



High Current, High Accuracy LDO from Diodes Incorporated Addresses Noise-Sensitive Power Conversion Applications

Plano, Texas – September 6, 2023 – Diodes Incorporated (Diodes) (Nasdaq: DIOD) has released a 3A-rated low-dropout (LDO) voltage regulator supporting 4.4 μ V_{RMS} operation (at 0.8V output). Delivering a clean supply, the [AP7179D](#) is highly optimized for powering noise-sensitive components - such as the high-performance SerDes, RF components, and data converters needed for high-speed communications, test and measurement, medical, and video applications. Remote radio units (RRUs), outdoor backhaul units, mMIMO active antenna systems, ultrasound scanners, radar systems, and lab/field instrumentation are among the types of hardware into which it can be incorporated.

The AP7179D has a $\pm 1\%$ output accuracy across line, load, and temperature. This device's 180mV (maximum) dropout voltage at a 3A load current supports a wide voltage conversion range. Its low-noise reference and error amplifier enables a minimal noise floor. In addition, its 40dB power supply rejection ratio (PSRR) at 500kHz substantially lowers the coupling of input supply noise to the output.

There are two output voltage selection modes for this LDO: pin-programmable between 0.8V and 3.95V, or adjustable using an external resistor divider from 0.8V to 5.5V. The resulting flexibility significantly reduces the number of accompanying components needed.

The device's low output noise mitigates both power-supply-generated phase noise and clock jitter. Because of this, alongside its high-current capabilities, this device is compatible with high-performance processors, such as FPGAs, ASICs, and DSPs.

The [AP7179D](#) is housed in a compact 20-pin W-QFN3535 (Type A1) package, and it is available at \$0.70 in 1,000 unit quantities.

About Diodes Incorporated

Diodes Incorporated (Nasdaq: DIOD), a Standard and Poor's SmallCap 600 and Russell 3000 Index company, delivers high-quality semiconductor products to the world's leading companies in the automotive, industrial, computing, consumer electronics, and communications markets. We leverage our expanded product portfolio of discrete, analog, and mixed-signal products and leading-edge packaging technology to meet customers' needs. Our broad range of application-specific solutions and solutions-focused sales, coupled with worldwide operations of 32 sites, including engineering, testing, manufacturing, and customer service, enables us to be a premier provider for high-volume, high-growth markets. For more information visit www.diodes.com.

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Company Contact:

Gurmeet Dhaliwal

Director, Investor Relations & Corporate Marketing

Diodes Incorporated

+1 408-232-9003

[Contact Us](#)