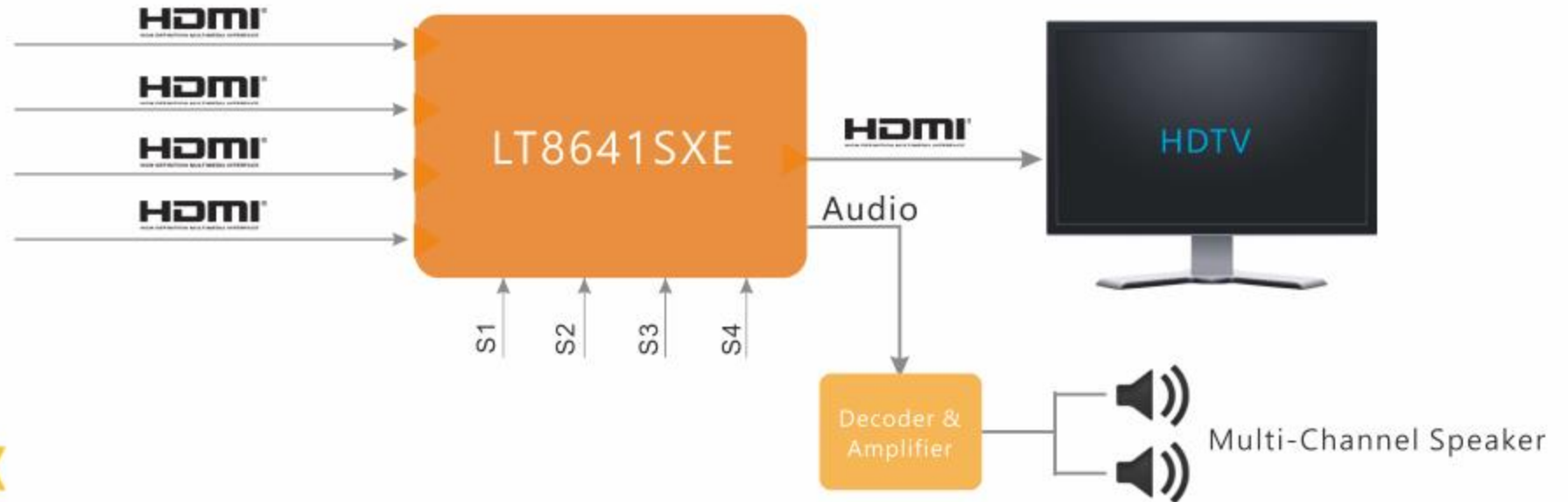
- ◆ Low cost HDMI 2.0 4 to 1 Switch
- ◆ Support up to 4Kx2K@30Hz/4Kx2K@60Hz resolution
- ◆ Low power consumption

Applications:

- ◆ Embedded TV Switch
- ◆ External HDMI Switch

LT8641SXE

HDMI1.4/2.0 Switch with Jitter Cleaning & Signal Repeating



Features:

- ◆ HDMI1.4/2.0 4 to1 Switch, jitter cleaning and signal repeating
- ◆ Best repeating performance up to 30 meters with #26 HDMI cable
- ◆ Support HDCP function
- ◆ Support HDMI1.4/2.0(YCbCr 4:2:0) resolution formats
- ◆ Support HDMI resolution formats up to 3.4Gbps data rate and 4Kx2K @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

LT86102UX /LT86104UX HDMI2.0 Splitter



Features:

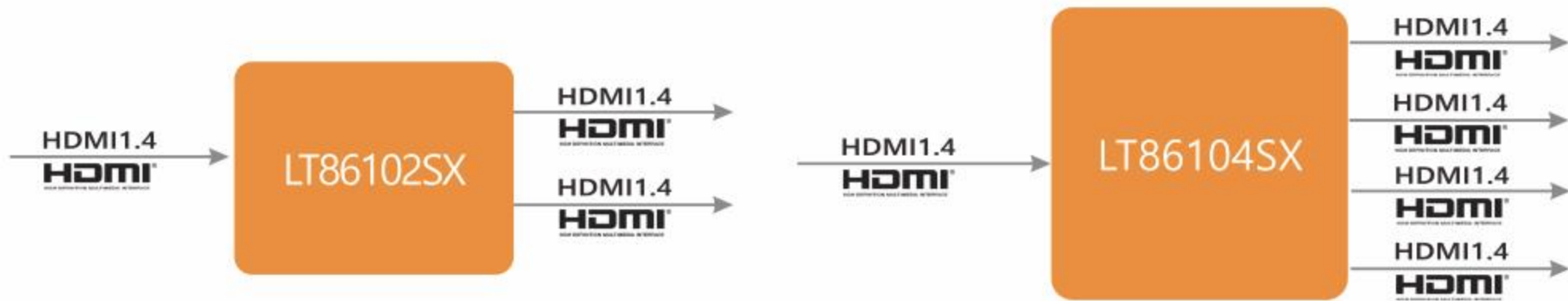
- ◆ Compliant with HDMI1.4/2.0 specifications, 1 to 2, 1 to 4 Splitter
- ◆ Support 3D video formats and 4Kx2K extended resolution
- ◆ Adaptive equalization and de-emphasis to compensate long cable losses
- ◆ ODTs and calibration
- ◆ Integrated EDID shadow RAM and embedded EDID
- ◆ 5V-tolerant DDC interfaces
- ◆ Unlimited cascading for more output ports or signal repeating
- ◆ Jitter cleaning PLL for better performance
- ◆ DC/AC coupled signal input/output
- ◆ No need external crystal

Applications:

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

LT86102SX /LT86104SX

HDMI1.4 Splitter



Features:

- ◆ Compliant with HDMI1.4 specifications, 1 to 2, 1 to 4 Splitter
- ◆ Support 3D video formats and 4Kx2K extended resolution
- ◆ Adaptive equalization and de-emphasis to compensate long cable losses

Applications:

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

LT86102SXE/LT86104SXE

HDMI1.4/2.0 Splitter with Jitter Cleaning & Signal Repeating



Features:

- ◆ HDMI1.4/2.0 1 to 2, 1 to 4 Splitter, and jitter cleaning, signal repeating two chip in one
- ◆ Compliant with HDCP 1.4
- ◆ Best repeating performance up to 30 meters with #26 HDMI cable
- ◆ Support HDMI resolution formats up to 3.4Gbps data rate and 4Kx2K @60Hz YCbCr 4:2:0 format
- ◆ Low power consumption
- ◆ As HDMI repeater it can support very long input distance and output distance

Applications:

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

LT86121TX HDMI2.0 Repeater with DSC Encoder



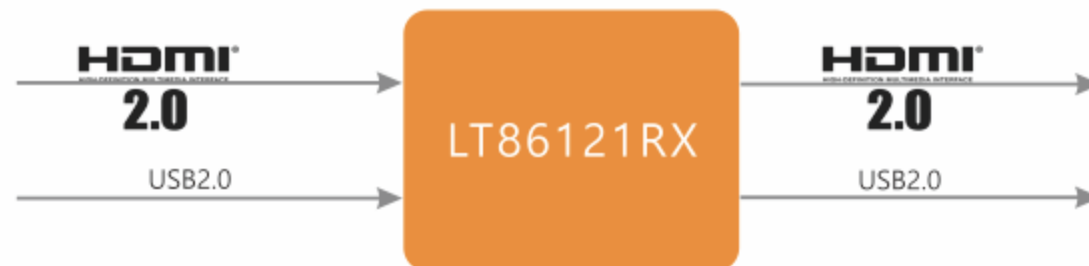
Features:

- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ Compliant with HDCP2.2 and HDCP1.4
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ HDR support
 - ◆ Integrated EDID shadow
- ◆ HDMI2.0 Transmitter
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ No HDCP encryption
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
- ◆ On-die back termination
- ◆ 3D support
- ◆ 2/3 data channels option
- ◆ Integrated DSC encoder
- ◆ FEC support
- ◆ HDR support
- ◆ Audio Output
 - ◆ Support SPDIF and 2-channel I2S audio output
- ◆ Miscellaneous
 - ◆ Integrated USB HS/FS/LS repeater
 - ◆ Integrated microprocessor
 - ◆ GPIOs for system controls

Applications:

- ◆ Active Cables
- ◆ Surveillance
- ◆ KVM Extension

LT86121RX HDMI2.0 Repeater with DSC Decoder



Features:

- ◆ HDMI2.0 Receiver
 - ◆ Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
 - ◆ No HDCP decryption
 - ◆ Data rate up to 6Gbps
 - ◆ Support 4k@60Hz
 - ◆ 3D support
 - ◆ Integrated EDID shadow
 - ◆ 2/3 data channels option
 - ◆ Integrated DSC decoder
 - ◆ FEC support
 - ◆ HDR support
 - ◆ 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 4k@60Hz
 - ◆ On-die back termination
 - ◆ 3D support
 - ◆ HDR support
 - ◆ Miscellaneous
 - ◆ Integrated USB HS/FS/LS repeater
 - ◆ Integrated microprocessor
 - ◆ GPIOs for system controls
- Applications:**
- ◆ Active Cables
 - ◆ Surveillance
 - ◆ KVM Extension

LT86101X HDMI1.4/2.0 Re-driver



Features:

- ◆ Compliant with HDMI1.4b and 2.0 Standard
- ◆ Support up to 6Gb/s Data Rates
- ◆ Integrate 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 5mmx5mm 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 HDMI2.0 Repeater



