



## 800A3B

- M1 through M3
- 800 Watts CW
- 10kHz–3MHz



### Features

The Model 800A3B is a self-contained, air-cooled, broadband, solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. The Model 800A3B, when used with an RF sweep generator, will provide a minimum of 800 watts of swept power.

The Model 800A3B is equipped with a digital control panel which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control 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, RF output level protection, and a transformer with selectable taps for matching to different load impedances.

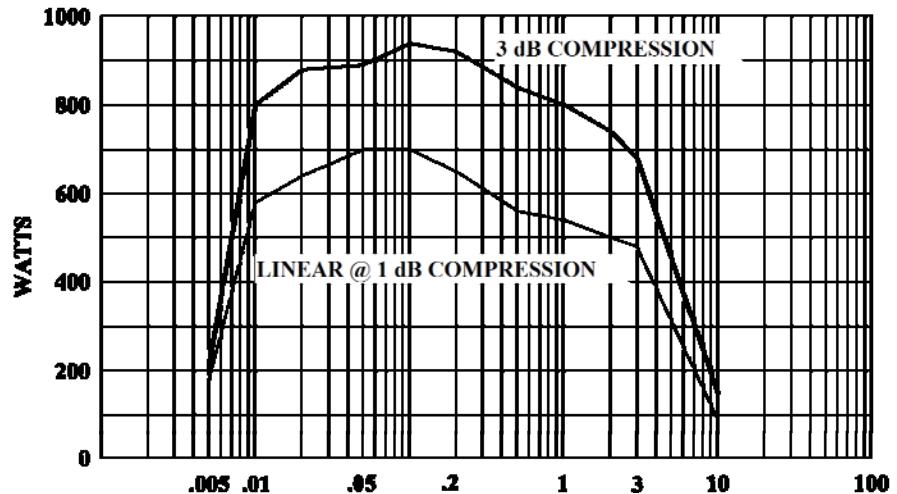
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488, RS-232, RS-232 Fiber Optic, Ethernet and USB. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

The 800A3B amplifier is intended for applications where the load impedance is not necessarily 50 ohms. The selectable output impedance provides the capability to drive loads that would otherwise cause a high SWR and limit the delivered power. The impedance matching transformer uses high-voltage/high-current vacuum relays so the user can "hot switch" between impedances without damage.

The Model 800A3B is housed in a cabinet and designed to provide complete standalone performance for RF testing.

The export classification for this equipment is EAR99. These commodities, technology or software are controlled for export in accordance with the U.S. Export Administration Regulations. Diversion contrary to U.S. law is prohibited.

800A3B Typical Power Output



AR RF/Microwave  
Instrumentation  
160 School House Rd  
Souderton, PA 18964  
215-723-8181

For an applications engineer call: 800.933.8181

[www.arworld.us](http://www.arworld.us)



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## Specifications

**RATED POWER OUTPUT:** 800 watts minimum  
**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum  
**POWER OUTPUT @ 3 dB compression:**  
 Nominal 800 watts  
 Minimum 800 watts, 10 kHz–2 MHz  
 700 watts, 2 MHz–3 MHz  
**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):** 59 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:** See Model Configurations  
**INPUT CONNECTOR:** See Model configurations  
**REMOTE CONTROL:** GPIB-IEEE-488/RS-232/RS-232 Fiber Optic/Ethernet/USB, 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.  
**COOLING:** Forced-air (self-contained fans)  
**PRIMARY POWER:** 190–240VAC, 50/60 Hz, 2500 watts maximum  
**WEIGHT:** See Model configurations  
**DIMENSIONS (W x H x D):** See Model configurations  
**EXPORT CLASSIFICATION:** EAR99  
**NOTE:** For external impedance transformer options, see Specification Sheet for IT2000 Series Impedance Transformers.

## Model Configurations

Model Number	RF Input	RF Output	Weight	Size (W x H x D)
800A3B	Type N female, front	Type N female, front	36.4 Kg (80 lb)	50.3 x 34.0 x 55.1 cm 19.8 x 13.4 x 21.7 in
800A3BM1	Type N female, rear	Type N female, rear	36.4 Kg (80 lb)	50.3 x 34.0 x 55.1 cm. 19.8 x 13.4 x 21.7 in
800A3BM2	Same as 800A3B with cabinet removed		29.4 Kg (65 lb)	48.3 x 30.5 54.4 cm 19.0 x 12.0 x 21.4 in
800A3BM3	Same as 800A3BM1 with cabinet removed		29.4 Kg (65 lb)	48.3 x 30.5 54.4 cm 19.0 x 12.0 x 21.4 in