



## 5U1000

- 5 Watts CW
- 10kHz–1000MHz

### Features

The Model 5U1000 is a solid-state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Housed in a stylish, contemporary cabinet, the unit is designed for benchtop use.

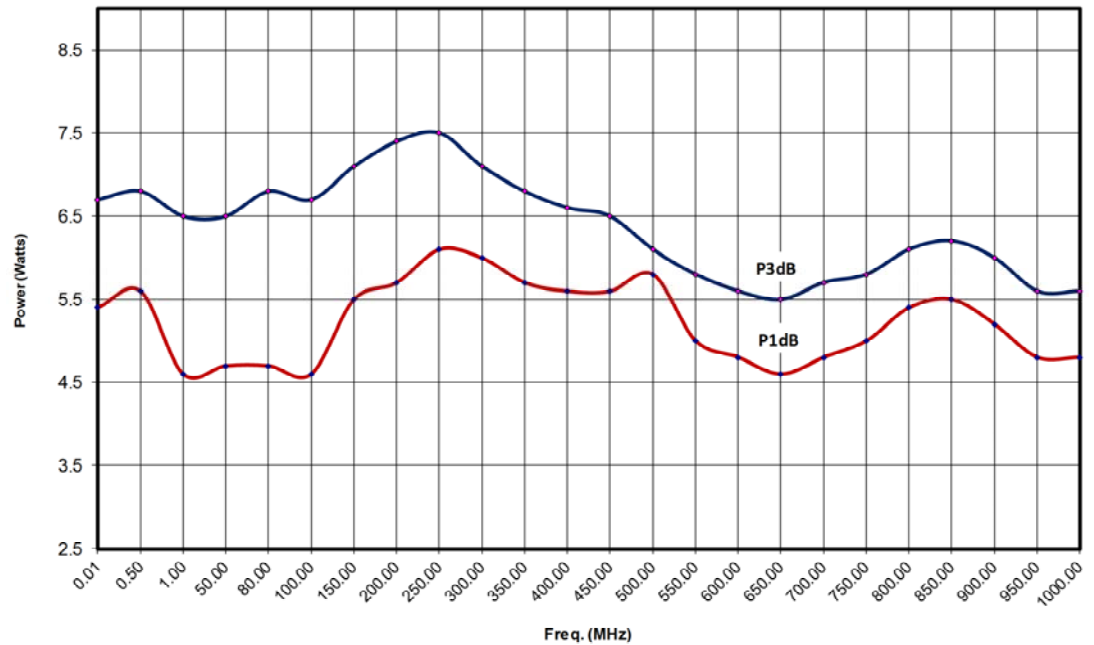


The Model 5U1000, when used with a sweep generator, will provide a minimum of 5 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 5U1000

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 Model 5U1000 is equipped with a control panel which provides a gain control adjustment knob. The Model 5U1000 provides readily available RF power for typical applications such as RF susceptibility testing, antenna and component testing, watt meter calibration, and as a driver for frequency multipliers and higher power amplifiers.

The export classification for 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.

5U1000 Typical Output Power



AR RF/Microwave  
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# 5U1000

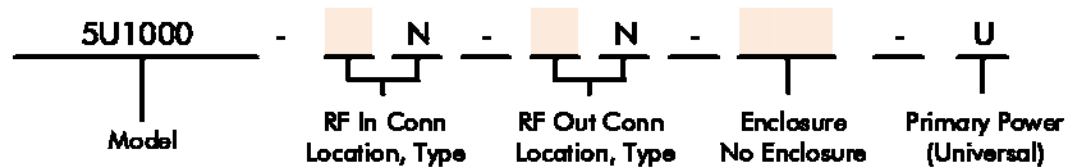
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## Specifications

