



## 250S1G4A

- 250 Watts CW
- 0.7-4.2GHz



### Features

The Model 250S1G4A is a portable, self-contained, air-cooled, broadband, completely solid-state amplifier designed for applications where instantaneous bandwidth, high gain and linearity are required. Push-pull circuitry is utilized in all high power stages in the interest of lowering distortion and improving stability.

The Model 250S1G4A, when used with a sweep generator, will provide a minimum of 250 watts of RF power.

The Model 250S1G4A 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 hardwire and fiber optic,

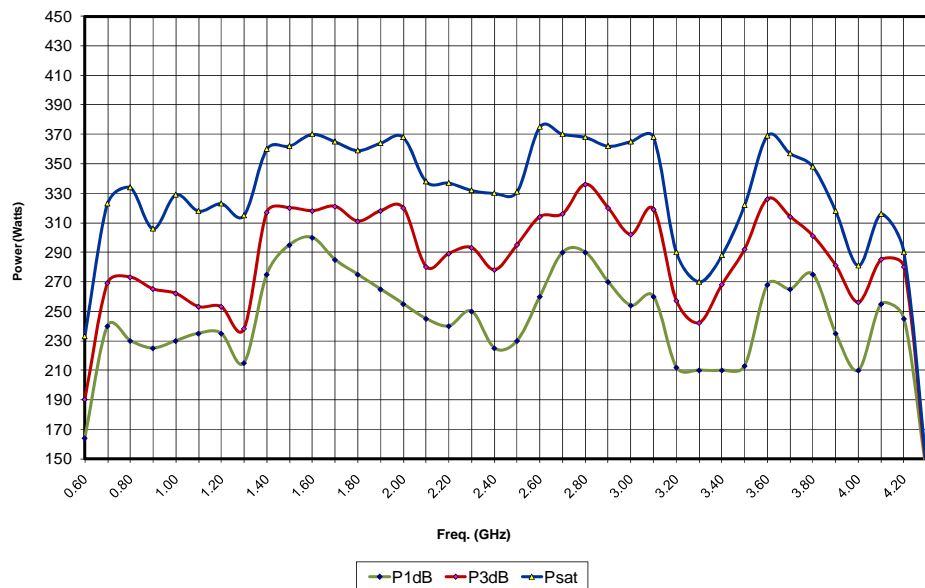
USB and Ethernet. The buss interface connector is located on the back panel and positive control of local or remote operation is assured by a keylock on the front panel of the amplifier.

The low level of spurious signals and linearity of the Model 250S1G4A 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 250S1G4A has the ability to be upgraded at a later date to the Model 350S1G4, 350 watt amplifier. Upgrading to the Model 350S1G4 allows for future upgrades by utilizing our Expandable Power Technology.

The export classification for this amplifier 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.

MODEL 250S1G4A TYPICAL POWER OUTPUT



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- 250 Watts CW
- 0.7-4.2GHz

## Specifications

**RATED OUTPUT POWER:** 250 watts minimum  
**INPUT FOR RATED OUTPUT:** 1.0 milliwatt maximum  
**POWER OUTPUT @ 3dB COMPRESSION:** Nominal, 280 watts; Minimum, 240 watts  
**POWER OUTPUT @ 1dB COMPRESSION:** Nominal, 240 watts; Minimum, 200 watts  
**FLATNESS:** ±1.5 dB typical, ±2.0 dB maximum  
**FREQUENCY RESPONSE:** 0.7-4.2GHz instantaneously  
**GAIN (at maximum setting):** 54 dB minimum  
**GAIN ADJUSTMENT:** 15 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 225 watts  
**THIRD ORDER INTERCEPT POINT:** 64 dBm typical  
**RF POWER DISPLAY:** Digital, forward and reflected  
**PRIMARY POWER:** 120-240VAC, 50/60 Hz, single phase, 1450 watts

**CONNECTORS:**  
 RF Connectors See Model Configurations  
 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  
 Operate Interface RJ-11, rear  
 USB 2.0 Type B  
 Ethernet RJ-45  
**IEEE-488 (GPIB) INTERFACE & RS-232:** Allows control and monitoring of all front panel controls except key-lock position control  
**COOLING:** Forced air (self contained fans)  
**EXPORT CLASSIFICATION:** 3A001

## Model Configurations

MODEL #	RF INPUT	RF OUTPUT	WEIGHT	SIZE (W x H x D)
250S1G4A	Type N female, front	Type 7/16 female, front	71.8 kg (158 lbs)	50.3 x 55.9 x 61 cm 19.8 x 22 x 24 in
250S1G4AM1	Type N female, rear	Type 7/16 female, rear	71.8 kg (158 lbs)	50.3 x 55.9 x 61 cm 19.8 x 22 x 24 in
250S1G4AM2	Same as standard with enclosure removed for rack mounting.		55.9 kg (123 lbs)	48.3 x 53.3 x 61 cm 19 x 21 x 24 in
250S1G4AM3	Same as M1 with enclosure removed for rack mounting.		55.9 kg (123 lbs)	48.3 x 53.3 x 61 cm 19 x 21 x 24 in
250S1G4AM4*	Type N female, rear	Type N female, rear	90 kg (198 lbs)	56.1 x 82.6 x 65.9 cm 22.1 x 32.5 x 26 in
250S1G4AM5**	Type N female, rear	Type 7/16 female, rear	103 kg (225 lbs)	50.3 x 149.9 x 61 cm 19.8 x 59 x 24 in
250S1G4AM6	Type N female, rear	Type N female, rear	71.8 kg (158 lbs)	50.3 x 55.9 x 61 cm 19.8 x 22 x 24 in
250S1G4AM7	Same as M6 with enclosure removed for rack mounting.		55.9 kg (123 lbs)	48.3 x 53.3 x 61 cm 19 x 21 x 24 in

\* Equipment rack with casters  
 \*\* Model is housed in a 525S1G4A/700S1G4A chassis to allow future upgradeability to either a 525 watt or a 700 watt model.