SlimPort® (Full-HD) Transmitter

The ANX7812 is an ultra-low power Full-HD (1080p60) SlimPort transmitter designed for portable devices, such as smartphones, tablets, Ultrabooks, docking stations, sports cameras, camcorders, set top boxes, cradles, and adapters. ANX7812 works in conjunction with any MyDP/DisplayPort™ receiver, such as the ANX7730, ANX7732, and more. The ANX7812 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 5-pin mobile USB connector
  - DisplayPort, eDP, or MyDP output over any connector
  - Configurable 1-lane output supports: Turbo mode, HBR2, HBR, and RBR data rates
  - Full-HD (1080p60) or WUXGA (1920x1200p60) 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 185Mpixels/sec
  - Up to 36bpp color depth support
  - Up to 8 channels digital audio support
- System operation
  - Flexible ref clock: 19 MHz to 52 MHz
  - Slave I2C device 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 49-ball
- RoHS compliant and Halogen free package

![SlimPort® (Full-HD) Transmitter Diagram]
# Related Products

<table>
<thead>
<tr>
<th>Part Number</th>
<th>Description</th>
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<tr>
<td>ANX7802</td>
<td>SlimPort Transmitter (HD, 720p60) with HDMI input</td>
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<tr>
<td>ANX7805</td>
<td>SlimPort Transmitter (Full-HD, 1080p60) with RGB-24, MIPI-DSI, SPDIF, I²S and SLIMbus inputs</td>
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<tr>
<td>ANX7814</td>
<td>SlimPort Transmitter (Full-HD, 1080p60) with HDMI input</td>
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<tr>
<td>ANX7816</td>
<td>SlimPort Transmitter (Ultra-HD, 4Kp60) with HDMI input</td>
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<tr>
<td>ANX7730</td>
<td>SlimPort to HDMI 1.4b (Full-HD, 1080p60 and 3D) converter</td>
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<td>ANX7732</td>
<td>SlimPort to VGA (WUXGA, 1920x1080p60) converter</td>
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<tr>
<td>ANX7738</td>
<td>SlimPort to HDMI 1.4b (Ultra-HD, 4Kp60 and 3D) converter</td>
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<td>ANX7748</td>
<td>SlimPort to DisplayPort (WUXGA, 1920x1080p60) active lane converter</td>
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