



## 2000S1G2z5

- 2000 Watts CW
- 1.0-2.5GHz

### Features

The Model 2000S1G2z5 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, but can be removed from the cabinet for immediate equipment rack mounting.

The 2000S1G2z5, when used with a sweep generator, will provide a minimum of 2000 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 2000S1G2z5 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 0 dBm. 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 2000S1G2z5 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 and reflected power plus operational status. Special features

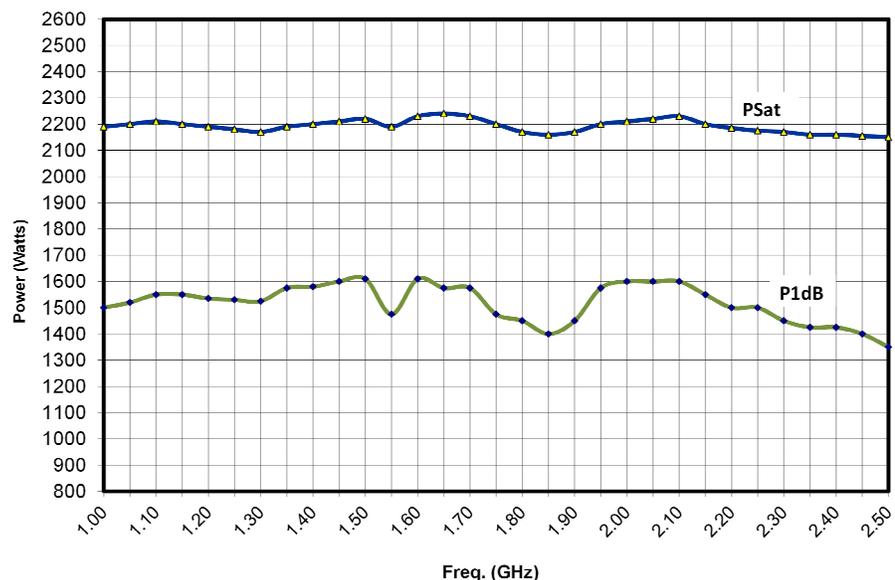
include a gain control, internal automatic leveling control (ALC) with front panel control of the ALC threshold, forward and reflected RF sample ports for precise power measurements and RF output level protection.

All amplifier control functions and status indications are available remotely in 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 keylock on the front panel of the amplifier.

The low level of spurious signals and linearity of the Model 2000S1G2z5 make it ideal for use as a driver amplifier in testing wireless and communication components and subsystems. It can be used as a test instrument covering multiple frequency bands and is suitable for a variety of communication technologies such as CDMA, W-CDMA, TDMA, GSM etc. It is also suitable for EMC Test applications where undistorted modulation envelopes are desired.

The export classification for this equipment is 3A001. 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 2000S1G2z5 TYPICAL POWER OUTPUT



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### Specifications

**RATED OUTPUT POWER:** 2100 watts minimum; 2200 watts typical

**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum

**POWER OUTPUT @ 3dB COMPRESSION:** Nominal, 1850 watts; Minimum, 1750 watts

**POWER OUTPUT @ 1dB COMPRESSION:** Nominal, 1500 watts; Minimum, 1300 watts

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

**FREQUENCY RESPONSE:** 1.0-2.5GHz instantaneously

**GAIN (at maximum setting):** 63 dB minimum

**GAIN ADJUSTMENT:** Continuous Range, 4096 steps remote, 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 up to 6.0:1 mismatch above which may limit to 1000 watts reflected power. 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 the input signal.

**THIRD ORDER INTERCEPT POINT:** 70 dBm typical

**NOISE FIGURE:** 10 dB typical

**HARMONIC DISTORTION:** Minus 20 dBc maximum at 1400 watts

**SPURIOUS:** Minus 73 dBc typical

**PRIMARY POWER:** 208 VAC, WYE (5-wire), 50/60 Hz, 3-phase, 12kVA

#### CONNECTORS:

RF Input Type N female, front

RF Output Type 1-5/8 EIA female, rear

RF Sample Ports (Fwd,Rev)

Type N female, front

Safety Interlock 15 pin female subminiature D, rear

Remote computer interfaces

IEEE-488 24 pin

RS-232 9 pin subminiature D

RS-232 Fiber Optic Type ST

USB 2.0 Type B

Ethernet RJ-45

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

**WEIGHT:** 296 kg (650 lbs)

**SIZE (W x H x D) (2 joined cabinets):** 111.8 x 123.7 x 83 cm, 44.0 x 48.7 x 32.4 in

**BASE REQUIREMENTS:** 3" diameter/2" wide casters, height adjustable over 1". Must accommodate forklift.

**EXPORT CLASSIFICATION:** 3A001