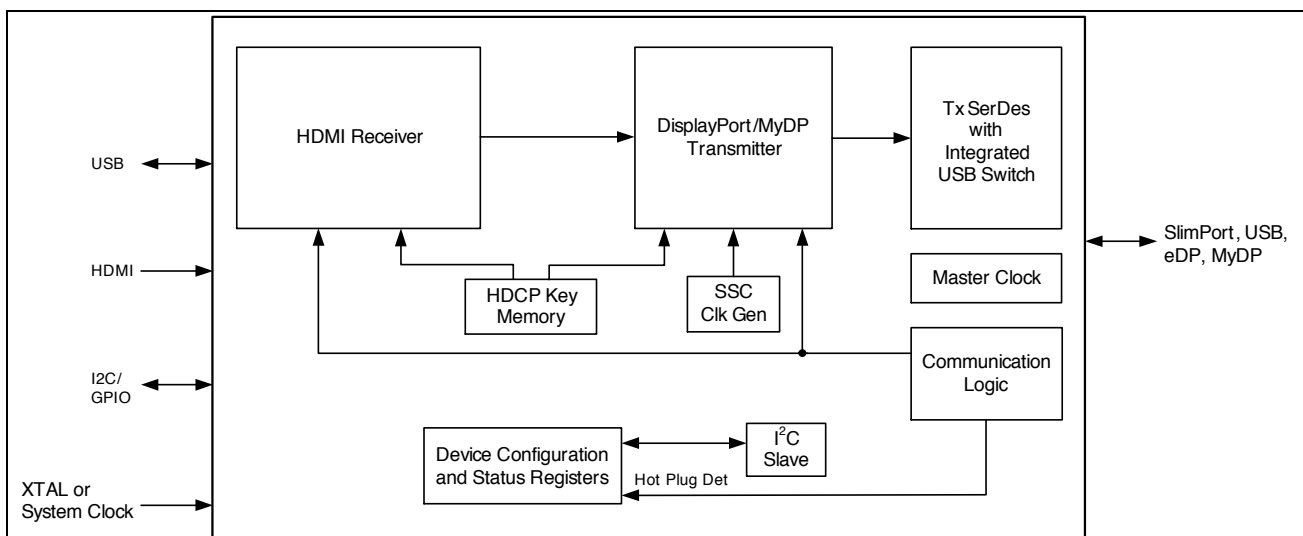![analogix — Bring Vision to Life]

SlimPort®(Ultra-HD) Transmitter

The ANX7816 is an ultra-low power **Ultra-HD (4096x2160p30)** SlimPort transmitter designed for portable devices, such as smartphones, tablets, Ultrabooks, docking stations, sports cameras, camcorders, set top boxes, cradles, and adapters. ANX7816 works in conjunction with any MyDP/DisplayPort™ receiver, such as the ANX7730, ANX7732, and more. The ANX7816 transforms the HDMI output of an application processor to MyDP or DisplayPort. External adapters can then convert MyDP or DisplayPort to HDMI, DVI, or to VGA so that the device can connect to any high-definition TV, monitor, or projector. Also, an appropriate MyDP to DisplayPort cable can connect to any DisplayPort receiver. The mobile device's USB connector functions as USB when a MyDP receiver is not connected.

Features

- Standard compliance
  - DisplayPort, MyDP, HDMI, HDCP
- USB data in/out
  - USB host, device or OTG data passes through by default
  - Meets Inter-Chip USB specification
- SlimPort/MyDP/eDP/DisplayPort transmitter
  - SlimPort output over mini- or micro-USB connector
  - DisplayPort, eDP, or MyDP output over any connector
  - Configurable 1-lane output supports: Turbo mode, HBR2, HBR, and RBR data rates
  - **Ultra-HD (3840x2160p30) or 4K(4096x2160p30)** maximum video resolution
  - Stereo (3D) video output support
  - Single wire (C-WIRE) sideband communication
  - Integrated remote control support
  - HDCP content protection

- Integrated analog switch and accessory detection
  - Seamless switching between USB and MyDP
  - SlimPort cable detection with Fail-Safe mechanism
- HDMI receiver
  - Supports max pixel clock up to **300Mpixels/sec**
  - Up to **36bpp**color depth support at Full-HD
  - Up to 8 channels digital audio support
- System operation
  - Flexible ref clock: 19 MHz to 52 MHz
  - Slave I^{2}Cdevice control interface
  - Built-in video BIST for system self-test
- Power requirements
  - 1.0V, 1.8V, and 3.3V
  - Standby power: <45uW, while monitoring cable detection
- Package offered:VFBGA 64-ball
- RoHS compliant and Halogen free package

Related Products

Part Number	Description
ANX7802	SlimPort Transmitter (HD, 720p60) with HDMI input
ANX7805	SlimPort Transmitter (Full-HD, 1080p60) with RGB-24, MIPI-DSI, SPDIF, I^2S and SLIMbus inputs
ANX7812	SlimPort Transmitter (Full-HD, 1080p60) with HDMI input
ANX7814	SlimPort Transmitter (Full-HD, 1080p60) with HDMI input
ANX7730	SlimPort to HDMI 1.4b (Full-HD, 1080p60 and 3D) converter
ANX7732	SlimPort to VGA (WUXGA, 1920x1080p60) converter
ANX7738	SlimPort to HDMI 1.4b (Ultra-HD, 4Kp60 and 3D) converter
ANX7748	SlimPort to DisplayPort (WUXGA, 1920x1080p60) active lane converter

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