



## 500S1G6

- 500 Watts CW
- 0.7-6GHz



### Features

The Model 500S1G6 is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. The Model 500S1G6, when used with a sweep generator, will provide a minimum of 500 watts of RF power.

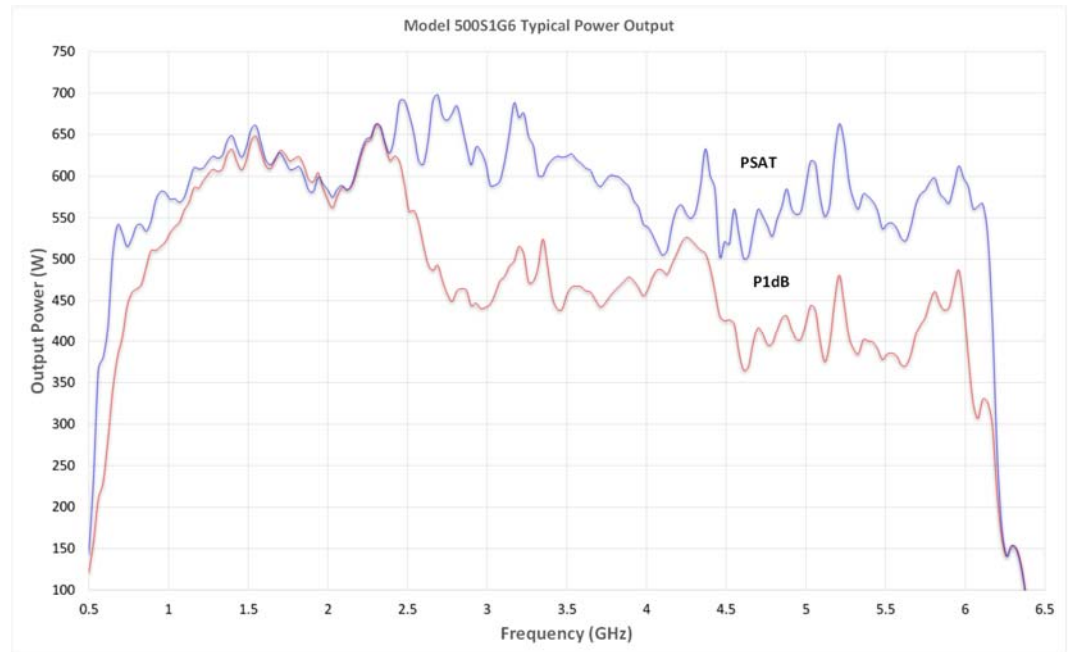
The Model 500S1G6 is equipped with a Digital Control Panel (DCP) which provides both local and remote control of the amplifier. The DCP uses a color LCD touch screen and a single rotary knob to offer status reporting and control capability. The display provides Forward Power and Reflected Power values 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, RS232 hardware and fiber optic, USB

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.

The low level of spurious signals and linearity of the Model 500S1G6 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 3A001. 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 OUTPUT POWER:** 500 watts minimum

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

**POWER OUTPUT @ 3dB COMPRESSION:** Nominal, 500 watts; Minimum, 470 watts

**POWER OUTPUT @ 1dB COMPRESSION:** Nominal, 425 watts; Minimum, 350 watts

**FLATNESS:**  $\pm 2.0$  dB typical,  $\pm 2.5$  dB maximum

**FREQUENCY RESPONSE:** 0.7-6GHz instantaneously

**GAIN (at maximum setting):** 57 dB minimum

**GAIN ADJUSTMENT:** 10 dB minimum

**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.

**HARMONIC DISTORTION:** Minus 20 dBc maximum at 350 watts (1-6GHz), minus 20 dBc typical at rated power

**THIRD ORDER INTERCEPT POINT:** 66 dBm typical

**RF POWER DISPLAY:** Digital, forward and reflected

**PRIMARY POWER:** 200-260 VAC, 50/60 Hz, single phase, 5700 watts maximum

### CONNECTORS:

RF Input	Type N female, rear
RF Output	Type 7-16 DIN female, rear
Safety intlk	15 pin female subminiature D, rear
Remote computer interface	IEEE-488 (GPIB) & RS-232 connector, rear
Remote Computer Interface (Fiber Optic)	ST Conn Tx, RS-232 Rx
USB 2.0	Type B
Ethernet	RJ-45

**IEEE-488 (GPIB) INTERFACE & RS-232:** Allows control and monitoring of all front panel controls except keylock position control

**COOLING:** Forced air (self contained fans)

**WEIGHT:** 173 kg (380 lbs)

**SIZE (W x H x D):** 50.3 x 127 x 61 cm (19.8 x 50 x 24 in)

**EXPORT CLASSIFICATION:** 3A001