



# AG 0313

## RF Generator & Amplifier



▲ AG 0313 (front and rear panels)



▲ complete RF system (AIT-600 matching network and AG 0313 generator)

### Product Description

This is a **300 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 0313 (generator with front panel controls)

0313 (generator module with blank front panel)

AG 0313 & AIT-600 Tuner (complete RF system)

[Rear panel] RF Input / Blanking ports

**OR** CEX In / Out ports

FOR MORE INFO or QUOTE:

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# AG 0313 Spec Sheet

## Class Of Operation

Class C/D

## Frequency Of Operation

13.56 MHz

## Frequency Stability

0.005% or better

## RF Power Output

300 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

70 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 300 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

(Open Loop Max Power/Rated Power)-1) x 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)

100-120 V ac, 50-60 Hz, 7.0 A

200-240 V ac, 50-60 Hz, 3.5 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%

