



# 产 品 手 册

仪器型号： AR功率放大器1000a400

西安安泰测试科技有限公司

仪器维修|租赁|销售|测试

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## 1000A400

- 1000 watts CW
- 10kHz-400MHz
- Class A
- Portable
- Full VSWR-tolerant
- CE & RoHS Compliant

## Features

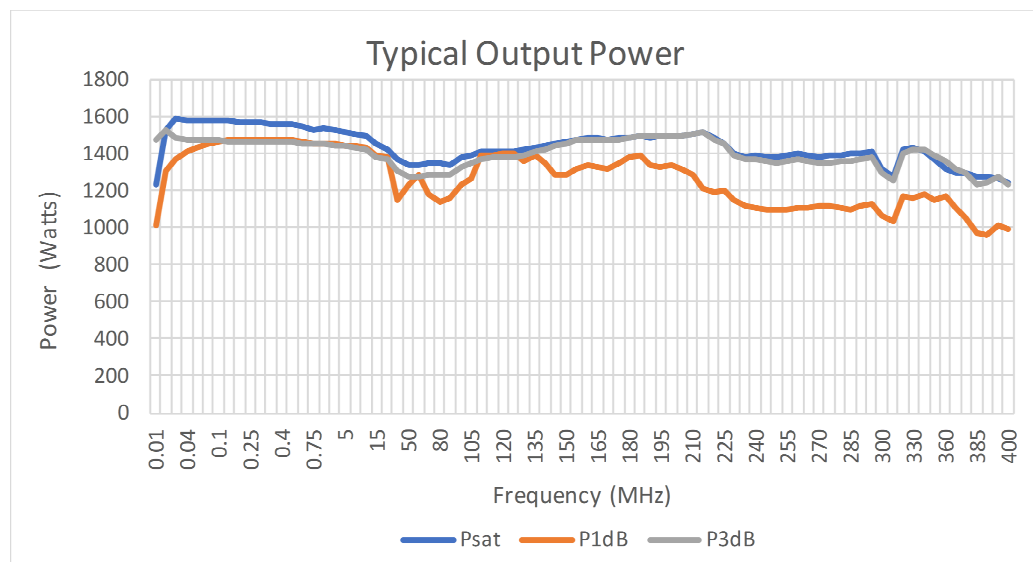
The Model 1000A400 is a solid-state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required.

The Model 1000A400, when used with a sweep generator, will provide a minimum of 1000 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 1000A400 is protected from RF input overdrive by an RF input leveling circuit which controls the RF input level to the RF amplifier first stage when the RF input level is increased above 0dBm. The RF amplifier stages are protected from over-temperature by removing the DC voltage to them if an over-temperature condition occurs due to cooling blockage or fan failure. The Model 1000A400 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 display to indicate the operate status and fault conditions if an over-temperature or power

supply fault has occurred. The unit can be returned to operate when the condition has been cleared.

All amplifier control functions and status indications are available remotely through the included Remotes Package. The Remotes Package includes GPIB/IEEE-488 format, RS-232 hardwire and fiber optic, USB, and Ethernet. The bus interface connector is located on the back panel and positive control of local or remote operation is assured by a Local/Remote switch on the front panel of the amplifier. Also included with the Remotes Package is a safety interlock circuit for use with external safety switch interlocks. This circuit prevents the amplifier from going into operate mode unless the external connection is made. A jumper plug is provided for cases where this functionality is not needed. Optional RF sample ports are available to allow for any forward and reverse power monitoring.

The export classification for this equipment is EAR99.



**AR RF/Microwave Instrumentation**  
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ISO 9001 Certified



rf/microwave instrumentation

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### Specifications

**RATED OUTPUT POWER:** 1200 watts typical, 1000 watts minimum

**INPUT FOR RATED OUTPUT:** 1.0 mW Max

**POWER OUTPUT @ 3dB COMPRESSION:**  
Typical: 1200 watts, Minimum: 1000 watts

**POWER OUTPUT @ 1dB COMPRESSION:**  
Typical: 1000 watts, Minimum: 800 watts

**FLATNESS:**  $\pm 1.5$  dB typical,  $\pm 2.0$  dB maximum

**FREQUENCY RESPONSE:** 10kHz-400 MHz instantaneously

**GAIN (at maximum setting):** 60 dB minimum

**GAIN ADJUSTMENT (Continuous Range) :** 25 dB minimum

**INPUT IMPEDANCE:** 50 ohms, VSWR 2.0:1 maximum

**OUTPUT IMPEDANCE:** 50 ohms nominal

**MISMATCH TOLERANCE:** Will operate without damage or oscillation when connected to any load impedance without the aid of foldback circuitry.

