10000SP2G4

- 10000 Watts Pulse
- 2GHz—4GHz

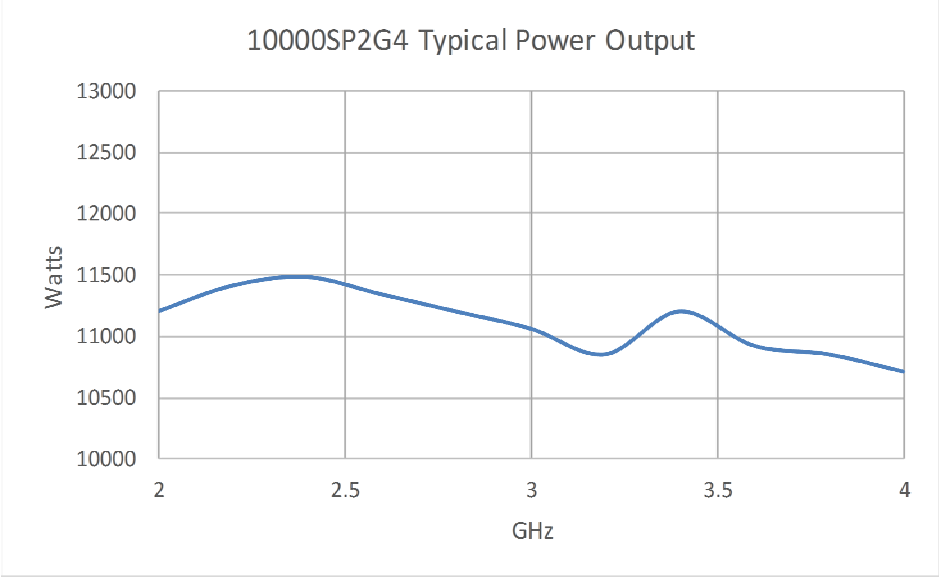
Features

The Model 10000SP2G4 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 10000 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 single equipment rack, 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: 10000 watts minimum

INPUT FOR RATED OUTPUT: 1.0 milliwatt maximum

POWER OUTPUT @ 3dB COMPRESSSION: Minimum 9000 watts

POWER OUTPUT @ 1dB COMPRESSION: Minimum 8000 watts

FLATNESS: ±4 dB maximum; ±2.5 dB at rated power

FREQUENCY RESPONSE: 2.0–4.0 GHz instantaneously

GAIN (at maximum setting): 70 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 5000 watts. Will operate without damage or oscillation with any magnitude and phase of source and load impedance.

PULSE CAPABILITY:

Pulse Width	0.07–50 microseconds
Pulse Rate (PRF)	50 kHz maximum
Duty Cycle	6% maximum.
RF Rise and Fall	50 ns max (10% to 90%).
Delay	600 ns maximum from pulse input to RF 90%
Pulse Width Distortion	±100 ns maximum (50% points of output pulse width compared to 50% points of input pulse width)
Pulse Off Isolation	60 dB minimum
Pulse Input	TTL level, 50 ohm nominal termination

NOISE FIGURE: 15 dB typical

HARMONIC DISTORTION: Minus 20 dBc max at 8000 watts

SPURIOUS: Minus 60 dBc Typ.

PRIMARY POWER: 100-264 VAC, 50/60 Hz, single phase, 3800 watts maximum

CONNECTORS:

RF Input	Type N female, rear
RF Output	7-16 DIN female, rear
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 (W x H x D): 60 x 68 x 90 cm, 23.6 x 26.8 x 35.4 in

WEIGHT: 125 kg, 276 lbs

EXPORT CLASSIFICATION: 3A999.d