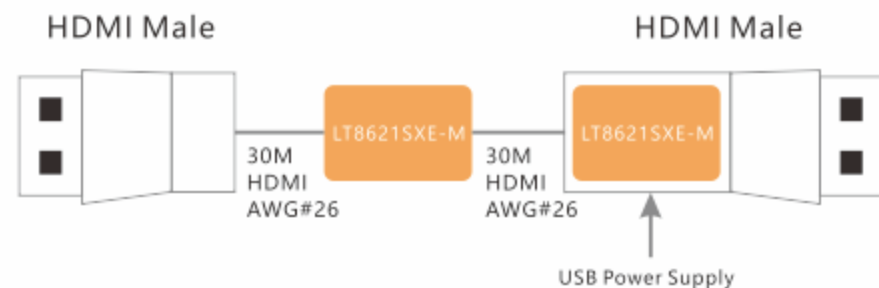
Features:

- ◆ Compliant with HDMI 1.4/2.0 specifications
- ◆ 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
- ◆ 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

LT8621SXE-M HDMI 1.4/2.0 2 to 1 Switch with Repeater



Features:

- ◆ 2 inputs 1 output HDMI1.4/2.0 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 cascade connection for long distance repeating over 100 meters at 1080P
- ◆ Flexible 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
- ◆ 30/60M HDMI Cable

LT86101SX/UX HDMI 1.3/1.4 Repeater



Features:

- ◆ Extend HDMI/Network Cable Length up to 50M
- ◆ Compliant with HDMI1.3 and HDMI1.4
- ◆ 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

LT8644

16 Channel Cross-point Switch



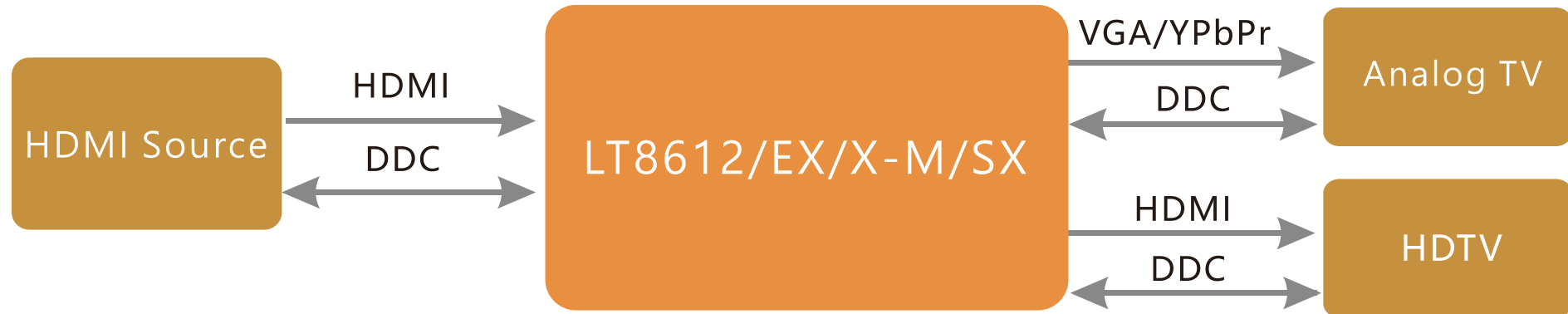
Features:

- ◆ 16 differential channels, 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

LT8612/EX/X-M/SX HDMI to HDMI & VGA/YPbPr



Features:

- ◆ HDMI1.4 to HDMI 1.4 & VGA/YPbPr dual outputs
- ◆ Support HDCP function
- ◆ Support all HDMI1.4 resolution formats
- ◆ Support 8/10/12bit deep color, up to 3.4Gbps data rate
- ◆ Support 8-channel I2S and SPDIF outputs
- ◆ LT8612X-M with integrated MCU for space efficiency

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 HDMI1.4
- ◆ Support HDCP function
- ◆ Support all HDMI 1.4 resolution formats
- ◆ Support 8/10/12bit deep color, 4Kx2K 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

LT8511EX HDMI 1.4 to VGA Converter



Features:

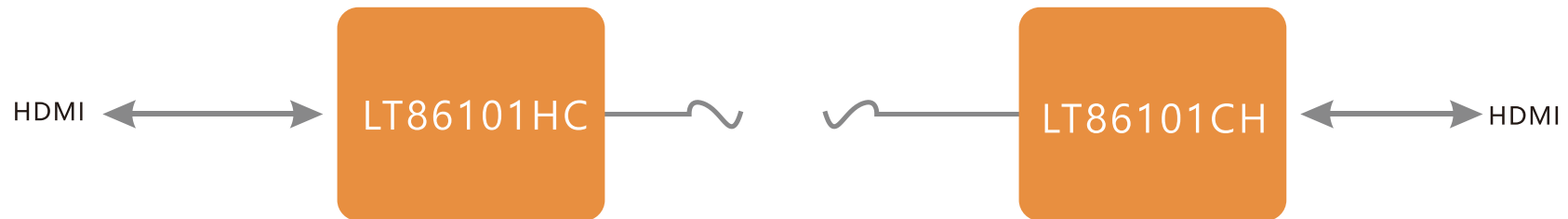
- ◆ Single-chip HDMI video processor. integrated equalizer to deliver the best signal quality
- ◆ Compliant with HDMI1.4 ,DVI 1.0, 8/10/12bit deep color and 4Kx2K, up to 3.4GHz data rate
- ◆ Support YCC to RGB and RGB to YCC conversion in ITU-R BT.601 and 709 color space
- ◆ Support pixel clock rate up to 300MHz up to 4Kx2K@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



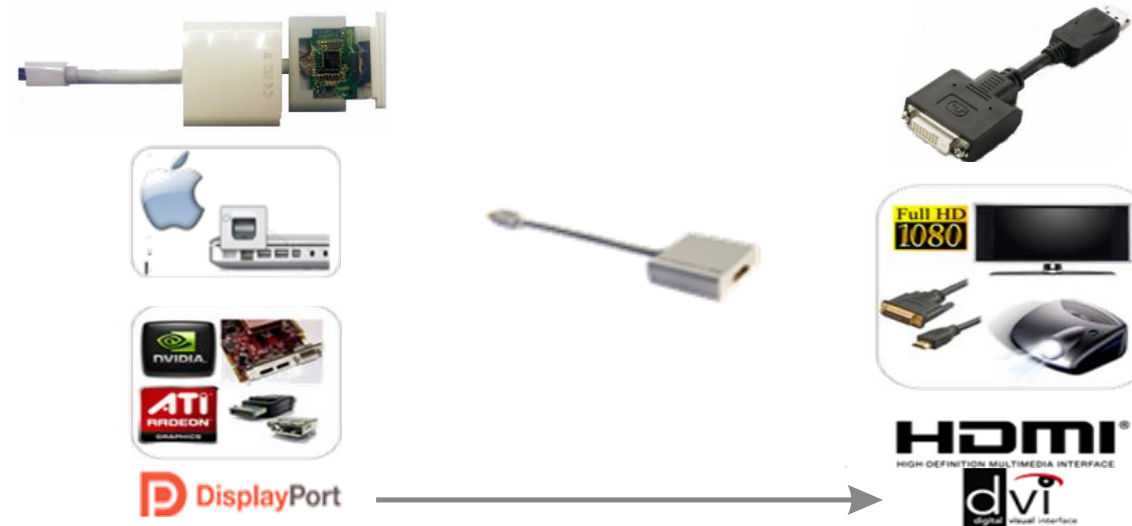
Features:

- ◆ Compliant with HDMI1.4b, Type-C r1.2, USB PD2.0 and HDMI1.4b Alt Mode v1.0 Standards
- ◆ Support Hot-Plug Detect for HDMI Interface
- ◆ Support DDC and CEC
- ◆ Support Only AC Coupled 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 Upgrade
- ◆ Support External I2C Debug
- ◆ 1.8V/3.3V Power Supply
- ◆ Packaged in 5mmx5mm QFN40

Applications:

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

LT8611SX/SXD DP Repeater & HDMI/DVI Level Shifter



Features:

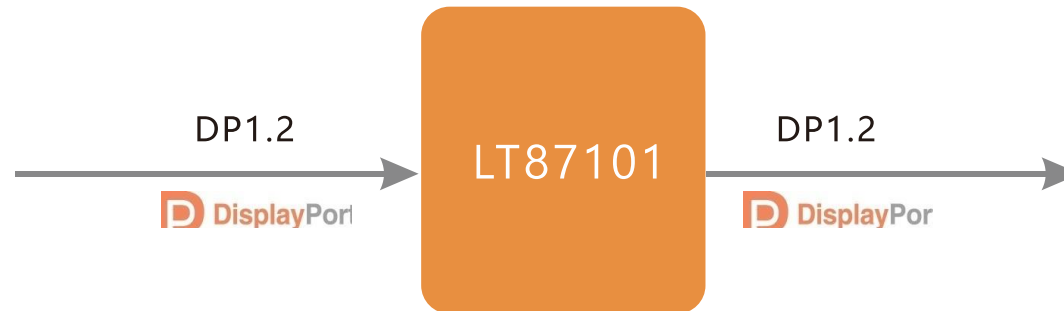
- ◆ DisplayPort Repeating
- ◆ HDMI V1.4/DVI V1.0 Level Shifting
- ◆ Support HDMI 2.0 4:2:0 format
- ◆ DDC Level Shifting
- ◆ DDC Buffer Support

- ◆ HPD Level Shifting
- ◆ Power supply $3.3\text{ V} \pm 10\%$
- ◆ ESD protection up to 3 kV
- ◆ Power-saving modes 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
- ◆ DP to HDMI/DVI Cable Adaptor
- ◆ Digital Set-Top-Box 1-to-1
- ◆ DP Repeater

LT87101 DP1.2 Re-driver



Features:

