



**Model 3000S1G2z5,
3000 Watts CW
1.0–2.5GHz**

The Model 3000S1G2z5 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 3000S1G2z5, when used with a sweep generator, will provide a minimum of 3000 watts of RF power. Included is a front panel gain control which permits the operator to conveniently set the desired output level. The 3000S1G2z5 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.

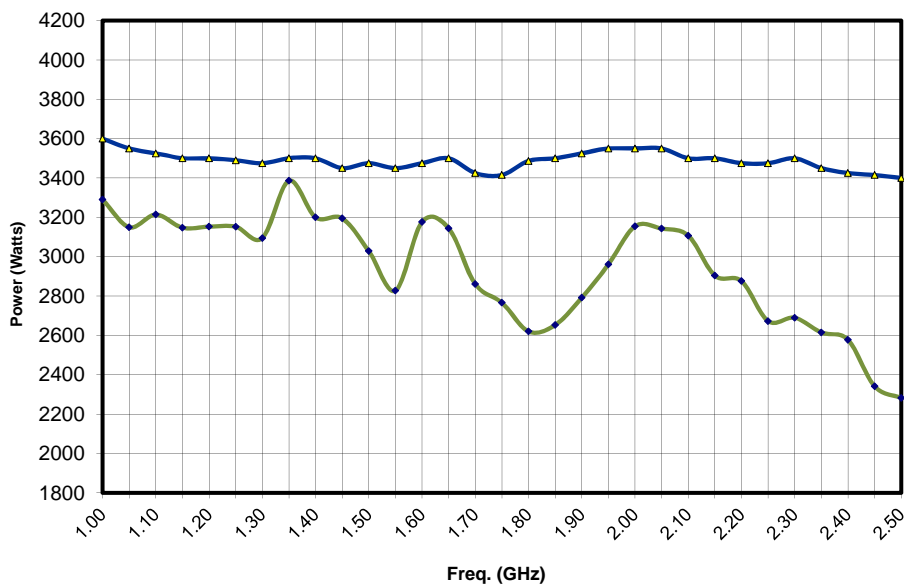
The Model 3000S1G2z5 is equipped with a digital control panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides operational presentation of forward 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 3000S1G2z5 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 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 3000S1G2z5 TYPICAL OUTPUT POWER



SPECIFICATIONS, MODEL 3000S1G2z5

| | |
|---|--|
| RATED POWER OUTPUT..... | 3000 watts minimum |
| INPUT FOR RATED OUTPUT | 1.0 milliwatt maximum |
| POWER OUTPUT @ 3dB COMPRESSSION | |
| Nominal | 2750 watts |
| Minimum | 2600 watts |
| POWER OUTPUT @ 1dB COMPRESSION | |
| Nominal | 2300 watts |
| Minimum | 2000 watts |
| AVERAGE OUTPUT POWER @ 3.2GHz AND ABOVE | Less than 60 watts |
| FLATNESS | ±1.5 dB typical ±2.0 dB maximum |
| FREQUENCY RESPONSE | 1.0–2.5 GHz instantaneously |
| GAIN (at maximum setting) | 64.8 dB minimum |
| GAIN ADJUSTMENT | |
| (Continuous Range)..... | 20 dB minimum |
| (4096 steps remote) | |
| 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 1500 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 | 72 dBm typical |
| NOISE FIGURE..... | 10 dB typical |
| HARMONIC DISTORTION | Minus 20 dBc max at 2200 watts |
| SPURIOUS | Minus 73 dBc Typ. |
| PRIMARY POWER (Selected Automatically) | 208 VAC, Wye (5-wire) 50/60 Hz, 3-phase 17.5 kVA |
| CONNECTORS | |
| RF INPUT | Type N female, rear |
| RF OUTPUT..... | Type 1-5/8 EIA female, rear |
| REMOTE 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 |
| SAFETY INTERLOCK | 15 pin Subminiature D |
| COOLING..... | Forced air (self-contained fans) |
| WEIGHT | 432 kg, 950 lbs |
| SIZE (W x H x D)(2 joined cabinets) | 111.8 x 149.9 x 83 cm, 44.0 x 59 x 32.4 in |
| BASE REQUIREMENTS | 3" diameter/2" wide casters, height-adjustable over 1". Must accommodate forklift. |
| EXPORT CLASSIFICATION | EAR99 |