



**Model 1500A3**  
**1500 Watts CW**  
**10kHz–3MHz**

The Model 1500A3 is a self-contained, air-cooled, broadband, solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. The Model 1500A3, when used with an RF sweep generator, will provide a minimum of 1500 watts of swept power.

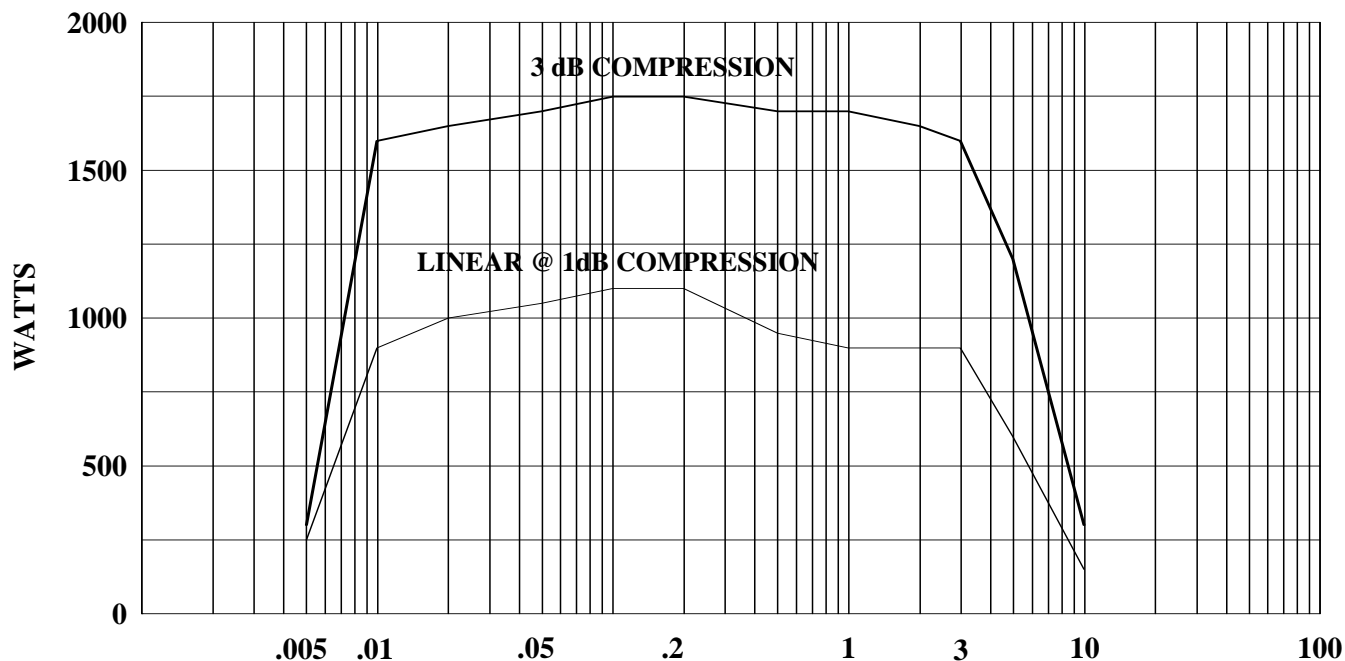
A digital control panel provides both local and remote control of the amplifier. The display provides operational presentation of forward power and reflected power, plus control status and reports of internal amplifier status. Special features include a gain control, RF output level protection, and an optional remote transformer with selectable taps for matching to different load impedances.

All amplifier control functions and status indications are available remotely in IEEE-488, RS-232 and USB. The buss interface connectors are 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 provide DC to all internal assemblies. Typical applications include RF susceptibility testing, particle accelerators, plasma generation, transducer testing, and use as a driver for higher power amplifiers.

The 1500A3 is part of AR's *Expandable Power* concept, which gives the amplifier much more versatility. The 1500A3 consists of two 800A3 sub-amplifiers housed in a single equipment rack with a controller. The 1500A3 can function as one amplifier or be separated and operate as two separate 800A3 amplifiers which can be easily removed and used independently.

**1500A3 TYPICAL POWER OUTPUT**



## SPECIFICATIONS, MODEL 1500A3

RATED POWER OUTPUT .....	1500 watts minimum
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB compression	
Nominal .....	1500 watts
Minimum .....	1400 watts
POWER OUTPUT @ 1 dB compression	
Nominal .....	1000 watts
Minimum .....	800 watts
FLATNESS .....	$\pm 1.0$ dB maximum
FREQUENCY RESPONSE .....	10 kHz–3 MHz instantaneously
GAIN (at maximum setting) .....	63 dB minimum
GAIN ADJUSTMENT (continuous range) .....	23 dB minimum
INPUT IMPEDANCE .....	50 ohms nominal
OUTPUT IMPEDANCE .....	50 ohms nominal (10kHz-3MHz)
MISMATCH TOLERANCE .....	100% rated power without foldback up to 6.0:1 mismatch above which may limit to 800 watts reflected power. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.
HARMONIC DISTORTION .....	Minus 20 dBc maximum at 800 watts power output.
MODULATION CAPABILITY .....	Will faithfully reproduce AM (within the linear power spec), FM, or pulse modulation appearing on the input signal.
OUTPUT CONNECTOR .....	Type N female, front panel
INPUT CONNECTOR .....	Type N female, front panel
REMOTE CONTROL .....	IEEE-488/RS-232/USB, ability to remote control and power an external impedance transformer (IT2000 series).
RF POWER DISPLAY .....	0–2000 watts full scale. Directional power monitor allows separate display of forward and reflected power.
POWER MONITOR .....	BNC: 0-10V forward and reverse power
COOLING .....	Forced-air (self-contained fans)
PRIMARY POWER .....	Universal, 180–275 VAC, 47–63HZ, 5000 watts maximum
WEIGHT .....	136 kg (300 lb)
DIMENSIONS .....	56.1 x 109.2 x 88.9 cm (22.1 x 43 x 35 in)

**NOTE:** For external impedance transformer options, see Specification Sheet for IT2000 Series Impedance Transformers.