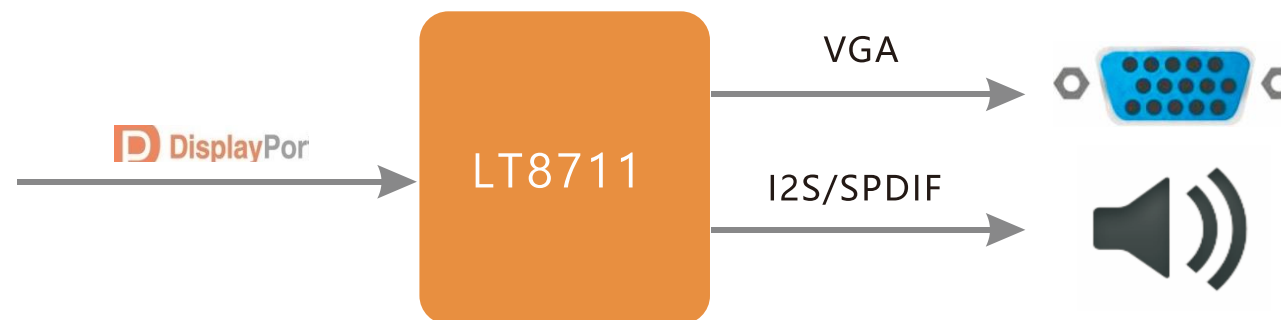
- ◆ Compliant with VESA DP1.2 Standard
- ◆ Support up to 5.4 Gb/s Data Rates
- ◆ Integrate AUX Interception
- ◆ Programmable Input Equalization, Output Swing and De-emphasis
- ◆ Internal MCU and Flash for Online Firmware Upgrade
- ◆ Support External I2S Debug
- ◆ 1.8V/3.3V Power Supply
- ◆ Packaged in 5mmx5mm QFN40

Applications:

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

LT8711

DP to VGA Converter



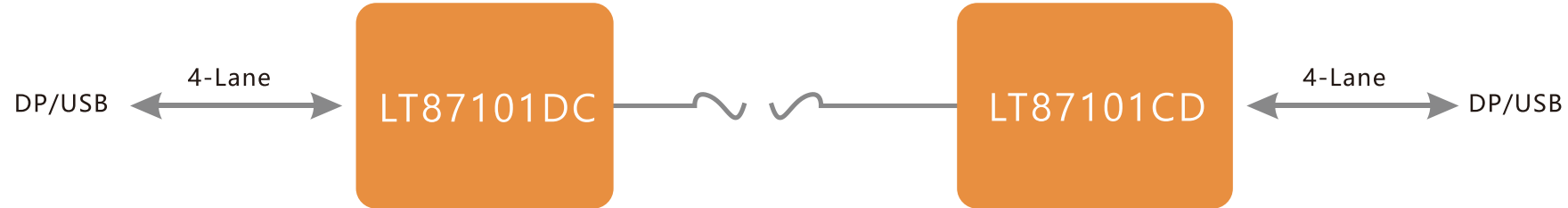
Features:

- ◆ Compliant with VESA DP1.2 Standard
- ◆ Support up to 5.4 Gb/s Data Rates
- ◆ Packaged in 9mmx9mm QFN64

Applications:

- ◆ Tablet PC, Notebook PC
- ◆ Dongle

LT87101DC/LT87101CD DP to Type-C/Type-C to DP Converter



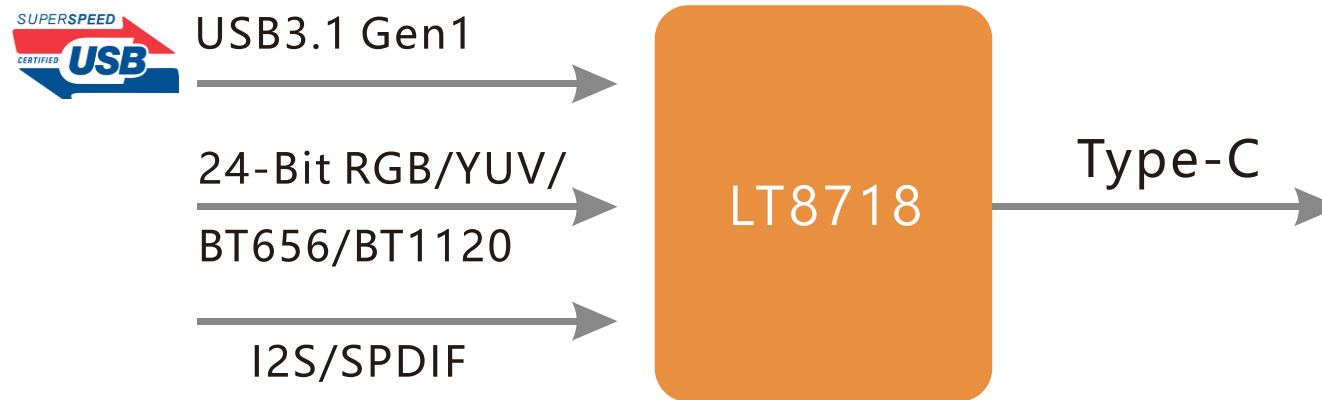
Features:

- ◆ Compliant with VESA DP1.2, USB3.1 Gen-1, Type-C r1.2, USB PD2.0 and DP Alt Mode v1.0 Standards
- ◆ Support 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
- ◆ 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
- ◆ 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 5mmx5mm 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:

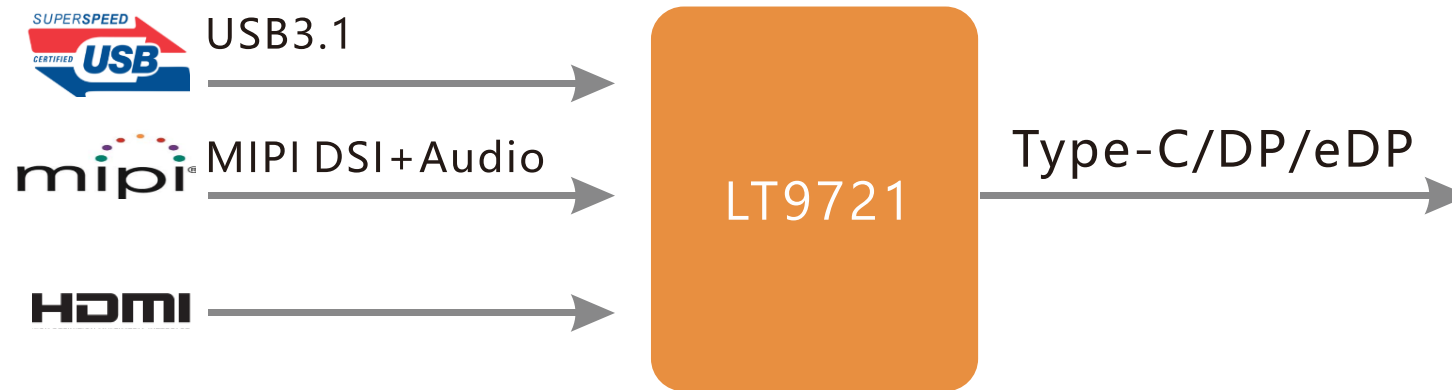
- ◆ 24-bit RGB/YUV and BT656/BT1120 input
Resolution up to 4Kx2K@30Hz
- ◆ Resolution up to 4Kx2K@60Hz for YCbCr 4:2:0
- ◆ DP 1.2 transmitter up to 4Kx2K@60Hz
- ◆ USB Type-C output interface

Applications:

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

LT9721

HDMI/MIPI DSI to Type-C(DP/eDP)with USB3.1 Switch



Features:

- ◆ Single-Port MIPI DSI receiver up to 1080P@60Hz for RGB format and 4K@30Hz for YUV420 format
- ◆ HDMI1.4 receiver up to 4Kx2K@30Hz for RGB format and 4Kx2K@60Hz for YUV420 format
- ◆ DP 1.2 Transmitter up to 4Kx2K@60Hz
- ◆ USB Type-C output interface

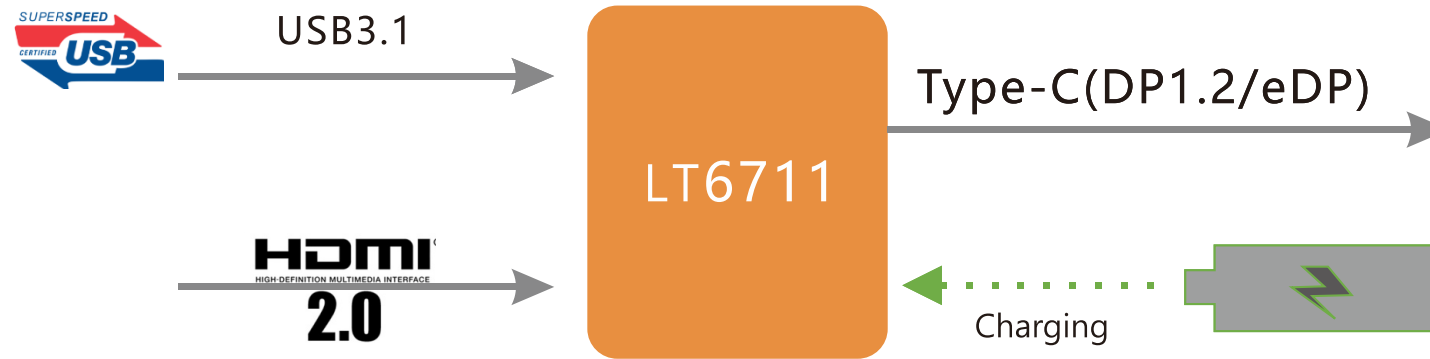
Applications:

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



LT6711

HDMI2.0 to Type-C(DP1.2/eDP) with USB3.1 switch



Features:

