



1000SP2z7G3z1

- 1000 Watts Pulse
- 2.7GHz–3.1GHz

Features

The Model 1000SP2z7G3z1 is a self-contained, forced-air-cooled, broadband solid-state microwave amplifier designed for pulse applications at low duty factors where instantaneous bandwidth and high gain are required. The unit provides a conservative 1000 watts minimum peak RF pulse power at the amplifier output connector. Stated power specifications are at the fundamental frequency.

The Model 1000SP2z7G3z1 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 Forward Power and Reflected Power values plus amplifier status. Special features include a gain control and RF output level protection.

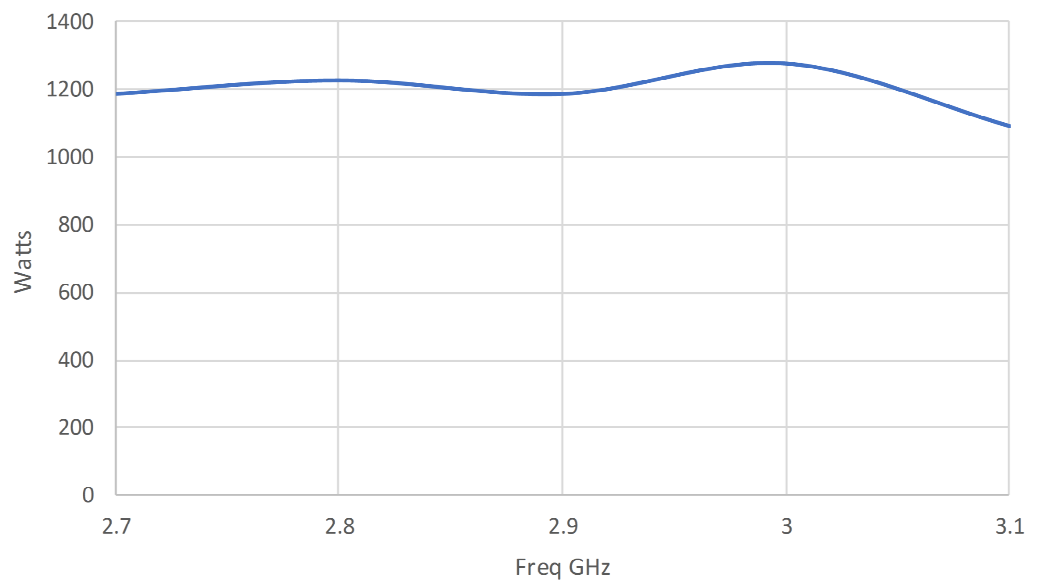
All amplifier control functions and status indications are available remotely in GPIB/IEEE-488

format, RS-232 serial and Ethernet. The buss interface connector is located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

Housed in a stylish contemporary cabinet, the amplifier provides readily available pulsed RF power for a variety of applications in Test and Measurement, (including EMC RF pulse susceptibility testing), Industrial and University Research and Development, and Service applications. AR also offers a broad range of amplifiers for CW (Continuous Wave) applications.

The export classification for this equipment is 3A999.d. 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.

1000SP2z7G3z1 Typical Power Output



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Specifications

RATED POWER OUTPUT: 1000 watts minimum

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

PULSE DROOP: –0.5dB max@1000W for a 50 μ s pulse

FLATNESS: \pm 1.0 dB typical; \pm 2.0 dB maximum

FREQUENCY RESPONSE: 2.7–3.1 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: Output pulse width foldback protection at peak reflected power exceeding 500 watts. Will operate without damage or oscillation when connected to any load impedance.

PULSE CAPABILITY:

| | |
|------------------------|-------------------------------------------------------------------------|
| Pulse Width | 0.1–50 microseconds |
| Pulse Rate (PRF) | 50 kHz maximum |
| Duty Cycle | 6% maximum |
| RF Rise and Fall Delay | 30 ns max (10% to 90%). 1 μ s maximum from pulse input to RF 90% |
| Pulse Width Distortion | \pm 25 ns maximum (difference between TTL Input Gate and RF pulse) |
| Pulse Off Isolation | 60 dB minimum |
| Pulse Input | TTL level, 50 ohm nominal termination |

NOISE FIGURE: 8 dB maximum

HARMONIC DISTORTION: Minus 30 dBc max

SPURIOUS: Minus 60 dBc Typ.

PRIMARY POWER: 100-264 VAC, 50/60 Hz, single phase, 500 watts maximum

CONNECTORS:

RF: See Model Configurations

RF output forward and reflected sample ports: Type N female, rear

PULSE INPUT: Type BNC female, rear

REMOTE INTERFACES:

IEEE-488: 24 pin

RS-232: 9 pin subminiature D

Ethernet: RJ-45

SAFETY INTERLOCK: 15 pin Subminiature D

COOLING: Forced air (self contained fans)

SIZE & WEIGHT: See Model Configurations

EXPORT CLASSIFICATION: 3A999.d

MODEL CONFIGURATIONS

| MODEL NUMBER | RF INPUT | RF OUTPUT | WEIGHT | SIZE (W x H x D) |
|-----------------|------------------------------------------------------------------|--------------|----------------|------------------------------------------------------|
| 1000SP2z7G3z1 | N (f), front | N (f), front | 26 kg (58 lbs) | 50.3 x 15 x 78.2 cm, 19.8 x 5.9 x 30.8 in |
| 1000SP2z7G3z1M1 | N (f), rear | N (f), rear | 26 kg (58 lbs) | 50.3 x 15 x 78.2 cm, 19.8 x 5.9 x 30.8 in |
| 1000SP2z7G3z1M2 | Same as 1000SP2z7G3z1 with enclosure removed for rack mounting | | 22 kg (49 lbs) | 48.3 x 13 (3U) x 78.2 cm, 19 x 5.1 (3U) x 30.8 in |
| 1000SP2z7G3z1M3 | Same as 1000SP2z7G3z1M1 with enclosure removed for rack mounting | | 22 kg (49 lbs) | 48.3 x 13 (3U) x 78.2 cm, 19 x 5.1 (3U) x 30.8 in |