

Model 12,500A225
12,500 Watts CW
10kHz–225MHz

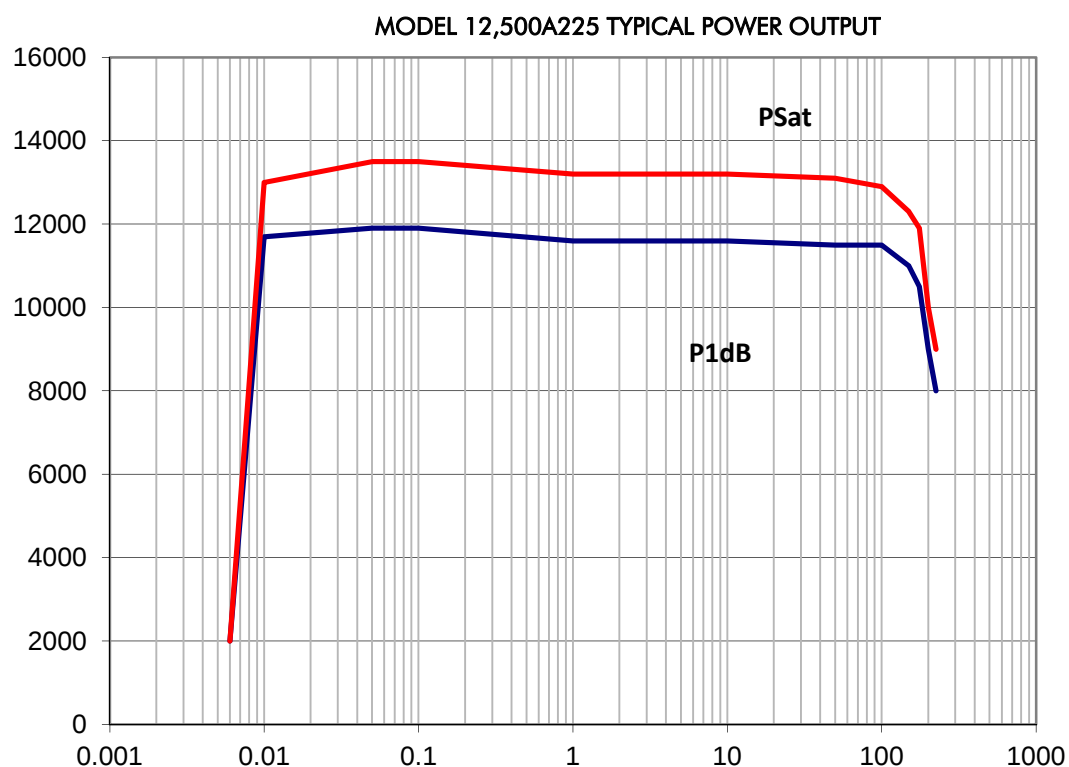
The Model 12,500A225 is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull MOSFET circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability.

The Model 12,500A225 is equipped with a Digital Control Panel (DCP) 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, internal automatic level control (ALC) with front panel control of the ALC threshold and RF output level protection.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-488 format, RS-232 hard wire and fiber optic, ethernet and USB. The bus 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 provides DC to all internal sub-assemblies.

Housed in a stylish, contemporary enclosure, the Model 12,500A225 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.

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SPECIFICATIONS, MODEL 12,500A225

RATED OUTPUT POWER	12,500 watts minimum, 10 kHz–100 MHz 12,500–8000 watts minimum, 100 MHz–225 MHz (derating slope of 36 watts/MHz)
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 1 dB COMPRESSION	11,000 watts, 10 kHz–100 MHz 11,000–7000 watts, 100 MHz–225 MHz (derating slope of 32 watts/MHz)
FREQUENCY RESPONSE	10 kHz–225 MHz instantaneously
GAIN (at maximum setting)	71 dB minimum
FLATNESS.....	± 3.0 dB maximum ± 1.0 dB with internal leveling
GAIN ADJUSTMENT (continuous range)	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 6500 watts reflected power, from 10 kHz to 100 MHz. Limited to 4500 watts reflected power from 100 MHz to 225 MHz.
MODULATION CAPABILITY	Faithfully reproduces AM, FM or Pulse modulation appearing on input signal.
HARMONIC DISTORTION	Minus 20 dBc maximum at 8000 watts power output.
THIRD ORDER INTERCEPT POINT	77 dBm typical
RF POWER DISPLAY	0–15,000 watts full scale
RF RISE/FALL TIME	10 nanoseconds maximum
PRIMARY POWER (User must specify).....	187-264 VAC Delta (4 wire), Wye compatible 380-460 VAC, Wye (5 wire) 47-63 Hz, 3-phase 55,000 watts maximum at .95 P.F. typical
CONNECTORS	
RF Input	Type N female, rear
RF Output	EIA 3-1/8 male, rear
Forward RF Sample	Type BNC female on front panel
Reverse RF Sample	Type BNC female on front panel
Remote Control	24 pin female GPIB/IEEE-488, 9-pin RS-232, Ethernet, 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
IEEE-488 (GPIB) & RS-232 INTERFACE	Allows control of all amplifier functions and monitoring of all status indications via standard GPIB/IEEE-488 or RS-232 commands
COOLING.....	Forced air (self contained fans with internal liquid cooling)
WEIGHT (maximum)	680 kg (1500 lbs)
SIZE (W x D x H).....	170.2 x 88.9 x 182.8 cm (67 x 35 x 72 in)
EXPORT CLASSIFICATION	EAR99