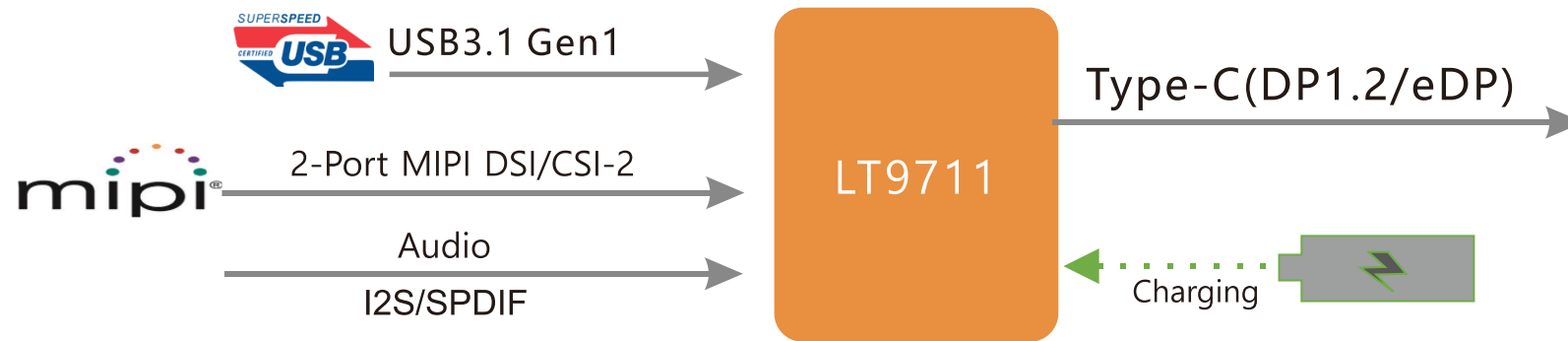
- ◆ HDMI2.0 receiver up to 4K@60Hz
- ◆ DP 1.2 Transmitter up to 4Kx2K@60Hz
- ◆ USB Type-C output interface

Applications:

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



LT9711 2-Port MIPI DSI/CSI-2 to Type-C(DP1.2/eDP) with USB3.1 switch

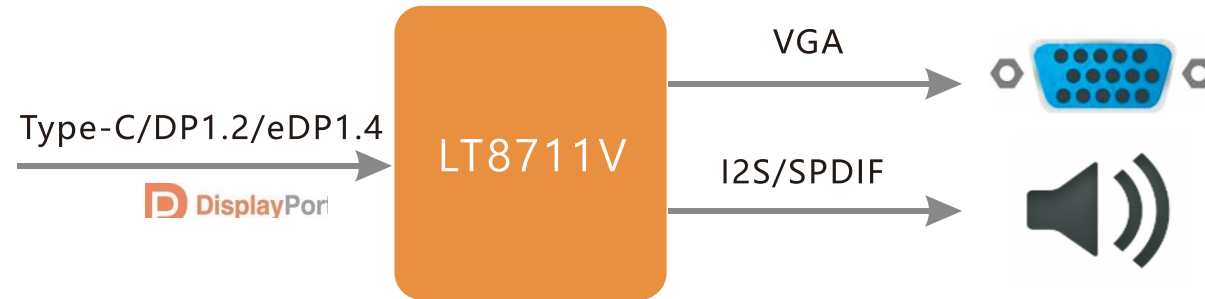


Features:

- ◆ 2-Port MIPI DSI/CSI-2 receiver up to 4K@60Hz
- ◆ DP 1.2 Transmitter up to 4Kx2K@60Hz
- ◆ USB Type-C output interface

Applications:

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



Applications:

- ◆ Tablet PC, Notebook PC
- ◆ Dongle

Features:

- ◆ USB Type-C
 - ◆ Compliant with VESA DisplayPort Alt Mode on USB Type-C standard 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
 - ◆ Internal or external oscillator
 - ◆ Integrated microprocessor
 - ◆ GPIOs for VBUS/VCONN/AUX and other system controls
 - ◆ Firmware update through I2C, AUX or USB interface

LT8711HE Type-C/DP1.2 to HDMI2.0 Converter



Applications:

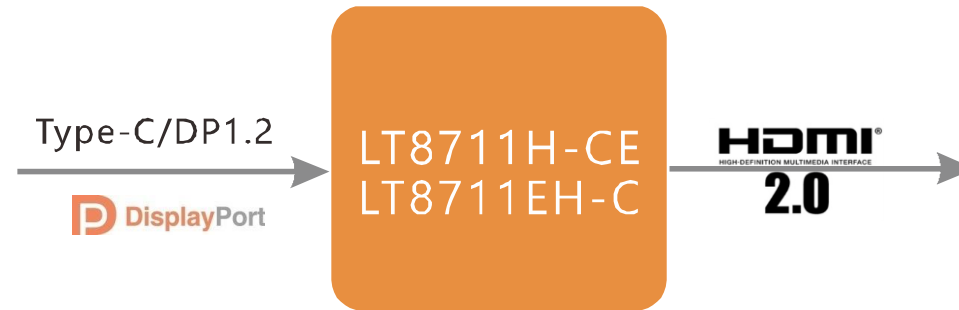
- ◆ Docking Station
- ◆ Dongle

Features:

- ◆ USB Type-C
 - ◆ Compliant with VESA DisplayPort Alt Mode on USB Type-C standard 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, HDMI1.4b 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 DP1.2 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
- ◆ HDMI2.0 Transmitter
 - ◆ Compliant with HDMI2.0, HDMI1.4 and DVI1.0
 - ◆ 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 USB2.0 switch integrated
 - ◆ Internal or external oscillator
 - ◆ Integrated microprocessor
 - ◆ Embedded SPI flash for firmware
 - ◆ GPIOs for VBUS/VCONN/AUX and other system controls

LT8711H-CE/LT8711EH-C

Type-C/DP1.2 to HDMI2.0 Converter



Features:

◆ USB Type-C

- ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI1.4b Alt Mode 1.0

- ◆ Integrated CC1
- ◆ MCU

◆ DP Receiver

- ◆ Compliant with DP1.2, HDCP1.3
- ◆ 1.62/2.7/5.4Gbps
- ◆ 1/2/4 lanes
- ◆ Support SSC
- ◆ 1Mbps AUX

◆ HDMI Transmitter

- ◆ Compliant with HDMI2.0/1.4, DVI1.0, HDCP2.2/1.4
- ◆ 6Gbps
- ◆ 4k@60Hz
- ◆ AC-couple capable

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8711H-C

Type-C/DP1.2 to HDMI1.4 Converter



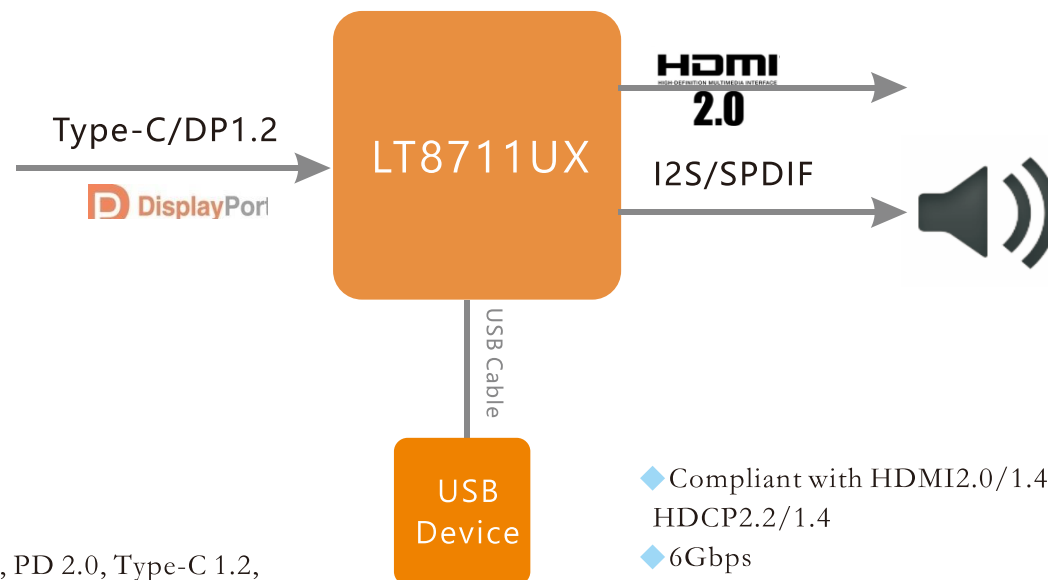
Features:

- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI1.4b Alt Mode 1.0
 - ◆ Integrated CC1
- ◆ DP Receiver
 - ◆ Compliant with DP1.2
 - ◆ 1.62/2.7/5.4Gbps
- ◆ HDMI Transmitter
 - ◆ Compliant with HDMI1.4 and DVI1.0
 - ◆ Data rate up to 3.4Gbps
 - ◆ 4k@30Hz

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8711UX Type-C/DP1.2 to HDMI2.0 Converter with Audio&USB3.0 Switch



Features:

