



Ceiling Emitter

MODEL 5512

The streamlined Ceiling Emitter Model 5512 features an interactive digital communication platform for electrostatics management. With microprocessor-based, bi-directional communication, the Model 5512 has more precise adjustments than analog room ionization systems. High ion output with a low emitter density, meaning more coverage with fewer ionizers or more efficiency when used with high ceilings, makes Ion's Model 5512 a clear choice for large spaces commonly found in 300 mm wafer cleanrooms.





The Model 5570, an infrared remote control with alphanumeric liquid crystal display (LCD), establishes a link to each intelligent emitter, making it easy to precisely adjust ion balance in the field. This interactive capability allows all emitter operating parameters to be changed via the remote control without disrupting the cleanroom's laminar airflow.

Features and Benefits

- High ion output for 300 mm wafer cleanrooms
- Larger coverage per emitter means lower unit density
- Highly efficient pulsed DC operation with off times between cycles
- Greater ion output from reduced ion recombination
- Bi-directional infrared remote control with alphanumeric LCD display for emitter adjustment
- Effortless calibration of ion balance and operating parameters at point-of-use
- 24 VAC operation
- Safe, reliable operation
- Available with single crystal silicon emitter points
- Industry-standard, better than class 1 emitter points provide the cleanest alternative in static charge control
- Alarm output to FMS
- Ensures continuous notification of system status



Specifications

Ceiling Emitter Model 5512	
Input voltage	24 VAC, 50/60 Hz, 1.25 watt
Control signal	±10 VDC control signal from a 5024(e) or 5084(e) controller
Output voltage	0-24 kVDC, ±10% for each polarity; positive and negative output levels locally at each emitter
Connectors	Telephone type RJ-11 modular jack receptacle on each end of emitter
Output control	Positive and negative output can be adjusted with the 5570 IR Remote Control at each emitter
Regulation	Output and balance stability is achieved by independently regulating the ion emission voltage of each polarity at each emitter.
Timing	Precise timing (0–10 seconds) is supplied by the controller. LEDs on each emitter indicate the polarity of the ion emission.
Ion emission	Pulsed DC
Emitter points	Single crystal silicon, machined titanium, or tungsten alloy. All emitter points are replaceable. Estimated emitter point life varies from 2–3 years depending on material used.
Emitter rods	Available in 2.5, 5, 10, 15, 24, 36, and 60" lengths (63.5, 127, 254, 381, 609, 914, and 1524 mm)
Calibration	Annually, semi-annually, or quarterly depending on manufacturing sensitivity
Ozone	<0.005 ppm. (24-hour accumulation)
EMI	Below background level
Alarm	Alarm operates when the emitter is no longer able to maintain preset ion output regulation. <i>Visual alarm:</i> red LED located in the middle of the emitter chassis indicates an alarm condition <i>Audible alarm:</i> sounds at the 5024e/5084e controller when an alarm event occurs at any emitter
Mounting	A variety of surface and flush mounting methods and brackets is available, including cleanroom-compatible interlocking self-adhesive mounts (3M TYPE SJ 3551)
Dimensions	1.25"H x 1.5"D x 17.5"L (3.2 x 3.8 x 44.5 cm)
Weight	16.4 oz (465g)
Required components	Model 5570 IR Remote Control and Model 5024(e) or 5084(e) Controller
Warranty	2 year limited warranty
Certifications	   

Cleanroom Compatibility

With the experience of more than 4,000,000 square feet (372,000 square meters) of ultraclean ionizer installations, Ion developed the Model 5512 ceiling emitter to be the cleanest ionizer of its kind. Available with single crystal silicon emitter points, the industry standard for ultraclean ionization, the 5512 ceiling emitter exceeds requirements for operation in Class 1 environments. Its compact design makes it compatible with any cleanroom ceiling system, whether surface mounted or recessed. The 5512's modularity, with six different length options of removable emitter rods, makes it practical in today's cleanrooms, where equipment is periodically moved.

Quality to Depend On

In addition to the advanced features mentioned above, the 5512 ceiling emitter represents the same quality and reliability people expect from Ion Systems. From low voltage 24 VAC power distribution to patented sequenced bipolar ionization technology, the 5512 ceiling emitter incorporates tested features that have been used for years by Ion customers in cleanrooms around the world. In order to support that existing customer base, the 5512 ceiling emitter is fully compatible with existing 5000 series systems and can be added as an upgrade or extension.



The Model 5512 has several emitter rod size options. Its modular design makes it easy to exchange one size for another to accommodate a variety of cleanroom conditions.

Ordering Information

91-5512U-	Ceiling Emitter - Choose 2.5, 5, 10, 15, 24, 36, or 60" emitter rod length
91-5570	Model 5570 IR Remote Control
91-5024-CE	Model 5024 Controller, supports up to 4 emitters
91-5024E-CE	Model 5024E Controller with alarm, supports up to 20 emitters
91-5024E-CE-ALM	Model 5024E Controller with audible alarm, supports up to 20 emitters
91-5084E-CE	Model 5084E Controller with alarm, supports up to 80 emitters



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DS-5512 - Ver. 3
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