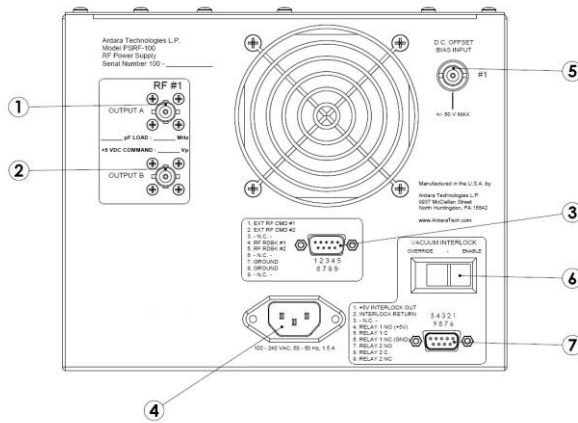


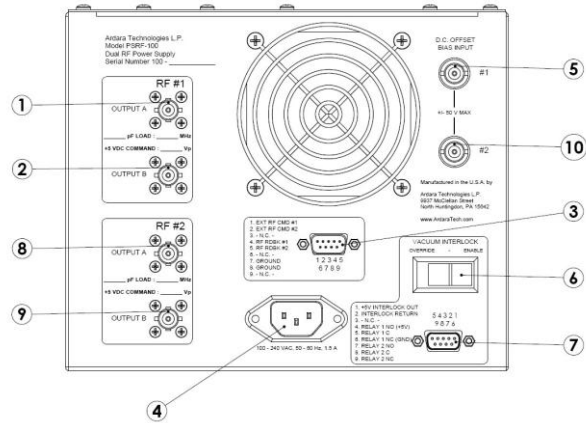
RF Power Supply



- For RF-only ion guides: Quadrupoles, Hexapoles, Octopoles, and Ion Funnels.
- Up to 2000 Vpp RF amplitude at nominal frequencies of 1.4 MHz or 2.8 MHz with capacitive load. (Dual RF configurable for two different frequencies.)
- Oscillates with capacitive loads as high as 680 pF, with resonant frequency dropping to as low as 700 kHz with such extreme capacitive loads.
- RF Amplitude can be set manually via a potentiometer on the front panel, or from an external input connection on the rear panel.
- Self-oscillating RF supply with variable operating frequency.
 - Automatically varies frequency to match capacitive load, eliminating the need for messy matching networks.
 - Ready to connect up to your vacuum flange with the supplied MHV cables. Vary the cable length or capacitive load to vary frequency.
- DC Bias Offset Input supports pulsed modes of operation.
- Front panel digital voltmeters show peak-to-peak RF voltage for each RF power supply.
- Vacuum interlock input on back panel to disable high voltage in vacuum fault conditions.
- Universal AC input (100-240VAC, 50-60 Hz)
- Optional RF Passive Distribution Module triples the number of output pairs, turning one pair of RF supplies into three pairs sharing a single command, with all three sets of outputs operating at the same RF phase and frequency.



Back Panel View of RF Power Supply



Back Panel View of Dual RF Power Supply

Table 1. RF Power Supply Back Panel Controls

Balloon Number	Function	Description
1	RF #1 Output A	MHV connector which supplies one phase of the RF output #1.
2	RF #1 Output B	MHV connector which supplies opposite phase of the RF output #1.
3	External Control Input	Male DB9 connector which allows external RF amplitude commands, as well as RF amplitude readbacks.
4	Universal AC Power Input	100 to 240 VAC, 50-60 Hz universal power input.
5	DC Offset Bias Input #1	BNC connector to allow externally generated -50 to +50 volt pole bias offset voltage to drive the DC offset of the RF power supply output #1. An Internal 10K resistor to ground pulls DC offset down in the absence of an external command.
6	Vacuum Interlock Enable	Controls whether the vacuum interlock feature is enabled. When set to 'Override', the RF voltage is always enabled when AC power is turned on. When set to 'Enable', RF voltage is enabled only when +5 volts is presented to pin 2 of the Vacuum Interlock Connector.
7	Vacuum Interlock Connector	Female DB9 input that allows external enabling and disabling of the RF power supply. Enables or disables RF voltage depending on whether there is +5 volts presented to pin 2 from an outside source.
8	RF #2 Output A	MHV connector which supplies one phase of the RF output #2.
9	RF #2 Output B	MHV connector which supplies opposite phase of the RF output #2
10	DC Offset Bias Input #2	BNC connector to allow externally generated -50 to +50 volt pole bias offset voltage to drive the DC offset of the RF power supply output #2. An Internal 10K resistor to ground pulls DC offset down in the absence of an external command.