



125A400

- 125 Watts CW
- 10kHz-400MHz

Features

The Model 125A400 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 125A400, when used with an RF sweep generator, will provide a minimum of 125 watts of swept power.

The Model 125A400 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-

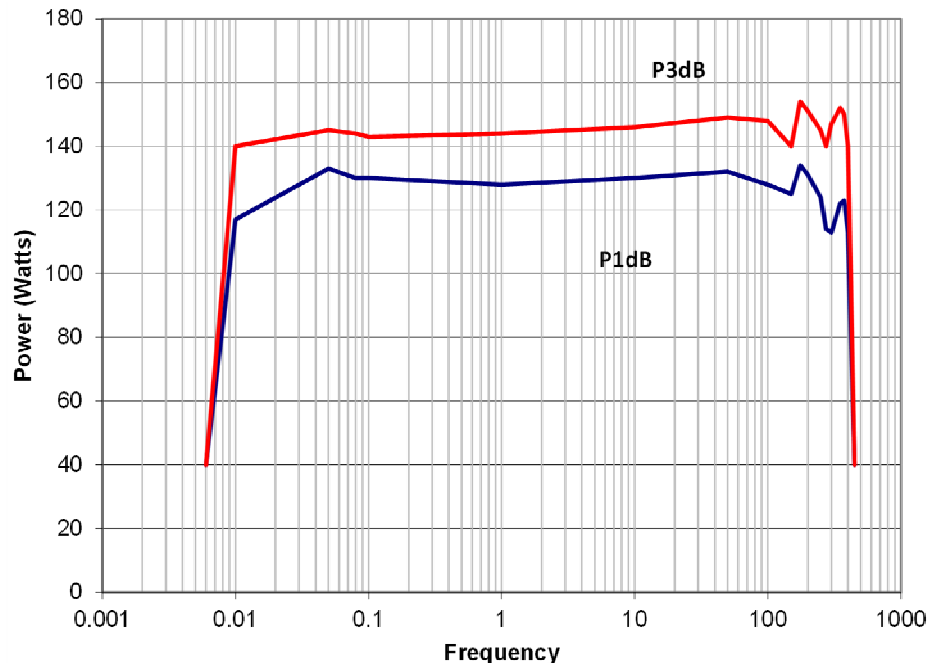
488, RS-232, RS-232 fiber optic, Ethernet and USB format. The buss interface connectors are located on the back panel and positive control of local or remote operation is assured by a switch on the front panel of the amplifier.

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 125A400 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.

125A400 Typical Power Output



AR RF/Microwave
Instrumentation
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Specifications

RATED OUTPUT POWER: 125 watts minimum
INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum
POWER OUTPUT @ 3 dB compression:
 Nominal, 140 watts; Minimum, 125 watts
POWER OUTPUT @ 1 dB compression:
 Nominal, 100 watts; Minimum, 75 watts
FLATNESS: 2.0 dB maximum
FREQUENCY RESPONSE: 10 kHz–400 MHz instantaneously
GAIN (at maximum setting): 51 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 62.5W 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 75 watts
THIRD ORDER INTERCEPT POINT: 62 dBm typical
RF POWER DISPLAY: 0–200 watts full scale
PRIMARY POWER: 85–264 VAC, 47–63 Hz, 600 watts maximum @ 0.99 P.F. typical
CONNECTORS:
 RF input See Model Configurations
 RF output See Model Configurations
 Forward Sample SMA female, rear (coupling factor 50 dB typical)
 Reverse Sample SMA female, rear (coupling factor 50 dB typical)
 Pulse Modulation Input BNC female, rear
 Safety Interlock 15 pin female Type D, rear
REMOTE CONTROL:
 IEEE-488 24-pin female, rear
 RS-232 9 pin female Type D, rear
 RS-232(Fiber optic) Type ST
 USB Type B female
 Ethernet RJ-45
COOLING: Forced air (self contained fans)
EXPORT CLASSIFICATION: EAR99

MODEL CONFIGURATIONS

MODEL	RF INPUT	RF OUTPUT	CABINET	WEIGHT	SIZE
125A400	Type N female, front	Type N female, front	Y	20.6 kg 45.5 lbs	50.3 x 16.3 x 56.4 cm 19.8 x 6.4 x 22.2 in
125A400M1	Type N female, rear	Type N female, rear	Y	20.6 kg 45.5 lbs	50.3 x 16.3 x 56.4 cm 19.8 x 6.4 x 22.2 in
125A400M2	Type N female, front	Type N female, front	N	12.2 kg 27 lbs	43.9 x 13.5 x 53.8 cm 17.3 x 5.3 x 21.2 in
125A400M3	Type N female, rear	Type N female, rear	N	12.2 kg 27 lbs	43.9 x 13.5 x 53.8 cm 17.3 x 5.3 x 21.2 in