

Amplifiers

10000A225A-A

- 10,000 Watts CW
- 10kHz-225MHz

Features

The Model 10000A225A-A 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 for high performance and reliability (self-contained fans with internal liquid cooling). Push-pull LDMOS circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability.

The Model 10000A225A-A 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, pulse input capability, forward RF sample port, and a reflective RF sample port for convenient power measurements.

All amplifier control functions and status indications are available remotely in GPIB/IEEE-

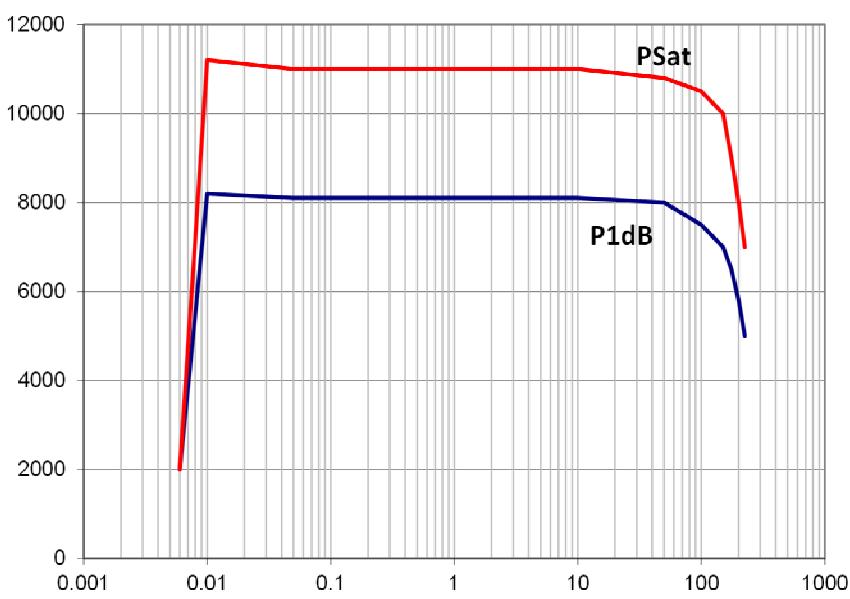
488, RS-232, RS-232 fiber optic, Ethernet and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a switch on the front panel of the amplifier.

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 10000A225A-A 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.

MODEL 10000A225A-A TYPICAL POWER OUTPUT



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Specifications

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RATED OUTPUT POWER:

Nominal: 11,000 watts
Minimum: 10,000 watts, .01-100 MHz
6000 watts, 100-225 MHz

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

POWER OUTPUT @ 1 dB COMPRESSION:

Nominal: 8000 watts
Minimum: 7000 watts, .01-100 MHz
4000 watts, 100-225 MHz

FREQUENCY RESPONSE: 10kHz-225MHz instantaneously

GAIN (at maximum setting): 70 dB minimum

FLATNESS: $\pm 3.0\text{dB}$ maximum; $\pm 1.0\text{dB}$ with internal leveling

GAIN ADJUSTMENT: 20 dB minimum

INPUT IMPEDANCE: 50 ohms, VSWR 2.0:1 maximum

OUTPUT IMPEDANCE: 50 ohms, nominal

MISMATCH TOLERANCE: 100% rated power without foldback up to 6.0:1 mismatch above which may limit to 5000 watts reflected power from 10kHz-100MHz. Limited to 3000 watts reflected power from 100MHz-225MHz.

MODULATION CAPABILITY: Will faithfully reproduce AM, FM or Pulse modulation appearing on the input signal.

HARMONIC DISTORTION: Minus 20 dBc maximum at 6000 watts power output

THIRD ORDER INTERCEPT POINT: 77 dBm typical

RF POWER DISPLAY: 0-15,000 watts full scale

RF RISE/FALL TIME: 150 nanoseconds maximum

PRIMARY POWER (User must specify):

190-240 VAC, Delta (4 wire)
380-480 VAC, Delta (4 wire)
47-63 Hz, 3-phase
40,000 watts maximum at .95 P.F. typical

CONNECTORS:

RF Input: N female, rear
RF Output: EIA 1-5/8 male, rear
Forward Sample: N female, front (coupling factor 80dB typical)
Reverse Sample: N female, front (coupling factor 80dB typical)
Pulse Modulation Input: BNC female, rear
Safety Interlock: 15 pin female Type D on rear panel

REMOTE CONTROL:

IEEE-488: 24 pin female, rear
RS-232: 9 pin female D, rear
RS-232 (fiber optic): Type ST, rear
USB 2.0: Type B female, rear
Ethernet: RJ-45

COOLING: Forced air (self-contained fans with internal liquid cooling)

WEIGHT (maximum): 500 kg (1100 lb)

SIZE (W x D x H): 112.1 x 82.4 x 165.3 cm (44.12 x 32.43 x 65.1 in)

EXPORT CLASSIFICATION: EAR99