



rf/microwave instrumentation

Model 1000S1G2z5, M1 through M3 1000 Watts CW 1.0–2.5GHz

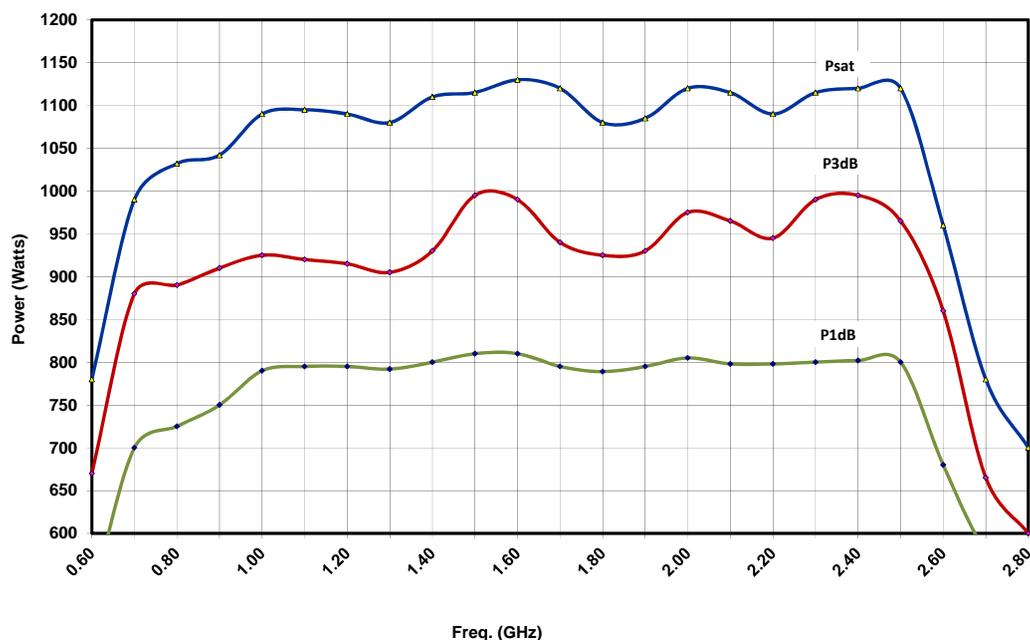
The Model 1000S1G2z5 is a solid state, self-contained, air-cooled, broadband amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Housed in a stylish contemporary cabinet, the unit is designed for benchtop use, but can be removed from the cabinet for immediate equipment rack mounting.

The 1000S1G2z5, 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 1000S1G2z5 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. There is a digital display on the front panel 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 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 switch on the front panel of the amplifier.

The low level of spurious signals and linearity of the Model 1000S1G2z5 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 1000S1G2z5 TYPICAL OUTPUT POWER



SPECIFICATIONS, MODEL 1000S1G2z5

RATED POWER OUTPUT.....	1000 watts minimum
INPUT FOR RATED OUTPUT	1.0 milliwatt maximum
POWER OUTPUT @ 3dB COMPRESSSION	
Nominal	950 watts
Minimum	900 watts
POWER OUTPUT @ 1dB COMPRESSION	
Nominal	800 watts
Minimum	700 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)	60 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. 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	69 dBm typical
NOISE FIGURE.....	10 dB typical
HARMONIC DISTORTION	Minus 20 dBc max at 700 watts
SPURIOUS	Minus 73 dBc Typ.
PHASE LINEARITY.....	±1.0 deg/100 MHz, Typ
PRIMARY POWER (Selected Automatically)	200-264 VAC 50/60 Hz, single phase 4500 watts maximum
CONNECTORS	
RF INPUT	Type N female
RF OUTPUT.....	Type 7/8 EIA female
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)
EXPORT CLASSIFICATION	EAR99

MODEL	RF INPUT	MODEL CONFIGURATIONS		WEIGHT	SIZE (W x H x D)
		RF OUTPUT			
1000S1G2z5	Type N female, front panel	Type 7/8 EIA female, front panel		148 kg (325 lbs)	50.3 x 127 x 61 cm 19.8 x 50 x 24 in
1000S1G2z5M1	Type N female, rear panel	Type 7/8 EIA female, rear panel		148 kg (325 lbs)	50.3 x 127 x 61 cm 19.8 x 50 x 24 in