



Amplifiers

200A400A

- 200 Watts CW
- 10kHz-400MHz



Features

The Model 200A400A is a self-contained, air-cooled, broadband, completely solid state amplifier designed for applications where instantaneous bandwidth and high gain are required. Push-pull LDMOS circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability. The Model 200A400A, when used with an RF sweep generator, will provide a minimum of 200 watts of swept power.

The Model 200A400A 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 precise power measurements.

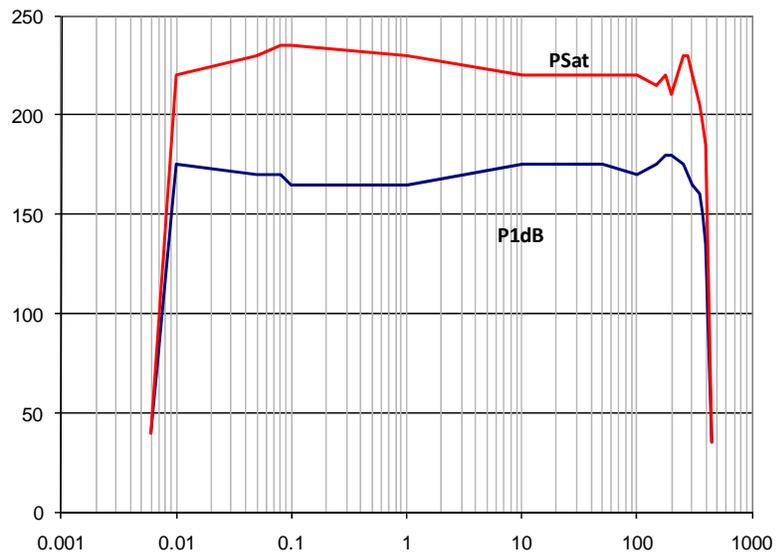
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488, RS-232, RS-232 fiber optic, Ethernet, and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a switch on the front panel 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 200A400A 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 of 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 200A400A TYPICAL POWER OUTPUT



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Specifications

RATED OUTPUT POWER: 200 watts

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

POWER OUTPUT @ 3 dB compression: 175 watts

POWER OUTPUT @ 1 dB compression: 150 watts, 10kHz-250MHz; 150-125 watts, 250MHz-400MHz (derated slope of .167W/MHz)

FLATNESS: ±3.0 dB maximum

FREQUENCY RESPONSE: 10 kHz–400 MHz instantaneously

GAIN (at maximum setting): 53 dB minimum

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 100W reflected power. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.

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

PULSE MODE GATING CHARACTERISTICS Signal (into 50 ohms): +3.0 to 6.0 VDC

HARMONIC DISTORTION: Minus 20 dBc maximum at 100 watts

THIRD ORDER INTERCEPT POINT: 65 dBm typical

RF POWER DISPLAY: 0–350 watts full scale

PRIMARY POWER: 85–264 VAC, 47–63 Hz; 1250 watts maximum @ 0.99 P.F. typical

CONNECTORS:

| | |
|--|--|
| RF input | See Model Configurations |
| RF output | See Model Configurations |
| Forward Sample | BNC female, front (coupling factor 60 dB typical; data supplied) |
| Reverse Sample | BNC female, front (coupling factor 60 dB typical) |
| Pulse Modulation Input | BNC female, rear |
| Safety Interlock | 15 pin female Type D, rear |
| Remote Computer Interface | IEEE-488 (GPIB) & RS-232, rear |
| Remote Computer Interface (Fiber optic): | ST Conn Tx, RS-232 Rx |
| USB 2.0 | Type B |
| Ethernet | RJ-45 |

COOLING: Forced air (self contained fans)

WEIGHT, maximum: 45.8 kg (101 lbs)

SIZE (W x H x D): 50.3 x 34 x 56.9 cm (19.8 x 13.4 x 22.0 in)

EXPORT CLASSIFICATION: EAR99

Model Configurations

| MODEL NUMBER | RF INPUT | RF OUTPUT |
|--------------|----------------------|----------------------|
| 200A400A | Type N female, front | Type N female, front |
| 200A400AM1 | Type N female, rear | Type N female, rear |