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(54) **DRIVING BUFFER WITH CONFIGURABLE SLEW RATE FOR DATA TRANSMISSION**

(71) Applicant: **Taiwan Semiconductor Manufacturing Company, Ltd.**, Hsinchu (TW)

(72) Inventors: **Huan-Neng Chen**, Taichung (TW); **Chang-Fen Hu**, Hsinchu (TW); **Shao-Yu Li**, Hsinchu (TW)

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(57) **ABSTRACT**

In some embodiments, digital logic components, such as those found in standard cells in integrated circuit devices, are used to synthesize signals with controllable waveforms that result in transmitted signals that meet certain requirements, such as above-threshold high openings and below-threshold over/under-shooting. In some embodiments, driving buffers with logic controls and delay chains are used to achieve controllable slew rates at rising and falling edges to minimize over/under shooting behavior in signals. In some embodiments, control logic and delay chains produce controllable rising/falling "stair-type" edges to obtain optimized damping waveform.