

AG 1006



LF GENERATOR & AMPLIFIER

FEATURING

- 20 kHz to 15 MHz, up to 300W
- Low distortion Output @ 100W, $h_3 \leq -20$ dBc up to 1000 kHz. Better than -20 dBc for other harmonics up to 15 MHz
- Digital Meter, measures forward, reflected and load 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
- Pulse and Sweep of RF internal signal generator

Model AG 1006 Amplifier/Generator is a robust source of RF power for ultrasonic, laser modulation, RFI/EMI, plasma generation, general laboratory and industrial applications. Featuring solid state design in all RF amplifier stages and a built-in DDS signal source, it provides everything for a complete and reliable, finely controlled RF power delivery system.

The AG 1006 produces up to 300W of RF Power over a frequency range from 20 kHz to 15 MHz. It operates without band switching or other adjustments. Front Panel offers a LCD display of Forward, Reflected and Load Power readings, RF Status, MGC/AGC setups and operating frequency in Generator Mode. When used as an amplifier, the AG 1006 is compatible with most signal and function generators, computer synthesizer cards and it accurately reproduces all waveforms within its output and bandwidth limits. The internal power supply is designed to permit operation over a wide range of temperature and global AC line conditions.

AG 1006 is protected by its internal monitoring system for greater than 300 Watts Forward Power, 80 Watts of Reflected Power. This is intended to protect the amplifier output stage from accidental overdrive at the input and an extreme mismatch at the Output.



For more information visit TCPOWERCONVERSION.com
or email us at: info@tcpowerconversion.com

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

AG 1006 SPECIFICATIONS

Class Of Operation

Class A/B

Frequency Of Operation

20 kHz to 15 MHz

RF Power Output

50 Ohm load:

Up to 300W from 20 kHz to 15 MHz

Any load:

Up to 200W continuous operation

Gain

55 dB @ 300W / 0.5 MHz

±1.5 dB 20 kHz to 15 MHz

±1 dB 2 MHz to 15 MHz

RF Input Drive

Typical range -20 dBm to 0 dBm,
+5 dBm max

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
output capable of up to 1 Vp-p @ 50
Ohm (+5dBm)

Internal RF Source

DDS oscillator: 20 kHz to 15 MHz,
1 kHz resolution

Input and Output Impedance

50 Ohm

2:1 max INPUT VSWR

3:1 max OUTPUT VSWR

Output VSWR Protection

70 W max reflected power limit

Harmonic Level @ 100W

H3 (3rd) - better than -20dBc from 20
kHz to 1000 kHz.

Any other, better than -20 dBc

Harmonic Level @ 300W

H3 (3rd) - better than -20dBc from 20
kHz to 750 kHz.

H3 (3rd) - better than -15dBc from 750
kHz to 2500 kHz.

Any other, better than -18 dBc

Spurious Output

- 50 dBc 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=100W. Rear
Panel

BURST:

Internal settings:

Pulse range: 1 to 500 usec

Period: 1 to 50 milliseconds

User settings via GUI and RS232

External settings:

DC to > 200 kHz. User defined

BURST scheme via SubD-25.

See analog port description for more
details.

SWEEP operation

0.02 to 15 MHz. 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 RF spectrum noise.
Less than 1µs Rise/Fall time.

Rear Panel RF Connectors

BNC Female

AC Power Connection

IEC Standard Power Entry followed
by RFI filter.

Filter range 0.1 to 30 MHz minimum.

AC Circuit Protection

Internally fused on the main DC Pow-
er Supply, 15A.

AC Input Current (RMS)

100—120 V ac, 50—60 Hz, 11.0 A

200—240 V ac, 50—60 Hz, 8 A

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 AL chassis,
yellow conductive finish.

Front Panel: T&C off-white.

Cover: T&C black.

Dimensions

(H 135 x W 356 x L 385) mm

(5.25" x 10" x 15")

Optional Half Rack, 3U High.

Weight

13 kg, 29 lbs.

Mounting

Stand alone unit.

Optional Rack Mount Kit.

Environmental conditions

Temp.: 10° to 40° C ambient

Humidity: 80%

Equipment intended for ISM appli-
cations in laboratory and light in-
dustrial environment.

