



# Ionmaster™ Model 1000

The **Ionmaster™ Ionization Sensor** – is a **REAL-TIME IONIZATION ANALYZER** designed for use as an analytical measurement tool to determine the effectiveness of your ionization source, in situ and in real time. Whether your use is for Electrical Field Control in Semiconductor applications, HVAC ionization verification for virus elimination, or to check the validity and accuracy to determine if your Ionizer is performing to standard, the Ionmaster will do them. A specially designed enclosure creates a grounded faraday cage to ensure shielding from stray electrical fields.



## Product Features

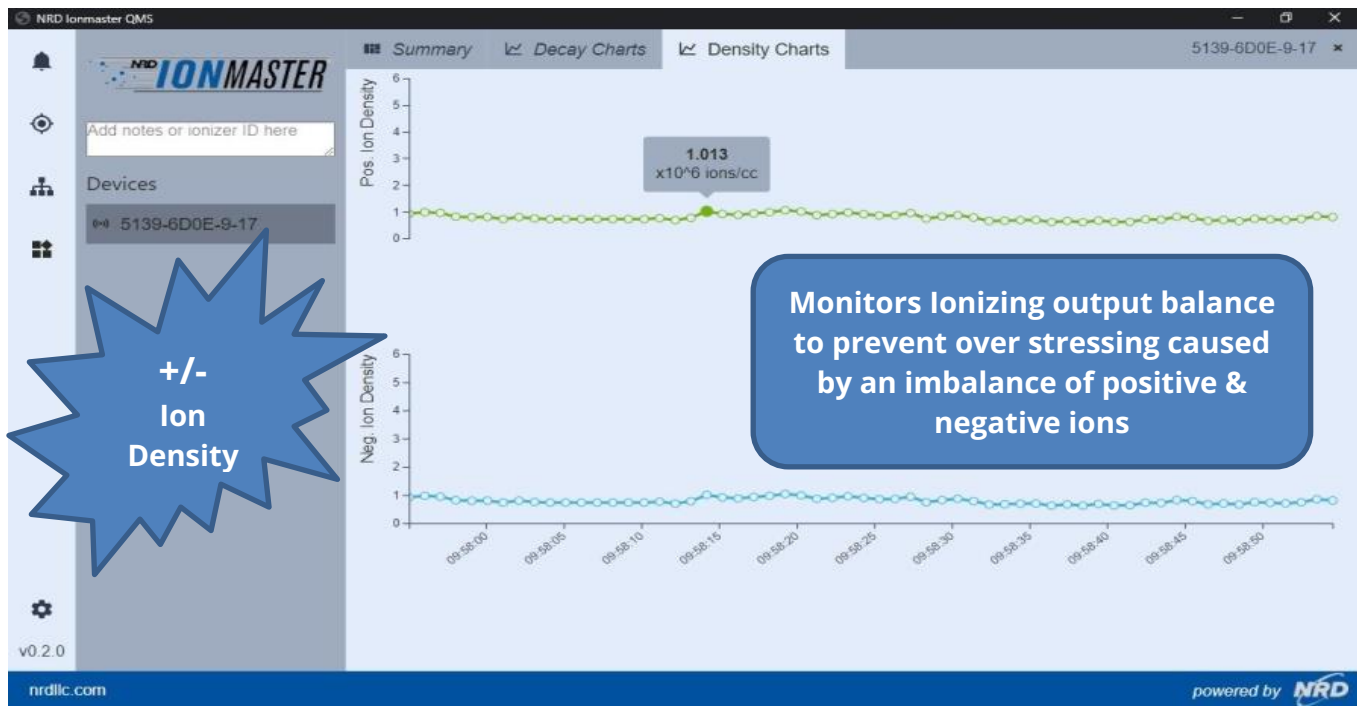
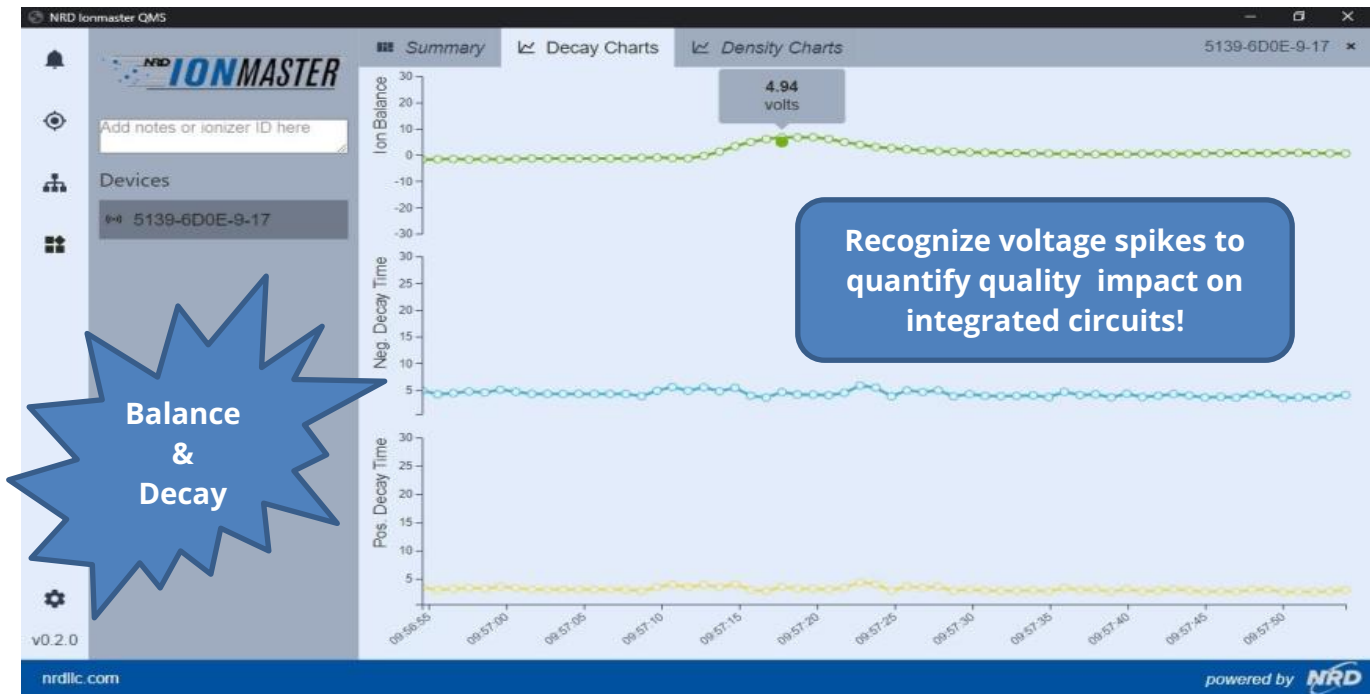
- Real time ion balance in volts and ion density measured in ions/cubic centimeter
- Real time positive and negative decay time in seconds and performed simultaneously
- Minimum, maximum and average decay & balance measurements
- Product identification traceability with continuous monitoring capability
- Data storage function and downloadable .csv data
- Portable tablet with carry case, or downloadable software for personal laptop use
- Grounded stainless steel enclosure faraday cage

