

Advanced Energy's New Power Meter Improves Accuracy and Performance in Precision RF Power Applications

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Integrating power sensor and meter into a single easy-to-use instrument, the new RF power meter simplifies monitoring and enables precise control

DENVER, Colo.--(BUSINESS WIRE)-- Advanced Energy (Nasdaq: AEIS) – a global leader in highly engineered, precision power conversion, measurement and control solutions – today announced the GEMINI™ 5540A RF (Radio Frequency) power meter. The new power meter delivers highly accurate in-line RF power measurement in a flexible and convenient integrated unit for applications requiring precision RF power control in semiconductor, communication, industrial and medical markets. As the leader in RF power solutions in the semiconductor industry, Advanced Energy continues to bring new capabilities for improving plasma power controls and performance of advanced etch and deposition processes.

This press release features multimedia. View the full release here: <https://www.businesswire.com/news/home/20211208005019/en/>



Integrating power sensor and meter into a single easy-to-use instrument, the new RF power meter simplifies monitoring and enables precise control. (Photo: Business Wire)

Combining sensor and meter capability into a single, easy-to-use instrument, the GEMINI 5540A

measures at frequencies from 0.2 to 200 MHz and powers from 3 to 5,000 W with 2-sigma accuracy of $\pm 0.5\% + 0.5$ W. This integrated instrument enables users to replace multiple instruments with a single meter for applications that require precise measurement and control of RF power.

“In demanding semiconductor processes such as high aspect ratio (HAR) plasma etch, precise control and chamber-to-chamber matching of the RF system directly impact process performance,” said Gerry Blumenstock, vice president, critical sensing and control products at Advanced Energy. “With the new GEMINI 5540A, OEMs can accurately calibrate the system and monitor RF power in real time, improving the fidelity and consistency of leading-edge plasma-based processes.”

The GEMINI 5540A incorporates a large, easy-to-read OLED digital display that simultaneously shows forward and reverse power, voltage standing wave ratio (VSWR) and frequency. It automatically senses frequency with no reconfiguration required for forward and reverse power measurements. The meter reduces calibration to every 12 months, compared to six months for conventional instruments. It operates with a 5 V, 500 mA input supplied via a standard USB 2.0 port using either an external battery or AC power outlet and off-the-shelf USB adapter.

In addition to taking measurements directly, the meter can also be connected to a PC for collection, storage and audit of data using Advanced Energy's GEMINI Tools data visualization software.

For detailed product information and technical specifications, visit www.tegam.com/shop/rf-microwave/power-meters/no-product/gemini-5540a-rf-power-meter

The GEMINI 5540A is showcased at [AE's booth 834 at SEMICON West 2021](#) alongside other solutions for semiconductor manufacturing, including AE's fast, accurate and reliable match networks. SEMICON West 2021 takes place December 7-9 at the Moscone Center in San Francisco, CA.

About Advanced Energy

Advanced Energy (Nasdaq: AEIS) is a global leader in the design and manufacturing of highly engineered, precision power conversion, measurement and control solutions for mission-critical applications and processes. AE's power solutions enable customer innovation in complex applications for a wide range of industries including semiconductor equipment, industrial, manufacturing, telecommunications, data center computing and healthcare. With engineering know-how and responsive service and support around the globe, the company builds collaborative partnerships to meet technology advances, propel growth for its customers and innovate the future of power. Advanced Energy has devoted four decades to perfecting power for its global customers and is headquartered in Denver, Colorado, USA. For more information, visit www.advancedenergy.com.

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