

# IDT's Latest Timing Products Deliver Industry-leading Phase Noise for 100G and 400G Applications

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## IDT's Timing Solutions Offer up to 20fs Lower Phase Jitter than Competitive Devices, Providing Extra Design Margin to Help Meet Stringent System Requirements and Reduce BER

SAN JOSE, Calif., Dec. 14, 2017 /PRNewswire/ -- Integrated Device Technology, Inc. (IDT) (NASDAQ: IDTI) announced today a family of jitter attenuators and clock synthesizers that deliver industry-leading phase noise performance for 40G/100G/400G Ethernet timing applications. With up to 20fs lower phase jitter than many competitive devices, IDT's timing solutions provide extra design margin to help meet stringent system requirements and reduce bit error rates (BER) in datacenter and telecommunication markets.

IDT Logo (PRNewsFoto/Integrated Device Technology, I)

The IDT® 8V19N474 and 8V49NS0x12 are ultra-low-noise jitter attenuators (jitter cleaners) and clock synthesizers, respectively. The high-performance timing devices feature extremely-low 75 fs RMS phase jitter performance at 156.25 MHz over the 12 kHz to 20 MHz integration range. This level of performance provides system designers the design margin necessary to transition from 10G/28G to Ethernet interfaces using 56G PAM4 (TX) PHYs and other high-performance SerDes applications.

"As the leader in silicon timing, IDT is pleased to offer its customers the highest performance solution for 100G and 400G applications," said Kris Rausch, vice president and general manager of IDT's Timing Products Group. "Our 20 fs phase jitter advantage, in some cases, has been the difference that enabled our customers to pass the PRBS 10e-31 test for 56G PAM4. As such, we strongly encourage system designers to consider IDT's high-performance solutions for the best opportunity of a first-pass success in their end-products."

In addition to superior phase noise performance, the 8V19N474 jitter attenuator features integrated low drop out (LDO) regulators, providing bill-of-materials (BOM) savings and lower system heat dissipation by allowing the usage of economical and efficient switching power supplies. The device also features a redundant input clock architecture that eliminates the need for complex external logic devices to handle switching, helping to further reduce BOM costs while meeting IEEE 1588 standards.

The 8V49NS0x12 clock synthesizers offer LVDS, LVPECL, and HCSL output options, with an additional option to load the timing configuration from an external EEPROM. All devices are fully programmable, supporting up to four default frequency configurations with a pin-strappable design, simplifying reuse in multiple designs.

Devices are available now. Visit the following links to learn more and request a sample:

- 8V19N474 12-output jitter attenuator: [www.IDT.com/8V19N474](http://www.IDT.com/8V19N474)
- 8V49NS0312 12-output clock synthesizer (LVDS/LVPECL): [www.IDT.com/8V49NS0312](http://www.IDT.com/8V49NS0312)
- 8V49NS0412 12-output clock synthesizer (LVDS/LVPECL w/ boot from EEPROM): [www.IDT.com/8V49NS0412](http://www.IDT.com/8V49NS0412)

For more information about IDT's industry-leading portfolio of timing solutions, visit [www.IDT.com/timing](http://www.IDT.com/timing) or contact your local IDT sales representative.

### About IDT

Integrated Device Technology, Inc. develops system-level solutions that optimize its customers' applications. IDT's market-leading products in RF, high performance timing, memory interface, real-time interconnect, optical interconnect, wireless power, and smart sensors are among the company's broad array of complete mixed-signal solutions for the communications, computing, consumer, automotive and industrial segments. Headquartered in San Jose, Calif., IDT has design, manufacturing, sales facilities and distribution partners throughout the world. IDT stock is traded on the NASDAQ Global Select Stock Market® under the symbol "IDTI." Additional information about IDT can be found at [www.IDT.com](http://www.IDT.com). Follow IDT on [Facebook](#), [LinkedIn](#), [Twitter](#), and [YouTube](#).

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