RESONANCE LTD
Optical Solutions & Technologies

RD-16-01-12

www.resonance.on.ca

RF Powered Line Sources

Resonance Ltd. RF Powered Line sources are designed to be reliable and maintenance free compact power sources of emissions with an operating life in excess of 4000 hours. Line sources are sealed RF excited with a window in an EMI shielded enclosure. The lamp mounts to a 2.75 inch or larger CF type flange. The lamp assembly has an integral RF exciter which is powered by a small wall plug power supply.

Why Resonance?

Resonance Ltd. Is the only supplier of high quality RF Powered VUV sources.

Where are our lamps?

Our lamps can be found anywhere from your average laboratory to rocket payloads to performing in-flight calibrations on the Hubble Space Telescope.

Who has bought our lamps?

Our list of customers is proof of the quality of the lamps. NASA, Ball Aerospace, Stanford University, Canadian National Research Council, US Navy Research Laboratory, Penn State, and more.

Applications

- VUV materials studies
- PDP phosphor evaluation
- Photochemical cleaning of materials in vacuum
- VUV wavelength calibration & optical alignment of syncrotron instrumentation
- Photo-ionization for gas and particulate detection
- Water vapor detection in vacuum systems
- VUV flat fielding of CCD cameras
- Orbital solar simulation

RF Powered Line Specifications				
	Min	Avg.	Max.	Unit
Plasma Cavity	20W RF	30 x 9		Mm ID
Window Material		MgF2		
Drift	0.5 @ 110V max.	0.2	1.0	% per hour
Calibration	Absolute intensity determined by traceable NBS Standard			
Testing	Test spectrum of entire VUV spectral region performed			
Running Life	1500	>4000		Hours
Case Temperature	0		55	Degrees C
Input Voltage (50 – 60Hz)	100		250	AC Volts
Optional Pulsed Operation	50		400	Hz

Gas Specifications				
Gas	Continuum Range	Flux	Peaks	Flux
Kr	116.5, 123.6	3×10^{15}	557	5×10^{15}
Xe	147	5×10^{15}		5×10^{15}
Ar	106	3×10^{13}	733.4, 763.5	
Hg	184.9		254	2×10^{15}
O	130.2	3×10^{13}	115.2, 135.6, 777.4, 844.6	
N	120.1	5×10^{12}	149.3, 174.3	
Cl	118.9	5×10^{12}		
H	112.6	1×10^{14}