

MIT-600 Manual Impedance Tuner



T&C POWER CONVERSION



Front Panel View



Rear Panel View

FEATURING:

- 13.56 MHz - Easy Tuning Control
- Displays Exact Capacitor Locations for Repeatability Positioning
- Meter Displays switch selectable, DC Probe Voltage, Tune Position, Load Position
- Field testable and set-up friendly controls
- DC Probe Output
- Series LC network allows wide range impedance tuning
- Can be retrofitted to most Plasma Systems
- Same Size as T&C RF Generators; 5.25"H x 8.3"W x 15.0"D
- Compact & lightweight
- Accepts 110-240 VAC without tap changes
- Rack mount brackets available

Frequency Of Operation

13.56 MHz

RF Power Rating

MIT-600-03 up to 300 W
MIT-600-05 up to 500 W

Impedance Rating

50 Ohms

Front Panel Options

LED Meter Display

Input Connector

"N" Type Female

Output Connector options

"N" Type Female,
"HN" Female, Ceramic Stud

Tuning Capacitor

Air, 15-150 pF/3.5 kV (300W)
Air, 15-150 pF/3.7 kV (500W)

Load Capacitor

Air, 30 to 1720 pF/1.1 kV

AC Power

110 - 240 VAC

AC Power Consumption

35 VA max

Cooling

Air

Dimensions

5.25"H x 8.25"W x 15.0"D

GENERAL

The MIT-600 Manual Impedance Tuner (MIT) is designed to match the impedance of the load coil while maintaining 50 Ohms of reactive impedance to the T&C RF Generator. The MIT-600 is available in two power levels.

Each MIT-600 Tuner is made up of two variable air capacitors and fixed inductors making a "L" type circuit.

The MIT-600's primary function is to deliver maximum RF power transfer to the load. To accomplish this function the MIT-600 is designed to operate in the broad range of Inductive and Capacitive loads of the Smith Chart.

MIT-600 features front panel knobs used to manually adjust the position of the internal Tune and Load capacitors. The front panel 3 segment LED display meter, displays exact location of the tuning capacitor on the scale of 0 to 5V = MIN to MAX as its position. This gives the operator complete control of the system matching requirements.

REV. C - March 2014