

ASCENT® AMS SOLUTION FOR DEPOSITING THIN FILMS WITHIN LARGE-AREA SYSTEMS STABLE POWER DELIVERY FOR SENSITIVE LOW-POWER PROCESSES

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 **Benefits** > Precise, stable low-power > High film quality and output throughput > Reduced film, substrate, and → Arc Management System[™] (AMS) technology-customer equipment damage pre-sets for metal and ceramic Stable throughput and power targets delivery under extreme arcing > Set Point Compensation™ conditions technology-stable throughput > 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.



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

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



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

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