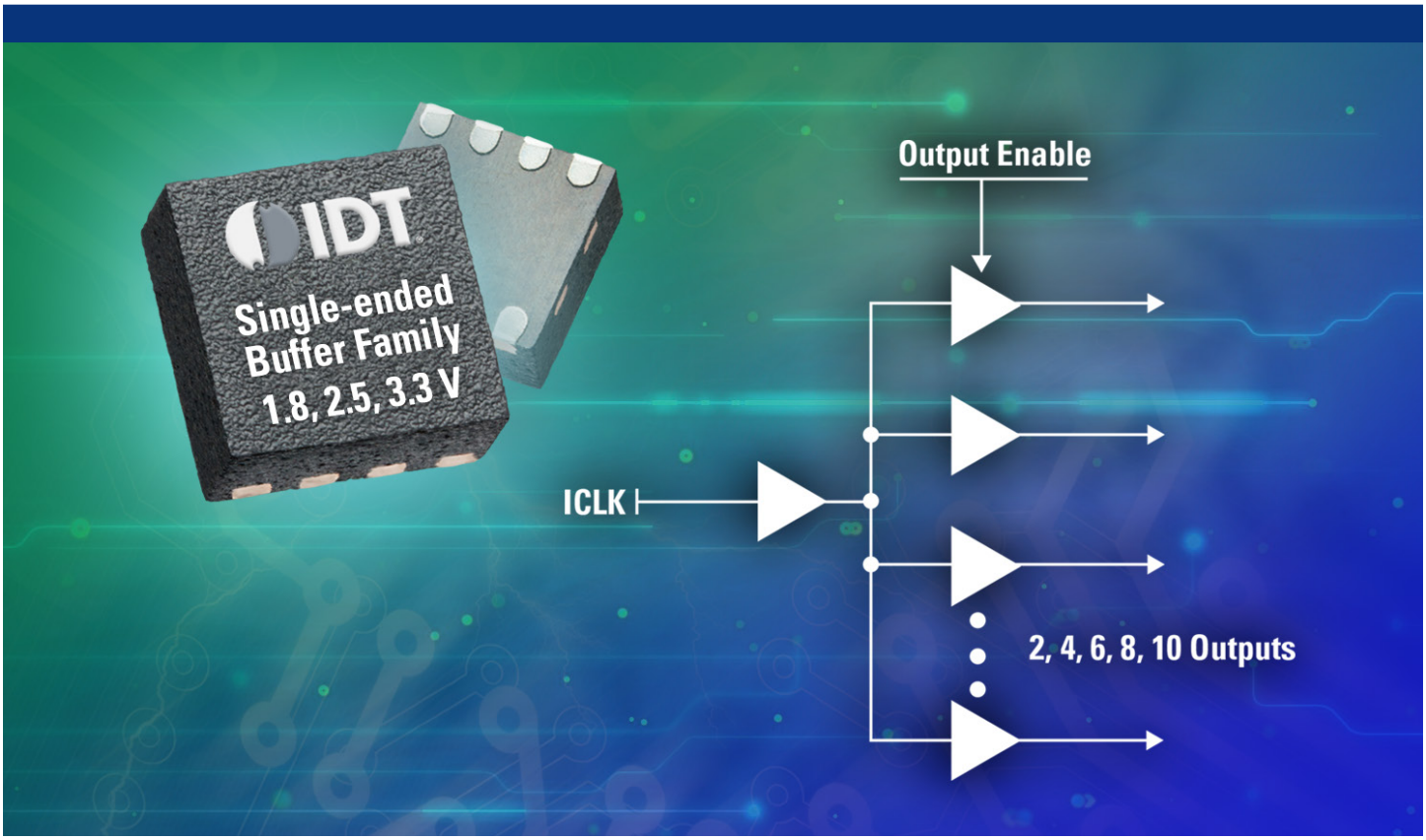
Integrated Device Technology

Ultra-Low-Jitter Single-Ended Buffer Family



FEATURES

- Extremely low RMS additive phase jitter of sub-50 fsec (12 KHz to 20 MHz, LVCMOS mode)
- Supports multiple input formats, including TCXO clipped sine wave (5PB12xx), crystal (5P8390x) and LVCMOS inputs
- Low power: 5 mA current consumption (5PB1203: 26 MHz, 1.8 V)
- 1.8 V, 2.5 V and 3.3 V supply and output voltage
- Glitch-less output enable control pin
- Low output skew of less than 50 psec
- - 40° C to 105° C operating temperature range
- Ultra-compact packages as small as 2 x 2 mm

BENEFITS

- Low jitter margins enable designers to meet stringent system clock requirements
- Low power consumption ideal for portable applications
- Small package size saves board space and overall design size
- Extended industrial temperature range broadens application space
- 5PB11xx is pin-to-pin compatible with competition and offers better performance

IDT's versatile family of single-ended clock buffers delivers best-in-class jitter performance in a compact package.

With the support of multiple input formats including clipped sine wave, crystal and LVCMOS, this high performance single-ended clock buffer family expands IDT's offerings in the mobile and RF markets.

Together with small form factor and low power consumption, these devices help customers meet today's stringent requirements. The operating temperature range from -40° C to 105° C is ideal for extended industrial and automotive applications.

TARGET APPLICATIONS

- High-end consumer
- Automotive infotainment
- Small cell
- Computing
- General purpose crystal replacement
- Handheld mobile devices
- Broadcast video
- Medical
- Communications
- RF and peripheral
- Networking
- Industrial

Part Number	Number of Outputs	Input Frequency (MHz)	Input Type	Voltage (V)	Typical Phase Jitter (fs)	Temperature Range	Package Size	Package Type
5PB11xx	2, 4, 6, 8, 10	0 to 200	LVCMOS	1.8 V, 2.5 V, 3.3 V	50	-40° C to 105° C	Down to 2 x 2 mm	TSSOP, DFN
5PB12xx	3, 4, 6	0 to 200	Clipped sine wave, LVCMOS	1.8 V, 2.5 V, 3.3 V	50 (LVCMOS Mode)	-40° C to 105° C	Down to 2 x 2 mm	DFN, QFN
5P8390x	4, 6, 8	0 to 200	Crystal, LVCMOS	1.8 V, 2.5 V, 3.3 V	50 (LVCMOS Mode)	-40° C to 105° C	Down to 2 x 2 mm	QFN

To request samples, download documentation, or learn more visit: **IDT.com/go/Buffers**