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PRODUCT CATALOG



Video Transmission

Video Processing

HD-panel Controller & Driver

High-end IP

LONTIUM SEMICONDUCTOR CORPORATION

Product Categories

ClearEdge™

<u>HDMI</u>	<u>DP/eDP/eDPx</u>	<u>USB/Type-C</u>	<u>MIPI/LVDS</u>	<u>LCD Controller</u>	<u>Others</u>
Transmitter Receiver Switch Splitter Repeater Matrix/Cross-point Converter	Transmitter Receiver Switch/Splitter Repeater Converter	Transmitter Converter Switch/Extender Repeater	Transmitter Repeater Level Shifter Converter Splitter	Scaler FrameRate Converter Video Stream Rotator & Converter	High Speed Repeater /Retimer; Optical Transceiver; Automotive Serdes

HDMI Transmitter

Part Number	Package	Description	Pin to Pin
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 (3Gbps) Transmitter (2-Port LVDS)	
LT9611	QFN-64	HDMI 1.4 Transmitter (2-Port MIPI CSI/DSI)	
LT8618SXB	QFN-64	HDMI 1.4 Transmitter (TTL (RGB/YCbCr/BT656/BT1120)), improved performance	LT8618EXB
LT8618EXB	QFN-64	HDMI 1.4 Transmitter (TTL (RGB/YCbCr/BT656/BT1120))	LT8618SXB

HDMI Receiver

Part Number	Package	Description	Pin to Pin
LT6911GXE	TBD	HDMI2.1 to MIPI Enhanced Version	
LT6911GXC	BGA-169	HDMI2.1 Receiver (4Port LVDS/MIPI + Audio)	
LT6911GX	BGA-169	HDMI2.1 Receiver (4Port LVDS/MIPI + Audio), LPDDR inside	
LT6211UX	QFN-128	HDMI 2.0 Receiver (4-Port MIPI/LVDS)	
LT6911UXE	QFN-64	HDMI 2.0 Receiver (2-Port MIPI CSI/DSI)	LT6911UXC
LT6911UXB	BGA-144	HDMI 2.0 Receiver (4-Port MIPI CSI/DSI)	
LT6911UXC	QFN-64	HDMI 2.0 Receiver (2-Port MIPI/LVDS)	LT6911C
LT6211B	BGA-144	HDMI 1.4 Receiver (4-Port MIPI/LVDS)	
LT6911C	QFN-64	HDMI 1.4 Receiver (2-Port MIPI/LVDS)	LT6911UXC
LT6211	QFN-128	HDMI 1.4 Receiver (4-Port MIPI/LVDS)	
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

HDMI Switch

Part Number	Package	Description	Pin to Pin
LT8641GX	TBD	4-in 1-out HDMI2.1 Switch	
LT8641UXE	QFN-128	4-in 1-out HDMI 2.0 switch with HDCP 2.3 engine and digital audio output	
LT8641UX	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 1.4/2.0 switch with Digital Audio Output	

HDMI Splitter

Part Number	Package	Description	Pin to Pin
LT86102UXS	QFN-88	1-in 2-out HDMI 2.0 Splitter with Scaler, HDCP 2.3 Engine and Audio Input/Output	
LT86102UXE	QFN-76	1-in 2-out HDMI 2.0 splitter with HDCP 2.3 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	
LT86104UX	QFN-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	

HDMI Repeater

Part Number	Package	Description	Pin to Pin
LT86121EX	QFN-88	HDMI2.1/DP1.4a Repeater with Type-C	
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	
LT86101X	QFN-40	HDMI 2.0 Re-driver, DP++ to HDMI2.0 level shifter	
LT86101UXE	QFN-64	HDMI 2.0 Repeater, jitter cleaning	
LT86101SX	QFN-48	HDMI 1.3 Repeater	LT86101UX

Matrix & Cross-point

Part Number	Package	Description	Pin to Pin
LT86404UX	BGA-288	HDMI2.0 4×4 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	
LT86204UX	QFN-128	HDMI2.0 2×4 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	
LT8642UXE	QFN-128	HDMI2.0 4×2 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	
LT8642UX	QFN-128	HDMI2.0 4x2 Matrix, Audio out	
LT8644	TQFP-100	Crosspoint switch	
LT8644EX	TBD	6Gbs/Lane, 16×16 Matrix Switch	

HDMI Converter

Part Number	Package	Description	Pin to Pin
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	
LT8522X	QFN-64	VGA to HDMI 1.3	
LT8522EX	TQFP-100	HDMI 1.4 & VGA to HDMI 1.4 & VGA, matrix switch with Audio Output	
LT8511EX	QFN-64	HDMI/ Dual-mode DP to VGA/YPbPr Converter	

DP/eDP/eDPx Converter/Repeater/Level shifter

Part Number	Package	Description	Pin to Pin
LT89121	QFN-76	eDPx to MIPI DSI/CSI Converter	
LT87121	QFN-64	eDPx to eDP/DP Converter	
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	
LT8611SXA	QFN48	Dual mode DP Repeater & HDMI/DVI/Level Shifter	
LT8611SXB	QFN48	Dual mode DP Repeater & HDMI/DVI/Level Shifter	
LT8611SXD	QFN-32	Dual mode DP Repeater & HDMI/DVI/Level Shifter	

USB Type-C/DP Transmitter

Part Number	Package	Description	Pin to Pin
LT9711	QFN-76	2-Port MIPI/LVDS to Type-C (DP1.2/eDP)	
LT6711A LT6711B	QFN-64 BGA-81	HDMI2.0 to DP1.2 with Type-C	
LT6711GX	QFN-88	HDMI2.1 to DP1.4 with Type-C	
LT9721	QFN-64	HDMI to eDP	
LT8718	QFN-88	TTL to DP	

Type-C/DP Converter

Part Number	Package	Description	Pin to Pin
LT8711GX	QFN-88	Type-C/DP1.4 to HDMI2.1 Converter	
LT8711UXE1	QFN-88	Type-C/DP 1.2 to HDMI 2.0 Converter with Audio & USB 3.1 Gen1 Switch	LT8711UX
LT8711UXE2	QFN-88	Type-C/DP1.4 to HDMI2.0 Converter with USB3.1 Gen1 Switch and Audio Output	
LT8711UXD	QFN-48	2-Lane Type-C/DP1.4 to HDMI2.0 Converter with PD3.0	
LT8711UXC	QFN-48	4-Lane Type-C/DP1.4 to HDMI2.0 Converter	
LT8712EXC	QFN-88	Type-C/DP1.2 to HDMI2.0/VGA Converter	
LT8712EXI	QFN-128	Type-C/DP1.2 to HDMI2.0*2/VGA Converter	
LT8712SX	TBD	DP1.4/Type-C to 2-out HDMI2.0 with MST	
LT8712X	QFN-76	Type-C/DP1.2 to HDMI 2.0 and VGA Converter with Audio	
LT8711H	QFN-48	Type-C/DP1.2 to HDMI1.3 Converter	
LT8711HE	QFN-64	Type-C/DP1.2 to HDMI2.0 Converter with PD	
LT8711EH-C	QFN-64	Type-C/DP1.2 to HDMI2.0 Converter, Compliant with HDCP	
LT8711UX	QFN-88	Type-C/DP1.2 to HDMI2.0 Converter with PD, Compliant with HDCP	LT8711UXE1
LT8711V	QFN-48	Type-C/DP1.2 to VGA Converter with Audio	
LT87101CD	QFN-40	Type-C to DP Converter	
LT87101DC	QFN-40	DP to Type-C Converter	

USB Extender/Switch/Transmitter/Converter

Part Number	Package	Description	Pin to Pin
LT8404	TBD	1-in 4-out USB3.1 Hub	
LT8411EX	TBD	USB3.1 Repeater	
LT8311X1	QFN-12	USB 2.0 High Speed Signal Repeater	
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	
LT9411	TBD	MIPI to USB3.1	
LT6411	TBD	HDMI to USB3.1	

MIPI/LVDS Transmitter

Part Number	Package	Description	Pin to Pin
LT7911GX	TBD	DP2.0 to MIPI	
LT7911UXE	TBD	DP1.4 to MIPI Enhanced Version	
LT7911UXC	BGA-169	Type-C/DP1.4 to 4-Port MIPI/LVDS with Audio	
LT7911UX	BGA-169	Type-C/DP1.4 to 4-Port MIPI/LVDS with Audio, LPDDR4 inside	
LT7211B	BGA-144	Type-C/DP/eDP to 4-port MIPI/LVDS with Audio	
LT7911D	QFN-64	Type-C/DP/eDP to 2-port MIPI/LVDS with Audio	
LT7211	QFN-128	Type-C/DP/eDP to 4 Port MIPI/LVDS, support 3D with Audio & PD Controller	
LT8918L	QFN-64	Dual-Port LVDS to MIPI DSI/CSI-2 Bridge	
LT8918	QFN-64	RGB TO MIPI DSI/CSI-2	

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

Part Number	Package	Description	Pin to Pin
LT89101	QFN-64	MIPI CSI/DSI to LVDS Repeater	
LT89101L	QFN-64	MIPI-to-LVDS Level Shifter	
LT8911EXB	QFN-48	1-port MIPI CSI/DSI to eDP	
LT8911EX	QFN-64	2-port LVDS to eDP	
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	LT9211C
LT9211C	QFN-64	MIPI/TTL/2-Port LVDS to MIPI/TTL/2-Port LVDS Converter	LT9211
LT9211D	QFN-48	MIPI to 2-Port LVDS Converter	
LT2911S	TBD	MIPI/2-Port LVDS to MIPI/2-Port LVDS Converter	

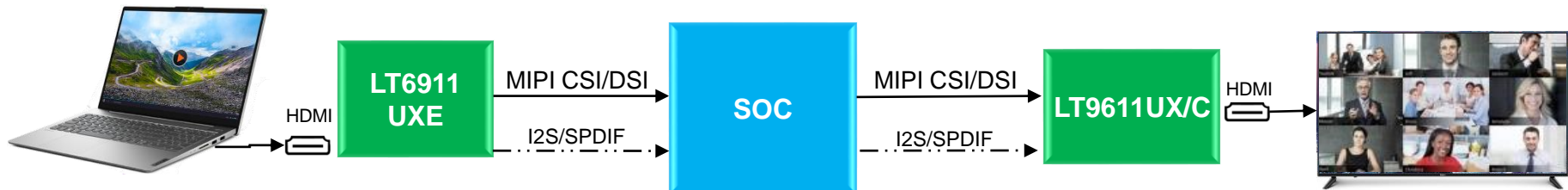
LCD Controller

Part Number	Package	Description	Pin to Pin
LT8668UX	TBD	8K@60Hz LCD Controller	
LT8668SXE	TBD	4K@144Hz LCD Controller	
LT8668SX-D	BGA-288	High Definition Display Controller, 8K, DRAM inside	LT8668SX
LT8668SX	BGA-288	High Definition Display Controller, 8K	LT8668SX-D
LT8668SXC	QFN-88	High Definition Display Controller, 8K	
LT2911R-D	QFN-76	2-Port LVDS/MIPI/TTL to 2-Port LVDS/MIPI/TTL Converter with Frame Rate Conversion and Rotation	

Others

Part Number	Package	Description	Pin to Pin
LT1258	QFN-54	12.5Gbps Dual-lane 2:2 Cross-Point Switch with Equalization and De-Emphasis	
LT1258EX	QFN-54	12.5Gbps 8-Channel Retimer	
LT933MT	QFN-32	Automotive Serializer Series, Mipi/TTL to Automotive DP, 4.32Gbps forward data channel	
LT947LMT	QFN-48	Automotive Serializer Series, LVDS/Mipi/TTL to Automotive DP, 5.4Gbps forward data channel	
LT934LMT	QFN-48	Automotive Deserializer Series, Automotive DP to LVDS/Mipi/TTL, maximum 5.4Gbps forward data channel	
LT934M	QFN-64	Automotive Deserializer Series, Automotive DP to Mipi, maximum four 4.32Gbps forward data channels	
LT948D	QFN-48	Automotive Deserializer Series, Automotive DP to eDP, 5.4Gbps forward data channel	
LT0028X4	TBD	28Gbps 4-Lane Switch/Retimer	

LT9611UX/C HDMI 2.0 Transmitter (2-Port MIPI CSI DSI)



Applications:

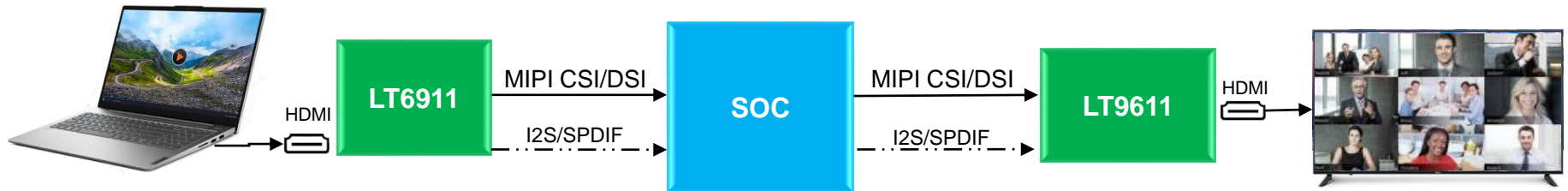
- Video Conference
- Personal media players
- Gaming

Features:

- Single/Dual-Port MIPI DSI/CSI Receiver
 - 80Mbps~2Gbps per data lane
 - 3D support: two ports simultaneously receiving L and R frames or odd-L/even-R alternative pixels
- Digital Audio Input
 - 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
- HDMI2.0 Transmitter
 - Compliant with HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4k@60Hz
 - Supported 3D formats: side-by-side(full)
 - HDR support
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422
 - Integrated CEC Controller
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys

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
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - 80Mbps~2.0Gbp/s per data lane
- HDMI 1.4 Transmitter
 - Compliant with HDMI1.4 and HDCP1.4
 - Resolution Up to 4K 30Hz
- Miscellaneous
 - 1.8V and 3.3V Power Supply
 - Support up to 8-CH I2S/SPDIF Audio Input

Applications:

- Video Conference
- Personal media players
- Gaming

LT2611UX/C

HDMI 2.0 Transmitter (4/2-Port LVDS)



Applications:

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

Features:

- LVDS Receiver
 - Compliant with VESA and JEIDA standard
 - 1/2/4 configurable ports for LT2611UX
 - 1/2 configurable ports for LT2611UXC
 - 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 & 4K@60 Hz supported for LT2611UX
 - Data rate up to 3Gbps & 4K@30 Hz supported for LT2611UXC
 - Support 3D
- Audio Input
 - Support SPDIF and 8-channel I2S audio input

LT8618SXB
HDMI 1.4 Transmitter (TTL)

Applications:

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

Features:

- **TTL Input**
 - Support 24-bit RGB, YUV and BT656/BT601/ BT1120 Input
 - Support both SDR and DDR Data Sampling
 - Programmable Rising/Falling Edge Clock Input
 - Support up to 148.5MHz DDR or 297MHz SDR Clock Input
 - Support both 1.8V and 3.3V Input Voltage Level
- **HDMI 1.4 Transmitter**
 - Compliant with HDMI1.4 and HDCP1.4
 - Resolution Up to 4K 30Hz
- **Miscellaneous**
 - 1.8V and 3.3V Power Supply
 - Support up to 8-channel I2S/SPDIF Input

LT8618EXB
HDMI 1.4 Transmitter (TTL)

Applications:

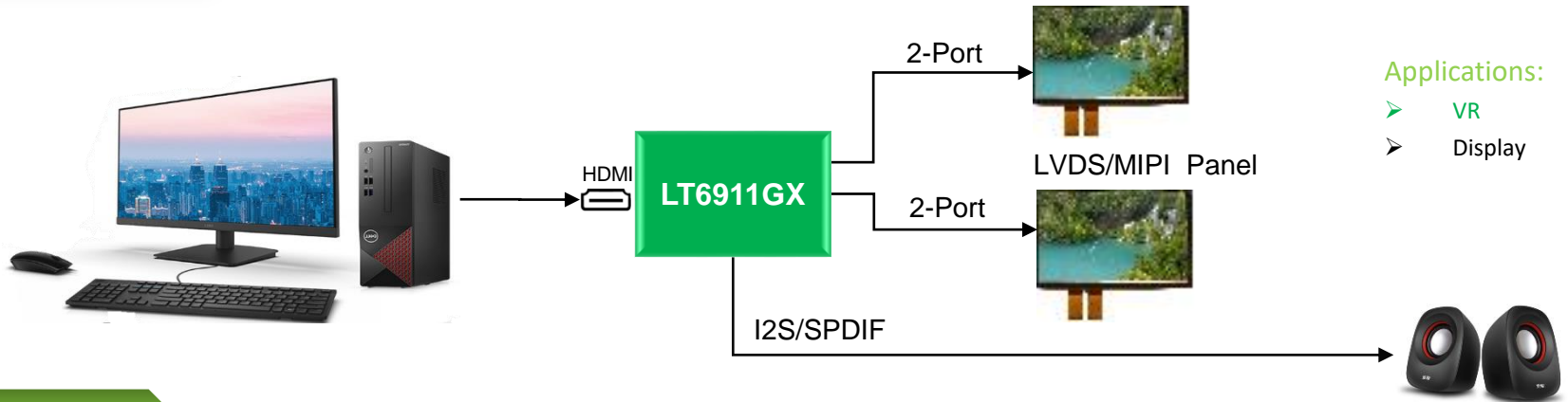
- Car Video Recorder
- HD Sources
- PTV Box
- DVD,BD

Features:

- TTL Input
 - Support 24-bit RGB,YUV and BT656/ITU601/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

LT6911GX/C

HDMI 2.1 Receiver (4-Port LVDS/MIPI)



Applications:

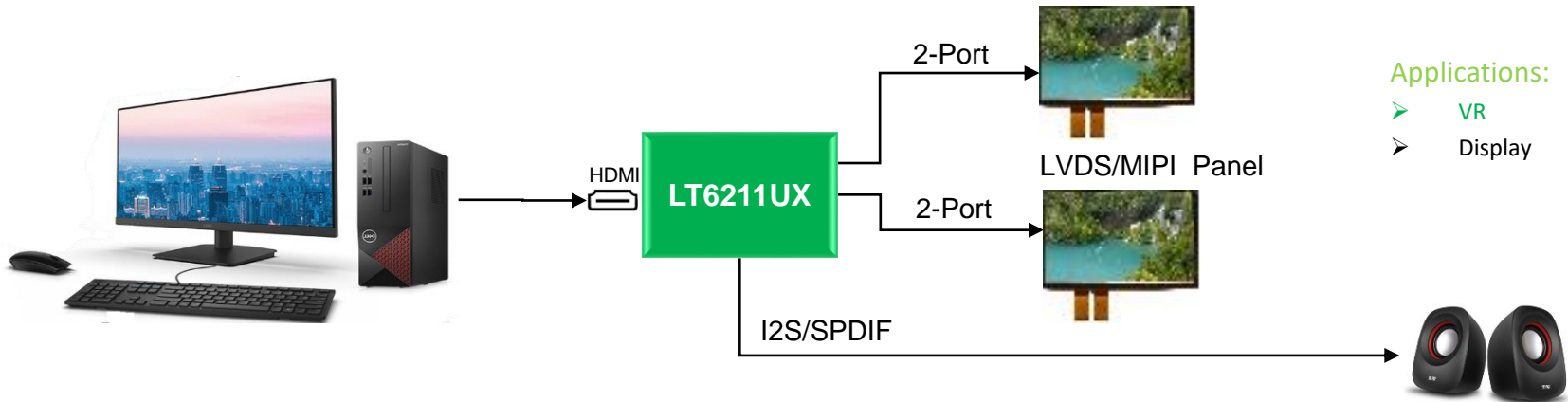
- VR
- Display

Features:

- HDMI2.1 Receiver
 - Compliant with HDMI2.1/2.0b/1.4 and DVI1.0
 - Data rate up to 8Gbps
 - Support HDCP 1.4/2.2/2.3
 - Support HDCP repeater
 - Support 8K@30Hz,
 - Support 4K@120Hz
 - Support HDR10
 - Support FEC
 - Support CEC
 - Support VRR
 - Integrated EDID shadow (max 512-byte)
- Four-Port MIPI® DSI/CSI Transmitter
 - Support 4K@120Hz
 - Support side by side 3D
- Four-Port LVDS Transmitter
 - Support 4k@60Hz
 - Support side by side 3D
- Digital Audio Output
- Miscellaneous
 - VESA DSC v1.2a decode and encode
 - Zoom scaling up and down
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Embedded LPDDR4 for LT6911GX

LT6211UX

HDMI 2.0 Receiver (4-Port MIPI/LVDS)



Applications:

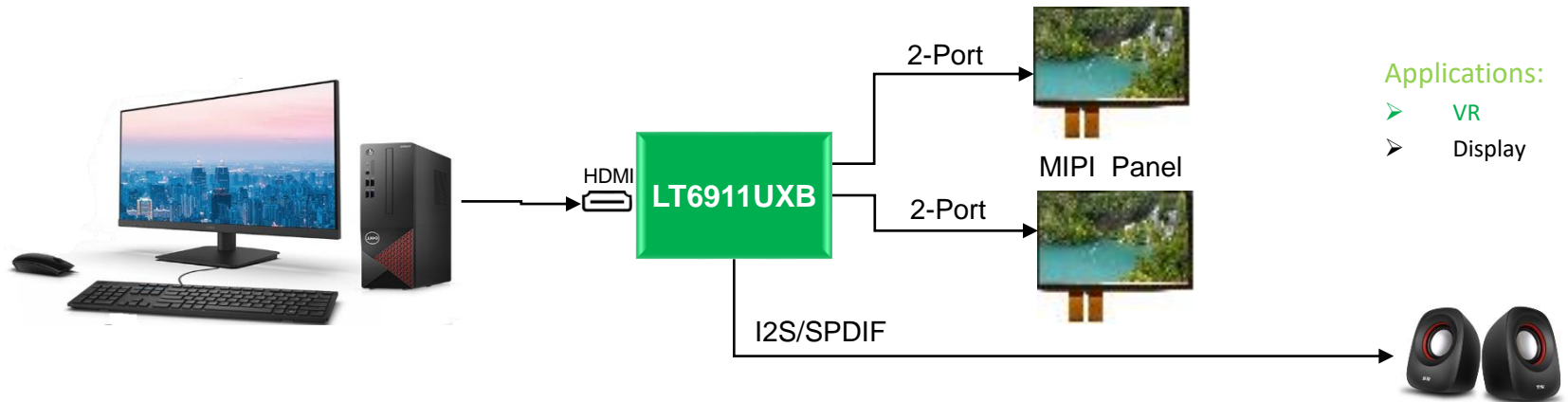
- VR
- Display

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
 - Adaptive receiver equalization
 - 3D support
 - Integrated EDID shadow
- LVDS Transmitter
 - 1 clock lane and 3/4 configurable data lanes per port
 - 1.2Gbps per data lane
 - 6-bit and 8-bit color depth
- MIPI DSI/CSI Transmitter
 - 80Mbps~2Gbps per data lane
 - 3D support: two ports simultaneously transmitting L and R frames or odd-L/even-R alternative pixels
- Audio Output: support SPDIF and 8-channel I2S

LT6911UXB

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



Applications:

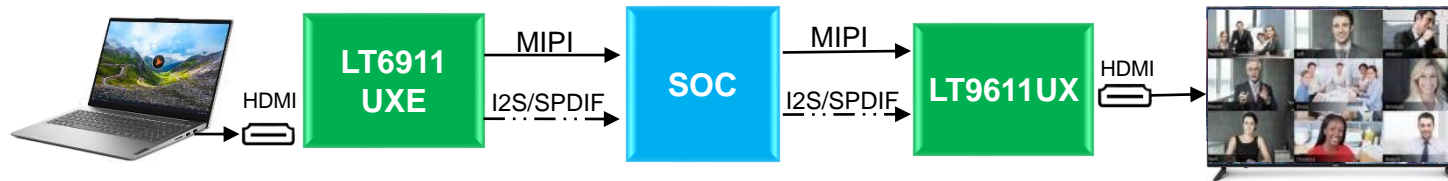
- VR
- Display

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
 - Adaptive receiver equalization
 - 3D support: frame packing (progressive), side-by-side (half/full), top-and-bottom, line alternative
 - 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 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

LT6911UXE

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



Applications:

