



## 2000SP2z7G3z1

- 2000 Watts Pulse
- 2.7GHz–3.1GHz

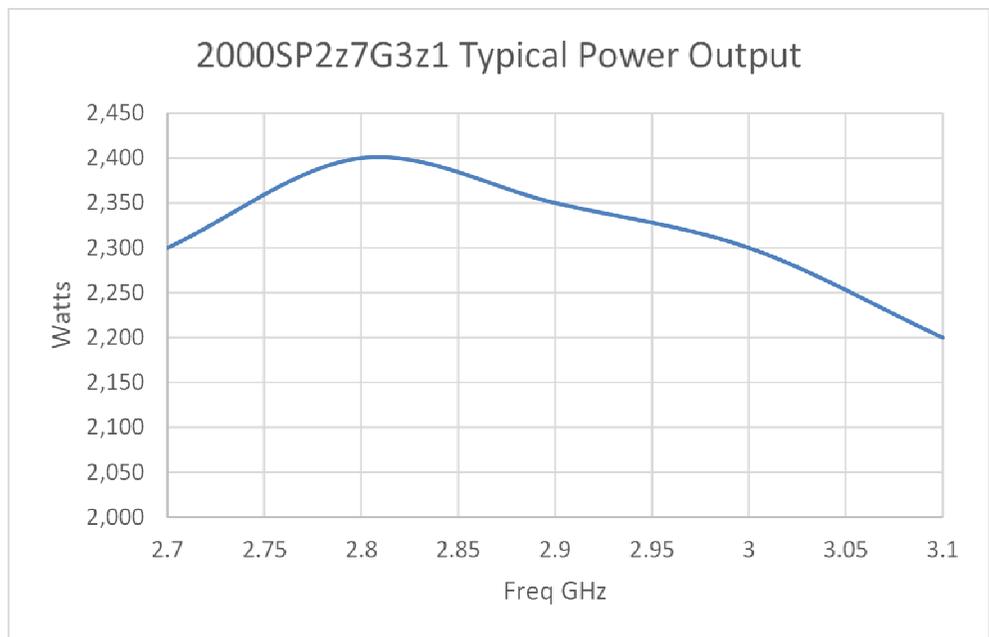
### Features

The Model 2000SP2z7G3z1 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 2000 watts minimum peak RF pulse power at the amplifier output connector. Stated power specifications are at the fundamental frequency.

The amplifier's front panel digital display shows forward and reflected average power output or forward and reflected peak power, plus extensive system status information accessed through a series of menus via soft keys. Status indicators include power on, standby, operate, faults, excess average or peak reflected power warning and remote. Standard features include a built-in IEEE-488 (GPIB) interface, 0dBm input, TTL Gating, VSWR protection, gain control, RF output sample ports, plus monitoring of baseplate temperature and cabinet temperature. Modular design of the power supply and RF components allow for easy access and repair. Use of switching mode power supplies results in significant weight reduction.

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.



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## Specifications

**RATED POWER OUTPUT:** 2000 watts minimum

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

**POWER OUTPUT @ 3dB COMPRESSION:** Nominal 2000 watts; Minimum 1800 watts

**POWER OUTPUT @ 1dB COMPRESSION:** Nominal 1600 watts; Minimum 1400 watts

**FLATNESS:**  $\pm 1.5$  dB typical;  $\pm 2.5$  dB maximum

**FREQUENCY RESPONSE:** 2.7–3.1 GHz instantaneously

**GAIN (at maximum setting):** 63 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 1000 watts. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.

### PULSE CAPABILITY:

Pulse Width	1–200 microseconds
Pulse Rate (PRF)	10 kHz maximum
Duty Cycle	10% maximum
RF Rise and Fall Delay	30 ns max (10% to 90%). 600 ns maximum from pulse input to RF 90%
Pulse Width Distortion	$\pm 100$ ns maximum (50% points of output pulse width compared to 50% points of input pulse width)
Pulse Off Isolation	80 dB minimum
Pulse Input	TTL level, 50 ohm nominal termination

**NOISE FIGURE:** 12 dB typical

**HARMONIC DISTORTION:** Minus 30 dBc max at 1400 watts

**SPURIOUS:** Minus 60 dBc Typ.

**PRIMARY POWER:** 100-264 VAC, 50/60 Hz, single phase, 700 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

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)
2000SP2z7G3z1	N (f), front	7-16 DIN (f), front	27 kg (60 lbs)	50.3 x 15 x 68 cm, 19.8 x 5.9 x 26.8 in
2000SP2z7G3z1M1	N (f), rear	7-16 DIN (f), rear	27 kg (60 lbs)	50.3 x 15 x 68 cm, 19.8 x 5.9 x 26.8 in
2000SP2z7G3z1M2	Same as 2000SP2z7G3z1 with enclosure removed for rack mounting		24 kg (53 lbs)	48.3 x 13 (3U) x 68 cm, 19 x 5.1 (3U) x 26.8 in
2000SP2z7G3z1M3	Same as 2000SP2z7G3z1M1 with enclosure removed for rack mounting		24 kg (53 lbs)	48.3 x 13 (3U) x 68 cm, 19 x 5.1 (3U) x 26.8 in