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

**THIRD ORDER INTERCEPT:** 68 dBm typical

**NOISE FIGURE:** 8 dB typical

**HARMONIC DISTORTION:** Minus 20 dBc maximum at 1000 watts

**SPURIOUS:** Minus 73 dBc typical

**PRIMARY POWER:** 200-240 VAC, 3-phase, 50/60Hz, 5.2 kW

### CONNECTORS:

RF Input: N female

RF Output: 7-16 DIN female, rear

### REMOTES PACKAGE:

IEEE-488: 24-pin female

RS-232: 9-pin subminiature D (female)

Fiber optic: ST Conn Tx and Rx RS-232

USB 2.0: Type B

Ethernet: RJ-45

Safety Interlock: 15-pin subminiature D

**COOLING:** Forced air (self contained fans)

**WEIGHT:** 124.8 kg (275 lbs)

### SIZE (W x H x D):

56.1 x 97.8 x 82.5 cm (22.1 x 38.5 x 32.5 in)

### ENVIRONMENTAL:

Operating Temperature: 5°C / +40°C

Operating Altitude: Up to 2000M

Shock and vibration: Normal Truck Transport

### REGULATORY COMPLIANCE:

EMC EN 61326-1

Safety UL 61010-1

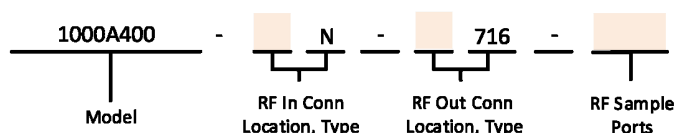
CAN/CSA C22.2 #61010-1

CENELEC EN 61010-1

RoHS DIRECTIVE 2011/65/EU

**EXPORT CLASSIFICATION:** EAR99

### Ordering Options



CONNECTOR LOCATION	
Front	F
Rear	R

RF SAMPLE PORTS	
No RF Sample Ports	NSP
RF Sample Ports Front	SPF
RF Sample Ports Rear	SPR

Contact your AR RF/Microwave Instrumentation Sales Associate for specific model configuration pricing.

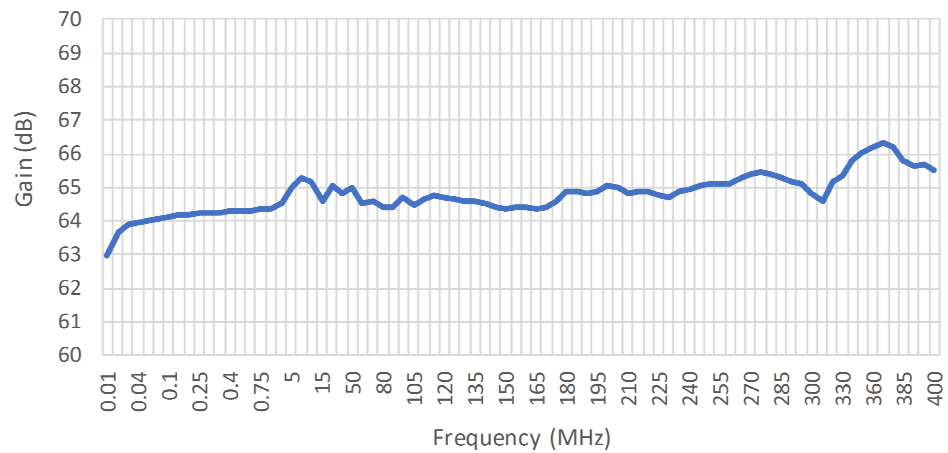
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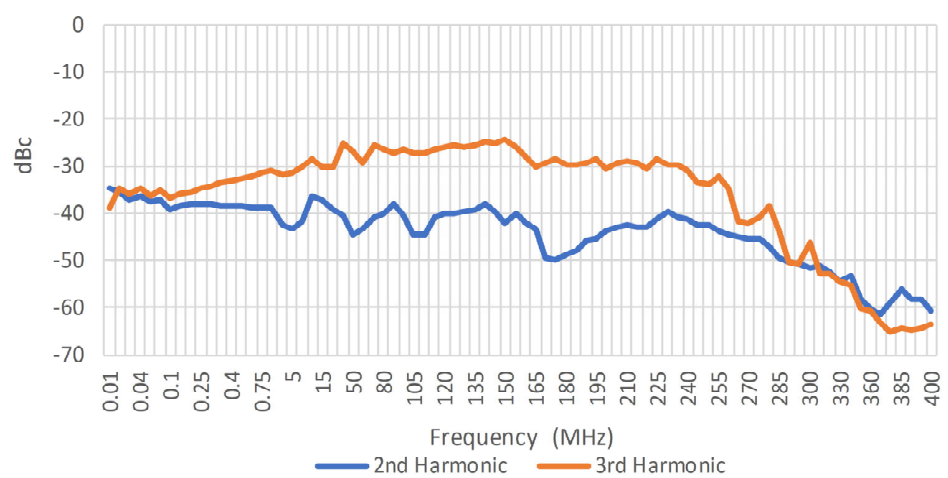
### Graphs