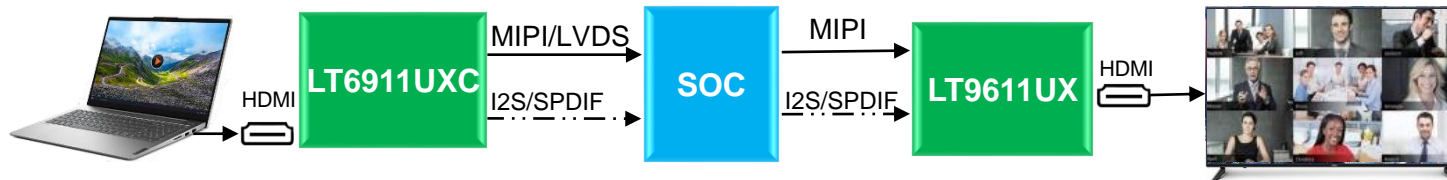
- Video Conference
- Display
- VR

Features:

- HDMI2.0 Receiver
 - Compliant with HDCP2.3 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4k@60Hz
 - Supported deep color: 8/10/12 bpc
 - Support CEC
 - HDR support
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- Single/Dual-Port MIPI DSI/CSI Transmitter
 - Compliant with DCS1.1, D-PHY1.2 & DSI1.3 & CSI-2 1.3
 - 1/2 configurable ports
 - 80Mbps~2.5Gbps per data lane
 - 3D support: two ports simultaneously transmitting side by side alternative pixels
 - Maximum 64 pixels overlap for each half
- Audio Output
 - Support SPDIF and 2-channel I2S audio output

LT6911UXC

HDMI 2.0 Receiver (2-Port MIPI/LVDS)



Applications:

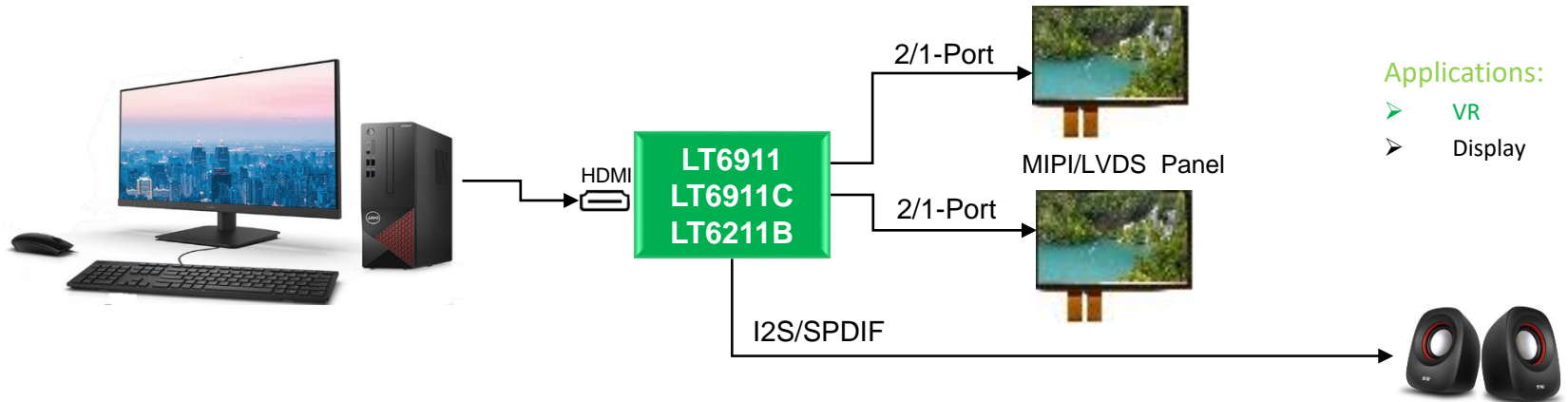
- Video Conference
- Display
- VR

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
 - Adaptive receiver equalization
 - Support 4k@60Hz
 - Supported 3D formats
 - Supported video formats:
 - Integrated EDID shadow
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- Single/Dual-Port MIPI DSI/CSI Transmitter
 - 80Mbps~2Gbps per data lane
 - 3D support: two ports simultaneously transmitting L and R frames or odd-L/even-R alternative pixels
- Single/Dual-Port LVDS Transmitter
 - 1.2Gbps per data lane
 - 3D support: direct 3D output, 2-way 2D L/R output
- Digital Audio Output
 - 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

LT6911/LT6911C/LT6211B

HDMI 1.4 Receiver (4/2-Port MIPI/LVDS)



Applications:

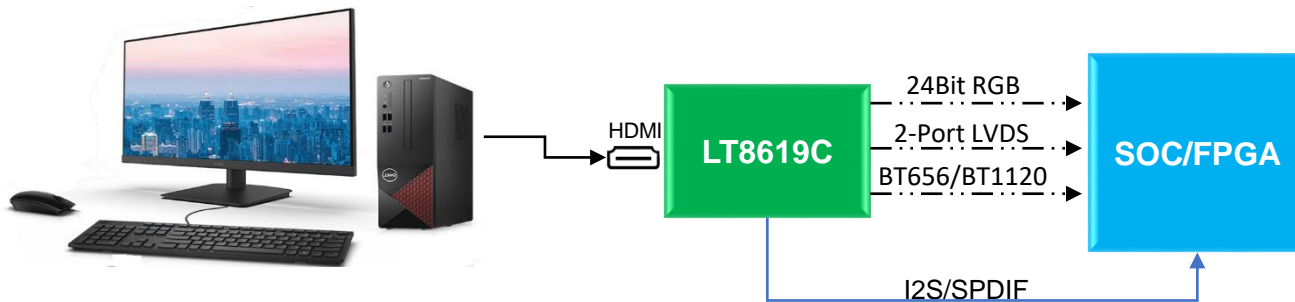
- VR
- Display

Features:

- HDMI 1.4 Receiver
 - Compliant with the HDMI 1.4 specification with TMDS data rates up to 3.4Gbps per channel
 - Support HDCP 1.4
 - Adaptive receiver Equalization for PCB, cable and connector losses
- Miscellaneous
 - Support SPDIF and 8-channel IIS audio output
 - Integrated Microprocessor
- 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
- 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

LT8619C

HDMI 1.4/Dual Mode DP Receiver (TTL/LVDS)

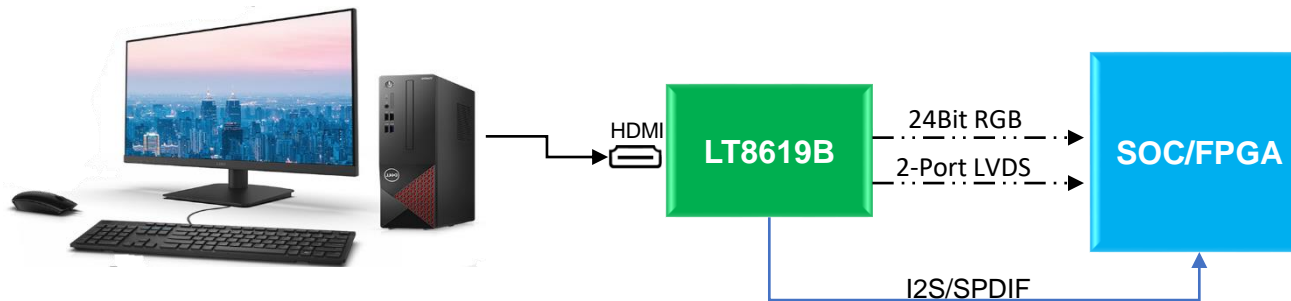


Applications:

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

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 both SDR and DDR output

LT8619B
HDMI 1.4 Receiver with Scaler

Applications:

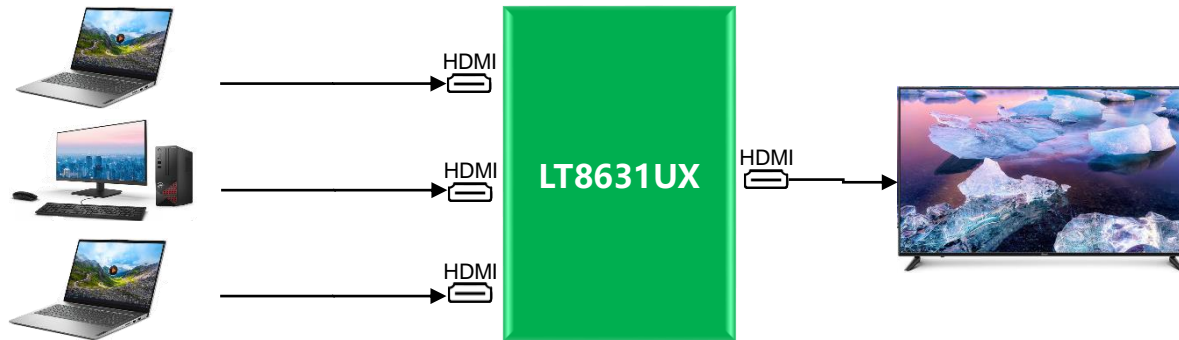
- Car Entertainment
- TV, Monitor
- Pico Projector
- Smart Projector

Features:

- **HDMI RX**
 - Compliant with HDMI1.4 and DVI1.0
 - HDCP decryption
 - On-chip EDID
 - Support resolution up to 4Kx2K@30Hz
- **Scaling**
 - Fully programmable zoom ratios
 - Independent horizontal/vertical scaling
- **Output Interface**
 - Single-port or dual-port LVDS output
 - Support 8-bit or 6-bit LVDS panel
 - Support VESA or JIEDA data mapping output
 - Support output resolution up to 1080P@60Hz for HD LCD
 - Compliant with RGB888/RGB666/RGB565 TTL output
- **Audio Support**
 - SPDIF output and 2-channel I2S output

LT8631UX

HDMI 1.4/2.0 3:1 Switch

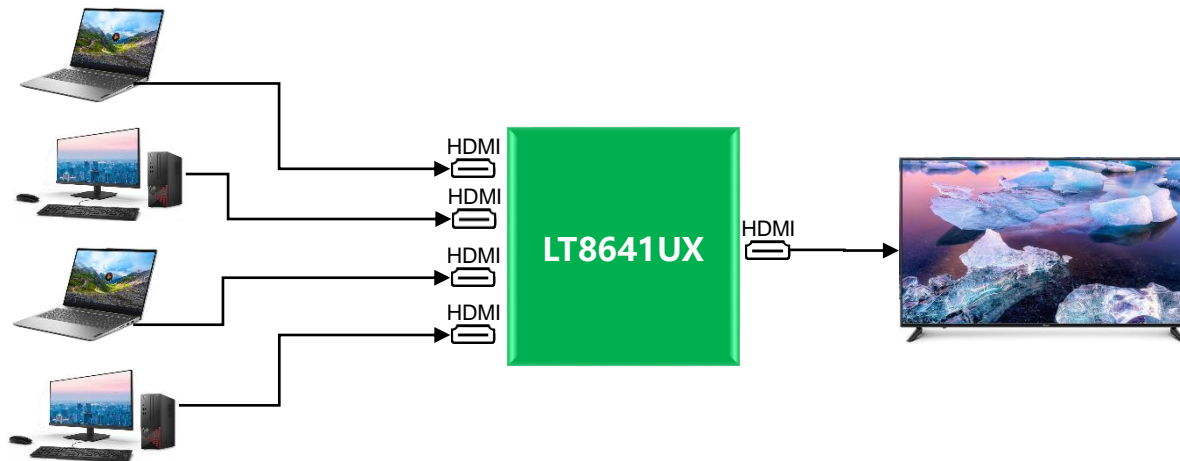


Applications:

- Front panel buffer for HDTV
- Standalone switcher
- Multiple input displays
- Projectors
- A/V receivers

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

LT8641UX
HDMI2.0 4-In 1-Out Switch

Applications:

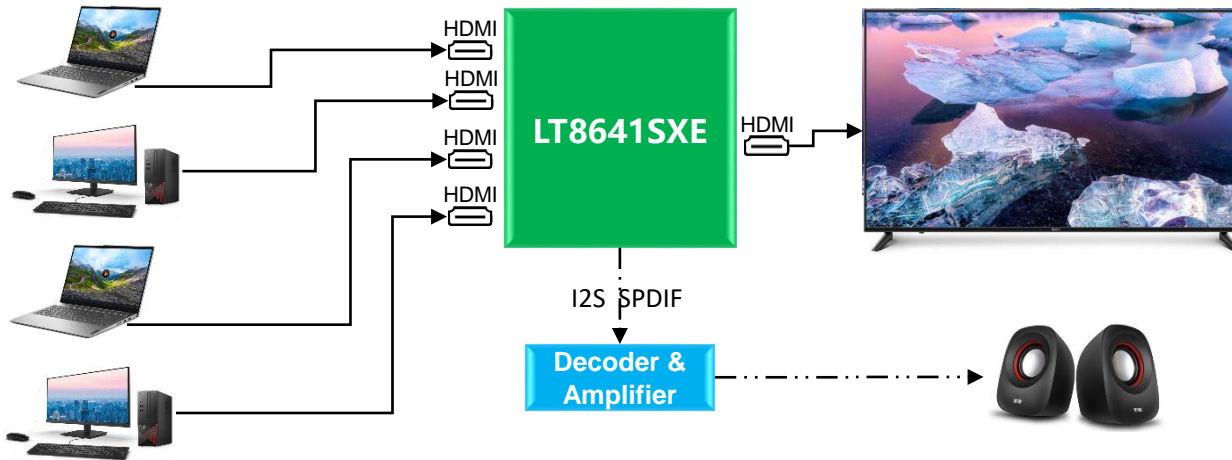
- Front panel buffer for HDTV
- Standalone switcher
- Multiple input displays
- Projectors
- A/V receivers

Features:

- Low cost HDMI 2.0 4 to 1 Switch
- Supports data rates up to 6.0Gbps
- Integrated HPD switch, DDC switch, and +5V Power indicator switch, greatly lowering the cost and simplifying the manufacturing process
- Source/Sink connection detection for flexible system management
- I2C control supported
- Single 3.3V power supply
- No external crystal is needed
- Adaptive equalization

LT8641SXE

4:1 HDMI 1.4/2.0 Switch with Digital Audio Output

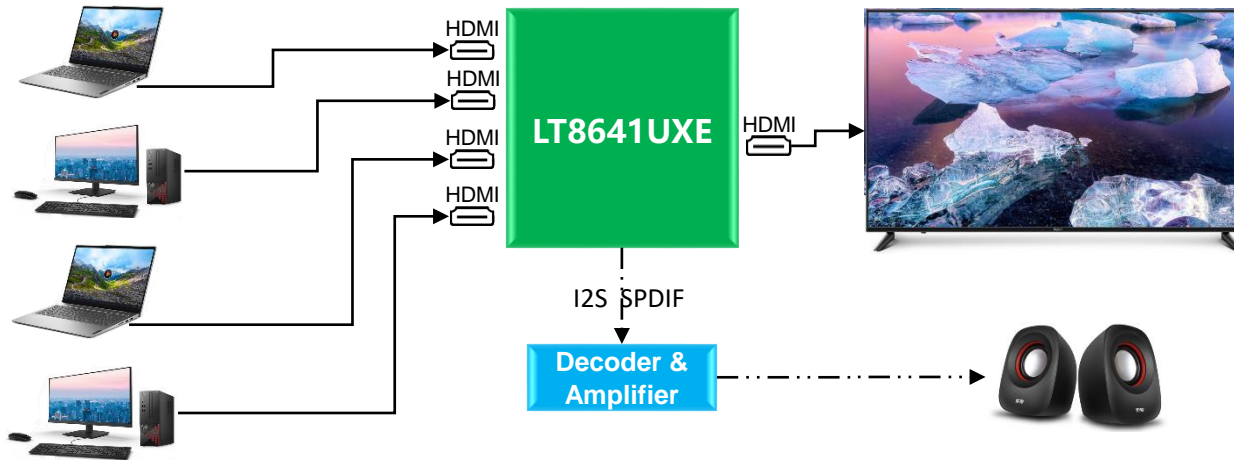


Applications:

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

Features:

- Compliant with HDMI1.4/2.0 and HDCP1.4
- Support 8-channel I2S/SPDIF output
- HDMI resolution support up to 4Kx2K@30Hz and 4Kx2K @60Hz YCbCr 4:2:0 format
- Supports one channel ARC function on HDMI link

LT8641UXE
HDMI 2.0 4:1 Switch with Audio Output

Applications:

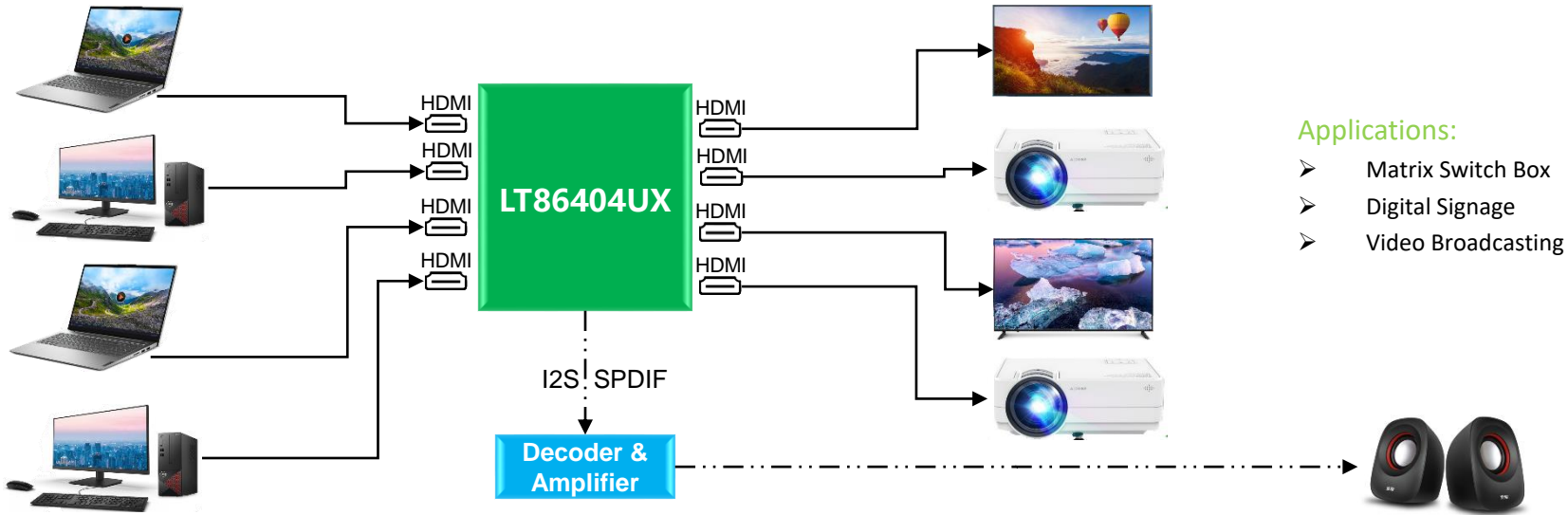
- Embedded TV Switch
- External HDMI Switch
- Digital Audio Amplifier
- HDMI Matrix, Repeater

Features:

- Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
- Data rate up to 6Gbps
- Support up to 4Kx2K@60Hz
- Support 8-channel I2S/SPDIF output
- Support ARC(Audio Return Channel)
- Packaged in QFN128 14mm×14mm

LT86404UX

HDMI2.0 4×4 Matrix Switch



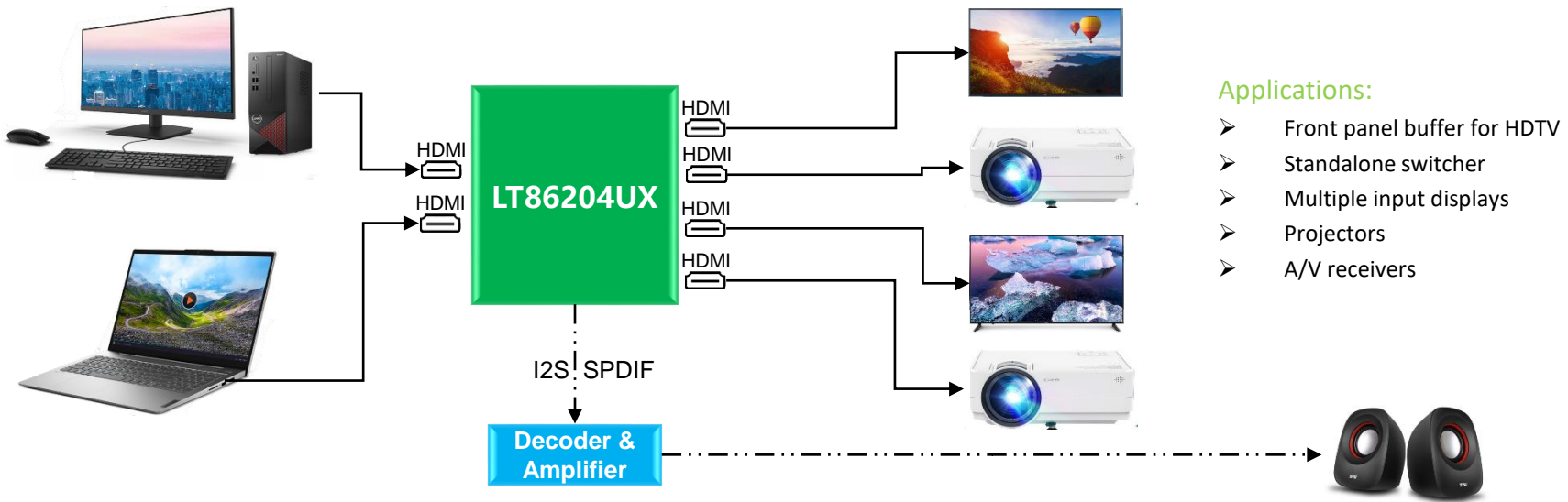
- Applications:**
- Matrix Switch Box
 - Digital Signage
 - Video Broadcasting

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Miscellaneous**
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Support Scaler down
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Digital Audio Input/Output**
 - Support I2S or SPDIF interface

LT86204UX

HDMI2.0 2x4 Matrix Switch



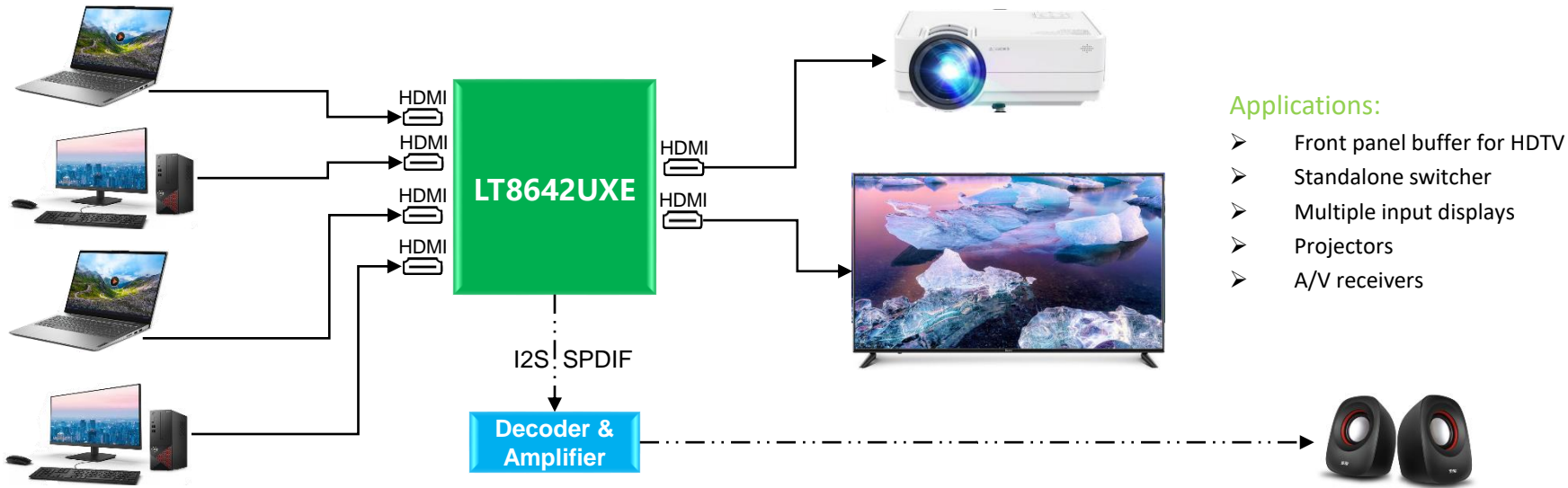
- Applications:**
- Front panel buffer for HDTV
 - Standalone switcher
 - Multiple input displays
 - Projectors
 - A/V receivers

