



**Model 400A400,  
400 Watts CW  
10kHz–400MHz**

The Model 400A400 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 400A400, when used with an RF sweep generator, will provide a minimum of 400 watts of swept power.

The Model 400A400 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a 3.75 inch diagonal graphic display, menu assigned softkeys, a single rotary knob, and four dedicated switches to offer extensive control and status reporting 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, forward RF sample port, and a reflective RF sample port for precise power measurements.

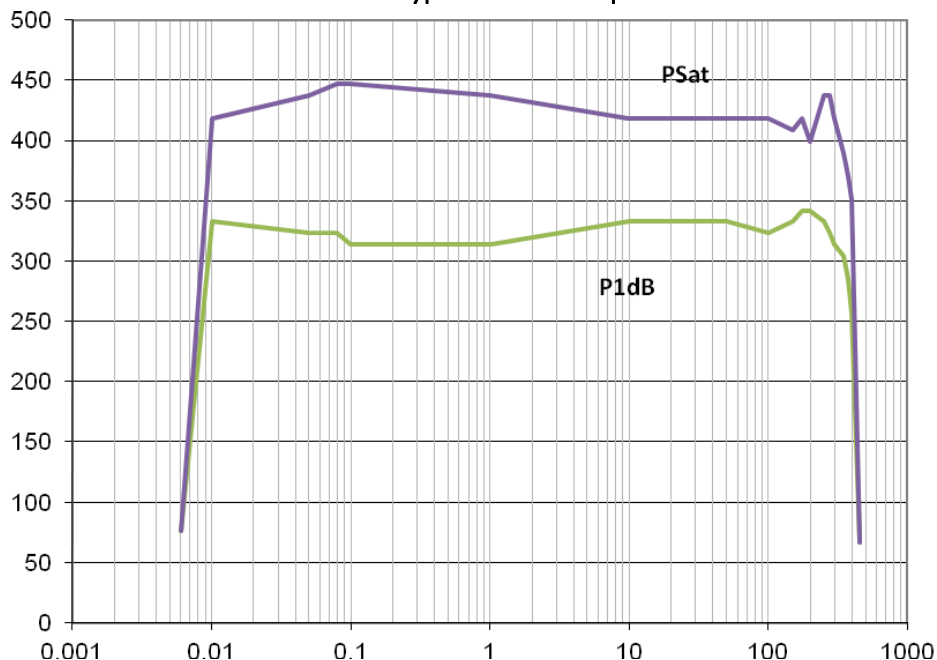
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488, RS-232 and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

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 400A400 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.

**400A400 Typical Power Output**



## SPECIFICATIONS, MODEL 400A400

RATED OUTPUT POWER .....	400 watts, 10kHz-250MHz 400-350 watts, 250MHz-400MHz (derated slope of .33W/MHz)
INPUT FOR RATED OUTPUT .....	1.0 milliwatt maximum
POWER OUTPUT @ 3 dB compression .....	350 watts, 10kHz-250MHz 350-300 watts, 250MHz-400MHz (derated slope of .33W/MHz)
POWER OUTPUT @ 1 dB compression .....	300 watts, 10kHz-250MHz 300-250 watts, 250MHz-400MHz (derated slope of .33W/MHz)
FLATNESS.....	± 3.5 dB maximum
FREQUENCY RESPONSE .....	10 kHz–400 MHz instantaneously
GAIN (at maximum setting) .....	56 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 200W 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
HARMONIC DISTORTION.....	Minus 20 dBc maximum at 300 watts
THIRD ORDER INTERCEPT POINT .....	65 dBm typical
RF POWER DISPLAY .....	0–750 watts full scale
PRIMARY POWER .....	180–264 VAC 47–63 Hz, 2500 watts maximum @ 0.99 P.F. typical
<b>CONNECTORS</b>	
RF input .....	See Model Configurations
RF output .....	See Model Configurations
Forward Sample.....	BNC female on front panel (coupling factor 60 dB typical; data supplied)
Reverse Sample.....	BNC female on front panel (coupling factor 60 dB typical)
Safety Interlock.....	15 pin female Type D on rear panel
<b>REMOTE CONTROL</b>	
IEEE-488.....	24-pin female on rear panel
RS-232 .....	9 pin female Type D on rear panel
USB.....	Type B female
COOLING.....	Forced air (self contained fans)
WEIGHT, maximum .....	45.8 kg (101 lbs)
SIZE (W x H x D).....	50.3 x 41.9 x 56.9 cm (19.8 x 16.5 x 22.0 in)
EXPORT CLASSIFICATION .....	EAR99

### MODEL CONFIGURATIONS

MODEL NUMBER	RF INPUT	RF OUTPUT
400A400	Type N female, front	Type N female, front
400A400M1	Type N female, rear	Type N female, rear