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#### Gain



#### Harmonics



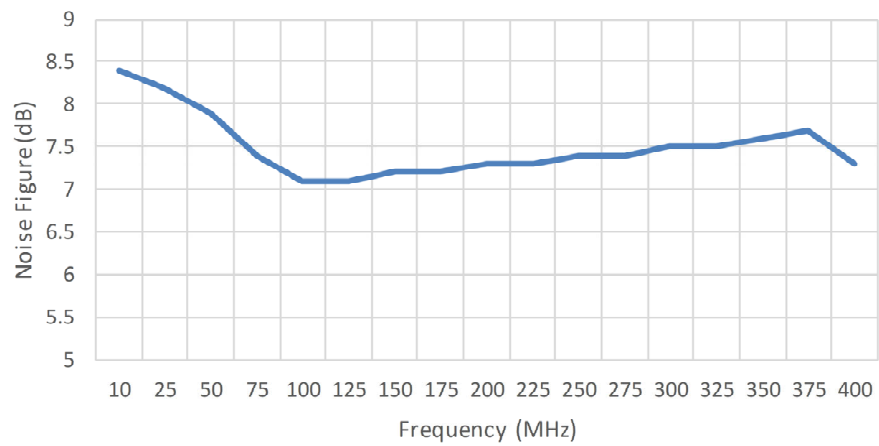
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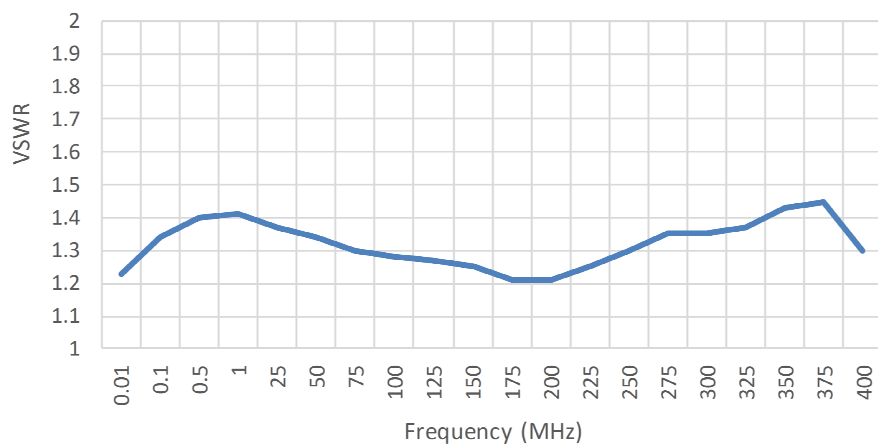
### Graphs

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#### Noise Figure



#### Input VSWR



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### Envelope Drawing

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