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Miscellaneous**
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Support Scaler down
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Digital Audio Input/Output**
 - Support I2S or SPDIF interface

LT8642UXE

HDMI2.0 4x2 Matrix Switch



Applications:

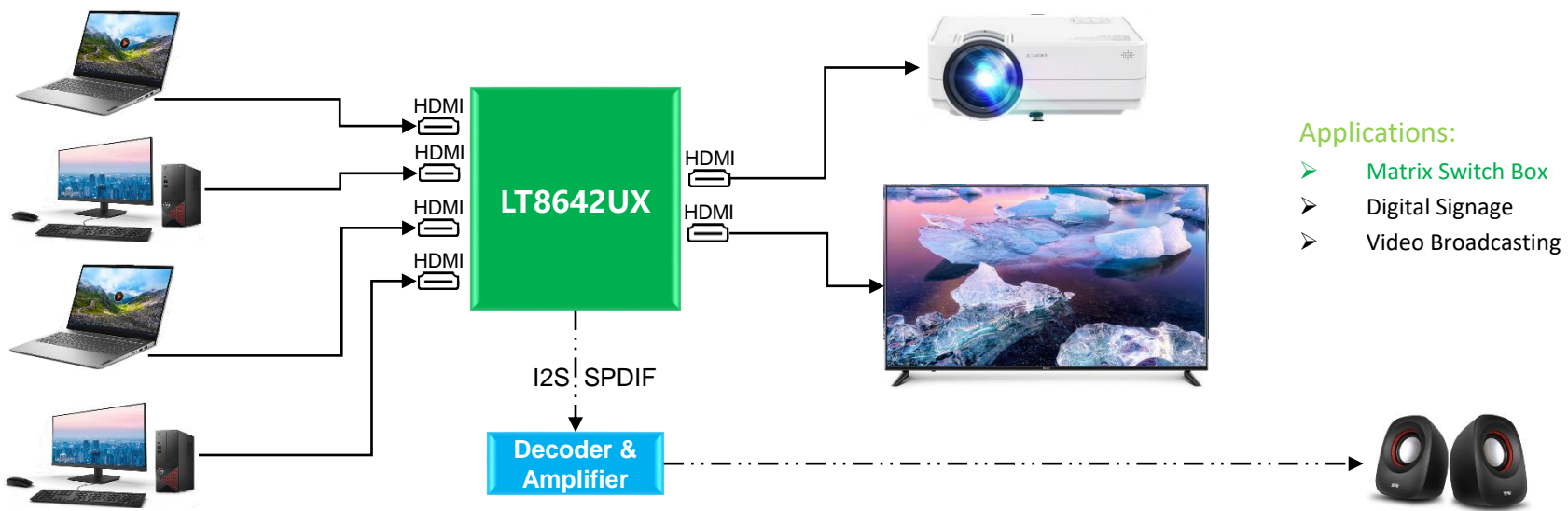
- Front panel buffer for HDTV
- Standalone switcher
- Multiple input displays
- Projectors
- A/V receivers

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Miscellaneous**
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Support Scaler down
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
 - Support 8/10/12-bit color depth
- **Digital Audio Input/Output**
 - Support I2S or SPDIF interface

LT8642UX

4 to 2 HDMI 2.0 Matrix Switch with Audio Output



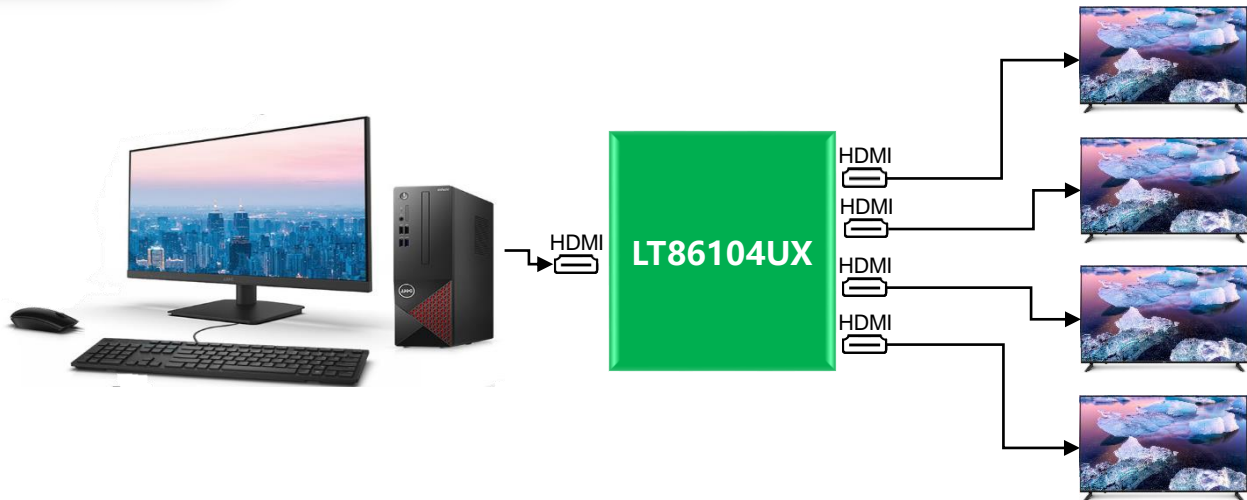
- Applications:**
- Matrix Switch Box
 - Digital Signage
 - Video Broadcasting

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4Kx2K@60Hz
 - Support 3D and HDR
 - Support 8/10/12-bit color depth
- **Miscellaneous**
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4Kx2K@60Hz
 - Support 3D and HDR
- **Digital Audio Output**
 - Up to four I2S interface supporting 8-channel audio
 - SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate

LT86104UX

HDMI2.0 1-In 4-Out Splitter



Applications:

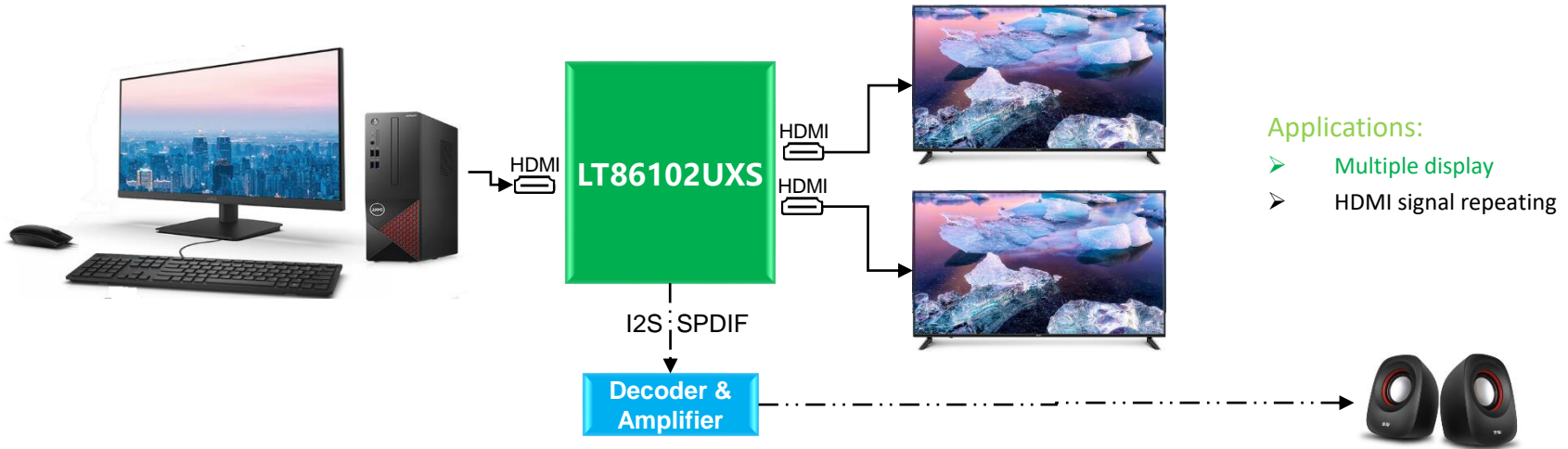
- Multiple display
- TV
- HDMI signal repeating

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
- 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
- No external crystal is needed
- 1.35V and 3.3V power supply

LT86102UXS

1-in 2-out HDMI 2.0 Splitter with Scaler, HDCP 2.3 Engine and Audio



Applications:

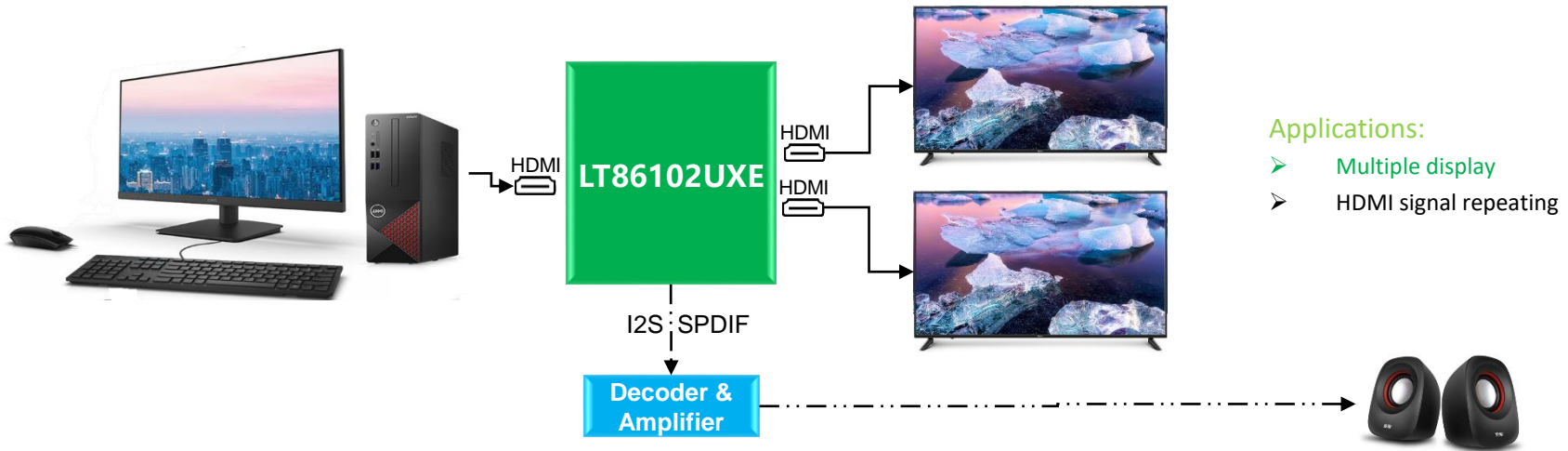
- Multiple display
- HDMI signal repeating

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
- **Miscellaneous**
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Support Scaler down
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support up to 4Kx2K@60Hz
 - Support 3D and HDR
 - Support 8/10/12-bit color depth
- **Digital Audio Input/Output**
 - Support I2S or SPDIF interface

LT86102UXE

HDMI2.0 1-In 2-Out Splitter with HDCP 2.3



Applications:

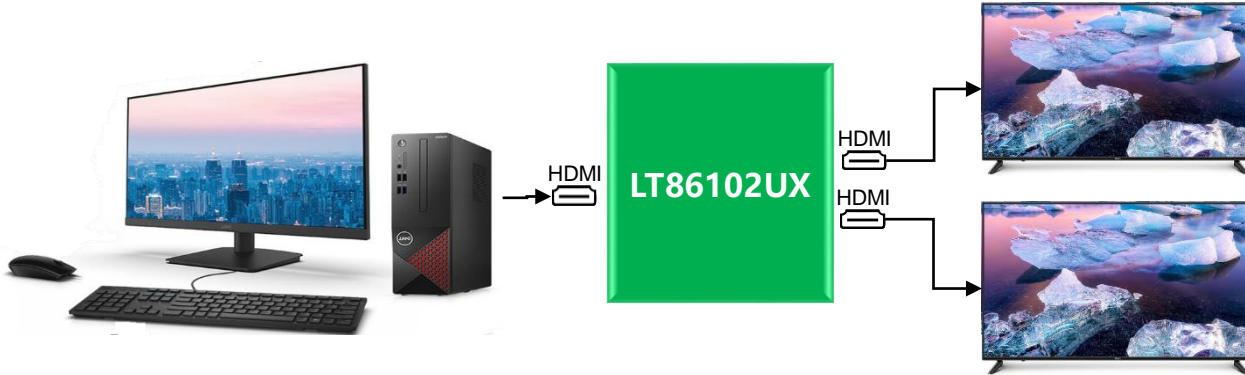
- Multiple display
- HDMI signal repeating

Features:

- HDMI2.0 Receiver
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4K×2K@60Hz
 - Support 3D and HDR
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- HDMI2.0 Transmitter
 - Compliant with HDCP2.3, HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4K×2K@60Hz
 - Support 3D and HDR
- Digital Audio Output
 - Up to four I2S interface supporting 8-channel audio
 - SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate

LT86102UX

HDMI 2.0 Splitter



Applications:

- Multiple display
- TV
- HDMI signal 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
- Integrated EDID shadow RAM and embedded EDID
- 1 HDMI input port, up to 2 HDMI output ports
- Unlimited cascading for more output ports or signal repeating
- Packaged in TQFP100 14mm x 14mm

LT86102SX/ LT86104SX
HDMI 1.4/2.0 Splitter with Jitter Cleaning & Signal Repeating

Applications:

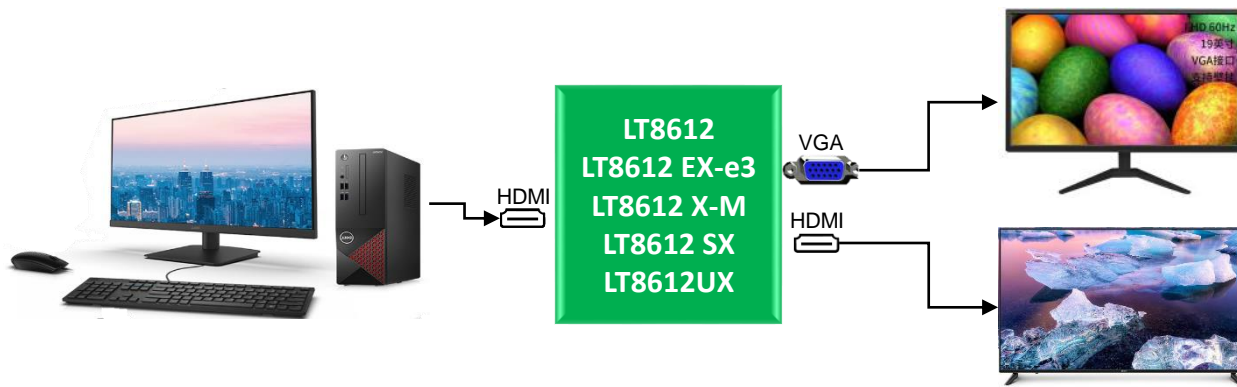
- Digital Signage
- HDMI Matrix, Repeater
- HDMI/DVI Splitter
- Video Wall

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

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

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

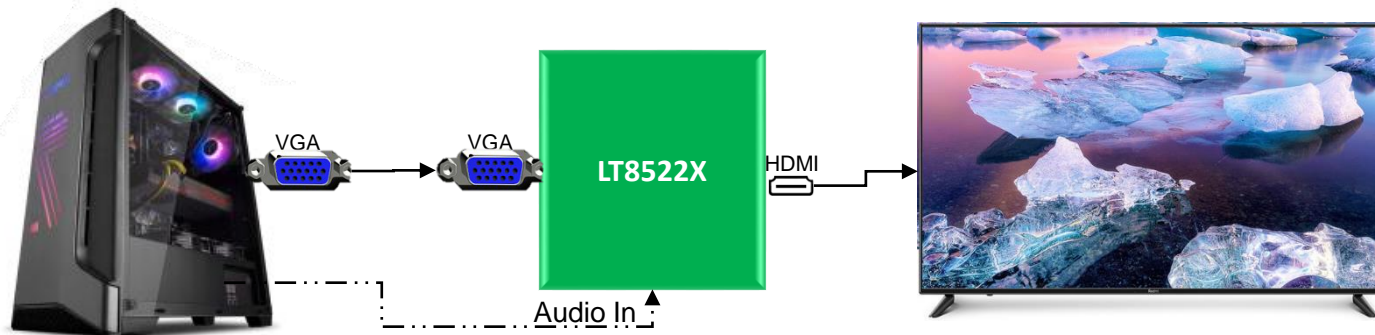


Applications:

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

Features:

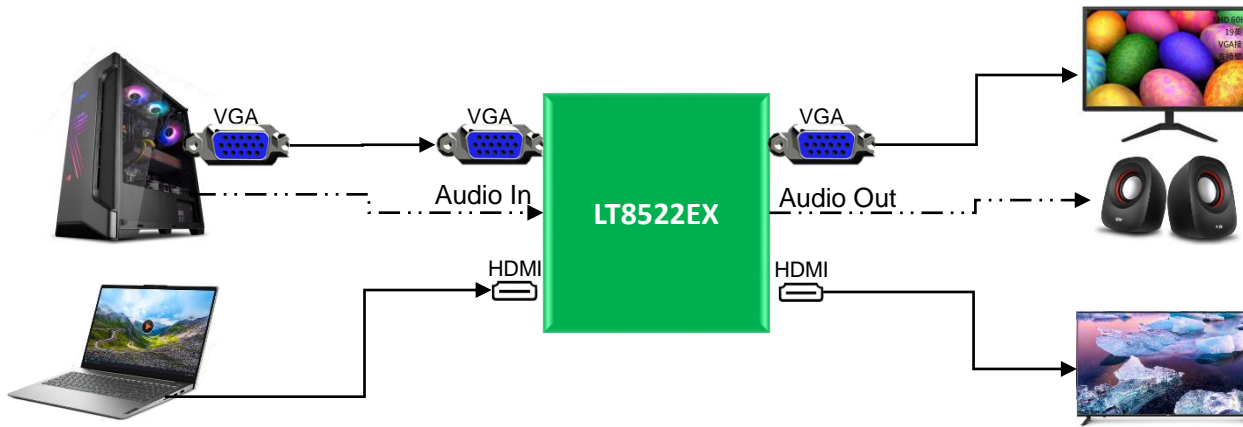
- HDMI 2.0/1.4 to HDMI 2.0/1.4 & VGA/YPbPr dual outputs
- Support HDCP function
- Support all HDMI 2.0/1.4 resolution formats
- Support 8/10/12 bit deep color, up to 6 Gbps data rate
- LT8612EX-e3/SX/UX supports I2S and SPDIF outputs
- LT8612X-M with integrated MCU for space efficiency
- LT8612UX supports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

LT8522X
VGA to HDMI 1.3

Applications:

- VGA to HDMI converter

Features:

- Direct interface to DVI 1.0 and HDMI V1.3 transmitter
- Compliance with DVI and HDMI up to 1.65Gbps
- HDCP encryption
- On-chip VGA HDMI EDID shadows
- Support resolution up to 1920x1200@60Hz (192M pixel clock)
- External IIC slave configuration interface
- Master I2C interface for DDC connection simplifies board layout and lowers cost
- Embedded audio PCM and SPDIF RX
- Extensive power management for power savings

LT8522EX
HDMI & VGA Matrix Switch

Applications:

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

Features:

- HDMI 1.4 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)

LT86121EX

HDMI2.1/DP1.4a Repeater with Type-C



Applications:

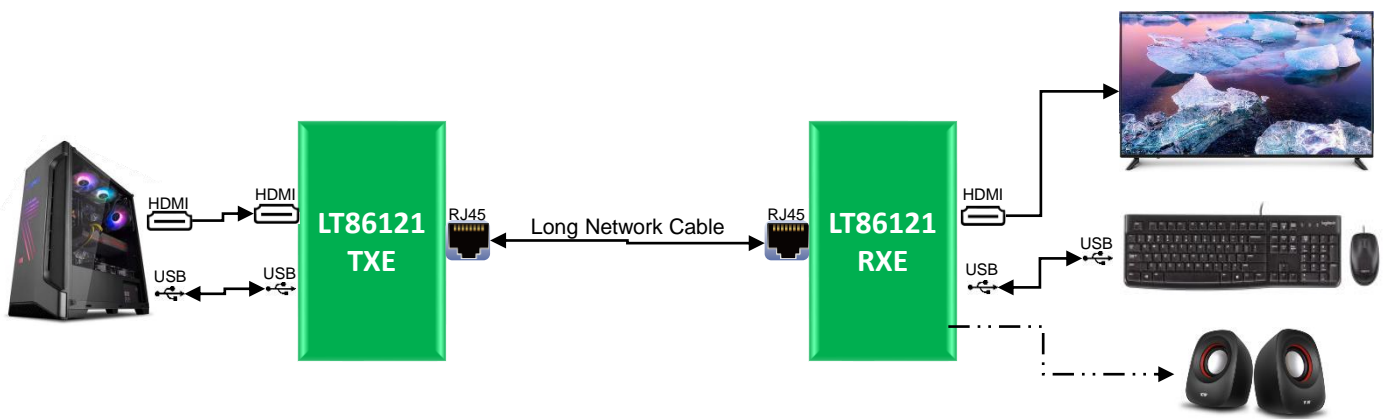
- Active Cables
- Surveillance
- KVM Extension

Features:

- HDMI Receiver/Transmitter
 - Compliant with HDMI2.1, HDMI2.0b, HDMI1.4 and DVI1.0
 - Data rate up to 8Gbps
- DP/eDP Receiver/Transmitter
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps, 2.7Gbps, 5.4Gbps and 8.1Gbps
 - Receiver compliant with eDP1.4b and Transmitter compliant with eDP1.5
 - Support DisplayPort 1/2/4 lanes
- Type-C Compliant with VESA DisplayPort Alt Mode on USB Type-C Standard 1.0b
- Digital Audio input and Output
 - 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
- DSC Decoder and Encoder
 - Compliant with DSC 1.2a
 - Support up to h-active 4096
 - Support up to pixel clock 1.2GHz
 - Support 1/2/4 slices

LT86121TXE/RXE

HDMI 2.0 Repeater with DSC Encoder/Decoder



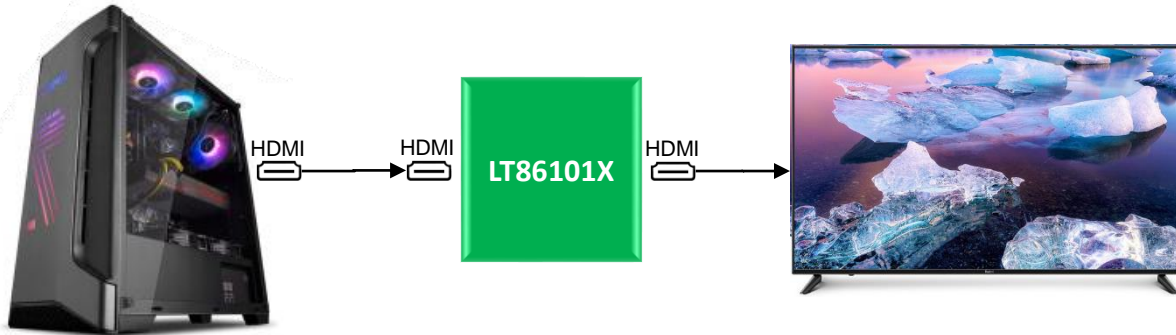
- Applications:**
- Active Cables
 - Surveillance
 - KVM Extension

Features:

- **HDMI2.0 Receiver**
 - Compliant with HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4k@60Hz
 - Supported 3D formats
 - HDR support
- **Miscellaneous**
 - Integrated USB HS/FS/LS repeater
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- **HDMI2.0 Transmitter**
 - Compliant with HDCP2.2 and HDCP1.4
 - Data rate up to 6Gbps
 - Support 4k@60Hz
 - Supported 3D formats
 - HDR support
- **Digital Audio Input/Output**
 - 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

LT86101X

HDMI 1.4/2.0 Re-driver, DP++ to HDMI 2.0 Level Shifter



Applications:

