

To AE's pioneering arc handling and stable power-delivery capabilities, the Ascent® AMS platform adds a significant advancement for sensitive large-area applications—unparalleled output precision and stability at low power levels.

Features

- › Precise, stable low-power output
- › Arc Management System™ (AMS) technology—customer pre-sets for metal and ceramic targets
- › Set Point Compensation™ technology—stable throughput

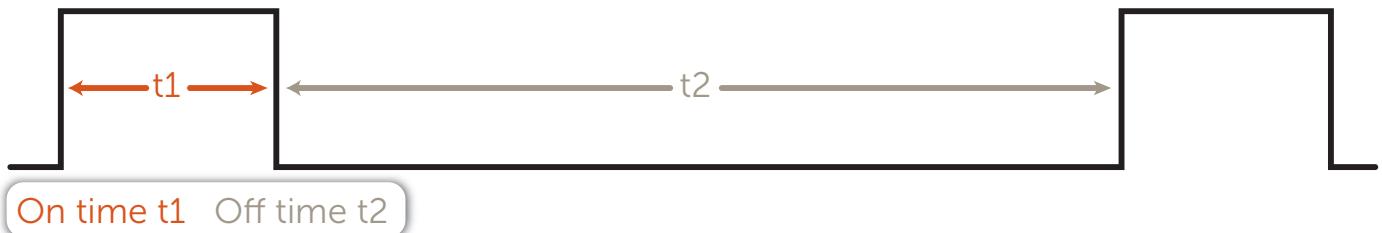
Benefits

- › High film quality and throughput
- › Reduced film, substrate, and equipment damage
- › Stable throughput and power delivery under extreme arcing conditions
- › Easy integration and control



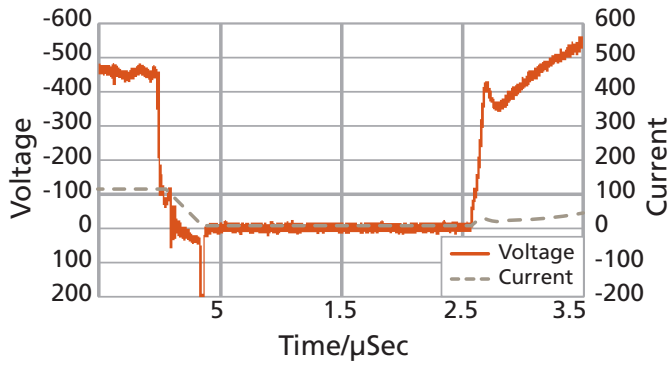
Technology advances for large-area applications are leading to thinner films. Seed and barrier layers are difficult to deposit, as systems are designed for stable operation at higher power levels. Conventional wisdom is to simply try reducing power levels, but this could result in inconsistent plasmas and unstable power delivery.

By utilizing the Ascent AMS power supply's precision digital control system, AE developed an exclusive algorithm that produces a precise average low-power level over the course of a given process step. The result: the Ascent AMS power supply enhances thin film uniformity and sputter rate stability.



Achieve low average powers with frequencies nearing 2 kHz, using a variety of user-programmable ON and OFF times.

Arc Response at 30 kW



The combination of proprietary Arc Management System™ (AMS) and Set Point Compensation™ technologies minimizes film and equipment damage and maintains stable throughput.

Leading-edge arc detection, shutdown, and recovery speed minimize film or equipment damage.

Set Point Compensation™ Technology improves power-delivery repeatability and maintains sputter rate by automatically adjusting power output to compensate for arc shutdowns.