## Benefits

- Cost savings – eliminates need to take high capital production equipment offline
- Technician labor efficiency – can measure ionization equipment in a fraction of time vs. CPM
- Operates within your working area without creating electrical field interference
- Captures data to meet S20.20 standards with utmost efficiency & use
- Highly accurate sensor to measure +/-5v variances in Semiconductor 5nM technology



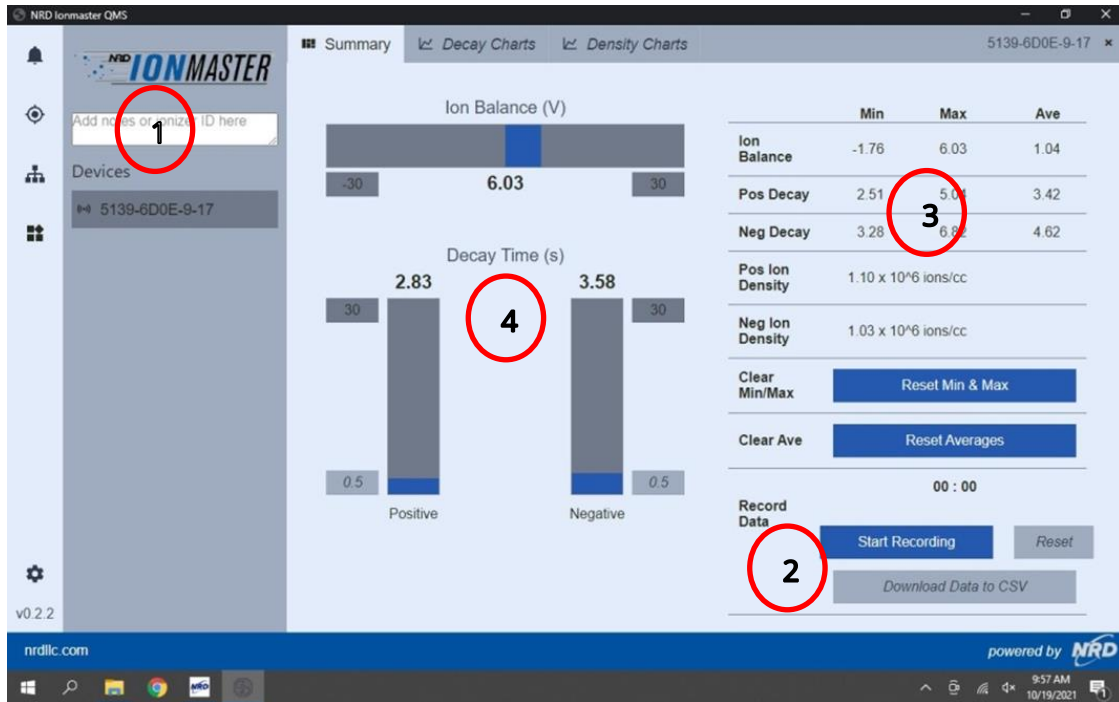
# Model 1000 Graphical User Interface



Real time continuous monitoring of key data allows for defect tracking & resolution to provide effective root cause and countermeasure activities.



# Model 1000 Graphical User Interface



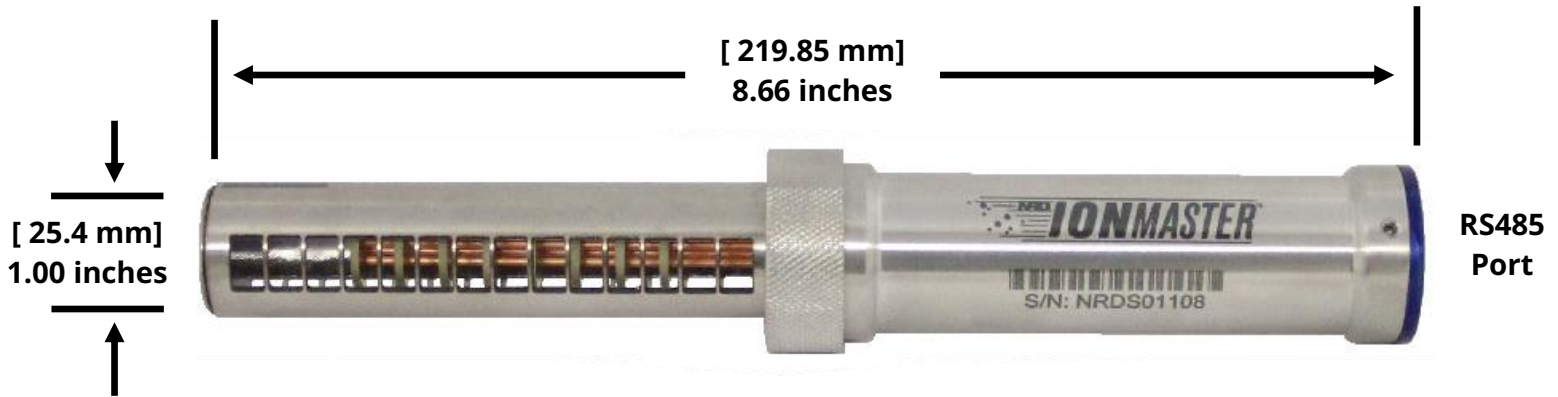
- 1 Enter unique identifier of device to be tested
- 2 Start recording data and pause anytime. Download data to .csv file
- 3 GUI provides Min, Max, Avg. data and actual ion density
- 4 Real time visibility of ion balance and decay performance

