



DisplayPort 2-1 Multiplexer

CBTL04DP211BS

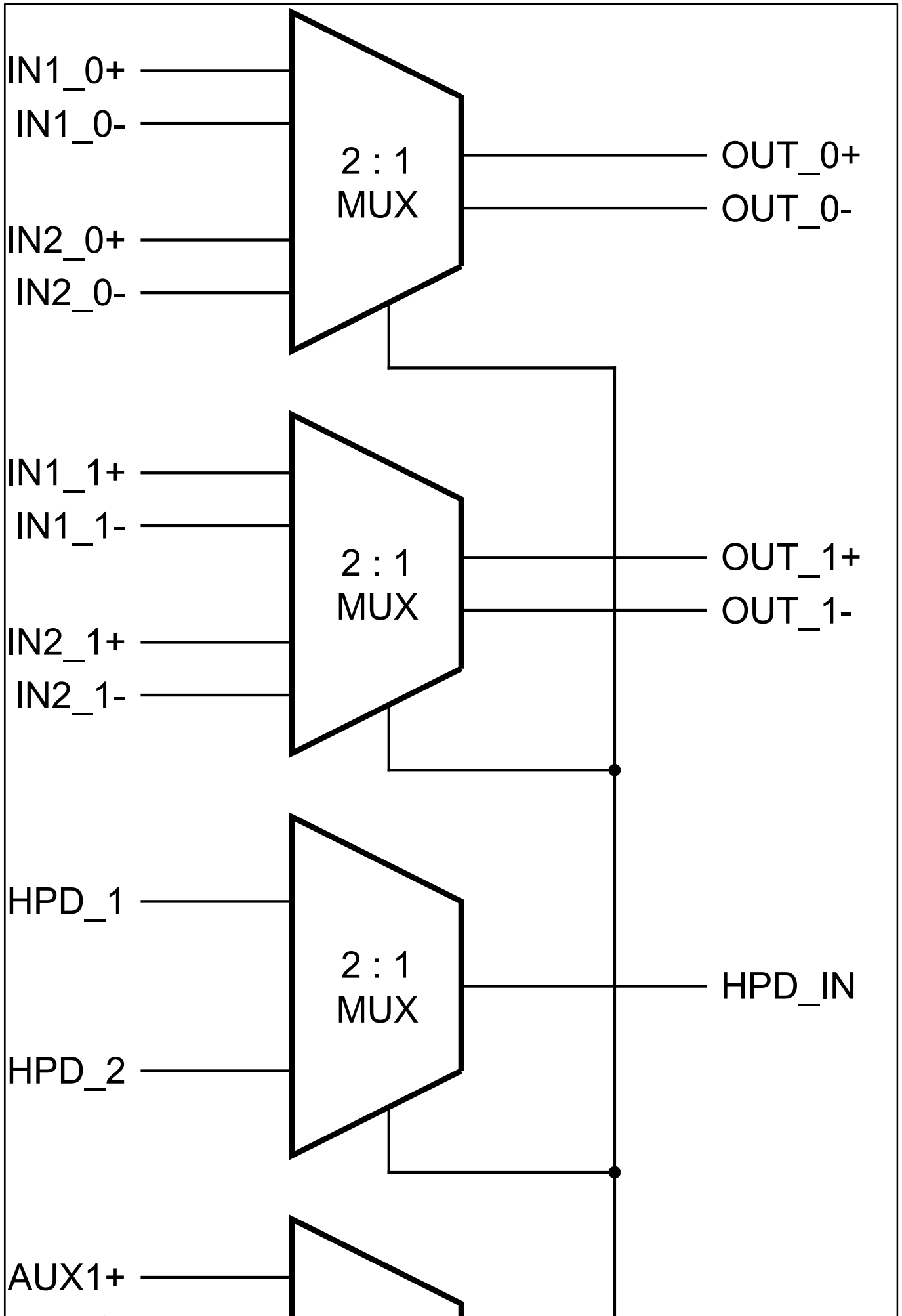
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CBTL04DP211 is an (Embedded) DisplayPort multiplexer for DisplayPort v1.1a switching and multiplexing applications on PC platforms. It is capable of 1 : 2 switching or 2 : 1 multiplexing of 2-lane DisplayPort Main Link signals, using high-bandwidth pass-gate technology. Also, it can switch/multiplex Hot Plug Detect (HPD) signal and AUX signals, for a total of four channels on the display side.

To facilitate DisplayPort switching/multiplexing scheme on PC platforms suitably, CBTL04DP211 provides two separate selection pins (GPU_SEL, AUX_SEL). The selection pin GPU_SEL performs switching from one Main Link to another Main Link. HPD signals will also be switched using the same selection pin. A separate select pin (AUX_SEL) provides additional selection between two AUX channels such that the AUX channel selection is independent of the Main Link and HPD signal selection.

A typical application of CBTL04DP211 is on motherboards where one of two GPU/CPU display sources needs to be selected to connect to a DisplayPort sink device or connector. A controller chip selects which path to use by setting a select signal HIGH or LOW. Due to the non-directional nature of the signal paths (which use high-bandwidth pass-gate technology), the CBTL04DP211 can also be used in the reverse topology, e.g., to connect one DisplayPort source device to one of two DisplayPort sink devices or connectors.

CBTL04DP211 Block Diagram Block Diagram



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