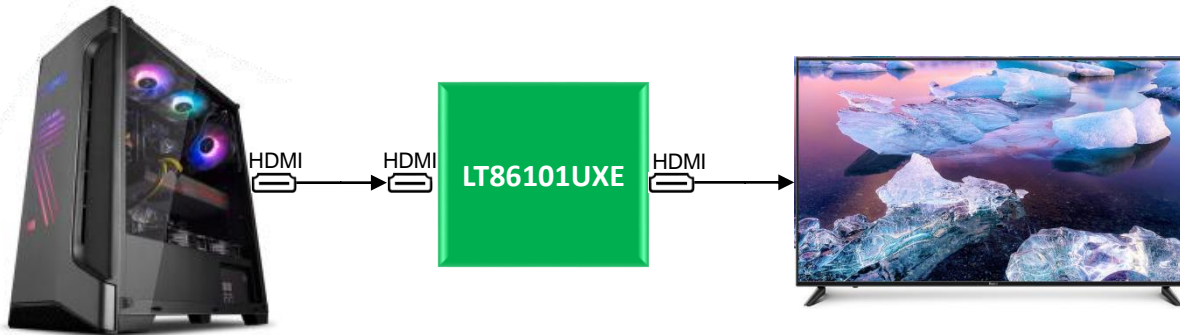
- Digital TV and Blu-Ray DVD Player
- Digital Project and LCD Display
- Home Entertainment and HDMI Cable Extender
- PC, Notebook, All-in-Ones Computer and Docking

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
- Internal MCU and Flash for Online Firmware Upgrade
- Packaged in 5mm*5mm QFN40

LT86101UXE

HDMI 2.0 Repeater



Applications:

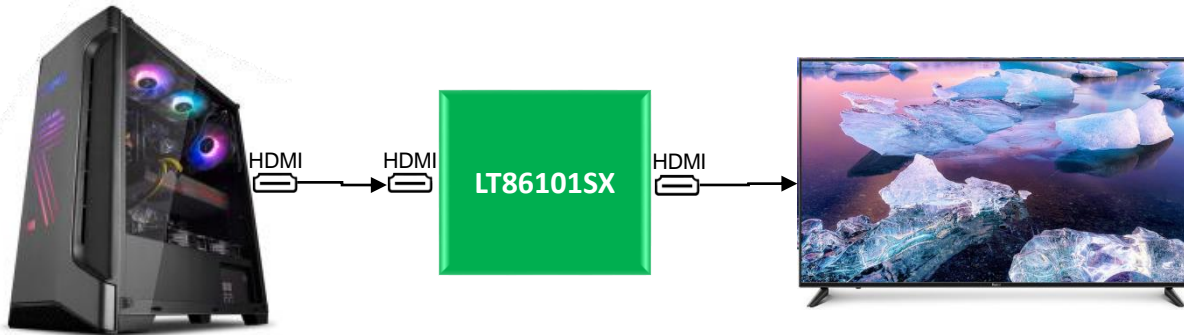
- Multiple display/TV support
- DVI/HDMI cable-extender modules
- Cable assemblies
- TMDS cable equalizer

Features:

- Compliant with HDMI 1.4/2.0 specifications
- Support 4K*2K extended resolution formats up to 6.0Gbps data rate
- 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
- Unlimited cascading for more output ports or signal repeating

LT86101SX

HDMI 1.3 Repeater

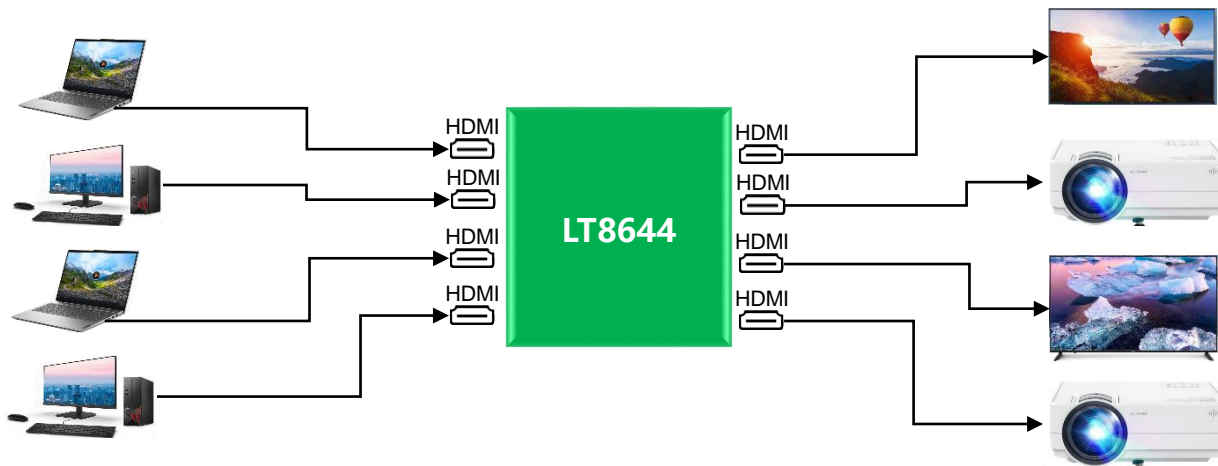


Applications:

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

Features:

- Compatible with HDMI 1.3, supports 2.25Gbps data rate
- Support 1080p@60Hz video resolution and 3D video formats
- Support deep color
- Adaptive receive equalization up to 40dB to compensate for long/cheap cable losses
- Cascadable for further cable reach

LT8644
16 Channel Cross-point Switch

Applications:

- Matrix Switch Box
- Digital Signage
- Video Broadcasting

Features:

- 16 differential channel, cross-point switch to any channel
- Support data rate up to 3.4Gbps
- Programmable receive equalization
- Programmable CML output levels

LT8511EX

HDMI 1.4 to VGA Converter



Applications:

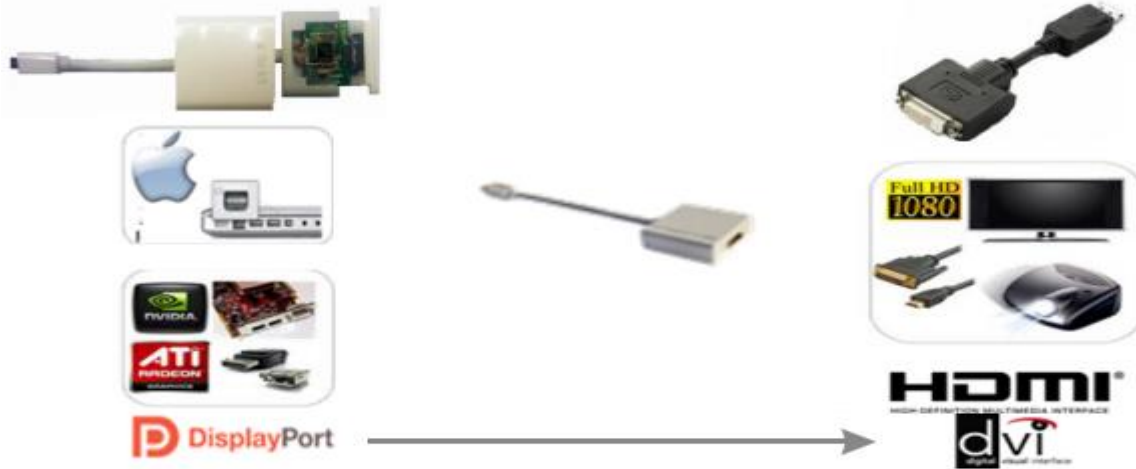
- Mobile Phone
- Tablet/Pad
- Ultra book
- Home Game Console
- PC/Graphic Card

Features:

- Receiver compliant with HDMI1.4 / DVI1.0 and dual-mode DP
- Supports analog video output (VGA or YPbPr) up to 4Kx2K@30Hz, 1920x1200@60Hz and 1080P@60Hz with three DACs
- On-chip audio decoder supports 2-channel IIS and SPDIF audio output
- YCbCr422 to YCbCr444 conversion
- YCbCr444 to RGB and RGB to YCbCr444 conversion in ITU-R BT601 and BT709 color space

LT8611SX/SXB/SXD

Dual mode DP Repeater & HDMI/DVI Level Shifter



Applications:

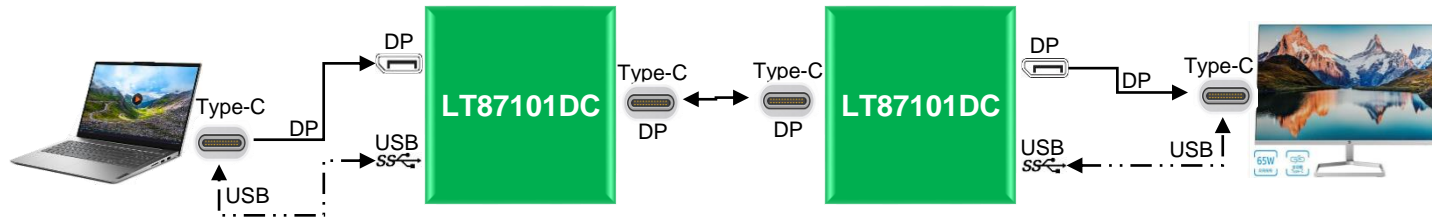
- PC Motherboard
- Graphics Card
- Dual mode DP to HDMI/DVI Cable Adaptor
- Digital Set-Top-Box 1-to-1
- Dual mode DP Repeater

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 8 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

LT87101DC/LT87101CD

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



Applications:

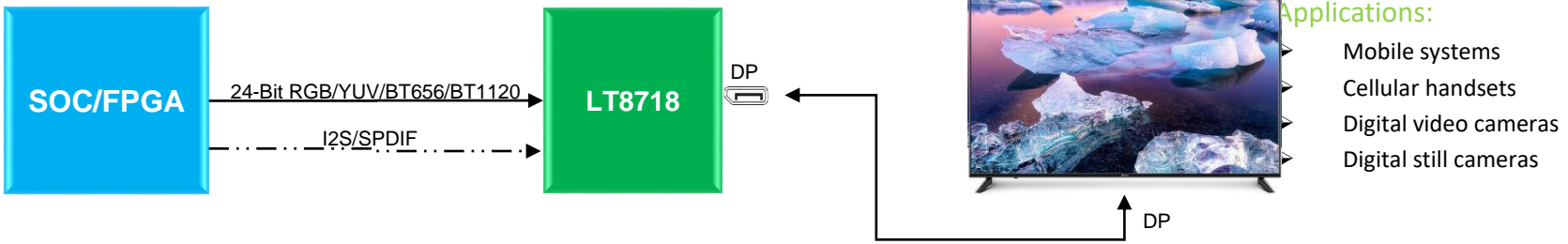
- Smartphone
- Tablet
- VR/AR Helmet Display
- PC
- Notebook
- All-in-Ones Computer
- Docking

Features:

- Compliant with VESA DP1.2, Type-Cr1.2, 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
- 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
- Packaged in 5mm*5mm QFN40

LT8718

TTL to DP

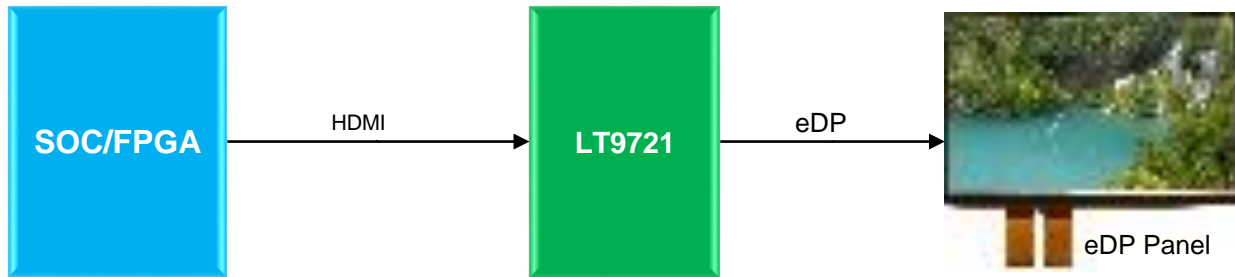


Applications:

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

Features:

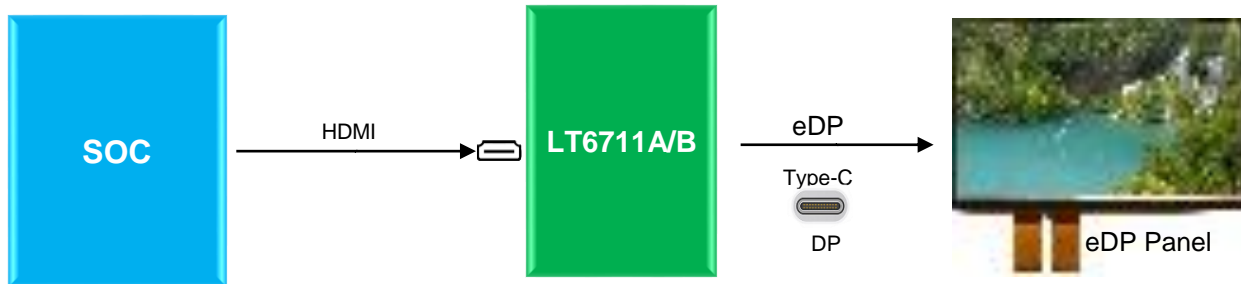
- Support up to 24-bit RGB/YUV and BT656/BT1120 Input
- Support SDR and DDR Data Sampling
- Support Resolution up to 4Kx2K@30Hz for RGB
- Compliant to VESA DP1.2 Standard
- Support 4 Lanes with 1.62Gbps (RBR), 2.7Gbps (HBR) or 5.4Gbps (HBR2) Data Rate

LT9721
HDMI to eDP

Applications:

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

Features:

- **HDMI1.4 Receiver**
 - Support maximum 3.4Gbps input data rate
 - Support 3D Video Data Stream as specified in HDMI1.4
 - Support HDCP1.4 and DDC Slave for EDID
 - Support Resolution up to 4Kx2K@30Hz for RGB
 - Support Hot-Plug Detect
 - No HEAC and CEC Support
- **Miscellaneous**
 - 1.8V/3.3V Dual Supply Power
 - External 25MHz Crystal Reference Clock
 - Temperature Range: -40°C to +85°C
 - Packaged in 7.5mm x 7.5mm QFN64
- **Compliant to VESA eDP v1.4 Standard**
 - Compliant to VESA eDP1.4 Standard
 - Support 4 Lanes with 1.62Gbps (RBR), 2.7Gbps (HBR) Data Rate
 - Support 18/24-bit RGB
 - Support Hot-Plug Detect
 - Support Backlight Control for Screen Application
 - Optional SSC 0.5% Down-Spreading Output
 - Configurable Output Swing Internal Rterm Calibration with Less than 5% Error

LT6711A/B
HDMI2.0 to DP1.2 with Type-C

Applications:

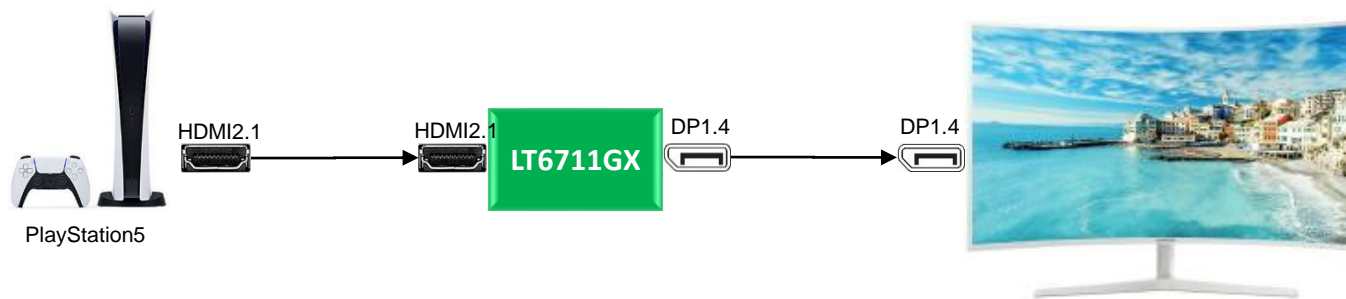
- Smart Phone
- PAD/Tablets
- Digital video cameras
- Digital still Cameras

Features:

- **HDMI2.0 Receiver**
 - Compliant to HDMI2.0 Standard
 - Support HDCP1.4/2.2
 - Support Resolution up to 4Kx2K@60Hz
 - Support 8-bit color depth
 - Support Status and Control Data Channel (SCDC)
 - Support 8 sound channels
- **Miscellaneous**
 - Support OSD display with 8K Programmable Dot Matrix and Attribute Table
 - LT6711A QFN-64 Package
 - LT6711B BGA-81 Package
- **DP1.2 /eDP1.4 Transmitter**
 - Compliant to VESA DP1.2 Standard
 - Support Four Lanes with 1.62Gbps (RBR), 2.7Gbps (HBR) or 5.4Gbps (HBR2) Data Rate
 - Support Resolution up to 4Kx2K@60Hz
 - Support HDCP1.3 Encryption
 - Support 8-bit Color Depth
- **USB Type-C**
 - Compatible with USB Type-C R1.2, DP Alt Mode V1.0 and USB PD R3.0
 - Roles Supported: DFP and UFP for DCC, UFP for UCC
 - Power Roles Supported: SRC, SNK and DRP for DCC, SNK for UCC
 - USB Type-C Full-Featured, Orientation and Role Detection

LT6711GX

HDMI2.1 to DP1.4 with Type-C



Applications:

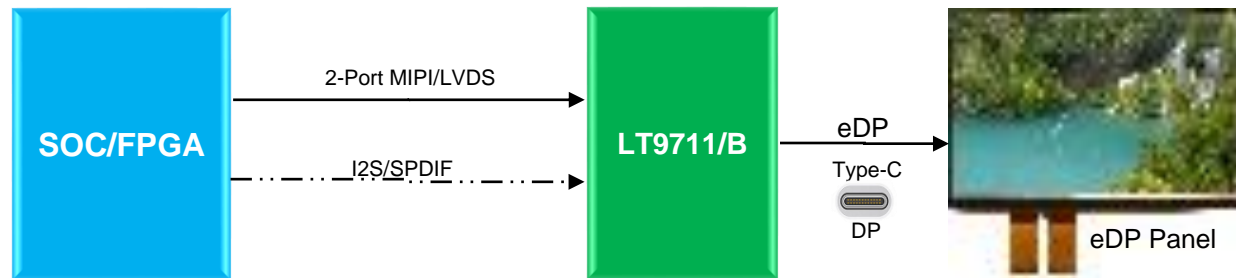
- Mobile systems
- VR/AR
- Cellular handsets
- PAD/Tablets
- Digital video cameras
- Digital still cameras

Features:

- HDMI2.1 Receiver
 - Data rate up to 8Gbps
 - Support HDCP 1.4/2.3
 - Support 8k@30Hz, 8k@60Hz with compression data or YUV 4:2:0
 - Support HDR10 and HDR12
- Miscellaneous
 - VESA DSC v1.2a (v1.1 compatible) decode and encode
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
- DP1.4 Transmitter
 - Compliant Embedded DisplayPort specification version 1.4
 - Support HDCP 1.3/2.3
 - Support 8K@30Hz YUV 4:2:2/YUV 4:2:0, 8K@60Hz with compression data
 - Support HDR10 and HDR12
- USB Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in CC controller for charger and normal communication

LT9711

2-Port MIPI/LVDS to Type-C (DP 1.2/eDP)



Applications:

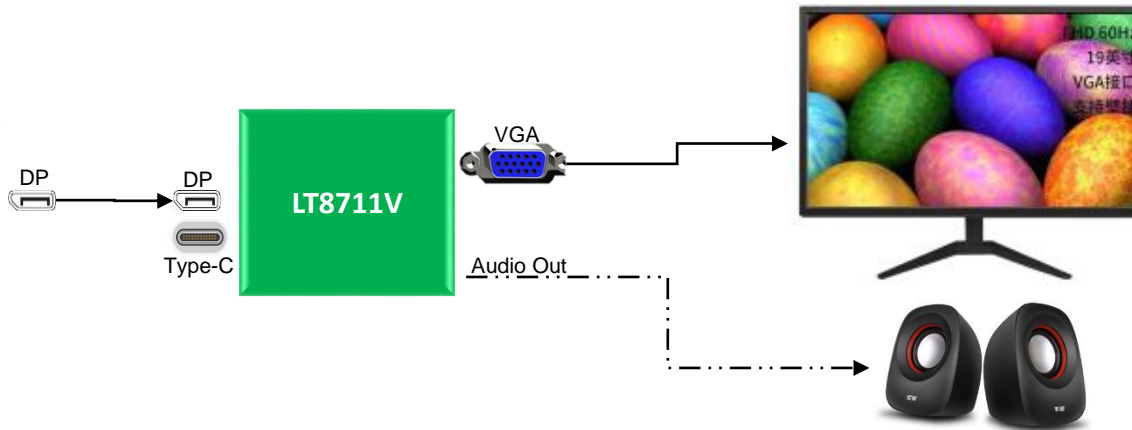
- Smart Phone
- PAD/Tablets
- Digital video cameras
- Digital still Cameras

Features:

- Compliant with D-PHY v1.2, DSI v1.3, CSI-2 v1.3 and DCS v1.02.00 for MIPI
- Compliant with VESA and JEIDA LVDS Specification
- 1~2 Configurable Port
1 Clock Lane and 1~4 Configurable Data Lanes
- 80Mb/s~2Gb/s per Data Lane
- Compliant to VESA DP1.2 Standard
- Support Four Lanes with 1.62Gbps (RBR), 2.7Gbps (HBR) or 5.4Gbps (HBR2) Data Rate
- Support Resolution up to 4Kx2K@60Hz
- Compatible with USB Type-C R1.2, DP Alt Mode V1.0 and USB PD R3.0

LT8711V

Type-C/DP 1.2 to VGA Converter with Audio



Applications:

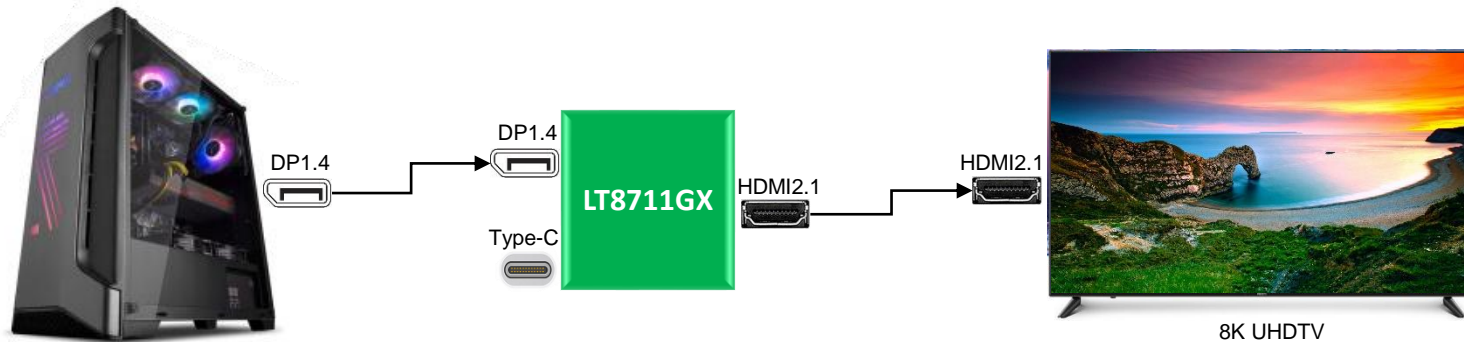
- Tablet PC
- Notebook
- PC
- Dongle

Features:

- USB Type-C
 - Compliant with USB Power Delivery specification R2.0, V1.0
 - Built-in dual CC controllers for charger and normal communication
- DP1.2 Receiver
 - Compliant with VESA DPI1.2 and Embedded Displayport(eDP) V1.4
 - 1.62/2.7/5.4Gbps per data lane
- Triple-Channel Video DAC
 - Compliant with VESA VSIS1.2
 - 200MSPS throughput and WUXGA timing support
 - Amplitude calibration
- Digital Audio Input/Output
 - One I2S interface supporting 2-channel audio
 - SPDIF interface supporting PCM, Dolby Digital, DTS digital audio at up to 192kHz frame rate

LT8711GX

Type-C/DP1.4 to HDMI 2.1 Converter



Applications:

