

Model 5000A3 5000 Watts CW 10kHz-3MHz

The Model 5000A3 is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. The Model 5000A3 when used with an RF sweep generator, will provide a minimum of 5000 watts of swept power.

The Model 5000A3 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 3¾-inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer extensive control and status reporting capability. The display provides operational presentation of Forward Power and Reflected Power plus control status and reports of internal amplifier status.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format. The buss interface connector is located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

High efficiency universal input, power factor corrected switching power supplies provides DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 5000A3 provides readily available RF power for typical applications such as component testing, watt meter calibration, particle accelerators, plasma generation, communications and use as a driver for higher power amplifiers.

SPECIFICATIONS Model 5000A3

| RATED OUTPUT POWER | 5000 watts, 10 kHz–3 MHz |
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| INPUT FOR RATED OUTPUT | 1.0 milliwatt maximum |
| POWER OUTPUT @ 1 dB COMPRESSION | 2500 watts minimum |
| FREQUENCY RESPONSE | 10 kHz-3 MHz instantaneously |
| GAIN (at maximum setting) | 67 dB minimum |
| FLATNESS | ± 1.0 dB maximum |
| GAIN ADJUSTMENT (continuous range) | 20 dB minimum |
| INPUT IMPEDANCE | 50 ohms, VSWR 1.5:1 maximum |
| OUTPUT IMPEDANCE | 50 ohms, VSWR 2.5:1 maximum |
| MISMATCH TOLERANCE | 100% rated power without foldback up to 6.0:1 mismatch above which may limit to 2500 watts reflected power. |
| MODULATION CAPABILITY | Faithfully reproduces AM, FM or Pulse modulation appearing on input signal. |
| HARMONIC DISTORTION | Minus 20 dBc maximum at 2500 watts power output. |
| THIRD ORDER INTERCEPT POINT | 74 dBm typical |
| RF POWER DISPLAY | Forward and Reverse |
| PRIMARY POWER | |
| | 346-416 VAC, Wye (5 wire) 400-480 VAC Delta (4 wire), Wye compatible |
| | 47-63 Hz, 3 phase |
| | (user must specify) |
| | 20,000 watts maximum at .95 P.F. typical |
| CONNECTORS | |
| RF Input | |
| RF Output | Type EIA 1 5/8 male on rear panel |
| Detected RF | Type BNC female on front panel, Forward/Reverse, 0-10Vdc 24 pin female GPIB/IEEE-488 connector on rear panel, RS-232, USB, Ethernet |
| Safety Interlock | |
| IEEE-488 (GPIB) INTERFACE | Allows control of all amplifier functions and monitoring of all status indications via standard GPIB/IEEE-488 commands |
| COOLING | Forced air (self contained fans) |