



RF POWER SYSTEMS FOR PLASMA PROCESSING

ACCU-MATCHTM AUTOMATIC IMPEDANCE MATCHING NETWORKS



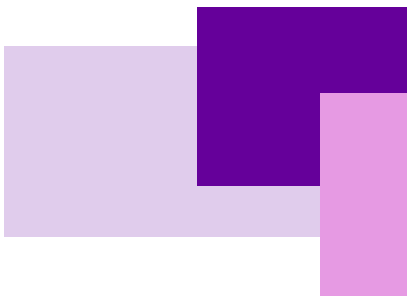
- Precision, ultra fast plasma load tuning
- Analog interface with optional serial bus interface
- Real-time fault and operational event reporting
- Choice of output connectors
- Choice of RF circuit topologies

The **Accu-Match**TM complements our **Helius**TM series or other manufacturers RF power generators to complete an RF plasma power delivery system. Manitou uses proven high power RF components and SMD printed circuit board construction.

The **Accu-Match** control system is built around a state of the art “network analyzer on a chip” providing precise and repeatable RF plasma signal detection resulting in accurate matching. Both automatic and manual / position pre-set modes enables the user a variety of tuning choices. Many internal operating parameters and all soft & hard faults may be monitored and used for process control when directed to the process system controller via the various interface ports. Connectivity to the user’s system is made possible via analog, or optional serial bus interface. The **Accu-Match** product platform is compliant with typical industry accepted regulations.

Forced air or forced air/water cooling ensure that optimal component operating temperatures are maintained. To ensure long lifetime all cooling fans are managed by onboard management system. All cooling air supply and exhaust ports are shielded using “wave guide beyond cutoff” filter material.

To enable the typical Accu-Match to be able to tune all plasma loads, provisions for additional fixed shunt capacitors and the ability to swap in different series inductor values come as standard.



Accu-Match Model	ACM600	ACM1000	ACM1500	ACM5000	ACM10000
Typical RF Input Power (Watts)	600	1,000	1,500	5,000	10,000
50 Ohm RF Input Connection	Type N Female			Type 7/16 Female	
Series Inductor	Tapped			Fixed	
Output Connection to Plasma	7/16 DIN Female or 6 mm Multi-Contact			6 mm Multi-Contact	10 mm Multi-Contact
AC Mains Requirements	110 > 240VAC 50/60Hz 45W			110 > 240VAC 50/60Hz 65W	
Cooling Method	Forced Air	Forced Air + (Water cooling optional based RF current)		Forced Air + Water cooling	
Water Fittings	—	1/4" compression			3/8" compression
Product Weight (Lbs)	15	17.5	19	25	35
Product Dimensions (L" x W" x H")	12 X 8 x 5.5	14.75 X 9.5 X 6			18 X 12 X 8

The table shown above lists basic product models and their typical specifications. **Manitou Systems** offers OEM and custom versions with non-standard operating frequencies, special packaging and application specific RF circuitry. Please consult the web site or factory for up to date and additional information.

All models (unless otherwise specified) offer the following features as standard

- 13.56 MHz operating frequency DB25 female analog interface connector.
- DC developed bias probe 0 > 5 kV with 100:1 attenuation
- Manufactured in the USA

Available **Accu-Match** accessories

- Remote Control Module
- Coaxial RF Cables (Input & Output)
- DB25 Interface Cable
- 50 Ohm RF Power Splitter
- Output Switch Box
- Serial Bus Interface



Type 7/16 DIN RF Output Connection to Plasma

MANITOU SYSTEMS, INC.

12 South Street Danbury, CT 06810 United States
 Tel.203.792.8797 Fax.203.792.7097
 Email: info@manitousys.com Web: www.manitousys.com

Technical specifications are subject to change without prior notice. See our web site or contact us directly for the latest specifications and pricing.

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