## Data Output Example

Date	Time	Ion Balance (V)	Negative Decay (s)	Positive Decay (s)	Positive Ion Density (ions/cc)	Negative Ion Density (ions/cc)	ID or Notes
11/17/2021	10:36:27 AM	-2.16	1.25	0.63	2.91E+06	4.19E+06	Station 1-Linear Ionizer #54XYA37B
11/17/2021	10:36:28 AM	-2.23	1.23	0.62	2.85E+06	4.07E+06	Station 1-Linear Ionizer #54XYA37B
11/17/2021	10:36:29 AM	-2.34	1.28	0.66	2.89E+06	4.13E+06	Station 1-Linear Ionizer #54XYA37B
11/17/2021	10:37:17 AM	-0.98	1.26	0.65	2.89E+06	4.07E+06	Station 1-NRD6216 FAN #54XYA38F
11/17/2021	10:37:18 AM	-0.92	1.26	0.66	2.83E+06	3.95E+06	Station 1-NRD6216 FAN #54XYA38F
11/17/2021	10:37:19 AM	-0.95	1.24	0.64	2.83E+06	3.89E+06	Station 1-NRD6216 FAN #54XYA38F
11/17/2021	10:37:59 AM	0.14	1.28	0.68	2.74E+06	3.68E+06	Station 2 -PO210 AIR ASSISTED BAR
11/17/2021	10:38:00 AM	0.12	1.33	0.72	2.79E+06	3.78E+06	Station 2 -PO210 AIR ASSISTED BAR
11/17/2021	10:38:01 AM	0.48	1.31	0.71	2.69E+06	3.58E+06	Station 2 -PO210 AIR ASSISTED BAR
11/17/2021	10:39:04 AM	-8.09	2.09	1.28	1.72E+06	2.00E+06	Station 2 -NRD ALPHA FAN #23J5416
11/17/2021	10:39:05 AM	-7.89	2.03	1.23	1.77E+06	2.08E+06	Station 2 -NRD ALPHA FAN #23J5417
11/17/2021	10:39:06 AM	-7.91	2.04	1.24	1.82E+06	2.16E+06	Station 2 -NRD ALPHA FAN #23J5418



# Model 1000 Technical Specifications



## Technical Specifications

Balance Range (Volts):	+/- 30	Rh Max:	65%
Decay Time Setting Range (Seconds):	0.5 - 30.0	Housing Material:	Stainless Steel
Decay/Balance Time Refresh Rate (Seconds):	1.0	Sampling Rate:	4000 S/s
Ion Balance Tolerance (Volts):	5.0	Sensor Weight (Grams/lbs.):	295 g. / 0.650 lbs.
Operating Temperature (Celsius):	10 - 40°C	Total System Weight (Grams/lbs.):	2207 g. / 4.87 lbs.
Output Connector Type:	RS 485	Ionizer Tracking:	Log Data
Power Consumption (Watts):	0.750	Ionizer Logging:	Log Data

### Maintenance

Certified Annual Calibration Performed by NRD, LLC.  
Use compressed air to clean mesh as needed.

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