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MODEL 3500A100
3500 WATTS CW
10kHz - 100 MHz

The Model 3500A100 is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 3500A100, when used with an RF sweep generator, will provide a minimum of 3500 watts of swept power.

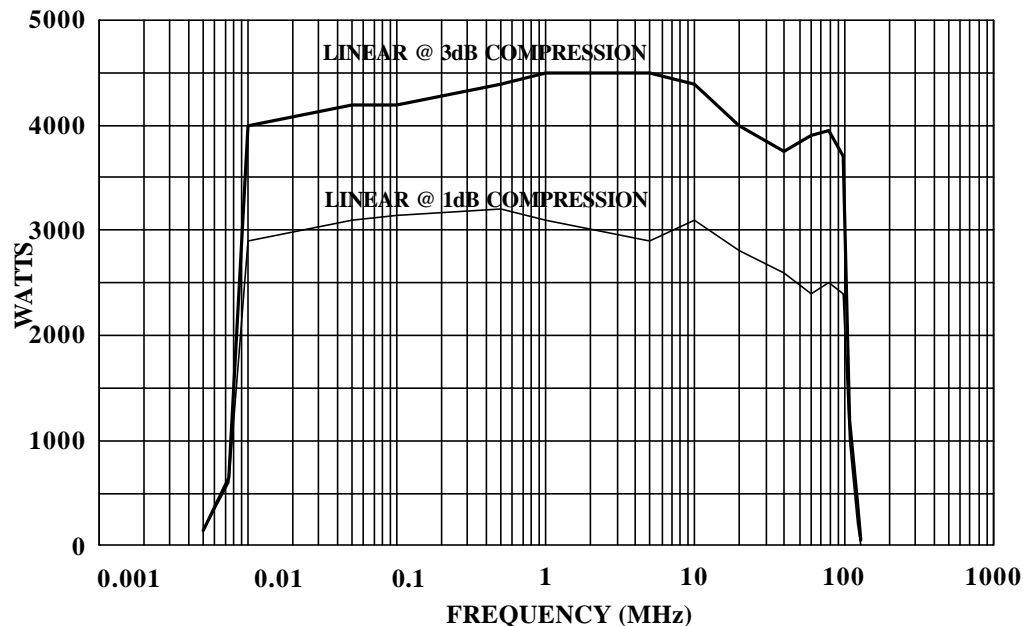
The Model 3500A100 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 4¾ inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches (POWER, STANDBY, OPERATE and FAULT/RESET) to offer 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. Special features include a gain control, internal/external automatic level control (ALC) with front panel control of the ALC threshold, pulse input capability and RF output level protection. Also included is an internal RF detector which provides an output for use in self-testing or operational modes.

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 3500A100 provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, particle accelerators, plasma generation, communications and use as a driver for higher power amplifiers

3500A100 TYPICAL POWER OUTPUT



SPECIFICATIONS
Model 3500A100

RATED OUTPUT POWER	3500 watts
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 3dB COMPRESSION	
<i>Typical</i>	4100 watts
<i>Minimum</i>	3500 watts
POWER OUTPUT @ 1dB COMPRESSION	
<i>Typical</i>	2500 watts
<i>Minimum</i>	2000 watts
FREQUENCY RESPONSE	10 kHz - 100 MHz instantaneously
GAIN (at maximum setting)	66 dB minimum
FLATNESS	± 1.5 dB maximum ± 0.5 dB with internal leveling
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	Will operate without damage, or oscillation with any magnitude and phase of source and load impedance. May limit at 1750 watts reflected power.
MODULATION CAPABILITY	Will faithfully reproduce AM, FM or Pulse modulation appearing on the input signal.
HARMONIC DISTORTION	Minus 20 dBc maximum at the specified minimum 1dB compressed power
THIRD ORDER INTERCEPT POINT	73 dBm typical
RF POWER DISPLAY	0 - 5000 watts full scale
PULSE MODE GATING CHARACTERISTICS	
<i>Signal (into 50 ohms)</i>	+ 2.0 to 6.0 VDC
<i>Rise Time</i>	0.5 microseconds maximum
<i>Fall Time</i>	0.5 microseconds
RF RISE/FALL TIME	10 nanoseconds maximum
PRIMARY POWER	180-267 VAC Delta (4 wire) 360-435 VAC, Wye (5 wire) (user must specify) 47-63Hz, 3 phase 15,000 watts maximum at .99 P.F. typical
CONNECTORS	
<i>RF Input</i>	Type N female on rear panel
<i>RF Output</i>	Type 7/16 female on rear panel
<i>External Leveling Inputs</i>	Type BNC female on front panel
<i>Pulse Modulation Inputs</i>	Type BNC female on front panel
<i>Detected RF Output</i>	Type BNC female on front panel
<i>Remote Control</i>	24 pin female GPIB/IEEE-488 connector on rear panel
<i>Safety Interlock</i>	15 pin female Type D on rear panel
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)
WEIGHT (maximum)	317.5 kg (900 lb)
SIZE (W x H x D)	56.2 x 152.0 x 100.0 cm 22.1 x 60.0 x 39.4 in