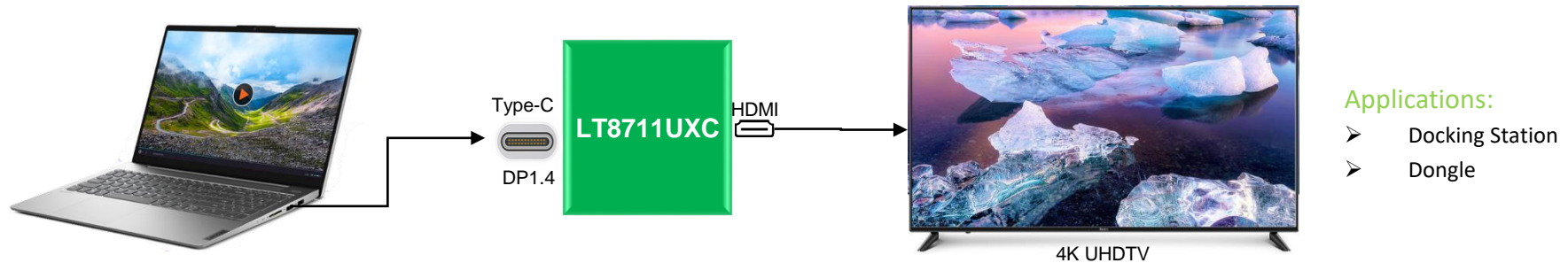
- Docking Station
- Dongle

Features:

- Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in dual CC controllers for charger and normal communication
- DP1.4 Receiver
 - Compliant with DisplayPort specification 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps Support HDCP 1.3/2.3
 - Support 8K@30Hz YUV 4:2:2/YUV 4:2:0, 8K@60Hz with compression data
 - Support HDR10 and HDR12
- HDMI2.1 Transmitter
 - Data rate up to 8Gbps
 - Support HDCP 1.4/2.3
 - Support 8k@30Hz, 8k@60Hz with compression data or YUV 4:2:0
 - Support HDR10 and HDR12
- Miscellaneous
 - VESA DSC v1.2a (v1.1 compatible)
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys

LT8711UXC

4-Lane Type-C/DP1.4 to HDMI2.0 Converter



Applications:

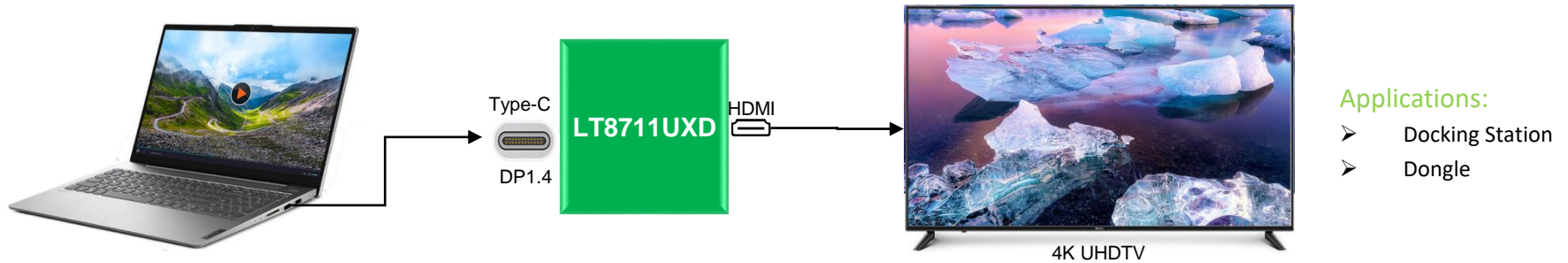
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in CC controllers for normal communication
- DP1.4 Receiver
 - Compliant Embedded DisplayPort specification version 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps
 - Support DisplayPort 1/2/4 lanes
 - Support HDCP 1.3/2.3
 - Support 8K@30Hz YCbCr 420 only
 - Support HDR10 and Dolby Vision
- HDMI2.0 Transmitter
 - Data rate up to 6Gbps
 - Support HDCP 1.4/2.3
 - Support 8K@30Hz YCbCr 420 only
 - Support HDR10 and Dolby Vision
 - Support CEC
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422 <-> YUV420
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys

LT8711UXD

2-Lane Type-C/DP to HDMI2.0 Converter with PD3.0



Applications:

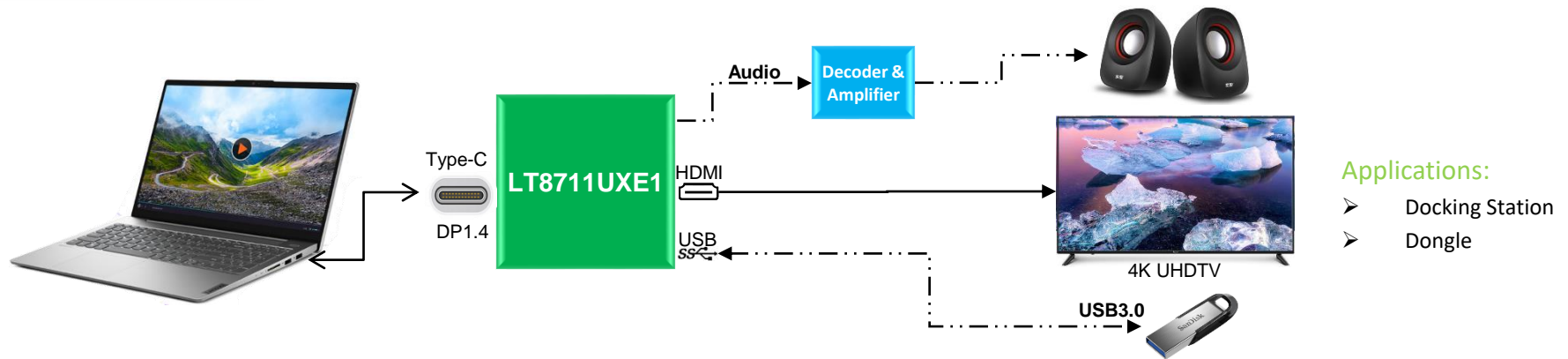
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in CC controllers for normal communication
- DP1.4 Receiver
 - Compliant Embedded DisplayPort specification version 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps
 - Support DisplayPort 1/2 lanes
 - Support HDCP 1.3/2.3
 - Support HDR10 and Dolby Vision
- HDMI2.0 Transmitter
 - Data rate up to 6Gbps
 - Support HDCP 1.4/2.3
 - Support HDR10 and Dolby Vision
 - Support CEC
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422 <-> YUV420
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys

LT8711UXE1

Type-C/DP 1.2 to HDMI 2.0 Converter with Audio & USB 3.1 Gen1 Switch



Applications:

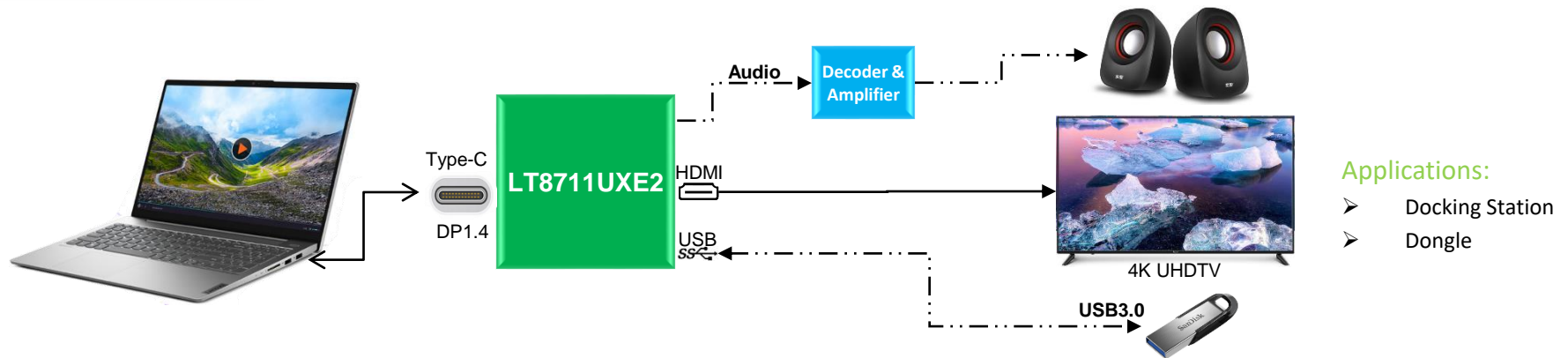
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in CC controllers for normal communication
 - Bi-directional USB3.1 Gen1 SS differential signal passive switch with insertion loss less than 4dB
- DP1.2 Receiver
 - Compliant with DisplayPort specification 1.2 for 1.62Gbps, 2.7Gbps, 5.4Gbps
 - Support DisplayPort 1/2/4 lanes
 - Support HDCP 1.3/2.3
 - Support 4K@60Hz
 - Support HDR10
- HDMI2.0 Transmitter
 - Data rate up to 6Gbps
 - Support HDCP 1.4/2.3
 - Support 4K@60Hz
 - Support HDR10
 - Support CEC
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422<-> YUV420
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Digital Audio Output: support I2S and SPDIF interface

LT8711UXE2

Type-C/DP 1.4 to HDMI 2.0 Converter with Audio & USB 3.1 Gen1 Switch



Applications:

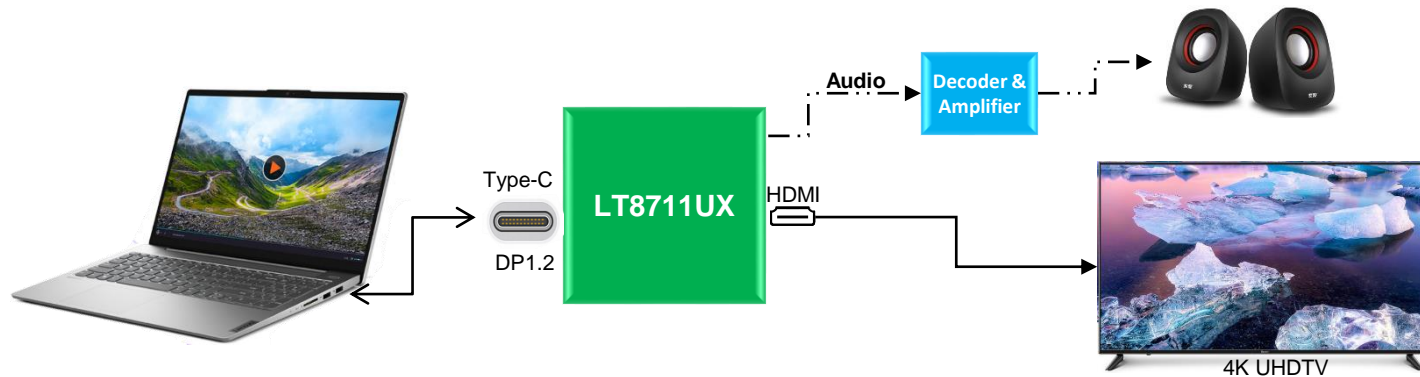
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in CC controllers for normal communication
 - Bi-directional USB3.1 Gen1 SS differential signal passive switch with insertion loss less than 4dB
- DP1.4 Receiver
 - Compliant with DisplayPort specification 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps
 - Support DisplayPort 1/2/4 lanes
 - Support HDCP 1.3/2.3
 - Support 8K@30Hz YCbCr 420 only
 - Support HDR10 and Dolby Vision
- HDMI2.0 Transmitter
 - Data rate up to 6Gbps
 - Support HDCP 1.4/2.3
 - Support 8K@30Hz YCbCr 420 only
 - Support HDR10 and Dolby Vision
 - Support CEC
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422<-> YUV420
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Digital Audio Output: support I2S and SPDIF interface

LT8711UX

Type-C/DP 1.2 to HDMI 2.0 Converter with Audio

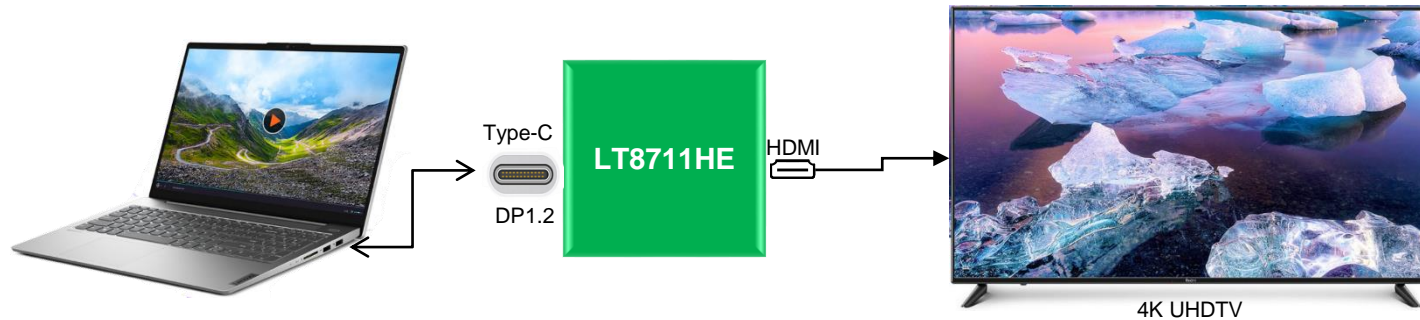


Applications:

- Docking Station
- Dongle

Features:

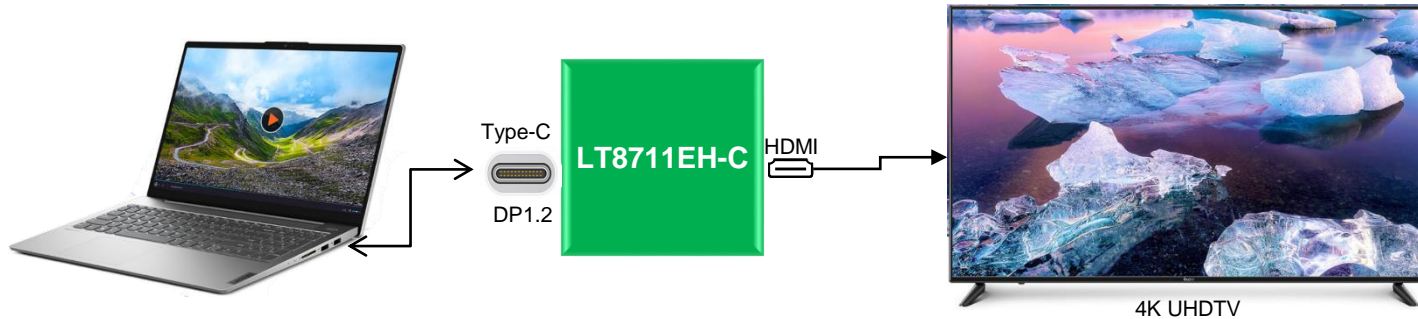
- USB Type-C
 - Compliant with USB Power Delivery Specification R2.0, V1.0
 - Dual CC ports for charger and normal communication
- DP1.2 Receiver
 - Compliant with DP 1.2, HDCP 1.3
 - 1.62/2.7/5.4Gbps
- HDMI2.0 Transmitter
 - Compliant with HDMI2.0, HDMI1.4 and DVI1.0 6Gbps
 - Compliant with HDCP2.2 and HDCP1.4
 - Support UHD 4k@60Hz(RGB and YCbCr 4:4:4)
- Digital Audio Outputs
 - I2S/SPDIF
 - 2-channel LPCM or compressed audio

LT8711HE
Type-C/DP1.2 to HDMI 2.0 Converter

Applications:

- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB Power Delivery specification R2.0, V1.0
 - Built-in dual CC controllers for charger and normal communication
- DP1.2 Receiver
 - Compliant with VESA DP1.2 and Embedded DisplayPort (eDP) v1.4
 - 1.62/2.7/5.4Gbps per data lane
 - Support 4K@60Hz
- HDMI 2.0 Transmitter
 - Data rate up to 6Gbps
 - Support 4K@60Hz
- Miscellaneous
 - Support swift Charge
 - USB billboard module and USB 2.0 switch integrated
 - Integrated microprocessor
 - Embedded SPI flash for firmware

LT8711EH-C
Type-C/DP 1.2 to HDMI 2.0 Converter

Applications:

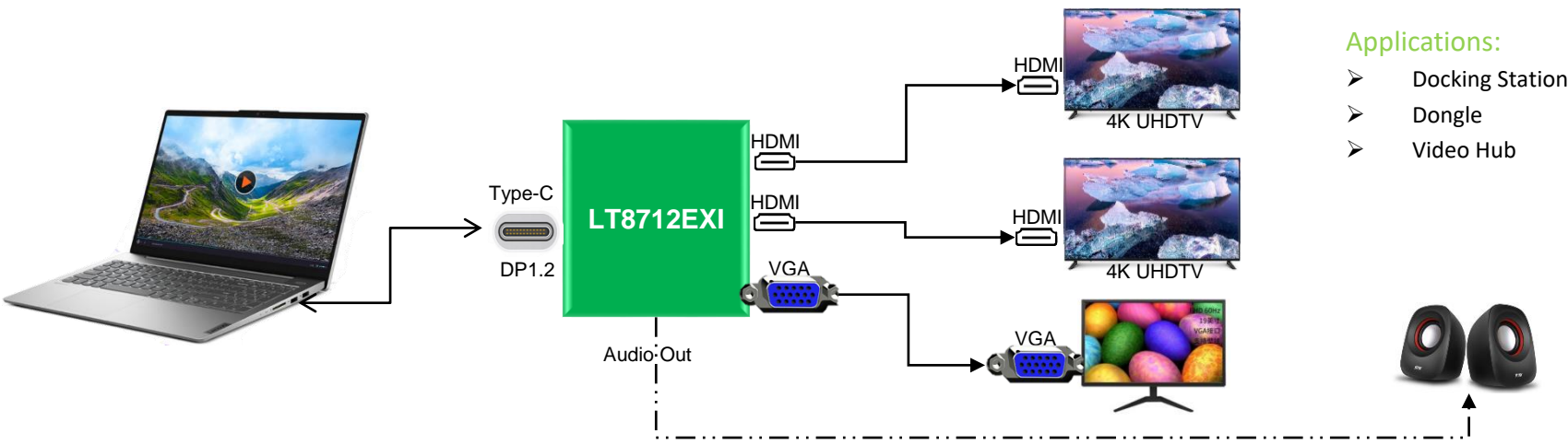
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with VESA DisplayPort Alt Mode on USB TypeC Standard V1.0
 - Compliant with DP Alt Mode 1.0, PD 2.0, Type-C 1.2, HDMI 1.4b Alt Mode 1.0
- DP1.2 Receiver
 - Compliant with HDCP 1.3
 - Support 1.62/2.7/5.4Gbps with 1/2/4 lanes
- HDMI2.0 Transmitter
 - Compliant with HDMI2.0, HDMI1.4 and DVI1.0 6Gbps
 - Compliant with HDCP2.2 and HDCP1.4
 - Support UHD 4k@60Hz(RGB and YCbCr 4:4:4)
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys

LT8712EXI

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



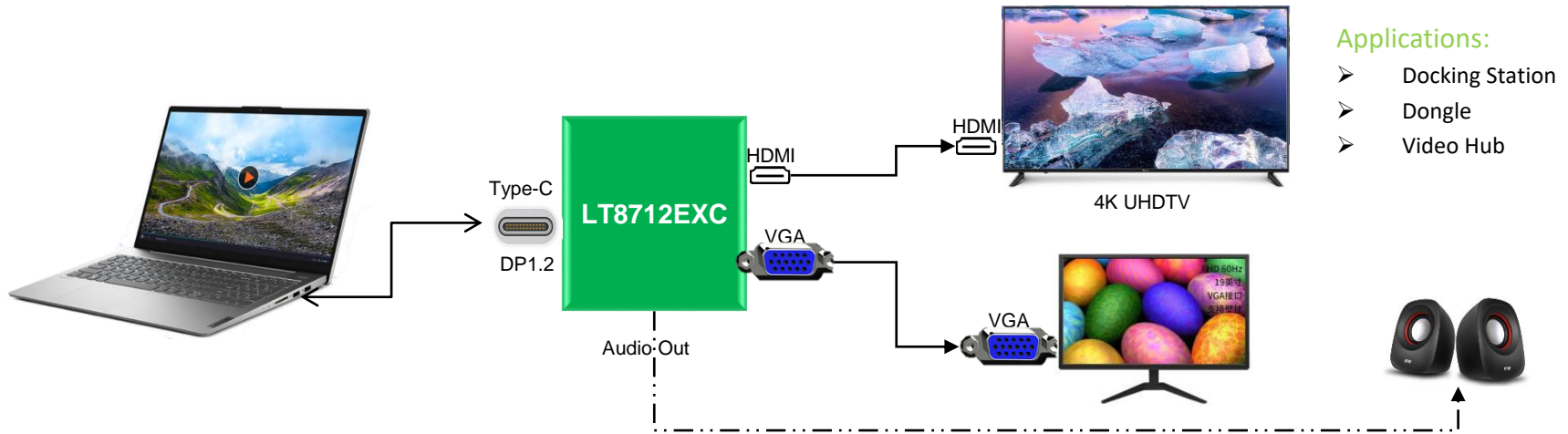
- Applications:**
- Docking Station
 - Dongle
 - Video Hub

Features:

- USB Type-C
 - Compliant with VESA DisplayPort Alt Mode on USB TypeC Standard V1.0
 - Compliant with USB Power Delivery Specification R2.0, V1.0
- DP1.2 Receiver
 - Compliant with HDCP 1.3
 - 1.62/2.7/5.4Gbps
 - 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
- Triple-Channel Video DAC
 - Compliant with VSIS1.2
 - YPbPr output capable
- Digital Audio Outputs: I2S/SPDIF

LT8712EXC

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



Applications:

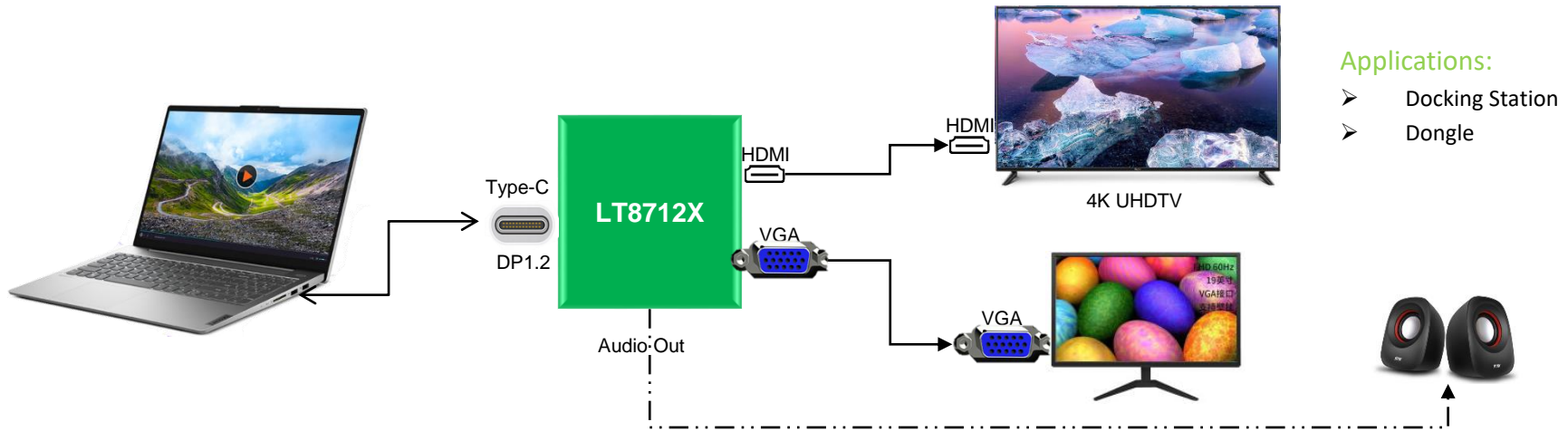
- Docking Station
- Dongle
- Video Hub

Features:

- USB Type-C
 - Compliant with VESA DisplayPort Alt Mode on USB TypeC Standard V1.0
 - Compliant with USB Power Delivery Specification R2.0, V1.0
- DP1.2 Receiver
 - Compliant with HDCP 1.3
 - 1.62/2.7/5.4Gbps
 - SST/MST
- HDMI2.0 Transmitters
 - Compliant with HDMI 1.4, DVI 1.0, HDCP 2.2/1.4
 - 6Gbps
 - 4k@60Hz
- Triple-Channel Video DAC
 - Compliant with VSIS1.2
 - YPbPr output capable
- Digital Audio Outputs: I2S/SPDIF

LT8712X

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



Applications:

