

Model 800A3
800 Watts CW
10kHz–3MHz

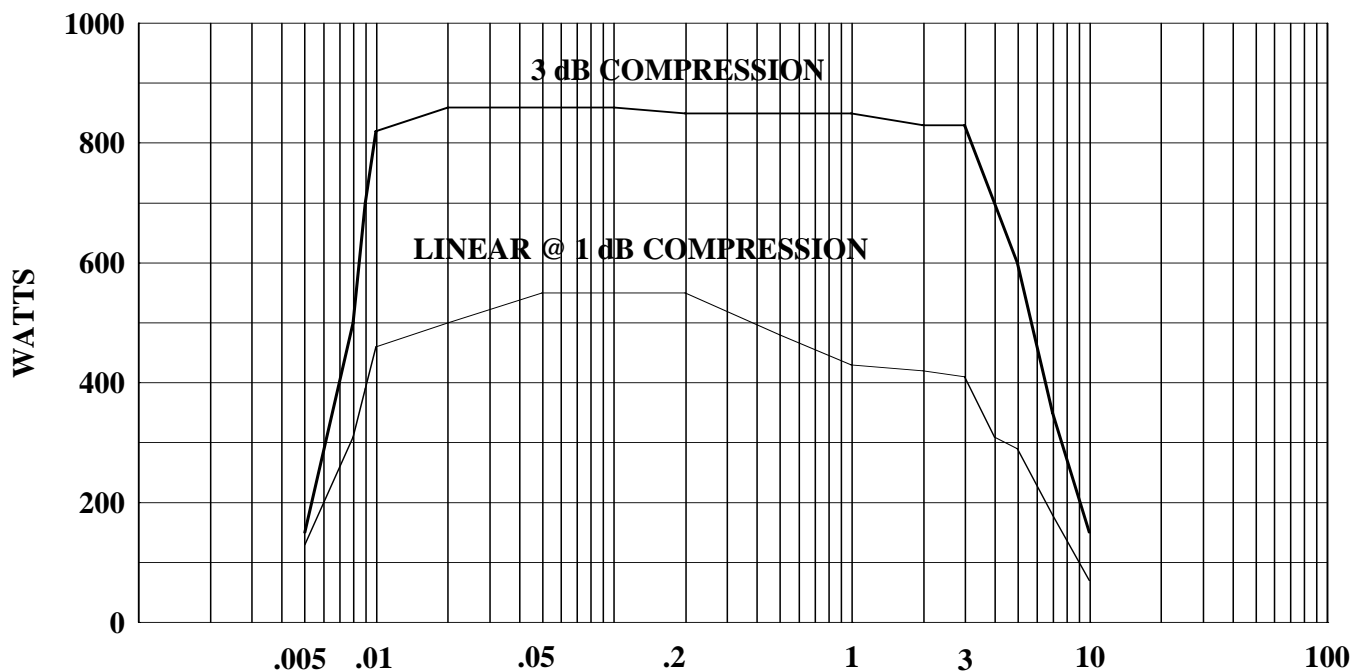
The Model 800A3 is a self-contained, air-cooled, broadband, solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. The Model 800A3, when used with an RF sweep generator, will provide a minimum of 800 watts of swept power.

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 a transformer with selectable taps for matching to different load impedances.

All amplifier control functions and status indications are available remotely in IEEE-488 and RS-232. 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.

800A3 TYPICAL POWER OUTPUT



MODEL 800A3 SPECIFICATIONS

RATED POWER OUTPUT	800 watts minimum
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB compression	
Nominal	800 watts
Minimum	700 watts
POWER OUTPUT @ 1 dB compression	
Nominal	500 watts
Minimum	400 watts
FLATNESS	± 1.0 dB maximum
FREQUENCY RESPONSE	10 kHz–3 MHz instantaneously
GAIN (at maximum setting)	60 dB minimum
GAIN ADJUSTMENT (continuous range)	23 dB minimum
INPUT IMPEDANCE	50 ohms nominal
OUTPUT IMPEDANCE (switch select; manual)	12.5, 25, 50, 100, 150, 200, 400 ohms nominal (10kHz-3MHz) on front panel
MISMATCH TOLERANCE	100% rated power without foldback up to 6.0:1 mismatch above which may limit to 400 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 400 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, ability to remote control and power an external impedance transformer.
RF POWER DISPLAY	0–1000 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, 85–137/180–300VAC, 47–63 Hz, 2500 watts maximum.
WEIGHT	31.7 kg (70 lbs)
DIMENSIONS (W x H x D)	50.3 x 34.0 x 55.1 cm (19.8 x 13.4 x 21.7 in)

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