



LF GENERATOR & AMPLIFIER

FEATURING

- 20 kHz to 3 MHz, up to 2,000 Watts
- Digital Meter, measures forward and reflected power
- Front Panel Control of Amplifier and Generator functions
- Data acquisition: Status Monitoring & Power Measurement at Analog Port
- RS232 communication: Full Control Of Amplifier & Generator Functions
- AGC or Power Leveling: Gain Control to better than ± 0.5 dB
- Controllable internal DDS signal source
- Pulse and Sweep of RF internal signal generator

Model AG 1024 is a robust source of RF power for ultrasonic, laser modulation, RFI/EMI, plasma generation, laboratory and general industrial applications. Featuring state-of-the-art design of all amplifier stages and a built-in DDS signal source, it provides everything for a complete and reliable, controlled RF power delivery system.

The AG 1024 produces 2,000 Watts of linear power over a frequency range from lower than 20 kHz to over 3 MHz, with low harmonic and intermodulation distortion. It operates without band switching or adjustment.

The Front Panel offers a LCD display of Forward, Reflected and Load Power readings, RF Status, MGC/AGC setups and operating frequency when in Generator Mode.

When used as an amplifier, the AG 1024 is compatible with most signal and function generators, computer synthesizer cards and accurately reproduces all waveforms within its limits.

The Forced-air cooling system and the internal power supply are designed to support operation over most temperature and AC conditions.

AG 1024 is protected by its internal control system for 2,000 Watts Forward and 400 Watts Reflected Power. This protects the amplifier output stage from overdrive at the input and extreme mismatch at the Output.



For more information visit TCPOWERCONVERSION.com
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For quote, contact us at sales@tcpowerconversion.com or call (585) 482 - 5551

AG 1024 SPECIFICATIONS

Class Of Operation

Class "B"

Frequency Of Operation

20 kHz to 3 MHz

RF Power Output

50 Ohm load:

Up to 2000W for 20 kHz to 3 MHz
Pulse and low duty cycle!

Any load:

Up to 1800W , continuous operation.

Gain

63 dB @ 2000W / 0.5 MHz
±1.5 dB 20 kHz to 1 MHz

RF Input Drive for AGC

Recommended -5 dBm to 0 dBm for
±0.5 dB gain flatness

Input Drive Source

Signal or function generator, analog
computer input capable of up to 1 Vp-p
@ 50 Ohm
Input range: -30 to 0 dBm typical,
+5 dBm maximum

Internal RF Source

DDS oscillator: 20 kHz to 3 MHz,
1 kHz resolution

Input and Output Impedance

50 Ohm

2:1 max INPUT VSWR

3:1 max OUTPUT VSWR

Output VSWR Protection

400 W max reflected power limit for
Load Impedance > 50 Ohm. Current
level protection for Load Impedance <
50 Ohm.

Harmonic Level @ 1750W

Better than - 13 dBc for 3-d harmonic,
any other better than -20 dBc



Spurious Output

- 26 dBm equivalent noise level
generated by internal circuits

RF Output Settings & Control

- Front Panel EDITOR and function
switches for manual control,
- RS232 port for GUI or other
computer communication. Rear
Panel.
- SubD 25 Analog and Digital I/O .
Port power scale 1V=250W. Rear
Panel

BURST operation

Pulse range: 1 to 500 usec
Period: 1 to 50 milliseconds
User settings via GUI and RS232

BURST - external

DC to > 200 kHz. User defined
BURST scheme via SubD-25.
See analog port description for more
details.

SWEEP operation

0.02 to 3MHz. Min time 10 ms, max
10s. Settings and activation from GUI
only.

Output Blanking

For pulsed applications, T&C
amplifiers and generators offer
blanking of the output signal for
minimum noise RF spectrum

RF Connectors

BNC Female: RF In
N Female: RF Out

AC Power Connection

See manual for details

AC Input Ratings

2/N/PE ~ 200-240 V, 35 A, 50-60 Hz
2/N/PE ~ 200 V, 42 A, 50-60 Hz
2/N/PE ~ 346-415 V, 16 A, 50-60 Hz

Cooling

Forced air, temperature controlled,
heatsink temperature monitored via
RS232 GUI interface.

Acoustic level:

45dBa @ Max Fan Speed @ temp.

Case

Designed to meet EMI and RFI
shielding requirements steel chassis
(frame), black conductive finish.
Cover, Front and Back Panels AL with
yellow conductive finish. Exterior:
Front & Back Panel: T&C off-white.
Cover: T&C black.

Dimensions

533 mm x 520 mm x 470 mm
(21"x 20.5" x 18.5")

Weight: 71.4 kg, 157.5 lbs.

Mounting

Stand alone unit.

Environmental conditions

Temp.: 10° to 40° C ambient
Humidity: 80%

Equipment intended for ISM applica-
tions in laboratory and light industrial
environment.

AG 1024 Performance Chart

