

## 10G USB 3.2 Re-timer (1-Port)

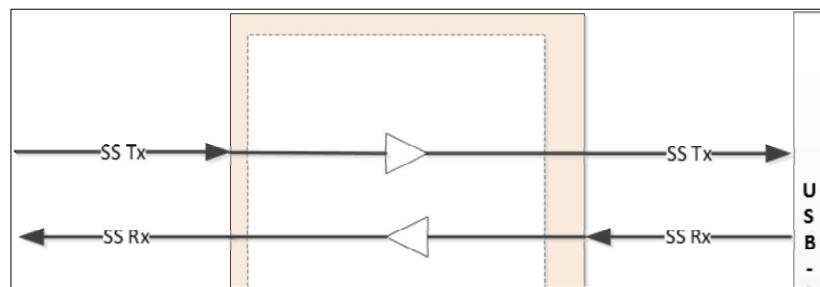
ANX7491 is a 1-port USB 3.2 re-timer capable of conditioning USB signals at both Gen 1 (5Gbps) and Gen 2 (10Gbps) speeds. ANX7491 can compensate signal loss of up to 23dB and is compliant to the latest USB 3.2 specifications. ANX7491 supports Separate Reference Clock Independent SSC (SRIS) and Bit-Level 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) Type-A data-only applications are fully supported by ANX7491. ANX7491 supports integrated reference clock and is protocol aware for efficient USB link power management and power savings. ANX7491 can be in various types of applications such as notebook/desktop PCs, server, and accessories/docks with various USB connectors such as Type-A or Type-B.

### Features

- Built-in re-timer
  - Integrated re-timer for USB 3.2 1-port (Tx/Rx) up to 10Gbps
  - Supports both Separate Reference Clock Independent SSC (SRIS) and Bit-Level Re-timer (BLR) Architectures of USB3.1 Specification (Appendix-E)
  - Loss compensation to recover up to 23dB channel loss
- Protocol awareness for better link power management (LPM) and savings
- Supports both host and device applications in USB3.2 Type-A subsystems
- Integrated Reference Clock
- Serial and debug interfaces
  - I<sup>2</sup>C Slave interface, up to 1MHz, for re-timer configuration
- Industry standard compatibility
  - USB 3.2 specification, Appendix E
  - 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-36, 4.2mm x 4.9mm, 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
ANX7433	10G Active Mux (1x2) with Integrated Re-timer and CC Detection for USB 3.2
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
ANX7497	DisplayPort 4-lane Re-timer

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