

# Auto Matching Networks

## Versatile and Reliable.... Comdel's CPM/CPMX Series Match Pro Automatic Tuning Networks for RF Generators



### Performance

The CPM/CPMX series Match Pro Automatic Tuning Networks are designed with Comdel's unique PROTRAK, a high-speed tuning algorithm that gradually slows the system as it approaches the tuning point thus allowing a precise match even in high 'Q' loads. This proportional control circuitry illustrates the critical difference between Comdel's Match Pro, and other matching networks available in the market.

The Match Pro adjusts input impedance to 50-Ohms quickly, accurately, and dependably - in response to their changes in load characteristics during the process. To further enhance reliability, the components are operated at lower rated outputs for long life and no maintenance.

### Key Benefits

<b>Automatic, and manual modes with local, and remote manual control of tuning capacitors</b>		
<b>Compact size</b>	<b>Relatively light weight</b>	<b>Ideal for R&amp;D, and Production applications</b>
<b>Reliable design with millions of trouble-free hours in plasma systems worldwide</b>		
<b>Ability to pre-position capacitors to optimal plasma ignition point prior to turn on, resulting in quick, and reliable tuning</b>		
<b>Capacitor position outputs to show where the match occurs from process to process</b>		
<b>High power, H-bridge, MOSFET motor drive circuitry with underrating for improved reliability</b>		

### Options

Custom Configurations available

### List of Models Available

Model	Max Load Current	Cooling	Size (Weight)	Input Power
CPM-1000* (air variable caps)	8 A	Forced Air	5"H x 12"W x 8"D (8 lbs)	115/208/230VAC 1-Ph 50/60Hz
CPMX-2500 (vacuum caps)	25 A	Forced Air or Water version (1gpm)	5"H x 10"W x 12"D (16 lbs)	115/208/230VAC 1-Ph 50/60Hz
CPMX-5000 (vacuum caps)	50 A	Water (1.5gpm)	8"H x 14.5"W x 16"D (67 lbs)	115/208/230VAC 1-Ph 50/60Hz

\* Remote Control included with this model.

*(For other models, the Remote Control is an optional item)*

#### Remote Control Unit:

The Remote unit is designed to provide remote control capability to the Match Pro tuning networks. The unit monitors functions such as auto/manual mode, preset position, capacitor position, and DC bias.

Size: 3.5"H x 9.5"W x 6.25"D (~5 lbs)

GENERAL SPECIFICATIONS	
Frequency Range	Configured to operate in a single frequency from 2 to 30MHz
VSWR	< 1.5:1 in a 50-Ohm system (typ)
Operating Temperature Range	-10 to +35 <sup>0</sup> C
Input Connector	CPM-1000: N-Female CPMX-2500: N-Female
Output Connector	CPM-1000: N-Female CPMX-2500: Cu strip (higher currents)
The Matching Networks must be mounted close to the chamber for optimum performance	



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