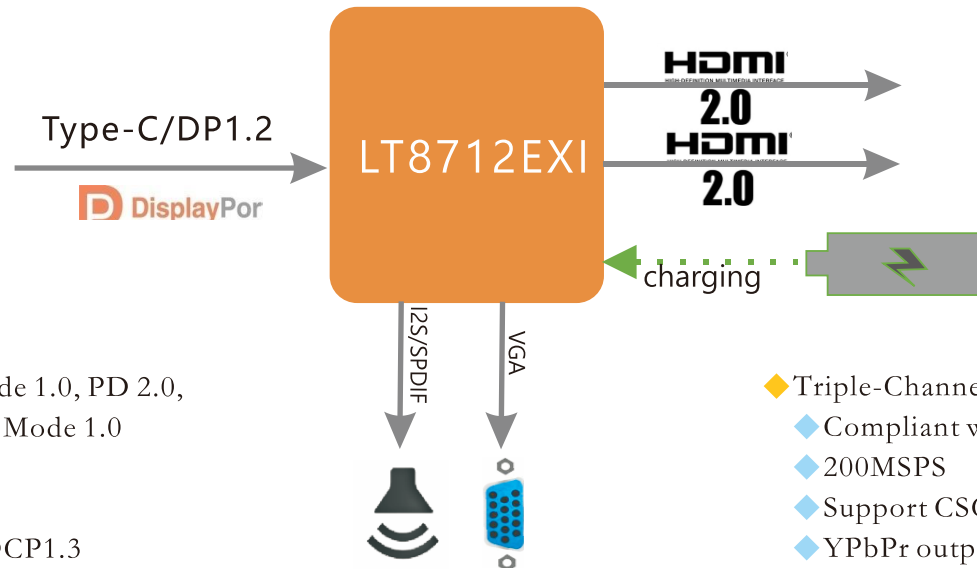
- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI1.4b Alt Mode 1.0
 - ◆ Dual CC controllers
 - ◆ High speed switch
- ◆ DP Receiver
 - ◆ Compliant with DP1.2, HDCP1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
- ◆ HDMI Transmitter

- ◆ Compliant with HDMI2.0/1.4, DVI1.0, HDCP2.2/1.4
- ◆ 6Gbps
- ◆ 4k@60Hz
- ◆ AC-couple capable
- ◆ Digital Audio Outputs
 - ◆ I2S/SPDIF
 - ◆ 8-channel LPCM or compressed audio
 - ◆ 192kHz

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8712EXI Type-C/DP1.2 to HDMI2.0*2&VGA+Audio



Features:

- ◆ USB Type-C
 - ◆ Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI1.4b Alt Mode 1.0
 - ◆ Dual CC controllers
- ◆ DP Receiver
 - ◆ Compliant with DP1.2, HDCP1.3
 - ◆ 1.62/2.7/5.4Gbps
 - ◆ 1/2/4 lanes
 - ◆ Support SSC
 - ◆ 1Mbps AUX
 - ◆ SST/MST
- ◆ Dual HDMI Transmitters
 - ◆ Compliant with HDMI2.0/1.4, DVI1.0, HDCP2.2/1.4
 - ◆ 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/DP1.2 to HDMI2.0&VGA+Audio



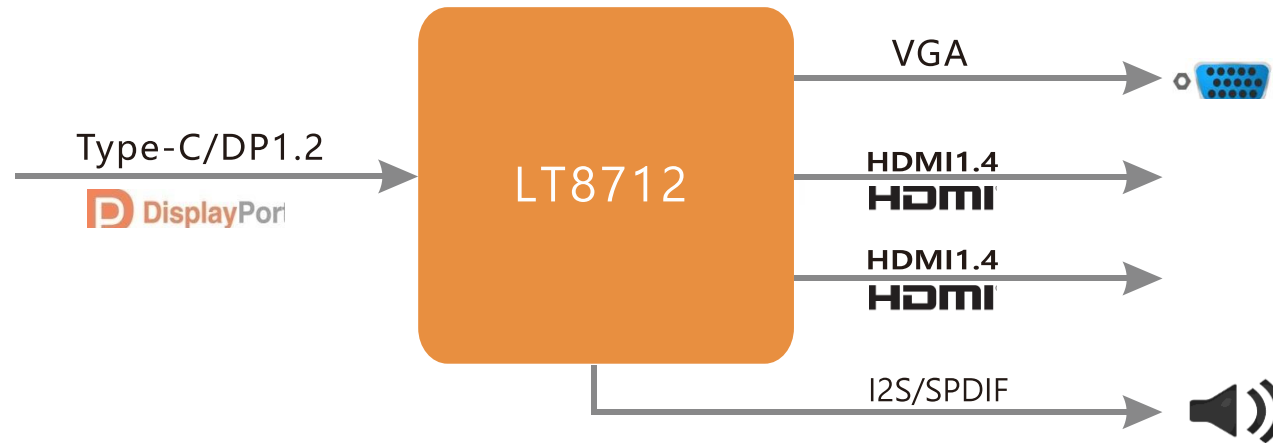
Applications:

- ◆ Docking Station
- ◆ Dongle

Features:

- ◆ USB Type-C
 - ◆ Compliant with VESA DisplayPort Alt Mode on USB Type-C standard 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, HDMI1.4b 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 DP1.2 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
- ◆ HDMI2.0 Transmitter
 - ◆ Compliant with HDMI2.0, 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/HPD I/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, Dolby Digital, DTS digital audio at up to 192kHz frame rate
 - ◆ IEC60958 or IEC61937 compatible

LT8712 Type-C/DP1.2 to HDMI1.4&VGA+Audio



Features:

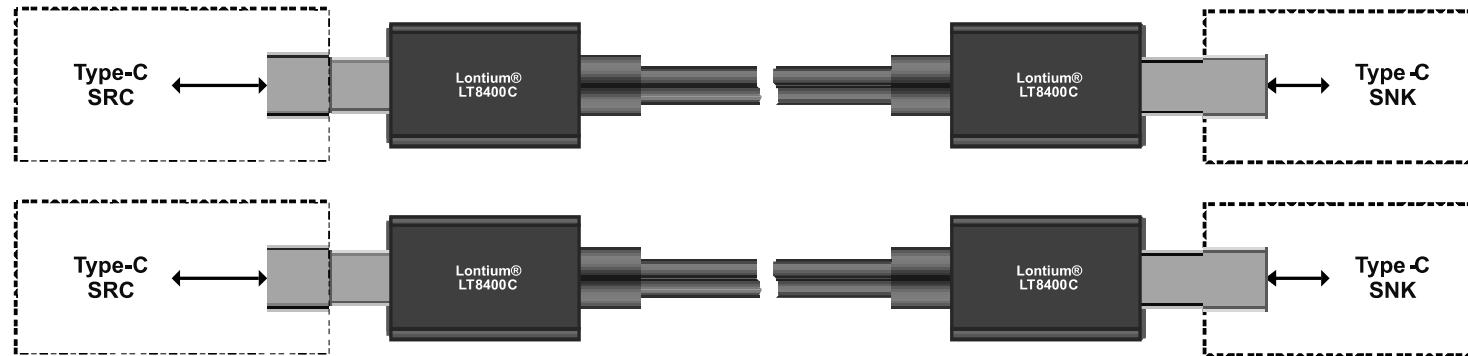
- ◆ Integrates a DP 1.2 compliant receiver
- ◆ Integrates a high-speed triple-channel video DAC
- ◆ Integrates two HDMI 1.4 compliant transmitters
- ◆ Integrates a CC controller which enables DP Alternate Mode support when connected to a USB Type-C source
- ◆ Digital audio output
- ◆ Internal MCU and Flash for Firmware Upgrade
- ◆ Packaged in 14mmx14mm LQFP128

Applications:

- ◆ Docking Station
- ◆ Dongle

LT8400C

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

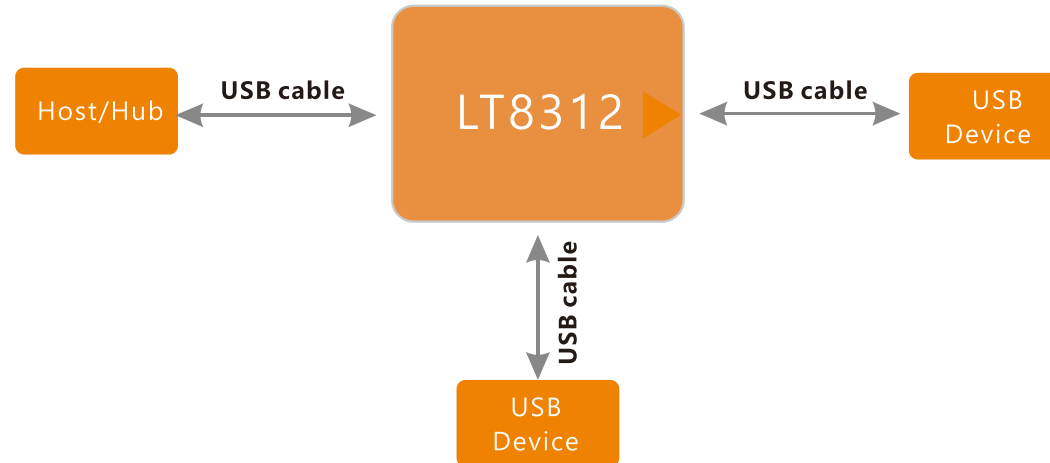


Features:

- ◆ 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 5mmx5mm QFN40

Applications:

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



Features:

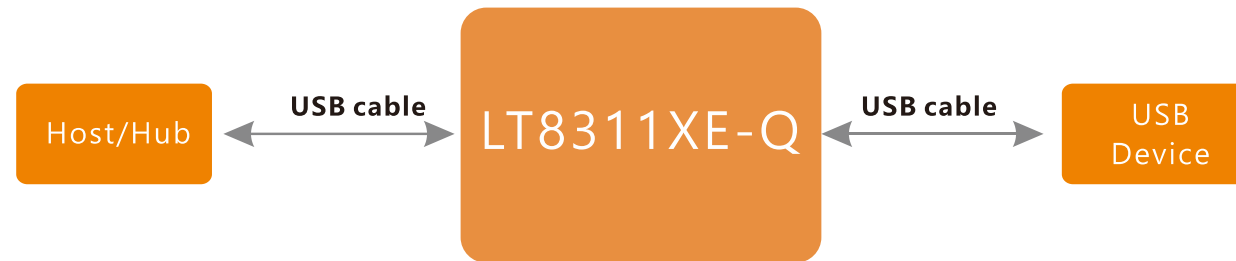
- ◆ One path for standard USB2.0 signal bypass and the other path for USB2.0 signal extension
- ◆ Extension length up to 10m over USB cable
- ◆ Supports USB2.0 high speed and USB1.1 full/low speed device
- ◆ Supports hot plug
- ◆ I2C control and external pin control mode for equalization adjustment
- ◆ Single 3.3V power supply
- ◆ 20 pin QFN 4mmx4mm 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

LT8311XE-Q

USB2.0 Extender



Features:

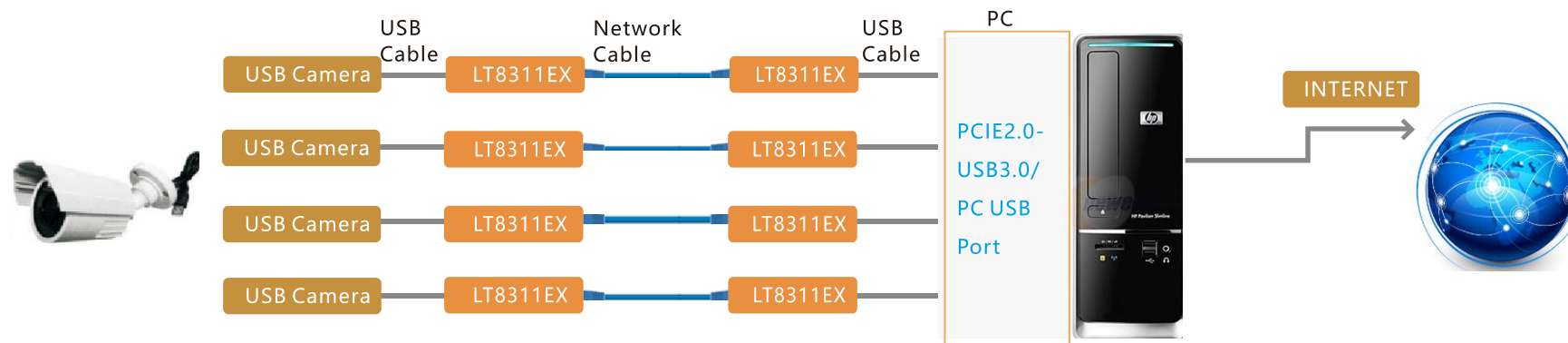
- ◆ Single chip extension length up to 10m over USB cable
- ◆ Dual chip extension length up to 40m over Ethernet cable
- ◆ Supports USB2.0 high speed and USB1.1 full/low speed device
- ◆ Supports hot plug
- ◆ I2C control and external pin control mode for equalization adjustment
- ◆ Single 3.3V power supply
- ◆ 16 pin QFN 4mmx4mm 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

LT8311EX

For Surveillance Camera & KVM



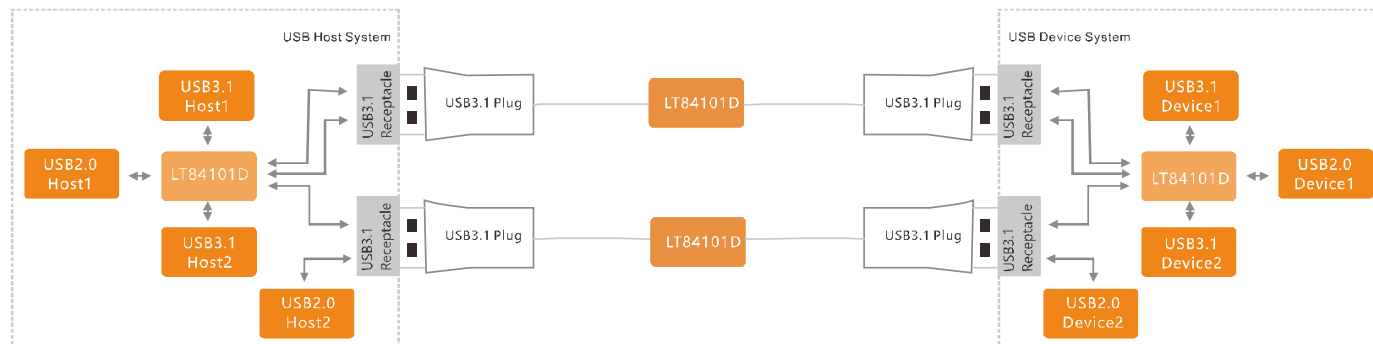
LT8311EX can be installed on the camera PCB to reduce product size

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

Applications:

- ◆ Surveillance
- ◆ KVM Extension



Features:

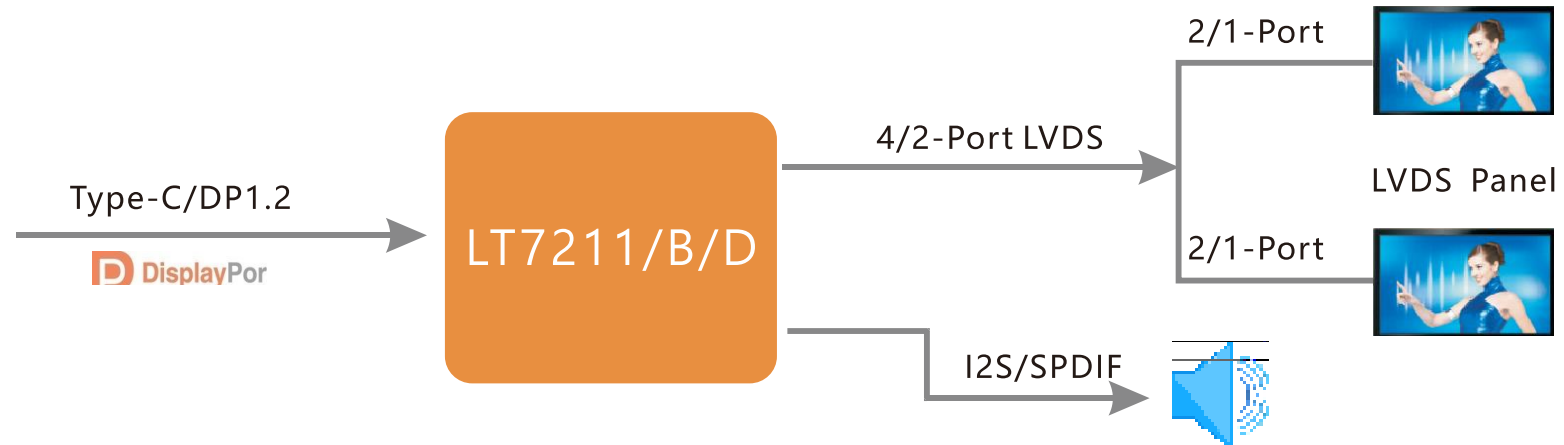
- ◆ Compatible with USB3.1 Gen-1 Specification
- ◆ Compatible with USB2.0 Specification
- ◆ Support 2-Port USB3.1 Gen-1 Operating
- ◆ Support Simultaneous Operating of Two Stand-alone Data Transfer with 5 Gb/s Data Rate for each USB3.1 Gen-1 Port
- ◆ Support One USB2.0 Port with 480 Mb/s Data Rate
- ◆ Supports LFPS Detect and Rx Detect for USB3.1 Gen-1
- ◆ Supports Squelch Detect for USB2.0
- ◆ Programmable Input Equalization
- ◆ Programmable Output Swing and De-emphasis
- ◆ Internal MCU and Flash for Online Firmware Upgrade
- ◆ Support External I2C Debug
- ◆ 1.8V/3.3V Dual Power Supply
- ◆ Packaged in 5mmx5mm 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
- ◆ USB3.1 Cable Extender

LT7211/B/D

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



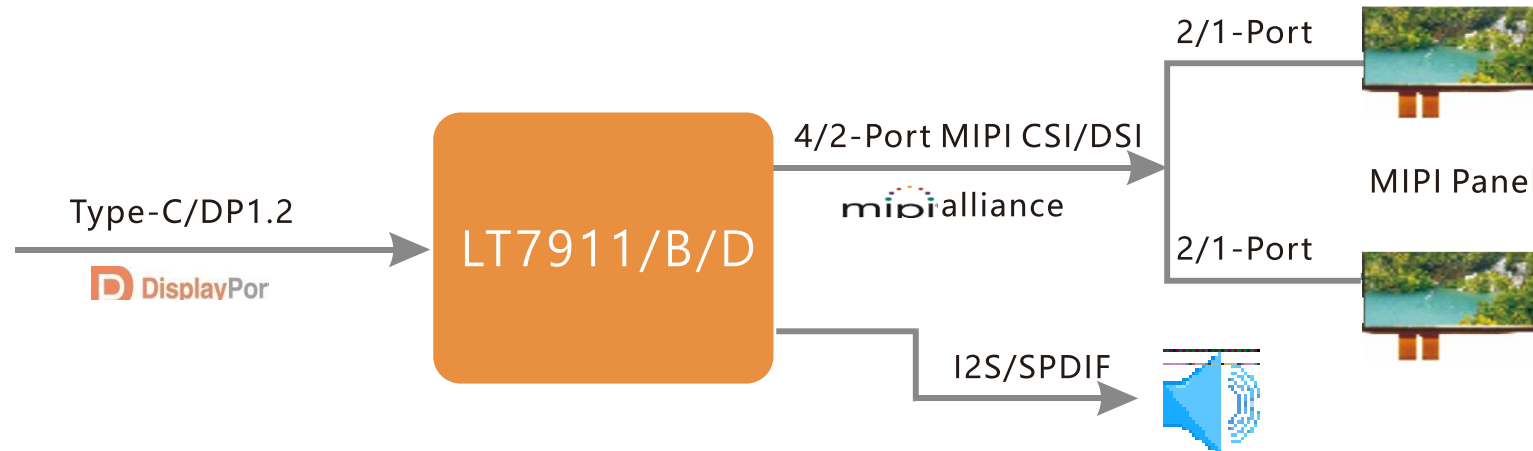
Features:

