



T&C

Power Conversion

AG 0201HV-OS HIGH VOLTAGE PLASMA GENERATOR

T&C POWER CONVERSION

Up to 12kV of Plasma Power From 100 kHz to 500 kHz Applications: Laboratory & Industrial.

FEATURING:

- 100 kHz to 500 kHz up to 140 W - 12 kVp-p Plasma
- Low distortion Output, < -45dBc (std load @80W FWD, 8kV p-p)
- Digital Metering measures forward & reflected power simultaneously
- Front Panel Control of Generator functions
- High Voltage Plasma level available from front panel alternate function button
- Open, Short, and High Voltage Limit, circuit protection used to protect generator from damage
- Generator can be fully integrated into a manufacturing cyanogen system



The **AG 0201HV-OS** is a unique source of RF high voltage suitable for a wide variety of applications in industry and research. It combines a number of features that simplify establishment and control of gas plasma. A very accurate broadband power meter senses the power transfer from the power amplifier to the matching network and through to the plasma discharge. **The Analog Signal Processor (ASP)** monitors this transfer and maintains a safe operating condition for the AG 0201HV-OS. It displays the levels of Forward Power and Reverse Power in Watts and the amplitude of the HV voltage in volts divided by 10. All of this information is available from

the front panel. **The Remote Control Interface** connection allows for remote control of the generator. The **ASP** is responsible for the display and control of all critical parameters of the high voltage generation. As a result it maintains an accurate, repeatable plasma process control, while being user friendly as well.

The AG0201HV may be controlled from the front panel, or from the remote control interface via amphenol 5-pin connection on rear panel.

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AG 0201HV-OS Specifications

Frequency:	VCO = 100 kHz to 500 kHz, operation ~370 kHz
Frequency stability:	< 1% Full Scale
Output Power:	FWD = 0 to 140 Watts (REV Limit = 35W)
Ignition Power:	up to 150 Watts for ~1 ms
Output Impedance:	Designed for the best power transfer into high impedance loads.
RF POWER Meter accuracy:	± 3% Typical in the best match condition
HV Meter accuracy:	Within 10% Operating in a matched condition.
High Voltage RF connection:	48" of High Voltage cable. 25 kV RF Connector, round flanged receptacle.
Line Regulation:	0.5% @ Full POWER
Forward Power Regulation:	± 1%
Load Mismatch Tolerance:	Continuous
Harmonic Distortion:	< -45 dBc (Standard load @ 100 W FWD, 8 kVp-p)
Noise Ham and Ripple:	< -40 dBc (Standard load @ 100 W FWD, 8 kVp-p)
Protection:	Short and Open Circuit, HV Output - Over voltage
Spurious Radiation:	Designed to Meet FCC part 18
Operating Temp:	0°C to 40°C
Cooling:	Forced Air
Acoustic Level:	45 dBa @ Max Fan Speed & Temp
Humidity:	80 %
Power Required:	100 to 120 and 200 to 240 VAC ±10%, 47-63 Hz, Single Phase - typical, No adjustments necessary. (min 90 - max 132 VAC and min 180 - max 264 VAC)
Power Consumption:	» 400 VA@ Full POWER Output
Circuit Protection:	15A Fuse on Main Power Supply, 2A on Signal Power Supply
Output Voltage:	0 to 6 kV peak (12 kV p-p), max output 13.5 kV p-p in open load (14kVp-p in pulses). NOTE! Operation >10 kVp-p in 25% Duty Cycle Only!
Dimensions:	H 5.25" x W 10" x D 15" 134mm x 254mm x 381mm
Weight:	15.5 lbs. / 7.5 kg

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