# High-Performance Multiplexer/ Demultiplexer Switch for Thunderbolt Applications

## CBTL05024BS

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The CBTL05024 is a multiplexer/demultiplexer switch chip optimized to interface the Thunderbolt/MiniDP connector with Thunderbolt systems. It supports 10.3125 Gbit/s Thunderbolt or DisplayPort v1.2 channels.

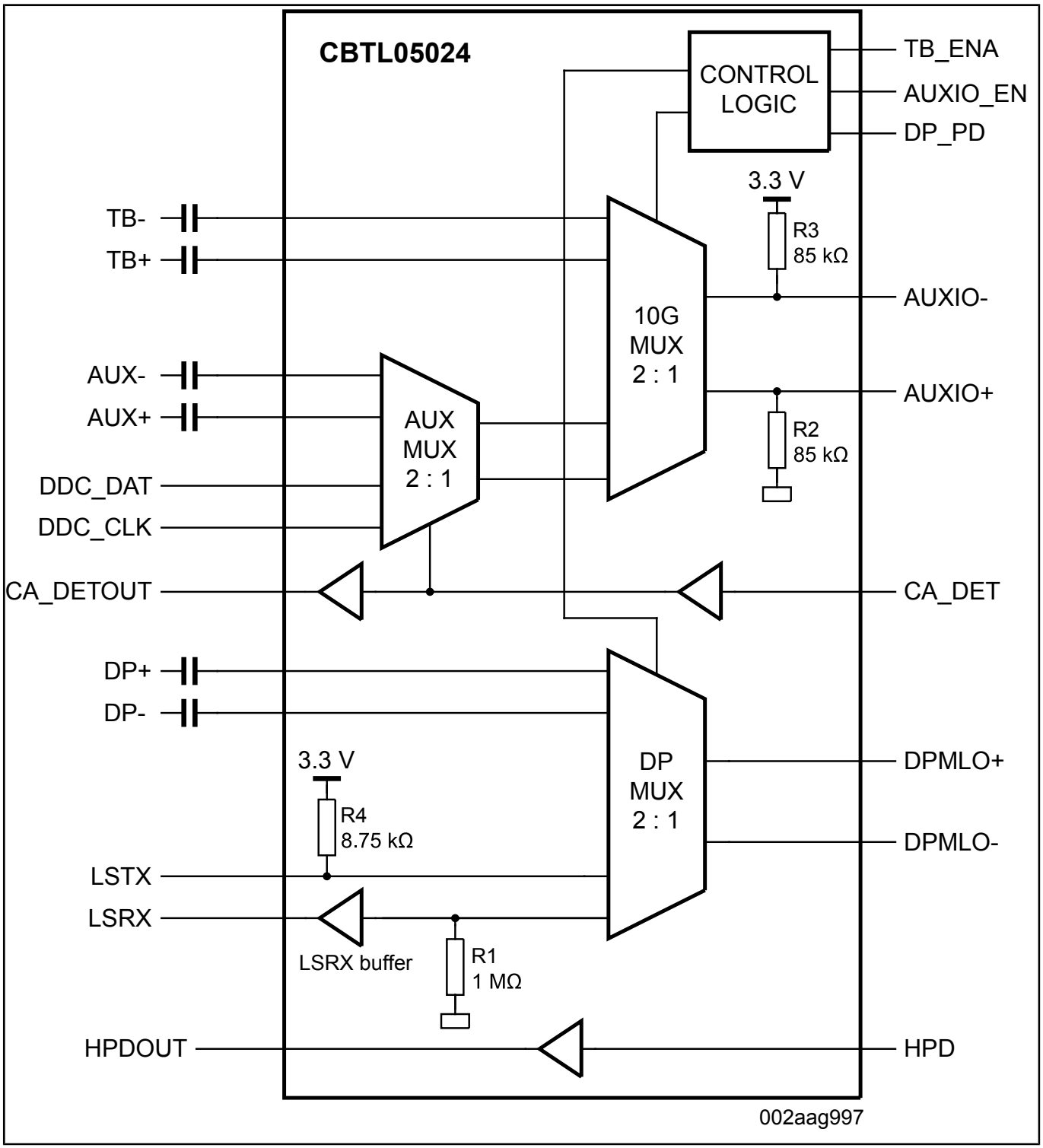
The TB MUX is a 3 : 1 switch that selects between Thunderbolt data path and DisplayPort v1.2 side-band signals — either DDC or AUX.

The DP MUX is a 2 : 1 switch that selects between DP ML (DisplayPort Main Link) and LS TX/ RX signals. Both LSTX and LSRX are the side-band signals for Thunderbolt channel.

This chip also includes HPD and CA_DET buffers for HPD_IN and CA_DET control signals.

CBTL05024 is powered by a 3.3 V supply and it is available in a 3 mm # 3 mm HVQFN24 package with 0.4 mm pitch.

## CBTL05024 Block Diagram Block Diagram

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