



400A400A

- 400 Watts CW
- 10kHz-400MHz



Features

The Model 400A400A 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 400A400A, when used with an RF sweep generator, will provide a minimum of 400 watts of swept power.

The Model 400A400A 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.

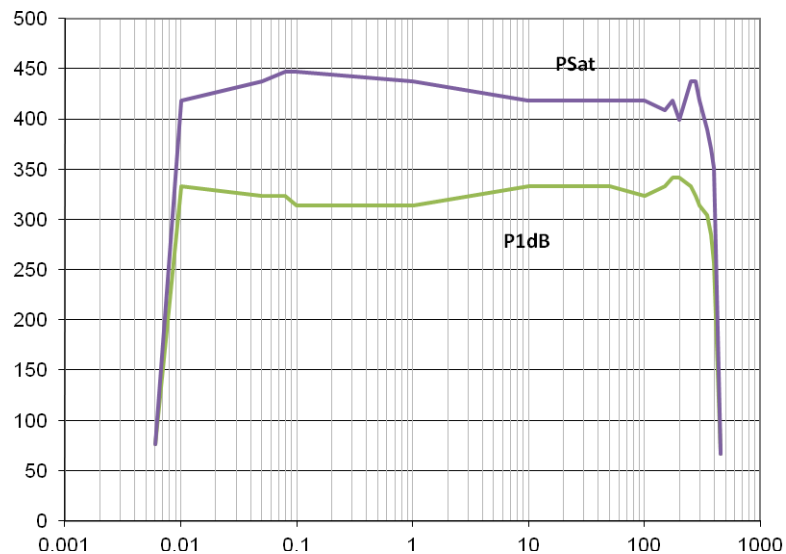
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488, RS-232, RS-232 fiber optic, Ethernet, and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a switch on the front panel 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 400A400A 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 400A400A TYPICAL POWER OUTPUT



AR RF/Microwave
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For an applications engineer call: 800.933.8181

www.arworld.us



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Specifications

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: 275 watts, 10kHz-250MHz; 275-225 watts, 250MHz-400MHz (derated slope of .33W/MHz)

FLATNESS: ±3.0 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 250 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

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)
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 & SIZE: See Model Configurations

EXPORT CLASSIFICATION: EAR99

Model Configurations

MODEL NUMBER	RF INPUT	RF OUTPUT	SIZE (W x H x D)	WEIGHT
400A400A	Type N female, front	Type N female, front	50.3 x 34 x 56.9 cm (19.8 x 13.4 x 22.0 in)	45.8 kg (101 lbs)
400A400AM1	Type N female, rear	Type N female, rear	50.3 x 34 x 56.9 cm (19.8 x 13.4 x 22.0 in)	45.8 kg (101 lbs)
400A400AM2	See separate specification sheet.			
400A400AM3	Type N female, front	Type N female, front	48.3 x 30.5 x 54.4 cm (19 x 12 x 21.4 in)	35.4 kg (78 lbs)
	Enclosure removed for rack mounting.			
400A400AM4	Type N female, rear	Type N female, rear	48.3 x 30.5 x 54.4 cm (19 x 12 x 21.4 in)	35.4 kg (78 lbs)
	Enclosure removed for rack mounting.			