

EMIT



INDEPENDENT
16 - ZONE
DIGITALLY
CONTROLLED
R O O M
IONIZATION

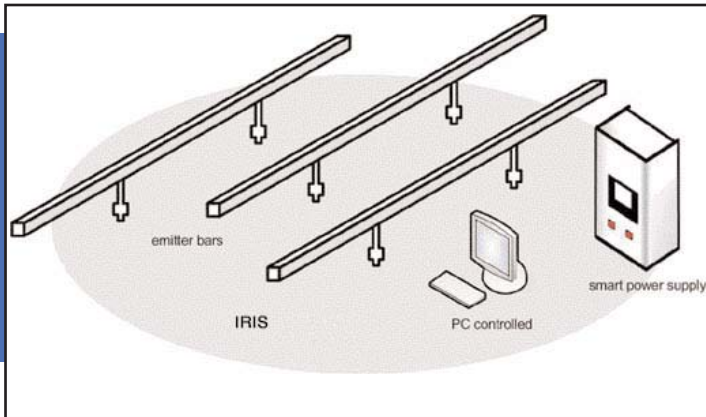
IRIS

Digitally Controlled Room Ionization

Absolute Protection for your Critical Processes



EMIT



APPLICATIONS

- Semiconductor fabrication
- Electronic assembly and packaging
- Biodevice manufacturing
- Pharmaceutical packaging
- Cleanroom particulate reduction
- Automated assembly facilities

Absolute Protection for your Critical Processes

FEATURES

- Bi-polar ionization from a single emitter tip - yields unsurpassed ion production
- Lightweight, modular emitter system - no heavy power supplies mounted overhead, easy to maintain emitters, easy to change room layout
- Precision sensing and cycle timing - offers superior balance
- White ABS construction - superior cleanroom performance
- Powered by a digital, high-accuracy, laboratory-grade power supply - only one power supply needed per room, substantially decreasing calibration time
- Remotely controlled by personal computer management software - triple zone event and fault monitoring with alarms and logging
- Uninterrupted 24x7 operation - no operator interaction required

BENEFITS

- Excellent performance in charge decay and particulate control - fully adjustable and biased ion output
- Industry leading total cost of ownership (TCO) - Single power supply architecture substantially reduces up front investment and subsequent maintenance costs compared to other systems on the market
- Reduced oversight by QA and production control - built for unattended operation; lowest maintenance cost in the industry
- Flexible, modular design - installation can be modified, added to, or moved without special tools or skill sets



IRIS smart power supply

Tell us about your clean room project.

www.DescoEmit.com

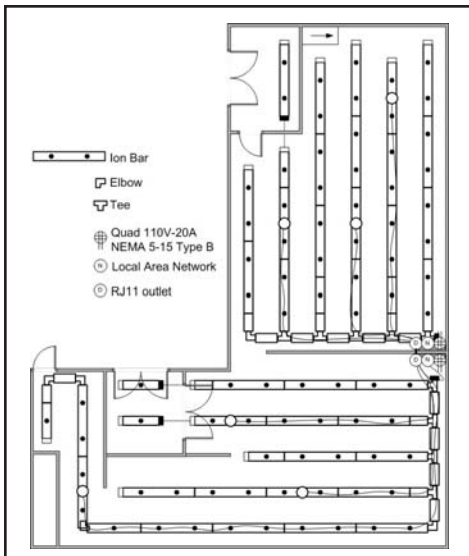
EMIT Superior Environmental Control for **Electro-Static Discharge (ESD) and Particulate Reduction Applications**

ABSOLUTE PROTECTION FOR YOUR CRITICAL PROCESSES

The EMIT IRIS Room Ionization System creates an ESD protective environment for ESD your sensitive devices by reducing electrostatic charges on surfaces and particles.

For ESD control, the entire room atmosphere is flooded with positively and negatively charged ions that neutralize accumulated static on work products, machines, operators, equipment or any object in the room. This substantially reduces the hazard of catastrophic electro-static discharge (ESD). As part of a comprehensive ESD control program, IRIS protects expensive work product regardless of location. Work product is no longer constrained to ESD protective workstations.

For particulate reduction, neutralization of airborne contaminants maintains their mobility, reducing ElectroStatic attraction and the risk of adherence to sensitive surfaces. By remaining in the airflow, contaminants are more likely to be drawn into HEPA filtration systems for entrapment. IRIS can solve a variety of cleanroom contamination problems.