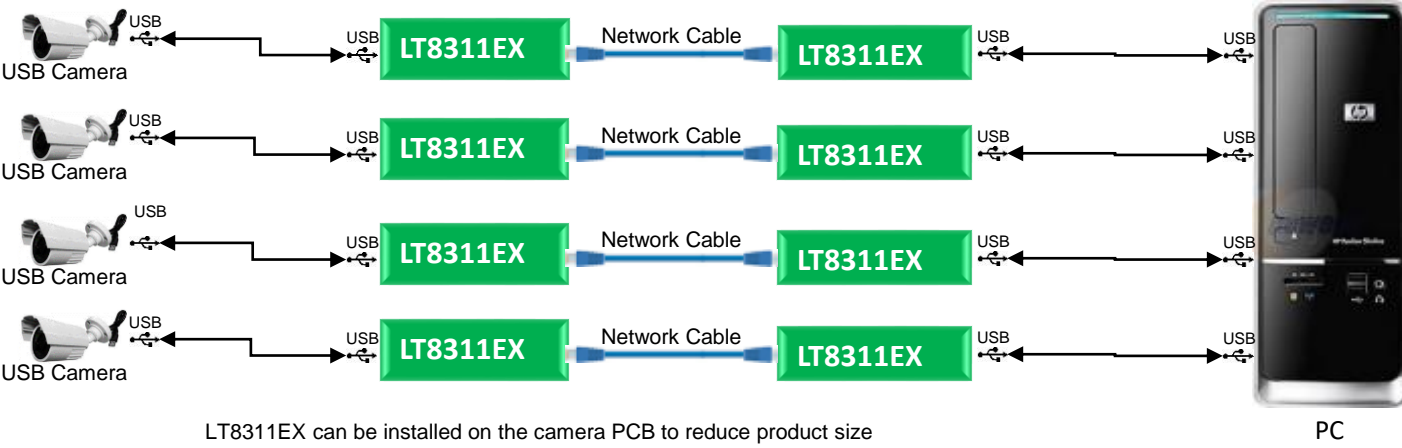
- Docking Station
- Dongle

Features:

- USB Type-C
 - Compliant with USB Power Delivery specification R2.0, V1.0
 - Built-in dual CC controllers for charger and normal communication
 - 3 data roles supported: DFP, UFP and DRP
- DP 1.2 Receiver
 - Compliant with Embedded Displayport (eDP) v1.4
 - Support 4K@60Hz
- HDMI 2.0 Transmitter
 - Compliant with HDMI1.4 and DVI1.0
 - Data rate up to 6Gbps
 - Support 4K@60Hz
- Triple-Channel Video DAC
 - Compliant with VESA VSIS1.2
 - 200MSPS throughput and WUXGA timing support
- Digital Audio Output: I2S/SPDIF

LT8311EX

USB 2.0 Repeater



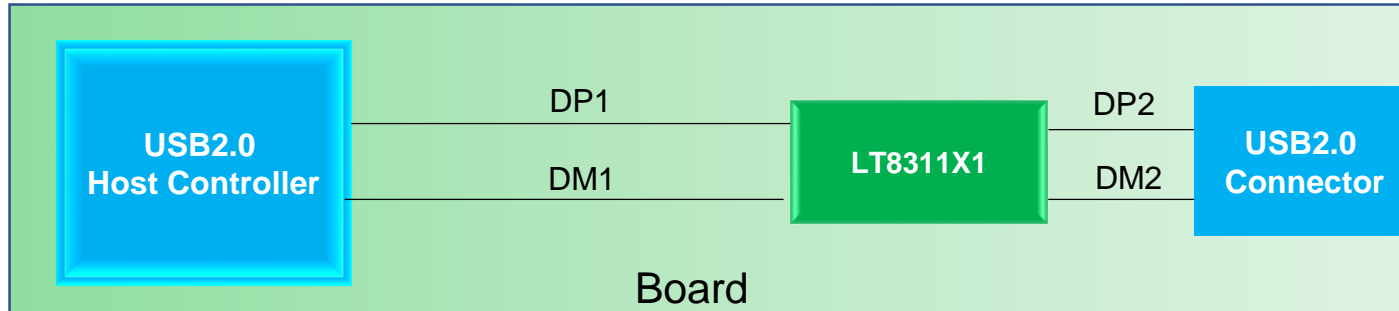
- Applications:**
- Surveillance
 - KVM Extension

Features:

- Extension length up to 120 meters
- Support USB 2.0 high-speed and USB 1.1 (low-speed and full-speed)
- Support hot plug
- Internal pull-up and pull-down resistor
- Pin control and I2C control mode for equalization
- Single 3.3V power supply
- 20-pin TSSOP RoHS package
- ESD: HBM to 2KV

LT8311X1

USB 2.0 High Speed Signal Repeater



Applications:

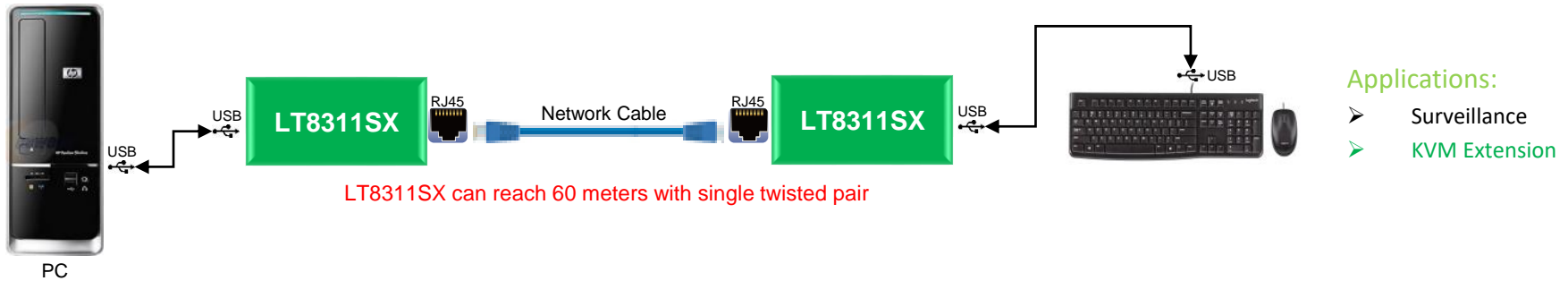
- PC/Laptop Mother Boards
- Cell Phones
- Backplane
- Cable Extenders
- Televisions

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
- 3.3V single power supply
- QFN-12 1.6mm x 1.6mm package

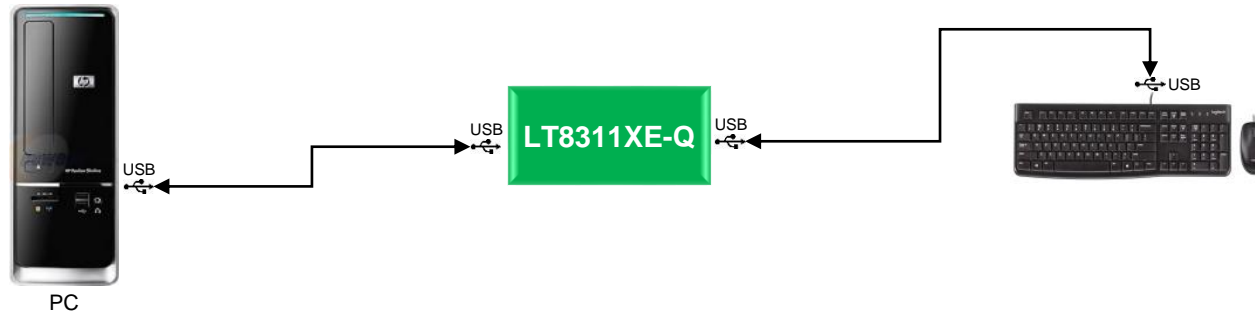
LT8311SX

USB2.0 Extender with Integrated MCU



Features:

- USB2.0 Extender
 - Support HS/FS/LS mode
 - Extended USB communication distance over CAT6 Ethernet cable: up to 60m for HS/FS, and up to 130m for LS
 - Single pair operation
 - Transparent to USB hosts and devices (driver free)
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware storage

LT8311XE-Q
USB 2.0 Extender

Applications:

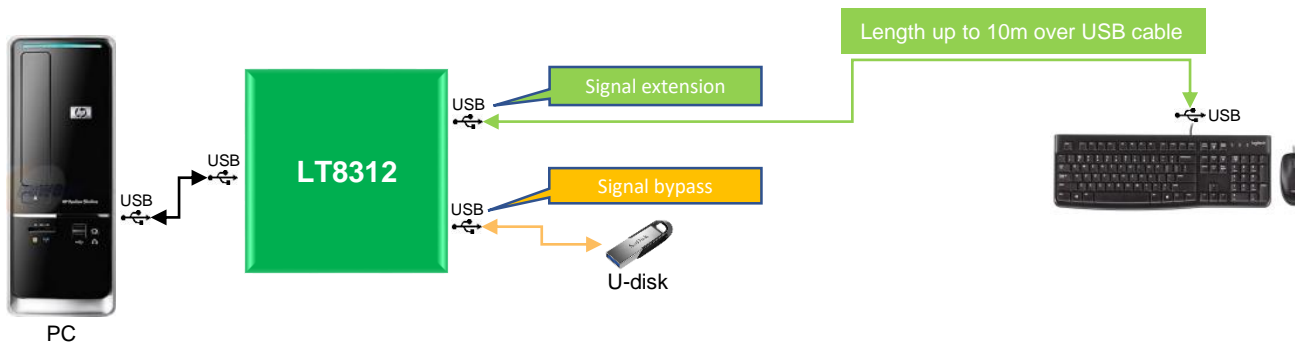
- PC Motherboard
- Data storage system
- Servers and workstation
- Car system
- KVM system

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

LT8312

USB 2.0 Extender with DeMux



Applications:

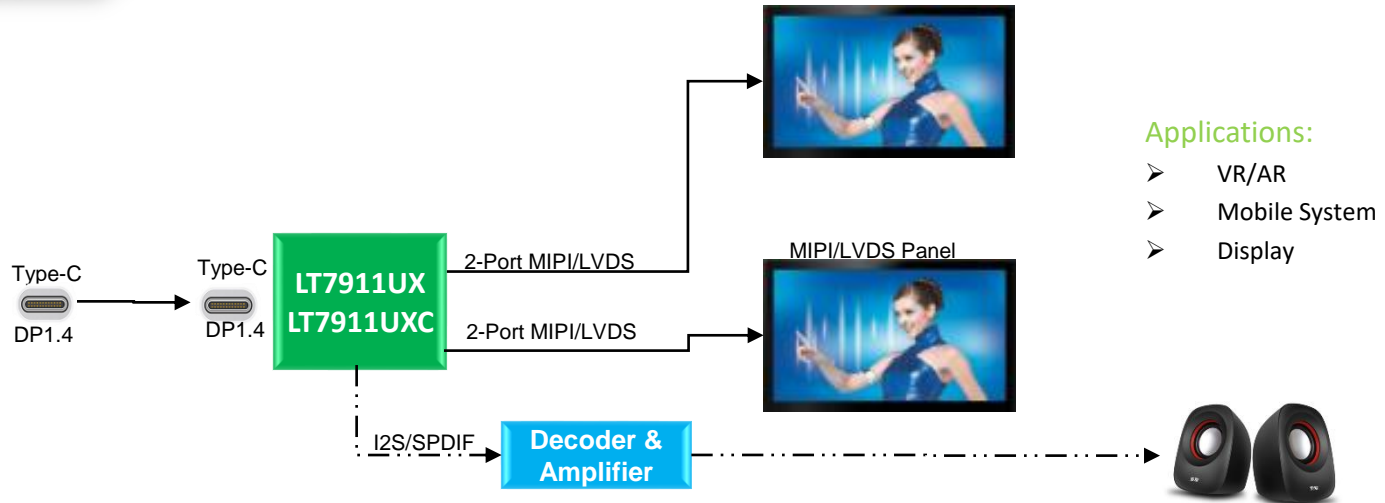
- PC Motherboard
- Data storage system
- Servers and workstation
- Car system
- KVM system

Features:

- One path for standard USB 2.0 signal bypass and the other path for USB 2.0 signal extension up to 10m over USB cable
- Support USB2.0 high speed, full speed and low speed signal transferring
- I2c mode equalization control for different length cable
- Single 3.3V Power supply
- 20 pin QFN 4mm*4mm package with Epad
- -40°C to 85°C operating temperature

LT7911UX/LT7911UXC

Type-C/DP1.4 to 4-Port MIPI/LVDS with Audio



Applications:

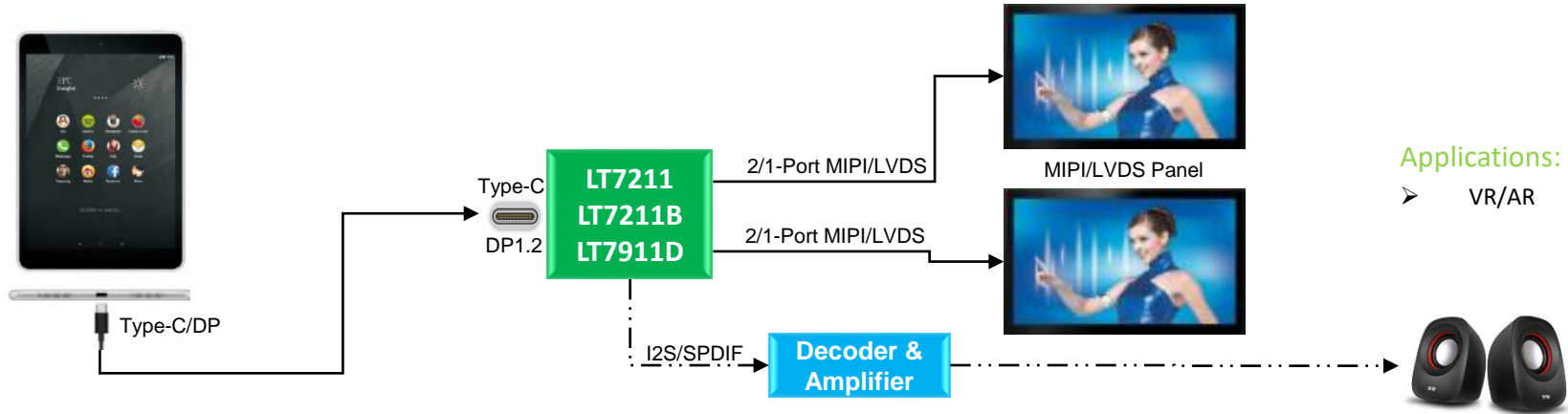
- VR/AR
- Mobile System
- Display

Features:

- Type-C
 - Compliant with USB power delivery specification 3.0
 - Built-in dual CC controllers for charger and normal communication
- DP1.4 Receiver
 - Compliant with DisplayPort specification 1.4 for 1.62Gbps, 2.7Gbps, 5.4Gbps, 8.1Gbps
 - Compliant Embedded DisplayPort specification version 1.4b
 - Support HDCP 1.3/2.3
 - Support HDR10
- Four-Port MIPI® DSI/CSI Transmitter
 - Support 4K@120Hz
- Four-Port LVDS Transmitter
 - Support 4K@60Hz
- Digital Audio Output
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware and HDCP keys
 - Embedded DRAM for LT7911UX

LT7211/LT7211B/LT7911D

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

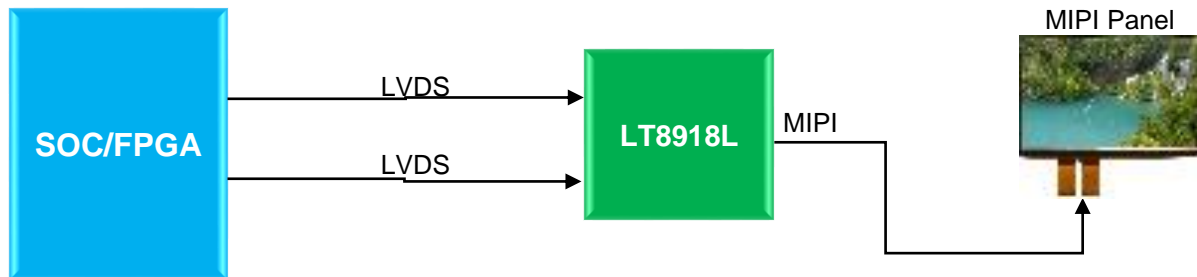


Applications:

- VR/AR

Features:

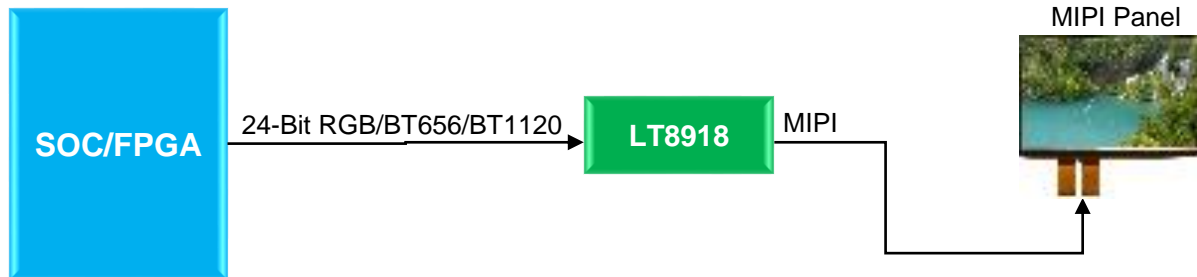
- Type-C/DP 1.2 Receiver
 - Compliant with DP 1.2 for 1.62 Gb/s, 2.7Gb/s, 5.4Gb/s
 - Up to 4K@60Hz
 - 1/2/4 configurable lane
- MIPI CSI/DSI Transmitter
 - 80Mb/s~1.5Gb/s per data lane
 - Side-by-side 3D support
- LVDS Transmitter
 - Maximum 1.2 Gb/s per data lane
 - Side-by-side 3D support

LT8918L
Dual-Port LVDS to MIPI DSI/CSI-2 Bridge

Applications:

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

Features:

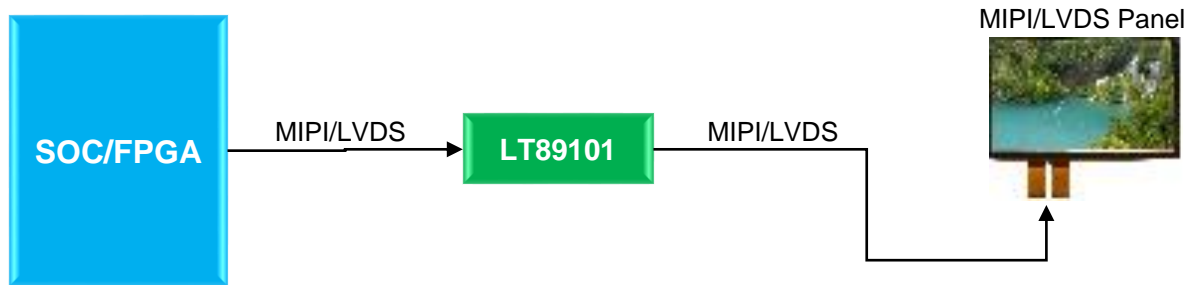
- Single/Dual-Port LVDS Receiver
 - Single/Dual-Port LVDS Receiver
 - 1~2 Configurable Port
 - 1 Clock Lane and Up to 5 Data Lanes per Port
 - Resolution up to 1080P 60Hz
 - Input Color Depth Supports 6-bit, 8-bit and 10-bit
 - Support Input De-SSC (30kHz± 5%)
- Single-Port MIPI Transmitter
 - Compliant with DCS1.02, D-PHY1.1 & DSI1.02.
 - Compliant with D-PHY1.1 & CSI-2 1.0
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - 80Mb/s~1.5Gb/s per Data Lane
 - Resolution Up to 1080P 60Hz
 - Both Non-Burst and Burst Video Mode Supported

LT8918
RGB to MIPI CSI/DSI

Applications:

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

Features:

- **TTL Input**
 - Support 24-bit RGB and BT656/BT 1120 input
 - Support both SDR and DDR Data Sampling
 - Programmable Rising/Falling Edge Clock Input
 - Support up to 74.25MHz DDR or 148.5MHz SDR Clock Input
 - Support both 1.8V and 3.3V Input Voltage Level
- **Single-Port MIPI DSI Transmitter**
 - Compliant with DCS1.02, D-PHY1.1 & DSI1.02
 - Compliant with D-PHY1.1 & CSI-2 1.0
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - 80Mb/s~1.5Gb/s per Data Lane
 - Resolution Up to 1080P 60Hz

LT89101
MIPI CSI/DSI, LVDS Repeater

Applications:

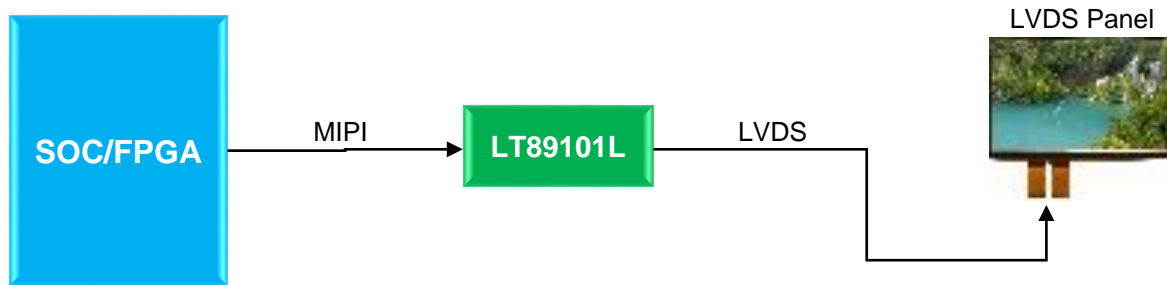
- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Camera System

Features:

- Support 3-bit maximum 10dB Input Equalization
- Signal Re-driving without Data De-packetize
- 80Mb/s~1.8Gb/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

LT89101L

MIPI to LVDS Level Shifter

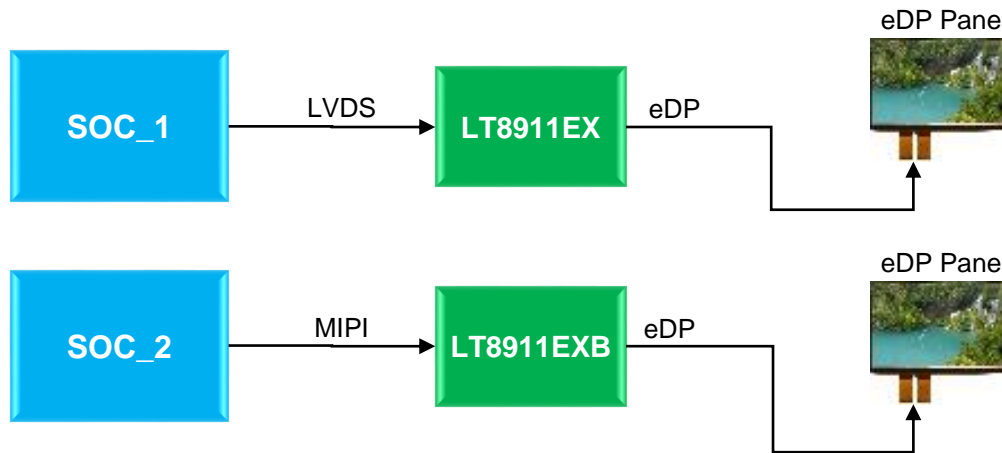


Applications:

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

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

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

Applications:

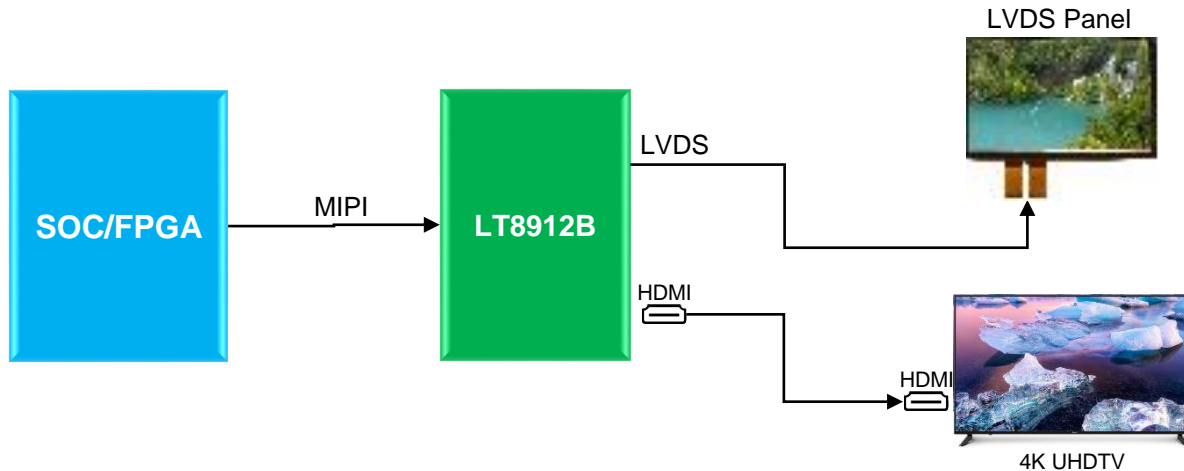
- Mobile systems (LT8911EX)
- Digital still cameras (LT8911EX)
- Cellular Handsets (LT8911EX)
- Personal Media Players (LT8911EXB)
- Digital video cameras (LT8911EXB)
- Gaming (LT8911EXB)