- ◆ Type-C/DP1.2 Receiver
 - ◆ Compliant with DP1.2 for 1.62Gb/s, 2.7Gb/s, 5.4Gb/s, up to 4K@60Hz
 - ◆ 1/2/4 configurable lane
- ◆ LVDS Transmitter
 - ◆ Compatible with VESA and JEIDA standard
 - ◆ 1/2/4 configurable port
 - ◆ Maximum 1.2Gb/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:

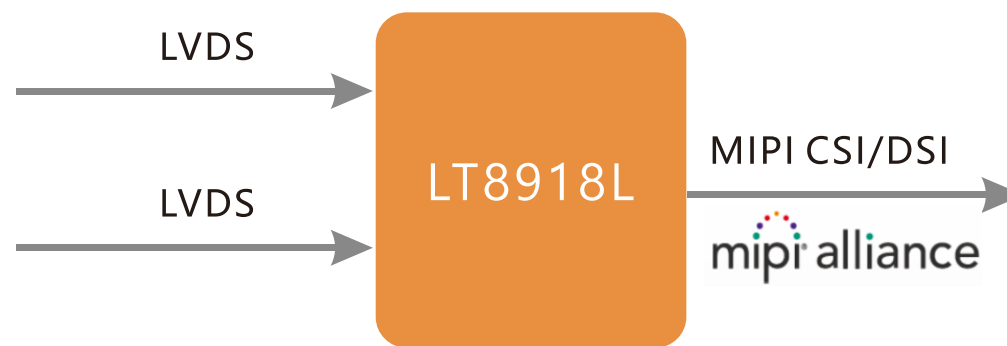
- ◆ Type-C/DP1.2 Receiver
 - ◆ Compliant with DP1.2 for 1.62Gb/s, 2.7Gb/s, 5.4Gb/s, up to 4K@60Hz
 - ◆ 1/2/4 configurable lane
- ◆ MIPI CSI/DSI Transmitter
 - ◆ Compliant with DCS 1.02, D-PHY 1.2, DSI 1.02, CSI-2 1.0
 - ◆ 1/2/4 configurable port
 - ◆ 80Mb/s~1.5Gb/s per data lane
 - ◆ Side-by-side 3D support

Applications:

- ◆ VR

LT8918L

LVDS to MIPI CSI/DSI



Features:

- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Input Data Lane and Polarity Swapping
- ◆ 80Mb/s~1.5Gb/s per data lane
- ◆ 1.8V Single Supply Power per Data Lane for both Input
- ◆ Support 100KHz / 400KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in QFN64 7.5mm x 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/BT1120 input
- ◆ Compliant with DCS1.02, D-PHY1.1 and DSI1.02
- ◆ Compliant with D-PHY1.1 and CSI-2 1.0
- ◆ Resolution up to 1080P@60Hz

Applications:

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

LT89101

MIPI CSI/DSI , LVDS Repeater



Features:

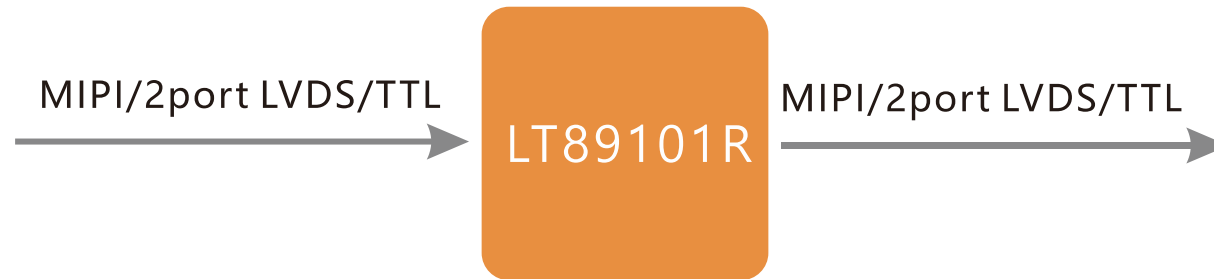
- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Signal Re-driving without Data De-packetize
- ◆ Input Data Lane and Polarity Swapping
- ◆ 80Mb/s~1.5Gb/s per Data Lane for both Input and Output
- ◆ Supports Maximum Resolution 1080P@60Hz
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in QFN64 7.5mm x 7.5mm

Applications:

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

LT89101R

MIPI/2port LVDS/TTL Repeater With Rotation



Features:

- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Signal Re-driving without Data De-packetize
- ◆ Input Data Lane and Polarity Swapping
- ◆ 80Mb/s~1.8Gb/s per Data Lane for both Input and Output
- ◆ Supports Maximum Resolution 1080P@60Hz
- ◆ 90 degree rotation
- ◆ 1.8V Single Supply Power for LVDS Input/Output
- ◆ 1.8V/3.3V Supply Power for TTL Input/Output
- ◆ Support 100KHz / 400KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in BGA-144 7mmX7mm, QFN128 14mmX14mm

Applications:

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

LT89101L

MIPI to LVDS Level Shifter



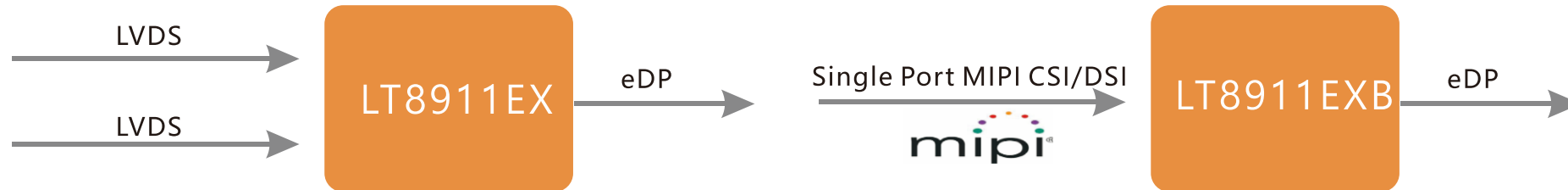
Features:

- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Signal Re-driving without Data De-packetize
- ◆ Input Data Lane and Polarity Swapping
- ◆ 80Mb/s~2.5Gb/s per Data Lane for Both Input and Output
- ◆ 1.8V Single Supply Power
- ◆ Support 100KHz / 400KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in QFN64 7.5mm x 7.5mm

Applications:

- ◆ Mobile systems
- ◆ Home security systems
- ◆ Digital video cameras
- ◆ Digital still cameras
- ◆ Tablet PC, Notebook PC
- ◆ Car Display and Camera System
- ◆ Signal bridge in FPGA verification

LT8911EX/EXB 2 Port LVDS/MIPI CSI/DSI to eDP



Features:

- ◆ LT8911EX
 - ◆ Supports 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
 - ◆ Supports Single Port MIPI CSI/DSI input
 - ◆ Compliant with D-PHY1.2, DSI1.3 and CSI1.3
 - ◆ Clock lane and 1~4 configurable data lanes
 - ◆ 80Mb/s~2.0Gb/s per data lane
 - ◆ Support Support 16/18/24/30/36-bit RGB and YUV 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 LVDS/HDMI With Scaler



Features:

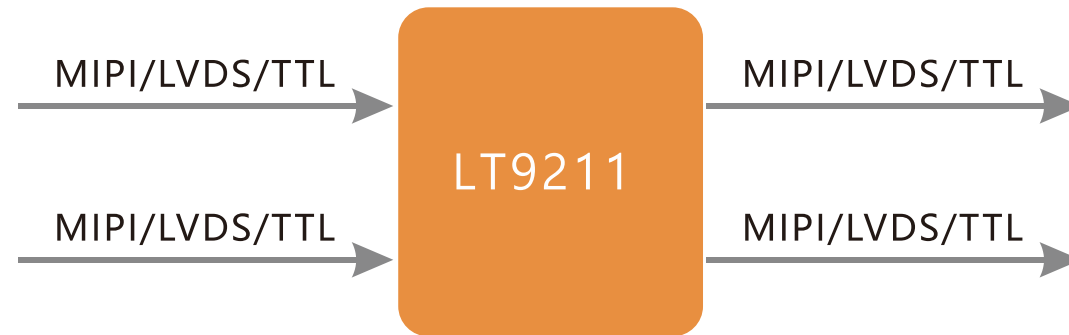
- ◆ Compliant with HDMI1.4
- ◆ Support MIPI DSI Non-Burst Mode(Continue Mode)

Applications:

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

LT9211

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



Features:

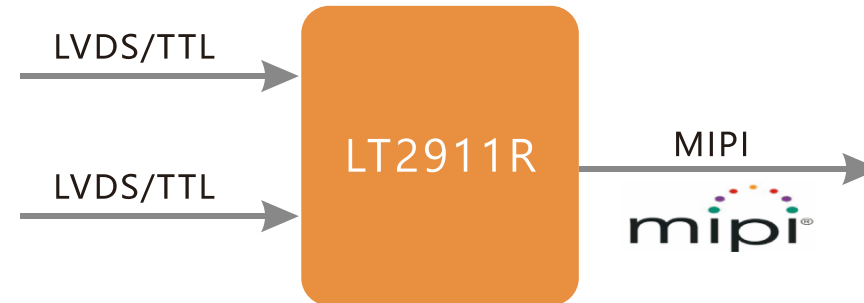
- ◆ Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-2 1.00
- ◆ Compatible with VESA and JEIDA standard
- ◆ Alternative Input and Output configuration for MIPI/LVDS/TTL
- ◆ MIPI/LVDS muxer and splitter supported
- ◆ MIPI-LVDS Level shifter for FPGA
- ◆ Support 100KHZ and 400KHZ I2C Slave
- ◆ Up to 1080P 60Hz
- ◆ Packaged in QFN64 7.5mm x 7.5mm

Applications:

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

LT2911R

2port LVDS/TTL to MIPI With Rotation



Features:

- ◆ Support 3-bit maximum 10dB Input Equalization
- ◆ Support 90 degree rotation
- ◆ Frame Rate Convert support
- ◆ Input Data Lane and Polarity Swapping
- ◆ 80Mb/s~1.8Gb/s per data lane
- ◆ 1.8V Single Supply Power for LVDS Input
- ◆ 1.8V/3.3V Supply Power for TTL Input
- ◆ Support 100KHz / 400KHz I2C slave
- ◆ External 25MHz Crystal Reference Clock
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in BGA-144 7mmX7mm, QFN128 14mmX14mm

Applications:

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

LT9211R

MIPI to 2port LVDS/TTL With Rotation



Features:

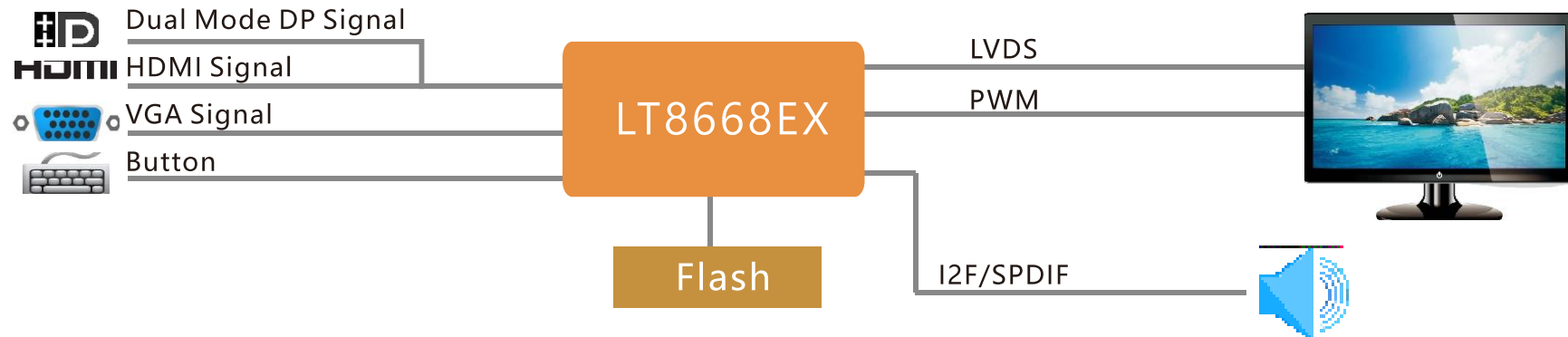
- ◆ Support MIPI DSI Non-Burst Mode
- ◆ Frame Rate Convert support
- ◆ 80Mb/s~1.8Gb/s per data lane
- ◆ 1.8V Single Supply Power for LVDS Output
- ◆ 1.8V/3.3V Supply Power for TTL output
- ◆ Temperature Range: -40°C ~ +85°C
- ◆ Packaged in BGA-144 7mmX7mm, QFN128 14mmX14mm
(LT9211R with 90 degree rotation)

Applications:

- ◆ Mobile systems
- ◆ Camera systems
- ◆ Tablet PC, Notebook PC, Netbooks
- ◆ POS
- ◆ Advertising

LT8668EX

LCD Controller



Features:

- ◆ Support HDMI 1.4 input with resolution up to 4Kx2K@30Hz
- ◆ Support 4-Port LVDS
- ◆ Support VGA resolution up to 1920x1200
- ◆ OSD, Scaler(4K and 2K resolution scaler bypass)
- ◆ Embedded MCU
- ◆ Support 8-channel I2S/SPDIF output
- ◆ PWM backlight control
- ◆ Quad LVDS channels support 4Kx2K panel

Applications:

- ◆ LCD monitor
- ◆ Smart TV

Signal Conversion Matrix

Parts in Black are in MP status, Parts in Red are in design status.

Converts to

Converts from

	RGB	LVDS	VGA	HDMI 1.4	HDMI 2.0	MIPI	Type-C	DP	eDP	VB1	BT656	BT1120
RGB				LT8618EXB LT8618SXB		LT8918	LT8718	LT8718	LT8718			
LVDS		LT89101 LT89101R			LT2611UX LT2611UXC	LT8918L LT2911R LT9211			LT8911EX			
VGA	LT8668EX	LT8668EX	LT8522EX	LT8522EX LT8522X								
HDMI 1.4	LT8619B LT8619C LT8668EX	LT8619B LT8619C LT8668EX LT6211 LT6211B LT6211C	LT8612SX LT8511EX LT8522EX	LT8612X-M LT8612SX		LT8918H LT6911 LT6911B LT6911C	LT9721 LT86101HC	LT9721	LT9721	LT6811	LT8819EX LT8619C	LT8819EX LT8619C
HDMI2.0		LT6211UX LT6211UXC LT8668SX			LT86121TXE LT86121RXE	LT6911UX LT6911UXC LT8668SX	LT6711A	LT6711A	LT6711A LT8668SX	LT8668SX		
MIPI		LT8912B LT89101L LT9211R LT9211		LT8912B LT9611	LT9611UX LT9611UXC	LT89101 LT89101R	LT9721 LT9711	LT9721 LT9711	LT9721 LT8911EXB LT9711			
Type-C		LT7211 LT7211B LT7211D LT8668SX	LT8711V LT8712 LT8712X LT8712EXI LT8712EXC	LT8711H-C LT8712 LT86101CH	LT8711EH-C LT8711HE LT8711H-CE LT8711UX LT8712EXC LT8712EXI LT8712X	LT7911 LT7911B LT7911D LT8668SX	LT87101C	LT87101CD	LT8668SX	LT8668SX		
DisplayPort		LT7211 LT7211B LT7211D LT8711DL LT8668SX	LT8712X LT8711V	LT8711H-C LT8712	LT8711EH-C LT8711UX LT8711HE LT8712EXI LT8712EXC LT8712X	LT7911 LT7911B LT7911D LT8668SX	LT87101DC		LT8668SX	LT8668SX		
Dual Mode DP	LT8668EX LT8619B LT8619C	LT8668EX LT8619B LT8619C	LT8711	LT8611SX							LT8619C	LT8619C
BT656				LT8618EXB LT8618SX		LT8918	LT8718	LT8718	LT8718			
BT1120				LT8618EXB LT8618SXB		LT8918	LT8718	LT8718	LT8718			

Parts under test

Parts	Function Description	Sample Ready
LT6711A	HDMI 2.0 to Type-C (DP)	2018/Dec
LT9711	MiPi-CSI/DSI to Type-C (DP)	2018/Dec

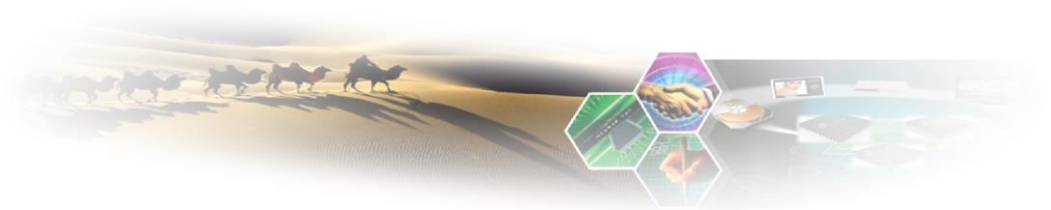
Parts in design

Parts	Function Description	Sample Ready
LT8668SX	4K TV/Monitor Scaler with HDMI2.1/Type-C support	2019/Feb
LT6842UX	HDMI 2.0 4-to-2 Matrix Switch	2019/Mar
LT8641UXE	HDMI 2.0 4-to-1 Switch with audio	2019/Mar
LT8612UX	HDMI 2.0 to HDMI 2.0 + VGA with audio	2019/Mar
LT86102UXE	HDMI 2.0 1-to-2 Splitter with HDCP 2.2 support	2019/Mar
LT8641M	HDMI1.4/TTL 4-to-1 Video Mosaic up to 1080P	2019/June
LT8623	HDMI1.4 Video Extraction with LVDS Panel Driver up to 1080P	2019/June
LT6811	HDMI1.4 to VB1 up to 1080P	2019/June
LT6842	HDMI1.4 4-to-2 Matrix Switch	2019/June

Lontium Roadmap



LT6711A	LT8668SX	LT8641M
LT9711	LT6842UX	LT8623
Under test	LT8641UXE	LT6811
	LT8612UX	LT6842
	LT86102UXE	



We Produce Mix-Signal Product for a better digital World



LT7211/C, LT6211/C:
TYPE C | DP, HDMI TO LVDS PANELS FOR VR/AR APPLICATIONS

LT7911/C, LT6911/C:
TYPE C | DP, HDMI TO MIPI PANELS FOR VR/AR APPLICATIONS

WE PRODUCE
MIXED-SIGNAL PRODUCTS
FOR A BETTER DIGITAL WORLD

Thanks !

