

## 20G Active Mux (2x2) with Integrated Re-timer and CC Detection for USB 3.2

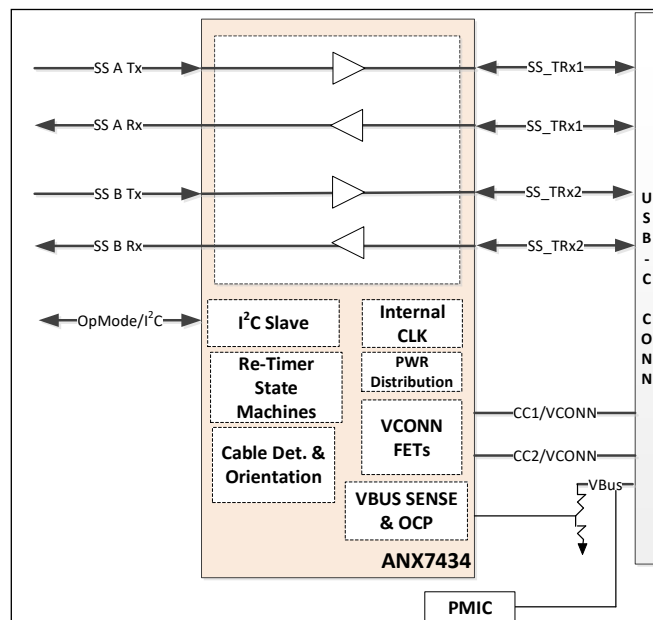
ANX7434 is a USB 3.2 Gen 2 20G active mux with integrated re-timer and CC Detection capable of recovering the USB signals with loss compensation of up to 23dB. ANX7434 specifically supports Gen 2x2 for USB Type-C™ (USB-C™) applications. ANX7434 supports Separate Reference Clock Independent SSC (SRIS) and Bit-Level Re-timer (BLR) architectures for a hybrid implementation for Gen 1 and Gen 2. SRIS re-timers eliminate jitter transfer and guarantee Gen 2 operation. Host (source) and device (sink) USB-C data-only applications are fully supported by ANX7434. With the integrated SRIS re-timer function and x2 USB support, ANX7434 ensures the enhanced signals from the re-timers are preserved and outputted over the USB-C connector.

### Features

- Built-in re-timer
  - Integrated re-timer for USB 3.2 up to Gen 2 @ 2x10Gbps for a combined 20G data throughput
  - Supports both Separate Reference Clock Independent SSC (SRIS) and Bit-Level Re-timer (BLR) Architectures of USB 3.2 Specification (Appendix-E)
  - Supports both host (source) and device (sink) applications in USB-C subsystems
  - Loss compensation to recover up to 23dB channel loss
- TCPC-compliant hardware interface
- Supports DFP and UFP USB-C applications
- Dedicated control signals for VBUS Source FET
- Integrated Reference CLK
- Serial and debug interfaces
  - I<sup>2</sup>C Slave interface, up to 1MHz, for mux and re-timer configuration
- Industry standard compatibility
  - USB 3.2 specification, Appendix E
  - USB Type-C r1.2 specification
  - Intel USB 3.2 Repeater and Active Switch specification
- Low-power design
  - Analog power supply at 1.8V
  - I/O power supply at 1.8V
  - Core power supply at 1.2V
- Package
  - QFN-50, 4.7mm x 6.4mm, 0.90mm Z-height, 0.35mm pin-pitch
- Commercial temperature range of 0C to 70C

### Applications

Notebooks, desktops, gaming PCs, workstations, servers, 2-in-1 PCs



## Related Products

Part Number	Description
ANX7433	USB 3.2 Gen2x2 (20G) Active USB-C Re-timer
ANX7431	USB3.2 (10G) 1x2 Active Switch USB-C Re-timer
ANX7443	10G Active Mux (6x4) with Integrated Re-timers for USB3.2/DisplayPort
ANX7451	10G Active Mux (4x4) with Integrated Re-timers for USB3.2/DisplayPort
ANX7491	10G USB 3.2 Re-timer (1-Port)
ANX7497	DisplayPort 4-lane Re-timer

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

<http://www.analogix.com/>

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