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

LT8912B

Single-Channel MIPI[®] DSI Bridge to LVDS/HDMI



Applications:

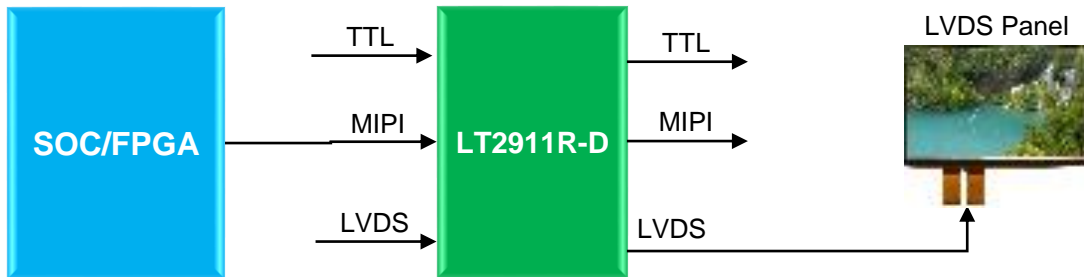
- PAD with Calling Feature
- PAD/Tablet with LVDS Panel
- Drone
- POS

Features:

- One-Channel MIPI DSI Receiver
 - Compliant with MIPI D-PHY1.1 and DSI1.02
 - 1 clock lane and 1~4 configurable data lanes
 - 80Mbps~1.5Gbps per data lane
 - Internal Rterm calibration less than 5% error
- One-Channel LVDS Transmitter
 - 1 clock lane and 4 data lanes
 - Maximum 1.0Gbps per data lane
- HDMI Transmitter
 - Support HDMI1.4 standard
 - Up to 60Hz 1080p 8-bit HDMI output

LT2911R-D

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



Applications:

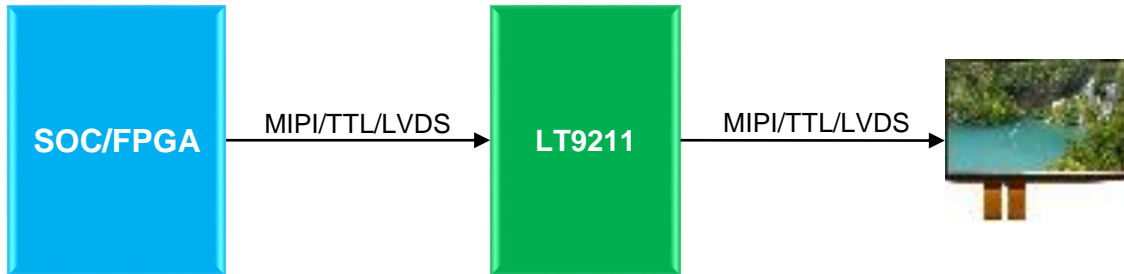
- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Cameras System

Features:

- MIPI Receiver
 - Compliant with DCS1.02, D-PHY1.2 ,DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Up to 1.8Gb/s per Data Lane
- Dual-Port LVDS Receiver
 - Compatible with VESA and JEIDA standard
 - 1~2 Configurable Port
 - Up to 1080P 60Hz
- TTL Input
 - Support 24-bit RGB and BT656/BT1120
 - Support both 1.8V and 3.3V Input Voltage
- MIPI Transmitter
 - Compliant with DCS1.02, D-PHY1.2 ,DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Up to 1.8Gb/s per Data Lane
- Dual-Port LVDS Transmitter
 - Compatible with VESA and JEIDA standard
 - 1~2 Configurable Port
 - Up to 1080P 60Hz
- TTL Output
 - Support 24-bit RGB and BT656/BT1120
 - Support both 1.8V and 3.3V Input Voltage

LT9211

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



Applications:

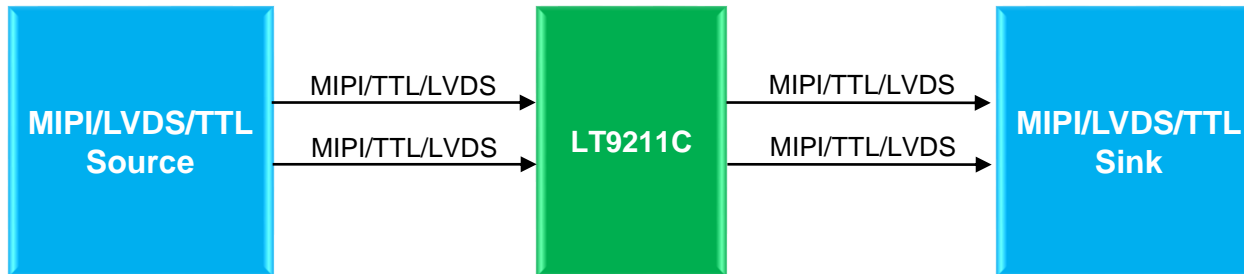
- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Cameras System

Features:

- MIPI Receiver/Transmitter
 - Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Two Port Simultaneous Display Supported
 - Up to 1.8Gb/s per Data Lane
 - Resolution Up to 1920x1200 60Hz or any other Resolution whose Pixel Clk less than 200MHz
 - Data Lane and Polarity Swapping
 - Both Non-Burst and Burst Video Mode Supported
 - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
- Dual-Port LVDS Receiver/Transmitter
 - Compatible with VESA and JEIDA standard
 - 1~2 Configurable Port
 - Resolution Up to 1920x1200 60Hz or any other Resolution whose Pixel Clk less than 200MHz
 - Support DE Mode
 - Support input Dessc(30KHz±5%)
- TTL Input/Output
 - Support 24-bit RGB and BT656/BT1120
 - Both DDR and SDR Sampling supported
 - Support SYNC Mode and DE Mode
 - Support both 1.8V and 3.3V Input Voltage
 - Resolution Up to 1920x1200 60Hz or any other Resolution whose Pixel Clk less than 200MHz

LT9211C

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



Applications:

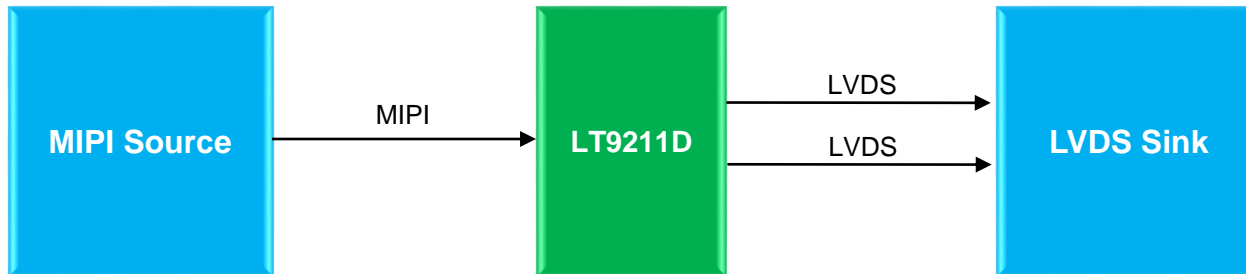
- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Cameras System

Features:

- MIPI Receiver/Transmitter
 - Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Two Port Simultaneous Display Supported
 - Up to 2.5Gb/s per Data Lane
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Data Lane and Polarity Swapping
 - Both Non-Burst and Burst Video Mode Supported
 - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
- Dual-Port LVDS Receiver/Transmitter
 - Compatible with VESA and JEIDA standard
 - 1~2 Configurable Port
 - 1 Clock Lane and 5 Data Lanes per Port
 - Two Port Simultaneous Display Supported
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Support DE Mode
- TTL Input/Output
 - Support 24-bit RGB and BT656/BT1120
 - Both DDR and SDR Sampling supported
 - 1.8V and 3.3V Voltage Output based on VCCIO
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz

LT9211D

MIPI to 2-Port LVDS Converter



Applications:

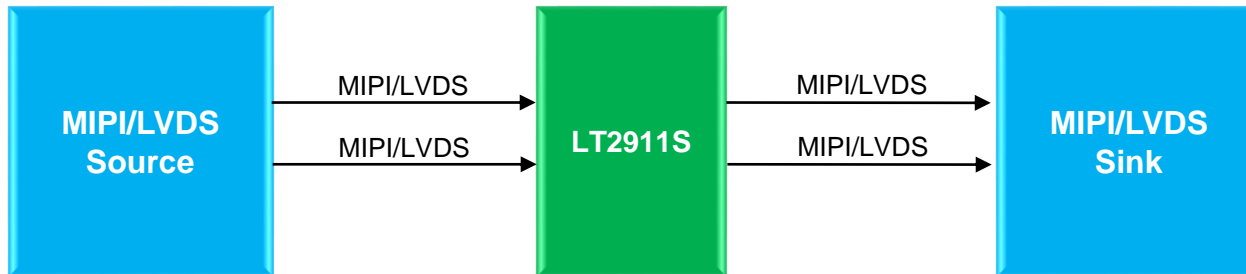
- Mobile systems
- Cellular handsets
- Digital video cameras
- Digital still cameras
- Tablet PC, Notebook PC
- Car Display and Cameras System

Features:

- MIPI Receiver
 - Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Up to 2.5Gb/s per Data Lane
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Data Lane and Polarity Swapping
 - Both Non-Burst and Burst Video Mode Supported
- Dual-Port LVDS Transmitter
 - Compatible with VESA and JEIDA standard
 - 1~2 Configurable Port
 - 1 Clock Lane and 5 Data Lanes per Port
 - Two Port Simultaneous Display Supported
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Support DE Mode

LT2911S

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

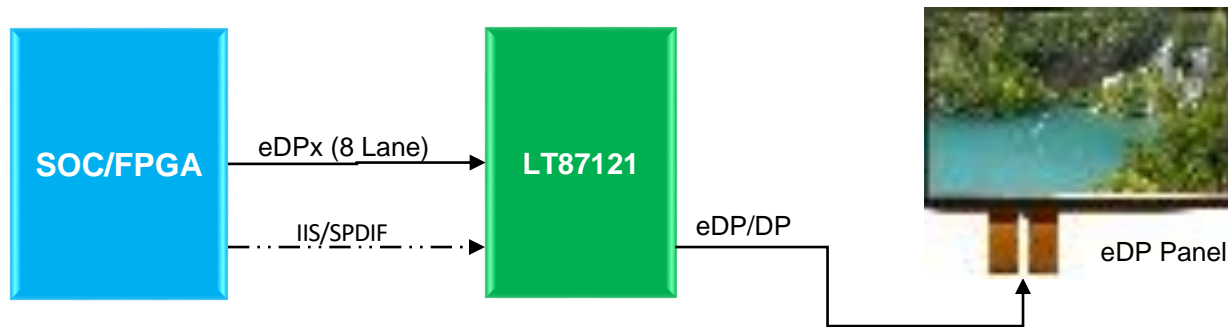


Applications:

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

Features:

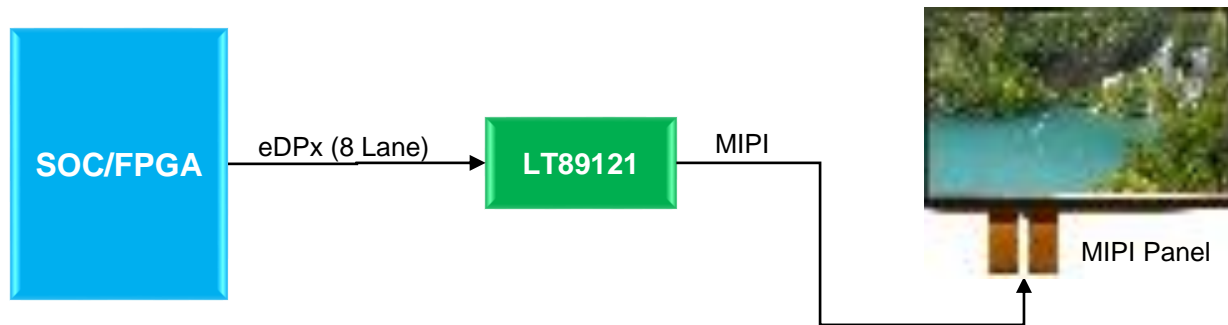
- MIPI Receiver/Transmitter
 - Compliant with DCS1.02, D-PHY1.2, DSI1.2 and CSI-2 1.00
 - 1 Clock Lane and 1~4 Configurable Data Lanes
 - Two Port Simultaneous Display Supported
 - Up to 2.5Gb/s per Data Lane
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Data Lane and Polarity Swapping
 - Both Non-Burst and Burst Video Mode Supported
 - Support RGB666, Loosely RGB666, RGB888, RGB565, 16-bit YCbCr4:2:2, 24-bit YCbCr 4:2:2 Video Format
 - Support 2-Port MIPI convert to single Port MIPI
 - Support single Port MIPI convert to 2-Port MIPI
- Dual-Port LVDS Receiver/Transmitter
 - Compatible with VESA and JEIDA standard
 - Support SUB-LVDS input or output
 - 1~2 Configurable Port
 - 1 Clock Lane and 5 Data Lanes per Port
 - Two Port Simultaneous Display Supported
 - Resolution Up to 3840x2160 30Hz or any other Resolution whose Pixel Clk between 6.25MHz to 297MHz
 - Support DE Mode

LT87121
eDPx to eDP/DP Converter

Applications:

- LCD monitor
- TV

Features:

- eDPx Receiver
 - 1/2/4/8 configurable data lanes
 - Input data rate is up to 3.75Gbps
 - Support 6bit, 8bit, 10bit color depth
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware
 - IIS/SPDIF input support (transmitter is DP mode)
- eDP/DP Transmitter
 - Compliant with VESA eDP1.4/DP 1.2
 - Support 1.62/2.7/5.4 Gbps per lane
 - Support 1/2/4 lanes
 - Support SSC
 - 1Mbps AUX channel
 - MCCS Over AUX Support
 - Support ASSR

LT89121
eDPx to MIPI Converter

Applications:

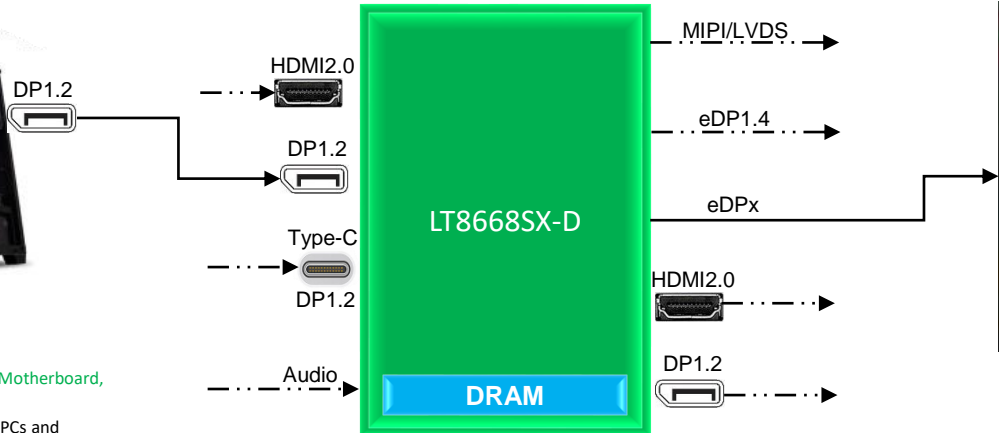
- LCD monitor
- TV

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 mode
 - Support 6bit,8bit, 10bit color depth
 - Support 2 sections, 4 sections input mode
- Dual-Port MIPI DSI/CSI Transmitter
 - Compliant with DCS1.1, D-PHY1.2, DSI1.3 and CSI-2 1.3
 - 80Mbps~2Gbps per data lane
- Miscellaneous
 - Integrated microprocessor
 - Embedded SPI flash for firmware
 - Backlight Control Support

LT8668SX-D

4K High Definition Display Controller, DRAM inside



eDPx Panel

Applications:

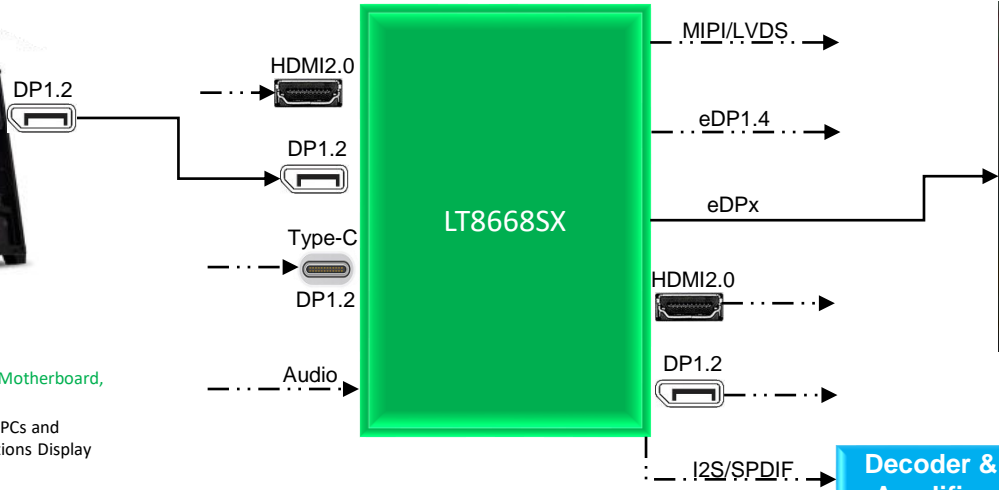
- Display System on Motherboard, Monitor
- Display System for PCs and embedded applications Display

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
- DP1.2a Receiver
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- HDMI2.0 Receiver
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- DP1.2a Transmitter
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- HDMI2.0 Transmitter
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- Four-Port LVDS Transmitter: support 4K@60Hz
- Four-Port MIPI Transmitter: support 4K@60Hz
- eDP1.4/eDPx Transmitter: support resolution up to 4K@60Hz
- Video Process: Rotate 90, 270 degree/Zoom scaling up and down
- Digital Audio Output: I2S/SPDIF
- Miscellaneous: Integrated microprocessor/Embedded DRAM

LT8668SX

4K High Definition Display Controller



eDPx Panel

Applications:

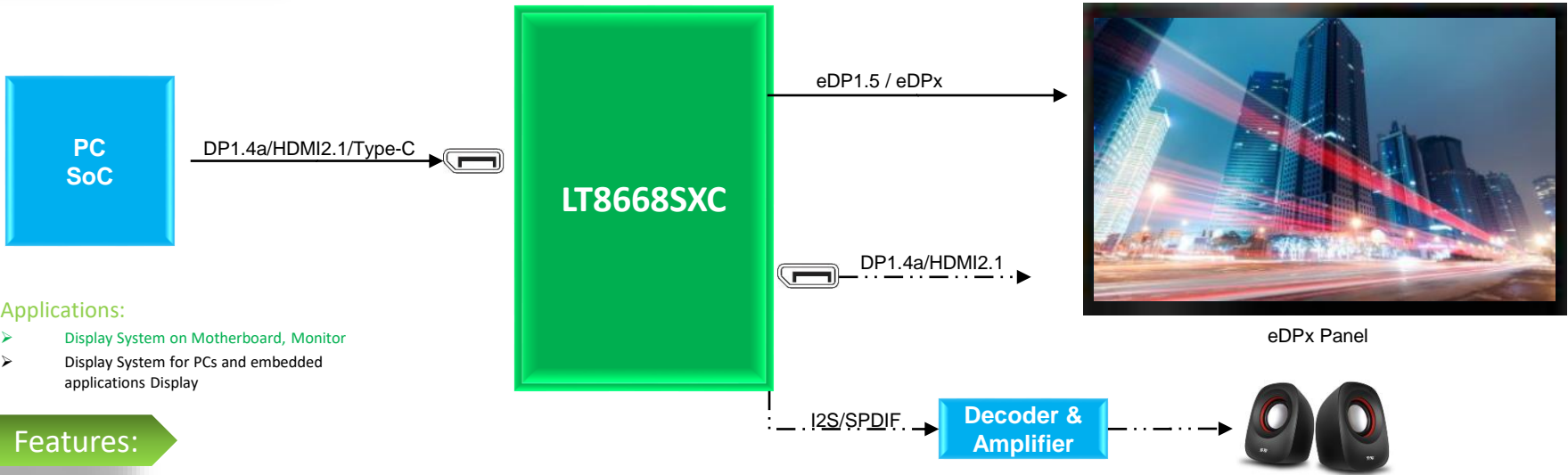
- Display System on Motherboard, Monitor
- Display System for PCs and embedded applications Display

Features:

- USB Type-C
 - Compliant with USB power delivery specification 3.0
- DP1.2a Receiver
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- HDMI2.0 Receiver
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- DP1.2a Transmitter
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps, 2.7Gbps, 5.4Gbps
- HDMI2.0 Transmitter
 - Compliant with HDMI2.0b, HDMI1.4 and DVI1.0
- Four-Port LVDS Transmitter: support 4K@60Hz
- Four-Port MIPI Transmitter: support 4K@60Hz
- eDP1.4/eDPx Transmitter: support resolution up to 4K@60Hz
- Video Process: Rotate 90, 270 degree/Zoom scaling up and down
- Digital Audio Output: I2S/SPDIF
- Miscellaneous: Integrated microprocessor

LT8668SXC

High Definition Display Controller



Applications:

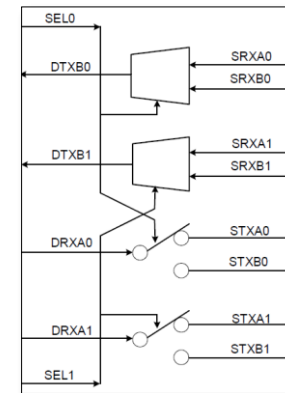
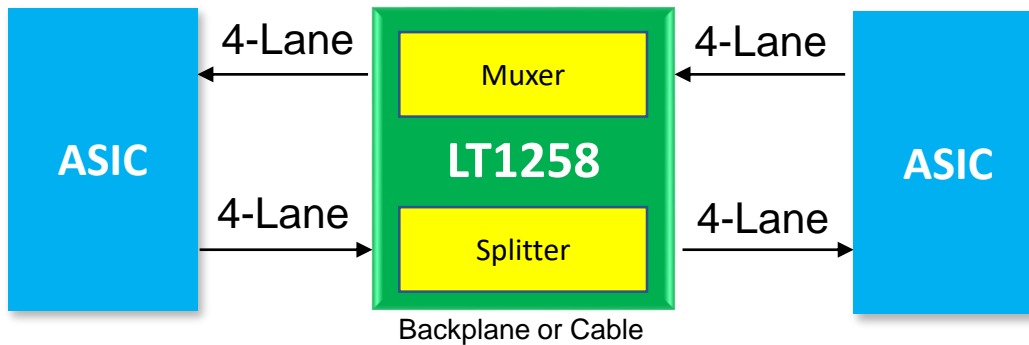
- Display System on Motherboard, Monitor
- Display System for PCs and embedded applications Display

Features:

- USB Type-C
 - Compliant with VESA DisplayPort Alt Mode on USB TypeC Standard 1.0b
- DP1.4a/eDP1.4b Receiver
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps,2.7Gbps, 5.4Gbps and 8.1Gbps
 - Compliant with Embedded DisplayPort specification version 1.4b
- HDMI2.1 Receiver
 - Compliant with HDMI2.1, HDMI2.0b, HDMI1.4 and DVI1.0
 - Data rate up to 8Gbps
- DP1.4a/eDP1.5 Transmitter
 - Compliant with DisplayPort specification 1.4a for 1.62Gbps,2.7Gbps, 5.4Gbps, 8.1Gbps
- HDMI2.1 Transmitter
 - Compliant with HDMI2.1, HDMI2.0b, HDMI1.4 and DVI1.0
 - Data rate up to 8Gbps
- eDP1.4b / eDPx Transmitter : Support resolution up to 4K@60Hz
- Digital Audio Output : Support I2S and SPDIF output
- DSC Decoder and Encoder
 - Compliant with DSC 1.2a
 - Support up to hactive 4096
- Miscellaneous
 - CSC: RGB <-> YUV444 <-> YUV422<-> YUV420
 - Zoom scaling up or down (4K max)