CAD of typical IRIS layout

PERSONAL COMPUTER CONTROL FOR EFFICIENT, AUTOMATED ENVIRONMENTAL MANAGEMENT

As a stand alone system, the IRIS complements automated and monitored HVAC now found in all modern clean rooms. Controlled by a single personal computer interface, and monitored 24x7 with triple zone redundancy, the IRIS inspires confidence in a fully unattended operation.

Initial setup and calibration is simple to perform through the intuitive, graphical user interface (GUI). System performance can be charted on the screen in real-time for multiple zones, dramatically reducing zone calibration tasks often found in other room ionization systems. Access to the application is user name and password protected.

Output performance is monitored directly, verifying the ionization production measured at calibration. System operation is also continuously monitored with unusual events appended to a time-stamped log. If a fault is detected, such as an out-of-balance condition, audible alarms on both the power supply and software application are sounded and system messages are displayed. In such an event, the power supply is automatically disabled. Simple log review pinpoints the problem for quick error correction so that operation can be resumed.



IRIS controlled by personal computer

MODULAR INSTALLATION ENCOURAGES MODIFICATION AS NEEDS CHANGE

While other systems are designed for permanent installation, the IRIS is intended to maintain its value as applications and facilities change. Modular, snap-together ion bars support plug-and-play emitters for quick moves or modifications. Unusual room layouts, walls, columns or other obstacles are easily navigated with a variety of interconnection pieces. The power supply and personal computer can be installed inside or outside of critical process areas as desired.

EMIT contracts with a team of specialists with extensive experience installing IRIS into operating cleanrooms. Installation can be scheduled around shift times, including nights and weekends. Installation costs are included as a separate line item on the quote.

Maintenance may be performed by the client or can be provided under contract.

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SPECIFICATIONS

Description: Single-wire, bipolar, corona ionization system conforming to EOS/ESD - Standard 3.1 - 2000

Charge Decay: 1000 V to 100 V in 300 seconds or less (60 seconds typical)

Input Voltage: 120/240VAC \pm 10%, 47 to 63Hz, 75 W

Power Outlet: NEMA 5-15, Type B

Optional Input Voltage: 24 VDC \pm 10%, 1.5A, facility wire

Open Circuit Output Voltage: 0 KVDC to 20 KVDC \pm 5%

Voltage Resolution: 0.1 KVDC

Short Circuit Output Current: 0.3mA MAX digitally controlled, additional current limitation via 100 megohm series resistor

Emitter Capacity: 400 per power supply

Emitter Control: fully programmable, 0-99.9 second ionization ON cycle for each polarity with selectable quiescent periods between cycles

Power Supply Indicators: power ON, alarm, positive and negative voltage output and neutral delay

Zone Sensors: Independent, cylindrical detectors with BNC connectors, RG58 or equivalent cabling (provided)

Power Supply Dimensions: 8.17" W x 19.5" H x 6" D (20.75cm W x 49.5cm H x 15.24cm D)

Power Supply Weight: 30 lbs. (11.2 kg)

Power Supply Communications Port: proprietary, opto-isolated, bi-directional, 2-wire bus

Calibration: Semi-annual calibration recommended
Personal Computer Requirements: Windows 2000, 30GB HD, 128MB RAM, 500 MHz processor

SUPPORTED BY APPLICATION DESIGN TEAM

Included in the price of the IRIS system is application, engineering and sales consulting provided by EMIT for the IRIS system. Their job is to create and quote a solution that addresses your particular needs. This includes accurately estimating the cost (purchase, installation, and maintenance) and layout of the system upfront*, from a single room to a multi-floor facility. With the quote, they provide layout drawings, system specifications/certifications, detailed parts lists, and installation project plans and Gantt chart to satisfy the requirements of a variety of decision-makers, from facility managers to production engineers to quality assurance. Working directly with the factory, the sales team coordinates delivery schedules and installation, as well as supporting the IRIS throughout its ownership.

The IRIS is intended to deliver superior performance and peace-of-mind without added overhead or personnel expense.

**Quote accuracy depends on the availability of facility drawings and configuration details. Pricing subject to premise inspection.*

**See our five year limited
warranty backed by
Desco Industries, Inc.**

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