

10G Active Mux (1x2) with Integrated Re-timer and CC Detection for USB 3.2

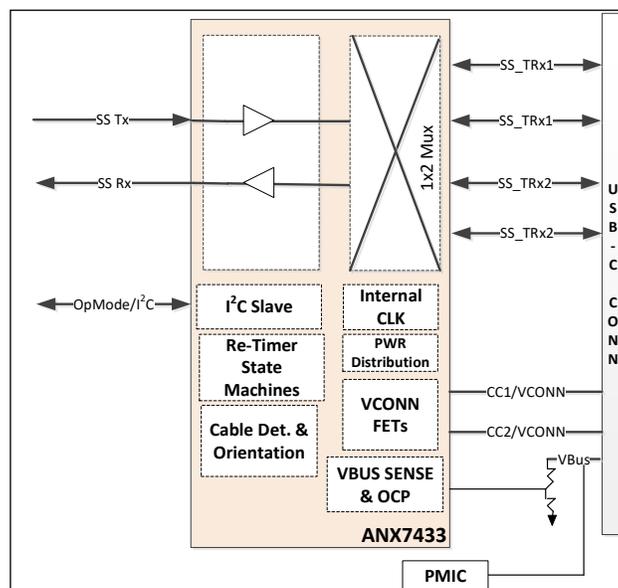
ANX7433 is a USB 3.2 Gen2 10G active mux with integrated re-timer and CC Detection capable of recovering the USB signals with loss compensation of up to 23dB. ANX7433 also integrates a mux (1x2) for USB Type-C™ (USB-C™) applications. ANX7433 supports Separate Reference Clock Independent SSC (SRIS) and 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) USB-C data-only applications are fully supported by ANX7433 with built-in intelligent switching. With the intelligent digital switching, ANX7433 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 Gen2 @ 10Gbps
 - Supports both Separate Reference Clock Independent SSC (SRIS) and Bit-Level Re-timer (BLR) Architectures of USB 3.2 Specification (Appendix-E)
 - Loss compensation to recover up to 23dB channel loss
- Integrated mux
 - Digital (1x2) mux switches USB signals and preserves enhanced signal output over USB-C connector
 - Mux control input through I2C commands from external I2C master
- TCPC-compliant hardware interface
- Supports DFP USB-C applications
- Dedicated control signals for VBUS Source FET
- Integrated Reference CLK
- Serial and debug interfaces
 - I²C 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 |
|-------------|---|
| 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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