LT1258

12.5Gbps Dual-lane 2:2 Cross-Point Switch with Equalization and De-Emphasis


Applications:

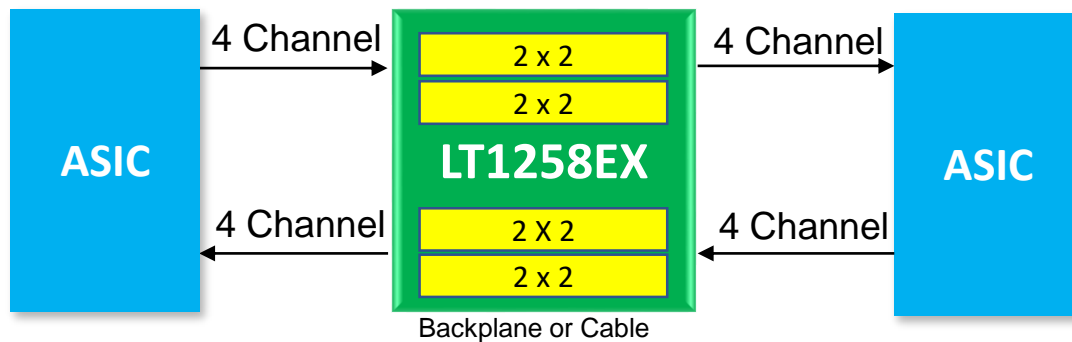
- 10G-KR
- CAUI-10
- SAS/SATA
- CPRI
- PCIe

Features:

- Support 1Gbps to 12.5Gbps Data Rate
- Input Signal Detect and RX Detect Support
- Up to 4 forward and 4 backward lanes support
- 2x2 Analog Cross-Point Switch
- Data Lane Polarity Swappable
- Programmable De-emphasis up to 8dB
- Up to 1.2V output Swing
- Programmable through pin selection, EEPROM or I2C/SMBus interface
- Selectable 2.5-V or 3.3-V Supply Voltage

LT1258EX

12.5Gbps 8-Channel Retimer



Applications:

- 10G-KR
- CAUI-10
- SAS/SATA
- CPRI
- PCIe

Features:

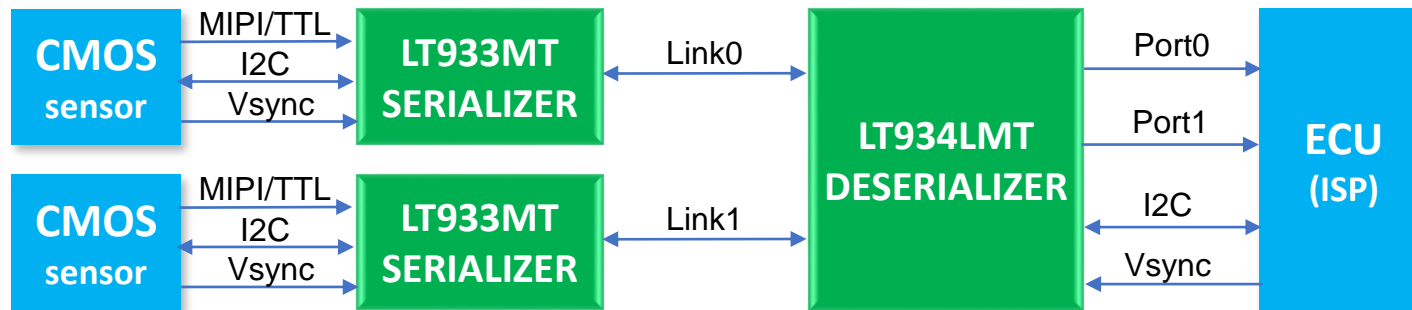
- Support 8Gbps, 9.8Gbps to 12.5Gbps and theirs 1/2, 1/4, 1/8 Data Rate
- Integrated CDR for Jitter clean
- Input Signal Detect and RX Detect Support
- 2x2 Cross-Point Switcher
- Up to 4 forward channel and 4 backward channel working simultaneously
- On chip EYE-Open Monitor and PRBS Generator
- Data Lane Polarity Swappable
- Up to 25dB Equalization at 6.25GHz
- Programmable De-emphasis up to 8dB
- Up to 1.2V output Swing
- Selectable 2.5-V or 3.3-V Supply Voltage
- Support up to 400KHz I2C/SMBus slave

LT933MT

Automotive Serializer Series

Applications:

- Advanced Driver Assistance Systems(ADAS)
 - Surround View System
 - Surround View System
- MIPI-CSI/TTL Extender



Features:

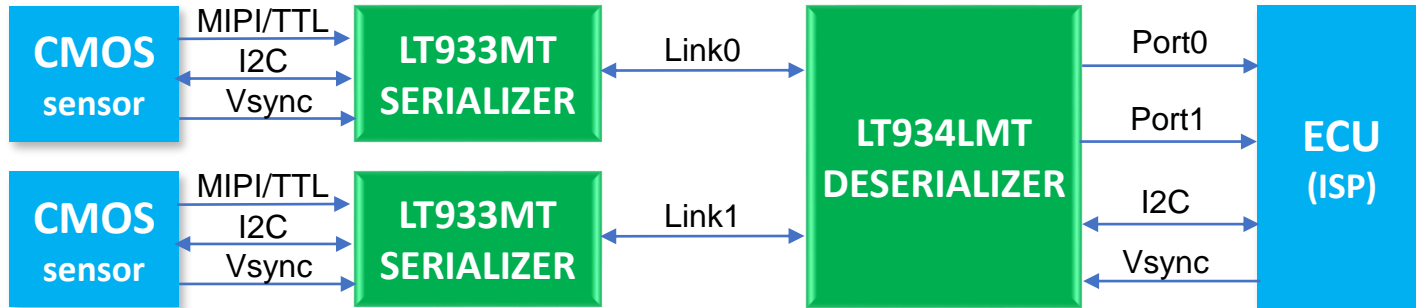
- MIPI CSI Receiver
 - Compliant with D-PHY1.2 & CSI-2 1.3
 - 1 clock lane and 1/2/4 configurable data lanes; 1.5Gbps per data lane
- TTL Receiver
 - 15-lane SDR/DDR Sampling Support
 - Max Pixel Clock 37.125MHz
- Miscellaneous
 - DeSSC for receiver and SSC for transmitter
 - Camera Synchronization
 - Temperature and Voltage sensing
 - AEC-Q100 Grade 2
- Automotive Display Port Transmitter
 - Bidirectional transmission with maximum 4.32Gbps forward data channel and max 3.7Mbps back control channel
 - Typical resolution 1080P 20bit 60fps
 - Transmit video, I2C data on the forward data channel with scrambling, DC balance and FEC
 - Receive reference clock, I2C data and frame sync from back control channel with DC balance and ECC
 - maximum 15m transmission distance

LT934LMT

Automotive Deserializer Series

Applications:

- Advanced Driver Assistance Systems(ADAS)
 - Front and Rear Image Sensor
 - Display System
- LVDS/MIPI/TTL Extender



Features:

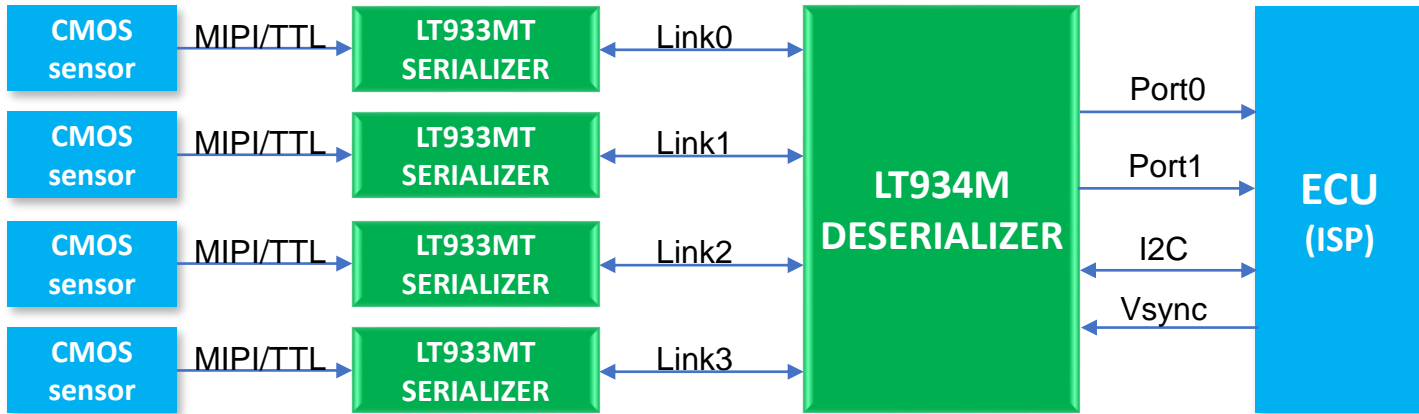
- LVDS Transmitter
 - Compliant with VESA, JEIDA
 - 1/2 configurable port with 1 clock lane and 4 data lanes per each port
 - Configurable sync code detected
 - data rate up to 1.2Gbps
- MIPI DSI/CSI Transmitter
 - Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
 - 1/2 configurable port
 - 1 clock lane and 1/2/4 configurable data lanes for each port; 2Gbps per data lane
- TTL Transmitter
 - 15-lane SDR/DDR Sampling Support
 - Max Pixel Clock 37.125MHz
- Automotive Display Port Transmitter
 - 1/2 configurable link
 - Bidirectional transmission with maximum 5.4Gbps/lane forward data channel and maximum 3.7Mbps back control channel on link0, and link1 is only forward data channel
 - Receive video, I2C data and audio from the forward data channel with scrambling, DC balance and FEC
 - Carry reference clock, I2C data, interrupt and frame sync on back control channel with DC balance and ECC
 - Maximum 10m transmission distance for 5.4Gbps and 15m for 4.32Gbps
 - Typical resolution 1080P 20bit 60Hz with 1 lane, 2K rgb888 60Hz with 2 lanes
- Miscellaneous
 - AEC-Q100 Grade 2

LT934M

Automotive Deserializer Series

Applications:

- Advanced Driver Assistance Systems(ADAS)
 - Surround View System
 - Front and Rear Image Sensor



Features:

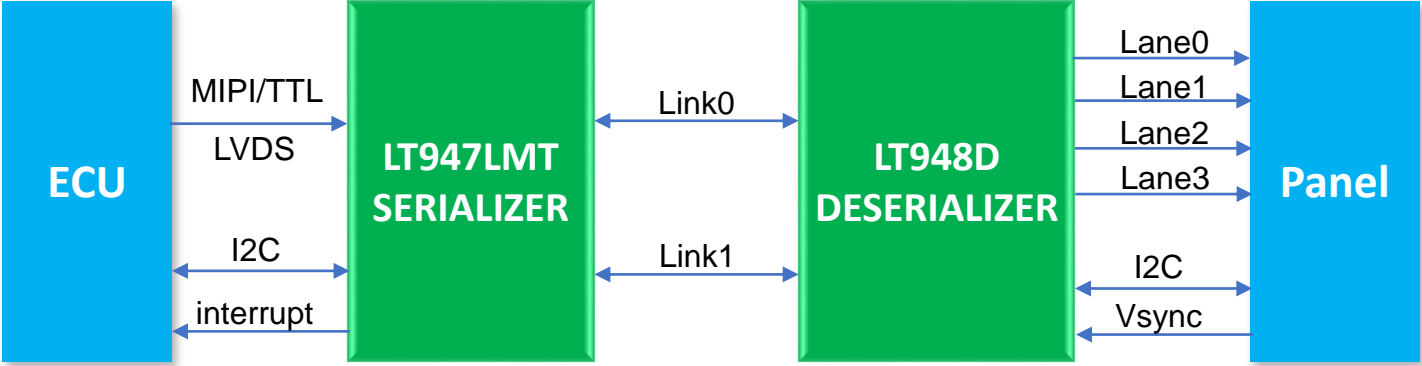
- MIPI DSC/CSI Transmitter
 - Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
 - 1/2 configurable port
 - 4 virtual channel
 - 1 clock lane and 1/2/4 configurable data lanes; 2Gbps per data lane
- Miscellaneous
 - SSC for transmitter
 - Interrupt output
 - Camera Synchronization
 - Temperature and Voltage sensing
 - AEC-Q100 Grade 2
- Automotive Display Port Receiver
 - 1/2/3/4 configurable port and single link for each port
 - Bidirectional transmission with maximum 4.32Gbps forward data channel and max 3.7Mbps back control channel on each single link
 - Receive video, I2C data from the forward data channel with scrambling, DC balance and FEC
 - Transmit reference clock, I2C data, interrupt and frame sync on back control channel with DC balance and ECC
 - Maximum 15m for 4.32Gbps
 - Typical resolution 1080P 20bit 60Hz

LT947LMT

Automotive Serializer Series

Applications:

- Advanced Driver Assistance Systems(ADAS)
 - Display System



Features:

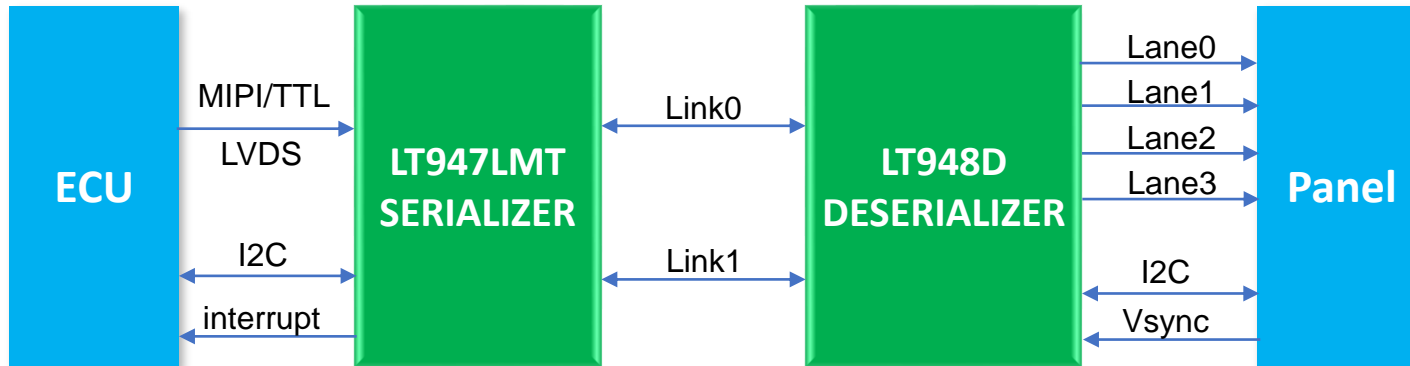
- LVDS Receiver
 - Compliant with VESA, JEIDA and sony sub-lvds standard
 - 1/2 configurable port with 1 clock lane and 4 data lanes per each port
 - Clock frequency up to 288MHz and data rate up to 1.2Gbps
- MIPI DSI/CSI Receiver
 - Compliant with D-PHY1.2 & DSI 1.3 & CSI-2 1.3
 - 1/2 configurable port
 - 1 clock lane and 1/2/4 configurable data lanes for each port; 1.5Gbps per data lane
- TTL Receiver
 - 15-lane SDR/DDR Sampling Support
 - Max Pixel Clock 37.125MHz
- Automotive Display Port Transmitter
 - 1/2 configurable link
 - Bidirectional transmission with maximum 5.4Gbps/lane forward data channel and maximum 3.7Mbps back control channel on link0, and link1 is only forward data channel
 - Receive video, I2C data and audio from the forward data channel with scrambling, DC balance and FEC
 - Carry reference clock, I2C data, interrupt and frame sync on back control channel with DC balance and ECC
 - Maximum 10m transmission distance for 5.4Gbps and 15m for 4.32Gbps
 - Typical resolution 1080P 20bit 60Hz with 1 lane, 2K rgb888 60Hz with 2 lanes
- Miscellaneous
 - AEC-Q100 Grade 2

LT948D

Automotive Deserializer Series

Applications:

- Advanced Driver Assistance Systems(ADAS)
 - Display System



Features:

- Automotive Display Port Receiver
 - 1/2 configurable link
 - Bidirectional transmission with maximum 5.4Gbps/lane forward data channel and maximum 3.7Mbps back control channel on link0, and link1 is only forward data channel
 - Receive video, I2C data and audio from the forward data channel with scrambling, DC balance and FEC
 - Carry reference clock, I2C data, interrupt and frame sync on back control channel with DC balance and ECC
 - Maximum 10m transmission distance for 5.4Gbps and 15m for 4.32Gbps
 - Typical resolution 2K rgb888 60Hz with 2 lanes
- eDP Transmitter
 - Compliant with Embedded DisplayPort version 1.2
 - 1/2/4 configurable lane with 1.62Gbps, 2.7Gbps, 5.4Gbps for each lane
 - Aux channel
 - Support ASSR
- Miscellaneous
 - SSC for transmitter
 - Temperature and Voltage sensing
 - 1.8V, 1.2V power for core and 1.8/3.3V power for IO
 - AEC-Q100 Grade 2

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

	HDMI2.1	HDMI2.0	HDMI1.4	Type-C	DP1.4	DP1.2	VGA	eDPx	eDP	LVDS	MIPI	RGB	BT656 BT1120	USB
HDMI2.1	LT86121EX			LT6711GX	LT6711GX	LT8668SXC LT8668SX/-D		LT8668SXC LT8668SX/-D	LT6711GX	LT6911GX/C	LT6911GX/C			
HDMI2.0		LT86121EX LT86121TXE LT86121RXE LT86404UX LT86204UX LT8631UX LT8641UX LT86101UXE LT86102UX LT86104UX LT8641UXE LT8642UXE LT8642UX LT86102UXS LT86102UXE LT86121UX		LT6711A/B		LT6711A/B	LT8612UX	LT8668SXC LT8668SX/-D	LT6711A/B	LT6211UX LT6911UXC	LT6211UX LT6911UXC LT6911UXE			
HDMI 1.4			LT8641SXE LT86101SX LT86102SXE LT86104SXE LT8612SX LT8612X-M LT8612SX				LT8612SX LT8511EX LT8522EX		LT9721	LT8619B LT8619C LT6911 LT6211B LT6911C	LT6911 LT6211B LT6911C	LT8619B LT8619C	LT8619C	
Type-C	LT8711GX	LT8711UXE1 LT8711UXE2 LT8711UXD LT8711UXC LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H	LT87101C	LT8668SXC LT8668SX/-D	LT8668SX/-D LT87101CD	LT8711V LT8712X LT8712EXI LT8712EXC	LT8668SXC LT8668SX/-D	LT8668SXC LT8668SX/-D	LT7911UX/C LT7211 LT7211B LT7911D	LT7911UX/C LT7211 LT7211B LT7911D			
DP1.4	LT8711GX	LT8711UXE2 LT8711UXD LT8711UXC		LT8668SXC LT8668SX/-D	LT8668SXC LT8668SX/-D	LT8668SXC LT8668SX/-D		LT8668SXC LT8668SX/-D	LT8668SXC LT8668SX/-D	LT7911UX/C	LT7911UX/C			
DP1.2		LT8711UXE1 LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H	LT87101DC		LT87101	LT8711V LT8712X LT8712EXI LT8712EXC	LT8668SXC LT8668SX/-D	LT8668SXC LT8668SX/-D	LT7911UX/C LT7211 LT7211B LT7911D	LT7911UX/C LT7211 LT7211B LT7911D			
Dual Mode DP		LT86101X	LT8611SX LT86101X							LT8619B LT8619C		LT8619B LT8619C	LT8619C	
VGA			LT8522EX LT8522X				LT8522EX							
eDPx						LT87121			LT87121		LT89121			
eDP	LT8711GX	LT8711EH-C LT8711HE LT8711UX LT8712EXC LT8712EXI LT8712X	LT8711H	LT87101CD			LT8711V LT8712X LT8712EXI LT8712EXC	LT8668SXC LT8668SX/-D		LT7911UX/C LT7211 LT7211B LT7911D	LT7911UX/C LT7211 LT7211B LT7911D			
LVDS		LT2611UX LT2611UXC	LT2611UX LT2611UXC	LT9711		LT9711			LT9711 LT8911EX LT947LMT+LT948D	LT89101 LT9211 LT9211C LT2911R-D LT947LMT+LT934LMT	LT8918L LT9211 LT9211C LT2911R-D LT947LMT+LT934LMT	LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	
MIPI		LT9611UX LT9611UXC	LT8912B LT9611	LT9711		LT9711			LT8911EXB LT9711 LT947LMT+LT948D	LT8912B LT89101L LT9211 LT9211C LT2911R-D LT9211D LT2911R-D LT933MT+LT934LMT LT947LMT+LT934LMT	LT89101 LT9211 LT9211C LT2911R-D LT933MT+LT934M LT933MT+LT934LMT LT947LMT+LT934LMT	LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	
RGB			LT8618EXB LT8618SX			LT8718			LT8718	LT9211 LT9211C LT2911R-D	LT8918 LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	
BT656 BT1120			LT8618EXB LT8618SX			LT8718			LT8718	LT9211 LT9211C LT2911R-D	LT8918 LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	LT9211 LT9211C LT2911R-D	
USB														LT8311X1 LT8311XE/-Q LT8312 LT8311EX

Converts from

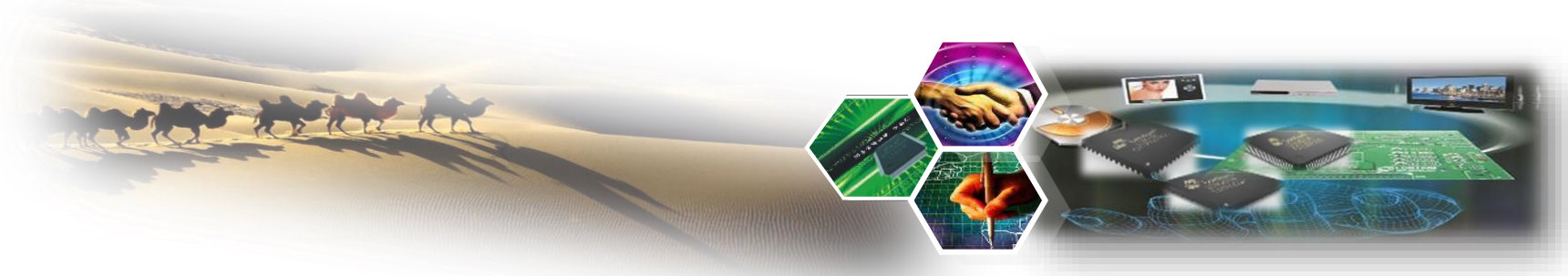
New Product Introduction

Parts	Function Description	Sample Ready
LT8711UXE1	Type-C/DP1.2 to HDMI 2.0 Converter with Audio & USB 3.1 Gen1 Switch	Q2, 2022
LT8711UXE2	Type-C/DP1.4 to HDMI2.0 Converter with USB3.0 Switch and Audio,	Q2, 2022
LT8711UXC	4-Lane Type-C/DP1.4 to HDMI2.0 Converter	Q2, 2022
LT8711UXD	2-Lane Type-C/DP1.4 to HDMI2.0 Converter with PD3.0	Q2, 2022
LT6711GX	HDMI2.1 to DP1.4 with Type-C	Q2, 2022
LT86121EX	HDMI2.1/DP1.4a Repeater with Type-C	Q2, 2022
LT8642UXE	HDMI2.0 4×2 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	Q2, 2022
LT86204UX	HDMI2.0 2×4 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	Q2, 2022
LT86404UX	HDMI2.0 4×4 Matrix with Scaler, HDCP 2.3 Engine and Audio Input/Output	Q2, 2022
LT7911UX/C	Type-C/DP1.4 to 4-Port MIPI/LVDS with Audio	Q2, 2022
LT6911GX/C	HDMI2.1 Receiver (4Port LVDS/MIPI + Audio)	Q2, 2022
LT8668SX/-D	High Definition Display Controller	Q2, 2022
LT8711GX	Type-C/DP1.4 to HDMI2.1 Converter	Q3, 2022
LT6911UXE	HDMI 2.0 to Dual-Port MIPI DSI/CSI Enhance Version with Audio	Q3, 2022
LT9211C	MIPI/LVDS to MIPI/LVDS Enhance Version	Q3, 2022
LT9211D	MIPI to 2-port LVDS(Costdown Version)	Q3, 2022
LT8668SXC	High Definition Display Controller	Q3, 2022



LONTIUM SEMICONDUCTOR

We produce mixed-signal products for a better digital world



Thank you !