**RATED OUTPUT POWER:** 5 watts minimum  
**INPUT FOR RATED OUTPUT:** 1.0 mW Max  
**POWER OUTPUT @ 3dB COMPRESSION:**  
 Typical: 5.0 watts, Minimum: 4.5 watts  
**POWER OUTPUT @ 1dB COMPRESSION:**  
 Typical: 4.0 watts, Minimum: 3.5 watts  
**FLATNESS:** ±1.3 dB typical, ±1.5 dB maximum  
**FREQUENCY RESPONSE:** 10kHz-1000 MHz instantaneously  
**GAIN (at maximum setting):** 37 dB minimum  
**GAIN ADJUSTMENT (Continuous Range):** 20 dB minimum  
**INPUT IMPEDANCE:** 50 ohms, VSWR 2.0:1 maximum  
**OUTPUT IMPEDANCE:** 50 ohms nominal  
**MISMATCH TOLERANCE:** 100% of rated power without foldback. Will operate without damage or oscillation with any magnitude and phase of source and load impedance. See Application Note #27.  
**MODULATION CAPABILITY:** Will faithfully reproduce AM, FM, or Pulse modulation appearing on input signal.

**THIRD ORDER INTERCEPT:** 46 dBm typical  
**NOISE FIGURE:** 8 dB maximum, 6 dB typical  
**HARMONIC DISTORTION:** Minus 20 dBc maximum at 3.5 watts  
**SPURIOUS:** Minus 73 dBc typical  
**PRIMARY POWER (selected automatically):** 90-264 VAC, 50/60Hz, 70 watts  
**CONNECTORS:**  
 RF Input: N female, front  
 RF Output: N female, front  
**COOLING:** Forced air (self contained fans)  
**WEIGHT:** 4.5 kg (11 lbs)  
**SIZE (W x H x D):** 26.0 x 11.4 x 28.2 cm (10.25 x 4.5 x 11.1 in)  
**EXPORT CLASSIFICATION:** EAR99

## Ordering Options



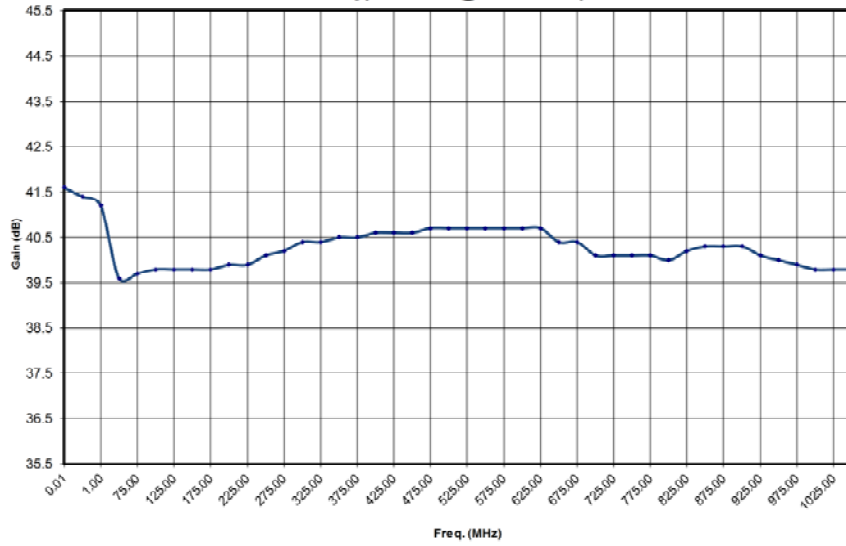
CONNECTOR LOCATION		ENCLOSURE	
Front	F	Enclosure	E
Rear	R	No Enclosure	NE

