



AG 0613

RF Generator & Amplifier



▲ AG 0613 (front and rear panels)



▲ complete RF system (AIT-600 matching network and AG 0613 generator)

Product Description

This is a **600 W, 13.56 MHz** RF power source, ideal for Industrial/Scientific/Medical applications.

Features

Works with any tuner, but operation is uniquely optimized with T&C's AIT-600 tuner series (*shown left*)

Complete control of generator and AIT-600 tuner via front panel or PC (GUI software)

Interfaces: Analog / Digital, RS-232, RS-422

Digital display: Forward / Reflected / Load Power, Internal Temperature, Tuner Cap Positions

Data acquisition: Power measurement and status monitoring at analog interface

Operation: AGC Power Leveling, Low Harmonic Level, Pulse Operation, Ramping Profiles

5.25" H x 8.75" W x 15.00" L (Half Rack mount, or Stand-alone)

Ordering Options

AG 0613 (generator with front panel controls)

0613 (generator module with blank front panel)

AG 0613 & AIT-600 Tuner (complete RF system)

[Rear panel] RF Input / Blanking ports

OR CEX In / Out ports

FOR MORE INFO or QUOTE:

www.tcpowerconversion.com
(585) 482 - 5551

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AG 0613 Spec Sheet

Class Of Operation

Class C/D

Frequency Of Operation

13.56 MHz

Frequency Stability

0.005% or better

RF Power Output

600 Watts nominal into 50 Ohms

EXT RF Input Drive for AGC

+0 to +3 dBm for best operation

Input Drive Source for

External RF Input

Signal or function generator, analog computer input capable of up to

2 Vp-p @ 50 Ohm

CEX Input

3Vp-p to 8Vp-p at 13.56 MHz

CEX Output

3Vp-p to 8Vp-p at 13.56 MHz

(CEX available upon request)

Internal RF Source

Crystal oscillator at 13.56 MHz

Input and Output Impedance

50 Ohm

IN / OUT VSWR

1.2:1 max - input

3:1 max - output

Output VSWR Protection

110 Watts max reflected power limit

(Automatic limit within 0.1 ms)

Harmonic Level @ 100 W

≥ -50 dBc

Spurious Output

50 dBc

RF Output Stability

Unconditionally stable up to 10:1 VSWR, any angle, any load.

Dynamic Power Range

1 to 600 W, settings within +/- 2W

Scale

1 - 10V , user selectable

Pulse Operation

Pulse width: 1 ms – 9995 ms

Controlled via front panel and GUI

Ramp Operation

Ramp speed: 1 W/s – 99 W/s

Controlled via front panel and GUI

Controls & Communications

Analog ports: SUBD-25 (rear panel)

Digital ports: RS-232, RS-422, USB 2.0 (rear panel)

RF Power Margin

$(\text{Open Loop Max Power}/\text{Rated Power}) - 1 \times 100$

+10 % - defined by AC/DC power supply settings,

+50 % - RF section capacity

RF Connectors

INPUT BNC Female

OUTPUT N Female

BLANKING BNC Female

Rear Panel

AC Power Connection

IEC Standard Power Entry followed by RFI filter.

Filter range 0.1 to 30 MHz min

AC Circuit Protection

Internally fused on the main DC Power Supply

AC Input Current (RMS)

120 V ac, 50-60 Hz, 13.5 A

200-240 V ac, 50-60 Hz, 7.5 A

Cooling

Forced air, temperature controlled, heatsink temperature monitored for equipment safety at 70C limit.

Case

- Front Panel: Plastic Overlay Coated Steel

- Aluminum Covers and Chassis

- Chassis designed to meet EMI RFI shielding requirements

- 5.25" H x 8.75" W x 15.00" L

Full Dimensions

L 17.4" x W 8.25" x H 5.6"

(L 442 mm x W 210 mm x H 142 mm)

Weight

9.0 kg, 20 lbs.

Mounting

Half Rack, 3U high

(Optional: Rack Mount Kit, Adapter Kit, Coupling Screws)

Environmental conditions

Temp.: 0° to 40° C ambient

Humidity: 80%

