



**Model 16,000A225,
M1 through M4
16,000 Watts CW
10kHz–225MHz**

The Model 16,000A225 is a self-contained, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth and high gain are required. The amplifier is air cooled using internal self-contained liquid cooling for high performance and reliability. Push-pull LDMOS circuitry is utilized in all high power stages in the interest of low distortion and improved stability.

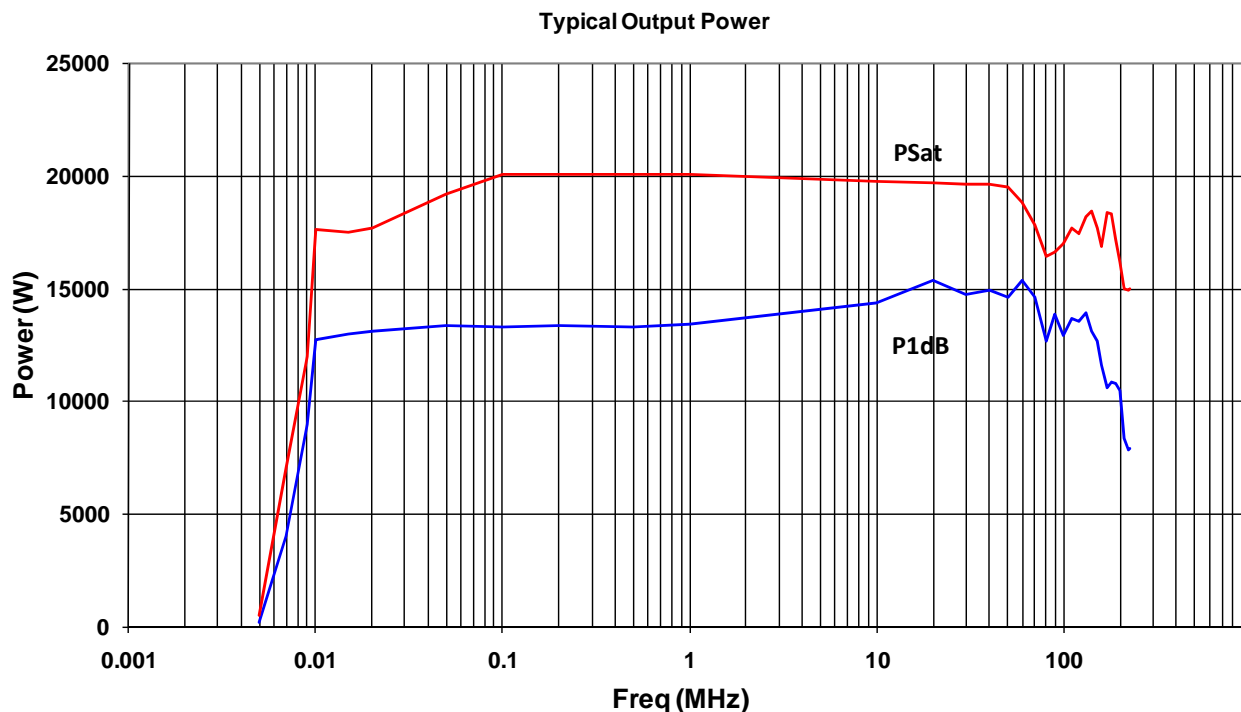
The Model 16,000A225 is equipped with a Digital Control Panel (DCP), providing local and remote control of the amplifier. The DCP uses a 3 ¾ inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches to offer extensive control and status reporting. The display 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, and RS-232 hard wire and fiber optic. 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 sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 16,000A225 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.

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.



SPECIFICATIONS, MODEL 16,000A225

RATED OUTPUT POWER	16,000 watts, 10 kHz–50 MHz 16,000–12,000 watts, 50 MHz–225 MHz (derating slope of 22.8 watts/MHz)
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 1 dB COMPRESSION	12,000 watts, 10 kHz–50 MHz 12,000–8000 watts, 50 MHz–200 MHz (derating slope of 26.66 watts / MHz) 6000 watts, 200 MHz–225MHz
FREQUENCY RESPONSE	10 kHz–225 MHz instantaneously
GAIN (at maximum setting)	72 dB minimum
FLATNESS.....	±3.0 dB maximum ±1.0 dB with internal leveling
GAIN ADJUSTMENT.....	20 dB minimum
INPUT IMPEDANCE.....	50 ohms, VSWR 1.5:1 maximum
OUTPUT IMPEDANCE	50 ohms, nominal
MISMATCH TOLERANCE.....	100% rated power without foldback up to 6.0:1 mismatch above which may limit to 8,000 watts reflected power, from 10 kHz to 50 MHz. Limited to 6000 watts reflected power from 100 MHz to 225 MHz
MODULATION CAPABILITY.....	Will faithfully reproduce AM, FM or Pulse modulation appearing on the input signal.
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 10,000 watts
THIRD ORDER INTERCEPT POINT	77 dBm typical
RF POWER DISPLAY	0–25,000 watts full scale
PRIMARY POWER (User must specify).....	187-264 VAC Delta (4 wire), Wye compatible 365-528 VAC, Wye(5 wire) 47-63 Hz, 3-phase Note that in Wye configurations neutral may be used only for low-power circuits 75,000 watts maximum at .95 P.F. typical
CONNECTORS	
RF Input	Type N female on rear panel
RF Output	Type EIA 3-1/8 male on rear panel
Remote Control	24 pin female GPIB/IEEE-488, 9-pin RS-232 and USB connectors on rear panel
Remote Control (fiber optic)	ST connector. Tx and Rx RS-232.
Safety Interlock.....	15 pin female Type D on rear panel
Forward Power Sample Port (-70 dBc)	Type BNC female on front panel
Reverse Power Sample Port (-70 dBc)	Type BNC female on front panel
IEEE-488 (GPIB) and RS-232 INTERFACES.....	Allow control of all amplifier functions and monitoring of all status indications via standard GPIB/IEEE-488 commands or RS-232 commands
COOLING.....	Forced air (self contained fans); air-cooled w/self-contained internal liquid cooling
WEIGHT (maximum)	725 kg (1600 lb)
SIZE (W x H x D).....	280.5 x 152.4 x 88.9 cm (110.5 x 60 x 35 in)

MODEL CONFIGURATIONS

Model	RF Input	RF Output
16,000A225	N Female, rear panel	EIA 3-1/8 Male, rear panel
16,000A225M1	N Female, front panel	EIA 3-1/8 Male, rear panel
16,000A225M4	See separate specification sheet.	