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

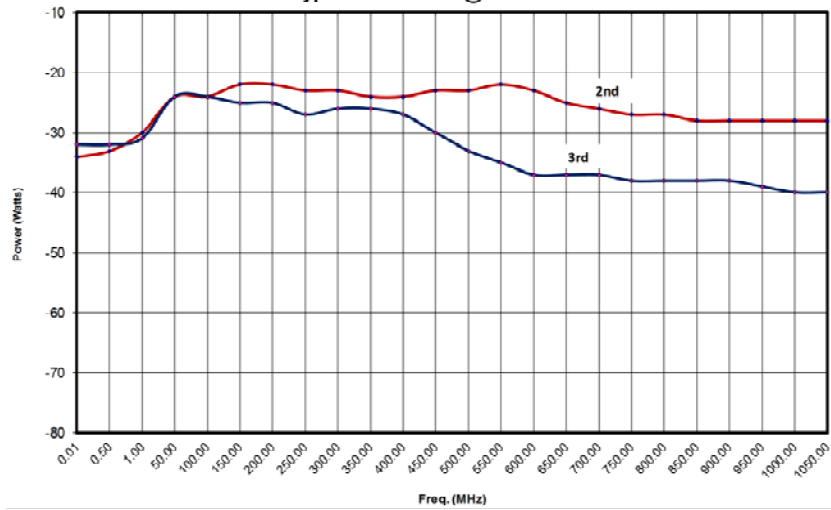
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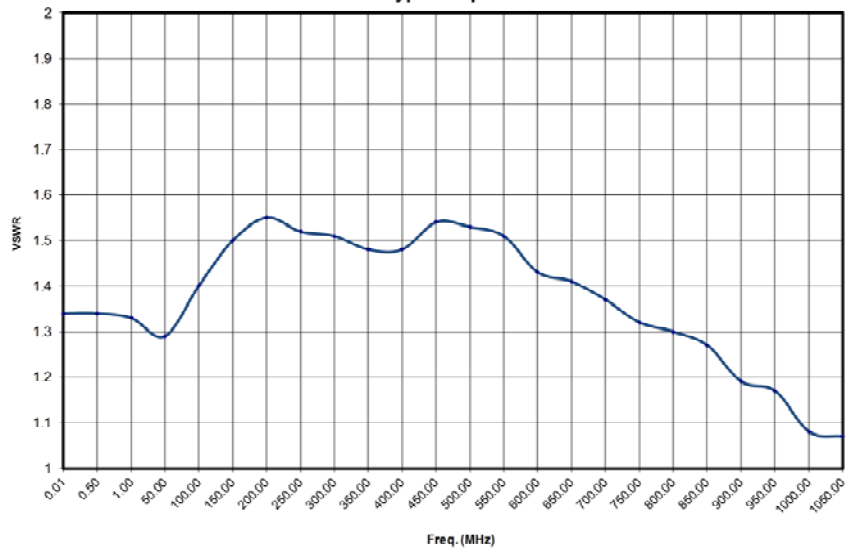
Typical Gain @ -20 dBm input



Typical Harmonics @ 3.5 watts



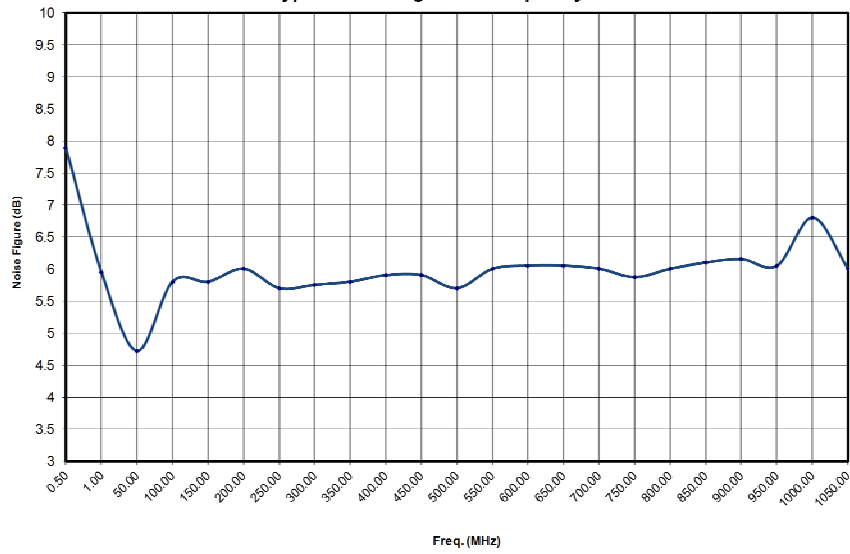
Typical Input VSWR



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### Typical Noise Figure vs. Frequency



### Envelope Drawing

