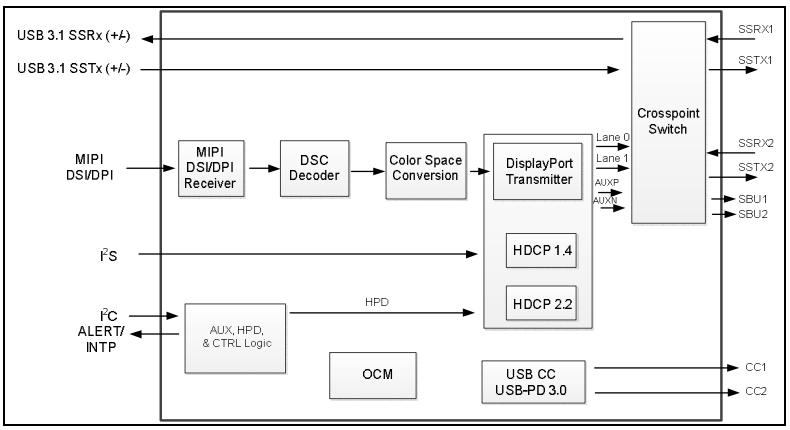
Preliminary
ANX7625
Product Brief

MIPI-DSI/DPI to USB Type-C™ Bridge (Port Controller with MUX)

ANX7625 is a mobile HD transmitter designed for portable devices such as smartphones, tablets, Ultrabooks, docking stations, sports cameras, camcorders, and so on. It enables a mobile device to transfer audio, video, and data simultaneously. The ANX7625 converts MIPI™ to DisplayPort™ 1.3 high-performance video with the resolution up to 4K UHD. The built-in intelligent crosspoint switch provides support for USB Type-C, USB 3.1 data transfer, and the DisplayPort Alternate Mode signaling over USB Type-C. Additionally, its on-chip microcontroller (OCM) provides the capabilities to manage signal switching, Channel Configuration (CC) detection, USB Power Delivery (USB-PD), Vendor Defined Message (VDM) protocol, and other functions defined in the USB Type-C and USB Power Delivery specifications. Overall, the ANX7625 is designed as a single bridge IC between MIPI interface and USB 3.1 interface of the Application Processors to allow for a USB Type-C connector on mobile devices.

Features

- Standard compliance
  - USB Type-C 1.2, DisplayPort 1.3, MIPI-DSI 1.3, MIPI-DPI 2.0, HDCP 2.2 and 1.4, USB-PD 3.0, VESA® DSC 1.1
- Integrated USB Type-C support
  - USB3.1 Gen1 (5.0 Gbps)
  - DisplayPort Alternate Mode
  - Simultaneous USB 3.1 Gen1 (5.0 Gbps) and DisplayPort Alternate Mode
  - USB-PD 3.0 on CC wire
  - On-chip microcontroller to implement USB-PD messaging and DisplayPort related functions
- DisplayPort transmitter
  - DisplayPort transmitter (2-lanes @ 6.75 Gbps)
  - Configurable 1-lane or 2-lane output supports: HBR2.5, HBR2, HBR, and RBR data rates
  - Video resolution supported: up to 4K (4096x2160p30) or Ultra-HD (3840x2160p30)
  - AUXP and AUXN support
  - HDCP2.2 and 1.4 support
- Digital audio and video input
  - MIPI-DSI (4-lanes) at 1.5 Gbps/lane
  - MIPI-DPI 12-bit double data rate with the maximum pixel clock rates up to 150 Mpixels/sec
  - DSC with 3:1 or 2:1 compression ratio
  - I2S: up to 8-channel, 192 kHz digital audio support with TDM format
- System operation
  - Reference input clock: 26 MHz and 27 MHz
  - Slave I2C device control interface
  - Built-in video BIST patterns and audio tone generator for system self-test
- Power supply
  - 1.0V, 1.8V, and 3.0V
- Package options: 64 VFBGA



Related Products

Part Number	Description
ANX7688	HDMI to USB Type-C Bridge (Port Controller with MUX)
ANX7805	SlimPort Transmitter (Full-HD, 1080p60) with RGB-24, MIPI-DSI, SPDIF and I2S inputs
ANX7816	SlimPort Transmitter (Ultra-HD, 2160p30) with HDMI input

3211 Scott Blvd., Suite 100
Santa Clara, CA 95054, USA
+1 (408) 988-8848

http://www.analogix.com/